Family Homelessness and Multiple Service Systems:

Insights From Alameda County

Jason Rodriguez and Marybeth Shinn

Vanderbilt University

Abstract

This paper investigates how families' use of the emergency shelter system is associated with involvement in the child protective services system (CPS) and use of public assistance for 258 families recruited in emergency shelters in Alameda County, California. It examines the patterns and sequence of families' involvement in multiple service systems and whether involvement in each system can be used to predict involvement in the others. By providing information about how each system feeds into the others, it may be helpful to the design of better service systems. Patterns of service use in administrative records show that homelessness is strongly associated with CPS involvement: non-substantiated CPS reports increased prior to shelter entry and spiked afterward, especially for non-white families. Associations with public assistance are less marked: almost half of families were not using income supports fully in the year prior to shelter entry, and usage increased thereafter. Families were also interviewed at the time of study entry. Matching administrative records with families' survey responses shows that, after taking other variables into account, shelter use before study entry was associated with CPS reports after study entry, but not with substantiated cases of abuse and neglect. On the other hand, CPS involvement before study entry was not associated with returns to shelter after study entry. Additionally, as part of the 12-site Family Options Experiment, families were randomly assigned to housing and service interventions. Findings in Alameda County were consistent with the larger study's findings that offering families a permanent housing subsidy reduced returns to shelter and foster care placements. These results imply that preventive strategies aiming to affect both homeless and child protective systems should focus on reducing homelessness. "Evaluated out" and "unfounded" reports of child abuse or neglect increase in the months and years leading up to families' first shelter entries, and thus may function as an early warning signal for homelessness.

In investigating such reports, CPS workers should evaluate families' housing needs and attempt to link families to appropriate resources.

Family Homelessness and Multiple Service Systems: Insights From Alameda County

Families who experience homelessness frequently interact with other public service systems. Our study examines the patterns and timing of such interactions with homeless, child protective, and public assistance systems in Alameda County, California, using survey data collected from families and administrative data provided by the homeless service and social service agencies, the latter covering both income supports and child welfare. This information can help policymakers understand the extent to which each system serves as a feeder for others and whether the impacts of homelessness interventions reverberate beyond the shelter system. It also allows examination of whether involvement in other systems predicts the course of homelessness. The findings in this study may thus provide information helpful to the design of better service systems.

The 258 families under study in Alameda County were recruited after staying in an emergency shelter for at least seven days, surveyed, and randomly assigned to housing and service interventions as part of the Family Options study (Gubits et al., 2015). Families began an episode of homelessness, which triggered study entry, between 2010 and 2012, but their administrative data reach as far back as 2008 (public assistance data), 2002 (homeless data), 1997 (child protective referrals data), and 1992 (foster care data).

Background and Research Questions

Patterns of shelter use. Describing patterns of families' involvement in different service systems can increase our understanding of the nature of family needs and help social service agencies target families who would benefit the most from their services. Past studies suggest that there are distinct patterns of shelter use, and that these patterns imply different service needs. In a study of families who entered emergency and transitional shelters (also known as transitional

housing) for the first time in New York City, Philadelphia, Massachusetts, and Columbus, Ohio, three quarters to four fifths were in shelter only once, and relatively briefly, over a two- to three-year period. A second group, representing about a fifth of families, also used the system only once, but for a much 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 others to use additional public services, including foster care (Culhane, Metraux, Park, Schretzman, & Valente, 2007). We examine whether similar patterns held over a longer period here, considering only emergency shelters.

Anticipating shelter and child protective services involvement. Understanding the *timing* of shelter use relative to child protective services (CPS) involvement, and which feeds into what, can provide information helpful for prevention of homelessness, CPS involvement, or both. In previous research, families who experienced homelessness had elevated rates of CPS involvement both before and (especially) after shelter entry. For example, in a study of 8,000 children in families who entered New York City shelters for the first time in 1996, 18% received child welfare services[1] within five years after shelter entry, and an additional 6% used these services beforehand (Park, Metraux, Brodbar, & Culhane, 2004). Similarly, another study found that both foster care placements and informal child placements (i.e., those unknown to CPS) rose during and after stays in New York City shelters, with homelessness being the most important risk factor among many (Cowal, Shinn, Weitzman, Stojanovic, & Labay, 2002). Park et al. suggest that both the stress of homelessness and a "fishbowl effect"—in which families in shelter are subject to special scrutiny—may account for this fact. Using qualitative data, Barrow and Lawinsky (2009) and Shinn, Gibbons-Benton, and Brown (in press) found economic hardship and precarious housing were associated with child placements, especially informal ones, before

[1] These consisted of preventive services and/or placement in out-of-home foster care.

families entered shelter. If similar dynamics exist in the larger sample studied here, then families' involvement with CPS may increase in the months or years leading up to their initial shelter entries. This implies that CPS involvement could function as an "early warning signal" for the onset of homelessness. Similarly, if CPS involvement predicts homelessness severity, it could help policymakers and service providers better target homelessness assistance to families. On the other hand, if homelessness predicts CPS involvement, this would be yet another reason to prevent homelessness.

Homelessness and income supports. Under the assumption that people experience severe financial hardship before becoming homeless, absence of income supports prior to initial shelter entry would not reflect absence of financial need, but rather lack of awareness or ineligibility for income supports. If those with income supports are less likely to experience additional episodes of homelessness or CPS involvement, it could suggest that increasing families' access to public assistance would reduce rates of these adverse outcomes in the population. Culhane et al. (2007) examined use of Temporary Assistance for Needy Families (TANF) in two of the jurisdictions they studied and found that, although TANF usage among families differed across jurisdictions, it was not related to any of the three patterns of shelter use.

Intervention impacts on service use. The present study is also an expansion of existing Family Options research on the effects of housing and service interventions for families experiencing homelessness. We investigate how special offers of housing assistance affected families' homelessness and CPS outcomes compared to the housing assistance typically available in Alameda County. (A "special offer" involved a referral to a specific program with an opening for that family, as well as encouragement or support to enroll.) The special offers, as described in Table 1, were for permanent housing subsidy (SUB), community-based rapid re-

Table 1

Housing and Service Interventions

Intervention Offered	Definition
Permanent housing subsidy (SUB)	Long-term rental assistance (in the form of a Housing Choice Voucher), with no supportive services after placement
Community-based rapid re-housing (CBRR)	Short-term rental assistance (lasting 3–6 months, with the potential of renewal for up to 18 months), paired with limited housing-focused services
Project-based transitional housing (PBTH)	Short-term housing (up to 24 months) in agency-controlled buildings or apartment units, including intensive supportive services designed to increase self-sufficiency and meet psychosocial needs
Usual care (UC)	Any housing and supportive services the family is able to find in their community without special assistance

housing (CBRR), or project-based transitional housing (PBTH). Families were moved to the "front of the line" for their respective interventions, and those not assigned to any intervention were left to usual care (UC)—that is, the housing and supportive services normally available in their community. Each family was free to enter their assigned program or make other arrangements, and in some cases programs found families ineligible after the referral. Thus, the impacts we report are the impacts of *special offers* for interventions, regardless of whether families ever took them up (Gubits et al., 2013, 2015).[2]

In the Family Options study, the type of housing assistance made available to families was randomly determined. This ensures that the SUB, CBRR, PBTH, and UC groups are equal to one other in every aspect except for the assigned intervention, making it possible to give causal explanations if intervention impacts are observed. Across the 12 sites of the Family Options Study, Gubits et al. (2015) found that, compared to UC, SUB significantly decreased the

[2] This distinction is more important for some interventions than for others. Among Alameda families offered SUB, CBRR, and PBTH, 91%, 69%, and 59% took up their offers, respectively.

chance of both subsequent homelessness and foster care placement, PBTH decreased the chance of subsequent homelessness more modestly but did not affect foster care placement, and CBRR did not affect either outcome. Gubits et al. had a much larger sample than ours but relied on surveys, not administrative sources, for measuring most outcomes. Testing intervention impacts on alternate outcomes can build upon and refine Family Options findings, thereby strengthening the literature on housing and service interventions for families experiencing homelessness.

Research questions. Our study has three overarching research questions. The first concerns the pattern and sequence of families' involvement in multiple service systems. Here, our study is anchored to two reference points: a family's first shelter episode and the shelter episode associated with recruitment into the study. We begin by examining patterns of shelter enrollment in Alameda County over an eight-year period. We then assess the relationship of these shelter enrollment patterns to CPS involvement and examine the timing of CPS involvement relative to the first shelter episode (over a six-year period). We next narrow our focus to the shelter episode associated with entry into the study (over a 16-month period). We examine the extent to which families who experienced an episode of homelessness in Alameda County had involvement with CPS (including foster care) before and after shelter entry, whether they used income supports (CalWORKs and CalFresh) in those same two time periods, and whether they had an additional shelter episode after study entry.

Our second question is whether it is possible to predict involvement in the homeless and CPS systems from involvement in other systems. We investigate both the extent to which income supports or CPS involvement predicted a subsequent shelter episode after study entry, and (since all families were in a shelter at least once) whether multiple shelter episodes or income supports predicted later episodes of CPS involvement.

Our third question concerns the effects of the SUB, CBRR, and PBTH interventions on subsequent service usage, compared to UC. In particular, we test the findings of Gubits et al. (2015) that SUB and PBTH reduce subsequent homelessness and that only SUB reduces foster care placement, and we explore whether the interventions had an impact on other CPS outcomes.

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 (Gubits et al., 2013). See Table 2 for

Table 2

Descriptive Statistics for Study Families (N = 258)

Characteristic of Parent at Baseline	Percent
Gender: Female	95.7
Race/ethnicity: White	11.6
Race/ethnicity: Black	57.0
Race/ethnicity: Hispanic	19.0
Race/ethnicity: Asian or Pacific Islander	4.7
Race/ethnicity: Other	7.8
Has a partner, present in shelter	10.5
Has a partner, not present	6.6
Experienced intimate partner violence	62.7
Has at least one child aged 0 to 5	77.5
Annual household income < $5k	21.3
Did not work in past 12 months	54.5
Had experienced eviction or problems with landlord	35.7

	Mean (SD)	Min	Max
Age (in years)	30.2 (8.9)	18	62
Number of children, present	1.6 (0.9)	0	5
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.

[a] 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 reported health issue, disability that limits ability to work, any child with disability, and previous experience with interpersonal violence

the characteristics of the 258 families at the time they were recruited.

Data Sources and Variables

This study combines survey data collected from families at the time they enrolled in the study and administrative records of their involvement with the public assistance, CPS, and homelessness systems (Table 3).

Public assistance. Public assistance data, provided by Alameda County Social Services Agency, indicated whether families received cash assistance through the California Work Opportunity and Responsibility to Kids (CalWORKs) program or food-purchasing assistance through the 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

Table 3

Types of Service Involvement Analyzed in This Study

Type of Service Involvement	Description
Shelter episode	Family entered an emergency shelter for the first time in at least 30 days
Child protective services (CPS)	
Reported abuse/neglect	The family was reported to CPS for suspected child abuse or neglect
Evaluated out	Results from a safety assessment led a CPS hotline worker to close the case without ordering an in-person investigation
Investigated	CPS determined an in-person investigation was warranted
Unfounded	A CPS investigation determined that suspected child abuse/neglect was unfounded
Inconclusive	A CPS investigation found inconclusive evidence of child abuse/neglect
Substantiated	A CPS investigation found conclusive evidence of child abuse or neglect
Foster care placement before study entry	A child was separated from the family and placed in a foster home
Public assistance	
CalWORKs	Cash assistance similar to Temporary Assistance for Needy Families (TANF)
CalFresh	Food-purchasing assistance similar to Supplemental Nutrition Assistance Program (SNAP; formerly known as Food Stamp Program)

assistance to eligible needy families, but is limited to 48 months in the adult's lifetime.[3] 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 variables—any receipt of CalWORKs and any receipt of CalFresh—at various time intervals.

Child protective services (CPS). Child welfare data, provided by Alameda County Social Services, indicated whether families were reported for child abuse or neglect between February 1997 and August 2014 or had children placed in foster care between August 1992 and August 2014. Observer perceptions of child abuse or neglect triggered reports to a CPS hotline, about half of which were immediately "evaluated out" (that is, closed) after a safety assessment by the hotline worker. In other cases, CPS conducted an in-person investigation and determined whether reports were "unfounded," "inconclusive," or "substantiated."[4] Families often had multiple encounters with the CPS system. We used these data to create three primary CPS variables—any report of child abuse/neglect, any substantiated child abuse/neglect, and any foster care placement—at various time intervals. For some descriptive analyses, we distinguished among non-substantiated CPS reports (evaluated out, unfounded, and inconclusive).

Homeless Management Information System (HMIS). We used Alameda County's Homelessness Management Information System (HMIS), administered by the Department of Housing and Community Development, to investigate family interactions with the local emergency shelter system between January 2002 and August 2014. An HMIS is an electronic database used to collect data on people whose homelessness is imminent or in progress, and who are clients of social service programs and housing programs within the homeless service provider

[3] Before 7/1/2011, this time limit was 60 months.
[4] See Reed and Karpilow (2009) for details about policies and practices in California's child welfare system.

system. We limit our data to family interactions with emergency shelter programs. When a family comes to a shelter seeking a place to stay for the night, a new HMIS record is created for every family member present. If and when the family finds another place to stay (or simply stops coming to the shelter), the household is "exited," closing each member's HMIS record. Thus, 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 were often associated with multiple HMIS records—one for every shelter entry. Although HMIS data were available from 2002, the first shelter entry among study families did not occur until March 2006.

Analysis Plan

Shelter episodes. We estimate the number of shelter "episodes" experienced between January 2002 and August 2014 for each family, using HMIS. An episode is meant to represent a distinct experience of homelessness. If a family entered shelter 30 or more days after their most recent shelter exit, we considered that shelter entry to be the start of a new shelter episode—consistent with previous studies (Culhane et al., 2007; Goering, Tolomiczenko, Sheldon, Boydell, & Wasylenki, 2002; Kuhn & Culhane, 1998; Zlotnick, Robertson, & Lahiff, 1999; Zlotnick, Tam, & Bradley, 2010).[5]

Not all shelters in Alameda County participated in HMIS.[6] Since all families were recruited in shelters, we increased the HMIS count of a family's episodes by one if HMIS did not

[5] We experimented with reducing this threshold to 10 days, which increased total episodes by one for only two families in the sample.

[6] With the exception of the first year of data collection (2007), the rate of participation among Alameda County shelters (including domestic violence shelters) has hovered between 60% and 70% (HUD 2015). This raises the possibility that certain characteristics made families more likely to enter *HMIS-participating* shelters, which could bias reported associations with shelter entry. To test for this, we focused on the shelter episode we know about 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 the time of

record a shelter enrollment at study entry. The total cumulative days in shelter was estimated by summing all days experienced in an HMIS-participating shelter between January 2002 and August 2014.[7]

Statistical models. Our first research question is descriptive. We examine the number and duration of shelter episodes families experienced, patterns of CPS involvement by the number of shelter episodes, the timing of CPS episodes relative to shelter entry, and the patterns of usage of multiple services before and after shelter entry.

For our second question about predicting patterns of service use, we examine the extent to which family characteristics, prior shelter use, prior CPS involvement, and concurrent receipt of public assistance were associated with shelter and CPS involvement after study entry. To do this, we used logistic regression—a technique designed to measure relationships between predictors and yes-or-no outcomes. We report the odds ratio as the strength of association between predictors and outcomes. (The odds ratio is the number by which the odds of an outcome—such as returning to shelter—is multiplied for family heads having a characteristic—or, in the case of continuous predictors like age and challenges, for each additional year of age or additional challenge. An odds ratio of 1 means the predictor has no association with the outcome.) We considered four different types of service use as outcomes (with a different statistical model for each): an additional shelter episode (between 30 and 923 days after being

---

study entry was associated only with having a household income under $5,000, but the effect size was weak (ρ=-.12), and we did not find more associations than would be expected by chance alone. Due to these findings, we assume that having an HMIS record for earlier and later shelter episodes, and hence the associations we report, are all similarly unbiased.

[7] We calculated this only for families with a HMIS shelter enrollment at study entry.

recruited into the study[8]), a report of child abuse/neglect after study entry, a substantiated case of child abuse/neglect after study entry, or a foster care placement after study entry.

Our third question concerns impacts of the housing and service interventions. We estimated impacts on these same outcomes by comparing rates for families in each intervention group to rates for comparable families in the UC group[9]—adjusting for prior shelter and CPS involvement, concurrent receipt of public assistance, and family attributes at study entry.[10,11]

Results

Service Use Before and After First Shelter Entry

Shelter enrollment patterns. 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. Some families' actual episode counts are likely higher than reported, since they could have stayed in shelters not participating in HMIS. 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, shelter episodes lasted 77 days for families with only one episode and 64 days for families with more than one episode (Table 4).[12] Regardless of how many shelter

[8] Raising the lower bound to 30 made it less likely that the study entry would be mistaken for a subsequent shelter entry. The upper bound (923) ensured that every family had an equal opportunity to experience a subsequent shelter entry, since HMIS data were available up until 923 days after the last study entry.
[9] Low sample sizes prevented us from directly comparing interventions to one another.
[10] That is, impacts were differences in means in least square regression analyses.
[11] In all models, odds ratios and impacts were adjusted for CalWORKs receipt during or after the year of study entry, previous shelter stay, race, age of the parent, presence of a child between ages 0 to 5, whether annual household income was under $5,000, whether the parent was unemployed in the prior 12 months, whether the family had experienced eviction or landlord problems, and the number of psychosocial challenges (defined in note to Table 2), all measured at study entry. In addition to these, models with shelter outcomes were adjusted for previous shelter entry, and models with CPS outcomes were adjusted for the presence of corresponding CPS experiences before study entry.
[12] Altogether, 83 families did not appear in HMIS within 30 days of study entry, despite the fact that all study families were recruited in shelters. To obtain less-biased statistics, we did not include these 83 families in the calculations of average shelter days per episode (or of any other statistics shown in Table 4).

Table 4

Shelter Stay Duration by Number of Shelter Episodes, Over Eight Years (n = 175 families)[a]

	Shelter Days Per Episode				Cumulative Shelter Days Per Family			
Episodes	Mean (SD)	Median	Min	Max	Mean (SD)	Median	Min	Max
1	77.1 (43.1)	70.0	1	242	77.1 (43.1)	70.0	1	242
2	64.0 (55.8)	39.5	2	253	128.0 (82.1)	91.5	19	276
3 or more	64.2 (52.3)	62.0	1	379	234.9 (139.2)	171.0	81	538
All	71.1 (48.6)	63.0	1	379	100.9 (81.5)	80.0	1	538

Note. SD = standard deviation, a measure of variability. In many data sets, most cases fall within two standard deviations of the mean.
[a] Both total days and total episodes are likely underestimates, because of incomplete HMIS coverage.
[b] Only includes families with an HMIS shelter episode within 30 days of study entry

episodes families had, their average episode length was shorter than in New York (202 days), Massachusetts (169 days), and Philadelphia (91 days), but longer than in Columbus (52 days) during the period studied by Culhane et al. (2007). There are several possible explanations for the lower average for Alameda than for three of the other sites. First, Culhane et al. included transitional housing, where stays are typically longer. Second, the incomplete coverage of HMIS may lead to underestimation of stays; Culhane et al. suggest a similar explanation for Philadelphia. Finally, some shelters in Alameda have limits on length of stay whereas New York City has a right to shelter.

We replicated Culhane et al.'s (2007) cluster analysis in an attempt to find distinct groups of families, based on patterns of shelter episode counts and cumulative days stayed in shelter according to HMIS. Unlike Culhane et al., we did not find a sizable group of families with a single, long shelter stay—perhaps because we considered only emergency shelter and not transitional housing. Moreover, we found that one cluster had families with multiple episodes *and* long stays, which was not possible with Culhane et al.'s relatively short study period.

Homelessness and CPS involvement. Next, in keeping with Culhane et al. (2007), we examine whether families with more shelter episodes had greater rates of CPS involvement over time (Table 5). Overall, more than half of families experienced reports of child abuse/neglect at

Table 5

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

		Report of Child Abuse or Neglect (%)[c]			
Shelter Episodes[a,b]	Families	Any	Any Investigated	Any Substantiated	Foster Care (%)[d]
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

[a] Total episodes are likely underestimates, because of incomplete HMIS coverage.
[b] Over 12 years of shelter records
[c] Over 17 years of child welfare records
[d] Over 22 years of foster care records

some point, and almost half of families were ever formally investigated by CPS—but less than one fifth of families ever had a report substantiated. Results support Culhane et al.'s (2007) finding that families with repeat shelter episodes had higher rates of foster care involvement. The other measures of CPS involvement corroborate this and suggest that repeated homelessness is associated with more CPS involvement, generally.

Figures 1–3 show the timing of CPS involvement relative to the timing of the first shelter entry recorded in HMIS[13] (excluding CPS reports occurring more than approximately 6.4 years before families' first shelter entries). Figure 1 depicts the number of families with any CPS episode in each 90-day period. Reports of child abuse/neglect increased in the years leading up to the first emergency shelter entry, and more dramatically afterward. The proportion of cases that were evaluated out or unsubstantiated increased even more. Since (at *study* entry) 77.5% of families had a child aged 0 to 5, family growth could explain some of the rise in child abuse/neglect reports in the years leading up to first shelter entry. There was also a modest increase in cases of substantiated abuse/neglect after initial shelter entry.

[13] Unlike Table 5, which includes all 258 families, the figures include only the 198 families with shelter records recorded in HMIS. For other families, we could not specify the start of shelter episodes, and hence could not calculate relative dates for CPS referrals.

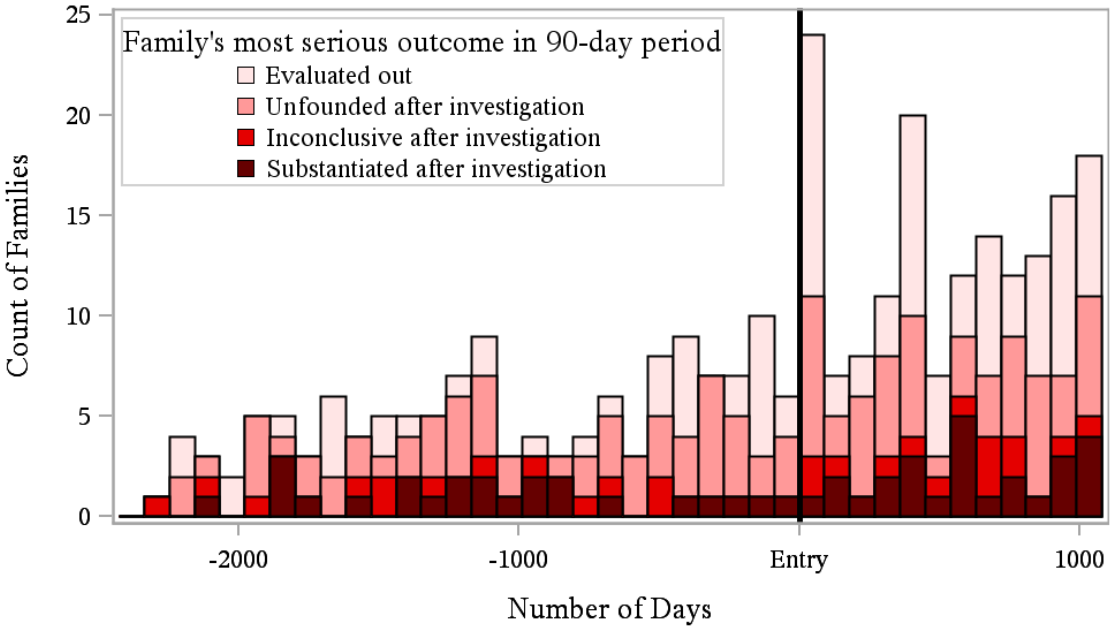

Figure 1. CPS involvement relative to first shelter entry (296 distinct episodes over 108 families, out of 198 families with shelter stays recorded in HMIS). Each bar reflects a 90-day period. CPS episodes are not included if they occured more than 6.4 years before families' first shelter entries.

Figures 2 and 3 each depict only one CPS episode per family: that which is closest to shelter entry. Again, episodes increased after shelter entry; for example, 35 families experienced reports of abuse/neglect in the 1.5 years before first shelter entry, compared to 52 families in the 1.5 years afterward. More dramatically, 6 families experienced reports of abuse/neglect in the 90 days before first shelter entry, compared to 24 families in the 90 days afterward. There was no immediate increase in substantiated cases. Again, most cases were evaluated out without further investigation, or unfounded.

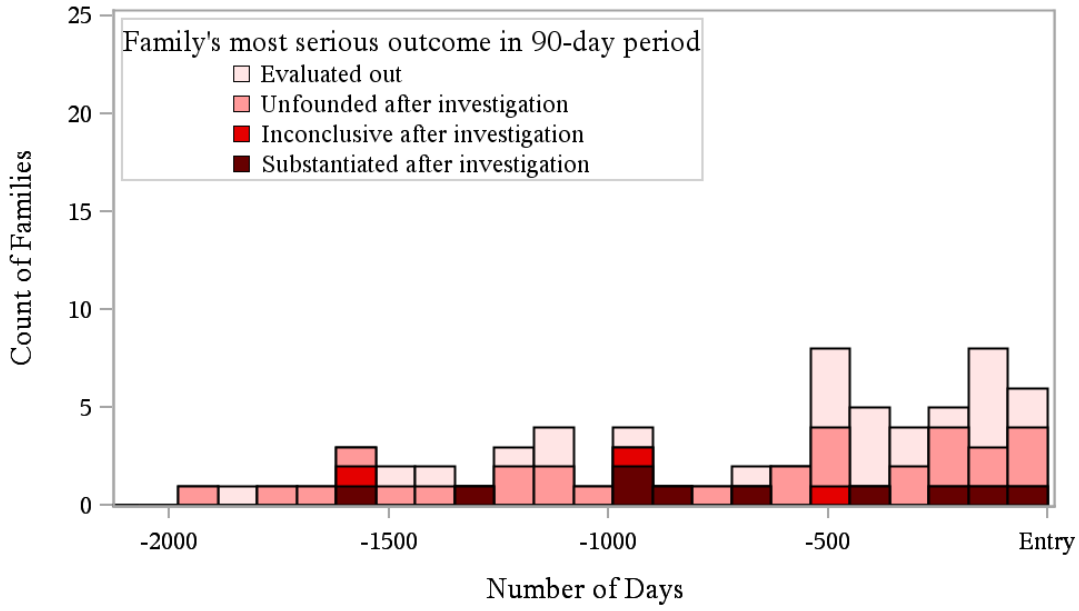

Figure 2. Most recent CPS involvement prior to first shelter entry (66 distinct families, out of 198 families with shelter stays recorded in HMIS). Each bar reflects a 90-day period. CPS episodes are not included if they occured more than 6.4 years before families' first shelter entries.

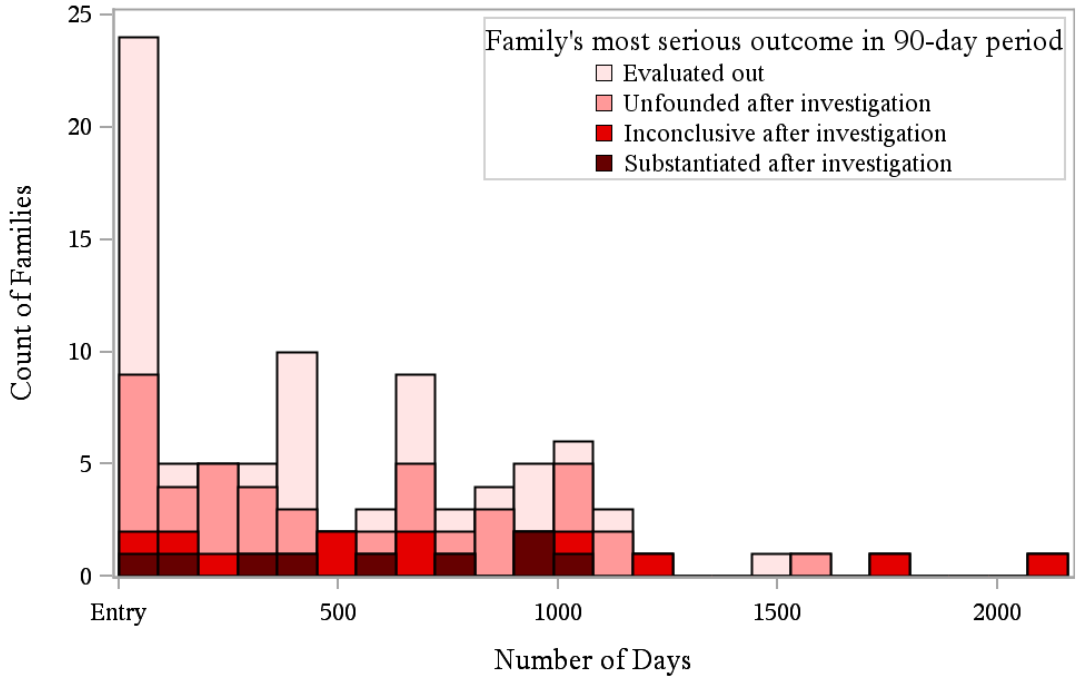

Figure 3. Earliest CPS involvement after first shelter entry (89 distinct families, out of 198 families with shelter stays recorded in HMIS). Each bar reflects a 90-day period.

Service Use Before and After Study Entry

Patterns and combinations. 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 6 shows the extent to which families used each of the five services in the two years before and after the shelter episode associated with study entry.[14] Table 7 shows combinations of services, with foster care (which is relatively rare) combined with other child protective services. In every service system, usage rates increased following study entry. Notably, the rate of those receiving no service at all decreased dramatically—from 26.4% of study families before study entry to just 6.6% afterwards. Also, it was rare for families to use a combination of all four services in the two years before or after study entry.

The most frequent services, CalWORKs and CalFresh, were typically used in combination, with or without additional services. Nevertheless, during the calendar year prior to study entry, 85 families (33.0%) received neither, 7 (2.7%) received only CalWORKs assistance, 23 (8.9%) received only CalFresh, and the rest (55.4%) received both types of income supports.

Table 6

Any Service Use in Two Years Before and After Study Entry[a] *(N = 258 families)*

	Before Study Entry		After Study Entry		Any	
Label	Families	%	Families	%	Families	%
Child abuse/neglect report[b]	58	22.5	83	32.2	110	42.6
Foster care placement	7	2.7	17	6.6	21	8.1
HMIS shelter episode[c]	31	12.0	40	15.5	62	24.0
CalWORKs receipt[d]	159	61.6	214	83.0	231	89.5
CalFresh receipt[d]	173	67.1	237	91.9	240	93.0

Note. Percentages sum to more than 100, because families could use multiple services
[a] This is a shorter period than Table 5, so numbers are lower
[b] Any report—whether evaluated out, unfounded, inconclusive, or substantiated
[c] Excluding episodes overlapping the study entry episode
[d] Excluding assistance received during the calendar year of study entry

[14] Note that Table 6 is limited to a narrower time frame than Table 5—hence, the lower rates of CPS involvement in the former.

Table 7

Service Use Combinations in Two Years Before and After Study Entry[a] *(N = 258 families)*

Service Combination[b]	Label	Before Study Entry		After Study Entry	
		Families	%	Families	%
None		68	26.4	17	6.6
C only	Child protective services[c]	6	2.3	3	1.2
H only	HMIS shelter episode[d]	4	1.6	0	0.0
W only	CalWORKs public assistance[e]	6	2.3	0	0.0
F only	CalFresh public assistance[e]	9	3.5	18	7.0
C+H		1	0.4	0	0.0
C+W		0	0.0	1	0.4
C+F		6	2.3	1	0.4
H+W		0	0.0	0	0.0
H+F		5	1.9	3	1.2
W+F		93	36.0	117	45.3
C+H+W		0	0.0	0	0.0
C+H+F		0	0.0	2	0.8
C+W+F		39	15.1	61	23.6
H+W+F		15	5.8	18	7.0
C+H+W+F		6	2.3	17	6.6

Note. Percentages sum to 100, within rounding error

[a] This is a shorter period than Table 5, so numbers are lower

[b] Each family was classified only once: into the combination that accounted for *all* of the family's service usage

[c] Includes reports of child abuse/neglect, as well as foster care placements

[d] Excluding episodes overlapping the study entry episode

[e] Excluding assistance received during the calendar year of study entry

Thus, nearly half of study families were not fully utilizing income supports. Most of the 85 families receiving neither were connected to income supports the following year: 5 began to receive only CalWORKs, 11 began to receive only CalFresh, and 51 began to receive both during the year of study entry.

Predicting the Course of Homelessness and Use of Child Protective Services

Predicting returns to shelter. Next, we examine whether it was possible to predict the likelihood of families returning to shelter after study entry from family characteristics assessed at the time of study entry and from use of other services (Table 8). Overall, 15.9% of families returned to shelter after study entry. Unsurprisingly, previous emergency shelter involvement more than tripled the odds of returning to shelter after study entry, and having an annual

Table 8

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

Family Characteristic[a]	Odds Ratio (95% CI)[b]	
CalWORKs during or after study entry year	3.68	(0.72, 18.78)
Reported abuse/neglect before study entry[c]	0.75	(0.32, 1.75)
Shelter episode before study entry	3.45**	(1.36, 8.79)
Race/ethnicity: Hispanic (reference = "Black")	0.61	(0.20, 4.09)
Race/ethnicity: White (reference = "Black")	1.17	(0.33, 2.51)
Race/ethnicity: Other[d] (reference = "Black")	1.41	(0.49, 4.08)
Age of parent at study entry	1.01	(0.96, 1.06)
Child between ages 0 and 5 at study entry	0.75	(0.26, 2.13)
Annual household income under $5,000 at study entry	2.41*	(1.06, 5.52)
No work in 12 months prior to study entry	1.29	(0.60, 2.77)
Eviction or problem with landlord prior to study entry	1.53	(0.70, 3.34)
Psychosocial challenges index[e]	0.77*	(0.61, 0.97)

[a] The model also controlled for intervention assignment at study entry (not shown)
[b] Calculated using the maximum likelihood method
[c] Any report—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
$^{\dagger}p<.10$ $^{*}p<.05$ $^{**}p<.01$

household income of less than $5,000 at study enrollment more than doubled it. Surprisingly, however, psychosocial challenges were associated with staying out of shelter. (The psychosocial challenges index was 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.) Evaluating the model at the average values for all other predictors, a family had a 19% chance of returning to shelter if they had no psychosocial challenges, a 15% chance with one challenge, and a 12% chance with two challenges. Neither prior reports of child abuse/neglect 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 parallel methods to predict the likelihood of families having CPS involvement after study entry. To this end, three outcomes were analyzed separately: reported abuse/neglect, substantiated abuse/neglect, and foster care entry. The predictors of interest were prior shelter entry and concurrent receipt of public assistance, along with family characteristics assessed at study entry.

Reported abuse/neglect. Overall, 36.8% of families were ever reported for abuse or neglect after study entry. One of the strongest predictors was having ever had a previous report, even after controlling for other factors (Table 9). Out of 104 families with a report of abuse/neglect before study entry, 52.9% experienced another report after study entry. In contrast,

Table 9

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

Family Characteristic[a]	Odds Ratio Estimate (95% CI)		
	Reported Abuse/Neglect[b]	Substantiated Abuse/Neglect[c]	Foster Care Placement[c]
Reported abuse/neglect before study entry[b]	3.51** (1.88, 6.56)	--	--
Substantiated abuse/neglect before study entry	--	1.39 (0.37, 5.18)	--
Foster care placement before study entry	--	--	8.41** (2.55, 27.77)
CalWORKs during or after study entry year	4.10* (1.08, 15.67)	5.34 (0.44, 65.53)	3.53 (0.28, 45.40)
Shelter episode before study entry	2.84** (1.30, 6.19)	1.61 (0.54, 4.82)	2.16 (0.68, 6.84)
Race/ethnicity: Hispanic (reference = "Black")	1.08 (0.50, 2.33)	1.11 (0.32, 3.79)	0.50 (0.08, 2.99)
Race/ethnicity: White (reference = "Black")	0.32† (0.10, 1.03)	0.76 (0.14, 4.09)	2.19 (0.45, 10.63)
Race/ethnicity: Other[d] (reference = "Black")	0.74 (0.29, 1.88)	1.77 (0.53, 5.94)	0.72 (0.15, 3.52)
Age of parent at study entry	0.98 (0.93, 1.02)	0.98 (0.92, 1.05)	0.98 (0.92, 1.05)
Child between ages 0 and 5 at study entry	1.32 (0.54, 3.20)	0.78 (0.22, 2.86)	0.70 (0.19, 2.65)
Annual household income under $5,000 at study entry	1.18 (0.58, 2.40)	1.95 (0.75, 5.12)	2.21 (0.72, 6.75)
No work in 12 months prior to study entry	1.87* (1.02, 3.43)	0.97 (0.39, 2.42)	1.45 (0.49, 4.29)
Eviction or problem with landlord prior to study entry	0.98 (0.53, 1.84)	2.45† (0.99, 6.09)	1.29 (0.45, 3.67)
Psychosocial challenges index[e]	1.08 (0.91, 1.27)	0.98 (0.75, 1.27)	1.11 (0.83, 1.49)

Note. Outcome variables are limited to less than 984 days after study entry

[a] The models also controlled for intervention assignment at study entry (not shown)

[b] Any report—whether evaluated out, unfounded, inconclusive, or substantiated

[c] 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. See Heinze and Schemper (2002) for a justification of this approach.

[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

†$p<.10$ *$p<.05$ **$p<.01$

out of 154 families with *no* reports of abuse/neglect before study entry, only 26.0% experienced a report after study entry.[15]

Race was another factor significantly associated with a report of abuse or neglect after study entry: 39% of non-white families were reported, compared to 17% of white families.[16] This disparity was more noticeable among families with no history of CPS involvement before study entry: none of the 19 white families, but 40 out of 135 non-white families, were reported.[17] The regression model results (Table 9) support this finding. White families, unlike families of Hispanic and "other" racial-ethnic groups, were less likely to be reported for abuse/neglect than Black families who were otherwise similar. Evaluating the model at the average values for all other predictors, a white family had a 15% chance of being reported for abuse/neglect after study entry, compared to 37% for a Black family. However, race was not associated with either investigated or substantiated CPS reports among families reported.

Another highly significant predictor was *receiving* CalWORKs benefits during or after the study entry year. This counterintuitive finding makes more sense if we consider that CPS involvement can *lead to* CalWORKs involvement. Indeed, in their primer of California's child protective services system, Reed and Karpilow (2009) identify collaboration between CalWORKs and child welfare services as a "best practice" (p. 39). Thus, the statistical association between CalWORKs receipt and CPS involvement may reflect efforts to connect families to income supports after they have come to the attention of CPS.[18]

---

[15] χ^2 (1, n = 258) = 19.3, ϕ = .27, p < .01
[16] χ^2 (1, n = 258) = 5.9, ϕ = -.15, p = .01
[17] χ^2 (1, n = 154) = 7.6, ϕ = -.22, p < .01
[18] CalFresh receipt was not a significant predictor of CPS involvement when substituted in for CalWORKs receipt (results not shown). Unlike CalWORKs, CalFresh is not mentioned in Reed and Karpilow's (2009) child welfare system primer.

Having been in shelter and having been unemployed were significant predictors as well. Evaluating the model at the average values for all other predictors, a family had a 54% chance of being reported for abuse/neglect after study entry if they had an additional shelter episode beforehand, compared to 29% otherwise. Similarly, a family had a 40% chance of being reported for abuse/neglect if they were unemployed in the 12 months prior to study entry, compared to 26% otherwise.

Substantiated abuse/neglect. Overall, 7.4% of families had a substantiated case of abuse or neglect after study entry, which was not associated with having ever had such an incident beforehand.[19] This remained an insignificant relationship after controlling for other family characteristics (Table 9). Notably, although race was strongly associated with being reported for abuse or neglect, it was unrelated to substantiated abuse or neglect. The only predictor to reach statistical significance was having had an eviction or problem with a landlord prior to study entry. Evaluating the model at the average values for all other predictors, a family had an 8% chance of having a substantiated report of abuse/neglect if they had been evicted or had a problem with a landlord beforehand, compared to 3% otherwise.

Foster care placement. Overall, 12.0% of families had a foster care placement after study entry, which was strongly predicted by having ever had foster care involvement before study entry.[20] Out of 31 families with a placement before study entry, 97% had an additional placement afterward. In contrast, out of 227 families with *no* placement before study entry, only 8 (3.5%) had a placement afterward. This remained a very strong relationship after controlling for other family characteristics (Table 9). No other predictor reached statistical significance.

[19] χ^2 (1, n = 258) = 1.6, ϕ = .08, p = .21
[20] χ^2 (1, n = 258) = 46.7, ϕ = .43, p < .01

Impacts of Homelessness Interventions

Our third research question concerns the impacts of homelessness interventions on subsequent family involvement in the shelter and CPS systems (Table 10). Results show that, compared to families assigned to usual care, families with special offers of permanent housing subsidies (SUB) were less than a fourth as likely to return to shelter and less than an eighth as likely to have a foster care placement before the end of the study period. No other impacts reached statistical significance. This is consistent with findings of the overall Family Options Study, where the SUB intervention had a large impact on every measure of homelessness and

Table 10

Impacts of Homelessness Interventions Compared to Usual Care (UC)

SUB (n=76) vs. UC (n=71)	% of SUB	% of UC	Impact	(SE)
Shelter episode after study entry	4.8	21.8	-17.0**	(5.1)
Reported abuse/neglect after study entry[a,b]	37.5	33.8	3.6	(7.2)
Substantiated abuse/neglect after study entry[c]	4.6	8.0	-3.4	(4.2)
Foster care placement after entry[d]	0.9	7.5	-6.6*	(3.0)
CBRR (n=56) vs. UC (n=51)	% of CBRR			
Shelter episode after study entry	18.2	25.1	-7.0	(7.6)
Reported abuse/neglect after study entry[a,b]	31.7	35.8	-4.1	(9.5)
Substantiated abuse/neglect after study entry[c]	9.2	7.6	1.6	(5.3)
Foster care placement after entry[d]	13.4	8.9	4.5	(5.8)
PBTH (n=49) vs. UC (n=44)	% of PBTH			
Shelter episode after study entry	20.2	26.2	-6.0	(9.0)
Reported abuse/neglect after study entry[a,b]	44.8	38.5	6.3	(10.6)
Substantiated abuse/neglect after study entry[c]	8.0	9.6	-1.6	(5.5)
Foster care placement after entry[d]	8.6	9.0	-0.4	(5.8)

Note. All impacts are differences between least square (LS) means. LS means were adjusted for: CalWORKs receipt during or after the year of study entry, previous shelter stay, race, age of the parent, presence of a child between ages 0 to 5, whether annual household income was under $5,000, whether the parent was unemployed in the prior 12 months, whether the family had experienced eviction or landlord problems, and the number of psychosocial challenges.

Note. Each intervention group is compared to only those UC families eligible for that intervention, but who were randomly assigned to UC. This assures that the groups being compared are as equivalent as possible on all characteristics. It also means that a different group of UC families is compared with each intervention. The group is largest for comparisons with SUB because fewer UC families were ineligible for SUB than for the other interventions.

[a] Any report—whether evaluated out, unfounded, inconclusive, or substantiated

[b] LS means also adjusted for previous report of abuse/neglect

[c] LS means also adjusted for previous substantiated case of abuse/neglect

[d] LS means also adjusted for previous foster care placement

$^{\dagger}p<.10$ $*p<.05$ $**p<.01$

housing instability as well as family-reported foster care. Community-based rapid re-housing (CBRR) and program-based transitional housing (PBTH) appear to have reduced the likelihood of subsequent shelter to a lesser extent, but the sample sizes are too small to say so conclusively. In the full study, PBTH had a modest impact on returns to shelter (although not on most other aspects of housing stability), whereas CBRR did not (see Gubits et al., 2015). In Alameda County, none of the interventions had statistically significant impacts on either reported or substantiated child abuse/neglect. In the full study, SUB affected informal separations, but reports of abuse and neglect were not studied.

Discussion

Families who experience homelessness have frequent interactions with other social service systems, particularly child protective services. Over a 17-year period, half of the families in our study had been reported for child abuse/neglect, although only a minority of cases was substantiated.

CPS involvement after shelter stays. Families with multiple shelter episodes were especially likely to have experienced reports, investigations, substantiated child abuse/neglect, and foster care placements. Abuse/neglect reports increased dramatically after families' first shelter entry (Figures 1 and 3)[21,22] and after the shelter stay associated with *study* entry (Table 6), although most cases were evaluated out or unfounded (Figures 1 and 3). Further, a shelter stay prior to study entry predicted subsequent CPS reports (after controlling for other family characteristics). All of these findings are consistent with other studies that suggest shelter stays

[21] The rate at which reports were substantiated did not change after families entered shelter.
[22] The rate of substantiated reports of abuse and neglect among the 107 *families* with reports (31.8%) was greater than the rate of substantiated reports among *children* with reports in Alameda County (8.5%) (Needell et al., 2015). However, we do not have comparable child-level data in our sample.

are associated with subsequent CPS involvement (Cowal et al., 2002; Park et al., 2004). However, prior shelter episodes were not associated with additional *substantiated* cases of abuse or neglect.

There are at least two ways to interpret these findings. 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) and make it hard to provide for children. To the extent that unsubstantiated allegations of abuse or neglect reflect real problems in the family, these factors may contribute. Alternatively, given the particularly sharp increase in cases that were evaluated out or unfounded, and given the lack of association between prior shelter episodes and substantiated cases of abuse or neglect, it is also possible that shelter episodes make families more vulnerable to *perceptions* of child abuse or neglect, whether due to scrutiny in shelter (the fishbowl effect proposed by Park et al. [2004]) or afterwards. 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.

Non-white families were more likely than white families to be reported for child abuse/neglect after shelter stays, even though race was unrelated to substantiated cases of abuse or neglect. This was especially true among families with no prior CPS involvement. Our finding suggests perceptions may be tinged with racial bias—an idea that has precedent in other research. Hampton (1986) 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. 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 than by a white parent (cited in Hampton [1986] and McLoyd [1990]). In another vignette 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. These studies have not been replicated, but make explanations involving bias more plausible—even among community members who are highly informed about what constitutes child neglect. Our study suggests that bias is confined to reporters (who are typically not part of the shelter system)[23], not to CPS workers who decided to formally investigate or substantiate reports.

CPS involvement before shelter stays. If the shelter system feeds into the CPS system, the reverse does not appear to be true. All of our families were recruited to the study from shelters, but there was no relationship between CPS involvement and subsequent returns to shelter once other factors, such as low income and prior shelter stay, were taken into account (Table 8). The increase in reports of child abuse/neglect leading up to first shelter entry (Figures 1 and 2) is meaningful, even if other factors are more fundamental. Shelter entry is likely to be preceded by a period of hardship and housing instability not observable via HMIS. The increasing rate of CPS involvement before first shelter entry may reflect this pre-shelter hardship and instability—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

[23] Only 41 referrals on study families were made by someone working for a homeless service provider and none were substantiated. Thanks to Jennifer Uldricks for this calculation.

additional children in the years leading up to first shelter entry. Regardless of the explanation, the implication is that an evaluated out or unfounded report of child abuse/neglect (but not an inconclusive or substantiated report) 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 determine whether families need housing resources. Families for whom lack of affordable housing is a primary factor in imminent placement of a child may be eligible for a Housing Choice Voucher through the Family Unification Program (HUD, undated).

Income supports before and after shelter entry. If involvement with CPS appeared high, involvement with income supports seemed low: prior to the shelter stay associated with study entry, only about half of families were using both CalWorks and CalFresh. The homeless service system appeared to do a good job of linking families to both programs, as usage increased substantially after families entered shelter. Further, our regression model results (Table 9) show that the CPS system may have had a hand in increasing families' access to CalWORKs after study entry. However, increasing families' access to income supports earlier might prevent some homelessness. A caveat is that**,** when controlling for other family characteristics, income supports did not protect against returns to shelter (although having an annual household income above $5,000 at the time of study entry did). Families who failed to receive income supports in Alameda County after entering shelter may have moved out of the county or may not have had legal access to benefits.

Housing and service interventions. In the larger 12-site Family Options Study, families given special offers of housing subsidies had much better housing stability than families offered

only usual care (Gubits et al., 2015). For example, according to HMIS data, they were less likely to return to shelter in months 7 to 18 following study enrollment. Our study supports and extends this finding in the Alameda County site: SUB families were significantly less likely than UC families to have returned to shelter at any time in the 30 months after study entry. This suggests that the benefits of SUB for housing stability are long-term.

Gubits et al. (2015) also found that, in months 12 to 18 after study entry, 1.9% of SUB families and 5.0% of UC families had a foster care placement (a statistically significant difference).[24] SUB's impact in our study was slightly larger in magnitude: in months 2 to 32 after study entry, 0.9% of SUB families and 7.5% of UC families had a foster care placement. Similarly, Culhane, Park, and Metraux (2011) found that families who got subsidized permanent housing upon leaving shelters had slightly lower rate of foster care placement than others who did not. These studies consistently suggest that permanent housing subsidies can reduce foster care placements.

Limitations

Alameda County homeless shelters had a low rate of participation in HMIS, which made it likely that both counts and durations of shelter episode 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). With the exception of intervention impacts (which we can conclude are causal, since families were randomly assigned to interventions), associations observed here might not be causal. Especially since the study period spanned multiple years, some families could have moved out of Alameda County, and therefore out of the reach of

[24] Gubits et al. (2015) did not look for intervention impacts on reported or substantiated child abuse or neglect, and SUB did not have a clear impact on these in our study.

county records, which could have led to spurious associations among records of different types. Finally, findings observed in one county may not hold for families in other jurisdictions.

Policy Implications

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.

The most consequential observation is that shelter entries are related to subsequent reports of child abuse or neglect 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 reports of neglect 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, especially for non-white families. Policymakers may want to investigate the possibility of racial bias within their own service systems and whether preventing emergency shelter stays can reduce superfluous protective service reports, thereby reducing trauma—especially for non-white families—and saving public resources.

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 reports 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.

We also see opportunities to expand families' utilization of public assistance—in particular, cash assistance through the Temporary Assistance for Needy Families (TANF) program and food-purchasing assistance through the Supplemental Nutrition Assistance Program (SNAP)—*before* families enter shelter. It is plausible that efforts to connect at-risk families to these income supports could help to prevent homelessness, though we have no evidence that receipt of either is associated with fewer returns to shelter. Our findings are far more conclusive about the benefits of permanent housing subsidies for both housing stability and child welfare, contributing to a strong research base that suggests this is true for many types of communities across the United States (Gubits et al., 2015).

It is clear that families who experience homelessness frequently interact with the child protective and public assistance systems. The research literature on the patterns and timing of such interactions provides additional justification for expanding homelessness interventions and may help communities anticipate when some families are on the verge of homelessness.

References

Ards, S. D., Myers, S. L., Jr, Ray, P., Kim, H.-E., Monroe, K., & Arteaga, I. (2012). Racialized perceptions and child neglect. *Children and Youth Services Review*, *34*(8), 1480–1491. http://doi.org/10.1016/j.childyouth.2012.03.018

Barrow, S. M., & Lawinski, T. (2009). Contexts of mother-child separations in homeless families. *Analyses of Social Issues and Public Policy, 9*(1), 157-176. doi: 10.1111/j.1530-2415.2009.01171.x

Conger, R. D., Conger, K. J., & Martin, M. J. (2010). Socioeconomic status, family processes, and individual development. *Journal of Marriage and Family, 72*, 685-704. doi:10.1111/j.1741-3737.2010.00725.x

Cowal, K., Shinn, M., Weitzman, B. C., Stojanovic, D., & Labay, L. (2002). Mother-child separations among homeless and housed families receiving public assistance in New York city. *American Journal of Community Psychology, 30*(5), 711-730. doi: 10.1023/A:1016325332527

Culhane, D. P., Metraux, S., Park, J. M., Schretzman, M., & Valente, J. (2007). Testing a typology of family homelessness based on patterns of public shelter utilization in four U.S. jurisdictions: Implications for policy and program planning. *Housing Policy Debate, 18*(1), 1-28. doi: 10.1080/10511482.2007.9521591

Culhane, D. P., Park, J. M., & Metraux, S. (2011). The patterns and cost of services use among homeless families. *Journal of Community Psychology, 39*(7), 815-825. doi: 10.1002/jcop.20473

Firth, D. (1993). Bias reduction of maximum likelihood estimates. *Biometrika, 80*(1), 27–38.

Gershoff, E. T., Aber, J. L., Raver, C. C., & Lennon, M. C. (2007). Income is not enough: Incorporating material hardship into models of income associations with parenting and child development. *Child Development, 78*, 70-95.

Goering, P., Tolomiczenko, G., Sheldon, T., Boydell, K., & Wasylenki, D. (2002). Characteristics of persons who are homeless for the first time. *Psychiatric Services, 53*(11), 1472-1474.

Gubits, D., Shinn, B., Bell, S., Wood, M., Dastrup, S., Solari, C. D., Brown, S. [Scott], Brown, S. [Steven], Dunton, L., Lin, W., McInnis, D., Rodriguez, J., Savidge, G., & Spellman, B. E. (2015). *Family options study: Short-term impacts of housing and services interventions for homeless families*. Washington, D.C.: U.S. Department of Housing and Urban Development.

Gubits, D., Spellman, B., Dunton, L., Brown, S., & Wood, M. (2013). *Interim report: Family options study*. Washington, D.C.: U.S. Department of Housing and Urban Development.

Hampton, R. L. (1985). Race, ethnicity, and child maltreatment: An analysis of cases recognized and reported by hospitals. In R. Staples (Ed.), *The black family: Essays and studies* (pp. 178–191). Belmont, CA: Wadsworth Publishing Company.

Heinze, G., & Schemper, M. (2002). A solution to the problem of separation in logistic regression. *Statistics in Medicine*, *21*(16), 2409–2419. http://doi.org/10.1002/sim.1047

Kuhn, R., & Culhane, D. P. (1998). Applying cluster analysis to test a typology of homelessness by pattern of shelter utilization: Results from the analysis of administrative data. *American Journal of Community Psychology, 26*(2), 207-232. doi: 10.1023/A:1022176402357

Mayberry, L. S., Shinn, M., Benton, J. G., & Wise, J. (2014). Families experiencing housing instability: The effects of housing programs on family routines and rituals. *American Journal of Orthopsychiatry, 84*(1), 95-109. doi: 10.1037/h0098946

McDaniel, M., & Slack, K. S. (2005). Major life events and the risk of a child maltreatment investigation. *Children and Youth Services Review, 27*(2), 171-195. doi: 10.1016/j.childyouth.2004.08.015

McLoyd, V. C. (1990). The impact of economic hardship on Black families and children: Psychological distress, parenting, and socioemotional development. *Child Development, 61*(2), 311-346.

Needell, B., Webster, D., Armijo, M., Lee, S., Dawson, W., Magruder, J., Exel, M., Cuccaro-Alamin, S., Putnam-Hornstein, E., King, B., Morris, Z., Sandoval, A., Yee, H., Mason, F., Benton, C., & Pixton, E. (2015). *CCWIP reports*. Retrieved 5/28/2015, from http://cssr.berkeley.edu/ucb_childwelfare

Park, J. M., Metraux, S., Brodbar, G., & Culhane, D. P. (2004). Child welfare involvement among children in homeless families. *Child Welfare, 83*(5), 423-436.

Reed, D. F., & Karpilow, K. (2009). *Understanding the child welfare system in California: A primer for service providers and policymakers*. Oakland, CA: California Center for Research on Women and Families.

Shinn, M., Gibbons-Benton, J., & Brown, S. R. (in press). Poverty, homelessness, and family break-up. *Child Welfare*.

Turbett, J. P., & O'Toole, R. (1980). *Physician's recognition of child abuse.* Paper presented at the annual meetings of the American Sociological Association, New York (August).

U.S. Department of Housing and Urban Development. (2014). 2014 AHAR: Part 1 - PIT Estimates of Homelessness. Retrieved from https://www.hudexchange.info/resource/4074/2014-ahar-part-1-pit-estimates-of-homelessness/

U.S. Department of Housing and Urban Development. (undated). Family Unification Program (FUP). Retrieved from http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/hcv/family#2

Zlotnick, C., Robertson, M. J., & Lahiff, M. (1999). Getting off the streets: Economic resources and residential exits from homelessness. *Journal of Community Psychology, 27*(2), 209-224. doi: 10.1002/(SICI)1520-6629(199903)27:2<209::AID-JCOP8>3.0.CO;2-2

Zlotnick, C., Tam, T., & Bradley, K. (2010). Long-term and chronic homelessness in homeless women and women with children. *Social Work in Public Health, 25*(5), 470-485. doi: 10.1080/19371910903178797