Why Don't Housing Choice Voucher Recipients Live Near Better Schools?

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2015 Policy Summit
Federal Reserve Bank of Cleveland
June 18h, 2015

Motivation

- The Housing Choice Voucher Program is now the largest federal housing program.
  - It was created, in part, to help low income households reach a broader range of neighborhoods.
  - In principle, vouchers allow families to move to neighborhoods with better schools.
- Yet… evidence to date is disappointing.
- Why don't voucher recipients move to neighborhoods with better schools?

Background on Housing Vouchers

- Established by the Housing and Community Development Act of 1974
  - a shift from historic focus on place-based housing.
- Provides a **portable** subsidy;
  - families rent private apartments,
  - Voucher pays the difference between 30% of family income and the rent, up to the Fair Market Rent.
- Today, federal government spends $19B, on ~2.2M households, including 2.5M children.

Background on Housing Vouchers (cont.)

- Most voucher holders have extremely low incomes
  - Eligibility generally restricted to households with incomes <50% of Area Median Income (AMI)
  - Each HA must provide 75% of its vouchers to households with incomes <30% of AMI.
- There are long waitlists for vouchers
  - Only about 1 in 5 eligible households receives a voucher
- Tenant has limited time to lease unit (60-90 days)
- Voucher subsidy is large; ***vouchers boost income of median voucher holder by 60% on average***.

Prior Evidence on Neighborhoods

- On average, voucher holders live in neighborhoods that are:
  - Similar to those of other poor households in MSA
    - (Pendall, 2000; Wood et al., 2008; Galvez, 2011)
  - *Less* disadvantaged than those of public housing residents in same MSA
    - (Hartung and Henig, 1997; Kingsley et al., 2003; Pendall, 2000; Devine et al., 2003)
  - *More* disadvantaged than those of LIHTC tenants
    - (McClure, 2006)

Prior Evidence on Schools

- On average, voucher holders live near to a lower performing school than
  - Renter households in the same metropolitan area
    - Deng (2007)
    - Ellen, Horn and Schwartz (2014)
  - Other poor households in the same metro area
    - Ellen, Horn and Schwartz (2014)

Theory: Why Don't Voucher Holders Live Near Better Schools?

- Selection bias/unobserved disadvantage?
- Typical voucher holder may not prioritize schools
  - No children
  - Older children, already settled in schools
- Choices are constrained
  - Limited search time
  - Tight housing market
  - Few good schools nearby

Hypotheses

- Voucher holders initially use vouchers to secure voucher but over time, other factors may become more important.
- Voucher holders will be more likely to move toward better schools when:
  - Schools are most relevant for the family e.g., when oldest child becomes eligible for kindergarten ***(Salience)***
  - Households face fewer constraints in moving, e.g., when the housing market is less tight and there are good schools nearby ***(Constraints)***

Assisted Housing Data

- Experimental Data
  - Data from WtW experiment, which randomly assigned vouchers to 4,700 households on waitlist in six metropolitan areas.
- Administrative Data
  - Unbalanced, geocoded panel of universe of voucher households in metro areas in 15 states, from internal HUD assisted housing dataset.
  - 540,000 voucher households each year from 2003-2012.

School Data

- Geography: District and specific addresses of schools from Common Core of Data.
- Performance: Proficiency in Math and ELA for 4th graders from National Longitudinal School-level State Assessment Database (NLSSAD) and Great Schools.
- Kindergarten: State-specific eligibility dates and ages from individual states.

Linking Households to Schools

- Assign each voucher household to the nearest school within the school district of residence.
  - Tested this method for 13 MSAs where we have attendance zone maps.
  - Nearest school = zoned school in 65% of cases.
  - Where the two methods matched to different schools, there was little difference between the quality of the two schools.

Experimental Data: Baseline Model

$$Sch_{im} = \alpha + \beta_1 Voucher_{im} + \eta_m City_m + \varepsilon_{im}$$

Sch standardized average of Math and ELA proficiency rate of nearest school to households, four years after random assignment

City – MSA fixed effects

WtW Results – No Effect on Scores

VARIABLES	(1) Baseline Combined Score	(2) Quarter 16 Combined Score
Treatment	0.000525	-0.00515
	(0.0211)	(0.0211)
Constant	-0.917***	-0.937***
	(0.0374)	(0.0375)
Observations	8,590	8,505
Outcome	Combined Score	Combined Score
R-squared	0.147	0.133
FE	Site	Site

Testing Importance of School Salience

- Compare families whose children are “just eligible” for Kindergarten based upon the local cutoff date to those not eligible.
- Test whether households are more likely to move towards a better school when schools become most salient to them – i.e., when their oldest child reaches school age.
- Large administrative data sample allows such a test.

Administrative Data: Baseline Model

$$MBSch_{imt-1} = \alpha + \beta_1 AgeOldestChild_{imt} + \beta_2 HH_{imt} + \eta HHFE + \gamma YRFE + \varepsilon_{imt}$$

- ***MBSch*** indicates whether a household moved to a better school (i.e. higher proficiency rate) in the past year
- ***AgeOldestChild*** is a series of dummy variables indicating the age of the oldest child
- *HH* vector of time-varying, household level characteristics: wage earnings, number of adults and number of children
- ***HHFE*** household fixed effects
- *YRFE* year fixed effects

Table 1: Sample Characteristics in 2008

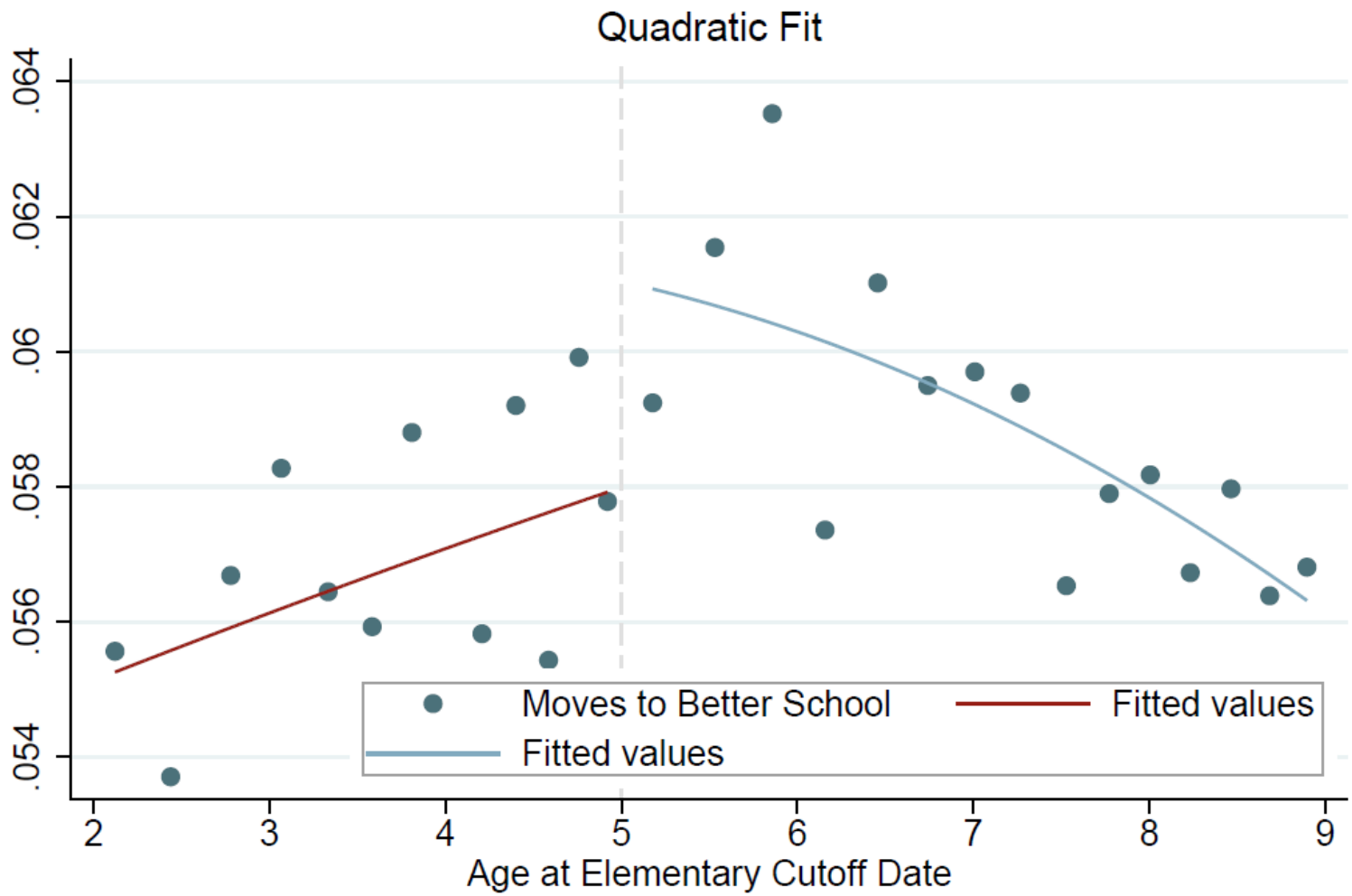
		All Households	Oldest Child Age 0-6
Sample Characteristics			
	Households	542,979	18,852
	Years in Program	6.0	2.3
	Move Rate	10.1%	17.5%
Economic Characteristics			
	Median Household Income	$ 10,776	$ 10,584
Demographics			
	Single Female-HoH	71.3%	78.5%
	Black HoH	42.1%	52.7%
	White HoH	36.2%	29.7%
	Hispanic HoH	18.1%	16.2%
	Asian HoH	3.4%	1.3%
Household Characteristics			
	Mean Age of HoH	50.13	31.22
	Mean Number of Adults	1.32	1.30
	Mean Number of Children	0.99	1.53
	% with Any Children	47.7%	100.0%
	% with School Age Children	45.2%	33.6%

Notes: Table displays characteristics of the voucher sample used for the year 2008. Sample includes only household that appear for at least two periods for the years 2003-2012.

Administrative Data Results: Probability of Moving to Better School

	Move to Better School
Age 0-4	0.0031***
Age 5-8	0.0068***
Age 9-11	0.0052***
Age 12-14	0.0037***
Age 15-18	0.0027***
Constant	0.0207***
N	4,523,839

Moves to Better School by Age of Oldest Child on Cutoff Date



Regression Discontinuity Model

$$MBSch_{imt-1} = \alpha + \beta_1 EligCutoff_{imt} + \beta_2 HH_{imt} + \eta HHFE + \gamma YRFE + \varepsilon_{imt}$$

- ***MBSch*** indicates whether a household moved to a better school (i.e. higher proficiency rate) in the past year
- ***EligCutoff*** is a dummy indicating whether a student is eligible for kindergarten in that state in that year
- *HH* vector of time-varying, household level characteristics: wage earnings, number of adults and number of children
- ***HHFE*** household fixed effects
- *YRFE* year fixed effects

Moves to Better School and Kindergarten Eligibility of Oldest Child

	(1)	(2)
Dependent Variables:	Moves to Better School	Moves to Much Better School
School-Eligible on Sept 1st	0.00698***	0.00467**
	(0.00250)	(0.00209)
Constant	0.0282***	0.0189**
	(0.0104)	(0.00863)
Observations	169,892	169,892
FE	HH & Year	HH & Year
Sample	Oldest kid 0-6	Oldest kid 0-6

Testing Relevance of Constraints

- School System: Test whether presence of better school in choice set (three nearest schools) boosts the likelihood that a family will move to a better school.
- Housing Market: Test whether availability of affordable rental apartments (proxied by high rental vacancy rate) affects the likelihood of moving to a better school.

Moves to Better School, Stratified by Proximity to Better Schools

***Dep Variable*: Moves to a Better School**	(2) No Better Nearby School	(3) Better Nearby School
School-Eligible on Sept 1st	-0.000646	0.0157***
	(0.00356)	(0.00443)
Constant	-0.00973	-0.0202
	(0.0147)	(0.0190)
Observations	76,531	82,425
R-squared	0.001	0.006
Number of Households	55,724	59,288
FE	HH & Year	HH & Year
Controls	Yes	Yes
Sample	0<Age<6	0<Age<6

*** p<0.01, ** p<0.05, * p<0.1

Moves to Better School, Stratified by Housing Market Strength

***Dep Variable*: Moves to a Better School**	(2) Low Vacancy	(3) High Vacancy
School-Eligible on Sept 1st	0.00250	0.0117***
	(0.00329)	(0.00374)
Constant	0.0195	0.0416***
	(0.0138)	(0.0158)
Observations	81,331	88,561
R-squared	0.002	0.001
Number of Households	50,287	55,891
FE	HH & Year	HH & Year
Controls	Yes	Yes
Sample	Oldest kids 0-6	Oldest kids 0-6

Moves to Better School, Stratified by Access of FMR Units to Good Schools

	(1) Low Access	(2) High Access
School-Eligible on Sept 1st	0.00302	0.00902***
	(0.00466)	(0.00299)
Constant	0.0196	0.0325**
	(0.0190)	(0.0127)
Observations	44,439	122,546
FE	Year	Year
Sample	Oldest < 6	Oldest < 6

Summary

- Although voucher holders on average do not use vouchers to get to a better school, voucher holders do appear to care about school quality.
- Families use vouchers to move to better schools:
  - WHEN school quality is most salient, or oldest child becomes eligible for kindergarten
  - AND they have options to move:
    - There are higher quality school options nearby
    - There are vacant rental units
    - Large share of units with voucher rents are near to good schools

Concluding Thoughts

- Results suggest that absence of link between HCV and school quality overall masks potential link for key subgroups of households.
- Also that HCV households do “care” about schools but, like other households, face constraints on their choices.
- Whether this mobility is “just in time” or, even, sufficient, unknown – worthy of future research.

Thanks

- To the MacArthur Foundation for their generous support.
- To Jonathan Bigelow, Robert Collinson and Megan Silander for research assistance.