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Intersections of Family Homelessness, CPS Involvement, and Race in Alameda County, California

Jason M. Rodriguez^a and Marybeth Shinn^a

Jason M. Rodriguez: jason.m.rodriguez@vanderbilt.edu; Marybeth Shinn: beth.shinn@vanderbilt.edu

^aVanderbilt University, Peabody #90, 230 Appleton Place, Nashville, Tennessee 37203-5721, United States of America

Abstract

The homelessness and child protective services (CPS) systems are closely linked. This study examines the patterns and sequence of families' involvement with homeless shelters and CPS, as well as whether involvement in each system predicts involvement in the other using linked administrative records for 258 families recruited in emergency shelters in Alameda County, California. More than half of families were reported to CPS at some point, but less than one fifth ever had a report substantiated. Reports that were uninvestigated or unfounded increased in the months leading up to shelter entry and spiked immediately afterward, but substantiations and child removals increased only later. Shelter use before study entry was associated with CPS referrals and investigations after study entry, although not with substantiated cases or child removals. However, CPS involvement before study entry was not associated with returns to shelter after study entry. These results imply that an unsubstantiated report of neglect or abuse may serve as an early warning signal for homelessness and that preventive strategies aiming to affect both homeless and child protective systems should focus on reducing homelessness. CPS workers should evaluate families' housing needs and attempt to link families to appropriate resources. Black families were disproportionately referred to CPS after shelter entry after controlling for other family characteristics, but race was not associated with substantiations of neglect or abuse or with child removals. Findings lend modest support to human decision-making and institutional explanations of racial disproportionalities in CPS involvement, especially for reporters outside of the CPS system.

Keywords

homeless; child protective services; child welfare; racial disproportionality

The homelessness and child protective services (CPS) systems are closely linked. Not only is there substantial overlap in clientele (e.g., Burt et al., 1999; Courtney, McMurty, & Zinn, 2004; Park, Metraux, & Culhane, 2005; Yang, 2015); each system feeds into the other

Correspondence to: Jason M. Rodriguez, jason.m.rodriguez@vanderbilt.edu.

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(Zlotnick, 2014; Zlotnick, Tam, & Zerger, 2012). Indeed, studies suggest that families in shelter have elevated rates of CPS involvement compared to their low-income housed counterparts, and that the risk of CPS involvement increases as shelter stays become longer or more frequent (Cowal, Shinn, Weitzman, Stojanovic, & Labay, 2002; Culhane, Metraux, Park, Schretzman, & Valente, 2007; Culhane, Webb, Grim, Metraux, & Culhane, 2003; Park, Metraux, Brodbar, & Culhane, 2004). This study examines the patterns and sequence of families' involvement with shelter and CPS and whether involvement in each system predicts involvement in the other. We pay special attention to race. In the general population, Black families are more likely than other families to be involved with CPS (Hill, 2006), but no study has investigated whether this is true among families experiencing homelessness. Such an analysis would test claims that material hardship is the primary driver of Black overrepresentation in the CPS system (e.g., Pelton, 2015; Drake et al., 2011). The findings of this study may be helpful to the design of better service systems.

Homelessness and CPS Involvement

CPS involvement is associated with material hardship (Yang, 2015; see review by Pelton, 2015) and housing problems such as difficulty paying rent and moving in with family and friends (Courtney et al., 2004; Fowler et al., 2013; Hong & Piescher, 2012; Kowal et al., 1989). These associations can be causally related. For example, uncleanliness and untreated illnesses that may accompany material hardship can be a source of concern for school authorities, leading to protective service reports (Reich, 2005). Similarly, residential instability in the context of economic hardship can lead to behavior problems and decrements in attendance, academic performance, and classroom engagement (Fantuzzo, LeBoeuf, Chen, Rouse, & Culhane, 2012; Fowler, Henry, Schoeny, Taylor, & Chavira, 2014; Obradovic et al., 2009; Scanlon & Devine, 2001; Voight, Shinn, & Nation, 2012), with the same outcome. Conversely, CPS involvement can lead to residential instability and material hardship. After interviewing judges, lawyers, and other child welfare stakeholders, Shdaimah (2009) noted that family compliance with CPS service plans sometimes led directly to loss of housing and income.

Residential instability and material hardship typically intensify before families enter shelter, making it hard to provide for children. The experience of homelessness, especially shelter residence, can compound these circumstances. Stays in shelters and transitional housing programs can interfere with family routines and rituals, which can be hard to re-establish after families return to conventional housing (Mayberry, Shinn, Benton, & Wise, 2014). In addition, the sorts of hardship that lead to repeat shelter entry are likely to strain parenting (Conger, Conger, & Martin, 2010; Gershoff, Aber, Raver, & Lennon, 2007; McLoyd, 1990). In what has been termed a "fishbowl effect" (Park et al., 2004), lack of privacy in shelter environments can attract heightened scrutiny and surveillance by other residents and shelter staff (Barrow & Lawinsky, 2009; Mayberry et al., 2014). Even after regaining housing, some families report continued threats of referral to CPS due to their stigmatized status (Mayberry et al., 2014).

Given this qualitative knowledge, it would be reasonable to expect that the risk of CPS involvement increases leading up to homelessness and steepens after shelter entry. The

observational literature provides some support for this. In Culhane et al.'s (2003) study of women who delivered live infants in Philadelphia, 37% of women classified as "homeless" had "some type of involvement" with CPS during the subsequent five years, compared to 9.2% of "low-income" and 4.0% of "other" families. (All groups were mutually exclusive.) Further, 62% of CPS cases among families experiencing homelessness resulted in child removal, compared to 39% of cases for low-income families and 39% for "other" families. These are striking differences, but it is not clear whether they are best explained by the experience of homelessness or by uncontrolled for differences among the groups.

Longitudinal analyses help tease this out. Cowal et al. (2002) interviewed mothers on public assistance in New York City, some of whom had entered homeless shelters five years earlier. Among sheltered children, one fifth of separations occurred before or at shelter entry, two fifths during the shelter stay, and two fifths afterward. Further, homelessness was the most important of several risk factors for separation. These separations did not necessarily entail CPS involvement. However, among families with separations, child removal was a relatively more likely outcome during shelter stays than it was beforehand or afterward. In addition, although mothers were the most common initiators of separations before shelter stays, CPS authorities and courts were the most common initiators during and after shelter stays.

Culhane, Park, and Metraux (2011) complicate these findings. They found that, among families entering shelters in Philadelphia for the first time, child removal rates held steady or dropped during "residential instability periods"—defined as a family's longest episode of involvement in emergency and transitional shelters (also known as transitional housing)—but rebounded after families left the homeless system. The authors speculate that shelter services might replace mainstream services while families are in shelter. Additionally, CPS workers may feel less need to remove children while families are in supervised settings. Thus, the risk of child removal might not rise immediately after families enter shelter, but rather considerably after.

There is also evidence that some groups of families experiencing homelessness are differentially at risk for CPS involvement. In Culhane et al.'s (2007) study of families who entered emergency and transitional shelters for the first time, cluster analyses of shelter enrollment patterns yielded three groups. Three quarters to four fifths were in shelter once, and relatively briefly, over two to three years. A second group, representing about a fifth of families, used the system once, but for a longer period. A third, small group of five to eight percent had multiple episodes of homelessness. This last "episodic" group was more likely than the other groups to use additional public services, including foster care. These findings offer mixed support for Park et al.'s (2004) finding that the number of shelter entries and average annual shelter length of stay, as well as the interaction of these, were associated with CPS involvement (defined as either placement in foster care or receipt of preventive child welfare services).

As a whole, the observational literature has some important limitations. First, it is confined to four sites, especially New York City and Philadelphia. Consequently, findings would benefit from replication in additional sites. Second, the literature analyzes primarily relationships between homelessness and child removals by CPS. Where it considers broader

forms of CPS involvement, it does not distinguish among levels of involvement such as being reported (“referred”) to CPS, being investigated by CPS, and having neglect or abuse substantiated by CPS. If certain levels are more associated with homelessness than others, an analysis could inform service systems when to intervene and shed light on the implications of not intervening. Lastly, the literature on homelessness and CPS involvement has ignored race.

Race, CPS Involvement, and Homelessness

African American families are overrepresented at most levels of the CPS system (Hill, 2006). Reasons for this have been widely discussed in the child welfare literature (e.g., Derezotes, Poertner, & Testa, 2005)—with no clear consensus. Boyd (2014) synthesizes explanations into a conceptual framework of “pathways” to racial disparities in child welfare involvement. A prominent pathway discussed is the disproportionate need of African American families for child welfare services—especially as a consequence of poverty, which is presumed to increase exposure to risk factors for abuse and neglect. In his review, Pelton (2015) leans heavily on this explanation, asserting that racial disproportionalities in CPS involvement are “overwhelmingly related to disproportionalities in poverty” (p. 34). If this is true, then racial disproportionalities in CPS involvement should be minimally evident, if at all, within a sample of families experiencing homelessness. Otherwise, Boyd’s (2014) framework implies that human decision-making and institutional (“agency-systemic”) explanations should be considered.

The Present Study

The present study has three overarching research questions. The first is descriptive: What are the patterns and sequence of families’ involvement in the shelter and CPS systems in Alameda County, California? Next, we ask: Is it possible to predict involvement in the shelter system from involvement in the CPS system, and vice-versa? We expect that CPS involvement will be associated with a greater likelihood of subsequent shelter use, and that having multiple shelter episodes will be associated with a greater likelihood of subsequent CPS involvement. Finally, we ask: Are Black families more likely to have CPS involvement than white families? We presume that “disproportionate need” is not the only salient pathway to racial disproportionalities; thus, we expect to observe them in our sample, even after controlling for other relevant factors. If this is the case, we will review alternative explanations. In all analyses, we distinguish four levels of CPS involvement: referral, investigation, substantiation, and child removal. We conclude with recommendations for policy and research.

Method

Sample

Families with at least one child age 15 or younger were recruited from emergency shelters in Alameda County, California, after stays of at least seven days, between September 2010 and January 2012 as part of the Family Options Study (see Gubits, Spellman, Dunton, Brown, &

Wood, 2013 for a full description of methods). Table 1 shows the characteristics of the 258 families at the time they were recruited.

Data Sources and Measures

This study combines survey data collected from families at study enrollment and administrative records of their involvement with the public assistance, CPS, and homelessness systems. The administrative data reach as far back as 2008 (public assistance data), 2002 (homeless data), 1997 (child protective referrals data), and 1992 (foster care data). Family characteristics were collected via survey between September 2010 and January 2012.

Child protective services (CPS)—Child welfare data, provided by Alameda County Social Services, indicated whether families were referred to CPS between February 1997 and August 2014 or had children placed in foster care between August 1992 and August 2014. Observers reported families to CPS for suspected child abuse or neglect; about half of these reports were immediately closed after a safety assessment by the hotline worker. In other cases, CPS conducted an in-person investigation and determined whether referrals were “unfounded,” “inconclusive,” or “substantiated.” Families often had multiple encounters with the CPS system.

Most referrals (59%) alleged either neglect or “caretaker absence/incapacity”; the rest (41%) alleged abuse. We used these data to create variables representing four stages of CPS involvement—any referral, any investigation, any substantiation, and any child removal. For some descriptive analyses, we distinguish unfounded from inconclusive investigations.

Homeless Management Information System (HMIS)—We used Alameda County’s Homelessness Management Information System (HMIS) to investigate family interactions with the emergency shelter system between January 2002 and August 2014. An HMIS is an electronic database used to collect data on clients of social service programs and housing programs within the mainstream homeless service provider system. We limit our data to family interactions with emergency shelter programs. Each complete record specifies a shelter “entry date” and shelter “exit date” for a particular family member. Here, we analyze only the entry and exit dates of the heads of household (usually the mother). Study families often had multiple HMIS records—one for every shelter entry. HMIS data were available from 2002, however the first shelter entry among study families did not occur until March 2006.

Other measures—Public assistance data, provided by Alameda County Social Services Agency, indicated whether families received assistance through the California Work Opportunity and Responsibility to Kids (CalWORKs) program or CalFresh program in a given calendar year (2008 through 2013). CalWORKs is the California version of Temporary Assistance for Needy Families (TANF), which provides cash assistance to needy families, currently limited to 48 months in the adult’s lifetime. CalFresh is the California version of the Supplemental Nutrition Assistance Program (SNAP) (formerly known as the Food Stamp Program), which provides food-purchasing assistance to people with low or no

income. We used these data to create two public assistance covariates—any receipt of CalWORKs and any receipt of CalFresh.

We also created a psychosocial challenges index derived from survey data obtained from families at study entry. The index is a count of indicators for recent alcohol or drug use, post-traumatic stress disorder, psychological distress, foster care in childhood, any felony, any reported health issue, disability that limits ability to work, any child with disability, and previous experience with interpersonal violence.

Analytic Approach

Shelter episodes—We estimate the number of shelter “episodes” experienced by each family, using HMIS. An episode represents a distinct experience of homelessness, separated from any other shelter stay by a period of at least 30 days (e.g., Culhane et al., 2007; Zlotnick, Tam, & Bradley, 2010).

Not all shelters in Alameda County participated in HMIS. With the exception of the first year of data collection (2007), the rate of participation among Alameda County shelters (including domestic violence shelters) hovered between 60% and 70% (HUD, 2014). Certain characteristics might have made families more likely to enter HMIS-participating shelters, which could bias reported associations with shelter entry. To test this, we focused on the shelter episode at the time of study entry, because all families were recruited in shelters. We examined the association of whether this episode was recorded in HMIS with 20 variables (reflecting both use of other services before, during, or after shelter entry, as well as personal characteristics assessed at the time of study entry). Having an HMIS record at study entry was associated only with having an annual household income under \$5,000, which could be expected by chance alone, $\chi^2(1, n = 253) = 4.0$, $OR = 0.54$, $p = .045$. Thus, we assume that having an HMIS record for earlier and later shelter episodes, and hence the associations we report, are all similarly unbiased. Since all families were recruited in shelters, we increased the HMIS count of a family’s episodes by one if HMIS did not record a shelter enrollment at study entry. Cumulative days in shelter, calculated only for families with a recorded HMIS enrollment at the time of shelter entry, was estimated by summing all days spent in an HMIS-participating shelter between January 2002 and August 2014.

Statistical analysis—Our first research question is descriptive. It concerns the number and duration of families’ shelter episodes, patterns of CPS involvement by the number of shelter episodes, and the timing of CPS episodes relative to shelter entry. We classify families based on number of shelter episodes because we were unable to replicate Culhane et al.’s (2007) short, episodic, and long-stay clusters, described above. Perhaps because we excluded transitional housing, we did not find a cluster with a single long stay. Perhaps because our observation period was much longer, we did find families with multiple long stays.

For our second question about predicting patterns of service use, we examine the extent to which prior shelter use, prior CPS involvement, concurrent receipt of public assistance, and family characteristics were associated with returns to shelter and CPS involvement after study entry, using logistic regression. We considered five types of service use as outcomes

(with a different statistical model for each): an additional shelter episode (beginning between 30 and 923 days after being recruited into the study), any CPS referral after study entry, any CPS investigation after study entry, any CPS substantiation after study entry, and any child removal after study entry.

Our third question concerns race. We begin with bivariate analyses, using chi-square tests to determine whether race is associated with any of the four stages of CPS involvement, and the odds ratio as a measure of the strength of association. Finally, we observe whether these associations remain when controlling for other household and service use characteristics. We consider results to be statistically significant at $\alpha = .05$ and marginally significant at $\alpha = .10$.

Results

Patterns and Sequence of Service Use

We begin by examining the number and duration of shelter episodes. From January 2002 through August 2014, 192 families (74.4%) had one emergency shelter episode, 26 (10.1%) had two, and 40 (15.5%) had three or more. Proportions of families with multiple episodes were larger than in previous studies, but over a much longer period. Still, as in previous work, most families who experienced homelessness were homeless only once. On average, episodes lasted 77 days for families with only one episode and 64 days for families with more than one episode.¹

Next, following Culhane et al. (2007), we examine whether families with more shelter episodes had greater rates of CPS involvement over time (Table 2). Overall, more than half of families were referred to CPS at some point, and almost half of families were formally investigated by CPS—but less than one fifth of families ever had a referral substantiated. Results support Culhane et al.'s (2007) finding that families with repeat shelter episodes had higher rates of child removal. The other measures of CPS involvement corroborate this and suggest that repeated homelessness is associated with more CPS involvement, generally.

Next, we consider the timing of CPS involvement relative to shelter episodes: the first episode recorded in HMIS for the family (for the 198 families with an HMIS record) and the episode associated with study entry (for all 258 families). First, we discuss the former. Figure 1 depicts the number of families with any CPS episode in each 90-day period. Overall, referrals increased in the years leading up to the first emergency shelter entry, and more dramatically afterward. Recall that the typical family in our sample had only one shelter episode lasting less than 90 days. CPS involvement—specifically, uninvestigated referrals and unfounded investigations—spiked in the 90 days after shelter entry before declining to previous levels and then steadily increasing. Substantiations did not increase immediately after shelter entry, but modestly increased later on. Since (at *study* entry) 77.5% of families had a child aged 0 to 5, births could explain some of the rise in referrals in the years leading up to first shelter entry.

¹Altogether, 83 families did not appear in HMIS within 30 days of study entry, despite the fact that all study families were recruited after spending at least a week in shelters. To obtain less-biased statistics, we exclude these 83 families from calculations of average shelter days per episode.

In an alternative analysis (not shown), we found that 35 families were referred to CPS in the 1.5 years before first shelter entry, compared to 52 families in the 1.5 years afterward. More dramatically, 6 families were referred to CPS in the 90 days before first shelter entry, compared to 24 families in the 90 days afterward. There was no increase in the number of families with substantiations. For most families, the worst outcome was an uninvestigated referral or an unfounded investigation.

Predicting the Course of Homelessness and Use of Child Protective Services

We now narrow our focus to the shelter episode associated with families' entry into the study and examine service use before and after study entry. Table 3 shows the extent to which families experienced different levels of CPS involvement in the two years before and after the shelter episode associated with study entry. (This is a shorter time frame than in Table 2, so rates are lower.) Across levels, families were more likely to be involved with CPS after study entry than beforehand.

Predicting returns to shelter—We examine whether it was possible to predict the likelihood of families returning to shelter after study entry from family characteristics assessed at study entry and from use of other services (Table 4). Overall, 15.9% of families returned to shelter after study entry. Neither CPS referrals nor other variables were clearly associated with returns to shelter, which may be due in part to the relatively small sample size.

Predicting CPS involvement—We used the same statistical methods and family characteristics to predict the likelihood of families having four forms of CPS involvement after study entry: referrals, investigations, substantiations, and child removals. In accordance with our research questions, the predictors of interest were prior shelter entry and race.

Before running the logistic models, we examined bivariate associations between race and the four stages of CPS involvement (Table 5). Race was not associated with CPS involvement before study entry. After study entry, however, this changed: 39% of Black families were referred to CPS, compared to 17% of white families—a statistically significant difference.² Inclusion of other non-white families did not dilute the effect size associated with being white. Race was also associated with investigations after study entry—but not with substantiations or child removals, at any time.

Referrals: Overall, 36.8% of families were referred to CPS after study entry. One of the strongest predictors was having ever had a previous referral. Out of 104 families referred to CPS before study entry, 52.9% were referred again after study entry. In contrast, out of 154 families *not* referred to CPS before study entry, only 26.0% were referred afterwards, $\chi^2(1, n = 258) = 19.3$, $OR = 3.2$, $p < .01$. The regression model results (Table 6) provide marginal support for the earlier finding of a bivariate association between race and CPS referral after study entry. White families, unlike families of Hispanic and “other” racial-ethnic groups, were less likely to be referred than Black families who were otherwise similar.

²This became more noticeable among families with no history of CPS involvement before study entry: None of the 19 white families, but 26 out of 88 Black families, were referred to CPS after study entry, $\chi^2(1, n = 107) = 7.4$, $p < .01$.

Having a shelter episode prior to the episode associated with study entry was a statistically significant predictor of referral. Evaluating the model at the average values for all other predictors, a family had a 54% chance of being reported for neglect/abuse after study entry if they had an additional shelter episode beforehand, compared to 29% otherwise. This supports the earlier finding that multiple shelter episodes were associated with higher rates of CPS reports over the whole study period (Table 2).

Investigations: Overall, CPS investigated 27.5% of families after study entry. The strongest predictor of investigation was having ever been investigated prior to study entry. Out of 84 families investigated before study entry, 40.5% were investigated again after study entry. In contrast, out of 174 families *not* investigated before study entry, only 21.3% were investigated after study entry, $\chi^2(1, n = 258) = 10.5$, $OR = 2.5$, $p < .01$.

The regression model results (Table 6) do not support the earlier finding of a bivariate association between race and CPS investigation after study entry. White families were not significantly less likely to be investigated than Black families who were otherwise similar. It is possible this is a problem of low statistical power, since the odds ratio point estimate is in the expected direction.

Substantiations: Overall, CPS substantiated neglect/abuse for 7.4% of families after study entry. Substantiation was not associated with having ever had such an incident beforehand, $\chi^2(1, n = 258) = 1.6$, $OR = 2.1$, $p = .21$. The relationship remained statistically insignificant after controlling for other family characteristics (Table 6). Notably, although race was associated with referrals and (to a lesser extent) investigations for neglect/abuse, it was unrelated to substantiations.

Child removals: Overall, CPS removed children from 12.0% of families after study entry. This was strongly predicted by having ever had a child removed by CPS before study entry, $\chi^2(1, n = 258) = 46.7$, $OR = 62.0$, $p < .01$. Out of 31 families with a removal before study entry, 97% had a removal afterward. (This could have been the same child, if a reunification occurred in between.) In contrast, out of 227 families with no removal before study entry, only 8 (3.5%) had a removal afterward. Table 6 shows that a strong relationship remained after controlling for other family characteristics. None of the remaining predictors were associated with child removal.

Discussion

Families who experience homelessness have frequent interactions with child protective services. Between February 1997 and August 2014, half of the families in our study had been referred to CPS, although only a minority of referrals was substantiated.

CPS Involvement Before Shelter Stays

All of our families were recruited to the study from emergency shelters. CPS referrals, investigations, substantiations, and child removals before study entry did not predict subsequent returns to shelter when controlling for other family characteristics (Table 4). That is, it appears CPS involvement per se did not lead to repeated shelter involvement

among families who had already entered the shelter system. Nevertheless, there was an increase in CPS referrals leading up to the first shelter entry (Figure 1). The pattern may reflect hardship and instability that intensifies before shelter entry—the tremors before the earthquake. On the other hand, since families experiencing homelessness tend to have young children, the pattern could simply reflect birth of children in the years leading up to first shelter entry.

Regardless of the explanation, the implication is that an uninvestigated or unfounded CPS referral (but not an inconclusive or substantiated referral) may be an early warning signal for the onset of homelessness for some families. These families would be ideal targets for homelessness prevention. By asking about families' housing circumstances when evaluating referrals or conducting investigations, CPS workers could learn whether families need housing resources. Families for whom lack of affordable housing is a primary factor in imminent removal of a child may be eligible for a Housing Choice Voucher through the Family Unification Program.

CPS Involvement After Shelter Stays

Our findings are consistent with other studies that suggest shelter entry is associated with subsequent CPS involvement (Cowal et al., 2002; Park et al., 2004). Shelter stays were mainly associated with subsequent referral and investigation—noteworthy, since most referrals went uninvestigated, and most of those investigated were deemed unfounded (Figure 1). CPS involvement spiked in the 90 days after families' first shelter entry, then returned to previous levels before increasing once again (Figure 1).

However, patterns were not consistent across stages of CPS involvement. Substantiations did not immediately become more frequent after families entered shelter, but did increase modestly somewhat later on. Substantiation usually led to child removal, resulting in a similarly modest increase in child removals that occurred slightly later (results not shown). This is consistent with Culhane et al.'s (2011) findings that foster care rates rose only after families left the homeless service system.

Additionally, having multiple shelter episodes was associated with CPS involvement. When controlling for family characteristics, a shelter stay prior to study entry predicted both referral and investigation after study entry, although not substantiation or child removal. This finding does not support Culhane et al.'s (2007) finding that “episodically homeless” families were more likely to be in the foster care system; however, statistical power was low in our substantiation and child removal models. (The odds ratio point estimates for prior shelter episode were in the expected direction for both models, but confidence intervals were wide.)

In California, as in other states, family homelessness itself is not considered abusive or neglectful. Nevertheless, having been homeless is one of the life events that McDaniel and Slack (2005) suggest make low-income parents more visible, leading to protective service reports. Hence, our findings are plausibly explained by the vulnerability of families to perceptions of child neglect or abuse, whether due to scrutiny in shelter (the fishbowl effect proposed by Park et al. [2004]) or afterwards. It is also plausible that stressors associated

with extreme material hardship and shelter environments disrupt and strain family and parental practices (Conger et al., 2010; Gershoff et al., 2007; Mayberry et al., 2014; McLoyd, 1990), so that even unsubstantiated allegations of neglect or abuse may reflect real problems in the family.

It is also important to recognize that CPS referrals can snowball and lead to more-serious levels of involvement. In her ethnographic study of child protective services in a northern California county, Reich (2005) observes that a family with a CPS referral on its record (whether unfounded or not) is at increased risk for child removal. “Should a future allegation result in children being removed and a case ensuing in a dependency court, the history of reports, *even those that were unsubstantiated*, will be used to support the current allegation [emphasis added]” (p. 76). A judge will then decide whether to approve the petition to place the children in foster care (Reed & Karpilow, 2009). Thus, our finding of a modest delayed increase in child removals could be, at least partially, a result of previous unfounded referrals associated with homelessness.

Racial Disproportionalities

Lastly, we investigated whether racial disproportionalities in CPS involvement exist among families experiencing homelessness. Our data say they do, but for unclear reasons. Non-white families, and Black families specifically, were significantly more likely than white families to experience referrals and investigations, but not substantiations or child removals, after study entry (Table 5). The odds ratio for white in comparison to Black families remained marginally significant ($p = .055$) for referrals and non-significant for investigations, even after controlling for previous shelter involvement, annual household income, unemployment, and the index of nine psychosocial challenges (Table 6). Although we cannot rule out a finding of no racial difference in referrals, the best estimate is that the odds of white families being referred to CPS was one third the odds of Black families.

The fact that the point estimate of the difference remained substantial after controls suggests that the “disproportionate need” model, in Boyd’s (2014) conceptual framework described earlier is not a sufficient explanation for the initial disparity. Other models in Boyd’s framework offer alternative explanations for the difference in odds.

In Boyd’s (2014) “human decision-making” model, racial disproportionalities are rooted in faulty perceptions and cognitions of individual observers, potentially including CPS workers. Specifically, Boyd cites the drivers of racial bias, inconsistent decision-making, and lack of cultural competence. Our data cannot speak to these; in future research, demographic data on *observers* could shed more light. For example, if lack of cultural competence among observers is the primary driver, then racial disproportionality in CPS referrals should be associated with the race or ethnicity of observers. On the other hand, if racial bias is the primary driver, then disproportionality may not depend on the race or ethnicity of observers.

Of the “human decision-making” explanations, racial bias appears to have the strongest support in the literature. Turbett and O’Toole (1980) found that when physicians responded to vignettes, they rated the same behaviors as more abusive if supposedly performed by a Black parent than by a white parent (cited in Hampton [1987] and McLoyd [1990]).

Hampton (1987) analyzed 805 hospital reports of child abuse or neglect within a stratified random sample of hospitals in 10 states and found that hospitals were more likely to report Black children to CPS agencies than white children. In a more recent study, Ards et al. (2012) showed 459 Minnesota CPS workers a picture of a messy room that included either a white baby, Black baby, or no baby; CPS workers who viewed the Black baby vignette were more likely to perceive the depicted situation as meeting the state's definition of neglect and being reportable, after controlling for respondent characteristics. In addition, Ards et al. found that such "racialized beliefs" were associated with county-level racial disproportionalities in reported and substantiated child maltreatment rates (although small numbers of respondents in many counties makes this result less certain).

According to Boyd (2014), institutional explanations may also contribute. In his "agency-systemic" model, racial disproportionalities can be explained at the level of CPS agencies, with possible drivers being agency infrastructure, institutional racism, organizational culture, quality of services, and disconnect from the community. We note that, in our data, significant racial disproportionalities in investigations, substantiations, and child removals did not exist when controlling for family characteristics. Rather, disproportionalities were found only in referrals. Thus, if agency-systemic factors were salient, they probably stemmed from institutions other than CPS. Plausible candidates would be institutions where families were observed—such as emergency shelters, schools, hospitals, etc.

Further support for human decision-making and agency-systemic explanations can be found in our observation that racial disproportionalities in CPS involvement did not exist *before* study entry (Table 5). This suggests that disproportionalities may be associated in some ways with the settings and people introduced to families through the experience of homelessness, consistent with McDaniel and Slack's (2005) hypothesis about heightened visibility.

Limitations

Alameda County homeless shelters had a low rate of participation in HMIS, which made it likely that both counts and durations of shelter episodes were underestimated, and which increased the risk of biased results for analyses involving shelter variables (even though no such bias was evident at study entry). Outcomes related to substantiations and child removals were skewed, making it possible that some meaningful associations were not detected. Especially since the study period spanned multiple years, some families could have moved out of Alameda County, and therefore out of the reach of county records, which could have led to spurious associations among county records of different types. As others have noted, race can act as a proxy for numerous other risk factors for CPS involvement (Putnam-Hornstein, Needell, King, & Johnson-Motoyama, 2013), and we had limited variables at our disposal to control for these factors. It is likely that families in our sample were clustered in some way (e.g., in shelters), but we did not have the data to take this into account, possibly biasing our odds ratio estimates. Finally, findings observed in Alameda County may not hold in other jurisdictions.

Conclusion

Knowing patterns of family interaction with different service systems can help policymakers understand the extent to which each system serves as a feeder for others. Policymakers can use the findings in this report as a guide for studying their own communities and designing better services. In the process, communities can empower some of their most vulnerable families to avoid the shelter and child protective systems.

In our view, the most consequential observation is that shelter entries are related to subsequent CPS referrals in Alameda County, consistent with trends observed in New York City (Cowal et al., 2002; Park et al., 2004). Families experiencing homelessness may be struggling financially in ways that lead observers to worry about child neglect, even if most referrals are not substantiated. Or the simple fact that a family is or has been homeless may lead others to interpret behavior as abusive or neglectful (Mayberry et al., 2014). For Black families experiencing homelessness, additional human decision-making and agency-systemic factors may contribute. Policymakers may want to investigate racial disproportionalities within their own service systems and whether preventing emergency shelter stays can reduce superfluous protective service referrals and investigations. Such an outcome would reduce family disruption while saving public resources (Melton, 2005).

Findings in Alameda County and in New York City (Park et al., 2004) suggest that CPS involvement is reasonably common before families enter shelter, implying that CPS referrals can serve as an early warning for homelessness. We recommend that CPS workers include assessments of families' housing stability when evaluating referrals and conducting investigations. However, in our study, CPS involvement did not predict returns to shelter when controlling for other factors. Thus, preventive strategies that aim to affect both the homelessness and CPS service systems should focus more on reducing homelessness than on reducing CPS involvement, as well as on structural and family-level factors that affect both. This may consist of developing more affordable housing, expanding homelessness interventions, helping communities anticipate when some families are on the verge of homelessness, mitigating poverty, and providing supportive services to families.

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Figure 1.

CPS involvement relative to first shelter entry (296 distinct episodes over 108 families, out of 198 families with shelter stays recorded in HMIS). Each bar reflects a 90-day period. CPS episodes are not included if they occurred more than 6.4 years before families' first shelter entries.

Table 1

Descriptive Statistics for Study Families (N = 258)

Characteristic of Parent at Baseline	Percent			
Gender: Female	95.7			
Race/ethnicity:				
White	11.6			
Black	57.0			
Hispanic	19.0			
Asian or Pacific Islander	4.7			
Other	7.8			
Has a partner, present in shelter	10.5			
Has a partner, not present in shelter	6.6			
Experienced intimate partner violence	62.7			
Present with child between ages 0 and 5	77.5			
Annual household income < \$5,000	21.3			
Unemployed throughout the past 12 months	54.5			
Had a past eviction or problem with landlord	35.7			
	Mean (SD)	Min	Max	
Age (in years)	30.2 (8.9)	18	62	
Number of psychosocial challenges ^a	2.7 (1.7)	0	8	

Note. SD = standard deviation, a measure of variability. In many data sets, most cases fall within two standard deviations of the mean.

^aThe psychosocial challenges index is a count of nine indicators: recent alcohol or drug use, post-traumatic stress disorder, psychological distress, foster care in childhood, any felony, any reported health issue, disability that limits ability to work, any child with disability, and previous experience with interpersonal violence.

Table 2

CPS Involvement by Number of Shelter Episodes (N = 258 families)

Shelter Episodes ^{a,b}	Families	Referral for Child Neglect or Abuse (%) ^c				Any Child Removal (%) ^d
		Any	Any Investigated	Any Substantiated		
1	192	54.7	47.4	16.2		13.5
2	26	61.5	50.0	26.9		19.2
3 or more	40	70.0	52.5	25.0		27.5
All	258	57.8	48.5	18.6		16.3

^aTotal episodes are likely underestimates, because of incomplete HMIS coverage.

^bOver 12 years of shelter records.

^cOver 17 years of child welfare records.

^dOver 22 years of foster care records.

Table 3
CPS Involvement in the 983 Days Before and After Study Entry^a (N = 258 families)

Level of CPS Involvement	Before Study Entry		After Study Entry		Any	
	Families	%	Families	%	Families	%
Referral ^b	64	24.8	95	36.8	120	46.5
Investigation	52	20.2	71	27.5	99	38.4
Substantiation	10	3.9	19	7.4	27	10.5
Child removal	10	3.9	18	7.0	23	8.9

Note. Each level of CPS involvement is nested within the level above it.

^aThis is a shorter period than Table 2, so numbers are lower.

^bAny referral—whether evaluated out, unfounded, inconclusive, or substantiated.

Table 4

Factors Associated With Additional Shelter Episode After Study Entry (n = 252 families)

Family Characteristic ^a	Odds Ratio ^b	95% CI
Was previously referred to CPS ^c	0.75	[0.32, 1.75]
Was previously in shelter	3.45 **	[1.36, 8.79]
CalWORKs during or after study entry year	3.68	[0.72, 18.78]
Race/ethnicity:		
Hispanic (reference = "Black")	0.61	[0.20, 4.09]
White (reference = "Black")	1.17	[0.33, 2.51]
Other ^d (reference = "Black")	1.41	[0.49, 4.08]
Age of head of household	1.01	[0.96, 1.06]
Present with child between ages 0 and 5	0.75	[0.26, 2.13]
Annual household income < \$5,000	2.41 *	[1.06, 5.52]
Unemployed throughout the past 12 months	1.29	[0.60, 2.77]
Had a past eviction or problem with landlord	1.53	[0.70, 3.34]
Psychosocial challenges index ^e	0.77 *	[0.61, 0.97]

^a As part of the Family Options study, families were randomly assigned to housing and service interventions (Gubits et al., 2013). The models in this table control for intervention assignment. However, interpretations of intervention effects are only valid when calculated from pairwise contrasts of certain subsets of families. Consequently, we do not show these results. None of the odds ratios associated with the interventions were statistically significant in any model.

^b Calculated using the maximum likelihood method.

^c Any referral—whether evaluated out, unfounded, inconclusive, or substantiated.

^d Due to low counts, the "Asian/Pacific Islander" category was consolidated into the preexisting "Other" category.

^e The psychosocial challenges index is a count of nine indicators: recent alcohol or drug use, post-traumatic stress disorder, psychological distress, foster care in childhood, any felony, any concrete reported health issue, disability that limits ability to work, any child with disability, and previous experience with intimate partner violence.

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

Table 5**Bivariate Associations Between Race and CPS Involvement**

	White With Reference to Non-White ^a (n = 258)	White With Reference to Black (n = 177)
Before study entry		
Any referral	1.2 (0.57)	0.7 (0.64)
Any investigation	1.0 (0.58)	0.3 (0.72)
Any substantiation	NS	NS
Any child removal	NS	NS
After study entry ^b		
Any referral	5.9 ^{**} (0.31)	5.4 [*] (0.32)
Any investigation	3.4 [†] (0.37)	3.0 [†] (0.38)
Any substantiation	NS	NS
Any child removal	NS	NS

Note. Table shows chi-square values with odds ratios in parentheses. Where chi-square assumptions were not met, Fisher's exact test was conducted. NS = not statistically significant at $\alpha=.05$ according to Fisher's exact test.

^aNon-white" includes Black, Hispanic, and Asian/Pacific Islander racial/ethnic categories.

^bLimited to less than 984 days after study entry.

[†] $p < .10$.

^{*} $p < .05$.

^{**} $p < .01$.

Table 6

Factors Associated With CPS Involvement After Study Entry for Families (n = 252)

Family Characteristic ^a	Any Referral		Any Investigation		Any Substantiation ^b		Any Child Removal ^b	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Previous CPS involvement:								
Was referred	3.51**	[1.88, 6.56]						
Was investigated			2.64**	[1.36, 5.13]				
Had child neglect or abuse substantiated					1.39	[0.37, 5.18]		
Had a child removed							8.41**	[2.55, 27.77]
Was previously in shelter	2.84**	[1.30, 6.19]	2.11 [†]	[0.98, 4.52]	1.61	[0.54, 4.82]	2.16	[0.68, 6.84]
CalWORKs during or after study entry year	4.10*	[1.08, 15.67]	3.88 [†]	[0.84, 17.97]	5.34	[0.44, 65.53]	3.53	[0.28, 45.40]
Race/ethnicity:								
Hispanic (reference = "Black")	1.08	[0.50, 2.33]	0.88	[0.39, 1.96]	1.11	[0.32, 3.79]	0.50	[0.08, 2.99]
White (reference = "Black")	0.32 [†]	[0.10, 1.03]	0.42	[0.13, 1.44]	0.76	[0.14, 4.09]	2.19	[0.45, 10.63]
Other ^c (reference = "Black")	0.74	[0.29, 1.88]	1.12	[0.44, 2.87]	1.77	[0.53, 5.94]	0.72	[0.15, 3.52]
Age of head of household	0.98	[0.93, 1.02]	0.98	[0.94, 1.02]	0.98	[0.92, 1.05]	0.98	[0.92, 1.05]
Present with child between ages 0 and 5	1.32	[0.54, 3.20]	1.19	[0.46, 3.08]	0.78	[0.22, 2.86]	0.70	[0.19, 2.65]
Annual household income < \$5,000	1.18	[0.58, 2.40]	1.07	[0.51, 2.25]	1.95	[0.75, 5.12]	2.21	[0.72, 6.75]
Unemployed throughout the past 12 months	1.87*	[1.02, 3.43]	1.85 [†]	[0.97, 3.52]	0.97	[0.39, 2.42]	1.45	[0.49, 4.29]
Had a past eviction or problem with landlord	0.98	[0.53, 1.84]	0.87	[0.45, 1.66]	2.45 [†]	[0.99, 6.09]	1.29	[0.45, 3.67]
Psychosocial challenges index ^d	1.08	[0.91, 1.27]	1.07	[0.90, 1.28]	0.98	[0.75, 1.27]	1.11	[0.83, 1.49]

Note. OR = odds ratio. Outcome variables are limited to less than 984 days after study entry.

^a As part of the Family Options study, families were randomly assigned to housing and service interventions (Gubits et al., 2013). The models in this table control for intervention assignment. However, interpretations of intervention effects are only valid when calculated from pairwise contrasts of certain subsets of families. Thus, we do not show these results. None of the odds ratios associated with the interventions were statistically significant in any model.

^b Some combinations of variables were so predictive that a quasi-complete separation of data points prevented model convergence under the standard method of maximum likelihood estimation. To correct this, we applied Firth's (1993) method of penalized maximum likelihood estimation to calculate odds ratios for the substantiated neglect/abuse model. See Heinze and Schemper (2002) for a justification of this approach.

^c Due to low counts, the "Asian/Pacific Islander" category was consolidated into the preexisting "Other" category.

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The psychosocial challenges index is a count of nine indicators: recent alcohol or drug use, post-traumatic stress disorder, psychological distress, foster care in childhood, any felony, any concrete reported health issue, disability that limits ability to work, any child with disability, and previous experience with intimate partner violence.

[†] $p < .10$.
* $p < .05$.
** $p < .01$.