A Descriptive Analysis of the Child Protection Histories of Youth and Young Adults Arrested in California

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Abstract
In this study, we use population-based linked administrative data to document the full child protective service (CPS) histories of arrested youth and young adults. We extracted records for all individuals aged 24 and under who were arrested in California in 2014 and 2015. These records were probabilistically linked to statewide CPS records dating back to 1998. Overall, 43.4% of those arrested had a history of CPS involvement. Among individuals with uncensored CPS records (born in 1998 or later), 60.2% had past CPS involvement. Findings indicate that youth and young adults booked for a felony offense were more likely to have a history of CPS involvement than those booked for misdemeanors. A multinomial model served to confirm bivariate findings. This study provides further evidence that community concerns of childhood maltreatment were common among criminal justice-involved young adults.

Keywords
maltreatment, criminal justice, epidemiology

Background
A growing body of literature documents a strong relationship between childhood maltreatment and criminal justice involvement (Allwood & Widom, 2013; Derzon, 2010; Jung, Herrenkohl, Klika, Lee, & Brown, 2015; Thornberry, Henry, Ireland, & Smith, 2010; Widom & Maxfield, 2001). As such, among individuals involved with the justice system, we would expect to see high rates of childhood involvement with the child protection system. Studies largely support this claim (Jonson-Reid & Way, 2001; King et al., 2011; Malvaso, Delfabbro, Day, & Nobes, 2018; Ryan, Williams, & Courtney, 2013) but have generally focused on incarcerated populations. Incarcerated individuals, however, comprise only a small proportion of those involved with the criminal justice system. Likewise, many more children have contact with child protective services (CPS) than those who are placed in foster care or have a case opened for services (U.S. Department of Health & Human Services, 2018). By focusing only on individuals with the deepest penetration into CPS and criminal justice, prior research only provides a partial picture of the true overlap of individuals in these two systems.

A second limitation to existing research is that, although there are notable exceptions (Jonson-Reid & Way, 2001; King et al., 2011; Ryan et al., 2013), prior studies have largely relied on self-report surveys. Yet research concerning public service interactions suggests that benefits are often underreported and can be more accurately measured using administrative data (Meyer & Mittag, 2019). In the case of CPS involvement, self-report data may be particularly prone to measurement error given childhood interactions individuals may not even be aware of (e.g., that they were reported as a potential victim of abuse or neglect).

In the current study, we extend the literature to develop a more complete understanding of child protection histories among youth with broader criminal justice contact (i.e., youth and young adults who were arrested but not necessarily incarcerated). Specifically, we used administrative records from California to identify all youth aged 24 and under who were arrested and booked in 2014 and 2015. We then linked these individuals to child protection records dating back to 1998. Using these data, we documented the proportion and characteristics of criminal justice-involved youth and young adults with varying degrees of past CPS involvement.

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Method

Data

Records for all individuals aged 24 years and under who were arrested and booked in California between 2014 and 2015 ($N=394,377$) were extracted from the California Department of Justice’s Automated Criminal History System (ACHS). We then linked this universe of records to a statewide extract of child protection records from California’s Child Welfare Services Case Management System (CWS-CMS), which contains information dating back to 1998. After cleaning and coding both ACHS and CWS-CMS data, we probabilistically matched records at the person level using a combination of unique (i.e., Social Security number) and nonunique (i.e., first name, middle name, last name, date of birth) identifiers common to records in both files to identify all arrestees with a maltreatment allegation. We subjected matched pairs to a clerical review to determine upper and lower bound probability score thresholds for designating a matched pair as a “true match” or a “false match.” We employed a more intensive clerical review process to assign match status to all record pairs falling in the gray area between defined score thresholds. After records were matched, we removed all identifying information and created a restricted research data set for analysis. Permissions to access records fell under data use and research agreements between the University of Southern California and both the California Department of Justice and Department of Social Services. All data processing and analytic activities were approved by both state and university human subject review boards and adhered to strict requirements for data security to ensure the confidentiality of individuals.

Variables

Using fields from the ACHS data, we descriptively characterized the population by race/ethnicity (non-Hispanic Black, Hispanic, non-Hispanic White, non-Hispanic Other/missing), sex (male, female), and year of most recent arrest (2014, 2015). Demographic data were stratified by offense type to document whether an individual had been booked for a felony offense during the window of observation or whether they had only been booked for misdemeanor offenses (felony, misdemeanor). A felony is a legal classification of a serious crime punishable by no less than 1 year in jail; a misdemeanor offense is a crime considered to be a less serious offense and punishable by up to 12 months in jail. Individuals who were arrested and booked are hereafter simply referred to as “arrested.”

Child protection records were left censored to 1998 due to a transition between state case management systems. This meant that we only had complete (childhood) referrals of abuse or neglect for youth who were born during or after 1998. Figure 1 displays the frequency of the age at first report for individuals with left-censored data (born before 1998) and for those with complete records (individuals born in or after 1998). To address methodological censoring, we stratified our population by birth year and separately present findings for individuals with and without complete CPS histories (born 1998+, born before 1998).

Information concerning childhood CPS involvement was used to classify the full universe of arrested individuals into one of four, hierarchically structured, groups: (1) youth without any history of CPS involvement, (2) youth with one or more unsubstantiated reports of alleged maltreatment but who were never substantiated or placed in foster care, (3) youth with one or more reports of substantiated maltreatment allegations but who were never placed in foster care, and (4) youth who were placed in foster care due to maltreatment. Unsubstantiated maltreatment allegations included all allegation types (e.g., neglect, physical abuse, sexual abuse) regardless of whether the allegation was screened in for investigation. To be coded as having been substantiated for maltreatment, a youth must have had at least one report where a caseworker formally substantiated an allegation having determined that there was sufficient evidence maltreatment occurred. Foster care placement was defined as a removal from the home and placement in out-of-home foster care under the supervision of child welfare services.

Analysis

We computed descriptive statistics to characterize the demographics of arrestees overall and by the level of childhood CPS involvement (no history, unsubstantiated allegations, substantiated allegations, foster care placement). Statistically significant bivariate differences between arrestees based on the level of CPS involvement were assessed using $\chi^2$ tests. Additionally, we constructed a multinomial logistic regression...
model to assess the relationship between CPS involvement for arrestees and their demographic and arrest characteristics. We present results as relative risk ratios with corresponding 95% confidence intervals (CIs).

### Results

In 2014 and 2015, 394,377 unique individuals aged 24 years and under were arrested and booked for a misdemeanor or felony crime in California. As presented in Table 1, three quarters (74.6%) of arrestees were male; two thirds (66.2%) were non-Hispanic Black or Hispanic. A majority (84.8%) of those arrested were nonminor young adults (i.e., older than 18). The mean age of arrestees was 20.5 (SD 3.0) and the minimum age was 13 (data not presented). Individuals were divided almost evenly between those arrested for misdemeanors only (51.5%) and those arrested for at least one felony (48.5%). The mean number of arrests during the study window was 3.1 (SD 4.1).

Overall, 43.4% of arrestees had a history of CPS involvement. One quarter had a history defined by unsubstantiated maltreatment allegation only, 9.6% had been substantiated as victims of maltreatment but had never been placed in out-of-home care, and 9.4% had a history of foster care placement. The birth cohort for which we have uncensored maltreatment records (arrestees born in or after 1998, \( n = 41,853 \)) was significantly more likely to have a CPS history (60.2%) in comparison to individuals born before 1998 with censored data (41.3%). Specifically, 30.1% of arrestees had a history of multiple types of alleged maltreatment, more than half had a prior physical abuse allegation (51.6%), and 1 in 10 had been reported for at least one allegation of sexual abuse (9.9%). Among all arrested youths, 26.7% had a history of placement in foster care, and 9.4% had a history of foster care placement. Although not presented in the tables, among individuals with a history of maltreatment allegations, more than half had a prior physical abuse allegation (51.6%), and 1 in 10 had been reported for at least one allegation of sexual abuse (9.9%). Among all arrested youth, 26.7% had a history of multiple types of alleged maltreatment; among those born in or after 1998, the proportion with multiple maltreatment types alleged was 44.1%. Among those with a history of CPS involvement, a majority (59.6%) were first reported as victims of child abuse or neglect before age 10.
Table 2. Multinomial Logistic Regression Model Estimating the Risk of CPS Involvement Among Arrested Youth and Young Adults.

<table>
<thead>
<tr>
<th>No CPS Involvement (Base Outcome)</th>
<th>Multinomial Logistic Regressions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unsubstantiated Allegations (n = 96,406)</td>
</tr>
<tr>
<td></td>
<td>RRR</td>
</tr>
<tr>
<td>Birth year cohort</td>
<td></td>
</tr>
<tr>
<td>Born 1998+ (vs. born before 1998)</td>
<td>1.90*** [1.86, 1.96]</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic White</td>
<td>Ref.</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>1.79*** [1.75, 1.84]</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.05*** [1.03, 1.07]</td>
</tr>
<tr>
<td>Non-Hispanic Other/missing</td>
<td>0.68*** [0.66, 0.70]</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Female (vs. male)</td>
<td>1.55*** [1.53, 1.58]</td>
</tr>
<tr>
<td>Number of arrests</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Ref.</td>
</tr>
<tr>
<td>2</td>
<td>1.08*** [1.06, 1.11]</td>
</tr>
<tr>
<td>3+</td>
<td>1.45*** [1.42, 1.47]</td>
</tr>
<tr>
<td>Offense type</td>
<td></td>
</tr>
<tr>
<td>Felony (vs. misdemeanor)</td>
<td>1.47*** [1.44, 1.49]</td>
</tr>
</tbody>
</table>

Note. Relative risk ratios (RRR) and corresponding 95% confidence intervals (CIs) are presented.
*p < .05, **p < .01, ***p < .001.

Racial/ethnic differences emerged across all levels of CPS involvement, mirroring state, and national patterns of racial disparities (Webster et al., 2018; U.S. Department of Health & Human Services, 2018). Among non-Hispanic Black youth and young adults, 60.7% had a history of involvement (30.5% had an unsubstantiated allegation only, 11.4% a substantiated allegation, 18.8% a history of foster care placement). Although not presented in tables, among non-Hispanic Black youth in the uncensored cohort, fully 72.1% had a history of CPS involvement; nearly one quarter (23.0%) had been removed and placed in foster care. Although females made up only one fourth of arrestees, 51.2% of arrested females had a history of CPS involvement, compared to 40.7% of arrested males. Female arrestees were significantly more likely than their male counterparts to have experienced all levels of child protection involvement. Indications of childhood maltreatment (i.e., child protection involvement) were also more common among those arrested for more serious offenses. Approximately half of felony arrestees had a history of CPS involvement, compared to one third of misdemeanor arrestees. Similarly, a larger proportion of felony arrestees had past allegations, substantiations, and foster care placement.

Findings from the multinomial logistic regression model (Table 2) served to confirm bivariate descriptive associations reported and to further quantify relative risk differences between arrestees based on levels of CPS involvement. Non-Hispanic Black arrestees had a consistently greater risk of CPS involvement relative to non-Hispanic White arrestees. After adjusting for other factors, female youth and young adults were significantly more likely to have been CPS involved than male arrestees (p < .001). Compared to misdemeanor arrestees, and after adjusting for other factors, felony arrestees were observed to have a greater risk of having a history of unsubstantiated allegations, substantiations, and foster care placements. Relative risk increased across levels of CPS involvement.

**Discussion**

We used administrative records to document childhood CPS involvement among a population of arrested youth and young adults. Previous attempts to understand the histories of child protection involvement among criminal justice–involved individuals have been largely limited to the subset of arrestees who were incarcerated, were based on relatively small populations, or relied on self-report surveys with samples of unknown generalizability. The current study provides further evidence that childhood abuse and neglect (and child protection involvement) was a typical experience for criminal justice–involved youth and young adults. More often than not, identification as an alleged victim of maltreatment occurred relatively early in childhood and was not infrequently chronic in nature. Among the uncensored birth year cohort, nearly two thirds of youth and young adults had a history of CPS involvement; the mean age of first report was 5.4 (SD 4.6; not reported). Multiple reports of alleged maltreatment, of varying types, were common.

Not surprisingly, histories of unsubstantiated maltreatment allegations, substantiations, and foster care placement for arrestees in our data are higher than the general population of U.S. children. Cumulative childhood rates suggest that approximately one third of children will experience a CPS investigation for suspected child abuse or neglect (Kim, Wildeman, Jonson-Reid, & Drake, 2017). 12.5% will be substantiated as a victim (Wildeman et al., 2014), and 5.9% will be removed from caregivers and placed in foster care (Wildeman...
& Emanuel, 2014). Rates of CPS involvement for our population of arrestees with uncensored data (our closest approximation to a lifetime estimate) were roughly twice those in the general population when defined as referrals and substantiations and three times that of the general population for foster care placement.

The present investigation indicates a relationship between the level of arrest offense and the likelihood of CPS involvement. Youth and young adults arrested for a felony offense had a higher likelihood of a history of past child protection involvement compared to those who were arrested for misdemeanors only. Our multinomial regression model showed that the risk increased across levels of CPS involvement. This aligns with research suggesting that those with a history of maltreatment and foster care placements are more likely to commit an offense at an earlier age, spend more time incarcerated, and offend more often in comparison to youth without a history of a foster care placement (Yang, McCuish, & Corrado, 2017). A large proportion of the uncensored, full birth cohort also had a history of multiple allegation types, suggesting CPS contact was chronic for many arrestees. The prevalence of contact with CPS among arrestees speaks to the significance of childhood experiences as they relate to adolescent and young adult outcomes.

Aligning with studies that attempt to quantify the long-term costs of child maltreatment (Fang, Brown, Florence, & Mercy, 2012), these data support that downstream costs that accrue through the criminal justice system can be tied to childhood experiences of abuse and neglect. While it is unknown what proportion of youth with maltreatment allegations today will go on to experience criminal justice involvement, our data show that the majority of arrestees from a historical full birth year cohort had childhood involvement with the child protection system. Our findings underscore the relative ease with which linked administrative data can be used to document the cost and consequences of cross-system involvement. This knowledge can guide more comprehensive prevention strategies and improve the identification of strategic points for intervention.

From a methodological perspective, the difference between censored and uncensored cohorts in our study highlights the importance and challenges of accounting for differences in the availability of longitudinal data. We found that our uncensored cohort of arrestees had significantly higher rates of CPS involvement, earlier contact, and multiple allegation types. Our uncensored cohort, however, was also defined by the fact that to show up in our data, each individual had to have experienced a juvenile arrest (i.e., was under the age of 18). This age dynamic almost certainly confounds comparisons to modestly older arrestees in our study. Just as we had left-censored CPS observations for older young adult arrestees, we were also unable to observe their criminal justice involvement prior to 2014. Our study serves as an important reminder that in the context of censored records, researchers must consider possible adjustments and make appropriate qualifications to improve accuracy and ensure that the proper conclusions are drawn.

Other limitations must also be considered when interpreting estimates produced from our study. Youth and young adults who were arrested for a crime, but not booked, are not included in our population. It is unknown what demographic or geographic factors may influence booking decisions, especially for youth who may have recent or current CPS involvement (Ryan, Herz, Hernandez, & Marshall, 2007; Tam, Abrams, Freisthler, & Ryan, 2016). Additionally, it bears noting that child protection data cannot provide the true prevalence of child maltreatment given that not all instances of abuse and neglect come to the attention of CPS and not all reports made to CPS reports constitute true maltreatment. Records were restricted to California. As such, youth and young adults arrested for a crime in California, but involved with the child protection system in another state, would be incorrectly coded.

**Conclusion**

Our results highlight the association between CPS and criminal justice involvement, while also demonstrating how linked administrative data can provide a more complete picture of the overlap between criminal justice–involved youth and young adults and the child welfare system. A better understanding of youth and young adults who become involved in the justice system serves to not only improve programs and practices for youth arrestees but also facilitates the development of upstream strategies aimed at preventing justice involvement in the first place. Additional cross-sectional and prospective, longitudinal studies are needed to more accurately assess the true overlap between the child protection and criminal justice systems and the degree to which alleged or substantiated maltreatment influences the likelihood of future criminal justice involvement.

**Authors’ Note**

Although the findings reported and conclusions drawn from these data are solely those of the authors and should not be considered to reflect those of any agency of the California government, this analysis would not be possible without the partnership of the California Department of Justice, Department of Social Services, and the county child welfare departments, reflecting their ongoing commitment to data-driven program and policy development.

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