

# The Impact of the Low-Income Housing Tax Credit on Migration

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# Motivation

- Living in low-income neighborhoods creates negative spillovers, especially for children (Ellen & Turner, 1997; Githier, Haveman, & Wolfe, 2000)
- Federal government strives to provide low-income households with quality, affordable housing options
  - How to design policy to meet these goals?

# Background Information

- Initially – housing projects
  - Created pockets of concentrated poverty
- 1960s through early 1970s – subsidized private new construction (owner and rental)
  - generally subsidized mortgage interest
  - high cost per unit
- Beginning in the 1970's – housing vouchers
  - Portable subsidy to find rental unit in private market
  - Initial research found recipients do not move to lower poverty areas (Pendall, 2000; Newman & Schnare, 1997; Feins & Patterson, 2005)
  - Eriksen & Ross (2013) find move to better neighborhoods eventually, but do these areas have a low enough poverty rate?

# Background Information

- 1986 – government offered tax credits to developers to rent some units in apartment to low-income families at below market rents
  - Known as the Low-Income Housing Tax Credit (LIHTC)
  - McClure (2002) showed these units are opening at higher rates in the suburbs
  - No evidence thus far that low-income families follow these units out of the central city

# Research Question

- Is the LIHTC a viable option to move low-income families out of the high-poverty central city into the lower-poverty suburbs?
  - Use IPUMS data from 2005 to 2010
  - Focus on migration within an MSA
  - Look at the impact of LIHTC units inside and outside the central city on migration

# Preview of Results

- More LIHTC units in the suburbs increase probability of migration out of the central city
- More LIHTC units in the central city reduce the probability of migration out of the central city
- No strong pattern regarding the impact of LIHTC units on migration into central city from the suburbs
  - Would be problematic if more LIHTC units in central city drew low-income households back into lower quality central city neighborhoods

# Outline

- Low-Income Housing Tax Credit
- Empirical Strategy
- Data
- Results
  - By income level
  - By race and ethnicity
  - By age of youngest child
- Conclusions and Policy Implications
- Future Work

# Low-Income Housing Tax Credit

- LIHTC was part of Tax Credit Reform Act of 1986
- Offers tax credit to developers to open affordable housing to low-income households
  - Not all apartments in unit are income restricted
  - Creates mixed income housing

# Low-Income Housing Tax Credit

- Projects must meet one of two criteria:
  1. 20% of units are occupied by tenants earning below 50% of Area Median Income (AMI)
  2. 40% of units occupied by tenants earning below 60% of AMI
- Annual rents for these units cannot exceed 30% of relevant AMI
- Rent requirement binds for 15 years
  - Becomes less restrictive after 15 years
  - \*Rents can be set at market rate after 30 years

# Low-Income Housing Tax Credit

- In 1989, Congress passed legislation to increase projected development in “qualified census tracts” (QCT) or “difficult to develop areas” (DDA)
  - DDA – areas with high construction, land, and unit costs relative to income
  - QCT – 50% of households have income below 60% of AMI; no more than 20% of population in MSA can live in a qualified tract

**Table 1: Total Units Allocated through the LIHTC in MSAs**

Year	Total Allocation	Central City	Suburbs
1987	12,730	5,093	7,637
1988	27,405	8,028	19,377
1989	34,496	12,839	21,657
1990	35,996	14,229	21,767
1991	37,621	12,104	25,517
1992	33,641	11,155	22,486
1993	46,214	17,464	28,750
1994	49,116	18,383	30,733
1995	74,541	31,214	43,327
1996	75,196	31,113	44,065
1997	74,495	31,307	43,188
1998	79,000	37,079	41,921
1999	101,863	45,066	56,797
2000	88,924	39,623	49,301
2001	90,642	41,063	49,579
2002	96,677	38,177	58,500
2003	111,509	45,799	65,710
2004	111,975	46,838	65,137
2005	115,190	46,947	68,243
2006	98,153	38,362	59,791
2007	94,206	32,504	61,702
2008	71,783	29,347	42,436
2009	54,741	19,473	35,268
2010	46,318	10,887	35,431
Total	1,662,432	664,094	998,320

# Low-Income Housing Tax Credit

- Tax credits are allocated to states based on population
- More applications are received than tax credits available
  - States create “Qualified Action Plan” to determine which developments will receive the tax credit
  - As of 2001, 29 states gave extra points for projects located in QCT

# Empirical Strategy

LIHTC Units in  
Central City of MSA  $j$

LIHTC Units Outside the  
Central City of MSA  $j$

$$Prob_{it} = \beta_1 LIHTC_{jt}^{CC} + \beta_2 LIHTC_{jt}^{non-CC} + BX_{it} + \gamma_j + \lambda_t + \varepsilon_{it}$$

Socio-Demographic  
Individual Attributes

MSA Fixed Effects

Idiosyncratic  
Error Term

Year Fixed Effects

# Empirical Strategy

- Utilize two different probabilities as LHS variable
  1. Probability individual  $i$  moves from central city to suburbs of the same MSA
  2. Probability individual  $i$  moves from suburbs to central city of the same MSA
- Use logit model to estimate effects
  - Calculate elasticities as well

# Data - LIHTC

- Data on LIHTC units obtained from HUD
  - Specific location of project
  - Number of tax credits allocated
  - Number of units reserved for low-income families
  - Amount of tax credit allocated to the company
  - Type of units built (1 bedroom, 2 bedroom)
- Use number of projects completed each year
  - Cumulative number of units available that year

# Data - IPUMS

- Individual data from IPUMS one-year 1% sample of American Community Survey
  - Data on socio-economic variables - race, gender, income, marital status, etc.
  - One-year migration information of household
- Focus on renters only
  - Homeowners are a separate market
- Restrict sample to households that live in an MSA during the survey year

## Table 3: Impact of LIHTC on Migration

### *Panel A: Out of the Central City*

	Full Sample	Income < 100,000 & > 45,000	Income < 45,000	Income < 35,000	Income < 25,000
Total LIHTC Units in Central City	-0.0000835*** (2.9E-05)	-0.000115** (5.2E-05)	-0.0000650* (3.7E-05)	-2.7E-06 (4.2E-05)	6.41E-05 (5E-05)
Total LIHTC Units in Suburbs	0.0000152*** (4E-06)	4.07E-06 (7.4E-06)	0.0000146*** (5.5E-06)	0.0000154** (6.1E-06)	0.0000134* (7E-06)

### *Panel B: Into the Central City*

Total LIHTC Units in Central City	-4.1E-05 (3E-05)	9.22E-05 (5.9E-05)	-0.000108*** (3.7E-05)	-0.000116*** (4.1E-05)	-6E-05 (4.9E-05)
Total LIHTC Units in Suburbs	-2.8E-06 (4.4E-06)	-7.6E-06 (8E-06)	5.46E-07 (5.8E-06)	-2E-07 (6.5E-06)	-1E-06 (7.6E-06)

## Table 4: Impact of LIHTC on Migration Elasticities

*Panel A: Out of the Central City*

	Full Sample	Income < 100,000 & > 45,000	Income < 45,000	Income < 35,000	Income < 25,000
Total LIHTC Units in Central City	-8.43e-06** (4.02e-06)	0.00191** (0.00087)	-0.000959* (0.00055)	-0.0000395 (0.00062)	-0.00091 (0.00071)
Total LIHTC Units in Suburbs	8.23e-09 (1.47e-06)	-0.000124 (0.00022)	0.000642*** (0.00025)	0.000725*** (0.00029)	0.000635* (0.00033)

*Panel B: Into the Central City*

Total LIHTC Units in Central City	2.33e-08 (6.74e-07)	0.00151 (.0009681)	-0.00160*** (.000542)	-0.00171*** (.0006028)	-0.000858 (.0006959)
Total LIHTC Units in Suburbs	-3.23e-08 (2.93e-07)	-0.000226 (.0002394)	-0.000024 (.0002561)	9.60e-06 (.0003041)	0.0000482 (.0003589)

# Results

- A 1% increase in LIHTC units in the suburbs will cause approximately 1,295 families to move out of the central city
- A 1% increase in LIHTC units in the central city causes approximately 1,934 families to stay in the central city

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## Table 5: Impact of LIHTC on Migration by Race and Ethnicity

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*Panel A: Out of Central City*

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	Full Sample	White	Black	Hispanic
Total LIHTC Units in Central City	-0.0000835*** (2.9E-05)	-0.000166*** (4.1E-05)	-1.2E-05 (4.6E-05)	-0.000151* (8.6E-05)
Total LIHTC Units in Suburbs	0.0000152*** (4E-06)	0.0000127* (6.7E-06)	0.0000190*** (6.1E-06)	1.13E-05 (1.1E-05)

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*Panel B: Into the Central City*

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	Full Sample	White	Black	Hispanic
Total LIHTC Units in Central City	-4.1E-05 (3E-05)	-0.0000644* (3.9E-05)	-4.7E-05 (5.9E-05)	5.78E-05 (9.8E-05)
Total LIHTC Units in Suburbs	-2.8E-06 (4.4E-06)	-4.6E-06 (6.6E-06)	-5.4E-06 (8.3E-06)	1.42E-06 (1.3E-05)

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**Table 6: Impact of LIHTC on Migration  
by Age of Youngest Child**

*Panel A: Out of the Central City*

	Full Sample	Child < 5	Child > 5 & < 14	Child > 14 & < 18	Child > 18
Total LIHTC Units in Central City	-0.0000835*** (2.9E-05)	-6.3E-06 (9.3E-05)	-0.000243** (0.00011)	0.000126 (0.00017)	-0.000089*** (3.2E-05)
Total LIHTC Units in Suburbs	0.0000152*** (4E-06)	6.49E-07 (1.5E-05)	0.0000495*** (1.4E-05)	3.18E-06 (2.4E-05)	0.0000147*** (4.5E-06)

*Panel B: Into the Central City*

	Full Sample	Child < 5	Child > 5 & < 14	Child > 14 & < 18	Child > 18
Total LIHTC Units in Central City	-4.1E-05 (3E-05)	-0.000276** (0.00011)	6.6E-05 (0.00016)	-0.000877*** (0.00022)	-1.2E-05 (3.2E-05)
Total LIHTC Units in Suburbs	-2.8E-06 (4.4E-06)	3.51E-06 (1.8E-05)	1.41E-06 (2.5E-05)	1.26E-05 (3.5E-05)	-2.3E-06 (4.8E-06)

# Conclusions

- More LIHTC units outside of the central city increases the probability that a household moves out of the central city
- More LIHTC units inside the central city reduces the probability that a household moves out of the central city
- We find no consistent pattern for migration into the central city from the suburbs in response to more LIHTC

# Policy Implications

- Policy makers strive to have affordable housing options in high quality neighborhoods for low-income families
  - Shift away from public housing
  - Limited evidence voucher recipients move to significantly lower poverty neighborhoods
- LIHTC may be a viable option to provide affordable housing outside the central city

# Future Work

- Add location variables that could affect migration patterns
  - Good measures of neighborhood quality
    - census tract or smaller geographic area
- Expand sample to be less restrictive
  - Smaller level of geography?
  - Include non-MSA households?