

# LABOR MARKET, GEOGRAPHIC MOBILITY, AND OTHER EFFECTS OF HOUSING SUBSIDIES

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# THE PROJECT

- We have been working on this for nearly five years now, with the support of the MacArthur Foundation
- Studied the effects of the U.S. Section 8 housing voucher policy on several outcomes
  - Geographic mobility and neighborhood quality
  - Employment and Earnings (forthcoming in Journal of Urban Economics and the topic of this talk)
  - Family structure, public program usage, child care usage, school quality (under consideration at Journal of Housing Economics)
- Carried out a full benefit-cost analysis of the program
  - Published in Journal of Policy Analysis and Management
- It has forced Tom into retirement and Deven into the job market
- We don't like each other any more 😊

# PRESENTATION OVERVIEW

- **Research question and motivation**
  - What effect does the receipt of a low-income housing voucher have on geographic mobility, labor market outcomes, and neighborhood characteristics, in both the short- and long-runs?
- **Prior research results**
- **Data and methods**
- **The Counterfactual issue**
- **Major conclusions**
  - Voucher receipt induces relocation
  - Short-term negative effect on earnings that diminishes over time
  - Results vary by subgroup
  - Mixed effects on neighborhood characteristics
- **Policy Implications**

# WHAT IS THE SECTION 8 PROGRAM? HOW DOES IT WORK?

- Section 8 vouchers are supported by HUD funds, and administered by local housing authorities; currently about 2.2 million voucher families containing more than 5.1 million individuals.
- Households apply, and go on a waiting list—often up to two years
- Recipients must have income below 50 percent of the median income of their area.
- If awarded a voucher, recipients seek available private rental housing and, if they find it, contribute 30 percent of their income toward rent.
- The program then pays the difference between the tenant contribution and actual rent charged (up to a locally defined “fair market rent”).
- The primary objective of the program is to enable “very low-income families to choose and lease or purchase safe, decent, and affordable privately-owned rental housing.”

# PRIOR EXPERIMENTAL RESEARCH

## Experimental

### Mixed Results on Programs Awarding Vouchers

- Gautreaux Program - 7000 families in Chicago; tested 'neighborhood effects; concerns with external validity; some positive earnings effects
- Moving to Opportunity (MTO) - 4600 families in 5 cities; little evidence of labor market improvement; new results just released
- Welfare to Work- 8700 families not in public housing in 6 cities; initial negative labor market effects which dissipated over time
- Chicago Housing Authority natural experiment – Negative labor market effects

Study	Comparison Groups	Effects on Earnings
Gautreaux	Housing project residents who moved to suburbs; project residents who moved within the city	Movers to suburbs had somewhat higher earnings; those who moved within city had no significant changes.
Moving to Opportunity	Housing project residents who moved to low-poverty neighborhoods; project residents who moved to any neighborhood; project residents who remained in project housing	Preliminary results indicate that “Experimental and Section 8 group adults have similar employment, earnings, and income levels as control group adults.”
Welfare-to-Work	Welfare recipients or eligible recipients who received a housing voucher; welfare recipients or eligible recipients who did not receive a voucher	Voucher recipients initially worked and <b>earned less</b> , but the differences disappeared after 3.5 years; Study is not yet completed
Chicago Housing Authority Experiment	Members of a housing assistance waiting list who were randomly selected to receive a housing voucher; wait-list members not selected to receive a housing voucher	Voucher recipients worked and <b>earned significantly less</b> than those who did not receive a voucher over the full follow-up period

# PRIOR NONEXPERIMENTAL RESEARCH

## Nonexperimental

- Also mixed results; generally negative labor market effects
- Harkness and Newman (2006) review of 11 non-experimental studies of effect of vouchers on earnings
  - 4 negative, 1 positive, and 6 statistically insignificant

# CONCEPTUAL ISSUES

- Theory provides mixed guidance on expected program impacts.
- Substitution Effect: Because a recipient's Section 8 benefits are reduced by 30 percent of an income increase, voucher receipt may reduce recipient work and earnings
- Income Effect: Voucher recipients may voluntarily choose more non-work time due to the effective 'income' gain associated with housing benefits, again reducing work and earnings.
- Voucher recipients could use voucher to move to areas with more jobs/child care and better neighborhood quality, leading to increased work and earnings.
- Alternatively, voucher receipt could lead to reduced work effort or earnings, due to the difficulties and disruptions associated with preparation for and execution of a move to a different neighborhood.

# OUR RESEARCH APPROACH

- We measure the effect of housing voucher receipt on labor market success and neighborhood characteristics for low-income families
- Substantially broader sample than prior studies
  - Includes both urban and rural areas
  - Includes families with and without children
  - The demographic profile of Section 8 subsidized households in Wisconsin is similar to that for the United States as a whole, but with a lower proportion of Hispanic recipients in Wisconsin
- We can pool multiple years of observations and follow recipients over a relatively long time period

# DATA FROM THREE SOURCES

- **Client Assistance for Re-Employment and Economic Support (CARES) Wisconsin administrative database**
  - We identified all cases applying for or receiving Food Stamps or TANF between 2001 and 2003, and not living in public housing
  - Obtained data on voucher subsidy receipt, demographic characteristics, address history and participation in means-tested programs
- **Quarterly work and earnings history from the Wisconsin Unemployment Insurance (UI) data base**
  - We obtained work/earnings records on all observations from two years prior to 2001-2003, until six years after
  - We merged this information to CARES observations
- **Every address in each case's address history is matched to a Census block group, with block group (neighborhood) characteristics merged to CARES and UI observations.**
  - Unemployment rate, poverty rate, percent of 16- to 19-year olds in school, median rent, among others

# SAMPLE

- All cases applying for or receiving Food Stamps or TANF between 2001 and 2003, and not living in public housing
- We identify two groups within each of the three calendar year cohorts, 2001-2003: voucher recipients and nonrecipients
  - We pool the three calendar year cohorts and follow households for six years
- Distinguish those first receiving a voucher from remainder.
  - Over 12,000 voucher recipients and more than 500,000 potential comparison cases

# SAMPLE CHARACTERISTICS

## ■ Voucher group

- Average casehead earnings of \$5,143 in the year prior to voucher receipt
- Average age of 36; 7 percent are age 65+
- 22 percent reside in Milwaukee; 49 percent in other urban areas; 28 percent are rural

## ■ Potential comparison cases

- Average casehead earnings of \$5,768 in the year prior to voucher receipt
- Average age of 37; 6 percent are age 65+
- 47 percent reside in Milwaukee; 31 percent in other urban areas; 21 percent are rural

# OUTCOMES OF INTEREST

- **Geographic mobility**
  - Probability of moving within one and four years after receipt
- **Neighborhood quality—four measures at block group level**
  - Unemployment rate
  - Poverty rate
  - Percent of 16- to 19-year olds in school
  - Median rent
- **Labor market**
  - Casehead employment
  - Casehead earnings

# THE COUNTERFACTUAL ISSUE

- We specify the counterfactual as receipt of no housing assistance, which is similar to that in the CHA and WtW experiments.
  - Hence, our analysis effectively estimates the effect of a marginal expansion of the Section 8 program on the subsequent behavior of new voucher recipients.
- This is quite different than that of the Gautreaux or MTO studies. MTO randomly assigned participating public housing residents in five large urban areas to one of three groups, including a group that received a voucher that could be used anywhere.
- Under our counterfactual, voucher receipt increases both the marginal tax rate and household income of recipients relative to the nonrecipient comparison group. Under the MTO counterfactual, neither the marginal tax rate nor the effective household income of recipients.

# THE COUNTERFACTUAL ISSUE

- We believe the no alternative housing subsidy counterfactual to be the most appropriate for understanding the behavioral effects of voucher receipt
  - First, given the lengthy waiting lists for Section 8 vouchers (two years), an increase the number of available vouchers would draw from this unsubsidized group.
  - Second, about 90 percent of new voucher recipients in our sample have received no housing assistance prior to voucher receipt
- Varying counterfactual can explain discrepant results between MTO/Gautreaux and WtW and ours.
- MTO can hardly be viewed as a test of the impacts of an expansion of a national housing voucher program
- We also explore the effects of the ‘alternative housing subsidy’ counterfactual

# EMPIRICAL APPROACH

- Propensity score matching
  - Large number of nonrecipient cases to compare to recipient cases—30:1
  - Similar in demographics, geography, and context
  - Extensive baseline (pre-treatment) information on the outcomes studied (earnings and employment information for up to five years prior to voucher receipt)
  - We include demographic variables measuring race/ethnicity, age, sex, education, and dozens of other characteristics
- Estimate probability of receipt of rental subsidy
  - Logit model
  - Rich set of covariates likely to be predictive of Section 8 voucher receipt
- Match voucher recipients to members in the comparison group using nearest neighbor matching method (Matching procedure succeeds in generating balance on all observed covariates; passes other tests as well)
  - There are no pretreatment differences between the treatment and matched comparison groups on the outcome measures

# EMPIRICAL APPROACH

- Isolate the effect of voucher receipt using a regression framework
  - Coupling matching with regression is preferable to either approach by itself
- Model is a difference-in-differences regression framework with a case-level random effect:

$$Y_{it} = \alpha + \beta_1 V_i + \beta_2 R_{it} + \beta_3 X_i + \beta_4 A_{it} + \beta_5 (V_i * A_{it}) + C_i + \varepsilon_{it}$$

$i$  and  $t$  index cases and time;  $V$  is an indicator of voucher receipt in the initial year,  $R$  is a vector of calendar year indicators,  $X$  is a vector of observed characteristics of the case and casehead,  $A$  is a series of dummies measuring year relative to the initial year, and  $C$  is a random effect

- Conducted for full sample as well as for several subgroups, including race, urban/rural, age, and education

# EMPIRICAL APPROACH

- **Supplementary Analyses and Robustness Tests**
  - Compare post-receipt earnings of 2001 cohort to pre-receipt earnings of 2003 cohort
    - Mitigates concerns of unobservable characteristics driving results
  - Recipient fixed effects approach
  - Three years prior to receipt through three years after receipt
  - Compare voucher receipt to public housing receipt
    - Alternative counterfactual
  - Alternative matching procedures
  - Duration-specific responses to voucher receipt
  - Results by type of (non)relocation
  - Full case results

# RESULTS-RELOCATION

- One year after receipt, 58 percent of voucher recipients had moved to a new block group while 44 percent of comparison cases had done so
  - When estimated in regression framework, marginal effect of 13 percentage points
- Four years after receipt 77 percent of voucher recipients and 69 percent of comparison cases had moved to a new block group
  - Marginal effect of 11 percentage points

# RESULTS-NEIGHBORHOOD QUALITY

Indicator	One Year Post	Four Years Post
<i>Full Sample (in percentage points)</i>		
Poverty Rate	-.21	-.28*
Unemployment Rate	-.18*	-.18
Percent Youth in School	-.41*	+.21
Median Rent	-.69	+1.79

# RESULTS-NEIGHBORHOOD QUALITY

Indicator	One Year Post	Four Years Post	One Year Post	Four Years Post
	<i>Milwaukee</i> <i>(in percentage points)</i>		<i>Rural</i> <i>(in percentage points)</i>	
Poverty Rate	-1.30*	-1.61*	+0.74*	+0.48*
Unemployment Rate	-.64*	-.75*	+0.01	.00
Percent Youth in School	+0.71*	+1.66*	-1.10*	+0.03
Median Rent	+1.35	+3.74	-8.12*	-0.42

The results are larger with more statistical significance in Milwaukee than in rural areas, but quite small overall

# MAIN RESULTS-LABOR MARKET PLUS TWO ROBUSTNESS TESTS

Year of Receipt	One Year Post	Two Years Post	Three Years Post	Four Years Post	Five Years Post
<i>Full Sample-Main Analysis</i>					
<b>-\$647*</b>	<b>-\$558*</b>	<b>-\$413*</b>	<b>-\$309*</b>	<b>-\$222*</b>	<b>-\$97</b>
<i>Robustness Test–2001 Post-receipt vs. 2003 Pre-receipt</i>					
-\$605*	-\$363*	NA	NA	NA	NA
<i>Robustness Test–Case Fixed Effects</i>					
-\$649*	-\$444	-\$425	NA	NA	NA

- In first year after voucher receipt average earnings decline by about 12 percent. By the sixth year after voucher receipt, the decline was less than \$100
- Patterns are similar for two robustness tests: 1) comparison of post-receipt earnings of 2001 cohort to pre-receipt earnings of 2003 cohort and 2) recipient fixed effects

# SUBGROUP RESULTS-LABOR MARKET

Year of Receipt	One Year Post	Two Years Post	Three Years Post	Four Years Post	Five Years Post
<i>White</i>					
-\$819*	-\$783*	-\$599*	-\$462*	-\$420*	-\$348*
<i>Black</i>					
-\$549*	-\$370*	-\$333	-\$150	\$88	<b>\$205</b>
<i>Hispanic</i>					
-\$433	-\$30	-\$114	-\$240	-\$35	-\$682

- For each racial subgroup, the effect of voucher receipt on casehead earnings is large and negative in the year of receipt, and only nonsignificant for Hispanics.
- Blacks exhibit a smaller earnings decline—both absolutely and as a percentage of mean comparison group earnings—in response to voucher receipt than do whites
- Over the six-year observation period, the negative earnings effect tends to fade out, and in the sixth year after receipt, the overall negative effect is not statistically different from zero

# SUBGROUP RESULTS-LABOR MARKET

Year of Receipt	One Year Post	Two Years Post	Three Years Post	Four Years Post	Five Years Post
<i>Milwaukee</i>					
-\$582*	-\$256*	-\$363*	-\$216	-\$75	-\$124
<i>Other Urban</i>					
-\$795*	-\$773*	-\$606*	-\$538*	-\$354*	-\$179
<i>Rural</i>					
-\$711*	-\$625*	-\$385*	-\$315*	-\$348*	-\$86
<i>HS Diploma</i>					
-\$886*	-\$840*	-\$689*	-\$561*	-\$397*	-\$173
<i>No HS Diploma</i>					
-\$364*	-\$212	-\$151	-\$117	-\$28	\$10

# ROBUSTNESS TEST: VOUCHER RECEIPT VS. PUBLIC HOUSING

- Compared earnings effects of voucher receipt to effects of receipt of public housing—a different counterfactual
  - The two options have similar program work incentive structures
- Used a propensity score weighting approach, coupled with regression adjustment—3300 public housing recipients; 12,200 voucher recipients

Year of Receipt	One Year Post	Two Years Post	Three Years Post	Four Years Post
-\$138	-\$90	+\$27	+\$63	+\$27

- Results indicate that voucher receipt has no statistically significant effect on casehead earnings; in each of the first five years of receipt, the point estimate of the effect of voucher receipt on earnings is within \$150 of zero and does not approach statistical significance
- Consistent with Gautreaux and MTO

# ROBUSTNESS TEST: PATTERNS BY DURATION OF VOUCHER HOLDING

- Interesting to examine estimates by the duration of voucher holding
  - Cannot be interpreted causally. Solely descriptive.
- Stayers are confirmed as remaining on voucher assistance. Leavers not confirmed as on assistance.
  - Could have left for positive or negative reasons.

One Year Post	Two Years Post	Three Years Post	Four Years Post	Five Years Post
<i>Stayers</i>				
-\$606*	-\$577*	-\$500*	-\$375*	-\$330*
<i>Leavers</i>				
-\$360*	-\$172*	-\$175*	-\$171*	-\$64

- The pattern of decreasing negative effects observed for the full sample can be partly attributed to cases going off voucher assistance and reverting to pre-voucher labor market behavior

# ROBUSTNESS TEST: PATTERNS BY TYPE OF NEIGHBORHOOD RELOCATION

- Also look at results by the type of (non)relocation observed
  - Again, the results do not have a causal interpretation
  - Better neighborhoods defined as improvements on 4 indicators: 1) Percent in poverty; 2) Percent in school; 3) Unemployment Rate; 4) Median Rent

Year of Receipt	One Year Post	Two Years Post	Three Years Post	Four Years Post	Five Years Post
<i>Moved to Better Neighborhood</i>					
-\$483*	-\$445*	-\$289	-\$175	\$197	<b>\$587*</b>
<i>Moved to Similar or Worse Neighborhood</i>					
-\$662*	-\$569*	-\$424*	-\$322	-\$259	-\$157

- Suggests that voucher recipient moves to better neighborhood can be a platform for economic opportunity

# CONCLUSIONS

- **Voucher receipt induces relocation**
- **Relocation not always to better neighborhoods**
  - Results are mixed for the full sample
  - Households in Milwaukee tend to move to better neighborhoods than do households in rural areas
- **On average, voucher receipt has a negative effect on earnings**
  - Multiple designs and identification strategies indicate that voucher receipt has a negative effect on casehead earnings in the years after receipt. The magnitude of this effect appears to lie between -\$600 and -\$650 in the initial year after receipt, with decreasing negative effects in subsequent years.
  - For some subgroups—primarily, the most vulnerable--the earnings effect becomes effectively zero by the end of the observation period.
  - The time pattern of earnings effects is related to both the duration of voucher holding and the nature of program-induced moves.

# SUMMARY AND CONCLUSIONS

- Labor market effects of voucher receipt is negative and substantial in the short run if the alternative is no housing subsidy, but effectively zero if the alternative is the receipt of public housing.
- This difference in estimated impact conditional on assumed counterfactual is consistent with the pattern of estimated labor market effects of the prior literature, and therefore contributes to reconciling the conflicting findings in this literature.
- Some evidence that there may be multiple types of voucher recipients
  - Those who use voucher as a means to improve their labor market opportunities and likely other aspects of their lives
    - Better neighborhoods and labor market outcomes
  - Those who may see a voucher as little more than a rent subsidy
    - Nonmovers and those who move to similar or worse neighborhoods; households that remain on assistance long-term

# SOME POLICY IMPLICATIONS

- Taken together, these results inform the continuing debate over the direction of national housing policy, and the effects of tenant- versus place-based housing subsidy programs
- The Section 8 voucher program began in 1974, and expanded throughout the late 1970s and early 1980s; it became the nation's predominant way of providing low income housing assistance
- However, in 1986, Congress authorized the Low-Income Housing Tax Credit (LIHTC) program. This program provides subsidies to private developers who construct housing units that are subject to rent ceilings and tenant income limits
- The LIHTC program has become the favored policy approach, with nearly 1.7 million housing units in 2008. This compares 1.2 million public housing units, and 2.2 million tenant-based Section 8 vouchers in existence in 2008.
- The MTO project's benign labor market results have been taken as supporting the demand-side, voucher approach vs. the project based approach. However, a more appropriate counterfactual—no alternative housing subsidy—suggests negative labor supply effects, at least in the short run.
- If the demand-side voucher approach is to sustain political support, policymakers need to be attentive to the marginal work disincentives in the design of tenant-based housing subsidy programs so as to reduce the negative earnings effects.