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Counties as Catalysts for Change: Exploring the Economic Costs of Child  
Maltreatment through its Connection to Incarceration

by  
Kayla Arielle Solomon

Submitted to Scripps College in Partial Fulfillment of the Requirements for the  
Degree of Bachelor of Arts

Professor Kacher  
Professor Brown

April 21st, 2023

## DEDICATION

This project is dedicated to the following people, whose love, support, and encouragement have meant the world to me throughout my academic journey:

To my parents. I am beyond grateful I lucked into not only two of the best parents in the world, but also the best people. You push me to be a better person too and your unfailing support is the wind beneath my sails.

To the friends who made it possible to laugh through the tough moments of this journey, thank you. Your counsel and company have been indispensable.

To Papa Stuart and Nana Phyllis, thank you for helping to fund my educational adventures and for always being there to provide me with guidance and wisdom. Every aspect of my life is made better with you as role models.

To Papa Andy and Nana Dana, thank you for your constant love and curiosity. You always make me feel as though I can accomplish anything I set my mind to.

To my uncles and great aunts, thank you for your love and for always having my back. Your kindness and generosity have made a significant impact on my life, and I am so very grateful.

Finally, to my sister. Thank you for your wicked humor and for being such a good example of perseverance and strength.



## PREFACE

This study posits the question, what is the relationship between child maltreatment and adult incarceration at the county-level, and how can we utilize an understanding of it to inform child welfare strategies? Child maltreatment is a public health crisis and an obstacle to the United States Economy. Inspired by my high school capstone project on the connection between the foster care and criminal justice systems, I entered this project hoping to add to the myriad of literature that influences child welfare policy throughout California and the broader United States. This project serves to culminate my college career and exemplifies my studies at Scripps College and Pomona College as a Philosophy, Politics, and Economics major and a Psychology minor.

## ACKNOWLEDGEMENTS

I would like to take this opportunity to express my sincere gratitude to the following individuals who contributed this project. Firstly, thank you to my thesis readers who gave me guidance in approaching this undertaking. Professor Kacher—thank you for the many hours you spent guiding me through STATA usage and economic writing styles. Professor Brown— I am so thankful for your unwavering faith in my ability to do this project, and for pushing me to challenge myself. To Professor Groscup and Professor Green, thank you for being such wonderful academic advisors. I would also like to thank Professor Bromley and Hannah Weil for taking the time to give me such wonderful feedback on this thesis, I am truly blown away by your thoughtfulness. Finally, thank you to Ira Kruskol for educating me on the inner workings of the Child Welfare System (CWS) and providing the wisdom that guided me throughout this entire process.

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## 1. Introduction

In the United States, a report of child abuse is made every 10 seconds. In 2020, a staggering 1,750 children lost their lives due to abuse or neglect.<sup>1</sup> 3.9 million children required child protective services investigation or response.<sup>2</sup> There is a widespread epidemic facing the children of our country. Research conducted into the root cause of child maltreatment points to a relationship between individual, familial, and environmental factors.<sup>3</sup> By understanding these causes, we arguably have the information necessary to mitigate child maltreatment.

Child abuse introduces several economic consequences for society, including productivity losses, hospitalization expenses, ongoing costs for victims' physical and mental health care, and costs for law enforcement and child welfare organizations. However, one of the most tangible and visible producers of long-term costs to the United States is the increased strain on the criminal justice system that results from child maltreatment. The costs of incarceration to society manifest directly through \$300 billion taxpayer dollars annually dedicated to the building, upkeep, and administration of incarceration.<sup>4</sup> Even more impactful is the indirect expression of these expenses, which are estimated to be three times that of direct costs.<sup>5</sup> Researchers also argue that mass imprisonment is a catalyst for economic inequality, increased crime rates, reduced community

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<sup>1</sup> Childhelp. (n.d.). Child abuse statistics & facts. Retrieved April 19, 2023, from <https://www.childhelp.org/child-abuse-statistics/>

<sup>2</sup> U.S. Department of Health & Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2022). Child Maltreatment 2020. Available from <https://www.acf.hhs.gov/cb/data-research/child-maltreatment>

<sup>3</sup> Gilbert, L. K., et al. (2015). Childhood adversity and adult chronic disease: An update from ten states and the District of Columbia. *American Journal of Preventive Medicine*, 48(3), 345-349. <https://doi.org/10.1016/j.amepre.2014.09.006>

<sup>4</sup> American Action Forum. (2017, June 7). The economic costs of the U.S. criminal justice system. Retrieved April 19, 2023, from <https://www.americanactionforum.org/research/the-economic-costs-of-the-u-s-criminal-justice-system/>

<sup>5</sup> Ibid.



cohesion, and so much more.<sup>6</sup> Further, incarceration stands as a prominent political and social issue in the United States (U.S.). Given the visibility of this issue, it is reasonable to consider the costs of incarceration resulting from child abuse can serve as an effective example of the economic harm of child maltreatment to society.

Although researchers have widely recognized the association between crime and child abuse, as far as my knowledge extends, an exploration into the influence of child maltreatment on adult incarceration at the county level has yet to be documented in academic literature. Therefore, this thesis seeks to the relationship between child maltreatment and adult incarceration across California's counties using two types of regression analyses and controlling for other factors as needed. Firstly, to explore the potential relationship between child maltreatment and incarceration rates while accounting for confounding variables, an Ordinary Least Squares (OLS) regression analysis is employed. Specifically, the analysis utilizes child maltreatment data collected in 2011, alongside data on the rates of incarcerated individuals originating from each county in 2020. Subsequently, a Fixed Effects Panel Regression is utilized on data spanning a greater time period to see if child maltreatment rates impact rates of adult incarceration three and five years later. Outputs of the OLS and all time periods in the Fixed Effects Panel indicate the two variables are positively related. Following the statistical analyses, an inquiry is undertaken to examine successful child maltreatment policies in counties when using the data and time from the second regression. The policies and practices that correlate with a large decrease in child maltreatment rates across multiple counties are discussed next. Finally, this study ends with an outline of the financial cost of child maltreatment to society.

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<sup>6</sup> Nellis, A. (2016, September 6). Mass incarceration has been a driving force of economic inequality. Brennan Center for Justice. Retrieved April 19, 2023, from <https://www.brennancenter.org/our-work/analysis-opinion/mass-incarceration-has-been-driving-force-economic-inequality>

The unique aspects of California, both culturally and governmentally, allow it to serve as a reflection of the broader U.S. economy. With a GDP of over \$3.701 trillion, California stands as the largest economy in the United States and the fourth largest in the world.<sup>7</sup> California's child welfare system acts at a county level, allowing cross-county policy and practice comparisons. The ability to pinpoint specific policies and practices in counties whose rates of child maltreatment and adult incarceration are outliers within the California population creates an opportunity to present a recommendation to policymakers. Though it would be close to impossible to accurately distinguish which policies directly lead to a change in adult incarceration through the mitigation of child maltreatment, one may be able to find a correlation between a county's success in these areas and behaviors that are prevalent across them. Successful practices within a county's social services department can greatly reduce the financial burdens of child maltreatment and its effect on incarceration. So why does this issue remain so pervasive and extensive when the United States wields the ability to bring it to a standstill? Perhaps the lack of personal investment by the public is a significant contributor to the absence of solutions. To many, child maltreatment is a distant problem drowned out by seemingly more pressing issues. Therefore, we must increase personal investment in the problem.

Too many people assume that the protection of children is solely the job of the child protection agency. In reality, ensuring the safety of children requires the active participation of the entire community. Though this thesis makes a financial argument to encourage communal involvement, one must not lose sight of those who bear the largest burden of child maltreatment— the children themselves.

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<sup>7</sup> Bandow, D. (2018, May 10). No, California is not the world's fourth largest economy. Cato Institute. Retrieved April 19, 2023, from <https://www.cato.org/commentary/no-california-not-worlds-fourth-largest-economy#:~:text=The%20latest%20California%20GDP%20data,the%20fourth%20quarter%20of%202022>.

## 2. Background and Related Literature

### 2.1 Background

Child abuse has an extensive history, yet it has only recently been acknowledged as a problem that requires a solution. The laws of the Babylonian Empire prescribed severe corporal punishment for children who disobeyed their parents, including having their tongues cut off.<sup>8</sup> Many centuries later, the English Common Law established children as the property of their fathers, a tradition that was brought by colonists to the United States.<sup>9</sup> The era that followed was aptly described by the New York Times as a time of “spare the rod and spoil the child,” as corporal punishment was seen as necessary and commonplace. This ideology persisted up until the late 1800s when the maltreatment of an 8-year-old girl named Mary Ellen Wilson made international headlines.<sup>10</sup> Orphaned as a baby, Mary Ellen was first sent to a city orphanage and adopted by a couple in Manhattan. After the death of her adoptive father, Mary Ellen began to experience physical abuse at the hands of her adoptive mother. Mary Ellen's neighbors observed the severity of her mistreatment and appealed to the Department of Public Charities and Corrections, which handled the administration of everything from workhouses and insane asylums to orphanages.<sup>11</sup> The lack of child protection laws became painfully apparent as Mary Ellen fought for justice and protection in the court system. Her story prompted discussion, and subsequent legislation, regarding the protection of children from maltreatment. Since then, there has been much discussion

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<sup>8</sup> “Child Abuse – A Historical Perspective | PHF.ORG.GE.” Accessed April 20, 2023. <http://phf.org.ge/en/resources/child-abuse-a-historical-perspective-/>.

<sup>9</sup> “Child Abuse Background and History - FindLaw.” Accessed April 20, 2023. <https://www.findlaw.com/family/child-abuse/child-abuse-background-and-history.html>.

<sup>10</sup> Markel, Howard, and M.d. “Case Shined First Light on Abuse of Children.” *The New York Times*, December 14, 2009, sec. Health. <https://www.nytimes.com/2009/12/15/health/15abus.html>.

<sup>11</sup> Carey, B. (2009, December 14). Childhood trauma leaves its mark on the brain. *The New York Times*. Retrieved April 19, 2023, from <https://www.nytimes.com/2009/12/15/health/15abus.html>

about the subject of child abuse, leading to a plethora of attempts by governments, communities, and concerned individuals to find a solution.

In the United States, government solutions hinge on legislation at the federal level which influences policies at the state and county levels. However, before Congress' involvement began, child protection fell solely under state purview. From the period between 1963 and 1967, every state enacted some form of mandatory reporting law.<sup>1</sup> Even though all the states passed similar legislation, there is significant variability in what instances qualify as child maltreatment, who is a mandated reporter of child safety issues, and how the social services are expected to respond to these situations. Recognizing the disharmony in the way states approach the issue of child maltreatment, Congress passed the Child Abuse Prevention and Treatment Act (CAPTA) in 1974. Marking the beginning of the federal government's involvement in the management of child maltreatment, this law attempted to establish an overarching guideline for states as they approach child maltreatment prevention and response. As society has shifted its understanding of child protection, CAPTA has changed to reflect this evolution of ideas. Over the course of the past 49 years, CAPTA has been amended to aid states in their preventative, prosecutorial, investigative, and treatment methods, as well as provide funding for a variety of programs that support states as they continue to manage child safety. Furthermore, CAPTA has evolved to include services and information for individuals without homes, indigenous families, victims of trafficking, and much more.

The most significant CAPTA contribution is the development of definitional guidelines for child maltreatment as despite the historical continuity of child maltreatment and the numerous discussions on the topic, there is no universally accepted definition of child maltreatment. There are many different definitions of child maltreatment, each shifting based on vocational, cultural,

ethnic, geographic, and religious influences, (Gelles 1982; Giovannoni and Becerra 1979; Rose and Meezan 1993). CAPTA identifies child maltreatment as the following:

“At a minimum, any recent act or set of acts or failure to act on the part of a parent or caretaker, which results in death, serious physical or emotional harm, sexual abuse or exploitation, or an act or failure to act which presents an imminent risk of serious harm,” (Pub. L. No. 117-348, § 2023-Subsec. (b)(1), 2022)<sup>12</sup>

Although this definition is enshrined in American legislation and is, therefore, an apposite definition to use in this thesis, it is nonetheless beset by a multitude of constraints. Child maltreatment is a complex subject with variable manifestations, and as a result, the broad nature of this definition leads to applicability issues within the legal framework. It is common for individual cases of child maltreatment to fall outside the definition outlined in the law, and as such, concerns surrounding due processes and incongruent treatment can arise. Further, while CAPTA provides a standard to which each definition must fit, each state has a unique definition and treatment of child maltreatment. Especially heinous cases commonly fall outside the purview of this definition and often lead to legislative change at the state level. The collection of these variables leads to a significant lack of uniformity in how child maltreatment is understood and managed in the United States.

## 2.2 The California Child Welfare System

While the preponderance of state governments utilizes a centralized system of administration to manage child safety, California is one of only nine states which employ a county-regulated structure. In this type of organizational system, counties are the entities that work directly

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<sup>12</sup> “42 USC 5106g: Definitions.” Accessed April 19, 2023.  
[https://uscode.house.gov/view.xhtml?req=\(title:42%20section:5106g%20edition:prelim\)](https://uscode.house.gov/view.xhtml?req=(title:42%20section:5106g%20edition:prelim)).

with children and families to manage child safety. County-administered social service divisions collaborate with various other federal, state, and county agencies, the juvenile court system, and private social services organizations to safeguard and care for children and their families. The system is vast, complex, and widely underfunded, which leads to numerous roadblocks for those who work to ensure the safety of those within it. For a detailed account of the California welfare system's inner workings, see the flow chart in Appendix 1; however, this thesis focuses on California county attempts to mitigate the pervasive occurrence of child maltreatment.

The state government supervises and aids its counties through two divisions of the California Department of Social Services (CDSS): the Children and Family Services Division (CFSD) and the Community Care Licensing Division (CCLD). Within these divisions are numerous others, each with different objectives ranging from oversight of federal funding to ensure the safety of children within the welfare system. This system is constantly being altered, though arguably the most notable change was initiated in 1997 as an amendment to The Adoption and Safe Families Act. Entitled the Child and Family Services Review (CFSR), federal lawmakers hoped to institute a process for assessing the performance of a state's child welfare services. Prompted by a shift from a *process-based* approach to one reliant on *outcomes* to assess a state's effectiveness, the CFSR introduced a new condition of federal funding—each state is required to fulfill child welfare outcome and performance expectations in 14 specified domains. In 2002, California failed to meet this standard and submitted a required Program Improvement Plan (PIP). This plan was implemented and completed by 2005, yet again failed to meet guidelines. Another PIP was submitted, which showed a focus on community inclusion, responsiveness, and sharing of knowledge.

The state has made concentrated efforts to improve its child welfare system. Recognizing the discontinuity and overall failure of the child welfare systems in place, California put its own legislation into effect in 2004 to promote continuous advances routed in an outcomes-based approach. A year after its initiation, California released trends based on the data which suggested that the welfare system had a positive effect on limiting the occurrence of child maltreatment and welfare for children within the organization. Each of California's 58 counties retain separate policies, practices, budgets, and structures for their Child Welfare Services (CWS). In California, the general goal for CWS is to "keep the child in his/her own home when it is safe, and when the child is at risk, to develop an alternate plan as quickly as possible," (CDSS Website, 2023). To achieve this goal, each county must maintain four elements of support: Emergency Response, Family Maintenance, Family Reunification, and Permanent Placement. The overarching similarities notwithstanding, counties differ in the extent and administration of the services they provide, which affects their child welfare outcomes. Each county implements a divergent series of programs and practices, creating a myriad of deviation in how each interacts with their communities. The variability in county administration creates a dearth of consistency within case management. Further, the differences in funding allocations between counties gives rise to complications when the collaboration of counties is necessary, as each county tends to be possessive of its resources.

### 2.3 The Connection Between Child Maltreatment and Incarceration Rates

*In 2018, a woman named Fritzzi Horstman decided to volunteer at a prison. She said of the facility,*

*“This isn’t a prison; this is a trauma center—and nobody knows it,” (Horstman, 2022).<sup>13</sup>*

The relationship between child maltreatment and crime, often dubbed the “cycle of violence,” has drawn the attention of psychologists, sociologists, and political scientists alike.<sup>14</sup> Researchers have compiled a copious number of theories as to the reason for this connection over the past few decades. The most widely accepted of these hypotheses include the Social Control Theory, Social Learning Theory, and General Strain Theory. Firstly, Social Control Theory dictates a connection between behavior and social bonds. Specifically, the theory suggests that individuals who suffered from childhood abuse are unable to establish these social connections and thereby reject social rules and conventions (Hirschi, 1969). Next, Social Learning Theory emphasizes how violence can be a learned behavior; therefore, children who experience abuse come to understand violence as a justifiable response to stress or conflict (Bandura, 1973). Finally, the General Strain Theory communicates the influence of strains, such as child abuse, on crime. This is especially true for strains that create a sense of low social control, which this theory states increases the likelihood of criminal behavior (Agnew, 1992).

There is a wide range of existing literature that discusses the interdependence of child maltreatment and crime (Desmond and Gould, 1985; Currie and Tekin, 2012; Font and Kennedy, 2022). Past studies have indicated that when compared to a control group of non-maltreated children, those who were maltreated had a 2–6 times higher risk of developing criminal behavior as young adults (Lansford et al., 2002; Maxfield and Widom, 1996; Smith and Thornberry, 1995). An examination of juveniles incarcerated revealed that “90 percent of juvenile offenders in the

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<sup>13</sup> Giving List Staff, “98% Of People Living in Prison Experienced Childhood Trauma,” The Giving List, November 18, 2022, <https://www.givinglistlosangeles.com/2022/11/18/98-of-people-living-in-prison-experienced-childhood-trauma/>.

<sup>14</sup> “The Cycle of Violence | Science.” Accessed April 19, 2023. <https://www.science.org/doi/abs/10.1126/science.2704995>.



United States [have experienced] some sort of traumatic event in childhood, and up to 30 percent of justice-involved American youth...meet the criteria for post-traumatic stress disorder due to trauma experienced during childhood,” (Fox, Perez, et al., 2019). Further, a report from the U.S attorney general’s National Task Force on Children Exposed to Violence disclosed that “exposure to violence...affects approximately two out of every three of our children.” (U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention, Report of the Attorney General’s National Task Force on Children Exposed to Violence 3).

Notwithstanding the extant literature, there has yet to be an investigation into the connection between child maltreatment and adult incarceration at the county level. By doing so, this thesis provides insight into the relationship between child maltreatment and adult incarceration at a more localized level. Such localized insights may shine a light on the way specific policy interventions impact rates of both child maltreatment and adult incarceration, introducing an opportunity for local policymakers to utilize such insights to inform their decision-making and improve outcomes for their communities.

### **3. Data**

The central question of this study asks what is the relationship between child maltreatment and incarceration rates between different periods of time, and when confounding factors are taken into consideration? Data used to answer this inquiry originates from a variety of sources and is employed to two separate regression analyses. Firstly, the Ordinary Least Squares (OLS) Multivariate Regression, investigates the potential connection between the two phenomena harnessing rates of child maltreatment nine years prior to those of adult incarceration, while simultaneously accounting for the most influential extraneous variables. These elements include socioeconomic status, population density, and race. Secondly, the Fixed Effects Panel Regression investigates the connection between child maltreatment and adult incarceration rates across an extended duration, therefore a series of years for each value is reflected in the data.

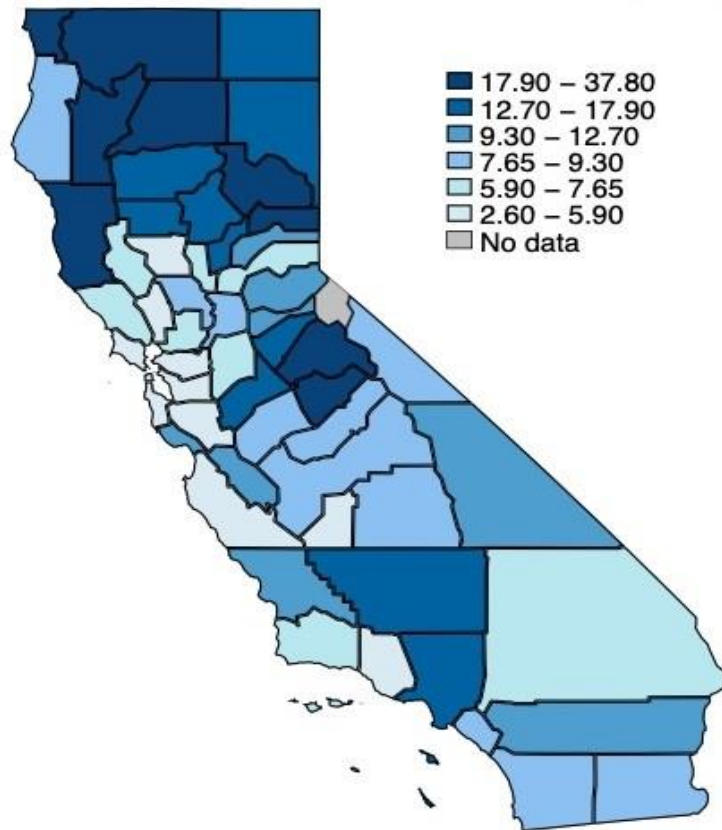
#### **3.1 Data in the OLS Multivariate Regression**

##### *a. Child Maltreatment*

The first data set utilized in this thesis is drawn from The California Child Welfare Indicators Project (CCWIP), a collaborative project composed of researchers from the University of California at Berkeley (UCB) and the California Department of Social Services (CDSS). CCWIP employs data sources such as the Child Welfare Services Case Management System (CWS/CMS) and the California Department of Finance State and County Projects with the goal of supplying child welfare statistics to agency staff, policymakers, researchers, and the public. To comprehend the amount of child maltreatment occurring in each county, this thesis implements a data set that shows the number of substantiated cases of abused or neglected children aged 0 to 17 reported per 1,000 children per county in California during the year 2011. 57 counties are included

in this dataset, with data from Alpine County suppressed due to the limited amount of child maltreatment reports (>10). In the case of a child, multiple substantiated cases of abuse within a county are only counted once. However, children with reports of abuse in different counties are counted once in each county but only once in the California totals. Because this data set comes directly from government case management systems, it remains the most reliable source of information available regarding child maltreatment. The ratio of child maltreatment cases derived from this dataset is represented in Figure 1. Alameda County, Amador County, and Butte County stand apart as the top three counties with the lowest instances of substantiated cases. In contrast, Mariposa County, Trinity County, and Sierra County demonstrate the highest rates of substantiated cases.

Figure 1: Map of Substantiated Cases of Child Abuse by California County



Map of the California counties. Each county is color-coded based on the rate of substantiated cases of child maltreatment in 2011 per every 1,000 children in the county population. Darker colors indicate higher rates of child abuse. Alpine County is depicted in a shade of gray.

Despite the authenticity of this data, it must be noted official reports merely represent “the tip of the iceberg” when it comes to the actual occurrence of child maltreatment. In fact, researchers

estimate that as many as 1 in 10 cases of abuse are corroborated by social-service agencies, making it incredibly difficult to pinpoint the true magnitude of the issue.<sup>15</sup>

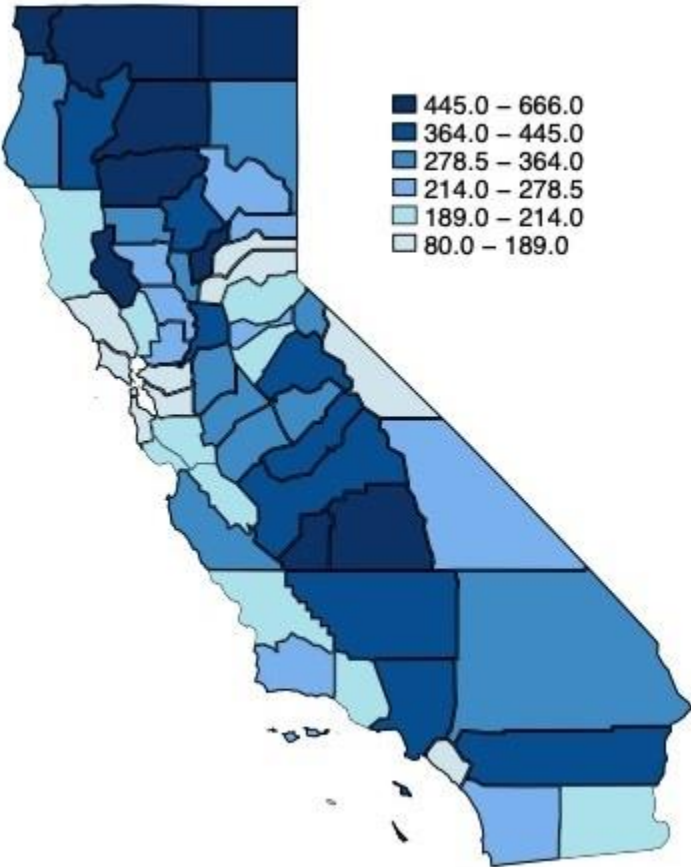
### *b. Adult Incarceration*

In 2020, the Essie Justice Group and the Prison Policy Initiative published a groundbreaking report which shed light on the counties of origin for incarcerated individuals in California. Made possible by recent legislation requiring individuals to be recorded as residents of their hometowns rather than in prison cells, this report uses data provided by the 2020 census to produce the percentage of incarceration initiated in each county. To measure and compare incarceration rates in this thesis, the number of individuals incarcerated per 100,000 individuals is used as the unit of measurement. This unit is derived by dividing the group of incarcerated individuals by the total population in each county and multiplying the quotient by 100,000. A visual representation of the rates of adult incarceration in each county is presented in Figure 2. Kings County, Shasta County, and Tehama County exhibit the highest rates of adult incarceration, while Marin County, San Francisco County, and Nevada County show the lowest.

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<sup>15</sup> “Describing the Problem - New Directions in Child Abuse and Neglect Research - NCBI Bookshelf.” Accessed April 19, 2023. <https://www.ncbi.nlm.nih.gov/books/NBK195982/>.

Figure 2: Map of Adult Incarceration Rates by California County



Map of the California counties. Each county is color-coded based on the rate of adult incarceration cases emerging from the county population for every 100,000 individuals in the county. Darker colors indicate higher rates of adult incarceration.

It is important to note that the numbers produced in this report were impacted by a variety of factors, such as county differences in policy choices, federal census limitations, and the reprocessing of data from the census into the report. Even with these constraints, this data provides the most authoritative source of information regarding which communities maintain the highest incarceration rates and is therefore utilized in this first regression.

*c. Socioeconomic Status: Poverty and Unemployment*

Socioeconomic status is a highly documented contributing factor to the child welfare and incarceration systems. California maintains some of the highest rates of poverty in the United States, which results from its incredibly inflated costs of living. There are two main connections between a low socioeconomic status and the child welfare system. Firstly, researchers have estimated that thirty of all children in the United States removed from their families by social services could be immediately placed back in their homes if their parents had access to affordable and sufficient living accommodations.<sup>16</sup> This was the situation in the case of Adeline Stephens, who was a mother of six living in poverty. Her children were taken by the child welfare system after an investigation concluded she was unable to care for her children. Adeline's experience is reflective of a larger issue, specifically, that the child welfare system disproportionately affects those living in poverty. One mother in California stated, "If I wasn't poor, I wouldn't be unfit" (Butts, 2022). The cyclical nature of poverty reinforces generational involvement with the child welfare system. Secondly, there is a strong causal link between poverty and child abuse. An

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<sup>16</sup> United Family Advocates. "Family Poverty Is Not Neglect." Accessed April 20, 2023. <https://www.unitedfamilyadvocates.org/family-poverty-is-not-neglect>.

executive study conducted by the National Institute of Child Health and Human Development (NICHD) found that children who live in impoverished households are five times more likely than other children to suffer from some manifestation of maltreatment.<sup>17</sup> Further, the “Child Abuse & Neglect” September 2022 journal wrote that “worry and anxiety about paying your bills is having the most harmful effect (Marçal, 2022). Another researcher argues that the “leading cause of child abuse in the United States is poverty,” as parents increasingly find themselves without healthy coping skills to deal with the stresses associated with poverty (McNeill, 1994).

The influence of socioeconomic status is controlled in this regression through two main variables: poverty and unemployment rates. Both poverty and unemployment are strong indicators of a county's economic well-being and are often used in research to represent a community's socioeconomic status. The dataset used to illustrate poverty levels within the different California counties is sourced from the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program. The dataset, which provides a representation of socioeconomic conditions within California counties, includes poverty data for all 58 counties in California. Federal researchers apply the income and poverty estimates from the Annual Social and Economic Supplement (ASEC) of the Current Population Survey (CPS) to Fay-Herriot (1979) models to produce relevant county-level data. However, it is important to note that the dataset may have limitations, such as missing data or sampling bias. Poverty data estimates prior to the establishment of SAIPE came from the decennial census, making it difficult to produce accurate data for counties. Poverty in this thesis is operationalized as the percentage of impoverished individuals living within each county. As the COVID-19 pandemic emerged in 2020 and significantly influenced poverty

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<sup>17</sup> “Fourth National Incidence Study of Child Abuse and Neglect (NIS-4): Report to Congress | The Administration for Children and Families.” Accessed April 20, 2023. <https://www.acf.hhs.gov/opre/report/fourth-national-incidence-study-child-abuse-and-neglect-nis-4-report-congress>.



rates, data from the year 2019 is utilized to establish a more reliable estimate of poverty that aligns with the incarceration data analyzed in this study.

Data representing the rate of unemployment in each California county was procured from the Labor Market Information Division within the Employment Development Department in California. To provide a pre-COVID-19 pandemic estimate, this dataset is derived from the year 2019, when employment was not yet affected. The term “unemployment rates” refers to the proportion of the civilian labor force who were not engaged in paid employment, but were actively looking for work, at the time of data collection. Specifically, the “civilian labor force” is defined as any individuals over 16 years old not institutionalized or on active military duty and who are either employed or unemployed. The model used to calculate the unemployment rate relies on data from the monthly Unemployment Insurance (UI) claims data and the Current Population Survey (CPS) employment rate. Within this model, methods such as flexible trend and seasonal components are incorporated in order to adjust for changes in the CPS rate that the previous UI claims series do not capture. A marked limitation of this model is that the federal researchers attain estimates from a multi-county Metropolitan Statistical Area (MSA) or Metropolitan Division (MD) and not through individual counties, as industry data is not available at the county level. Hence, the estimates may not accurately reflect employment trends in individual counties, especially those with unique economic characteristics.

#### *e. Population Density*

Another variable that must be considered and controlled for within this regression is population density. Though the effects of population density are not widely studied, it stands to reason that counties with higher population densities might have a different relationship to rates of

child maltreatment or adult incarceration due to disparities in resources. In California, the allocation of funds to county social services departments relies on the number of children who require services in each county, and the geographic landscape is not considered.<sup>18</sup> The larger geographic size of some counties with lower populations may pose challenges for social workers in terms of reporting and resource allocation, which may not be encountered by social workers in smaller counties with low population volumes and smaller geographic areas.<sup>19</sup> The population density of an area also influences the poverty rate within that population, which, as previously discussed, impacts both incarceration and child maltreatment.

To control for population density, data is derived from two data sources. Firstly, the population count for each county was collected from national-level 2020 Census Data, and secondly, the square mileage of each county was gathered from the California State Association of Counties. Population data is produced using a cohort-component method which uses administrative data on births, deaths, and domestic and international migration to calculate changes from the previous census. The square mileage of each county is developed using Geographic Information System (GIS) data in collaboration with satellite imagery. These two data sources were then combined to calculate population density using the following formula:

$$\textit{Population Density} = \frac{\textit{Total Population}}{\textit{Land Area}}$$

The resulting dataset, therefore, encompasses the population density in 2020 for each of the 58 California counties. A notable limitation of this data is that the square mileage for each county

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<sup>18</sup> State of California, Department of Social Services, Fiscal Year 2019/20 County Cost Allocation Plan (CCAP) (California Department of Social Services, 2019).

<sup>19</sup> “Child Maltreatment: The Significant Effect of Population Density | Canadian Child Welfare Research Portal.” Accessed April 20, 2023. <https://cwrp.ca/research-watch/child-maltreatment-significant-effect-population-density>.

may not fully capture the actual land area available for human settlement due to the presence of areas reserved for protected land or wildlife. Furthermore, child maltreatment report data in lower population-density counties could be less reliable given the geographic and resource limitations inherent to some counties. In the regression, counties are split into high and low population density variables allowing for the possibilities of different relationships between child maltreatment and adult incarceration by population density.

*f. Race*

Racial inequities are so prevalent in both the child welfare system and the criminal justice system that entire books have been written about the phenomenon; therefore, it is important to control for this factor when running the OLS regression. The child welfare system in the United States suffers from a gross level of racial disproportionality, specifically for the Black community. At every step of the child welfare system, Black families encounter prejudice and inequitable outcomes. Black children are more likely to be reported for child abuse, have substantiated cases of this abuse, and are less likely to be reunited with their families after being removed from their homes (Putnam-Hornstein et al., 2013; M. Miller 2008). One study argues that one in ten Black children in the United States are separated from families by the child-welfare system, with the most common reason for the removal being neglect (Minoff and Citrin, 2022). Other racial minorities also face a disproportionate level of representation within the child welfare system, with American Indian or Alaska Native children maintaining a heightened risk of substantiated cases of maltreatment and out-of-home placements (Austin et al., 2019). However, Black children are significantly more represented in child welfare services than other races. Racial inequality is markedly present at every step of the child welfare process, and the trauma that inherently results from a child being forcibly removed from a home lead to higher levels of juvenile and adult

incarceration.<sup>20</sup> Beyond the child welfare system, Black individuals inherently face a much higher risk of incarceration than any other race (Nellis, 2021). In fact, while only 13 percent of the United States population are Black, they make up more than 35 percent of the prison population.<sup>21</sup> Further, in 2001 one out of every three Black boys born could expect to be incarcerated in their lifetime<sup>22</sup>. It is an undeniable fact that a conspicuous correlation exists between race and child welfare and criminal justice systems. The nexus may stem from structural racism, child welfare system dynamics, geographic factors, and/or other elements, but the relationship itself is outside the scope of this thesis. However, this thesis attempts to mitigate the most impactful elements to obtain the clearest picture of the relationship between child maltreatment and adult incarceration.

To control for the effects of a larger Black or African American population on child maltreatment and adult incarceration, the percentage of Black individuals in each county is employed. These population estimates are retrieved from the 2020 December Census Redistricting Data required by Public Law (P.L.) 94-171, which grants every state the chance to determine the small area geography for which they need data to undertake the process of legislative redistricting. Every year, the U.S. Census Bureau provides each state with population tabulations, which include data on the racial breakup of each region. This racial distribution contains the following population subgroups: American Indian and Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian and Pacific Islander, Not Hispanic or Latino, Some Other Race, Two or More Races, and White. The limitations of this data stem from the fact that information is based

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<sup>20</sup> National Institute of Justice. "Examining the Relationship Between Childhood Trauma and Involvement in the Justice System." Accessed April 20, 2023. <https://nij.ojp.gov/topics/articles/examining-relationship-between-childhood-trauma-and-involvement-justice-system>.

<sup>21</sup> "U.S. Census Bureau QuickFacts: United States." Accessed April 20, 2023. <https://www.census.gov/quickfacts/fact/table/US/PST045222#viewtop>.

<sup>22</sup> "Report of The Sentencing Project to the United Nations Human Rights Committee Regarding Racial Disparities in the United States Criminal Justice System on JSTOR." Accessed April 20, 2023. <https://www.jstor.org/stable/resrep27334>.

on self-reported surveys, which may be inaccurate or underrepresent the full diversity of racial and ethnic identities and experiences within each category.

Variable descriptions and summary statistics are displayed in Table 1.

Table 1: Variable Descriptions and Summary Statistics, Multivariable OLS

<b>Variable</b>	<b>Description</b>	<b>Source</b>	<b>Mean</b>	<b>Std. Dev.</b>
INC	Number of people incarcerated from each county per 100,000 individuals in 2020	Essie Justice Group and the Prison Policy Initiative 2020 Report	2110.224	5575.529
ABUSE	Number of substantiated cases of abused or neglected children aged 0 to 17 with reports substantiated per 1,000 children per county in 2011	California Child Welfare Indicators Project (CCWIP)	11.870	7.6706
POVR	Poverty rate for each county in 2019	U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE)	13.021	4.053
POPDENS	Population Density in 2020	2020 Census Data and California State Association of Counties	623.799	2225.781
ABUSELD	Child Abuse in Low Density 2020	2020 Census Data and California State Association of Counties	3.563	7.747
%BLACK	Percentage of Black individuals within a county in 2020	2020 December Census Redistricting Data	0.065	0.034

### 3.2 Data in the Fixed Effects Panel Regression

#### *a. Child Maltreatment*

The measure of child maltreatment in the Fixed Effects Panel Regression is also from The California Child Welfare Indicators Project (CCWIP). The rates of child maltreatment are calculated and collected in the same way as the first CCWIP dataset; however, the data features substantiated reports of abuse from the year 2000 through to the year 2020. This dataset highlights 57 California counties, again suppressing data in Alpine County due to its minimal number of reports. Sierra County data is similarly suppressed from 2003 through 2005, 2015 to 2018, and 2020. Limitations and benefits are the same as the first CCWIP dataset.

*b. Adult Incarceration*

In addition to the previous incarceration measure, another dataset is incorporated into this thesis to provide the best possible representation of incarceration in California. The California Sentencing Institute is an extension of the Center on Juvenile & Criminal Justice (CJCJ), a nonprofit organization that collaborates closely with community experts and activists to enact culturally pertinent initiatives shown to lower imprisonment rates and improve public safety. The California Sentencing Institute gathers data from the California Department of Justice, the California Department of Corrections and Rehabilitation, and the California Board of State and Community Corrections with the goal of providing a central and exhaustive resource on the state-wide sentencing guidelines and procedures. The data utilized in this thesis focuses on the total number of adult imprisonments for every 100,000 individuals within each county population, providing a measure of the prevalence of adult incarceration rates from 2009 to 2016 but does not include those who are placed in camps or out-of-state prisons. Like the child maltreatment data employed in this thesis, this data set represents a dependable metric for measuring imprisonment,

given it is procured directly from the institutions responsible for overseeing the incarceration process.

Table 2: Variable descriptions and summary statistics, Fixed Effects Panel Regression

<b>Variable</b>	<b>Description</b>	<b>Source</b>	<b>Mean</b>	<b>Std. Dev.</b>
INC	Total number of adult imprisonments for every 100,000 individuals within each county population from 2009 to 2016	California Child Welfare Indicators Project (CCWIP)	529.686	248.388
ABUSE	Number of substantiated cases of abused or neglected children aged 0 to 17 with reports substantiated per 1,000 children per county from 2000-2019	Center on Juvenile & Criminal Justice (CJCJ); California Sentencing Institute	13.536	8.435

#### 4. Methods

To evaluate whether child maltreatment impacts adult incarceration rates at a county level, two main statistical techniques are utilized: a Multivariable Ordinary Least Squares (OLS) Regression and a Fixed Effects Panel Regression. Each statistical analysis informs on the

relationship between child maltreatment and incarceration rates, and the combination of results from these analytical measures forms a picture that addresses the central question of this thesis.

#### 4.1 Multivariable Ordinary Least Squares Regression

To investigate the possibility that incarceration rates can, in part, be explained by child maltreatment rates, this study utilizes county-level data to examine the determinants of per capita incarceration rates among county residents. Given that poverty and unemployment are proven to increase the likelihood of criminal activity, I hypothesize that county incarceration rates rise as a function of both indicators. I further hypothesize that higher population densities will increase incarceration rates by escalating the intensity of policing efforts in tandem with the opportunities for criminal behavior. Due to this nation's historical trend of disproportionately incarcerating Black or African American individuals, particularly men in this population, I anticipate a positive association between the percentage of a county's Black population and its adult incarceration rates. Ultimately, to test the hypothesis that higher rates of child maltreatment have a positive relationship with ensuing adult incarceration rates, I incorporate the reported rates of child abuse from nine years prior. As I anticipate that underreporting of child maltreatment is more prevalent in less densely populated counties, my analysis allows for variation in the impact of child abuse on incarceration between low-density and high-density counties with the addition of another variable. With this additional variable, the estimated impact of child abuse on incarceration in higher-density counties can be reflected in the coefficient in the first density equation, and the estimated impact of child abuse on incarceration in lower-density counties can be calculated by adding the two coefficients obtained from the two density equations.



A Multivariable Ordinary Least Squares (OLS) Regression is implemented to ascertain if adult incarceration rates are impacted by child maltreatment rates on average when considering the main confounding factors (Poverty Rates, Unemployment Rates, Population Density, Child Abuse in Low-Density Counties, and Percent Black in the county population). This regression took the form of the following equation:

$$INC = \beta_0 + \beta_1 ABUSE + \beta_2 POVR + \beta_3 UNEMP + \beta_4 POPDENS \\ + \beta_5 ABUSELD + \beta_6 \%BLACK + \epsilon$$

Therein:

+ Dependent Variable: Adult Incarceration (INC).

+ Independent Variable: Child Abuse in High Population Density Counties (ABUSE), Poverty Rate (POVR), Unemployment Rate (UNEMP), Population Density (POPDENS), Child Abuse in Low Population Density Counties (ABUSELD), Percent Black (%BLACK).

#### 4.2 Fixed Effects Panel Regression

As a natural continuation of the previous analysis, I explore the potential influence of child maltreatment rates on the amount of adult incarceration when considering the impact of rates from previous years. I hypothesize that the proportions of adult incarceration and child maltreatment are subject to influence by prior years' rates as they transition from one year to the next. To test the original hypothesis that rates of child maltreatment affect future adult incarceration at the county level with consideration for this new hypothesis, a Fixed Effects Panel Regression is applied. The ensuing equation exemplifies the structure of this regression:

$$INC_{(t+1)} = \beta_0 + \beta_1 INC_t + \beta_2 ABS_t + \varepsilon$$

Therein:

- + Dependent Variable: Adult Incarceration at time (t+1) (INC).
- + Independent Variable: Adult Incarceration at time (1) (INC), Child Abuse at time (t) (ABS).

The analysis focuses on the period between 2000 to 2020 as data for child maltreatment and adult incarceration rates are present. Specifically, child maltreatment statistics are implemented from (2000-2020) and adult incarceration rates are present from (2009 to 2016). In addition to running this regression to directly compare rates from the same years, a time lag was applied to determine if a change in child maltreatment rates three or five years prior to the incarceration data from a given year impacted those future incarceration rates. The subsequent equations illustrate how these regressions are organized:

1. Three-Year Lag

$$INC_{(t+3)} = \beta_0 + \beta_1 INC_{t+3} + \beta_2 ABUSE_{t+3} + \varepsilon$$

2. Five Year Lag

$$INC_{(t+5)} = \beta_0 + \beta_1 INC_{t+5} + \beta_2 ABUSE_{t+5} + \varepsilon$$

Therein:

- + Dependent Variable: Adult Incarceration at time (t+n) (INC).
- + Independent Variable: Adult Incarceration at time (n) (INC), Child Abuse at time (t) (ABUSE).

## 5. Results

The results obtained by applying the two designated models are outlined and structured in the following section. Each section of results answers a question about the relationship between child maltreatment and incarceration rates. The combination of results from these analytical measures forms a picture that addresses the central question of this thesis. Ultimately, my principal hypothesis is supported by the results from the two regressions, which indicate a positive association between child maltreatment and adult incarceration.

### 5.1 Multivariable OLS Regression

*Are rates of child maltreatment correlated with incarceration rates at the county level when the main confounding factors are considered?*

To begin answering this question, the Multivariable OLS regression is performed, splitting the county samples into low and high population density variables. The regression yields the following results, as seen in Table 3:

Table 3: Multivariable OLS Output

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Adult Incarceration (1)
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ABUSE	372.514*** (176.483)
ABUSELD	-324.815** (133.767)
POVR	48.976* (237.929)
UNEMP	-825.275* (27658.17)
POPDENS	0.0449* (0.324)
%BLACK	78384.51*** (27331.32)
Obs.	57
R-Squared	0.256

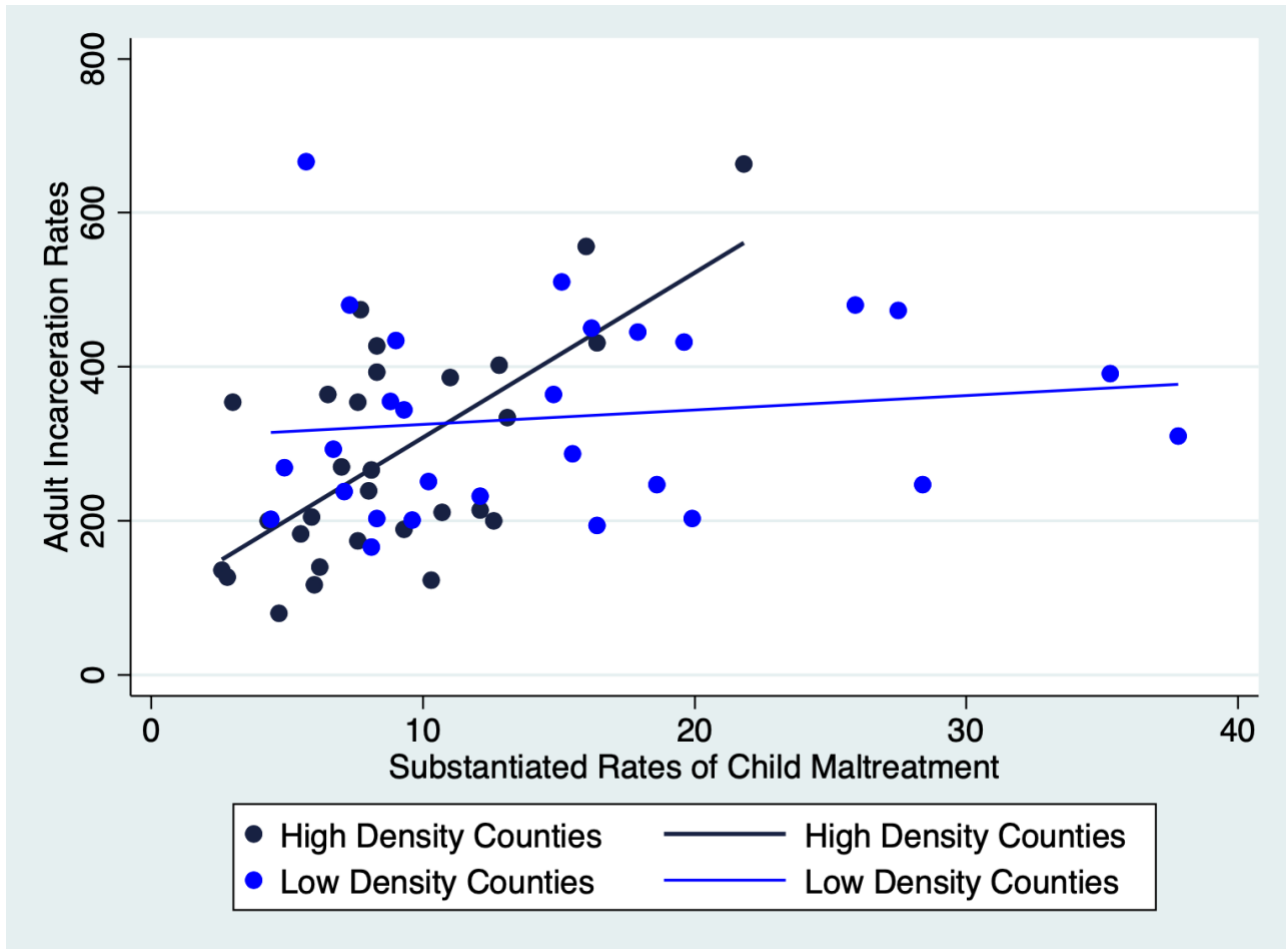
Dependent variable: percentage change in county adult incarceration rate. Multivariable Ordinary Least Squares Regression. Standard errors in parentheses, clustered at the county level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Notice that the OLS regression displays that the connection between child maltreatment in 2011 is statistically significant at the .01 level. Therefore, with a 99% level of confidence, I can state that child maltreatment impacts adult incarceration when all the control variables in this thesis are considered. In line with the related literature and my hypotheses, increased rates of poverty, unemployment, and population density have a positive relationship with adult incarceration, given their 10% significance level. Furthermore, the percentage of Black or African American individuals within a county has a stronger positive relationship with adult incarceration at the 1% level. Interestingly, when the regression is run without the percent Black variable, poverty, and unemployment rates have a more significant effect on adult incarceration rates.

The present study provides empirical support for the proposition that the impact of child maltreatment on adult incarceration rates is more pronounced in counties with high population density. The observed negative coefficient of child abuse in low-density counties points towards a relatively attenuated relationship between child maltreatment and adult incarceration in such locales. In Figure 3, this slope is exhibited on two lines— one for high-density counties and one

for low-density counties. The slope coefficient of child maltreatment rates is positive in high-density counties, whereas it is only slightly positive in low-density counties, reflecting the different levels of impact child maltreatment has on incarceration when dividing them by this variable.

Figure 3: Adult Incarceration Rates as a Function of Child Maltreatment Rates



This scatterplot graph shows the relationship between rates of child maltreatment in 2011 and adult

incarceration in 2020. The navy line and spots indicate this relationship in high population density counties, while the lighter blue line and spots represent this association in low population density counties.

There are several important limitations to consider within this OLS regression. Firstly, the COVID-19 pandemic impacted data to the point where the best possible indication of socioeconomic status must be derived from 2019. It is unknown what the state of the economy would look like if not for the global pandemic, and so though these measures are the closest estimation available, they are not from the same year as the adult incarceration rates in 2020. Another limitation to this study is the fact that it only captures the relationship between child maltreatment and adult incarceration over a nine-year period of time. As future incarceration data arises with regards to the county of origin for those who are imprisoned, it will be possible to examine the relationship between substantiated rates of child abuse and adult incarceration rates on a county level over a longer period. Finally, though mentioned in the data section of this paper, it is vital to note that relying on substantiated reports of child maltreatment does not represent the true amount of abuse endured by children. This lack of accurate representation is likely especially true in low-density counties where underreporting is most likely more prevalent due to resource constraints, which is reflected in the regression output.

## 5.2 Fixed Effects Panel Regression

*From one year to the next, does a change in child maltreatment rates correspond to a shift in incarceration rates?*

To address this inquiry, the Fixed Effects Panel Regression is run without a time lag, with a 3-year time lag, and with a 5-year time lag. The results of this regression are showcased in Table 4 below.

Table 4: Fixed Effects Panel Output

Dependent Variable: INC	(1) No Time Lag	(2) 3-Year Time Lag	(3) 5-Year Time Lag
ABS	4.414*** (1.404)	9.016*** (1.216)	6.523*** (1.210)
Constant	485.244*** (16.428)	419.741*** (16.080)	443.182*** (17.394)
Obs.	451	453	433
R-Squared	0.061	0.070	0.063

Dependent variable: percentage change in county adult incarceration rate. Fixed Effects Panel Regression with Time Lags. Standard errors in parentheses, clustered at the county level. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

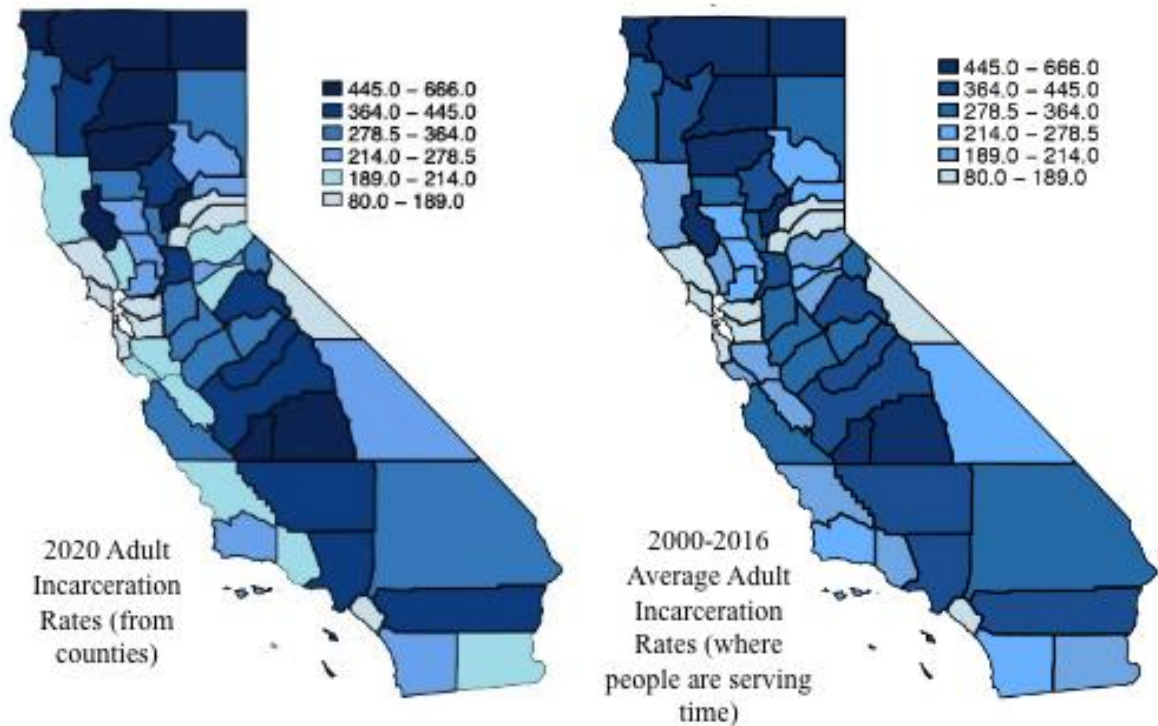
The results illustrate that there is a strongly significantly positive relationship between child maltreatment rates and adult incarceration rates in each iteration of the regression. In concrete terms, the findings of this regression validate the hypothesis that from one year to the next, child maltreatment rates markedly influence the prevalence of adult incarceration, and that this relationship is very unlikely due to chance. For example, the first iteration of the regression shows that if the rate of child maltreatment raises 1 unit from one year to the next, there will be a correlated 4.1 unit increase in adult incarceration rates. While this first iteration of the regression indicates this positive relationship is present when years are concurrent, the second and third iterations show a positive relationship when one year of child maltreatment is applied to adult incarceration rates three or five years in the future. All three iterations of this regression display substantial significance at the 1% level. Intriguingly, the regression with the 3-year time lag maintains the highest R-Squared value, indicating a slightly stronger relationship between child maltreatment rates and adult incarceration rates three years after the initial abuse rates. However, the close similarity in the rate of significance implies a stationary property, meaning the relationship between child maltreatment and incarceration rates is not strongly dependent on a time lag. The outcomes exhibited by the regression analyses in this section of the study reflect past

research on the connection between child maltreatment and adult crime. Notwithstanding the fact that this work reflects past studies, to my knowledge, these results are the first published indication that child maltreatment and adult incarceration are strongly associated at the county-level.

Though these results appear to validate my hypothesis, many constraints must be discussed. Firstly, in contrast to the OLS Regression, this regression was run without any controlling variables. Though their lack of inclusion is due to limited availability of data, an investigation into the effects of common confounding factors and inclusion of such factors in this regression increase the validity of this study by reducing the effects of extraneous factors on the relationship between child maltreatment and adult incarceration. Another substantial limitation to this aspect of the study is that the incarceration data indicates only the number of incarcerated individuals living within each county, and not the number of incarcerated individuals emanating from said counties. Therefore, this regression shows the relationship between child maltreatment originating in each county and the amount of incarcerated people residing in those counties. One of the biggest worries in this portion of the study is that because some counties have larger prisons or jails, their rates of incarcerated individuals would be higher than if data illustrating where the incarcerated individuals originated were used. To mitigate this concern, an additional regression was run at each level, excluding Kern County, which is the only county in California where Community Correctional Facilities are located. These facilities have a collective capacity of 2,818 beds, which would have the largest impact on the rates of incarceration within the county. However, the results of the regressions imply that excluding or including Kern County's incarceration rates would not skew the results in any noteworthy way. Furthermore, though a visual comparison between the incarceration data utilized in the OLS Regression indicates some similarity, see Figure 4, there is no data available regarding incarcerated individuals that emerged.



Figure 4: Incarceration Rate Data Comparisons



Maps of California counties. On the lefthand side, adult incarceration rates emerging in 2020 from each county are depicted, while on the righthand side the average rate of adults incarcerated within each county from 2000-2016 are shown. Darker shading indicates higher concentrations of incarcerated individuals.

### 5.3 Possible Confounders

There are a variety of socioeconomic, psychological, and demographic factors that also correlate with an increase in incarceration rates, some of which have yet to be studied or discovered. These risks are also often associated with a heightened chance of child maltreatment or are frequent consequences of abuse in childhood. Though difficult to quantify, mental and physical health are deeply connected to incarceration rates. However, there is a vast amount of

research on the long-term consequences of child maltreatment on an individual's mental and physical health, as well as the connection between well-being and incarceration. In terms of physical well-being, a maltreated child is more likely to experience motor delays, compromised physiological systems, and an overall lower health status (Springer, Sheridan, et. al, 2003; Wiggins, Mann, et. Al, 2022). Much more thoroughly studied are the psychological side effects of child abuse, which range from many ailments, including depression (Weiss, Longhurst, et. al., 1999; Kessler and Magee, 1994; Sauders, Villeponteaux, et. al, 1992), anxiety disorders (Kendler, Bulik, et. al, 2000; Sauders, Villeponteaux, et. al, 1992), eating disorders (Kendler, Bulik, et. al, 2000), post-traumatic stress disorder (PTSD) (Sauders, Villeponteaux, et. al, 1992; Heim, Ehlert, et al, 1998; Heim, Owens, et. al, 1997), and poor emotional comprehension (Edwards, Shipman, & Brown, 2005; Pears & Fisher, 2005; Pollak, Cicchetti, Hornung, & Reed, 2000). Each of these psychological and physical consequences is correlated with a higher rate of incarceration. For example, those who have a psychiatric illness are more likely to be arrested, charged, and incarcerated for longer periods of time in comparison to the general population (Hall et al., 2019).

Other researchers hypothesized that children with challenging temperaments and attention-deficit/hyperactivity disorder (ADHD) have a higher risk of child maltreatment (De Sanctis, et. al, 2012). If this is the case, the researchers argue that ADHD may cause a rise in crime and delinquency risk. However, while researchers have found a correlation between maltreated children and those with ADHD, child maltreatment is a better indicator of adult arrest than any behavioral problem (Ibid.). Additionally, there is a significant amount of research conducted through surveys of those incarcerated at the time of the study. The information gathered revealed an alarming one-third of maltreated children in their sample faced incarceration by the age of 24

and maintained a rate of incarceration that was two times that of their non-victimized contemporaries (Mersey & Topitzes, 2010).

Given the considerable research on the influence of psychological and physical health on child maltreatment and incarceration rates, future research should include such factors as controlling variables. Unfortunately, their inclusion remains outside the scope of this thesis project.

## **6. Discussion and Policy Recommendation**

As discussed in Section 2 of this thesis, children who survive maltreatment suffer consequences far beyond the instance of abuse or neglect, such as an increased chance of adult incarceration (Desmond and Gould, 1985; Currie and Tekin, 2012; Font and Kennedy, 2022). By reducing cases of child maltreatment, and appropriately aiding victims, we have the potential to mitigate these repercussions. County-level analyses of specific CWS policies and practices, in conjunction with this knowledge about the association of child maltreatment and adult incarceration, can help inform strategies to effectively tackle a multitude of challenges with fewer resources. Approaching the growing concern of mass incarceration in the United States with an understanding of the impact of child maltreatment on adult incarceration allows policymakers the opportunity to not only alleviate the public health crisis that is child abuse and neglect, but also combat the problem of mass incarceration.

### **6.1 Cross-County Policy Analysis**

The findings of this study show that child maltreatment has a significant positive connection to adult incarceration in California counties. Thus, it is prudent to explore the child welfare policies and procedures in counties where there has been a decline in adult incarceration

or child maltreatment following the adoption or modification of a new framework within their child welfare agencies. This thesis delves into child maltreatment policies in such counties, aiming to investigate common strategies that may account for any decreases in rates of child maltreatment or adult incarceration. Any application of these strategies must be adapted to suit the specific needs and challenges of each county, but overarching lessons should be applied throughout the California Counties. These core principles are divided into three branches, each working in conjunction with one another to provide a forest of possibilities and best outcomes for survivors of child maltreatment.

*a. In-House Efficiency and Inter-Agency Communication*

The first commonality in successful counties is a dedication to in-house system improvements and interagency collaboration. In 2007, the Child and Family Policy Institute of California (CFPIC) released a report on behalf of the California Department of Social Services, Children and Family Services Division analyzing the first full year of SIP under AB 636. In 2005, every county had the opportunity to choose three to five areas of improvement within their practices, and those that focused on optimizing their systems are overwhelmingly represented on the list of counties that had significant decreases in their child maltreatment rates. These counties focused on optimizing their systems through changes in case management, internal communication, staffing policies, service agency partnerships, and safety assessments.<sup>23</sup>

There are many aspects of child welfare that heavily rely upon the efficient distribution of resources and care, though counties often express concern regarding unorganized practices,

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<sup>23</sup> Child and Family Policy Institute of California. Planning for Success: An Analysis of California Counties' Child Welfare System Improvement Plans First Full Year Implementation of County System Improvement Plans under AB 636. Prepared by the Child and Family Policy Institute of California (CFPIC) on behalf of the California Department of Social Services, Children and Family Services Division, 2004.

excessive workloads, and high turnover rates (Willams and Glisson, 2013; Strand et al., 2010; Blake et al., 1996). Counties that chose to focus on addressing these obstacles saw improvements in their response times to initial abuse allegations, more timely visits from social workers, and a lower rate of maltreatment recurrence for children that were not removed from their homes after a report. Sacramento County, one which saw a large decrease in adult incarceration from the period of time between their first SIP in 2007 and 2016, implemented a number of strategies to improve their proficiency.<sup>24</sup> One of these strategies included mandated weekly phone calls between managers, Deputy Director, and Division Managers. These phone calls allowed for information about case statistics to flow more freely, subsequently increasing the efficiency of the workplace. In furtherance of this goal, Sacramento County also began to utilize a computer program called “Safe Measures”. Prompting refinement of program oversight and providing much-needed analysis on the work of social service workers, Safe Measures tracks individual cases and employees to ensure uniformity and continued progress.<sup>25</sup> San Francisco, another county that saw a large decrease in its incarceration rates, also began Safe Measures in 2004. As a result of this system, San Francisco’s County agency increased its contact compliance from 65% to 93%.<sup>26</sup> Both Sacramento County and San Francisco County made monitoring, educating, and communicating with their staff a priority, which not only allowed them to improve the speed and accuracy of their aid but further elevated the impact of their services.<sup>27</sup>

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<sup>24</sup> "2007 System Improvement Plan (SIP) Report: Child Welfare Services." Sacramento County Department of Health and Human Services, 2007.

<sup>25</sup> Bruns, Eric J., and Kristen Lwin. "Better Data, Better Outcomes: Engaging Users in Performance Management." *Children and Youth Services Review* 31, no. 12 (2009): 1291-299.

<sup>26</sup> *Ibid.*

<sup>27</sup> Child and Family Policy Institute of California. *Planning for Success: An Analysis of California Counties’ Child Welfare System Improvement Plans First Full Year Implementation of County System Improvement Plans under AB 636*. Prepared by the Child and Family Policy Institute of California (CFPIC) on behalf of the California Department of Social Services, Children and Family Services Division, 2004.

Child welfare social workers are the heart of every county's social services system, yet they often lack the support to do their jobs well (Lloyd et al., 2009). Counties that focused on supporting their staff through improving internal communication and increasing training ensured a more dynamic connection between county protocols and directives and the execution of these measures by their staff. San Diego County developed a training system for its social workers on how to engage families and encourage safe family reunification.<sup>28</sup> Furthermore, they focused on researching ways to circulate information competently and increase awareness about the importance of engaging fathers in case planning.<sup>29</sup> Beyond improved training and communication for their staff members, county departments that saw decreased child maltreatment and future adult incarceration rates sought to reduce caseloads for their social workers. Recognizing the inherent struggles social workers face when plied with an excessive workload, Alameda County brought reducing caseloads to the forefront of its list of goals in 2009. To achieve this goal, they said, would "increase the ability to provide comprehensive services to families," (Alameda County Social Services Agency, 2009). However, for many counties hiring more social workers is little more than a pipe dream inhibited by lack of funding, ever-present in a system that consistently suffers from a lack of resources and high turnover rates.

Finally, counties that emphasized the importance of interagency cooperation not only saw a decline in adult incarceration and child maltreatment rates but also maintained low rates of child maltreatment throughout multiple years. The best guide for this objective is Contra Costa County, whose rate per 1,000 cases of substantiated child maltreatment was, on average, 3.79 less than the

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<sup>28</sup> San Diego County. "Self Assessment and Report 2011." San Diego County Health and Human Services Agency, 2011.

<sup>29</sup> See why a father-child relationship is important in child welfare using this [link](#).

state average.<sup>30</sup> Many counties struggle with interagency collaboration as each organization competes for a finite amount of funds and contract services. Contra Costa County recognizes and accepts this challenge by providing forums and meetings to encourage collaboration not only between public agencies but also community organizations. By allocating space for all operations involved with community welfare, Contra Costa County can solve issues proactively, divide responsibilities, and ultimately provide significantly better aid to the children in their care. Santa Clara County also made agency collaboration a goal in their 2011 SIP Report, creating an inventory of all the services available to children needing assistance and forming a Cross-Agency Service Team (CAST).<sup>31</sup> CAST is comprised of the Director of the Social Services Agency (SSA), the Director of the Mental Health Department (MHD), the Director of the Department of Drug and Alcohol Services (DADS), the Acting Director of the Department of Family and Children Services (DFCS), the Public Health Director (PHD), the lead Judge Dependency Court (Superior Court), and representatives from Probation, Social Services Agency Office, Public Health, Family and Children Services, Office of Affordable Housing, and the County Executive's Office of Budget Analysis. The United States, and California, by default, is a bureaucratic system that inherently creates complex issues of case management and often undercuts any aid to maltreated children. Counties that work to address these challenges are, therefore, able to manage cases more efficiently and provide services more rapidly and effectively for endangered children.

The importance of improving efficiency within a county's child welfare department and encouraging interagency collaboration clearly has positive effects on both child maltreatment

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<sup>30</sup> "Reports of Child Abuse and Neglect - Kidsdata.Org." Accessed April 20, 2023.

<https://www.kidsdata.org/topic/1/reported-abuse/table#fmt=1216&loc=127,347,1763,331,348,336,171,321,345,357,332,324,369,358,362,360,337,327,364,356,217,353,328,354,323,352,320,339,334,365,343,330,367,344,355,366,368,265,349,361,4,273,59,370,326,333,322,341,338,350,342,329,325,359,351,363,340,335&tf=110,124,108,95,88,84,79,73,67,64&sortType=asc>.

<sup>31</sup> Parker, Randy and Dana Sugiyama. "Summary of Santa Clara County Performance Data: Exceeding Standard and Close to Standard Outcome Measures, January 2009.



statistics and adult incarceration rates. However, a county’s focus must reach beyond the mechanics of a welfare operation to create a lasting and convincing impact on the present and future welfare of its children.

*b. Understanding and Addressing Connecting Systematic Factors*

Child abuse flourishes in environments that allow certain systematic factors to thrive unchecked. The most common of these influences are poverty and race. As Hina Navid, an Aryeh Neier fellow at Human Rights Watch and the ACLU aptly wrote, “long-term change requires addressing the extreme economic hardship at the heart of many child welfare cases and the corrosive impact of systemic racism,” (Naveed, 2022). Counties that address these contributing issues saw decreases in their child maltreatment rates over time and a lower rate of later adult incarceration.

As discussed earlier in this thesis, socioeconomic status has a large influence on the occurrence and recurrence of child maltreatment. Numerous nationally respected researchers corroborate the bond between child maltreatment and poverty, though as highlighted in a Chapin Hall Policy Brief, CWS is neither equipped nor intended to deal with these problems. Anchored in the knowledge that poverty and maltreatment are interconnected, California initiated a pilot program called California Linkages, in which some select counties took part. There are several different components in the project, but most significantly, it allows for collaboration between CalWORKS and CWS.<sup>32</sup> As with the different county divisions of CWS, the CalWORKs of each county maintain different practices and strategies. While diving into a comparison of county-

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<sup>32</sup> CalWORKs is a government assistance program that offers financial support and services to qualified families with children living at home. Local county welfare offices manage the program, which is available to residents of all 58 counties in the state.

specific practices is outside the scope of this thesis, counties that utilize Linkages saw a positive change with regard to child welfare. According to county statistics from the final report of the Linkages project, which involved 14 counties, two-thirds of the participating counties saw a decrease in the percentage of children who had substantiated recurrences of abuse (D’Andrade et al., 2016). Additionally, a concentration in Los Angeles County revealed fewer removals of children from their homes and a higher rate of family reunification.<sup>33</sup> Though the central concern of Linkages is to mitigate the compounding effect between child maltreatment and poverty, the positive impact of interagency collaboration cannot be understated. For instance, Solano County implemented a program called Project HOPE.<sup>34</sup> The project, funded by a 17-month Children’s Bureau grant in 2011, sought to improve academic outcomes for children within the foster care system. The project leaders found a lack of coordination between the Solano County Office of Education (SCOE) and CSW, and to mitigate this issue, the two divisions created the Solano County Interagency Agreement. After the implementation of this interagency agreement, Solano County witnessed a surge in the promptness of placement change reporting, heightened comprehension of regulations and protocols among all participating agencies, and enhanced capacity of staff to address the educational requisites of foster youth. Given the success of interagency collaborative projects, California counties might consider a similar collaborative approach for other government-funded programs such as CalFRESH, Medicaid, or Greater Avenues for Independence (GAIN).<sup>35</sup>

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<sup>33</sup> Harder & Company California Department of Social Services. “The Linkages Project Statewide Evaluation, Final Report,” 2011.

<sup>34</sup> Child Welfare Information Gateway. “Site Visit Report: Solano County Project HOPE,” 2013.

<sup>35</sup> GAIN offers a range of services including Job Club, vocational assessment, education and training, supported employment, community services, and post-employment services. They can also help with different job-related expenses such as uniforms, tools, transportation, child care, and others. In addition, they can connect people with resources for domestic violence counseling, substance use disorder treatment, and mental health support.

The racial disparities within both the child welfare system and the Criminal Justice System are well-recorded but often unacknowledged by government entities. One article fervently argues that “racial discrimination in Child Welfare is a human rights violation,” and they are right.<sup>8</sup> California counties that acknowledge the existence of systemic racial discrimination within their systems and make efforts to mitigate it, experience tangible improvements in their communities. However, it must be recognized that too many families will nevertheless be forever impacted by unjust practices. In July 2008, the California Disproportionality Project Breakthrough Series Collaborative (CDP) was launched to mitigate future instances of racial disparities. The Final Report of the project outlined the main aspiration for the venture stating that “in addressing these issues and improving the system for children and families of color – those who are most disadvantaged by the current system – the system would ultimately be improved for all children and families,” (Agosti, 2011). Throughout the duration of the CPD, select counties concentrated largely on educating the public, creating and providing training, mobilizing partners, and assessing practice modifications. Upon completion of the CPD, the counties were able to identify four essential system-level components as being necessary to facilitate agency-wide improvements in this project: 1) continuing and continual training and awareness; 2) committed and involved leadership; 3) devoted and supported workgroups; and 4) a purposeful focus on sustainability.<sup>36</sup>

Beyond these components, certain practices are revealed to be successful. One practice originated in Alameda County and involved modifying how intakes and referrals are “packaged.” Fundamentally, the descriptive data regarding a family is maintained on a distinct page from the allegations, thereby providing all personnel with a non-prejudiced overview of a case before being

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<sup>36</sup> Agosti, Jen. “California Disproportionality Project Breakthrough Series Collaborative Final Report.,” 2011.

exposed to any potentially biased particulars. This arrangement ensures impartiality in the presentation of case information. This practice evolved from the understanding that first impressions can have a profound impact and that bias exists both explicitly and implicitly throughout the child welfare system. Numerous policies resembling the one implemented in Alameda County are regarded as a positive stride toward ameliorating systemic biases. Nonetheless, it is noticeable that counties that acknowledge their prejudicial inclinations and demonstrate a willingness to partner with advocates representing communities affected by such disparities observe improved child welfare and incarceration indicators.

If county welfare agencies fail to reassess their methodologies and prioritize addressing systemic factors, instances of child maltreatment will likely increase, much like mold in an unclean environment that expands if not addressed. A critical analysis of current practices and a focus on tackling the root influences of child maltreatment is crucial in effectively mitigating this issue.

### *c. Community Participation*

Perhaps the most salient takeaway from this investigation is that prevalence of child maltreatment escalates in counties that lack community engagement. However, when a county child welfare department makes an effort to create innovative connections between its community and its services, child welfare rates decrease. One common strategy utilized by CWS to assist families is called Wraparound Services, wherein a collaborative network of support for the child works collectively to devise a service plan that considers the unique attributes and needs of both the child and the family. Many counties that showed low rates of child maltreatment over the period analyzed in this these utilized a practice of Wraparound Services called Differential Response (DR). Families within the DR system can be placed in one of three “paths” based on

which one best accommodates their situational requirements, which include Community Response, Child Welfare Services and Agency Partners Response, and Child Welfare Services Response. Contra Costa County, the one county which showed consistently low average rates of incarceration and child maltreatment in this thesis sample, was one of the first pilot counties to implement a Differential Response structure. The county's specific application of the DR structure served to augment their community's ability to be a safe environment in which children can grow and aid families by utilizing services that are tailored to their culture, needs, and preferences.

Despite the clear advantages of strategies that promote community participation, practices in this area were not common enough occurrence in the available county policy reports from 2011-2016. Further research should be conducted on the values of partnerships between communities and CWS and the types of policies that might encourage them. Because as one researcher so eloquently stated, "It's not enough to just look at adversity. Providers must create, or help families create, those positive experiences that support optimal brain development," (Sege et al., 2017).

## 6.2 A Financial Argument

One cannot overstate the costs of child maltreatment to society. One may think that the only price society pays is the taxpayer dollars that fund the child welfare social services offices. However, the expenses are significantly vaster and more wide-reaching. A portion of these expenditures is represented in the criminal justice system. The exact amount of money that streams into the United States incarceration establishment is incalculable with the current data available. Nonetheless, the following approximate calculations show how much money is directly spent on incarceration systems due to child maltreatment. According to the Fixed Effects Panel Regression, a 1/1000 decrease in the rate of child maltreatment relates to a roughly 1/22000 decline in the

incarceration rate. To understand the effect of child maltreatment on adult incarceration in more concrete terms, imagine a county with a population of 22,000 incarcerated individuals. If that county implements a policy eliminating one case of child maltreatment out of every 1,000 cases, that county's adult incarceration population would decrease by one person and earn that county \$4.82 per year. With the addition of social costs, that \$4.82 per year saved is closer to \$48.20 per year. Though this number may seem insignificant compared to the time and resources necessary for reducing child maltreatment rates, the financial gain could be monumental for California.

This gain is better seen when one calculates the total cost of adult incarceration with a connection to child maltreatment in one year. Data from the California Legislative Analyst's Office estimates that the average cost of incarceration for one person in 2021 to 2022 is \$106,000,<sup>37</sup> while a weekly report of the incarcerated population published by the California Department of Corrections and Rehabilitation shows that approximately 155,549 were incarcerated in 2021.<sup>38</sup> Using these estimates, one can determine the total cost of incarceration in one year is roughly \$16,473,749,00.

**Average Cost of Incarceration for One Person: \$106,000**

**Incarcerated Population: 155, 549**

**Total Cost of Incarceration for One Year: \$16,473,749,000**

To determine the financial burden of adult incarceration due to child maltreatment, the percentage of incarcerated individuals who experienced child maltreatment is used. Though it cannot be said that all incarcerated individuals that experienced child maltreatment are incarcerated due to that abuse, the strong correlation between the two factors implies some effect.

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<sup>37</sup> "Legislative Analyst's Office." Accessed April 20, 2023. [https://lao.ca.gov/policyareas/cj/6\\_cj\\_inmatecost](https://lao.ca.gov/policyareas/cj/6_cj_inmatecost).

<sup>38</sup> California Department of Corrections and Rehabilitation. "Reports and Statistics." Accessed April 20, 2023. <https://www.cdcr.ca.gov/reports/>.

One study entitled “Childhood Victimization and Adult Incarceration: A Review of the Literature” found that approximately 38% of all incarcerated adults experienced some form of childhood abuse.<sup>39</sup> Therefore, the cost of incarceration with a connection to child maltreatment is in the region of \$6,266,085,720.

**Percentage of Incarceration due to Child Maltreatment: 38%**

**Cost of Incarceration with a Connection to Child Maltreatment: \$6,266,085,720**

However, the social costs of incarceration are often left out of these calculations. One group of researchers sought to calculate these costs and concluded that “for every dollar in corrections costs, incarceration generates an additional \$10 in social costs,” (McLaughlin et al., 2016). These costs reveal themselves throughout society in lower quality of healthcare, decreasing levels of community mental health, and higher crime rates. Referring to the average yearly cost of child maltreatment, a further \$62,660,857,200 is added to the yearly cost of incarceration with a connection to child maltreatment, bringing the total expenditure to approximately \$69,926,942,920 per year.

**Cost of Incarceration with a Connection to Child Maltreatment: \$6,266,085,720**

**Social Cost of Incarceration: \$62,660,857,200**

**Approximate Total Cost of Incarceration with a Connection to Child Maltreatment: \$69,926,942,920**

With this sum, the government could send around 3,234,517 children to elementary school for a year,<sup>40</sup> provide housing to 883,138 families of three for one year,<sup>41</sup> or purchase a year's worth

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<sup>39</sup> “Childhood Victimization and Adult Incarceration: A Review of the Literature - Hannah R. White, Nicole E. Frisch-Scott, 2022.” Accessed April 20, 2023. <https://journals.sagepub.com/doi/full/10.1177/15248380211073841>.

<sup>40</sup> “Budget Act for 2021–22: Information - Education Budget (CA Dept of Education).” Accessed April 20, 2023. <https://www.cde.ca.gov/fg/fr/eb/yr21ltr0811.asp>.

<sup>41</sup> “Average Monthly Expenses: From a Single Person to a Family of 5 - NerdWallet.” Accessed April 20, 2023. <https://www.nerdwallet.com/article/finance/monthly-expenses-single-person-family>.

of food for 7,537,069 families of four.<sup>42</sup> The financial advantages of reducing cases of child maltreatment stretch far beyond the cost of related adult incarceration. One study estimated that cumulative child maltreatment costs in California equaled \$19.31 billion in 2017. Though different studies approximate the cost of child maltreatment to society in various ways, reducing instances of childhood abuse is not only clearly fiscally responsible but also profitable for the entire California community.

## **7. Conclusion**

The research conducted over the course of this project has made one fact achingly clear: there is no one strategy or solution which can solve child maltreatment in California. A hodgepodge of practices from all corners of society is required to produce meaningful improvement in child welfare outcomes and, consequently, in adult incarceration rates. Given the data from SIP reports for the period between 2007-2016, it would behoove counties to reflect previously successful policies that promote in-house efficiency, interagency communication, and community participation while also endeavoring to understand and address contributing systematic confounders.

Within CWS, every county has numerous opportunities for improvement, though the analysis of county-level data reveals considerable variation in terms of service successes. With the currently available data, it is not possible to discover which specific policies or practices within a county's CWS cause lower rates of incarceration. However, since there is a linkage between child maltreatment and adult incarceration, it stands to reason that strategies that improve the former will positively impact the latter. As the access to comprehensive data continues to progress, future

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<sup>42</sup> Ibid.



research might investigate the connections between certain policies and child welfare outcomes, and adult incarceration rates.

Although some strategies have been identified as more effective than others in addressing child maltreatment, the quest for improved approaches should not be abandoned. It is imperative for policymakers and researchers alike to undertake more localized investigations, like the present study, to identify the most successful approaches. This is particularly salient given several successful strategies identified in this research risk being obfuscated by inquiries conducted on a larger scale. There are no two child maltreatment cases that are exactly alike, and CWS should not adopt a standardized approach as if they are. Culture, experience, ethnicity, socioeconomic status, are just a few of the myriad of factors to consider when providing services to children in need. This thesis posits that a comprehensive assessment of these factors leads to a greater improvement in child maltreatment indicator rates and shows the value of a more localized investigative scope.

It is far past time to realize California's potential to do better for its children. Child maltreatment is an open wound in California's economy, and the harm bleeds out to touch every system on which society relies. This paper focuses on only one system, though many others are impacted. Child maltreatment inhibits lifetime productivity, produces young fatalities, and inflates education costs. Whether people know it or not, the health and safety of the children in our communities impact our financial success. Stitching this wound to society can and should be achieved if everyone in the population is engaged in the effort. A concerted and collective commitment from all societal stakeholders is crucial in curbing the pervasiveness of child maltreatment. It is frequently said that it takes a village to raise a child. On that account, it takes a community to protect one too.

## REFERENCES

- “42 USC 5106g: Definitions.” Accessed April 19, 2023.  
[https://uscode.house.gov/view.xhtml?req=\(title:42%20section:5106g%20edition:prelim\)](https://uscode.house.gov/view.xhtml?req=(title:42%20section:5106g%20edition:prelim)).
- “1874 Case of Mary Ellen McCormack Shined First Light on Child Abuse - The New York Times.” Accessed April 20, 2023. <https://www.nytimes.com/2009/12/15/health/15abus.html>.
- “About CAPTA: A Legislative History - Child Welfare Information Gateway.” Accessed April 20, 2023.  
<https://www.childwelfare.gov/pubs/factsheets/about/>.
- “Addressing Economic Hardship Key to Preventing Child Welfare System Involvement – Chapin Hall.” Accessed April 20, 2023. <https://www.chapinhall.org/research/economic-supports-child-welfare/>.
- Agosti, Jen. “California Disproportionality Project Breakthrough Series Collaborative Final Report,” 2011.
- Ainsley McCarter, Susan. “Holistic Representation: A Randomized Pilot Study of Wraparound Services for First-Time Juvenile Offenders to Improve Functioning, Decrease Motions for Review, and Lower Recidivism.” Family Court Review, 2016.
- “An Overview of Poverty and Inequality in California | Cato Institute,” October 21, 2021.  
<https://www.cato.org/study/overview-poverty-inequality-california>.
- “Average Monthly Expenses: From a Single Person to a Family of 5 - NerdWallet.” Accessed April 20, 2023. <https://www.nerdwallet.com/article/finance/monthly-expenses-single-person-family>.
- “Budget Act for 2021–22: Information - Education Budget (CA Dept of Education).” Accessed April 20, 2023. <https://www.cde.ca.gov/fg/fr/eb/yr21ltr0811.asp>.
- Bureau, US Census. “2020 Census.” Census.gov. Accessed April 20, 2023.  
<https://www.census.gov/2020census>.
- . “California Remained Most Populous State but Growth Slowed Last Decade.” Census.gov. Accessed April 20, 2023. <https://www.census.gov/library/stories/state-by-state/california-population-change-between-census-decade.html>.
- . “Decennial Census P.L. 94-171 Redistricting Data.” Census.gov. Accessed April 20, 2023.  
<https://www.census.gov/programs-surveys/decennial-census/about/rdo/summary-files.html>.
- . “SAIPE State and County Estimates for 2021.” Census.gov. Accessed April 20, 2023.  
<https://www.census.gov/data/datasets/2021/demo/saipe/2021-state-and-county.html>.
- “California Child Welfare Indicators Project (CCWIP).” Accessed April 20, 2023.  
<https://ccwip.berkeley.edu/>.

- California Department of Corrections and Rehabilitation. "Reports and Statistics." Accessed April 20, 2023. <https://www.cdcr.ca.gov/reports/>.
- California Department of Social Services County Welfare Directors Association of California Foundation Consortium for California's Children and Youth. "Child Welfare System Improvements in California, 2003-2005: Early Implementation of Key Reforms. Progress Report." Sacramento, 2005.
- California State Association of Counties. "Square Mileage by County," May 26, 2015. <https://www.counties.org/pod/square-mileage-county>.
- Casey Family Programs. "Implementing Differential Response in California: Promising Practices and Lessons Learned." Breakthrough Series Collaborative; Series Number 002., 2007.
- Center for the Study of Social Policy. "Systemically Neglected: How Racism Structures Public Systems to Produce Child Neglect." Accessed April 20, 2023. <https://cssp.org/resource/systemically-neglected/>.
- "Child Abuse – A Historical Perspective | PHF.ORG.GE." Accessed April 20, 2023. <http://phf.org.ge/en/resources/child-abuse-a-historical-perspective-/>.
- "Child Abuse Background and History - FindLaw." Accessed April 20, 2023. <https://www.findlaw.com/family/child-abuse/child-abuse-background-and-history.html>.
- "Child and Adolescent Abuse and Neglect Research: A Review of the Past 10 Years. Part I: Physical and Emotional Abuse and Neglect - ScienceDirect." Accessed April 20, 2023. <https://www.sciencedirect.com/science/article/pii/S0890856709632354?via%3Dihub>.
- Child and Family Policy Institute of California California Department of Social Services Children and Family Services Division. "Child Welfare Services System Improvements: 11 County Pilot Implementation Evaluation Initial Assessment Phase, July 2003 to June 2006.," 2006.
- "Child Maltreatment Substantiation Rates Report - California Child Welfare Indicators Project (CCWIP)." Accessed April 20, 2023. <https://ccwip.berkeley.edu/childwelfare/reports/SubstantiationRates/MTSG/r/rts/s>.
- "Child Maltreatment: The Significant Effect of Population Density | Canadian Child Welfare Research Portal." Accessed April 20, 2023. <https://cwrp.ca/research-watch/child-maltreatment-significant-effect-population-density>.
- "Child Sexual Assault as a Risk Factor for Mental Disorders Among Women: A Community Survey - BENJAMIN E. SAUNDERS, LORENZ A. VILLEPONTEAUX, JULIE A. LIPOVSKY, DEAN G. KILPATRICK, LOIS J. VERONEN, 1992." Accessed April 20, 2023. <https://journals.sagepub.com/doi/10.1177/088626092007002005>.
- "Child Welfare Improvements C-CFSR." Accessed April 20, 2023. [https://www.sandiegocounty.gov/content/sdc/hhsa/programs/cs/child\\_welfare\\_services/child\\_welfare\\_improvements\\_C-CFSR.html](https://www.sandiegocounty.gov/content/sdc/hhsa/programs/cs/child_welfare_services/child_welfare_improvements_C-CFSR.html).

- Child Welfare Information Gateway. "Site Visit Report: Solano County Project HOPE," 2013.
- "Child Welfare Services Case Management System." Accessed April 20, 2023.  
<https://www.cdss.ca.gov/inforesources/child-welfare-services-case-management-system>.
- "Childhood Sexual Abuse and Adult Psychiatric and Substance Use Disorders in Women: An Epidemiological and Cotwin Control Analysis - PubMed." Accessed April 20, 2023.  
<https://pubmed.ncbi.nlm.nih.gov/11015813/>.
- "Childhood Victimization and Adult Incarceration: A Review of the Literature - Hannah R. White, Nicole E. Frisch-Scott, 2022." Accessed April 20, 2023.  
<https://journals.sagepub.com/doi/full/10.1177/15248380211073841>.
- Chilton, Roland. Review of *Review of Causes of Delinquency*; *Delinquency, Crime and Social Process*; *Our Criminal Society: The Social and Legal Sources of Crime in America*; *Delinquency: Selected Studies*; *Prevention of Delinquency: Problems and Programs*, by Travis Hirschi, Donald R. Cressey, David A. Ward, Edwin M. Schur, Thorsten Sellin, Marvin E. Wolfgang, John R. Stratton, and Robert M. Terry. *Social Forces* 49, no. 4 (1971): 648–51. <https://doi.org/10.2307/2576768>.
- "COVID-19 Leaves a Legacy of Rising Poverty and Widening Inequality," October 7, 2021.  
<https://blogs.worldbank.org/developmenttalk/covid-19-leaves-legacy-rising-poverty-and-widening-inequality>.
- Currie, Janet, and Erdal Tekin. "Understanding the Cycle: Childhood Maltreatment and Future Crime." *Journal of Human Resources* 47, no. 2 (March 31, 2012): 509–49.  
<https://doi.org/10.3368/jhr.47.2.509>.
- De Sanctis, Virginia A., Yoko Nomura, Jeffrey H. Newcorn, and Jeffrey M. Halperin. "Childhood Maltreatment and Conduct Disorder: Independent Predictors of Criminal Outcomes in ADHD Youth." *Child Abuse & Neglect* 36, no. 11–12 (2012): 782–89.  
<https://doi.org/10.1016/j.chiabu.2012.08.003>.
- "Decennial Census P.L. 94-171 Redistricting Data Summary Files." Accessed April 20, 2023.  
<https://www.census.gov/programs-surveys/decennial-census/about/rdo/summary-files.html>.
- "Describing the Problem - New Directions in Child Abuse and Neglect Research - NCBI Bookshelf." Accessed April 19, 2023. <https://www.ncbi.nlm.nih.gov/books/NBK195982/>.
- Edwards, Anna, Kimberly Shipman, and Amy Brown. "The Socialization of Emotional Understanding: A Comparison of Neglectful and Nonneglectful Mothers and Their Children." *Child Maltreatment* 10, no. 3 (August 2005): 293–304. <https://doi.org/10.1177/1077559505278452>.
- Falk, Richard, and Samuel S. Kim. *The War System: An Interdisciplinary Approach*. Routledge, 2019.
- FBI: Law Enforcement Bulletin. "Adverse Childhood Experiences and Crime." Accessed April 20, 2023.  
<https://leb.fbi.gov/articles/featured-articles/adverse-childhood-experiences-and-crime>.
- "Federal Child and Family Services Review." Accessed April 20, 2023.  
<https://www.cdss.ca.gov/inforesources/child-welfare-program-improvement/federal-child-and-family-services-review>.

- Font, Sarah A., and Reeve Kennedy. "The Centrality of Child Maltreatment to Criminology." *Annual Review of Criminology* 5, no. 1 (2022): 371–96. <https://doi.org/10.1146/annurev-criminol-030920-120220>.
- "Fourth National Incidence Study of Child Abuse and Neglect (NIS-4): Report to Congress | The Administration for Children and Families." Accessed April 20, 2023. <https://www.acf.hhs.gov/opre/report/fourth-national-incidence-study-child-abuse-and-neglect-nis-4-report-congress>.
- "From Father's Property To Children's Rights: A History of Child Custody Preview - Berkeley Law." Accessed April 20, 2023. <https://www.law.berkeley.edu/our-faculty/faculty-sites/mary-ann-mason/books/from-fathers-property-to-childrens-rights-a-history-of-child-custody-preview/>.
- "Full Article: Lessons Learned From the Supporting Father Involvement Study: A Cross-Cultural Preventive Intervention for Low-Income Families With Young Children." Accessed April 20, 2023. <https://www.tandfonline.com/doi/full/10.1080/01488370802678942?journalCode=wssr20#preview>.
- Gelles, Richard J. "Toward Better Research on Child Abuse and Neglect: A Response to Besharov." *Child Abuse & Neglect* 6, no. 4 (January 1, 1982): 495–96. [https://doi.org/10.1016/0145-2134\(82\)90095-3](https://doi.org/10.1016/0145-2134(82)90095-3).
- Giovannoni, Jeanne M., and Rosina M. Becerra. *Defining Child Abuse*. The Free Press, 866 Third Avenue, New York, NY 10022 (\$15, 1979).
- Harder & Company California Department of Social Services. "The Linkages Project Statewide Evaluation, Final Report.," 2011.
- Harp, Kathi L H, and Amanda M Bunting. "The Racialized Nature of Child Welfare Policies and the Social Control of Black Bodies." *Social Politics* 27, no. 2 (June 2020): 258–81. <https://doi.org/10.1093/sp/jxz039>.
- Heim, C., U. Ehlert, and D. H. Hellhammer. "The Potential Role of Hypocortisolism in the Pathophysiology of Stress-Related Bodily Disorders." *Psychoneuroendocrinology* 25, no. 1 (January 2000): 1–35. [https://doi.org/10.1016/s0306-4530\(99\)00035-9](https://doi.org/10.1016/s0306-4530(99)00035-9).
- Hirschi, Travis. "Causes and Prevention of Juvenile Delinquency." In *Contemporary Masters in Criminology*, edited by Joan McCord and John H. Laub, 215–30. The Plenum Series in Crime and Justice. Boston, MA: Springer US, 1995. [https://doi.org/10.1007/978-1-4757-9829-6\\_13](https://doi.org/10.1007/978-1-4757-9829-6_13).
- Human Rights Watch. "The Child Welfare System Needs an Overhaul," December 6, 2022. <https://www.hrw.org/news/2022/12/06/child-welfare-system-needs-overhaul>.
- Human Rights Watch. "US: Child Welfare System Harms Families," November 17, 2022. <https://www.hrw.org/news/2022/11/17/us-child-welfare-system-harms-families>.
- Initiative, Prison Policy. "County Appendix - Where People in Prison Come from - California (2020)." Accessed April 19, 2023. <https://www.prisonpolicy.org/origin/ca/2020/county.html>.

- “Is Child Protective Services Effective? | Elsevier Enhanced Reader.” Accessed April 19, 2023.  
<https://doi.org/10.1016/j.childyouth.2017.11.028>.
- Kessler, Ronald C., and William J. Magee. “Childhood Family Violence and Adult Recurrent Depression.” *Journal of Health and Social Behavior* 35, no. 1 (1994): 13–27.  
<https://doi.org/10.2307/2137332>.
- Kidsdata.org. “Substantiated Cases of Child Abuse and Neglect.” Accessed April 19, 2023.  
<https://www.kidsdata.org/topic/6/substantiated-abuse/table#fmt=1218&loc=127,347,1763,331,348,336,171,321,345,357,332,324,369,358,362,360,337,327,364,356,217,353,328,354,323,352,320,339,334,365,343,330,367,344,355,366,368,265,349,361,4,273,59,370,326,333,322,341,338,350,342,329,325,359,351,363,340,335&tf=64&sortColumnId=1&sortType=desc>.
- Lansford, Jennifer E., Kenneth A. Dodge, Gregory S. Pettit, John E. Bates, Joseph Crozier, and Julie Kaplow. “A 12-Year Prospective Study of the Long-Term Effects of Early Child Physical Maltreatment on Psychological, Behavioral, and Academic Problems in Adolescence.” *Archives of Pediatrics & Adolescent Medicine* 156, no. 8 (August 2002): 824–30.  
<https://doi.org/10.1001/archpedi.156.8.824>.
- “Legislative Analyst’s Office.” Accessed April 20, 2023.  
[https://lao.ca.gov/policyareas/cj/6\\_cj\\_inmatecost](https://lao.ca.gov/policyareas/cj/6_cj_inmatecost).
- Lloyd, Chris, Robert King, and Lesley Chenoweth. “Social Work, Stress and Burnout: A Review.” *Journal of Mental Health* 11, no. 3 (January 1, 2002): 255–65.  
<https://doi.org/10.1080/09638230020023642>.
- “Major Mental Illness as a Risk Factor for Incarceration | Psychiatric Services.” Accessed April 20, 2023.  
<https://ps.psychiatryonline.org/doi/10.1176/appi.ps.201800425>.
- Malinosky-Rummell, Robin, and David J. Hansen. “Long-Term Consequences of Childhood Physical Abuse.” *Psychological Bulletin* 114 (1993): 68–79. <https://doi.org/10.1037/0033-2909.114.1.68>.
- Marçal, Katherine E. “Domains of Housing Insecurity: Associations with Child Maltreatment Risk.” *Child Abuse & Neglect* 131 (September 1, 2022): 105696.  
<https://doi.org/10.1016/j.chiabu.2022.105696>.
- Markel, Howard, and M.d. “Case Shined First Light on Abuse of Children.” *The New York Times*, December 14, 2009, sec. Health. <https://www.nytimes.com/2009/12/15/health/15abus.html>.
- Maxfield, M. G., and C. S. Widom. “The Cycle of Violence. Revisited 6 Years Later.” *Archives of Pediatrics & Adolescent Medicine* 150, no. 4 (April 1996): 390–95.  
<https://doi.org/10.1001/archpedi.1996.02170290056009>.
- “Measuring Organizational Effectiveness to Develop Strategies to Promote Retention in Public Child Welfare - ScienceDirect.” Accessed April 20, 2023.  
<https://www.sciencedirect.com/science/article/pii/S0190740911004087>.

Monterey County (Calif) Dept of Social and Employment Services Family and Children’s Services. “Differential Response. Phase I: A Report on the Monterey County Differential Response Planning Process.,” 2006.

National Institute of Justice. “Examining the Relationship Between Childhood Trauma and Involvement in the Justice System.” Accessed April 20, 2023. <https://nij.ojp.gov/topics/articles/examining-relationship-between-childhood-trauma-and-involvement-justice-system>.

Naveed, Hina. “‘If I Wasn’t Poor, I Wouldn’t Be Unfit.’” *Human Rights Watch*, November 17, 2022. <https://www.hrw.org/report/2022/11/17/if-i-wasnt-poor-i-wouldnt-be-unfit/family-separation-crisis-us-child-welfare>.

NerdWallet. “Average Monthly Expenses: From a Single Person to a Family of 5,” December 14, 2022. <https://www.nerdwallet.com/article/finance/monthly-expenses-single-person-family>.

Office of Juvenile Justice and Delinquency Prevention. “Report of the Attorney General’s National Task Force on Children Exposed to Violence.” Accessed April 20, 2023. <https://ojjdp.ojp.gov/library/publications/report-attorney-generals-national-task-force-children-exposed-violence>.

Office, United States General Accounting. *Child Welfare: HHS Could Play a Greater Role in Helping Child Welfare Agencies Recruit and Retain Staff : Report to Congressional Requesters*. U.S. General Accounting Office, 2003.

Oppenheim, Stuart. “Planning for Success: An Analysis of California Counties’ Child Welfare System Improvement Plans: First Full Year Implementation of County System Improvement Plans under AB 636.,” 2007.

“P2: Census Bureau Table.” Accessed April 20, 2023. [https://data.census.gov/table?q=Race+in+California+by+County+2020&g=040XX00US06,06\\$0500000&tid=DECENNIALPL2020.P2&tp=true](https://data.census.gov/table?q=Race+in+California+by+County+2020&g=040XX00US06,06$0500000&tid=DECENNIALPL2020.P2&tp=true).

Pears, Katherine C., and Philip A. Fisher. “Emotion Understanding and Theory of Mind among Maltreated Children in Foster Care: Evidence of Deficits.” *Development and Psychopathology* 17 (2005): 47–65. <https://doi.org/10.1017/S0954579405050030>.

“Persistent Changes in Corticotropin-Releasing Factor Systems Due to Early Life Stress: Relationship to the Pathophysiology of Major Depression and Post-Traumatic Stress Disorder - PubMed.” Accessed April 20, 2023. <https://pubmed.ncbi.nlm.nih.gov/9230630/>.

Ph.D, Ashley Nellis. “The Color of Justice: Racial and Ethnic Disparity in State Prisons.” The Sentencing Project, October 13, 2021. <https://www.sentencingproject.org/reports/the-color-of-justice-racial-and-ethnic-disparity-in-state-prisons-the-sentencing-project/>.

“Policies.” Accessed April 20, 2023. <https://www.cdss.ca.gov/inforesources/child-welfare-protection/policies>.

Pollak, Seth D., Dante Cicchetti, Katherine Hornung, and Alex Reed. “Recognizing Emotion in Faces: Developmental Effects of Child Abuse and Neglect.” *Developmental Psychology* 36 (2000): 679–88. <https://doi.org/10.1037/0012-1649.36.5.679>.

“Poverty Causes Child Abuse (From Child Abuse: Opposing Viewpoints, P 91-95, 1994, David Bender and Bruno Leone, Eds. -- See NCJ-159823) | Office of Justice Programs.” Accessed April 20, 2023. <https://www.ojp.gov/ncjrs/virtual-library/abstracts/poverty-causes-child-abuse-child-abuse-opposing-viewpoints-p-91-95>.

Public Health Institute. “Understanding the Child Welfare System in California: A Primer for Service Providers and Policymakers (2nd Edition).” Accessed April 20, 2023. <https://www.phi.org/thought-leadership/understanding-the-child-welfare-system-in-california-a-primer-for-service-providers-and-policymakers-2nd-edition/>.

“Racial and Ethnic Disparities: A Population-Based Examination of Risk Factors for Involvement with Child Protective Services - PubMed.” Accessed April 20, 2023. <https://pubmed.ncbi.nlm.nih.gov/23317921/>.

“Racial Discrimination in Child Welfare Is a Human Rights Violation—Let’s Talk About It That Way.” Accessed April 19, 2023. <https://www.americanbar.org/groups/litigation/committees/childrens-rights/articles/2022/fall2022-racial-discrimination-in-child-welfare-is-a-human-rights-violation/>.

“Report of The Sentencing Project to the United Nations Human Rights Committee Regarding Racial Disparities in the United States Criminal Justice System on JSTOR.” Accessed April 20, 2023. <https://www.jstor.org/stable/resrep27334>.

“Reports - Child and Family Policy Institute of California,” December 20, 2020. <https://cfpic.org/what-we-do/past-projects/children-services/reports/>.

“Reports of Child Abuse and Neglect - Kidsdata.Org.” Accessed April 20, 2023. <https://www.kidsdata.org/topic/1/reported-abuse/table#fmt=1216&loc=127,347,1763,331,348,336,171,321,345,357,332,324,369,358,362,360,337,327,364,356,217,353,328,354,323,352,320,339,334,365,343,330,367,344,355,366,368,265,349,361,4,273,59,370,326,333,322,341,338,350,342,329,325,359,351,363,340,335&tf=110,124,108,95,88,84,79,73,67,64&sortType=asc>.

Rose, Susan J., and William Meezan. “Defining Child Neglect: Evolution, Influences, and Issues.” *Social Service Review* 67, no. 2 (1993): 279–93.

Runyan, Desmond K., and Carolyn L. Gould. “Foster Care for Child Maltreatment: Impact on Delinquent Behavior.” *Pediatrics* 75, no. 3 (March 1, 1985): 562–68. <https://doi.org/10.1542/peds.75.3.562>.

Salt, Elizabeth, Amanda T. Wiggins, Gena L. Cooper, Kalea Benner, Brian W. Adkins, Katherine Hazelbaker, and Mary Kay Rayens. “A Comparison of Child Abuse and Neglect Encounters before and after School Closings Due to SARS-Cov-2.” *Child Abuse & Neglect* 118 (August 2021): 105132. <https://doi.org/10.1016/j.chiabu.2021.105132>.

Sege, Robert. “Balancing Adverse Childhood Experiences (ACEs) With HOPE.” 2017.

Smith, Carolyn A., and Terence P. Thornberry. “The Relationship between Childhood Maltreatment and Adolescent Involvement in Delinquency. Working Paper No. 17,” December 1995. <https://eric.ed.gov/?id=ED408010>.



- “So You Have a Stable Child Welfare Workforce — What’s next? - ScienceDirect.” Accessed April 20, 2023. <https://www.sciencedirect.com/science/article/pii/S0190740909002680>.
- Staff, Giving List. “98% of People Living in Prison Experienced Childhood Trauma.” *The Giving List* (blog), November 18, 2022. <https://www.givinglistlosangeles.com/2022/11/18/98-of-people-living-in-prison-experienced-childhood-trauma/>.
- “Structural Equation Model of Burnout and Job Exit among Child Protective Services Workers | Social Work Research | Oxford Academic.” Accessed April 20, 2023. <https://academic.oup.com/swr/article/20/3/179/1704399>.
- Tableau Software. “2020 Census Population and Housing Map.” Accessed April 20, 2023. <https://public.tableau.com/shared/RW6QQ4NBC?:showVizHome=no>.
- “The California Linkages Program: Doorway to Housing Support for Child Welfare-Involved Parents - D’Andrade - 2017 - American Journal of Community Psychology - Wiley Online Library.” Accessed April 20, 2023. <https://onlinelibrary.wiley.com/doi/full/10.1002/ajcp.12099>.
- “The Cycle of Violence | Science.” Accessed April 19, 2023. <https://www.science.org/doi/abs/10.1126/science.2704995>.
- “The Economic Burden of Incarceration in the U.S. | Institute for Justice Research and Development.” Accessed April 20, 2023. <https://ijrd.csw.fsu.edu/publications/tools-field/economic-burden-incarceration-us>.
- The Linkages Project. “Home.” Accessed April 20, 2023. <https://linkages.cfpic.org/>.
- “The Long-Term Health Outcomes of Childhood Abuse. An Overview and a Call to Action - PubMed.” Accessed April 20, 2023. <https://pubmed.ncbi.nlm.nih.gov/14521650/>.
- “Trajectories of Child Protective Services Contact among Alaska Native/American Indian and Non-Native Children - ScienceDirect.” Accessed April 20, 2023. <https://www.sciencedirect.com/science/article/pii/S0145213419302212>.
- “Trauma Changes Everything: Examining the Relationship between Adverse Childhood Experiences and Serious, Violent and Chronic Juvenile Offenders - ScienceDirect.” Accessed April 20, 2023. <https://www.sciencedirect.com/science/article/pii/S0145213415000356>.
- United Family Advocates. “Family Poverty Is Not Neglect.” Accessed April 20, 2023. <https://www.unitedfamilyadvocates.org/family-poverty-is-not-neglect>.
- “Unsafe at Any Age: Linking Childhood and Adolescent Maltreatment to Delinquency and Crime - Joshua P. Mersky, James Topitzes, Arthur J. Reynolds, 2012.” Accessed April 20, 2023. <https://journals.sagepub.com/doi/full/10.1177/0022427811415284>.
- “U.S. Census Bureau QuickFacts: United States.” Accessed April 20, 2023. <https://www.census.gov/quickfacts/fact/table/US/PST045222#viewtop>.
- Weiss, E. L., J. G. Longhurst, and C. M. Mazure. “Childhood Sexual Abuse as a Risk Factor for Depression in Women: Psychosocial and Neurobiological Correlates.” *The American Journal of Psychiatry* 156, no. 6 (June 1999): 816–28. <https://doi.org/10.1176/ajp.156.6.816>.

Wessler, Mike. “New Data Reveals Where People in California Prisons Come From.” Accessed April 20, 2023. <https://www.prisonpolicy.org/blog/2022/08/31/caorigin/>.

Wilczak, Andrew R. “The Relationship between Youth Violence, Victimization, and Educational Outcomes.” *Sociology Mind* 4, no. 4 (October 7, 2014): 328–40. <https://doi.org/10.4236/sm.2014.44033>.

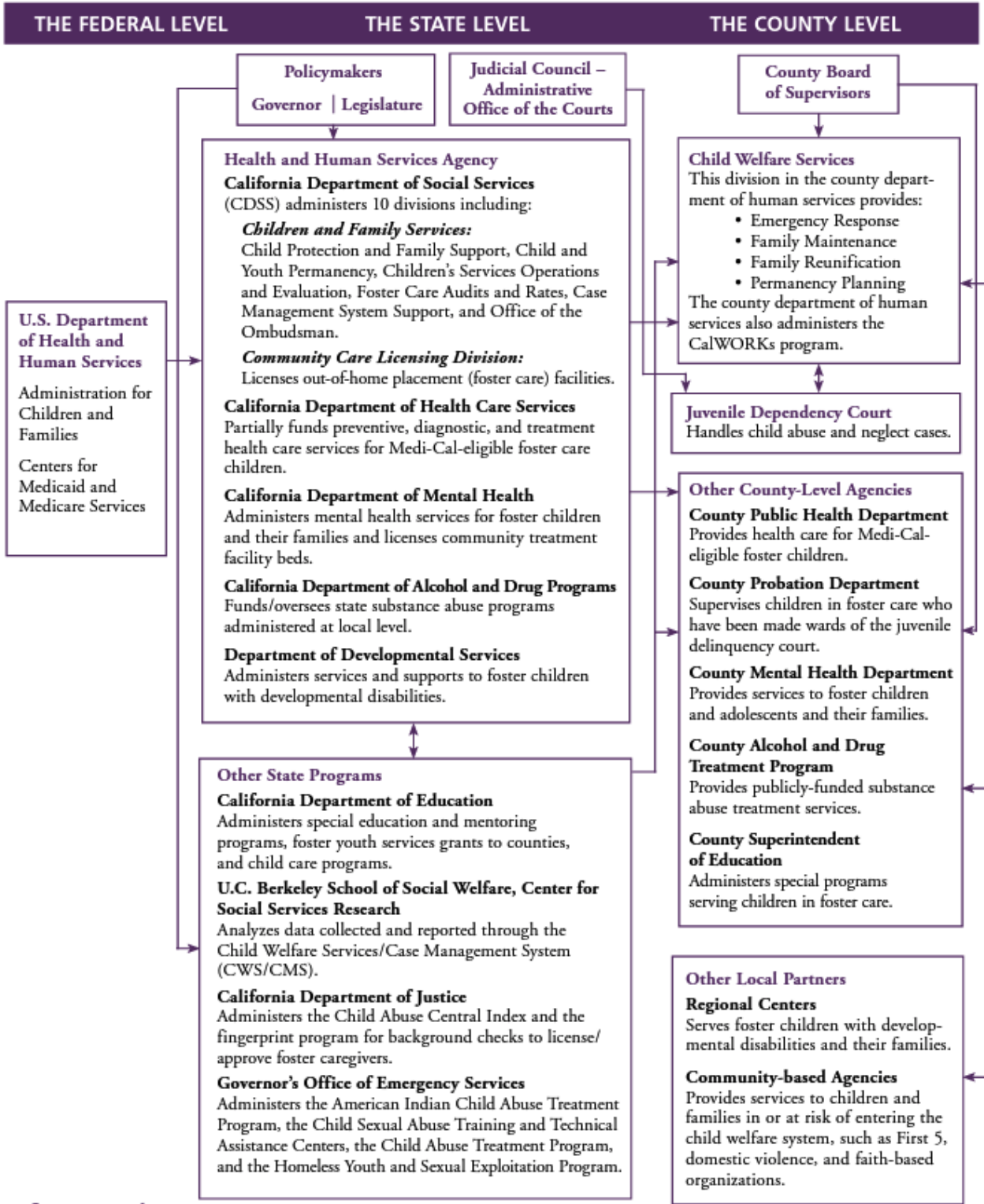
Williams, Nathaniel J., and Charles Glisson. “Reducing Turnover Is Not Enough: The Need for Proficient Organizational Cultures to Support Positive Youth Outcomes in Child Welfare.” *Children and Youth Services Review* 35, no. 11 (November 1, 2013): 10.1016/j.chilyouth.2013.09.002. <https://doi.org/10.1016/j.chilyouth.2013.09.002>.

## APPENDIX A

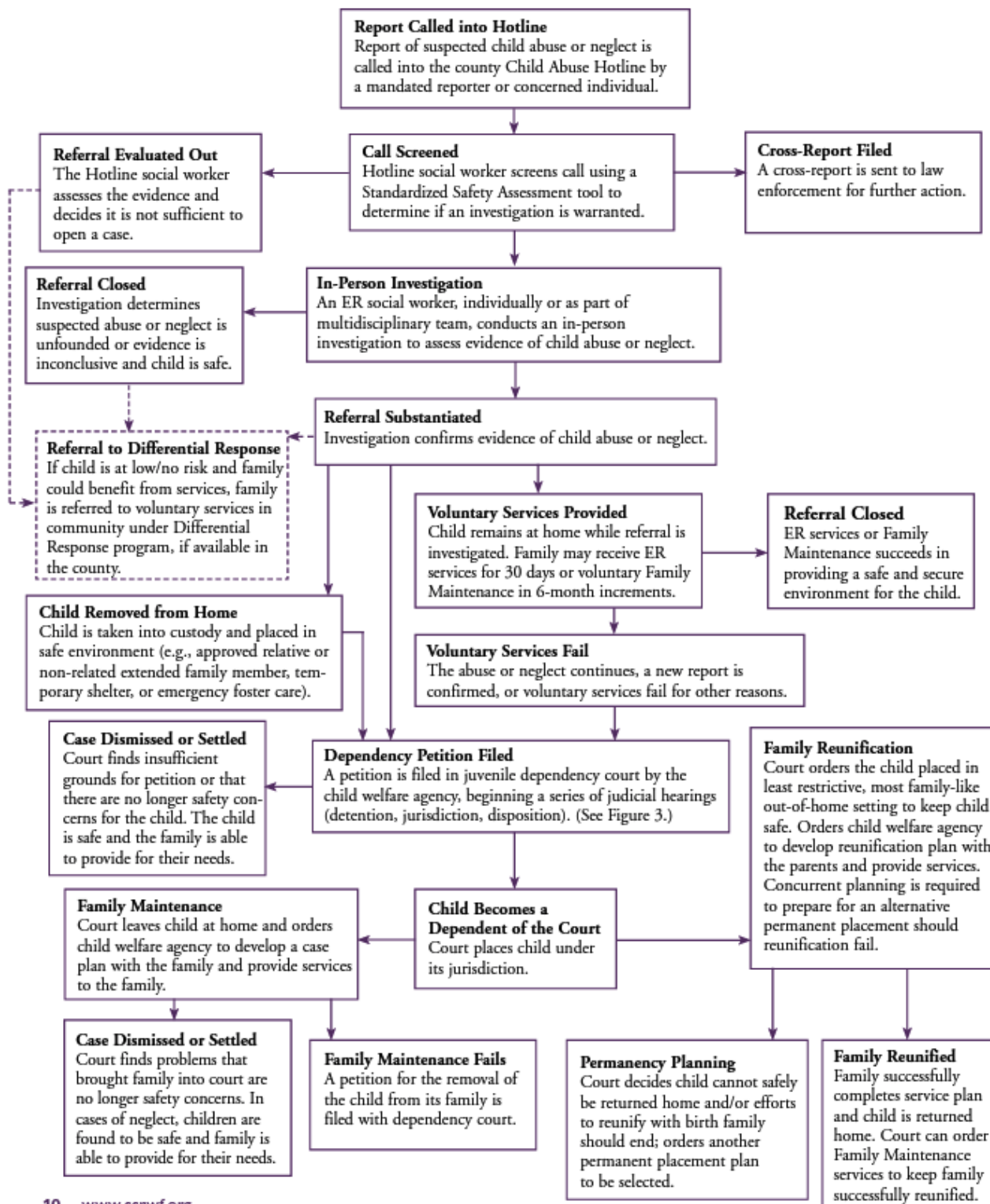
*Two figures are inserted on the following two pages about the Child Welfare System in California.*

Figure 5: California's Child Welfare System: Primary Institutions

Figure 6: Moving Through the Child Welfare System



Reed, D. F., & Karpilow, K. A. (2009). Understanding the child welfare system in California: A primer for service providers and policymakers (2nd ed.). Berkeley, CA: California Center for Research on Women and Families. Available on the CCRWF website: [www.ccrwf.org](http://www.ccrwf.org), Figure 1, 2.



Reed, D. F., & Karpilow, K. A. (2009). Understanding the child welfare system in California: A primer for service providers and policymakers (2nd ed.). Berkeley, CA: California Center for Research on Women and Families. Available on the CCRWF website: [www.ccrwf.org](http://www.ccrwf.org), Figure 2, 10.