

Moving to Problems: Unintended Consequences of Housing Vouchers for Child Welfare-Involved Families

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Abstract

Local child welfare services increasingly partner with public housing and homeless agencies to connect families whose housing insecurity threatens child safety with subsidized housing vouchers. The partnerships assume that access to safe and stable affordable housing offers timely support that mitigates risks for child maltreatment. Although housing vouchers appear effective at reducing material hardship and improving unit quality, it remains unclear whether vouchers facilitate moves into neighborhoods that bolster family and child development. A concern exists that voucher programs may push vulnerable families into more marginalized communities that inadvertently jeopardize child safety. Using a longitudinal randomized trial of the HUD-sponsored Family Unification Program (FUP) in Chicago, Illinois, the present study investigates neighborhood attainment of inadequately housed child welfare-involved families referred for either Housing Choice Vouchers plus housing advocacy (n = 78) or housing advocacy alone (n = 78). Results show that 2.5 years after random assignment inadequately housed child welfare-involved families referred for FUP vouchers resided in neighborhoods characterized by significantly greater concentrated disadvantage and violent crime rates than housing advocacy services alone.

Introduction

Safe, affordable, and stable housing is a significant concern for low-income families with children, especially those involved with the child welfare system. Estimates show that one-fourth of families that the child welfare system investigated for maltreatment report an inability to secure safe and stable

housing (Barth, Wildfire, and Green, 2006; Fowler et al., 2013). Child welfare-involved families who report concerns of inadequate housing routinely identify risks of family homelessness as a primary concern, jeopardizing out-of-home placement for children and disrupting family reunification for separated families (Fowler et al., 2013; Rog et al., 2017). A clear need exists for research on effective interventions that address multiple housing needs of child welfare-involved families.

Housing subsidies, which provide financial support to low-income families seeking affordable housing, have emerged as a promising and widely adopted intervention to assist families with children in securing housing. Voucher programs provide families with opportunities to secure stable housing by subsidizing rent, which demonstrates improvements in housing stability and quality for families (Fowler and Chavira, 2014; Fowler and Schoeny, 2017; Gubits et al., 2018; Pergamit et al., 2019). However, research is mixed on whether such programs improve neighborhood quality for families, a known risk factor for child maltreatment that may jeopardize child safety (Coulton et al., 2007; Freisthler, Merritt, and LaScala, 2006; Maguire-Jack and Font, 2017). Several studies found that voucher use leads to better quality neighborhoods for families, as measured by improvements in community-level poverty, crime, and various socioeconomic and demographic characteristics, whereas others find voucher recipients move to better neighborhoods in relatively small numbers that potentially diminish over time (DeLuca, Garboden, and Rosenblatt, 2013; Ellen, 2018; Lens, Ellen, and O'Regan, 2011; Ludwig et al., 2013; Nguyen et al., 2017; Park and Shelton, 2019; Patterson and Yoo, 2012; Sanbonmatsu et al., 2012). Moreover, voucher programs struggle to facilitate moves into safer, less impoverished neighborhoods, particularly for low-income families with children (DeLuca, Garboden, and Rosenblatt, 2013; Devine et al., 2003; Eriksen and Ross, 2013; Feins and Patterson, 2005; Newman and Schnare, 1997). For example, in a study of the 50 largest metropolitan areas, Mazzara and Knudson (2019) show that 14 percent of families used vouchers in low-poverty neighborhoods, whereas 33 percent of voucher-assisted families resided in high-poverty areas. Few voucher-assisted families (5 percent) lived in high-opportunity communities with access to high-quality schools, labor markets, and public transit.

Inadequately housed families involved in the child welfare system face unique barriers that further restrict housing choices. The inability to provide safe and stable housing threatens child separation, so families conduct housing searches under surveillance and time constraints. The heightened urgency potentially pushes families into less desirable housing in less desirable neighborhoods than they might otherwise access under less critical conditions (Fowler et al., 2018; Rufa and Fowler, 2018). An experimental evaluation of the effects of a multisite supportive housing demonstration project for families involved with child welfare found that treatment group families improved in terms of housing quality and satisfaction, but they did not improve their neighborhood environment compared with the control group. Moreover, the intervention had negligible effects on neighborhood satisfaction and reports of crime victimization (Pergamit et al., 2019). The evidence raises concerns for unintended consequences of housing interventions to keep families together.

Present Study

The present study uses a field experiment of the Family Unification Program (FUP) in Chicago, Illinois, to test the effect of housing vouchers on neighborhood attainment among child welfare-involved families at risk for family separation. The HUD-funded initiative provides Housing

Choice Vouchers to families whose inadequate housing caused an increased risk of out-of-home placement through local public housing and child welfare partnerships (Cunningham and Pergamit, 2015; Fowler and Chavira, 2014; Fowler et al., 2017; Pergamit, Cunningham, and Hanson, 2017). The trial compared families randomly assigned to FUP plus the child welfare Housing Advocacy Program (HAP) versus HAP alone (see the Housing Interventions section). In-home interviews conducted at baseline with followups at 6, 12, 18, and 30 months captured residential histories. Geocodes provided census tract rates of concentrated disadvantage, violent crime, and property crime rates over time. Models investigated changes in neighborhood trajectories before and after housing services. It was hypothesized that households referred for the FUP plus Housing Advocacy Program (FUP+HAP) would move to and remain in more disadvantaged neighborhoods after referral than households referred for HAP only, whose neighborhood disadvantage trajectories would not change during the followup period.

Methods

Study Design

A longitudinal randomized controlled trial was conducted within the Illinois Department of Children and Family Services (IDCFS)—the statewide child welfare system. Intact families residing in Chicago, whose inadequate housing threatened child separation, were randomly assigned to a referral for FUP vouchers. All families received referrals to HAP (see the Housing Interventions section). Referral for FUP occurred on a 1:1 ratio using a table of random numbers that research staff maintained. Caregivers referred for FUP were assessed at five different points in time for 2.5 years to track residential moves and family well-being. Although 20 percent of referred households experienced child separation during the followup, only 7 out of 150 caregivers were permanently separated from their children. An additional nine families had at least one child permanently removed; however, most of the children remained in their homes. Thus, the unit of analysis is the neighborhood of the original caregivers at the point of randomization.

Data collection efforts focus on gathering reliable and valid survey data on a representative sample of the 178 eligible families who the IDCFS referred for the FUP in Chicago. Randomized on a 1:1 ratio for referral to housing advocacy services or FUP plus advocacy, a sample of 150 families agreed to participate and completed a baseline interview approximately 3 months after referral to FUP. The participation represents 84.3 percent of families referred to the program. Families include 380 surveyed children aged 0 to 15 years at baseline, as well as 13 extended caregivers who took on parenting responsibilities during the study period. Children and families were interviewed at followups of 6, 12, 18, and 28 months.

Participants

Participants included surveyed child welfare-involved families eligible for the FUP. Inclusion into the study depended on (1) a child welfare caseworker referral for FUP between July 2011 and July 2013, (2) children who remained in their homes at the time of referral, (3) families who met eligibility criteria for the Housing Choice Voucher program, and (4) informed consent into the survey study. Exclusion occurred if families failed to meet these criteria or resided outside of Chicago at the time of referral for FUP.

Housing Interventions

The FUP connected child welfare-involved families whose inadequate housing threatened child out-of-home placement with permanent housing vouchers through the local public housing authority (Fowler et al., 2018; Fowler and Schoeny, 2017). Housing vouchers provided subsidies that ensured families paid no more than 30 percent of household income toward rent in units that met minimal standards of safety and quality. Households retained housing vouchers until income exceeded eligibility thresholds or families failed to follow program rules, and thus, families frequently kept vouchers long past closure of child welfare cases.

Families referred for FUP simultaneously received assistance through HAP. The child welfare-administered program typically offered case management for one to three sessions through contracted social service agencies. Advocates assessed goals and developed tailored plans to stabilize housing (Egan, 2007). Families received skills training, including housing resume building, role playing on approaching and negotiating with landlords, education on tenant responsibilities and rights, and budgeting. Advocates also assisted in housing searches; they maintained updated lists of available and affordable housing with known landlords across neighborhoods, which facilitated timely accommodations for families with little or poor housing histories. HAP offered security deposits or first-month rent and access to appliances, cookware, flatware, tables, and chairs, as needed. One-half of households received only referrals to HAP without FUP vouchers.

Procedures

Child welfare caseworker referrals identified and recruited families for the study from the IDCFS Housing and Cash Assistance Office, which provides services to families in the child welfare system identified as inadequately housed. IDCFS staff determined FUP eligibility. Families randomly assigned for FUP+HAP were connected with the Chicago Housing Authority (CHA) Housing Choice Voucher program and housing advocacy, whereas those assigned to HAP only received advocacy without a voucher. Housing advocacy was typically delivered for one to three sessions with community-based agencies contracted through the child welfare system. Program staff trained and supervised advocates, and performance-based contracting ensured that referred families received timely and minimal contacts (Egan, 2007). There was zero crossover from the HAP-only group to the voucher group.¹

Survey Methods and Measures

Caregiver Demographics. Several caregiver demographic characteristics were collected for the study. Caregiver age in years at baseline was self-reported. Caregiver gender was both self-reported and coded by interviewers. Caregivers self-reported race or ethnicity at baseline, choosing all descriptions that applied. For these analyses, caregiver race was categorized as Black, Latino,

¹ The study complied with ethical procedures involved in human subject research. DePaul University received initial institutional review board (IRB) approval, then subsequently Washington University in St. Louis, where the study oversight was transferred. Nonidentifiable data were used in analyses, thus DePaul University did not require IRB approval. Consent and, where appropriate, child assent were collected from caregivers and children for assessments they completed. All interviews were conducted using laptop computers and were checked for accuracy and completeness. Family interviews were scheduled around convenient times and locations for the family. Caregivers received \$50 for participation.

or White. Educational attainment, poverty level, number of children, child age in years, and experiences of child separation were also collected.

Housing Timelines. Families' housing timelines, including home addresses, were measured across time. A life events calendar collected housing timelines for 12 months before the baseline interview and between interviews. If families missed a followup interview, the timeline assessed housing since the most recent interview, which never exceeded 24 months. Life events calendars have been employed in large-scale and longitudinal studies, demonstrating accuracy and validity for housing and other life events (Belli, Shay, and Stafford, 2001; Freedman et al., 1988; Yoshihama and Bybee, 2011). The method also has been used extensively with highly mobile populations showing strong psychometric properties in these groups (Fowler, Toro, and Miles, 2009; McCaskill, Toro, and Wolfe, 1998).

Neighborhood Attainment. Structural indicators of neighborhood quality were obtained based on geocoded residential addresses at baseline and followup interviews. The neighborhood was defined at the level of the census tract. Three structural characteristics were measured in this study—concentrated disadvantage, violent crime, and property crime. Concentrated disadvantage was created as a linear combination of four census variables that have been previously shown to characterize neighborhood context: (1) percentage of female-headed households; (2) percentage of unemployed adults; (3) percentage of owner-occupied homes; and (4) percentage of families below the poverty level (Sampson, 2012; U.S. Census Bureau, 2014). Using data from the 2014 5-year American Community Survey for all census tracts in the United States, a principal components analysis revealed a single factor that accounted for 68.2 percent of the variance in the items. Summed percentages were then converted to z-scores across all census tracts in the United States, with higher scores indicating greater disadvantage. The composite measure of concentrated disadvantage was created as a standard score with a mean of zero and a standard deviation of one.

Crime incident data from the Chicago Police Department were obtained for the study period. For each incident, these data include the date and time of occurrence, type of crime, and the geocoded location. The Chicago Police Department uses the Illinois Uniform Crime Reporting codes to classify incidents. The Illinois Uniform Crime Reporting codes can be aggregated to FBI Uniform Crime Reporting codes. For the present analyses, two categories of crime were used as outcome measures—violent crime (murder, criminal sexual assault, robbery, and aggravated assault and battery) and property crime (burglary, larceny or theft, motor vehicle theft, and arson). Violent and property crime rates were measured as the annual incidence per 100,000 residents in the census tract, recorded by the Chicago Police Department and collected for the 2012 calendar year (U.S. Department of Justice, 2013).

Analytic Approach

An intent-to-treat analysis assessed the effect of FUP on neighborhood attainment. This study used discontinuous growth modeling to assess household shifts in neighborhood quality before and after referral for FUP+HAP versus HAP only (Singer and Willett, 2003). Discontinuous growth modeling offered advantages for answering the study research questions beyond linear growth models that would test $Y_{ij} = \pi_{0i} + \pi_{1i}(Time) + \pi_{2i}(Condition) + \pi_{3i}(Time \times Condition) + r$. Multilevel modeling

appropriately nests time within households and reliably handles sample sizes smaller than the present study (Hox and McNeish, 2018; Hoyle and Gottfredson, 2015; Maas and Hox, 2005). Discontinuous growth modeling also explicitly investigates whether a discrete event disrupts trajectories beyond the passage of time (Bliese, Adler, and Flynn, 2017; Dalal, Alaybek, and Lievens, 2020; Singer and Willett, 2003). The discontinuity approach allowed for testing the expectation that neighborhood quality trends at the time of referral for FUP+HAP would continue over time.

The dependent variables included monthly concentrated disadvantage, violent crime, and property crime rates collected from household residential address timelines that were geocoded at the census tract. Models estimated the intercept and slope of monthly neighborhood change before referral for housing services and the intercept and slope of change after referral as random effects. Time-varying covariates included *time* (centered at the month of the HAP or FUP referral) and the discontinuity (before housing services = 0, after housing services = 1). Time-invariant family-level covariates included the intervention condition (FUP+HAP = 1, HAP only = 0), as well as caregiver race or ethnicity (Latino = 1, Black = 0; White = 1, Black = 0), parent age, and household size to enhance the precision and power for testing treatment effects (Kahan et al., 2014; Zhang, Tsiatis, and Davidian, 2008).

A set of interaction terms between time, intervention condition, and discontinuity tested the primary research question. A significant effect for the condition x discontinuity two-way interaction indicates a difference by treatment condition in the change in the level of the outcome from pre- to post-intervention. A significant effect for the three-way condition x times x discontinuity interaction indicates a difference by treatment condition in the change in time slope from pre- to post-intervention. A priori comparisons tested hypothesized effects (Singer and Willett, 2003). The final model is in the following equation.

$$\begin{aligned}
 Y_{ij} = & \beta_{00} + \beta_{01}(\text{Condition})_j + \beta_{02}(\text{Latino})_j + \beta_{03}(\text{White})_j + \beta_{04}(\text{Age})_j + \beta_{05}(\text{HH Size})_j + & \text{[Combined]} \\
 & \beta_{10}(\text{Time})_{ij} + \beta_{11}(\text{Condition})_j(\text{Time})_{ij} + \beta_{20}(\text{Discontinuity})_{ij} + \\
 & \beta_{21}(\text{Condition})_j(\text{Discontinuity})_{ij} + \beta_{30}(\text{Time})_{ij}(\text{Discontinuity})_{ij} + \beta_{31}(\text{Condition})_j(\text{Time})_{ij}(\text{Discontinuity})_{ij} \\
 & + u_{0j} + u_{1j} + r_{ij} \\
 \pi_{0j} = & \beta_{00} + \beta_{01}(\text{Condition})_j + \beta_{02}(\text{Latino})_j + \beta_{03}(\text{White})_j + \beta_{04}(\text{Age})_j + \beta_{05}(\text{HH Size})_j + u_{0j} & \text{[Level 2]} \\
 \pi_{1j} = & \beta_{10} + \beta_{11}(\text{Condition})_j + u_{1j} & \text{[Level 2]} \\
 \pi_{2j} = & \beta_{20} + \beta_{21}(\text{Condition})_j & \text{[Level 2]} \\
 \pi_{3j} = & \beta_{30} + \beta_{31}(\text{Condition})_j & \text{[Level 2]}
 \end{aligned}$$

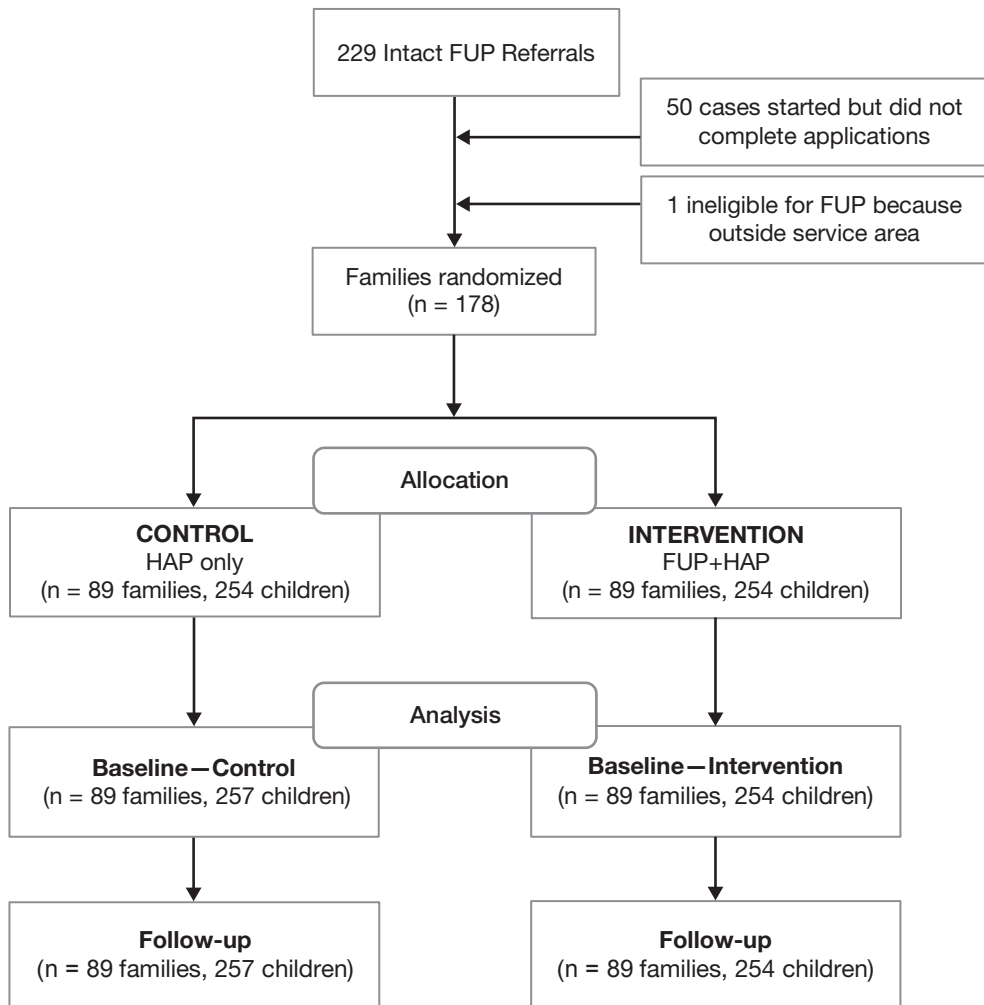
Results

Balance Testing

Exhibit 1 presents information on random assignment. Child welfare caseworkers started applications for 229 families to FUP+HAP; uncompleted applications were not referred for FUP+HAP. Randomization assigned 179 families to receive FUP+HAP (n = 89) versus HAP only (n = 88).²

Exhibit 1

Family Unification Program (FUP) Experiment Flow Diagram



HAP = Housing Advocacy Program.

Source: Authors

² One family randomly assigned for FUP was subsequently deemed ineligible, because they lived outside of Chicago at the time of referral. Another family was ineligible for the survey, because they moved out of state by the time of recruitment. The primary reason for survey participation failure was due to research staff not being able to contact the family.

Exhibit 2 summarizes baseline surveys with 150, or 84.7 percent of the population of child welfare families referred for FUP in Chicago during the study period. The sample size provided 99 percent confidence that descriptions represented the population within plus or minus 3 percentage points. Although underpowered, no significant differences existed between surveyed (n = 150) and nonsurveyed families (n = 27) at baseline on information provided in the FUP referral. Caregivers ranged in age from 18 to 53 years and were typically in their early 30s (control mean = 31.2 years, treatment mean = 31.6 years). Caregivers were predominately female (control = 95 percent, treatment = 92 percent). Most caregivers identified as Black (control = 65 percent, treatment 68 percent), Latino (control = 20 percent, treatment = 21 percent), or White (control = 13 percent, treatment = 11 percent). Nearly all households earned less than the federal poverty level at the time of referral for housing services, and more than one-half reported incomes below 50 percent of the federal poverty level. The typical family included between two and three children under 18 years of age, with more than one-half having children under 6 years of age.

Exhibit 2

Baseline Characteristics of Homeless Families Whose Inadequate Housing Threatens Out-of-Home Placement by Housing Intervention

	FUP+HUP		HAP		
	Mean or %	Std Dev	Mean or %	Std Dev	<i>p</i>
Caregiver age	32.0	8.5	31.2	7.6	0.56
Caregiver gender (female)	92.0		94.7		0.51
Caregiver race					0.90
% Black	68.0		65.3		
% Latino	21.3		20.0		
% White	9.3		13.3		
% Other	1.3		1.3		
% High school graduate	68.0		60.0		0.31
Proportion of poverty guideline	0.47	0.57	0.49	0.58	0.86
Below 50% of poverty guideline	76.5		70.0		0.39
Number of children	2.87	1.8	2.8	1.7	0.56
Age ranges of children					1.0
% Infants	30.7		30.1		
% 3–5 years	21.9		22.8		
% 6–11 years	28.4		28.2		
% 11–15 years	19.1		18.9		
Age of children	6.2	5.1	6.1	5.1	0.83

FUP = Family Unification Program. HAP = Housing Advocacy Program. Std Dev = standard deviation.
 Source: Authors

Families recruited for the survey were evenly divided between FUP+HAP (n = 75) and HAP only (n = 75). Baseline equivalency existed across all observed characteristics. Moreover, families offered FUP+HAP and HAP only lived in similar neighborhoods with concentrated disadvantage, violent crime, and property crime for 12 months prior to referral and at the time of referral, as exhibit 3 reports.

Exhibit 3

Neighborhood Outcomes and Percent Change Compared at the Time of Referral with the Family Unification Program Plus Housing Advocacy Program (FUP+HAP, n = 75) or HAP Only (n = 75), Chicago, Illinois

	FUP+HUP				HAP Only			
	n	Mean	Std Dev	% Change	n	Mean	Std Dev	% Change
Concentrated Disadvantage (z-score)								
12 months prior	69	1.36	0.82	-0.02	71	1.57	0.93	0.01
Baseline	75	1.39	0.87	0.00	74	1.55	0.93	0.00
6 months post	68	1.5	0.79	0.08	66	1.56	0.93	0.01
12 months post	69	1.61	0.68	0.16	60	1.42	0.94	-0.08
18 months post	65	1.58	0.66	0.14	55	1.53	0.89	-0.01
30 months post	55	1.48	0.70	0.06	48	1.4	0.86	-0.10
Violent Crime Rate (per 100,000)								
1 month prior	64	1139	790.00	0.12	66	1013	676.00	0.00
Baseline	73	1021	677.00	0.00	73	1014	660.00	0.00
6 months post	66	1067	627.00	0.05	64	1119	762.00	0.10
12 months post	68	1146	647.00	0.12	56	1002	657.00	-0.01
18 months post	64	1178	636.00	0.15	50	1099	703.00	0.08
30 months post	51	1107	604.00	0.08	44	1076	665.00	0.06
Property Crime Rate (per 100,000)								
12 months prior	64	5163	3891.00	-0.03	66	4562	2639.00	-0.02
Baseline	73	5297	4109.00	0.00	73	4670	2709.00	0.00
6 months post	66	5032	3442.00	-0.05	64	4696	2272.00	0.01
12 months post	68	4899	1975.00	-0.08	56	4406	2155.00	-0.06
18 months post	64	4954	1862.00	-0.06	50	4399	2162.00	-0.06
30 months post	51	4758	2133.00	-0.10	44	4618	2173.00	-0.01

Std Dev = standard deviation.

Notes: Caregivers retrospectively reported residential addresses at each interview. Geocodes captured block group at the time of observation when mappable. Percent change represents the degree households lived in less (negative) versus more (positive) neighborhoods compared with baseline. No treatment differences existed in pre-intervention neighborhoods.

Source: Authors

Differential Attrition Testing

No evidence existed for differential attrition by treatment condition. At least one followup survey occurred with 133, or 88.7 percent, of surveyed families. Analysis of covariance probed differential attrition by testing whether treatment condition, attrition, or the interaction of treatment by family characteristics predicted baseline family characteristics. No significant differences emerged.

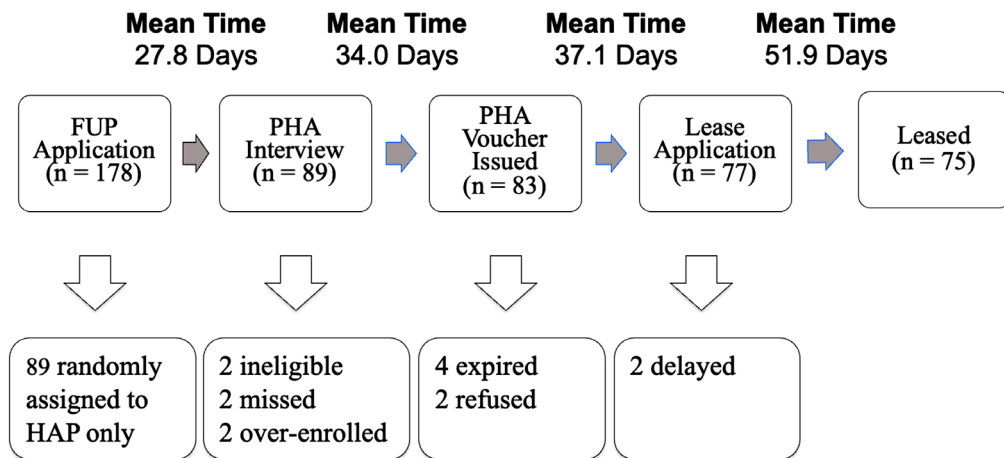
Family Unification Program Implementation and Uptake

Exhibit 4 visually displays the FUP implementation and families' progression toward housing voucher receipt. Child welfare caseworkers submitted an initial application for FUP to the IDCFS Housing and Cash Assistance Office. The application process took, on average, 30.74 days to complete (standard deviation = 35.033, minimum = 2.004, maximum = 153 days). No families

were explicitly denied referral for FUP during the study period; however, child welfare caseworkers failed to follow up on applications. Although IDCFS did not record the frequency, it was estimated that for every four applications, one did not fully complete the process (that is, approximately 230 families started applications). One family received a Housing Choice Voucher from the CHA waitlist before randomization, which referred them to FUP.

Exhibit 4

Family Unification Program (FUP) Implementation in Chicago, Illinois



HAP = Housing Advocacy Program. PHA = public housing authority.
Source: Authors

Families randomized for FUP were referred to the CHA. It took 27.802 days (standard deviation = 19.222, minimum = 4, maximum = 104) for CHA to schedule and complete an eligibility interview, and all eligible families received an interview. Most families (93.3 percent) were declared eligible for vouchers by CHA; two out of the six families were deemed ineligible for housing choice vouchers, and two missed appointments. In addition, two families did not receive vouchers due to over enrollment; CHA requested referrals and subsequently realized the number of families in the program exceeded the number of FUP vouchers HUD had provided.

The housing authority issued vouchers for families to begin housing searches approximately 30 days after interviews (mean = 33.961 days, standard deviation = 28.974, minimum = 0, maximum = 157). Of families issued vouchers, 78 (93.98 percent) found housing and submitted a request for tenancy approval to CHA after 37.142 days (standard deviation = 34.411, minimum = 0, maximum = 183). Among families who did not find housing, four exceeded the 90-day limit to secure housing, and CHA denied time extensions; one refused the voucher because the amount was too low; and one reported immigration-status concerns. Housing inspections and approval of leases required an additional 51.913 days (standard deviation = 32.564, minimum = 0, maximum = 157), on average, before families leased up. Seven families continued to wait to lease up due to delays in landlord negotiations with CHA; five of these families were eventually housed, whereas the status of two cases remained unclear.

Overall, 84.3 percent (75 divided by 89) of referred families received FUP vouchers. It required 146.26 days (standard deviation = 64.754, minimum = 48, maximum = 350) from IDCFS referral to lease up with vouchers. Families who did not receive vouchers (n = 14) experienced significantly longer delays between IDCFS referral and CHA interviews—mean = 41.781 versus mean = 25.152 days, $t(1, 86) = 3.114$, $p < .03$ —compared with referred families who received vouchers (n = 75). Families did not differ on the time it took IDCFS caseworkers to complete FUP applications. In addition, IDCFS time to complete applications did not significantly correlate with any other phase of voucher access, and delays in one CHA phase were not related to delays in other phases. The absence of relationships suggested no systematic barriers existed for particular families to receive vouchers.

Family Unification Program Effect on Neighborhood Attainment

Exhibit 3 summarizes neighborhood attainment across the study period by treatment condition. Calculated as a percentage change from baseline, scores represent the mean differences between baseline and pre or post-referral neighborhood characteristics ($D = (T_i - \text{Baseline})/[\text{Baseline}]$). Negative values indicate better neighborhoods, and positive values indicate worse neighborhoods than baseline. Unadjusted results suggested families referred for FUP+HAP experienced smaller improvements of concentrated disadvantage and violent crime at 28 months of followup and larger improvements for property crime. To investigate household-level change and maximize statistical power, growth models tested the significance of changes.

Coefficients from the discontinuous growth models are presented in exhibit 5. Across all models, Black families were more likely to reside in neighborhoods characterized by higher levels of concentrated disadvantage, violent crime, and property crime than White and Latino families. Other family characteristics, including parent age and household size, were unrelated to neighborhood quality characteristics. Time, discontinuity, and the time x discontinuity interaction predicted concentrated disadvantage and property crime such that households, on average, experienced more disadvantage and property crime, especially after randomization. Crime rates did not significantly change over time. A sensitivity analysis that excluded families experiencing child separation produced similar results as the main findings.

Exhibit 5

Intervention Effects on Neighborhood Quality Changes Between Family Unification Program Plus Housing Advocacy Program (FUP+HAP) and Housing Advocacy Program (HAP) Only Families

Parameter	Concentrated Disadvantage		Violent Crime Rate			Property Crime Rate		
	Estimate (Std Error)	t	Estimate (Std Error)	t	Estimate (Std Error)	t		
Intercept	1.68 (0.24)	7.02***	1322.47 (212.59)	6.22***	6009.99 (929.41)	6.47***		
^a Race and Ethnicity								
Latino	-0.74 (0.11)	-6.42***	-737.08 (101.90)	-7.23***	-2396.22 (445.36)	-5.38***		
White	-1.02 (0.15)	-6.80***	-815.05 (133.56)	-6.10***	-2529.02 (583.23)	-4.34***		
Parent age	0.00 (0.01)	0.48	0.25 (5.20)	0.05	-1.39 (22.70)	-0.06		
Household size	0.03 (0.02)	1.25	-7.63 (19.76)	-0.39	-117.64 (86.29)	-1.36		
Time (months)	0.01 (0.00)	3.91***	0.56 (1.89)	0.30	-13.36 (9.67)	-1.38		
^b FUP+HAP	-0.21 (0.09)	-2.25*	46.35 (83.51)	0.56	758.34 (369.48)	2.05*		
^c Discontinuity	-0.06 (0.03)	-2.15*	4.30 (18.39)	0.23	-18.34 (92.91)	-0.20		
Time x FUP	0.00 (0.00)	-0.60	-0.66 (2.67)	-0.25	25.75 (13.70)	1.88		
Time x discontinuity	-0.02 (0.00)	-10.66***	0.99 (1.12)	0.89	17.75 (5.63)	3.15**		
FUP x discontinuity	0.12 (0.04)	3.45***	-6.73 (25.62)	-0.26	-176.71 (129.43)	-1.37		
Time x FUP x discontinuity	0.01 (0.00)	5.51***	4.71 (1.51)	3.13**	-26.43 (7.61)	-3.48***		

Std Err = standard error.

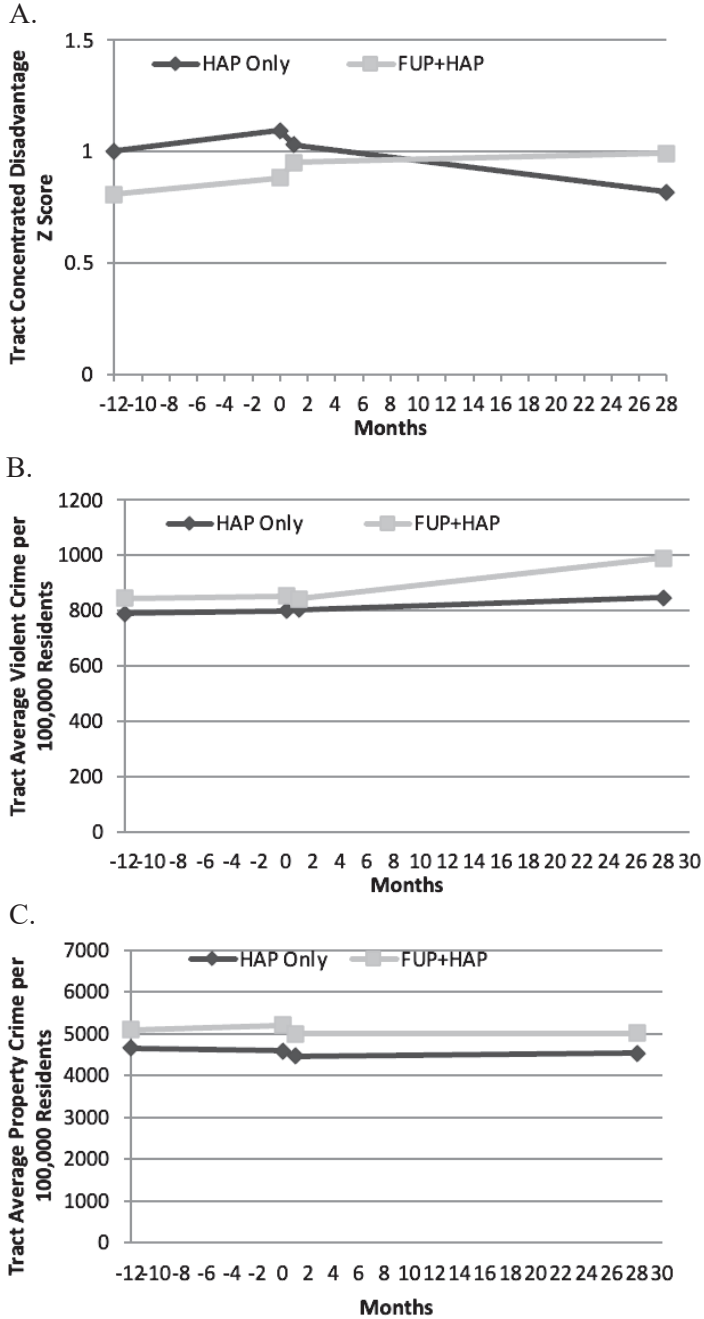
Notes: * $p < .05$, ** $p < .01$, *** $p < .001$; ^a0 = Black; ^b0 = HAP only; ^cDiscontinuity represents a time-varying binary indicator that indicates whether the outcome is observed before (0) or after (1) randomization to treatment condition.

Source: Authors

The interactions between time, treatment condition, and discontinuity, plotted in exhibit 6, primarily tested the effect of FUP+HAP on neighborhood outcomes. For concentrated disadvantage (panel A), families referred for FUP+HAP moved to more disadvantaged neighborhoods ($p < .01$) after randomization compared with households referred for HAP only that moved to significantly less disadvantaged areas ($p < .05$). In addition, neighborhoods with concentrated disadvantage for families in the HAP-only condition continued to improve over time ($p < .001$), although it did not change for families in the FUP+HAP condition.

Exhibit 6

Plots of Neighborhood Attainment by Treatment Condition and Time Interactions



FUP+HAP = Family Unification Program plus Housing Advocacy Program. HAP = Housing Advocacy Program.

Note: FUP+HAP families moved to neighborhoods characterized by higher concentrated disadvantage (panel A) and violent crime (panel B) compared with HAP-only families.

Source: Authors

Significant effects of FUP also existed for crime rates. Households in both treatment conditions reported living in violent neighborhoods before randomization; the average rate of violent crime of 800 incidents and property crime of 5,000 incidents per 100,000 residents doubled the national averages of 386 violent crimes and 2,450 per 100,000 residents (U.S. Department of Justice, 2013). Households referred for FUP+HAP moved to neighborhoods with higher violent ($p < .01$) and property ($p < .05$) crime rates after randomization. In contrast, the families in the HAP-only condition exhibited no change in violence or property crime, and none of the individual slopes nor the differences between pre- and post-randomization slopes were significantly different.

Discussion

This study examines the effect of FUP—a HUD-sponsored partnership between local child welfare and public housing agencies—on neighborhood attainment in Chicago. This study highlights potential trade-offs between housing and neighborhood attainment that families with children balance when seeking safe and stable housing (DeLuca, Wood, and Rosenblatt, 2019; Rosenblatt and DeLuca, 2012). Findings show evidence of an unintended consequence of housing voucher receipt for child welfare-involved families' mobility into significantly more disadvantaged and dangerous neighborhoods. Although housing subsidy programs generally expand housing choice and neighborhood attainment for families, the findings suggest that such programs may be less effective at moving child welfare-involved families into neighborhoods that provide resources and opportunities to promote positive family functioning and stability (Lens, Ellen, and O'Regan, 2011; Patterson and Yoo, 2012). The outcome is particularly concerning for Black families, who often reside in the most disadvantaged communities and face multiple structural barriers in the housing market that further restrict housing choices.

Qualitative work with a representative subsample of caregivers in the study helps clarify the unintended consequences on neighborhood attainment. Child welfare-involved families feel pushed to secure stable housing as quickly as possible to avoid homelessness and family separation (Rufa and Fowler, 2018). Families referred for vouchers lose the subsidy if unable to find a willing landlord within 90 days, and units that accept vouchers disproportionately fall within high-poverty, low-opportunity neighborhoods (Cunningham et al., 2018; Mazzara and Knudsen, 2019). Although families using housing assistance want to move to better neighborhoods, they may trade off neighborhood quality for voucher acceptance or (unmeasured) housing quality (DeLuca, Wood, and Rosenblatt, 2019; Rosenblatt and DeLuca, 2012). In addition, landlords with properties in high-poverty neighborhoods may actively recruit families with vouchers to secure higher rents than could be sought on the market (Rosen, 2014). These barriers, combined with the immediacy of moving, mean that families are often stuck with limited options and must move to where vouchers are more readily accepted. Child welfare-involved families navigate tight low-income rental markets under the heightened stress and surveillance associated with involvement in multiple systems with immense power over the lives of their children. These factors create the “perfect storm” in finding and securing quality affordable housing (D'Andrade et al., 2017; Fowler et al., 2018).

Implications

Improving the housing experiences of families involved with the child welfare system requires the provision of flexible programs and services that are effectively coordinated among partners across

systems (D'Andrade et al., 2017; Winters et al., 2020). Housing advocates are at the forefront of this critical work. Their role must be expanded alongside efforts to address the systemic and structural barriers confronting low-income families in the housing market. Housing advocates must ensure that families are adequately equipped with knowledge about their housing options and housing rights while also advocating for policies to incorporate additional accountability measures, particularly for landlords, to ensure that families can move into housing in neighborhoods that support, rather than undermine, well-being.

The findings are especially relevant as families navigate monumental disruptions to the affordable housing market following COVID. Within this context, nearly \$50 billion federal dollars have been allocated to deliver time-limited emergency rental assistance programs and services to homeless and housing-insecure families, including \$5 billion in Emergency Housing Vouchers. The pandemic has also generated a unique social and economic context for low-income families characterized by wage cuts, job loss, increased stress, and social isolation—all factors associated with child maltreatment and family stability. Emergency rental assistance programs must consider ways to connect families with information and resources necessary for secure housing. This connection includes ensuring that families have updated and accurate housing lists, that programs offer adequate housing counseling and financial assistance to move (for example, deposit and rent assistance, moving assistance, and so on), and that local housing authorities and community organizations have strong partnerships with landlords and leasing agencies (Bergman et al., 2019; DeLuca, Garboden, and Rosenblatt, 2013). Further attention must also be placed on program policies and practices that limit participation, including lengthy and unpredictable waitlists for families and inefficient bureaucratic procedures for landlords (Galvez and Oppenheimer, 2020).

Two recent studies provide promise and caution for such interventions. In their assessment of an experimental Housing Choice Voucher program in Seattle, Washington, *Creating Moves to Opportunity*, Bergman et al. (2019) found that 14 percent of control group voucher-only families moved to high-opportunity neighborhoods compared with 54 percent of *Creating Moves to Opportunity* families who received additional search assistance, landlord engagement, and short-term financial assistance. Their results suggest that housing voucher programs devoid of further assistance to help voucher holders in the search and leasing process are unlikely to result in significant gains in neighborhood quality (Bergman et al., 2019). It is yet unclear whether these programs work similarly across contexts. For example, in Chicago, the offer of a \$500 moving grant and housing mobility counseling did not significantly improve family moves to higher opportunity neighborhoods (Schwartz, Mihaly, and Gala, 2017).

Child welfare-involved families in the housing voucher program report experiences of limited power or control over housing choices, as seen through the push-pull cycle and additional constraints that not only affect housing decisions but also discourage families from moving to higher opportunity neighborhoods, should they want to do so (Rufa and Fowler, 2018). These constraints mean that securing high-quality, affordable housing in communities that support family needs is challenging (Rufa and Fowler, 2018). Future research assessing the added value or unintended consequences of housing vouchers combined with housing assistance programs is needed, particularly across contexts with different housing market dynamics. In addition, studies

need to illuminate appropriate additive interventions that address the housing-neighborhood quality dilemma for low-income families with children.

Limitations

The findings of this study must be considered alongside the limitations. The single-city study set in Chicago may not generalize more broadly to other communities implementing FUP that vary in low-income rental market characteristics and family supports. Less poverty and greater tenant protections could facilitate connections with safe and secure housing. The study also relies on census tract estimates of disadvantage and crime at the midpoint of the study followup period, which may disguise more local and temporal neighborhood dynamics. Another limitation concerns the accurate recall of locations among highly mobile families. Although the calendar interview includes prompts for promoting recall, frequent moves interfere with the ability to capture all transitions, and thus, some neighborhood identification may be unreliable. Despite a small sample size and a single site, study findings inform child welfare and public housing responses to family homelessness. Ensuring that households receive adequate support and time to lease-up with housing vouchers could provide longer-term benefits for families.

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