

# A Birth Cohort Study of Involvement with Child Protective Services before Age 5

## Santa Barbara County, California

### INTRODUCTION

Much of what we know—or think we know—about risk factors for child abuse and neglect is based on cross-sectional and retrospective studies of children reported for maltreatment. Although these studies are useful for identifying and describing children reported for maltreatment, substantiated as victims, or placed in foster care, they do not offer information needed to understand how these children may (or may not) differ from other children in our communities. Without data concerning this broader population of children, we are unable to determine whether children with a particular combination of risk factors might have been identified or prioritized for early intervention services to prevent the conditions that led to involvement with child protective services.

Fortunately, the linkage and thoughtful configuration of administrative records can provide the necessary data for prevention focused studies. By linking CPS records to birth records from California, it is possible to answer prospective, population-based questions and generate information concerning the likelihood that children will be reported, substantiated, or placed in foster care because of maltreatment. In addition to providing information about the full population of children born in a given county and at risk of CPS involvement, birth records also include information not typically captured in administrative child protection systems, including infant weight at birth, maternal education, and whether paternity was established. Combining birth and CPS records allows us to better understand children involved with our local child protection systems and highlights opportunities

for being more strategic in our allocation and delivery of early intervention services.

#### Retrospective vs. Prospective Designs

The difference between a retrospective and prospective study design is a critical yet often misunderstood distinction. In a study with a retrospective design, individuals are sampled or studied because the outcome of interest has already occurred (e.g., a child has already been maltreated). They are selected based on the dependent variable. In contrast, a prospective study design identifies individuals who are at risk of the outcome and then follows them over time to see who does (and does not) experience the outcome. Prospective study designs can be employed using already collected, longitudinal administrative data.



### METHODOLOGY

This report series details findings from a project in which the birth records of all children born in California in 2006 and 2007 were matched to statewide child protection records through each child's fifth birthday. These linked records were then analyzed by county, allowing us to describe the characteristics of children at birth and generate longitudinal, cumulative estimates of how many children were involved with CPS during the first 5 years of life. Additionally, these data provide an opportunity to examine child- and family-level characteristics at a population level, helping us to identify attributes that are most

strongly correlated with later CPS-involvement. In this report, we document findings for Santa Barbara County, California.

#### Record Linkages 101

Quite simply, record linkage involves matching and integrating information about individuals (or other entities) from different data systems. An inherent limitation of administrative data is the scope of information contained in any one system. By linking records, it is possible to better understand the characteristics and trajectories of children over time and across service systems.



## FINDINGS

### Characteristics of Children Born (Table 1)

Table 1 presents descriptive information collected at birth for infants born during calendar years 2006 and 2007 in Santa Barbara County. The total number (N) of births and the percentage (%) of the county's full birth cohort are reported for different characteristics at birth. Given the strong relationship between socioeconomic status and CPS involvement, we also present this same descriptive information based on whether the cost of birth was covered by private or public health insurance.

- Between 2006 and 2007, 11,903 children were born.
- Although prenatal care began during the first trimester for a majority of children, 2,675 children (22.5%) were born to mothers who received prenatal care that started late or not at all.
- A plurality of children (67.3%) were born to mothers of Latina race/ethnicity (22.1% - US born / 45.2% - foreign born).
- A total of 11.7% of children were born to teen mothers.

- 7,172 births were paid for by public health insurance, 60.3% of all children born.
- Paternity was missing for 7.3% of children overall, but 10.1% among births covered by public health insurance compared with 3.1% of births covered by nonpublic insurance.

#### Selected Variables

##### ✓ Birth Weight

A measure of infant weight at the time of birth. Low birth weight is defined as <2500 grams.

##### ✓ Prenatal Care

A measure of the trimester that prenatal care began. Late prenatal care is defined as care that began after the first trimester or not at all.

##### ✓ Paternity Establishment

A measure of whether paternity was established at birth through the legal naming of a father on the birth record.

##### ✓ Number of Births

A measure of the number of live births to this mother. If this was a first birth, it was coded as one.

##### ✓ Prior Pregnancy Terminations

A measure of whether or not the mother had terminated any earlier pregnancies.

##### ✓ Birth Payment Method

A measure of how the birth was paid for. Non-public includes private health insurance companies and self-pay. Public refers to Medi-Cal and other forms of public health insurance coverage. In California, mothers who give birth without health insurance coverage are retroactively enrolled in a public program.

### Cumulative Number of Children Reported for Alleged Abuse or Neglect before Age 5 (Table 2)

Table 2 presents the cumulative number (N) and percentage (%) of children born in 2006 and 2007 who were reported to CPS for alleged abuse or neglect before age 5. These data are stratified by the sociodemographic and health characteristics listed in Table 1. Additionally, we present unadjusted and adjusted risk ratios (RRs) to compare the likelihood that children with different characteristics were reported to CPS before age 5. These estimates of relative risk are accompanied by 95% confidence intervals (95% CI); statistical significance is reported and described in the table endnotes.

- 1501 children were reported to CPS for alleged child abuse or neglect before the age of 5, 12.6% of children.
- Notable differences emerged in the likelihood of being reported to CPS. Overall, 16.7% of children who were low birth weight (< 2500g) were reported compared to 12.4% of children who were not. In relative terms, that meant that a low-birth-weight child had a 36% greater likelihood of being reported for abuse or neglect (RR: 1.36\*\*\*; 95% CI: 1.14, 1.61). After adjusting for other factors, the heightened risk associated with low birth weight diminished in magnitude, but was still statistically significant (RR: 1.21\*; 95% CI: 1.03, 1.42).
- An inverse relationship was observed between a child's risk of being reported for alleged maltreatment and maternal age. Among children born to teen mothers, 23.1% were reported. In contrast, only 7.7% of children born to a mother age 30 or older were reported. Before adjusting for other factors, children of teen mothers were 3 times as likely to be

reported to CPS as were those born to mothers 30 and older (RR: 3.00\*\*\*; 95% CI: 2.61, 3.45).

### Cumulative Number of Children with Substantiated Reports of Abuse or Neglect before Age 5 (Table 3)

Table 3 presents the cumulative number (N) and percentage (%) of children born in 2006 and 2007 who were substantiated as victims of abuse or neglect before age 5. These data are separated by sociodemographic and health characteristics. Unadjusted and adjusted RRs (and 95% CIs) are used to compare the likelihood of substantiation across children with different characteristics. Statistical significance is reported and described in the table endnotes.

- 511 children were substantiated as victims of abuse or neglect before age 5, 4.3% of all children born.
- Notable differences emerged in the likelihood of being substantiated as victims. Among children whose births were covered by public insurance, 6.0% were substantiated as victims of maltreatment before age 5, compared to 1.7% among children with non-public insurance. Before adjusting for other factors, public insurance was associated with a more than 4 times greater risk of substantiation (RR: 3.66\*\*\*; 95% CI: 2.89, 4.65). In the adjusted model, the risk ratio was attenuated (or weaker), but the relative difference was still large (RR: 2.83\*\*\*; 95% CI: 2.15, 3.73).
- Risk of substantiated maltreatment varied with the commencement of prenatal care. Although representing only a small percentage of births overall, nearly 1 in 8 children with no recorded prenatal care were subsequently substantiated for abuse or neglect, more than 3 times the rate of children whose prenatal care began during the first trimester before adjusting for other factors (RR: 3.40\*\*\*; 95% CI: 2.48, 4.65) and a nearly 2 times greater after adjustments were made (RR: 1.88\*\*\*; 95% CI: 1.41, 2.49).

#### Unadjusted and Adjusted Risk Ratios

In this report, risk is conceptualized as the statistical likelihood that a child will experience various levels of involvement with child protective services (i.e., reported, substantiated, entered foster care).

A risk ratio (RR) is a measure used to compare risk across children with different characteristics. An unadjusted RR provides a simple comparison of the likelihood that a child in group A was reported, substantiated, or entered foster care versus a child in group B.

An adjusted RR attempts to isolate the measureable relationship of a particular factor to the outcome. Adjusted RRs estimate relative differences in the likelihood that a child in group A was reported, substantiated, or entered foster care compared to a child in group B, while holding constant the influence of other factors.

An RR of 1.0 (or a 95% confidence interval that includes 1.0) indicates that there is no discernible difference in risk between group A and B. An RR larger than 1.0 indicates that group A has a greater risk than group B. Meanwhile an RR of less than 1.0 indicates that group A has a lower risk than group B.

### Cumulative Number of Children Placed in Foster Care before Age 5 (Table 4)

Table 4 presents the cumulative number (N) and percentage (%) of children born in 2006 and 2007 who entered an out-of-home foster care placement before age 5. These data are divided by sociodemographic and health characteristics. Unadjusted and adjusted RRs (and 95% CIs) are used to compare the likelihood of foster care entry across children with different characteristics. Statistical significance is reported and described in the table endnotes.

- 235 children spent time in foster care before age 5. This represents 2.0% of all children born.
- Characteristic differences emerged in the likelihood of being placed in foster care. Maternal education was strongly correlated with the likelihood of foster care placement before age 5. The cumulative percentage of children placed in foster care across levels of maternal education ranged from less than 1.0% of children born to college graduates compared to 2.5% of children whose mothers had not finished high school.
- Among children for whom paternity was not established, 8.8% entered foster care at some point before age 5. The comparable share of children entering foster care was 1.4% among those with established paternity. Overall, missing paternity was associated with an 6 times greater risk of foster care placement (RR: 6.08\*\*\*; 95% CI: 4.67, 7.93). After adjusting for other factors, the observed risk of foster care placement for children with missing paternity remained more than 2 times that of children with established paternity (RR: 2.50\*\*\*; 95% CI: 1.91, 3.28).

### County Comparison Findings (Table 5)

Table 5 serves as a summary table for California and all 58 counties, presenting the overall number of births (N) as well as the cumulative percentage (%) of children reported to CPS, substantiated as victims of maltreatment, and entering foster care before age 5.

- Overall, 1,085,745 children were born in California in 2006 and 2007.
- Infants born in Santa Barbara County represented 1.1% of births statewide.
- In California, 14.8% of children were reported to CPS, 5.1% were substantiated as victims of abuse or neglect, and 2.2% spent time in foster care before age 5.
- The cumulative percentage of children reported for alleged abuse or neglect ranged from less than 8.0% to more than 30.0% across California counties.
- The cumulative percentage of children substantiated as victims of abuse or neglect varied by county, from less than 2.0% to more than 16.0% of all children born.
- Across counties, the percentage of children who spent time in foster care before reaching their fifth birthday ranged from less than 0.5% to more than 7.0%.

#### Santa Barbara County Quick Facts

Percentage of Children Reported to CPS before Age 5



12.6%

Percentage of Children Substantiated before Age 5



4.3%

Percentage of Children Entering Foster Care before Age 5



2.0%

## IMPLICATIONS

Linked data for Santa Barbara County underscore that annual counts of children reported for maltreatment, substantiated as victims, and placed in foster care dramatically understate the number of children involved with the child protection system over time. In Santa Barbara, official cross-sectional data from 2013 indicate that 5.1% of children under age 5 were reported for maltreatment. However, when we longitudinally follow children from birth through age 5—data from the present report indicate that 12.6% of children were reported—significantly more children than previously appreciated.

Research increasingly points to children under age 5 as a population acutely vulnerable to the consequences of maltreatment. A better understanding of the sociodemographic and health characteristics of children most likely to experience abuse or neglect between birth and age 5 is critical to improving and garnering support for prevention efforts. Population-level knowledge concerning the distribution of risk can be leveraged to enable a strategic and equitable

matching of public resources to community need. Linked records can be used to develop automated triaging tools to ensure our most vulnerable children and families are prioritized for scarce service intervention slots.

## AUTHORS

Emily Putnam-Hornstein, PhD

Michael Mitchell, PhD

Ivy Hammond, BA

## ACKNOWLEDGMENTS

We would like to thank First 5 LA for their generous funding of this report and ongoing support for the linkage of data. We would also like to acknowledge colleagues at the California Department of Social Services, the California Child Welfare Indicators Project, and the Children's Data Network for assistance in the preparation of data underlying these analyses and in the development of this report.

## QUESTIONS?

Emily Putnam-Hornstein (ehornste@usc.edu)

## Children's Data Network

[www.datanetwork.org](http://www.datanetwork.org)

This research brief was published by The Children's Data Network, a university, agency, and community collaborative focused on the integration and application of data to inform programs and policies for children and their families. The Children's Data Network is funded by First 5 LA and the Conrad N. Hilton Foundation, housed at USC's School of Social Work, and includes a partnership with the California Child Welfare Indicators Project at UC Berkeley. The content of this brief is the sole responsibility of the authors and does not necessarily represent the opinions of the funders or other partners.

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**Table 1. Characteristics of Children born in Santa Barbara County by Birth Payment Method**

	Full Birth Cohort 2006 & 2007		Birth Payment Method			
	N	%	Public		Non-Public	
	N	%	N	%	N	%
<b>Gender</b>						
Female	5,810	48.8	3,540	49.4	2,270	48.0
Male	6,093	51.2	3,632	50.6	2,461	52.0
<b>Birth Weight</b>						
Normal	11,192	94.0	6,753	94.2	4,439	93.8
Low	711	6.0	419	5.8	292	6.2
<b>Birth Abnormality</b>						
None	10,714	90.0	6,386	89.0	4,328	91.5
One or More	1,189	10.0	786	11.0	403	8.5
<b>Prenatal Care</b>						
1st Trimester	9,228	77.5	4,982	69.5	4,246	89.8
2nd Trimester	1,994	16.8	1,644	22.9	350	7.4
3rd Trimester	347	2.9	312	4.4	35	0.7
None/Missing	334	2.8	234	3.3	100	2.1
<b>Paternity Establishment</b>						
Established	11,036	92.7	6,451	90.0	4,585	96.9
Missing	867	7.3	721	10.1	146	3.1
<b>Maternal Race/Ethnicity</b>						
White	3,283	27.6	820	11.4	2,463	52.1
Black	148	1.2	84	1.2	64	1.4
Latina, US-born	2,625	22.1	1,526	21.3	1,099	23.2
Latina, Foreign-born	5,382	45.2	4,618	64.4	764	16.2
Asian/Pacific Islander	426	3.6	99	1.4	327	6.9
Native American	39	0.3	25	0.4	14	0.3
<b>Maternal Age</b>						
≤ 19 yrs	1,388	11.7	1,225	17.1	163	3.5
20-24 yrs	3,034	25.5	2,343	32.7	691	14.6
25-29 yrs	3,121	26.2	1,888	26.3	1,233	26.1
30+ yrs	4,360	36.6	1,716	23.9	2,644	55.9
<b>Maternal Education</b>						
< HS	5,157	43.3	4,407	61.5	750	15.9
HS or GED	2,391	20.1	1,518	21.2	873	18.5
Some College	1,989	16.7	859	12.0	1,130	23.9
College+	2,366	19.9	388	5.4	1,978	41.8
<b>Number of Births</b>						
One	4,525	38.0	2,529	35.3	1,996	42.2
Two	3,636	30.6	2,087	29.1	1,549	32.7
Three+	3,742	31.4	2,556	35.6	1,186	25.1
<b>Prior Pregnancy Terminations</b>						
None	10,218	85.8	6,213	86.6	4,005	84.7
One+	1,685	14.2	959	13.4	726	15.4
<b>Birth Payment Method</b>						
Non-Public	4,731	39.8	--	--	--	--
Public	7,172	60.3	--	--	--	--

**Table Notes:**

1. Cell sizes < 10 masked as indicated by [--].
2. Table based on the full population of children born in a given county in 2006 and 2007.

Table 2. Characteristics and Comparisons of Children born in Santa Barbara County & Reported to CPS

	Reported to CPS		Risk Comparisons			
	Before Age 5		Unadjusted		Adjusted	
	N	%	RR	95% CI	RR	95% CI
<b>Gender</b>						
Female	735	12.7	ref.	---	ref.	---
Male	766	12.6	0.99	(0.90, 1.09)	1.02	(0.93, 1.11)
<b>Birth Weight</b>						
Normal	1,382	12.4	ref.	---	ref.	---
Low	119	16.7	1.36***	(1.14, 1.61)	1.21*	(1.03, 1.42)
<b>Birth Abnormality</b>						
None	1,318	12.3	ref.	---	ref.	---
One or More	183	15.4	1.25**	(1.08, 1.44)	1.07	(0.93, 1.23)
<b>Prenatal Care</b>						
1st Trimester	1,020	11.1	ref.	---	ref.	---
2nd Trimester	320	16.1	1.45***	(1.29, 1.63)	1.05	(0.94, 1.18)
3rd Trimester	75	21.6	1.96***	(1.59, 2.41)	1.22	(1.00, 1.50)
None/Missing	86	25.8	2.33***	(1.92, 2.82)	1.45***	(1.21, 1.73)
<b>Paternity Establishment</b>						
Established	1,207	10.9	ref.	---	ref.	---
Missing	294	33.9	3.10***	(2.79, 3.45)	1.82***	(1.63, 2.03)
<b>Maternal Race/Ethnicity</b>						
White	375	11.4	ref.	---	ref.	---
Black	43	29.1	2.54***	(1.94, 3.33)	1.12	(0.87, 1.43)
Latina, US-born	558	21.3	1.86***	(1.65, 2.10)	0.83**	(0.74, 0.94)
Latina, Foreign-born	490	9.1	0.80***	(0.70, 0.91)	0.30***	(0.26, 0.35)
Asian/Pacific Islander	20	4.7	0.41***	(0.27, 0.64)	0.49**	(0.32, 0.76)
Native American	15	38.5	3.37***	(2.24, 5.06)	1.52*	(1.05, 2.18)
<b>Maternal Age</b>						
≤ 19 yrs	321	23.1	3.00***	(2.61, 3.45)	2.07***	(1.73, 2.49)
20-24 yrs	494	16.3	2.11***	(1.85, 2.41)	1.47***	(1.27, 1.69)
25-29 yrs	350	11.2	1.46***	(1.26, 1.68)	1.13	(0.99, 1.30)
30+ yrs	336	7.7	ref.	---	ref.	---
<b>Maternal Education</b>						
< HS	796	15.4	5.62***	(4.38, 7.20)	3.66***	(2.74, 4.88)
HS or GED	394	16.5	6.00***	(4.64, 7.75)	3.18***	(2.40, 4.21)
Some College	246	12.4	4.50***	(3.45, 5.88)	2.54***	(1.92, 3.36)
College+	65	2.8	ref.	---	ref.	---
<b>Number of Births</b>						
One	499	11.0	ref.	---	ref.	---
Two	408	11.2	1.02	(0.90, 1.15)	1.35***	(1.19, 1.53)
Three+	594	15.9	1.44***	(1.29, 1.61)	1.97***	(1.72, 2.25)
<b>Prior Pregnancy Terminations</b>						
None	1,251	12.2	ref.	---	ref.	---
One+	250	14.8	1.21**	(1.07, 1.37)	1.12	(0.99, 1.26)
<b>Birth Payment Method</b>						
Non-Public	279	5.9	ref.	---	ref.	---
Public	1,222	17.0	2.89***	(2.55, 3.27)	2.28***	(1.97, 2.64)

**Table Notes:**

1. RR = Risk Ratio; 95% CI = 95% Confidence Interval; ref = Reference group for Risk Ratio calculations; [---] indicates no corresponding statistic given reference group status.
2. Cell sizes < 10 masked as indicated by [---]; statistical significance denoted as:  $P < .05^*$ ;  $P < .01^{**}$ ;  $P < .001^{***}$ .

**Table 3. Characteristics and Comparisons of Children born in Santa Barbara County & Substantiated**

	Substantiated Before Age 5		Risk Comparisons			
	N	%	Unadjusted		Adjusted	
			RR	95% CI	RR	95% CI
<b>Gender</b>						
Female	245	4.2	ref.	---	ref.	---
Male	266	4.4	1.04	(0.87,1.23)	1.07	(0.91,1.26)
<b>Birth Weight</b>						
Normal	466	4.2	ref.	---	ref.	---
Low	45	6.3	1.52**	(1.13,2.04)	1.17	(0.87,1.57)
<b>Birth Abnormality</b>						
None	434	4.1	ref.	---	ref.	---
One or More	77	6.5	1.60***	(1.26,2.02)	1.33*	(1.06,1.66)
<b>Prenatal Care</b>						
1st Trimester	317	3.4	ref.	---	ref.	---
2nd Trimester	117	5.9	1.71***	(1.39,2.10)	1.22	(0.99,1.50)
3rd Trimester	38	11.0	3.19***	(2.32,4.39)	1.90***	(1.39,2.60)
None/Missing	39	11.7	3.40***	(2.48,4.65)	1.88***	(1.41,2.49)
<b>Paternity Establishment</b>						
Established	385	3.5	ref.	---	ref.	---
Missing	126	14.5	4.17***	(3.45,5.03)	1.99***	(1.64,2.42)
<b>Maternal Race/Ethnicity</b>						
White	128	3.9	--	--	--	--
Black	21	14.2	--	--	--	--
Latina, US-born	239	9.1	--	--	--	--
Latina, Foreign-born	110	2.0	--	--	--	--
Asian/Pacific Islander	<10	--	--	--	--	--
Native American	<10	--	--	--	--	--
<b>Maternal Age</b>						
≤ 19 yrs	105	7.6	3.05***	(2.35,3.97)	1.77**	(1.25,2.51)
20-24 yrs	163	5.4	2.17***	(1.71,2.75)	1.24	(0.95,1.60)
25-29 yrs	135	4.3	1.75***	(1.36,2.24)	1.17	(0.93,1.49)
30+ yrs	108	2.5	ref.	---	ref.	---
<b>Maternal Education</b>						
< HS	272	5.3	--	--	--	--
HS or GED	138	5.8	--	--	--	--
Some College	93	4.7	--	--	--	--
College+	<10	--	--	--	--	--
<b>Number of Births</b>						
One	144	3.2	ref.	---	ref.	---
Two	139	3.8	1.20	(0.96,1.51)	1.65***	(1.29,2.11)
Three+	228	6.1	1.91***	(1.56,2.35)	2.48***	(1.92,3.19)
<b>Prior Pregnancy Terminations</b>						
None	410	4.0	ref.	---	ref.	---
One+	101	6.0	1.49***	(1.21,1.85)	1.24*	(1.01,1.53)
<b>Birth Payment Method</b>						
Non-Public	78	1.7	ref.	---	ref.	---
Public	433	6.0	3.66***	(2.89,4.65)	2.83***	(2.15,3.73)

**Table Notes:**

1. RR = Risk Ratio; 95% CI = 95% Confidence Interval; ref = Reference group for Risk Ratio calculations; [---] indicates no corresponding statistic given reference group status.
2. Cell sizes < 10 masked as indicated by [--]; statistical significance denoted as: *P* < .05\*; *P* < .01\*\*; *P* < .001\*\*\*.



**Table 4. Characteristics and Comparisons of Children born in Santa Barbara County & Placed in Foster Care**

	Placed in Care Before Age 5		Risk Comparisons			
	N	%	Unadjusted RR	95% CI	Adjusted RR	95% CI
<b>Gender</b>						
Female	114	2.0	ref.	---	ref.	---
Male	121	2.0	1.01	(0.79,1.30)	1.07	(0.84,1.37)
<b>Birth Weight</b>						
Normal	207	1.9	ref.	---	ref.	---
Low	28	3.9	2.13***	(1.45,3.14)	1.47	(0.99,2.18)
<b>Birth Abnormality</b>						
None	193	1.8	ref.	---	ref.	---
One or More	42	3.5	1.96***	(1.41,2.72)	1.49*	(1.09,2.05)
<b>Prenatal Care</b>						
1st Trimester	136	1.5	ref.	---	ref.	---
2nd Trimester	61	3.1	2.08***	(1.54,2.80)	1.43*	(1.06,1.93)
3rd Trimester	16	4.6	3.13***	(1.88,5.19)	1.64*	(1.01,2.68)
None/Missing	22	6.6	4.47***	(2.89,6.92)	2.17***	(1.45,3.26)
<b>Paternity Establishment</b>						
Established	159	1.4	ref.	---	ref.	---
Missing	76	8.8	6.08***	(4.67,7.93)	2.50***	(1.91,3.28)
<b>Maternal Race/Ethnicity</b>						
White	69	2.1	--	--	--	--
Black	12	8.1	--	--	--	--
Latina, US-born	122	4.7	--	--	--	--
Latina, Foreign-born	31	0.6	--	--	--	--
Asian/Pacific Islander	<10	--	--	--	--	--
Native American	<10	--	--	--	--	--
<b>Maternal Age</b>						
≤ 19 yrs	45	3.2	2.83***	(1.90,4.21)	1.30	(0.76,2.23)
20-24 yrs	76	2.5	2.18***	(1.53,3.11)	1.06	(0.73,1.54)
25-29 yrs	64	2.1	1.79**	(1.24,2.58)	1.13	(0.80,1.60)
30+ yrs	50	1.2	ref.	---	ref.	---
<b>Maternal Education</b>						
< HS	129	2.5	--	--	--	--
HS or GED	63	2.6	--	--	--	--
Some College	41	2.1	--	--	--	--
College+	<10	--	--	--	--	--
<b>Number of Births</b>						
One	65	1.4	ref.	---	ref.	---
Two	56	1.5	1.07	(0.75,1.53)	1.45	(0.97,2.15)
Three+	114	3.1	2.12***	(1.57,2.87)	2.44***	(1.63,3.65)
<b>Prior Pregnancy Terminations</b>						
None	179	1.8	ref.	---	ref.	---
One+	56	3.3	1.90***	(1.41,2.55)	1.43*	(1.07,1.93)
<b>Birth Payment Method</b>						
Non-Public	26	0.6	ref.	---	ref.	---
Public	209	2.9	5.30***	(3.53,7.96)	4.21***	(2.66,6.68)

**Table Notes:**

1. RR = Risk Ratio; 95% CI = 95% Confidence Interval; ref = Reference group for Risk Ratio calculations; [---] indicates no corresponding statistic given reference group status.
2. Cell sizes < 10 masked as indicated by [--]; statistical significance denoted as: *P* < .05\*; *P* < .01\*\*; *P* < .001\*\*\*.

Table 5. Summary of County Data for California: Children Born in 2006/2007 and Reported to Child Protective Services, Substantiated as Victims, or Entering Foster Care before Age 5

County of Birth	Births 2006 & 2007	% Reported	% Substantiated	% Entering Foster Care
California	1,085,745	14.8%	5.1%	2.2%
Alameda	42,000	10.7%	2.9%	1.6%
Alpine	--	--	--	--
Amador	619	24.4%	7.8%	3.2%
Butte	5,940	25.1%	10.3%	5.7%
Calaveras	107	41.1%	16.8%	--
Colusa	456	14.5%	5.7%	3.5%
Contra Costa	23,219	10.3%	3.4%	1.4%
Del Norte	709	28.3%	15.2%	6.8%
El Dorado	2,403	19.7%	9.7%	4.7%
Fresno	35,056	19.2%	5.0%	2.7%
Glenn	--	--	--	--
Humboldt	3,202	22.3%	7.1%	3.4%
Imperial	6,205	13.2%	5.4%	2.8%
Inyo	451	16.4%	3.5%	--
Kern	28,099	22.3%	10.7%	4.3%
Kings	5,182	16.6%	5.0%	3.2%
Lake	1,084	27.1%	8.5%	5.4%
Lassen	453	21.9%	7.9%	3.8%
Los Angeles	310,700	14.6%	5.2%	2.4%
Madera	4,014	22.0%	9.0%	5.1%
Marin	3,451	9.8%	3.2%	0.8%
Mariposa	--	--	--	--
Mendocino	1,980	23.3%	11.1%	4.1%
Merced	6,804	21.6%	7.6%	3.9%
Modoc	--	--	--	--
Mono	279	7.9%	--	--
Monterey	14,196	8.9%	2.4%	1.0%
Napa	2,593	11.2%	3.5%	1.7%
Nevada	1,990	14.2%	4.3%	2.0%
Orange	93,963	11.5%	4.9%	1.4%
Placer	6,771	13.8%	5.2%	1.7%
Plumas	210	23.3%	10.5%	--
Riverside	57,031	18.3%	7.1%	3.5%
Sacramento	47,277	17.1%	6.5%	3.2%
San Benito	1,191	17.0%	6.3%	2.9%
San Bernardino	57,807	17.4%	5.3%	2.6%
San Diego	85,349	15.9%	5.0%	1.8%
San Francisco	25,776	8.2%	2.6%	1.3%
San Joaquin	21,183	17.4%	6.1%	2.2%
San Luis Obispo	5,445	17.3%	5.1%	2.1%
San Mateo	10,599	6.0%	1.3%	0.5%
Santa Barbara	11,903	12.6%	4.3%	2.0%
Santa Clara	56,832	9.8%	2.4%	1.2%

County of Birth	Births 2006 & 2007	% Reported	% Substantiated	% Entering Foster Care
Santa Cruz	7,379	14.3%	4.7%	1.9%
Shasta	4,556	27.6%	12.9%	6.6%
Sierra	--	--	--	--
Siskiyou	805	30.7%	13.5%	5.7%
Solano	10,978	15.2%	4.0%	1.5%
Sonoma	11,397	10.3%	3.9%	1.2%
Stanislaus	19,632	16.9%	6.3%	1.4%
Sutter	4,481	18.4%	6.8%	2.6%
Tehama	1,412	30.7%	11.8%	7.1%
Trinity	--	--	--	--
Tulare	14,900	18.8%	5.0%	2.6%
Tuolumne	1,169	23.9%	9.5%	4.4%
Ventura	21,713	13.0%	2.8%	1.4%
Yolo	4,097	12.8%	4.6%	2.1%
Yuba	--	--	--	--

Table Notes:

1. Cell sizes < 10 masked as indicated by [--].