Creating Moves to Opportunity:

Experimental Evidence on Barriers to Neighborhood Choice

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With special thanks to our partners who implemented this experiment: Seattle Housing Authority, King County Housing Authority, MDRC, and J-PAL North America

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Motivation: Four Facts on Neighborhoods and Economic Opportunity

1. Children's prospects for upward income mobility vary substantially across neighborhoods

The Geography of Upward Mobility in Seattle and King County

Average Income at Age 35 for Children with Parents Earning \$27,000 (25th percentile)







> 57 (\$51k)

< 36 (\$27k)

Motivation: Four Facts on Neighborhoods and Economic Opportunity

1. Children's prospects for upward income mobility vary substantially across neighborhoods

2. Moving to better neighborhoods earlier in childhood improves children's outcomes in adulthood significantly

Estimates of Childhood Exposure Effects

United States



Source: Chetty, Friedman, Hendren, Jones, Porter (2018)

Denmark





MTO: Baltimore, Boston,

Chicago, LA, NYC

Source: Deutscher (2018)

4000

2000

0

-2000

-4000

-6000

10



Montreal, Canada

Source: Laliberté (2018)



Chicago Public Housing

12 14 Age at Random Assignment

Source: Chyn (AER 2018)

16

Motivation: Four Facts on Neighborhoods and Economic Opportunity

1. Children's prospects for upward income mobility vary substantially across neighborhoods

2. Moving to better neighborhoods earlier in childhood improves children's outcomes in adulthood significantly

3. Low-income families who receive housing vouchers predominantly live in low-opportunity neighborhoods

Most Common Locations of Families with Housing Vouchers 2015-2017



 25 most common tracts where voucher holders with children leased before the CMTO experiment

Mean Household Income Rank in Adulthood

> 57 (\$51k)

48 (\$40k)

< 36 (\$27k)

Motivation: Four Facts on Neighborhoods and Economic Opportunity

- 1. Children's prospects for upward income mobility vary substantially across neighborhoods
- 2. Moving to better neighborhoods earlier in childhood improves children's outcomes in adulthood significantly
- 3. Low-income families who receive housing vouchers currently live predominantly in low-opportunity neighborhoods
- 4. Differences in rent do not explain why low-income families live in lowopportunity areas

The Price of Opportunity in King County: Upward Mobility vs. Rents, by Census Tract



Question: Why Don't Low-Income Families Move to Opportunity?

- Two classes of explanations:
 - 1. **Preferences**: families may prefer to stay in current neighborhoods because of other amenities (e.g., commute time, proximity to family)
 - 2. Barriers: families may be unable to find housing in high-opportunity areas because of lack of information, search frictions, or landlords' tastes

If barriers are what is driving segregation, can we reduce them through changes in affordable housing policy?

Creating Moves to Opportunity

Randomized trial to develop and test scalable strategies to reduce barriers that housing choice voucher recipients may face in moving to high-opportunity areas in Seattle and King County





1) Program Description and Experimental Design







Housing Choice Voucher Program: Institutional Background

- 2.2m families in U.S use housing vouchers each year
- Administered by local housing authorities
- Typical features:
 - Income cutoff for eligibility (~30% of area median income)
 - Waitlists: typically 2+ years
 - Limited time to use voucher: typically 4 months
 - Voucher subsidizes tenant's rent
 - Tenant typically pays 30% of income toward rent and utilities
 - Landlord receives rent up to a cap based on "fair market rent"
 - Inspection process for landlords



Please print neatly in this All fields are requireds, submit this form only. Incomplete, photocopied, e-mailed or faxed applications will not be accepted, if you are already on our Section 8 waiting list your record will be updated using the information that you provide below. Due to the volume of applications received, we will not verify the receipt of mailed applications. We cannot be responsible for material that is illegible or missing as a result of transmitting by fax or e-mail or backfedwed through the mail.

IMPORTANT!

One-third of all applications are dropped from the waiting list due to unreported address changes. Do not let this happen to you. Report <u>any</u> change of address in writing to one of the regional agencies listed on the reverse of this form.

Social Security Number			Phone (include area code)				
First Name		Middle Name		Last Name			
Address				City/Town	State	Zip code	
helter Name Shelter Address				City/Town	State	Zip code	

Household and Demographic Information

	How many people will live in the unit? Inclu	ude yourself	Gross annual household income \$ Write in the approximate amount of your family's gross (before taxes) annual income. Include all sources for all family members.
	Check if the head of household or spo 62 years old or older	use is: Disabled 🗌	Displaced by government action
	We collect data on race & ethnicity in accordance thnicity. Please indicate if you are Hispanic. Y	ce with federal regulatio our answers will not affe	ns. People of various races may also be of Hispanic ect your application.
	Is the head of household (Select as m White Black/African American Native Hawaiian/Other Pacific Islander	a ny as appropriate American Indi) an/Alaskan Native 🗌 Asian 🗌
	Is the head of household (Check only Hispanic	one) Non-Hispanic 🗌	
	What is your current housing situatio I am homeless I live in substandard housing I have been involuntarily displaced I pay more than 50% of my monthly in rent and utilities I live in a shetter	n? (Check one box	that best applies) am doubled up with friends or relatives live in public housing live in a transitional housing program live in subsidized housing Other (describe)
1	Certification of Applicant - Please re I hereby certify that the information I have	ad this statement ver	y carefully. By signing, you are agreeing to its terms
I			

nati	re of head of household	Date
bility		
ree t	hat DHCD can share my information with other state agencies	for the purposes of determining program
v	HID and DHCD regulations: and that I will be subject to a crir	ninal history check
	address in writing and I understand that my application may b	e cancelled if I fail to do so;
~	it is my responsibility to notify any one of DHCD's regional adr	ninistering agencies of any change of
	I have provided here, in accordance with federal housing regu	ations and DHCD policy;
~	at the time I rise to the top of the waiting lists, I will be requir	ed to provide verification of the information
	agencies and is not an offer of housing;	5 5 5
~	this is a pre-application for tenant-based rental assistance thro	ough DHCD and its regional administering
•	termination of housing assistance:	plication being cancelled of denied, of in
	any microproceptation or false information will result in my ar	plication being cancelled or depied, or in

DHCD manages a limited number of project-based Section 8 apartments in or near most major cities and towns throughout the state. To find out more contact one of the agencies on the reverse of this form or visit the Housing Consumer Education Center website at <u>www.masshousinginfo.org</u>

DHCD pre-application form for HCVP 8/1/14

Definition of Opportunity Areas

- Experimental intervention seeks to help voucher families move to opportunity areas
- First step: define a set of neighborhoods as "opportunity areas"
- Starting point: identify Census tracts with rates of upward income mobility roughly in top third of distribution within Seattle (SHA) and King County (KCHA)
- Adjust definitions in collaboration with housing authorities to account for two issues:
 - Neighborhood change (using test score data to assess stability)
 - Creating contiguous areas

Designation of High-Opportunity Neighborhods



High-Opportunity Area

Opportunity Atlas vs. Other Measures of Economic Opportunity

Kirwan Child Opportunity Index

Population-Weighted Correlation Across Tracts: 0.30

Treatment Interventions

On average, non-profit staff spend **6 hours** with each household

47% of rentals in highopportunity areas made through links via nonprofit staff Average financial assistance of **\$1,000** for security deposits, application fees, etc.

Program Cost: \$2,670 per family issued a voucher (2.2% of average voucher payments over 7 years)

Note: Families **not** required to move to high-opportunity areas

Key Elements in the CMTO Intervention

CUSTOMIZED SEARCH ASSISTANCE

- **High-opportunity area education** to increase families' knowledge about high-opportunity areas.
- **Rental application coaching** to increase families' competitiveness for rental units by addressing credit history and preparing a narrative.
- Housing locator services to help families identify suitable units in highopportunity areas.

INCREASED LANDLORD ENGAGEMENT

- **Cultivate relationships** with landlords in designated high-opportunity areas to create housing opportunities for CMTO families.
- **Expedite lease-up processes** by completing PHA required documents and conducting housing inspections more quickly.
- Insurance fund to mitigate risks of property damage.

SHORT-TERM FINANCIAL ASSISTANCE

• Grants to **defray move-in expenses**, such as application fees and security deposits (on average \$1,000).

Intervention Process Timeline

PHA Nonprofit Family Milestone

Creating Moves to Opportunity Program Costs

Average Cost

A. Total Costs	
	\$ 0.000
Cost of CMTO services per issuance	\$2,668
Cost of CMTO services per lease / average 7-year HAP costs per lease	2.5%
B. Costs by Service Category	
Cost of CMTO financial assistance per issuance	\$1,057
Cost of CMTO program services per issuance	\$1,500
Cost of PHA CMTO administration per issuance	\$392
Cost savings of PHA services paid by CMTO	(\$281)
C. Housing Assistance Payment (HAP) Costs	
Average incremental HAP costs per lease per year	\$2,519
Average incremental HAP costs per leased family over 7 years	\$17,633
(Incremental HAP + CMTO services per lease) / average 7-year HAP costs per lease	17.2%
D. Phase 2 Treatment Arms	
T1 (Financial Accistance + Infe) cost per isculance	¢338
T2 (Peduced Services) cost per issuance	\$631 \$
T2 (Reduced Services) cost per issuance	Φ0 600
13 (CIMIO) cost per issuance	\$Z,69Z

Experimental Design

- Sample frame: families with at least one child below age 15 who were issued vouchers in either Seattle or King County
- Phase 1: April 2018 to April 2019
 - 430 families, split randomly into control (standard services) and treatment

- Phase 2: July 2019 to March 2020
 - 287 families, split randomly into control and three treatment groups to unbundle mechanisms

Experimental Design

- Sample frame: families with at least one child below age 15 who were issued vouchers in either Seattle or King County
- Phase 1: Randomly sampled 202 families for open-ended qualitative interviews
 - 80% overall response rate, N = 161

- Phase 2: Targeted 130 families across the three treatment groups for interviews
 - 70% overall response rate, N = 90

Summary Statistics for Experimental Sample

	Pooled	Control	Treatment
Head of Household Characteristics	Mean	Mean	Mean
Household Income	\$20,009	\$19,823	\$20,181
% Black	49.1	49.8	48.4
% High School Grad	78.4	72.1	84.1
Head of Household's Age	34.2	34.2	34.2
Children's Mean Age	6.6	6.6	6.7
% Homeless	13.4	14.8	12.2
% Currently Working	56.6	60.6	52.9
% Satisfied with Current Neighborhood	50.8	47.9	53.4
% Unsatisfied with Any Child's Current School	14.6	15.4	13.9
Number of Observations	425	204	221

F-Test for Treat-Control Balance:

F-Statistic P-Value 1.156 0.245

1 Program Description and Experimental Design

Fraction of Families Who Leased Units in High Opportunity Areas

Fraction of Families Who Leased Units in High Opportunity Areas

Fraction Who Leased Any Unit

Fraction Who Leased Units in High Opportunity Areas, Conditional on Leasing Up Using Voucher

Destination Locations for Families that Leased Units Using Housing Vouchers

Predicted Impacts on Upward Mobility

- How much do these moves improve children's rates of upward income mobility?
- Cannot directly answer this question yet, but can make a prediction based on historical data on upward mobility by tract from the Opportunity Atlas

Upward Mobility in Destination Neighborhoods

Predicted Impact on Upward Mobility

- Treatment effect on observed rate of upward mobility in destination tracts = 1.6 percentiles
- Translate this into predicted causal impact on earnings for a given child whose family is induced to move to a high-opportunity area by CMTO by making two adjustments
 - 1. Chetty, Friedman, Hendren, Jones, and Porter (2018) estimate that 62% of the observational variation in upward mobility across tracts is due to causal effects
 - 2. 37.8% of families induced to move to high-opportunity neighborhoods by treatment
- Adjusting for these two factors \rightarrow causal effect of $1.6 \times \frac{0.62}{0.378} \approx 2.6$ percentiles
 - About \$3,000 (8.4%) in annual household income or \$212,000 (undiscounted) over a child's lifetime
- Alternative scaling: moving to a high-opportunity area reduces the intergenerational persistence of income (p25-75 gap in outcomes) by about 20%

Treatment Effects By Race and Ethnicity

Satisfaction with New Neighborhoods Based on Surveys Six Months Post-Move

"Very Sure" Will Stay?

"Very Satisfied" with New Neighborhood?

Satisfaction in New Neighborhood by Type of Area Leased In

"Very Sure" Will Stay?

Persistence of Treatment Effects, Conditional on Leasing Up Using Voucher

Implications for Models of Neighborhood Choice

- Experimental results suggest that barriers play a central role in neighborhood choice and prevent low-income families from moving to high-opportunity neighborhoods that they prefer ex-post
 - Frictionless model would require that 43% of people happen to have (net) willingness to pay for low-opportunity areas between \$0 and \$2,670 (cost of treatment)

Distribution of Preferences for High Opportunity Neighborhoods Implied by Frictionless Model

Implications for Models of Neighborhood Choice

- Experimental results suggest that barriers play a central role in neighborhood choice and prevent low-income families from moving to high-opportunity neighborhoods that they prefer ex-post
 - Frictionless model would require that 43% of people happen to have (net) willingness to pay for low-opportunity areas between \$0 and \$2,670 (cost of treatment)

- These barriers could potentially be captured in a standard model of housing search (e.g., Wheaton 1990; Kennan and Walker 2011) with sufficiently large search costs
 - Important to unpack what these costs are to understand how to reduce them

1 Program Description and Experimental Design

Mechanisms

- What are the barriers families face in moving to higher-opportunity areas?
- Two quantitative approaches:
 - 1. Second phase of experiment with unbundled treatments: financial assistance only and light-touch (non-customized) services
 - 2. Quasi-experimental analysis of other policy changes (e.g., increased payment standards)

Summary Statistics for Experimental Sample – Phase 2

			Treatment	Treatment	Treatment
	Pooled	Control	Arm 1	Arm 2	Arm 3
	Mean	Mean	Mean	Mean	Mean
Head of Household Characteristics					
	¢10.000	¢47.070	¢46 044	ФО4 04F	<u> </u>
Annual Household Income (\$)	\$19,200	\$17,370	\$10,844 	\$Z1,845	\$20,675
% Black Non-Hispanic	48.1	54.8	47.7	50.0	40.3
% Less than High School Grad	16.0	19.2	24.6	13.9	7.8
Age (years)	33.9	33.4	32.9	35.1	34.2
Children's Average Age	6.7	6.6	6.2	7.0	7.1
% Homeless	8.7	8.2	9.2	8.5	9.1
% Currently Working	56.3	49.3	49.2	64.8	61.0
% Satisfied with Current Neighborhood	50.0	48.5	45.8	49.2	55.7
% Unsatisfied with Any Child's Current School	20.1	23.7	20.5	20.0	16.4
Number of Observations	287	73	65	72	77
E Test for Trest Control Delenses		E Statiatia	0.004	0.002	1 560
F-lest for lreat-Control Balance:		F-Statistic	0.994	0.983	1.503
		P-Value	0.494	0.511	0.04

Fraction Who Leased Units in High Opportunity Areas in Phase 2 of the CMTO Experiment

Qualitative Evidence on Mechanisms

- We also conducted a qualitative study of 161 families in Phase 1 and 90 families in Phase 2 interviewed for two hours each during search process and post-move
- Key lessons from these interviews (based on systematic coding of 8,000 pages of transcripts):
 - 1. [Scarcity] Most families have extremely limited time and resources to search [Mullainathan and Shafir 2013]
 - 2. [Customization] Case workers' ability to respond to each family's **specific** needs is crucial above and beyond standardized resources

Five Key Mechanisms Underlying the Treatment Effects

	Number of Observations	<i>Mechanism 1: Emotional Support and Communication</i>	Mechanism 2: Opportunity Area Motivation	Mechanism 3: Streamlining	Mechanism 4: Landlord Brokering	Mechanism 5: Short-term Financial Assistance
Phase 1 Treated Families who Moved to High-Opportunity Nbhds.	74	60.8%	31.1%	73.0%	60.8%	81.1%
All Treated Families	117	50.4%	25.6%	53.8%	47.0%	59.8%
Phase 2 Treatment Arm 1 (Incentivized Information)	37	5.4%	24.3%	2.7%	5.4%	27.0%
Treatment Arm 2 (Reduced Support Services)	34	38.2%	32.4%	52.9%	14.7%	50.0%
Treatment Arm 3 (Full Customized Services)	19	68.4%	26.3%	52.6%	31.6%	68.4%

Illustrative Quotes

Emotional/Psychological Support

"It was this whole flood of relief. It was this whole flood of, "I don't know how I'm going to do this" and "I don't know what I'm going to do" and "This isn't working," and yeah...I think it was just the supportive nature of having lots of conversations with Megan." – Jackie

Brokering with Landlords

"When you find a place, I will come with you and we will help you to fill out the application. I will talk with the landlord, I will help you to do a lot of stuff, that maybe sometimes will be complicated." –Leah

Short-Term Financial Assistance

"I'm not going to be able to pay here and then there [in the new apartment] ... They were able to get me more money, so that they would pay more of my first portion of my rent. Because they understood the situation that I was in." – Jennifer

Impacts of Financial Incentives: Evidence From Changes in Rent Payment Standards

- Study two changes in payment standards that preceded CMTO experiment using a difference-in-differences design
 - 1. March 2016: King County switched from a two-tier to five-tier payment standard, effectively increasing payment standards in more expensive areas of the county
 - 2. February 2018: Seattle effectively increased payment standards in areas designated as "high opportunity" by making a supplemental payment to families with children

CMTO Has Much Larger Impact on Moves to Opportunity than Small Area Payment Standards

Effect of Increase in Payment Standards for High-Opportunity Areas in Seattle Difference-in-Difference Estimate

Date of Voucher Issuance

Note: data shown from May 2018 onward are based on control group in CMTO experiment DD Estimate: **10.6 pp** (5.01)

Conclusions

1. Residential segregation of low-income families in the U.S. is driven more heavily by constraints than ex-ante preferences

2. Redesigning existing affordable housing policies to reduce such barriers could reduce segregation and increase upward mobility substantially

Housing Choice Voucher Mobility Demonstration Act

Shown Here: Referred in Senate (07/11/2018)

> 115TH CONGRESS 2D Session

H. R. 5793

IN THE SENATE OF THE UNITED STATES July 11, 2018

Received; read twice and referred to the Committee on Banking, Housing, and Urban Affairs

AN ACT

To authorize the Secretary of Housing and Urban Development to carry out a housing choice voucher mobility demonstration to encourage families receiving such voucher assistance to move to lower-poverty areas and expand access to opportunity areas.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, SECTION 1. SHORT TITLE.

This Act may be cited as the "Housing Choice Voucher Mobility Demonstration Act of 2018".

SEC. 2. HOUSING CHOICE VOUCHER MOBILITY DEMONSTRATION.

(a) AUTHORITY.—The Secretary of Housing and Urban Development (in this section referred to as the "Secretary") may carry out a mobility demonstration program to enable public housing agencies to administer housing choice voucher assistance under section 8(o) of the United States Housing Act of 1937 (<u>42 U.S.C. 1437f(o)</u>) in a manner designed to encourage families receiving such voucher assistance to move to lower-poverty areas and expand access to opportunity areas.

(b) SELECTION OF PHAS.-

(1) REQUIREMENTS.—The Secretary shall establish requirements for public housing agencies to participate in the demonstration program under this section, which vovide that the following public housing agencies may participate:

Conclusions

1. Residential segregation of low-income families in the U.S. is driven more heavily by constraints than ex-ante preferences

2. Redesigning existing affordable housing policies to reduce such barriers could reduce segregation and increase upward mobility substantially

3. More broadly, social determinants of choice appear to be extremely important, beyond traditional financial considerations

From Jasmine, 7 years old, whose family moved to a high-opportunity area in Seattle

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Appendix Figures

Preliminary vs Final Version of Opportunity Atlas Upward Mobility Measure

Final Version of Opportunity Atlas

Preliminary Forecasts Used to Define High-Opportunity Areas

Population-Weighted Correlation Across Tracts: 0.74

Map of Origin Tracts for Voucher Recipients

Satisfaction in Neighborhood at Baseline by Type of Area

Satisfaction with New Neighborhood

Certainty about Wanting to Stay in New Neighborhood

Distribution of Upward Mobility in Destination Tracts

Distribution of Upward Mobility in Destination Tracts

Fraction Who Leased <u>Any</u> Unit in Phase 2 of the CMTO Experiment

Fraction Who Leased Units in High Opportunity Areas, Conditional on Leasing Up Using Voucher, in Phase 2 of the CMTO Experiment

Changes to King County Housing Authority Payment Standards in March 2016

