

RESEARCH REPORT

The Costs and Potential Savings of Supportive Housing for Child Welfare–Involved Families

Supportive Housing for Child Welfare Families Research Partnership

Josh Leopold May 2019 Amanda Gold





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Contents

Acknowledgments	iv
Executive Summary	vi
Supportive Housing for Child Welfare-Involved Families	1
Methods	3
Results	4
Demonstration Costs	4
Homeless Program Costs	9
Child Welfare Costs	11
Estimated Costs of Child Welfare Services	12
Investigations	13
Out-of-Home Placement Costs	14
The Costs of an Open Child Welfare Case	16
Total Child Welfare Costs	18
Limitations	20
Summary	22
Appendix. Cross-Site Evaluation Results	26
Notes	28
References	29
About the Authors	31
Statement of Independence	32

Acknowledgments

This report was funded by the Robert Wood Johnson Foundation, the Annie E. Casey Foundation, the Edna McConnell Clark Foundation, and Casey Family Programs. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute's funding principles is available at urban.org/fundingprinciples.

In particular, we would like to thank Kerry Anne McGeary and Nancy Barrand of the Robert Wood Johnson Foundation, who were responsible for guiding our work during the demonstration.

We thank the coprincipal investigators Mary Cunningham and Mike Pergamit for their review and guidance of our study and the many Urban staff over the project's six years who contributed in numerous ways:

Abigail Baum, Jennifer Biess, Martha Burt, Rebecca Daniels, Maeve Gearing, Julia Gelatt, Sarah Gillespie, Devlin Hanson, Ashley Hong, Brent Howell, Pamela Lee, Jessica Luna, Marla McDaniel, Molly Michie, Leslie Mullins, Lily Posey, Simone Zhang, and Sisi Zhang.

We acknowledge our partners at the Corporation for Supportive Housing and the Center for the Study of Social Policy, who provided technical assistance to the demonstration sites. The demonstration was funded by the Administration on Children, Youth, and Families and the Children's Bureau, and we thank Dori Sneddon for her collaboration and leadership in shepherding the grantees.

In addition, we recognize the work of our colleagues, the local evaluators in each site, for their continuing collaboration: Barry University, Chapin Hall at the University of Chicago, the University of Connecticut, the University of Iowa, and the University of Tennessee Health Science Center. We also thank Dennis Blazey, former fiscal officer for the Office of Children and Family Services at the Ohio Department of Job and Family Services, and Robert Plotnick, affiliate professor of public affairs and social work at the University of Washington, for their roles as advisers to this study.

Special thanks to the program staff from each of the five demonstration sites, who provided data:

Housing, Empowerment, Achievement, Recovery, and Triumph Alliance for Sustainable
 Families—Broward County, Florida

IV ACKNOWLEDGMENTS

- Partners United for Supportive Housing in Cedar Rapids—Cedar Rapids, Iowa
- Intensive Supportive Housing for Families—Connecticut
- Memphis Strong Families Initiative—Memphis, Tennessee
- Families Moving Forward—San Francisco, California

We would also like to acknowledge the efforts of the participating homeless service organizations and child welfare agencies that shared their financial information with us for this report.

ACKNOWLEDGMENTS V

Executive Summary

In 2012, the Children's Bureau in the US Department of Health and Human Services' Administration for Children and Families funded Partnerships to Demonstrate the Effectiveness of Supportive Housing for Families in the Child Welfare System, a five-year, \$25 million demonstration that provided supportive housing to families in the child welfare system, in five sites:

- Housing, Empowerment, Achievement, Recovery, and Triumph Alliance for Sustainable Families—Broward County, Florida
- Partners United for Supportive Housing in Cedar Rapids—Cedar Rapids, Iowa
- Intensive Supportive Housing for Families—Connecticut
- Memphis Strong Families Initiative—Memphis, Tennessee
- Families Moving Forward—San Francisco, California

With funding from the Robert Wood Johnson Foundation, the Annie E. Casey Foundation, Casey Family Programs, and the Edna McConnell Clark Foundation, the Urban Institute evaluated the demonstration's effectiveness across the five sites. As part of the evaluation, 807 families were randomly assigned to either a treatment group (N = 377), which received supportive housing with intensive services, or a control group (N = 430), which received usual care through the child welfare system. The study, which launched in 2012 and concluded in 2018, had multiple components. The process study described how each site designed and implemented the demonstration, and the impact study assessed the demonstration's effect on families' access to services, housing stability, and child welfare involvement and on the health, social, and emotional well-being of parents and children. This report summarizes the results of the cost study, which estimates the costs of the housing and services offered in the demonstration and any savings, or additional costs, resulting from the demonstration's effects on families' use of homeless programs and child welfare services. We focus on costs from the perspective of the agencies providing services. We do not estimate the cost or benefit to the participating families or to society at large. In part, this is because we focus on of whether the public expenditures for the program can be offset by reduced spending in other systems. But it is also because after 12 months in the demonstration, there were no clear improvements in health or adult or child well-being for families in the treatment group. If clear differences emerge in the 4.5-year follow-up survey, we will include them in future analyses.

VI EXECUTIVE SUMMARY

Our process study documented wide variation between demonstration sites in the families they served and the type of housing and services they offered (McDaniel et al. 2019). And our impact evaluation found wide variation between sites in our outcomes of interest for housing stability and keeping families intact or helping them quickly reunify (Pergamit et al. 2019). Therefore, this cost study focuses on the cost of the demonstration and its effects on homelessness and child welfare spending separately in each of the five sites rather than the estimated overall costs and savings from supportive housing across the five sites.

The average annual cost of supportive housing for families ranged from \$20,956 in Cedar Rapids to \$39,134 in San Francisco. This includes \$13,549 to \$26,885 per family for case management and services—excluding costs related to training, technical assistance, and evaluation that were not part of the core services provided to families in the demonstration—and \$4,289 to \$10,428 in estimated housing costs.¹ While families in the comparison group were not offered supportive housing as part of the demonstration, they were eligible to receive housing assistance and other services from other programs offered in the community. Our impact evaluation found that some comparison group families received housing assistance and supportive services, although at much lower rates than families in the demonstration (Pergamit et al. 2019). Our cost study does not include the costs of services families in the comparison group received aside from those provided by homeless assistance programs and the child welfare agency.

The demonstration greatly improved families' housing stability (Pergamit et al. 2019). Nearly 86 percent of families in the treatment group were living in their own homes after 12 months compared with 49 percent of families in the comparison group. This increase in housing stability yielded modest savings from treatment group families' reduced use of homeless programs. The greatest observed savings were in Cedar Rapids, where average annual costs for homeless programs was \$2,300 lower for supportive housing families than for families in the comparison group. Supportive housing families also had lower homeless program costs in Connecticut, Memphis, and Broward County, although the differences were smaller and not statistically significant. In San Francisco, homeless program costs were slightly higher for supportive housing families, possibly because of the challenges these families experienced successfully using their housing vouchers. By contrast, an evaluation of New York City's Keeping Families Together demonstration estimated that supportive housing reduced homeless costs for child welfare–involved families by an average of \$46,000 over two years. The potential for savings was lower for this demonstration because most families were not in a homeless shelter or transitional housing when referred to the evaluation, and only a small share of families in the comparison group used homeless programs in the 12 months after randomization.

EXECUTIVE SUMMARY VII

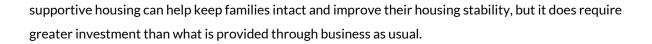
Our study looked at three categories of child welfare costs: investigations, out-of-home placements, and total costs related to an open child welfare case. The impact study found that supportive housing had no effect on the likelihood that families would have a new substantiated allegation of child abuse and neglect (Pergamit et. al. 2019). Likewise, the cost study found no effect of supportive housing on child welfare investigation costs for any of the demonstration sites.

Supportive housing increased the likelihood of family reunification and reduced the amount of time children spent in foster care (Pergamit et al. 2019). In San Francisco, Connecticut, and Broward County, supportive housing families had significantly lower out-of-home placement costs than comparison group families, and the savings increased over time. The savings were greatest in Connecticut, where average out-of-home placement costs were \$11,456 lower for treatment group families, and in San Francisco, where they were \$7,230 lower. In contrast, there was no difference in out-of-home placement costs between treatment and comparison group families in Cedar Rapids and Memphis. In most sites, savings were greater for families with reunification cases because preservation cases were unlikely to result in removals, even for families that did not receive supportive housing. But the greatest potential for child welfare savings may be targeting supportive housing to families with preservation cases that are most likely to otherwise result in a removal. The largest observed savings in out-of-home placement costs were for preservation cases in Connecticut, where supportive housing reduced placement costs by nearly \$16,000 after 24 months.

Data on the length of time child welfare cases remained open was available only for three sites: Cedar Rapids, San Francisco, and Connecticut. In San Francisco and Connecticut, supportive housing did not affect the average length of time a child welfare case remained open and thus did not significantly affect the cost of a child welfare case. In Cedar Rapids, child welfare cases remained open longer for families in supportive housing, and the costs of an open child welfare case were more than \$2,000 higher than the comparison group after 24 months.

Overall, our findings are consistent with prior research showing that offering supportive housing to vulnerable families can reduce some public costs through reduced use of homeless programs and out-of-home placements. The savings are modest relative to the costs of the demonstration's housing and services. While supportive housing greatly improved families' housing stability, families that were not offered supportive housing were more likely to be living with family or friends than to have long, costly stays in homeless shelters or transitional housing. In many communities, the potential for significant child welfare system savings was also limited because the nightly costs of foster care are lower than the costs of supportive housing. In addition, the sites that saw the greatest savings in child welfare spending also invested the most per family in services through the demonstration. Thus, it appears that

VIII EXECUTIVE SUMMARY



EXECUTIVE SUMMARY IX

Supportive Housing for Child Welfare-Involved Families

The Partnerships to Demonstrate the Effectiveness of Supportive Housing for Families in the Child Welfare System made a large investment, compared with what is usually offered by child welfare agencies, to vulnerable families with high service needs. The demonstration sites were instructed to target assistance to families who, absent supportive housing, were likely to experience long-term homelessness with recurring child welfare involvement. If effectively targeted, the demonstration's costs could be substantially or completely offset by savings from helping families pull out of a negative cycle of homelessness and child welfare involvement. The potential for long-term cost savings could motivate policymakers to replicate or expand similar programs either through local, state, or federal appropriations or through a "pay for success" model where private investors front the costs in exchange for receiving payouts if the program achieves agreed-upon benchmarks.

Previous studies have found a wide variation in costs and cost savings for supportive housing programs. Most of this literature has focused on supportive housing for formerly homeless people with disabilities. Roughly half of these studies have found significant cost savings from supportive housing, while others show either overall cost increases or some costs rising and others falling (Perl and Bagalman 2015). The results vary based on the programs' target population, housing and service models, location, and study design. The National Academies of Sciences (2018, 73) recently concluded that "there is insufficient evidence to demonstrate that the PSH [permanent supportive housing] model saves health care costs or is cost-effective."

Few studies have analyzed the costs and cost savings of supportive housing for child welfare—involved families. The Keeping Families Together demonstration from CSH, formerly the Corporation for Supportive Housing, provided supportive housing to 29 chronically homeless families in New York City with an open child welfare case and a head of household with a substance use disorder, a disabling medical condition, or HIV/AIDS. After comparing families in the demonstration with other eligible families who did not participate, CSH estimated that, over a two-year period, the program's net cost was \$2,186 per family (CSH 2011). The average cost of supportive housing was roughly \$67,000 per family over a two-year period. These costs, however, were offset by an average savings of \$46,253 from reductions in days spent in family shelters and an average savings of \$18,112 through reduced days in foster care. The large savings to the homeless system, however, may not be replicable outside New York City. To be eligible for Keeping Families Together, families must have spent at least 365 days in shelter

over the past two years. Outside New York City and other communities with right-to-shelter policies, families seldom stay that long in shelter (Henry et al. 2018). The nightly costs of shelter, which average \$150 and can be as high as \$328, are also higher in New York City than other parts of the country (Routhier 2018).

The Keeping Families Together demonstration was part of a larger supportive housing program called New York/New York III that funded supportive housing for various populations, including homeless families where the head of household had a serious mental illness or co-occurring mental illness and substance use disorder. A separate cost analysis of the larger New York/New York III program found that providing supportive housing for this population generated a net savings of more than \$7,000 per family, primarily through reduced use of family shelter and cash assistance (NYC 2013).

Outside New York City, supportive housing for families has generally not produced significant savings. The High-Needs Family Demonstration in Washington State offered supportive housing to families with multiple episodes of homelessness and child welfare involvement. Westat's preliminary evaluation findings indicate that families' total costs for housing, benefits, and other services increased by more than \$12,000 after placement in supportive housing. In comparison, for families who were offered public housing with no case management or other services, total costs decreased by more than \$6,000 after placement (Henderson and Rog 2018). The Family Options Study was a randomized controlled trial of homeless families in 12 communities. After seven days in shelter, homeless families were assigned to usual care, transitional housing, rapid re-housing, or a permanent housing subsidy, usually through the Housing Choice Voucher Program. In the three-year follow-up study, families assigned to a permanent subsidy had slightly higher average costs for homelessness and housing assistance programs than families assigned to other groups (Gubits et al. 2016). The study found that assignment to permanent housing resulted in better outcomes for families, including reduced psychological distress and domestic violence for adults and improved school stability and reduced behavioral problems for children, but it did not estimate the financial benefit of these improved outcomes. The Family Options Study also did not estimate child welfare costs, but it did find that 20 months after randomization, families offered a permanent subsidy were less likely to have a child removed by the child welfare agency and more likely to have a child reunified than families assigned to other groups. These differences did not persist at the 37-month follow-up (Gubits et al. 2016).

Methods

This cost study aims to measure the financial impact that supportive housing has across multiple systems. The conceptual framework focuses on the "ingredients method" (or the "resource cost method"), which models the program's cost as the sum of the costs of all ingredients needed to implement or replicate it (Levin and McEwan 2002). Our approach involved collecting information, through a structured data collection instrument, related to the costs of staff, space, materials, contracted services, equipment, and in-kind contributions of time and materials.² We exclude capital costs unless improvements were made specifically for families in the program.

The ingredients method allows for a standardized and rigorous comparison of costs across programs, regardless of how they are financed, including volunteer labor and donated items or land (Olson and Bogard 2014). It may, however, include savings that are not necessarily "cashable," meaning that any estimated savings do not translate into tangible savings agencies can use for other purposes. For example, if an intervention is found to reduce the average child welfare case by one day, the ingredients method will include the estimated savings from one day of staff time and overhead. Unless these reductions reach a certain scale, however, they are unlikely to save the child welfare agency actual money, because they would not be enough for the agency to reduce staff or allow other shifts in how it invests its resources.

Our cost analysis focuses on the three domains where the demonstration is likely to have the greatest short-term impact: the cost of the demonstration, the cost of homeless programs, and the cost of child welfare services. We collected financial information from grantees, local homelessness programs, and child welfare agencies in each of the five demonstration sites to estimate the unit cost, per family or per child, of providing a service. These unit costs are based on the total annual costs of a service (e.g., shelter) divided by the number of all children or families that used that service that year. We merged these unit costs with survey and administrative data to estimate the costs of supportive housing and differences in homeless service and child welfare costs for the treatment and comparison groups.

Results

Demonstration Costs

The Children's Bureau provided demonstration sites a common framework for the intervention (figure 1) but left program design up to the local grantees. All sites provided a housing subsidy along with case management and supportive services. Demonstration sites were also required to offer services for parenting, child well-being, and mental health. Although the framework called for services to be "evidence based" and "trauma informed," it did not specify which programs sites should adopt or which programs are considered evidence based (Pergamit et al. 2019). All sites adopted a Housing First approach, making case management and supportive services available to families but not requiring them as a condition for receiving housing assistance.

FIGURE 1

placements

Logic Model

Target population Child welfare-involved family for whom lack of adequate housing is a factor in imminent placement of child/children in out-of-home care or decision not to reunify child/children already in out-of-home care with family **Providers: Services integration** Child welfare agency Public housing agency Supportive services agency Homeless service agency Intervention Supportive service Housing subsidy Case management services Parent/family functioning Child well-being services services Key activities Provide evidence-based Assess child well-being, Provide assistance paying Develop case plan provide evidence-based rent in a housing unit that is Facilitate parent access to strategies to promote good safe, sustainable, resources parenting, reduce relational interventions and mental functional, and conducive Build support network problems, improve family health services, including to tenant stability Advocate for parent functioning, and meet other trauma services Provide referrals needs Mediating outcomes \ Increase housing stability Improve family stability Improve parenting Reduce homelessness Increase employment and Increase cognitive Make housing affordable increase income engagement Reduce maltreatment and reduce financial burden Provide a safe, healthy Improve child development environment (housing unit, trajectories plus neighborhood) Outcomes Increase child well-being Develop and improve social, emotional, and adaptive skills Increase academic achievement and engagement Advance communication capability Address and treat mental health concerns Improve developmental and cognitive status Reduce child welfare contacts, reports of child maltreatment, child removals, and time in foster care and foster care

The Children's Bureau grant did not provide funding for housing. Instead, sites had to leverage existing housing resources in the community. Broward County, Connecticut, and San Francisco

provided families vouchers to find housing in the private rental market, while Cedar Rapids partnered with a local nonprofit developer to dedicate units with affordable housing developments for treatment group families and Memphis partnered with a US Department of Housing and Urban Development (HUD)-funded permanent supportive housing project sponsor to house families (table 1).

TABLE 1
Housing Subsidy Source by Site

Site	Subsidy description
Broward County, Florida	Federal housing choice vouchers
Cedar Rapids, Iowa	Tenant-based rental assistance, project-based housing (Affordable Housing Network Inc.), housing choice vouchers (City of Cedar Rapids Housing Services)
Connecticut	State Rental Assistance Program vouchers
Memphis, Tennessee	Project-based supportive housing for homeless families
San Francisco, California	Federal housing choice vouchers, permanent supportive housing units, project- based housing, transitional housing as a bridge to permanent housing

Each site adopted a different approach to providing case management and evidence-based services, but all sites offered families in the treatment group more intensive supports than what the child welfare agencies provided under usual care (table 2). One of the biggest differences between the treatment and comparison groups was the ratio of clients to case managers, which ranged from 7:1 to 15:1 in the treatment group and from 17:1 to 37:1 in the comparison group. The difference was particularly pronounced in Broward County, Cedar Rapids, and San Francisco, where the planned ratio in the treatment group was half the size of the comparison group. In most sites, the case manager credentials required for the demonstration program—a master's degree or a bachelor's degree with additional work experience—were higher than the credential requirements for the local child welfare agency.

Additionally, most caseworkers in the demonstration were required to reach out to families weekly, while the child welfare agency required case managers to contact families monthly. Families in the treatment group were eligible to receive services for the duration of the demonstration, while services in the comparison group were typically court-ordered for the duration of the family's child welfare case.

TABLE 2
Supportive Services Models by Site

	Broward County	Cedar Rapids	Connecticut	Memphis	San Francisco
Ratio of clients to case managers	10:1	12:1	7:1, higher as service intensity stepped down	17:1	15:1
Frequency of contact	Weekly, service intensity decreasing over time	Frequency varied based on stage of service and family need	Eight home visits a month, with protocol for stepping down services as needed	Weekly	Weekly
Case manager credentials	Master's degree in social work	Master's degree or bachelor's degree and two years of experience	Bachelor's degree in social work and two or more years of experience	Bachelor's degree in social services– related field	Bachelor's degree or three years of comparable life/work experience
Supportive services	Clinical intensive case management team	Intensive Service Coordination and case progress management to tailor service timing and intensity	Teaming model	Clinical intensive interdisciplinary case management	Intensive case management, housing search assistance
Evidence- based practices	Healthy Babies Project, Strengthening Families Program, trauma-focused cognitive behavioral therapy, Center for Working Families	Parents as Teacher, Strengthening Families, Parent Child Interaction Therapy, trauma- focused cognitive behavioral therapy, Motivational Interviewing, Family Team Decision Making	Multisystemic therapy, trauma- focused cognitive behavioral therapy, Child FIRST, Family- Based Recovery, Positive Parenting Program	Nurturing Parenting, cognitive behavioral therapy	Trauma-focused cognitive behavioral therapy, child-parent psychotherapy, Positive Parenting Program, peer mentors, Safety-Organized Practice, family team meetings

Source: Mary Cunningham, Mike Pergamit, Marla McDaniel, Maeve E. Gearing, Simone Zhang, and Brent Howell, *Supportive Housing for High-Need Families in the Child Welfare System* (Washington, DC: Urban Institute, 2014), table 2, with authors' updates.

To estimate the costs of the demonstration at a "steady state" of implementation, we focused on costs in the year that each site had the greatest number of families enrolled. We looked at each grantee's total expenditures in that year, minus costs specific to the demonstration such as evaluation and technical assistance, divided by the number of families they served in that year. For sites that used a voucher, housing costs were based on data from HUD's Pictures of Subsidized Housing database on the average cost of rental assistance for families in the area. For sites that had dedicated apartments for

families in the demonstration, our estimates are based on program budgets on capital and operating costs.

Table 3 shows the estimated costs per family for a full year of demonstration services and housing for each site. These costs were not adjusted based on differences in costs of living (e.g., housing or wages) between sites. Estimated annual demonstration costs per family ranged from \$20,956 in Cedar Rapids to \$39,134 in San Francisco. In all sites, the cost of services was greater than the cost of housing. Services accounted for 77 percent of total program costs in Cedar Rapids (\$16,085 of \$20,956), 74 percent in Connecticut, and 59 percent in Broward County. Costs were more evenly split in Memphis and San Francisco, where services accounted for 54 percent and 52 percent of total costs, respectively. Memphis, which had the highest ratio of clients to case managers, has the lowest service costs per family (\$13,549), while Connecticut, which had the lowest ratio of clients to case managers, had the highest (\$26,885). The annual cost of housing assistance ranged from \$4,871 in Cedar Rapids to \$18,627 in San Francisco. The estimated annual demonstration costs are higher than estimates from a study of HUD family supportive housing programs that did not include intensive case management and evidence-based services (Spellman et al. 2010) but are consistent with costs for families in the New York City Keeping Families Together demonstration (CSH 2011).

TABLE 3

Average Annual Demonstration Program Services and Housing Costs at Peak Program Enrollment

Site	Services	Housing	Average annual costs	Average daily costs
Broward County	\$19,203	\$13,457	\$32,660	\$89
Cedar Rapids	\$16,085	\$4,871	\$20,956	\$57
Connecticut	\$26,885	\$9,594	\$36,480	\$100
Memphis	\$13,549	\$11,768	\$25,317	\$69
San Francisco	\$20,508	\$18,627	\$39,134	\$107

Source: Authors' calculations.

Notes: Service costs are estimated based on our review of grantee financial information. Housing costs are based on US Department of Housing and Urban Development Picture of Subsidized Households data on voucher costs for Broward County, Connecticut, and San Francisco and an analysis of capital and operations costs from Cedar Rapids and Memphis. All costs are in 2018 dollars.

Table 3 shows the estimated costs for a full year of housing and services in the demonstration, but particularly for families that received a voucher, there were frequently lengthy delays between when they were referred to supportive housing and when they were stably housed. Table 4 shows the average costs for demonstration families in the first 12 and 24 months after randomization prorated based on the portion of the year demonstration families spent in housing. Twelve-month program costs were highest in Connecticut (\$31,384 per family) and lowest in Cedar Rapids (\$20,374 per family). In

the first year, treatment group families in San Francisco spent only 63 days in supportive housing, so their actual housing costs (\$3,227) were the lowest of any site. In contrast, treatment group families in Memphis spent 323 days in supportive housing in their first year, and Memphis's actual housing costs (\$10,428) were the highest of any site. By the second year, the imbalance in days in housing had leveled out, though San Francisco families still spent less time in supportive housing than families in other sites, as they still had the lowest lease-up rates. Connecticut also had the highest overall costs per family 24 months after randomization (\$67,085), and Cedar Rapids had the lowest (\$40,949).

While families assigned to the comparison group did not receive supportive housing through the demonstration, they were eligible for housing assistance and other services available in their communities. The cost study did not attempt to estimate the costs of additional services received by comparison group families apart from child welfare services and homeless shelter.

TABLE 4A
Estimated Annual Demonstration Costs for Families in First 12 Months after Randomization

Site	Services	Average days in housing	Housing	Total
Broward County	\$19,203	248	\$9,152	\$28,355
Cedar Rapids	\$16,085	321	\$4,289	\$20,374
Connecticut	\$26,885	171	\$4,499	\$31,384
Memphis	\$13,549	323	\$10,428	\$23,977
San Francisco	\$20,508	63	\$3,227	\$23,734

TABLE 4B
Estimated Annual Demonstration Costs for Families in First 24 Months after Randomization

Site	Services	Average days in housing	Housing	Total
Broward County	\$38,406	568	\$20,957	\$59,363
Cedar Rapids	\$32,171	658	\$8,778	\$40,949
Connecticut	\$53,771	507	\$13,315	\$67,085
Memphis	\$27,098	668	\$21,541	\$48,638
San Francisco	\$41,015	233	\$11,865	\$52,880

Source: Authors' calculations.

Notes: Service costs are estimated based on our review of grantee financial information. Housing costs are estimated by taking annual housing costs from table 3, prorated by the length of time treatment group families spent in permanent housing, based on program data. All costs are in 2018 dollars.

Homeless Program Costs

We worked with the local evaluators in each of the demonstration sites to collect cost information for the homeless programs that families in the study were most likely to use. We used a modified version of the Drug Abuse Treatment Cost Analysis Program developed by the University of Miami to capture annual costs related to personnel, facilities, contracted services, donated items and volunteer time, and equipment.³ We then divided these program costs by the number of shelter nights programs offered during the year to estimate average nightly costs. Table 5 shows the average nightly cost per family of different homeless programs in each demonstration site. Emergency shelters were typically the most expensive, with nightly housing costs exceeding \$100 in San Francisco (\$161), Broward County (\$136), and Cedar Rapids (\$130). Shelter costs were significantly lower in Memphis (\$32) and Connecticut (\$61). The main drivers for homeless costs were the costs of the land, which were high in Broward County and San Francisco, and the level of services programs offered, which were high in Cedar Rapids. Memphis tended to have informal homeless programs with light services, which explains its low costs for both shelter and transitional housing. Although we collected data on the costs of rapid re-housing programs, they are not included in our estimates because we do not have data on how often families in our study used those programs.

TABLE 5
Average Nightly Costs of Homeless Programs, by Type

Site	Rapid re-housing	Shelter	Transitional housing
Broward County	\$17	\$136	\$65
Cedar Rapids	\$46	\$130	
Connecticut		\$61	
Memphis	\$57	\$32	\$25
San Francisco		\$161	\$114

Source: Authors' calculations.

Notes: Nightly program costs are estimated from reviewing homeless program costs, using a modification of the Drug Abuse Treatment Cost Analysis Program instrument, and dividing annual costs by the number of nights families spent in these programs. All costs are in 2018 dollars.

We used data from our 12-month follow-up survey to estimate the number of nights families had spent in emergency shelter or transitional housing since randomization and multiplied these estimates by the nightly costs of those programs. Table 6 shows our 12-month estimates of homeless program costs for treatment and comparison group families. In most sites, homeless program costs were lower for families in the treatment group than for families in the comparison group. In Cedar Rapids, average homeless program costs were nearly \$2,300 lower for families in the treatment group—the largest difference in any site. The Cedar Rapids demonstration may have had the greatest savings in homelessness costs because most treatment group families were housed quickly, spending almost the entire year in housing, and shelter costs were relatively high (\$130 per night). In contrast, Memphis had the highest share of families in shelter at baseline (89 percent) and quickly moved treatment group families into housing. But because shelters there were the least expensive (\$32 per night), and most shelter stays were short, the savings associated with the demonstration were lower. San Francisco was

the only site where homelessness costs were higher for the treatment group. The higher homeless program costs for the treatment group stems from a few families with stays of 12 months or more in transitional housing.⁵ These families sought transitional housing because of the long delay they faced getting into permanent housing with a voucher.

TABLE 6
Average Estimated Costs from Homeless Programs for Treatment
and Comparison Group Families in the First 12 Months after Randomization

Site	Treatment group family costs	Control group family costs	Difference (treatment-control)
Broward County	\$1,988	\$2,846	-\$857
Cedar Rapids	\$959	\$3,246	-\$2,287*
Connecticut	\$1,044	\$2,174	-\$1,130
Memphis	\$69	\$707	-\$639
San Francisco	\$5,812	\$5,149	\$663

Source: Authors' calculations.

Notes: Average family costs are calculated by multiplying estimated nightly program costs by regression-adjusted means from the household survey for nights in shelter and transitional housing for treatment and comparison group families 12 months after randomization. All costs are in 2018 dollars.

The savings from reduced use of homeless programs in this demonstration were modest compared with those observed for families in New York City's Keeping Families Together demonstration. This is likely because, unlike Keeping Families Together, the demonstration sites were not required to select families with long stays in homeless shelters. Program data show a wide variation in how many families met the HUD definition for homelessness at the time of referral. In Memphis, where housing assistance was funded through a HUD homelessness assistance grant, 92 percent of families were in a shelter or were unsheltered (e.g., living on the streets, in abandoned buildings, or in cars) at referral. In San Francisco, 49 percent of families were in a shelter, in a transitional housing program, or unsheltered at the time of referral; in Broward County it was 46 percent; in Cedar Rapids 38 percent; and in Connecticut 20 percent. Although families in the comparison group continued to experience high rates of housing instability after randomization, they generally did not use homeless shelters or transitional housing (Pergamit et al. 2019).

Child Welfare Costs

For each of the child welfare agencies in the demonstration, we estimated the average cost for an investigation, a day in out-of-home placement, and a day of preservation services. In most cases, these estimates were derived through analysis of budget line items related to each activity in the agency's

^{*} p < 0.1.

annual cost allocation plan. We include the costs of personnel, facilities, and overhead for the child welfare agency, as well as the costs of contracted services and "maintenance payments" to foster care parents and licensed foster care programs. These costs were then divided by the number of investigations the agency conducted that year, or the number of days of out-of-home placements they provided or the number of days of in-home services. These unit costs represent the averages for all children in the child welfare system and not the specific costs of children in the evaluation. We merged these unit costs with child welfare agencies' administrative data to estimate child welfare costs for treatment and comparison group families in our evaluation. We hypothesized that permanent housing and evidence-based services would substantially reduce child welfare costs related to open cases, out-of-home placements, and new allegations of abuse or neglect. We found that supportive housing does have the potential to significantly reduce costs related to out-of-home placements. We did not find evidence that supportive housing produced child welfare savings either through reduced allegations of abuse or neglect or faster closing of open child welfare cases.

Estimated Costs of Child Welfare Services

Table 7 shows the estimated unit costs of child welfare investigations and the average daily costs to the child welfare agency of a preservation and out-of-home placement case. Average investigation costs varied greatly by site. In San Francisco, the average cost of an investigation was \$6,052, compared with \$1,296 in Connecticut, \$971 in Broward County, and \$713 in Cedar Rapids. This variation is in part because Broward County, Connecticut, and Cedar Rapids provided the average cost per an assessment, which may not involve a substantiated allegation, while San Francisco provided the average cost of an investigation and Memphis provided the daily cost of an active investigation.

The average daily cost of an open preservation case ranged from \$13 in Broward County to \$38 in Connecticut. Broward County was the only demonstration site where child welfare services had been privatized, which may explain its lower daily costs. The average cost of an out-of-home placement varied by the age of the child, ranging from \$31 in Broward County to \$87 in Connecticut. These rates represent both the daily costs to the child welfare agency of administering an out-of-placement case, as well as the costs of payments to the foster care family or licensed-care facility. For most sites, the costs of foster care for a child are well below the costs of supportive housing for a family in the demonstration. For example, in Broward County, the cost of a full year of foster care for a teenager is \$12,775 (\$35*365), while the estimated cost for a full year of housing and services for a family in the demonstration is \$32,660.

TABLE 7
Average Costs per Child Welfare Service, by Site

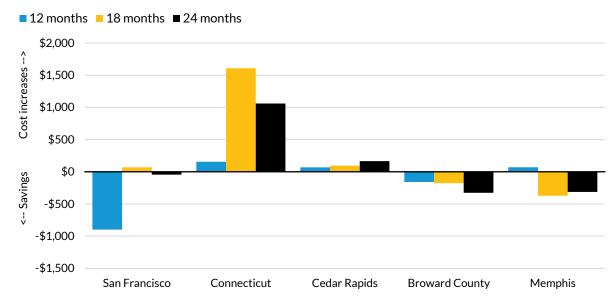
Ages	Investigations	Daily costs for preservation/in- home services	Daily costs for out- of-home placements
Broward County Birth to 5 6 to 12 13 to 17	\$971	\$13	\$31 \$32 \$35
Cedar Rapids Birth to 5 6 to 11 12 to 15 16 to 20	\$713	\$29	\$46 \$47 \$48 \$49
Connecticut Birth to 5 6 to 11 12 and older	\$1,296	\$38	\$85 \$85 \$87
Memphis Birth to 11 12 and older	\$20	\$20	\$69 \$72
San Francisco Birth to 4 5 to 8 9 to 11 12 to 14 15 to 21	\$6,052	\$18	\$54 \$56 \$57 \$58 \$60

Notes: Estimated costs are taken by calculating total child welfare costs, by type, divided by the number of investigations or number of days of in-home and out-of-home services provided. Memphis provided average daily costs rather than costs per case. All costs are in 2018 dollars.

Investigations

Figure 2 shows the difference in investigation costs between supportive housing and comparison group families at 12, 18, and 24 months after randomization. The impact evaluation found that supportive housing did not reduce the frequency of new substantiated allegations of abuse or neglect (Pergamit et al. 2019). Likewise, the cost study did not have a significant impact on the cost of future child welfare investigations in any of the demonstration sites. In Broward County, Cedar Rapids, and Memphis, there were almost no differences in average investigation costs between treatment and comparison group families at any point. In San Francisco, average investigation costs were slightly lower for treatment group families at 12 months after randomization, and in Connecticut, average investigation costs were slightly higher 18 and 24 months after randomization, but these differences were not statistically significant.

FIGURE 2
Difference in Average Investigation Costs between Comparison and Treatment Group Families

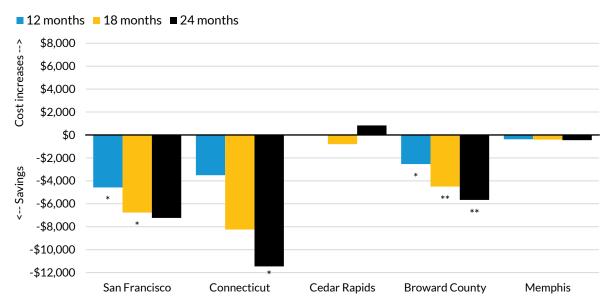


Notes: This analysis includes only investigations that began after randomization. Costs are estimated by multiplying the average cost per investigation by differences in regression-adjusted means, with site-level dummies, for the number of investigations following randomization. For more information about the regression model, see Mike Pergamit, Mary Cunningham, Devlin Hanson, and Alexandra Stanczyk, *Does Supportive Housing Keep Families Together? Supportive Housing for Child Welfare Families Research Partnership* (Washington, DC: Urban Institute, 2019). For Memphis, we used the days of Family Stability Services because they included both investigation and preservation services and costs. All costs are in 2018 dollars.

Out-of-Home Placement Costs

Figure 3 shows the difference in average out-of-home placement costs between supportive housing and comparison group families in each site. In Broward County, Connecticut, and San Francisco, average out-of-home placement costs were significantly lower for treatment group families, and the difference increased over time. By 24 months following randomization, assignment to the treatment group reduced out-of-home placement costs by \$7,231 in San Francisco, \$11,456 in Connecticut, and \$5,660 in Broward County. In Cedar Rapids and Memphis, there was almost no difference in out-of-home placement costs between treatment and comparison group families. Memphis targeted assistance to families with preservation cases and, while nearly all families in the treatment group avoided out-of-home placements, most comparison group families did as well, reducing the potential for savings. Cedar Rapids served an equal mix of preservation and reunification cases, but the demonstration did not appear to prevent removals or facilitate reunifications (Pergamit et al. 2019).

PIGURE 3
Difference in Average Out-of-Home Placement Costs between Comparison and Treatment Group Families



Notes: This analysis includes foster care maintenance costs and estimated costs to the child welfare agency. Costs are estimated by multiplying the average cost per day in out-of-home placements by differences in regression-adjusted means, with site-level dummies, between treatment and comparison group families' days in out-of-home placement. For more information about the regression model, see Mike Pergamit, Mary Cunningham, Devlin Hanson, and Alexandra Stanczyk, *Does Supportive Housing Keep Families Together? Supportive Housing for Child Welfare Families Research Partnership* (Washington, DC: Urban Institute, 2019). All costs are in 2018 dollars.

* p < 0.1; ** p < 0.05.

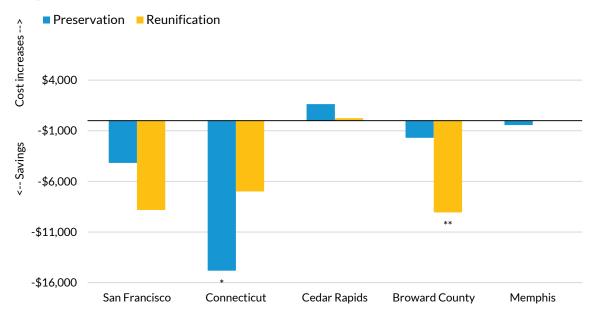
Demonstration sites were given discretion in whether to target assistance to families with a preservation case or a reunification case. The impact study found that only 22 percent of preservation cases in the control group resulted in a removal, suggesting a lower potential for savings related to out-of-home placement costs (Pergamit et al. 2019). But our study shows great potential for savings if communities can effectively use supportive housing to prevent an out-of-home placement. Figure 4 shows the difference in average out-of-home placement costs between treatment and control group families 24 months after randomization for preservation and reunification cases in each site. Although average overall savings were greater for reunification cases, the greatest observed savings were for the preservation group in Connecticut. Families with a preservation case who were assigned to the treatment group had an average out-of-home placement cost of roughly \$850, compared with \$15,672 for families in the comparison group. In Broward County and San Francisco, reductions for the reunification group were greater than for the preservation group. San Francisco appeared to be less effective at preventing removals for preservation cases in the treatment group, while Broward County

was less effective at targeting assistance to preservation cases that were likely to result in a removal.

Cedar Rapids did not see significant differences in cost savings, or cost increases, between preservation and reunification cases, while Memphis targeted only families with preservation cases.

FIGURE 4

Difference in Average Out-of-Home Placement Costs between Treatment and Comparison
Group Families 24 Months after Randomization for Preservation and Reunification Cases



Source: Authors' calculations.

Notes: This analysis includes foster care maintenance costs and estimated costs to the child welfare agency. Costs are estimated by multiplying the average cost per day in out-of-home placements by differences in regression-adjusted means, with site-level dummies, between treatment and comparison group families' days in out-of-home placement. For more information about the regression model, see Mike Pergamit, Mary Cunningham, Devlin Hanson, and Alexandra Stanczyk, Does Supportive Housing Keep Families Together? Supportive Housing for Child Welfare Families Research Partnership (Washington, DC: Urban Institute, 2019). All costs are in 2018 dollars.

The Costs of an Open Child Welfare Case

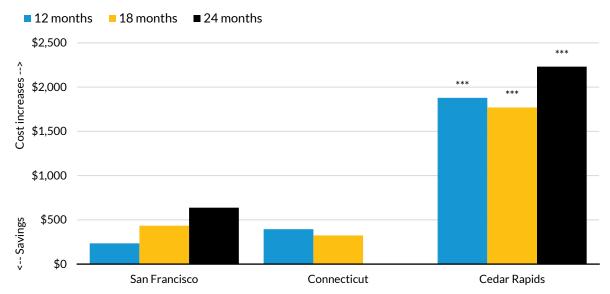
We wanted to create a separate estimate of the demonstration's effects on the costs related to child welfare preservation services. But the available administrative data did not allow us to reliably measure the number of days families in the evaluation had an open preservation case. Instead, we applied our estimated daily preservation costs to the total number of days families had open child welfare cases. These data were not available for Broward County or Memphis, so all the results in this section apply only to Cedar Rapids, Connecticut, and San Francisco. We assumed that the daily costs of preservation

^{*} p < 0.1; ** p < 0.05.

services for the child welfare agency are roughly equal to the average daily costs of an open child welfare case. Because in-home services are typically provided for the entire family rather than for a specific child, we estimated the costs for the longest open child welfare case for each family during the analysis period. Because our out-of-home placement costs also include administrative costs, there is overlap between the costs included in out-of-home placement and the costs included in open cases. Readers should not add the out-of-home placement and open case costs to estimate total child welfare costs.

Figure 5 shows the difference in average open child welfare case costs between comparison and treatment group families in each site. It shows that the increase in costs is driven primarily by Cedar Rapids, where, 24 months after randomization, average child welfare case costs were more than \$2,300 higher for treatment group families. Connecticut had only slightly higher costs for the treatment group at 12 and 18 months, and at 24 months, case costs were the same for both groups. In Broward County, treatment group families had slightly higher case costs at 12, 18, and 24 months, but the differences were not statistically significant.

FIGURE 5
Difference in Open Child Welfare Case Costs between Comparison and Treatment Group Families



Notes: This analysis includes foster care maintenance costs and estimated costs to the child welfare agency. Costs are estimated by multiplying the average cost per day in out-of-home placements by differences in regression-adjusted means, with site-level dummies, between treatment and comparison group families' days with an open child welfare case. For more information about the regression model, see Mike Pergamit, Mary Cunningham, Devlin Hanson, and Alexandra Stanczyk, *Does Supportive Housing Keep Families Together? Supportive Housing for Child Welfare Families Research Partnership* (Washington, DC: Urban Institute, 2019). All costs are in 2018 dollars. Data are available only for Cedar Rapids, Connecticut, and San Francisco.

**** p < 0.01.

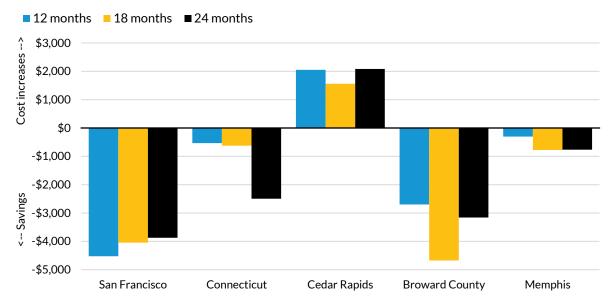
Total Child Welfare Costs

To estimate total child welfare costs, we summed investigation costs, payments to foster care parents or guardians, and the costs to the child welfare agency of maintaining an open case. To avoid double-counting administrative costs, we did not include staff costs related to out-of-home placements, since those are presumably captured in the costs of maintaining an open child welfare case.

Figure 6 shows differences in total child welfare costs between treatment and comparison group families at 12, 18, and 24 months after randomization in each site. Except for Cedar Rapids, treatment group families have lower average child welfare costs than families in the comparison group. Broward County and San Francisco had the highest overall savings, although Connecticut's child welfare savings steadily increased over time. In Cedar Rapids, the average total child welfare costs for a family in the treatment group were \$2,300 more than the costs for the comparison group. The increase is explained

by treatment group families having longer open child welfare cases than families in the comparison group.

FIGURE 6
Difference in Total Child Welfare Case Costs for Comparison and Treatment Group Families



Source: Authors' calculations.

Notes: Total child welfare costs are the sum of investigations, maintenance payments for out-of-home placements, and costs to the child welfare agency of open cases. Costs are estimated by multiplying the average cost per day for child welfare services by differences in regression-adjusted means, with site-level dummies, between treatment and comparison group families for investigations, out-of-home placement days, and total days with an open case. For Broward County and Memphis, where case open and close dates were not available, total child welfare costs are the sum of the costs of investigations and out-of-home placements. For Cedar Rapids, Connecticut, and San Francisco, total child welfare costs are the sum of the costs of investigations, maintenance payments to foster care parents and licensed facilities, and the costs of maintaining an open child welfare case. For more information about the regression model, see Mike Pergamit, Mary Cunningham, Devlin Hanson, and Alexandra Stanczyk, Does Supportive Housing Keep Families Together? Supportive Housing for Child Welfare Families Research Partnership (Washington, DC: Urban Institute, 2019). All costs are in 2018 dollars.

Limitations

This study provides a partial accounting of the costs and potential savings of supportive housing for child welfare–involved families. Its limitations include a lack of complete data on housing assistance and supportive service costs incurred by families in the comparison group, incomplete and imprecise data on child welfare costs, the exclusion of other potential sources of savings and benefits from supportive housing, and a two-year analysis period that prevents us from determining longer-term impacts.

Our study includes one and two-year estimates of the average costs of housing and supportive services for families in the demonstration. We know from the 12-month survey that not all families assigned to the treatment group received supportive housing and that some families in the comparison group received housing assistance and supportive services through other programs (Pergamit et al. 2019). Unfortunately, we do not have data to estimate the costs of housing and services for families in the comparison group. This likely causes us to overstate the net cost difference between families that were offered supportive housing and families in the comparison group.

Another limitation is that our study relies on estimates of the average costs of a child welfare investigation and the daily costs of preservation services and out-of-home placements for all families served by the child welfare agencies. It then applies those estimates to administrative data on the use of child welfare services by the families in the study. Thus, we use the number of investigations, or the length of preservation days or out-of-home placement days as the only factor affecting costs, rather than looking at the intensity of services families receive. Each child welfare case is different, however, and caseworkers may spend more time with families experiencing homelessness with high service needs or refer them to more, or more intensive, contracted services. If that is true, our approach will underestimate the costs of child welfare services, although we expect this would apply equally to supportive housing and comparison group families.

Our methods may introduce bias if receiving supportive housing affects how child welfare agencies approach cases. Supportive housing could reduce the cost of child welfare services either because families are more stable and need fewer outside services or because child welfare caseworkers can coordinate with supportive housing caseworkers to ensure that the children are safe and the parents or guardians are following their court-ordered case plans. Conversely, supportive housing may cause families to receive more attention from child welfare caseworkers or receive more contracted services. This appears to have occurred in Connecticut, the only site where the local evaluators (the University of Connecticut) conducted an independent case study. Unlike our study, the University of Connecticut

reviewed each families' case files to determine how much time the child welfare case worker spent on the case and the cost of any contracted services the family received. Like our study, they found that supportive housing reduced the number of days children were in out-of-home placements. Despite this, they estimated that child welfare costs were higher for supportive housing families, because their cases stayed open longer, and they received more time from child welfare staff and more expensive contracted services. It is unclear if this dynamic of greater investment of time and services for families in supportive housing would apply to other demonstration sites. Connecticut was unique among the demonstration sites in that the child welfare agency, the Department of Children and Families, was the grantee. Although the University of Connecticut separated demonstration costs from other child welfare costs, it is possible that these families received more attention or more services from the Department of Children and Families than families in usual care.

In addition to these potential sources of bias, our study is also limited by a lack of data. Data on the start and end dates of child welfare cases were available only for San Francisco, Connecticut, and Cedar Rapids. Although some studies have shown supportive housing can produce savings through reduced use of emergency rooms, psychiatric hospitalizations, detox facilities, jails, and other emergency services, our study did not have the data to measure these outcomes. Our study also does not account for any other individual or societal benefits of supportive housing. Although we had originally planned to monetize improvements in well-being and productivity from the 12-month follow-up survey, we decided against it. As documented in the impact evaluation report, the 12-month survey results were mixed. Families that were offered supportive housing reported better results than comparison group families for some domains. They reported better relationships with their children, and their children were likely to be enrolled in early childhood education, more likely to be reading at or above grade level, and less likely to be suspended or expelled from school. But adults in supportive housing were less likely to be working, more likely to report a recent experience of domestic violence, and more likely to be incarcerated in the past six months (Pergamit et al. 2019). Given these ambiguous results, we did not feel comfortable extrapolating longer-term supportive housing benefits based on the 12-month survey results.

Another limitation is that our study is limited to a two-year follow-up period for child welfare outcomes and one year for homelessness and other outcomes. It is possible that the savings from supportive housing could increase and that other longer-term benefits will emerge over time as they have for other housing interventions for families (Chetty, Hendren, and Katz 2016).

Summary

The SHARP demonstration provided families more support than they would typically receive through the child welfare system. Families in the treatment group were offered a permanent rental subsidy, intensive case management, and evidence-based services that varied by site but included parenting, healthy relationships, prenatal and postnatal care, employment, and legal assistance. We estimate that the costs of providing housing and services in the demonstration's first year averaged between \$20,000 and \$31,000 per family. This is comparable with estimates of the annual costs of family supportive housing for the Keeping Families Together demonstration in New York City (CSH 2011).

Our cost study assessed whether the housing and services offered to families in the demonstration would yield savings through reduced use of homelessness and child welfare services. Table 8 shows demonstration costs for housing and services for the first year of the program and the demonstration's effect on homelessness and child welfare costs in its first year. For all sites, costs go down after accounting for decreases in homelessness or child welfare services. These savings, however, do not offset all or even most of the demonstration costs. As noted in the limitations section, however, the difference in observed costs would have been lower if we had included data on the costs of housing assistance and supportive services received by the comparison group.

TABLE 8

Average One-Year Demonstration Costs after Adjusting for Cost Savings or Increases for Homelessness Programs and Child Welfare Services

	Demonstration costs (housing and services)	Change in costs from homeless programs	Change in costs in child welfare services	Total difference in observed costs
Broward County	\$28,355	(\$857)	(\$2,698)	\$24,800
Cedar Rapids	\$20,374	(\$2,287)	\$2,054	\$20,141
Connecticut	\$31,384	(\$1,130)	(\$532)	\$29,722
Memphis	\$23,977	(\$639)	(\$303)	\$23,035
San Francisco	\$23,734	\$663	(\$4,526)	\$18,545

Source: Authors' calculations.

Notes: Demonstration costs are the estimated costs of one year of services when the program was at peak enrollment plus the average cost of one year of housing prorated by the average amount of time participants spent in housing in their first year. Changes in homelessness and child welfare costs are calculated by taking the difference in regression-adjusted means, with site-level dummies, between treatment and comparison group families. For more information about the regression model, see Mike Pergamit, Mary Cunningham, Devlin Hanson, and Alexandra Stanczyk, Does Supportive Housing Keep Families Together? Supportive Housing for Child Welfare Families Research Partnership (Washington, DC: Urban Institute, 2019). All costs are in 2018 dollars.

The small savings in homelessness and child welfare costs may be disappointing given that previous studies, such as the New York City Keeping Families Together demonstration, had found more

substantial cost offsets. There are three principal reasons why the cost savings we observed were less than anticipated. The first is related to the nature of our evaluation, the second is related to the fact that the program we evaluated was a new pilot, and the third is more fundamental to the nature of how homelessness and child welfare services are provided in many communities.

The nature of our evaluation may have limited the observed cost savings relative to other studies for two reasons. First, unlike previous evaluations, ours is a randomized controlled trial. Randomized controlled trials, the gold standard for program evaluations, often find lower impacts than other types of evaluations that are less effective in controlling for the effects of time and unobserved differences between treatment and comparison groups (Orr 2018). Previous studies might have attributed savings to the offer of supportive housing that should have been attributed to other differences. Second, our study looks only at the potential for cost savings through reduced use of homelessness programs and child welfare services. We might have missed potential savings to other public systems, such as health care or criminal justice. We also did not estimate any long-term economic or societal benefits that might be achieved through improvements in education, economic productivity, or well-being. We did not see a clear difference in these outcomes between treatment and comparison group families after 12 months, but this may change when we conduct our next follow-up survey that will capture outcomes 4.5 years after randomization.

Second, this was a pilot program, which may affect the generalizability of the findings in several ways. Demonstration sites had access to various resources, including a full year of funding for planning, national and local evaluators, dedicated technical assistance providers, and annual conferences that we would not expect to be available if the program was not part of a national demonstration. Although we tried to exclude these costs from our evaluation, these extra supports might have contributed to any positive outcomes associated with reductions in homelessness and child removals, as well as the increased pace of reunifications. A lengthy planning period may be critical to projects like this one that involve cross-sector collaboration. Grantees also made important changes to their programs during implementation that may not have occurred without insight from the evaluators and technical assistance providers.

On the other hand, communities looking to replicate the program would have the advantage of learning from the demonstration and adjusting which families to target for assistance and what services to offer. Within a standard framework, demonstration sites were given discretion in setting eligibility requirements. Demonstration sites often did not set eligibility requirements to target families with high homelessness and child welfare costs. Most families in the evaluation were not in homeless shelters or transitional housing programs at randomization, and 12 months after randomization, only 11 percent

reported they were staying in a shelter, in transitional housing program, in a car, in an abandoned building, or on the streets (Pergamit et al. 2019). Similarly, for child welfare services, only 22 percent of families in the comparison group with preservation cases had a child removed within 24 months of randomization. Future iterations of the program could target assistance to families in the shelter system. They could also target assistance to families with reunification cases, unless the community has demonstrated an ability to predict which preservation cases are most likely to result in removals absent supportive housing.

Sites also had wide discretion in designing their programs and deciding what services to offer. We did not estimate the costs of each of the services offered, but some services were more useful than others (McDaniel et al. 2019). Communities could reduce some of the costs of the model while achieving the benefits of increased housing stability and more intact families. But it is difficult to determine the relationship between different demonstration components and cost savings. The sites that had the greatest reduction in child welfare costs (Broward County, Connecticut, and San Francisco) also spent the most per family on demonstration services.

Finally, some of our findings suggest that, even if future supportive housing programs make these adjustments, the potential for substantial cost offsets may be limited. The belief that the demonstration could produce substantial savings assumed that, absent supportive housing, the most vulnerable families would be caught in a costly cycle of homelessness and child welfare involvement. These families might exist, and demonstration sites were not effective at identifying them or enrolling them into the program. But most communities do not guarantee a right to shelter for homeless families, and shelters are often full, with long waiting lists. Some families may also prefer staying with friends or family to staying in a shelter. This may explain why families in our comparison group were four times more likely to be doubled up with friends or family than to be staying in a homeless shelter. Even when families did use homelessness programs, their stays tended to be short, so the costs were not high. Similarly, federal, state, and local funding for child welfare services, the number of children in foster care, and the average amount of time children spent in foster care are all lower than they were 10 years ago (Rosinsky and Williams 2018). This may help explain the low rates of removals we saw among families in the comparison group. Similarly, in most of our demonstration sites, the daily cost of supportive housing was greater than the daily cost of an out-of-home placement.

The results from this cost study suggest that supportive housing can create savings through reduced use of homelessness programs and child welfare services. Communities' ability to realize these savings is dependent on targeting assistance to families that are most likely to have lengthy stays in homeless programs and protracted involvement with the child welfare system absent supportive

housing. In communities with limited shelter availability and a child welfare system with a low rate of removals, the potential for savings may be limited.

Appendix. Cross-Site Evaluation Results

TABLE A.1

Average Cost of Investigations for All Sites at 12, 18, and 24 Months

	N	Treatment	Comparison	Difference
12 months	794	\$2,736	\$3,334	(\$599)
18 months	759	\$4,488	\$4,822	(\$334)
24 months	733	\$5,253	\$5,894	(\$640)

Source: Authors' calculations.

Notes: This analysis includes only investigations that began after randomization. Costs are estimated by multiplying the average cost per investigation by differences in regression-adjusted means, with site-level dummies, for the number of investigations following randomization. For more information about the regression model, see Mike Pergamit, Mary Cunningham, Devlin Hanson, and Alexandra Stanczyk, *Does Supportive Housing Keep Families Together? Supportive Housing for Child Welfare Families Research Partnership* (Washington, DC: Urban Institute, 2019). For Memphis, we used the days of Family Stability Services because they included both investigation and preservation services and costs. All costs are in 2018 dollars.

TABLE A.2

Average Cost of Out-of-Home Placements for All Sites at 12, 18, and 24 Months

	N	Treatment	Comparison	Difference
12 months	794	\$10,737	\$12,053	(\$1,316)
18 months*	759	\$15,334	\$18,351	(\$3,017)
24 months	733	\$17,776	\$20,780	(\$3,003)

Source: Authors' calculations.

Notes: This analysis includes foster care maintenance costs and estimated costs to the child welfare agency. Costs are estimated by multiplying the average cost per day in out-of-home placements by differences in regression-adjusted means, with site-level dummies, between treatment and comparison group families' days in out-of-home placement. For more information about the regression model, see Mike Pergamit, Mary Cunningham, Devlin Hanson, and Alexandra Stanczyk, Does Supportive Housing Keep Families Together? Supportive Housing for Child Welfare Families Research Partnership (Washington, DC: Urban Institute, 2019). All costs are in 2018 dollars.

26 APPENDIX

^{*} p < 0.1.

TABLE A.3

Average Costs of Out-of-Home Placements for Preservation and Reunification Cases at 12, 18, and 24 Months

	Preservation			Reunification		
	Treatment	Comparison	Difference	Treatment	Comparison	Difference
12 months	\$2,297	\$2,962	(\$665)	\$22,731	\$25,590	(\$2,859)*
18 months	\$4,462	\$5,831	(\$1,370)	\$30,855	\$36,826	(\$5,971)**
24 months	\$5,899	\$7,697	(\$1,798)	\$34,747	\$41,085	(\$6,338)**

Notes: This analysis includes foster care maintenance costs and estimated costs to the child welfare agency. Costs are estimated by multiplying the average cost per day in out-of-home placements by differences in regression-adjusted means, with site-level dummies, between treatment and comparison group families' days in out-of-home placement. For more information about the regression model, see Mike Pergamit, Mary Cunningham, Devlin Hanson, and Alexandra Stanczyk, Does Supportive Housing Keep Families Together? Supportive Housing for Child Welfare Families Research Partnership (Washington, DC: Urban Institute, 2019). All costs are in 2018 dollars.

TABLE A.4

Average Costs of Open Child Welfare Cases at 12, 18, and 24 Months

	N	Treatment	Comparison	Difference
12 months***	503	\$8,791	\$7,931	\$860
18 months**	476	\$12,305	\$11,244	\$1,061
24 months*	461	\$14,121	\$12,869	\$1,252

Source: Authors' calculations.

Notes: This analysis includes foster care maintenance costs and estimated costs to the child welfare agency. Costs are estimated by multiplying the average cost per day in out-of-home placements by differences in regression-adjusted means, with site-level dummies, between treatment and comparison group families' days with an open child welfare case. For more information about the regression model, see Mike Pergamit, Mary Cunningham, Devlin Hanson, and Alexandra Stanczyk, *Does Supportive Housing Keep Families Together? Supportive Housing for Child Welfare Families Research Partnership* (Washington, DC: Urban Institute, 2019). All costs are in 2018 dollars. Data are available only for Cedar Rapids, Connecticut, and San Francisco.

TABLE A.5 Average Total Child Welfare Costs at 12, 18, and 24 Months

	N	Treatment	Comparison	Difference
12 months	794	\$22,264	\$23,318	-\$1,054
18 months	759	\$32,127	\$34,417	-\$2,290
24 months	733	\$37,151	\$39,543	-\$2,392

Source: Authors' calculations.

Notes: Total child welfare costs are the sum of investigations, maintenance payments for out-of-home placements, and costs to the child welfare agency of open cases. Costs are estimated by multiplying the average cost per day for child welfare services by differences in regression-adjusted means, with site-level dummies, between treatment and comparison group families for investigations, out-of-home placement days, and total days with an open case. Costs of an open case are not available for Broward County or Memphis. For more information about the regression model, see Mike Pergamit, Mary Cunningham, Devlin Hanson, and Alexandra Stanczyk, *Does Supportive Housing Keep Families Together? Supportive Housing for Child Welfare Families Research Partnership* (Washington, DC: Urban Institute, 2019). All costs are in 2018 dollars.

APPENDIX 27

^{*} p < 0.1; ** p < 0.05.

^{*} p < 0.1; ** p < 0.05; *** p < 0.01.

Notes

- Demonstration funds could not be used to pay for housing. Instead, sites were required to identify housing resources in their community through partnerships with their local housing authorities or other affordable housing providers.
- We modified a data collection instrument developed by the University of Miami called the Drug Abuse Treatment Costs Analysis Program (DATCAP) to collect these costs.
- ³ The DATCAP is available for download at "Downloads," Drug Abuse Treatment Cost Analysis Program, accessed May 24, 2019, http://www.datcap.com/downloads.htm.
- ⁴ We originally planned to use Homelessness Management Information Systems data to measure use of homeless programs, but these data were not available for all demonstration sites.
- ⁵ This does not include transitional housing stays in Holloway House that were provided to treatment group families as part of the demonstration. The costs of these stays are included as demonstration program costs.
- ⁶ Foster care maintenance payments can vary considerably within a community based on the age of the child, whether he or she has specialized medical needs, and the type of facility he or she is placed in. We used the basic foster care rate for all sites except for San Francisco, which provided a weighted rate based on the daily cost of each type of placement and the frequency of those placements.
- In Memphis, because of the way data were collected, investigation costs include the daily costs of Family Support Services, which are similar to preservation services in other sites.

NOTES NOTES

References

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