The Effects of Exposure to Better Neighborhoods on Children's Long-Term Outcomes

Benjamin M. Scuderi

Harvard University and Equality of Opportunity Project

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Research Question

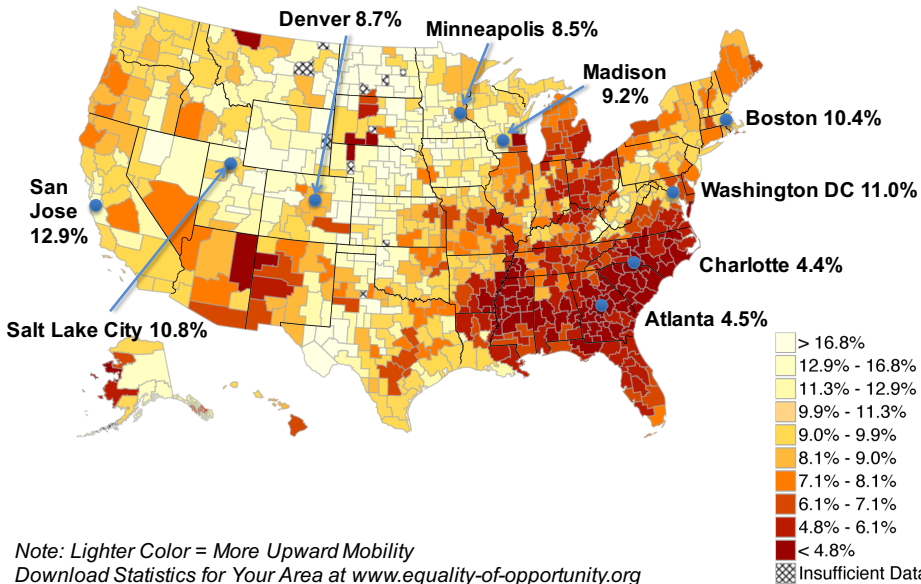In a series of new research projects, we ask the question:

"How does the neighborhood a child grows up in shape her outcomes, like college attendance, teenage pregnancy, or income?"

- We can imagine an ideal experiment where we clone a bunch of kids, then drop those clones randomly in cities around the country.
- Then we could just compare the differences in the clones' outcomes by place to know the effects of each place.
- In the absence of this, we look a the question in two ways:
    - Compare kids who moved between places at different ages to see if there are systematic differences.
    - Use data from the Moving to Opportunity experiment to compare kids in families who were randomly selected to receive relocation vouchers to a control group.
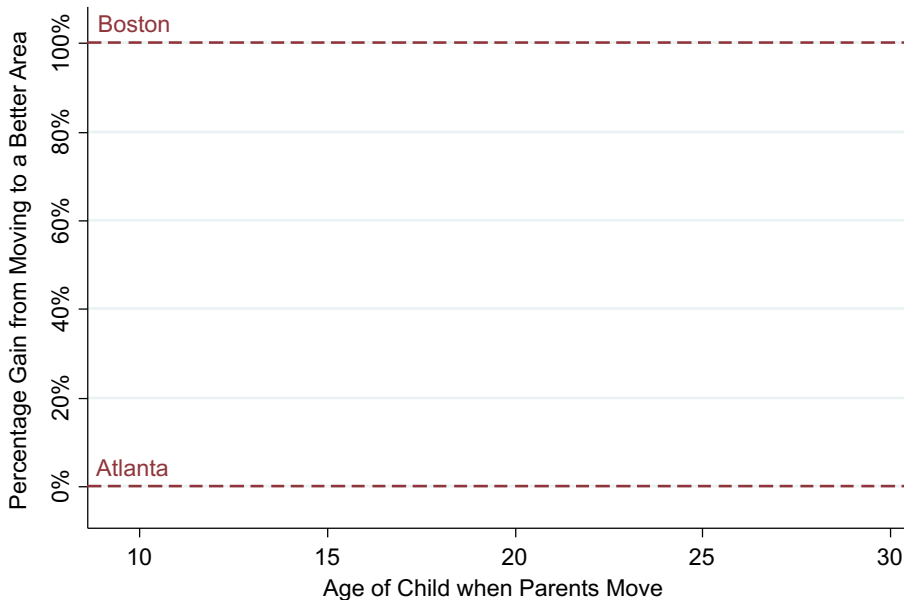
Strategy 1: Movers

- In our first study, we use data on 50 million families, 5 million of whom move across areas, to test models for how neighborhoods matter.
- In previous research, we documented large differences in intergenerational mobility by area.
- That research allowed us to construct predictions for how well children would do if they spent their entire childhood in that area.
- Using that data, we look at how much of the difference in those predictions children pick up by moving between areas at different ages.
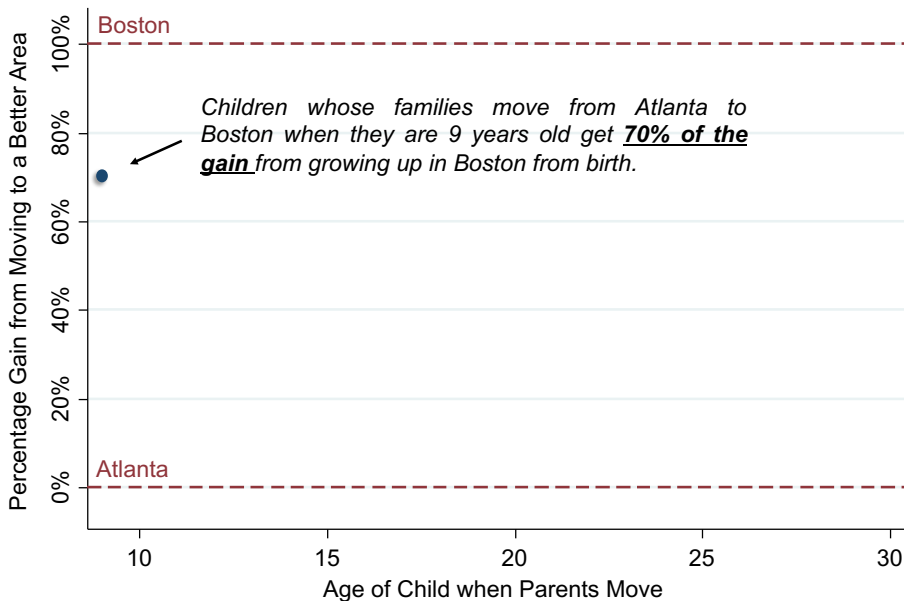
Odds of Reaching the Top Fifth from the Bottom Fifth

Denver 8.7%

Minneapolis 8.5%

Madison 9.2%

Boston 10.4%

Washington DC 11.0%

San Jose 12.9%

Charlotte 4.4%

Atlanta 4.5%

Salt Lake City 10.8%

> 16.8%
12.9% - 16.8%
11.3% - 12.9%
9.9% - 11.3%
9.0% - 9.9%
8.1% - 9.0%
7.1% - 8.1%
6.1% - 7.1%
4.8% - 6.1%
< 4.8%
Insufficient Data

Note: Lighter Color = More Upward Mobility
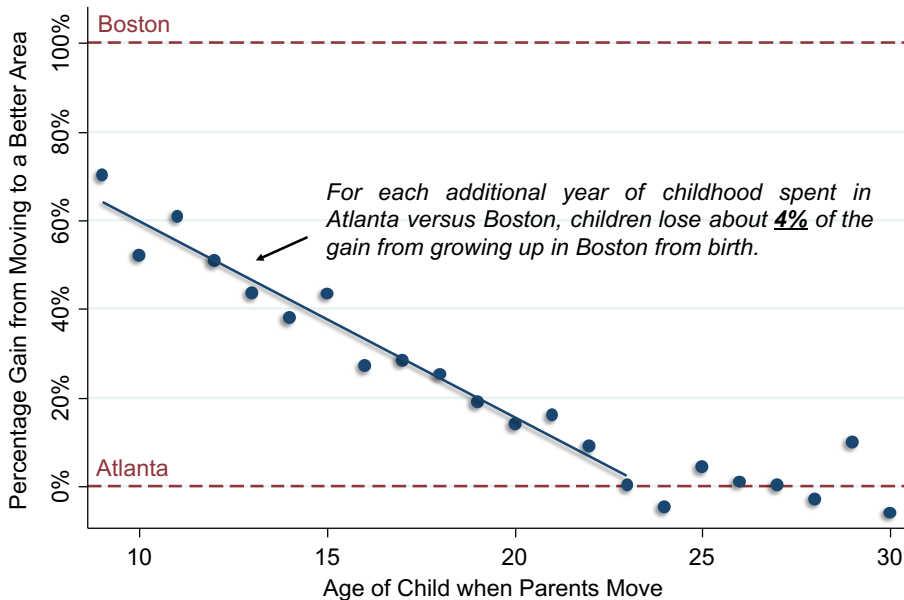*Download Statistics for Your Area at www.equality-of-opportunity.org*

Effect of Moving to a Better Neighborhood, by Child's Age

Effect of Moving to a Better Neighborhood, by Child's Age

Children whose families move from Atlanta to Boston when they are 9 years old get **_70% of the gain_** from growing up in Boston from birth.

Effect of Moving to a Better Neighborhood, by Child's Age

For each additional year of childhood spent in Atlanta versus Boston, children lose about __4%__ of the gain from growing up in Boston from birth.

Boston

Atlanta

Percentage Gain from Moving to a Better Area

Age of Child when Parents Move

Strategy 1: Conclusions

- In sum, our findings show that there are large and significant **childhood exposure effects** associated with living in good or bad neighborhoods.
- Every additional year of exposure to a good neighborhood adds to the odds that a child will succeed later in life.
- We replicate this finding for a wide range of outcomes. Further, we use a variety of tests (not described here) to show that the pattern illustrated above is a true casual effect.
- In the next step of the analysis, we use this data to construct unbiased measures of neighborhood quality and correlate those measures with neighborhood characteristics (more on that later).
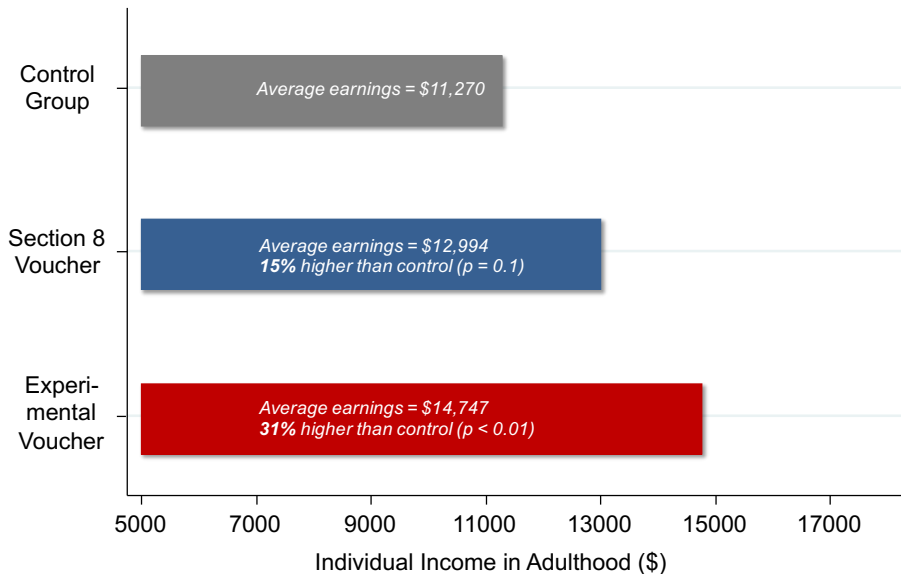
Strategy 2: MTO Experiment

- Our second strategy is to re-analyze the Moving to Opportunity project (MTO).

- MTO was a large experiment conducted by HUD that randomly assigned some people living in high-poverty public housing to receive vouchers that they could use to rent homes in low-poverty neighborhoods. A second group received vouchers to move to somewhat lower-poverty Section 8 housing.

- The experiment was conducted in five major US cities in the 1990s.

- Until recently, there was no evidence that moving to lower-poverty neighborhoods improved outcomes for children or adults.

- We revisit MTO, focusing on the youngest children (< 13 years old) at random assignment, who are just now entering the labor market.
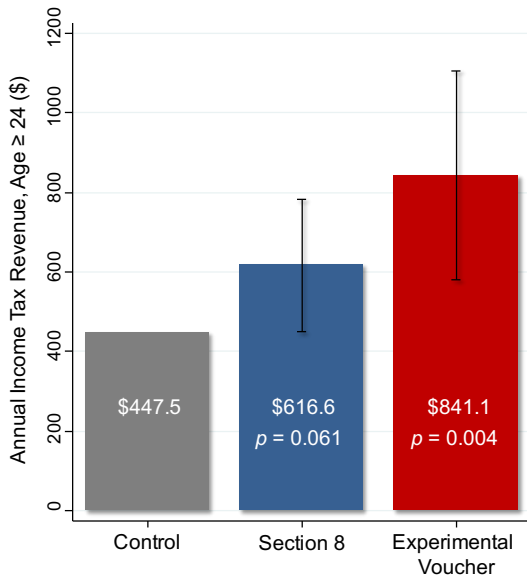
Most Common MTO Residential Locations in New York

Experimental
Wakefield
Bronx

Section 8
Soundview
Bronx

Control
King Towers
Harlem

Effects of Experimental Voucher Takeup on Adult Earnings

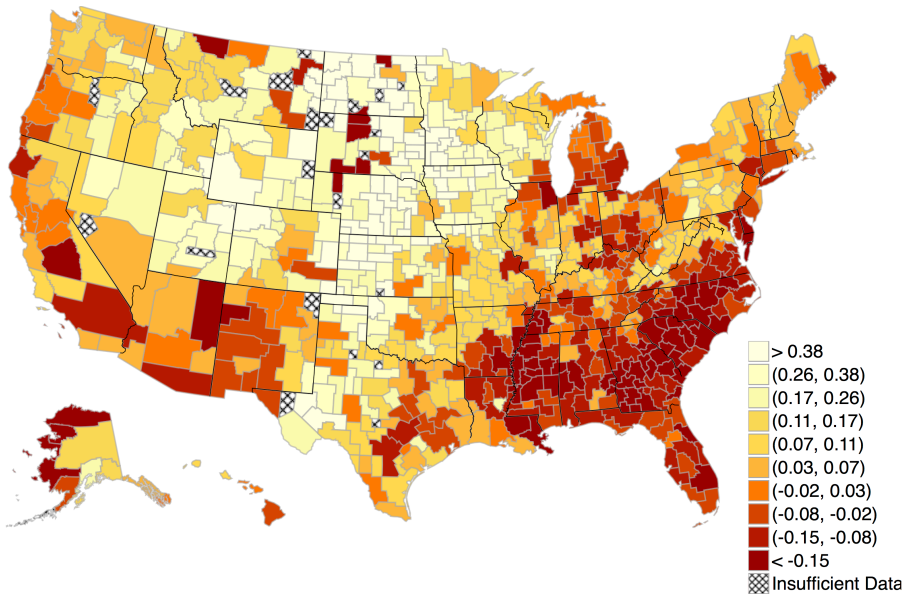# Impacts of MTO on Annual Income Tax Revenue

Strategy 2: Conclusions

- Children whose families take up the experimental voucher when they are less than 13 years old:
  - Have an annual income that is $3,477 (31%) higher relative to the mean of $11,270 in the control group in their mid-twenties.
  - Are 5.2 pp (32%) more likely to attend college, and attend better colleges.
  - Live in better neighborhoods as adults.
  - Girls are 10.0pp (26%) less likely to become single parents.
- **Disruption effects:** In contrast, the same moves have, if anything, a negative impact on children who move when they are more than 13 years old.
- **Childhood exposure effects:** Gains from moving fall with the age when children move.

Identifying the Characteristics of Good Neighborhoods

- Now that we have shown that neighborhoods have significant childhood exposure effects, we now turn to constructing our best estimates of those effects for each neighborhood.

- The new estimates remove bias from the sorting of different kinds of people to different places that is incorporated into the first map I showed you.

- We then correlate these estimates with a wide range of neighborhood qualities.

Exposure Effects on Child's Income for Families at p25

Legend:
- > 0.38
- (0.26, 0.38)
- (0.17, 0.26)
- (0.11, 0.17)
- (0.07, 0.11)
- (0.03, 0.07)
- (-0.02, 0.03)
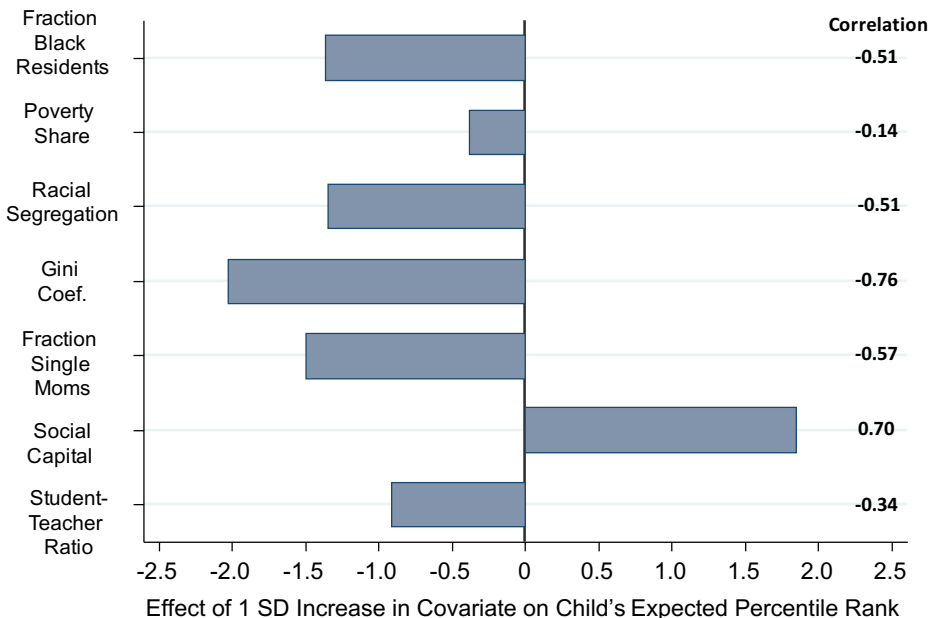- (-0.08, -0.02)
- (-0.15, -0.08)
- < -0.15
- Insufficient Data

Note: Estimates represent change in rank from spending one more year of childhood in CZ

Top 10 and Bottom 10 Places Among Largest Counties

	Top 10 Counties			Bottom 10 Counties	
Rank	County	Annual Exposure Effect (%)	Rank	County	Annual Exposure Effect (%)
1	Dupage, IL	0.76	91	Pima, AZ	-0.61
2	Snohomish, WA	0.72	92	Bronx, NY	-0.62
3	Bergen, NJ	0.71	93	Milwaukee, WI	-0.62
4	Bucks, PA	0.66	94	Wayne, MI	-0.63
5	Contra Costa, CA	0.61	95	Fresno, CA	-0.65
6	Fairfax, VA	0.60	96	Cook, IL	-0.67
7	King, WA	0.57	97	Orange, FL	-0.67
8	Norfolk, MA	0.54	98	Hillsborough, FL	-0.67
9	Montgomery, MD	0.52	99	Mecklenburg, NC	-0.69
10	Middlesex, NJ	0.43	100	Baltimore City, MD	-0.86

Exposure effects represent % change in adult earnings per year of childhood spent in county

Correlates of Exposure Effects for Low-Income Families

Horizontal bar chart showing the effect of 1 SD increase in covariate on child's expected percentile rank, with correlation values on the right:

Covariate	Correlation
Fraction Black Residents	-0.51
Poverty Share	-0.14
Racial Segregation	-0.51
Gini Coef.	-0.76
Fraction Single Moms	-0.57
Social Capital	0.70
Student-Teacher Ratio	-0.34

Effect of 1 SD Increase in Covariate on Child's Expected Percentile Rank

How Does Atlanta Compare?

- We estimate that the average low-income child earns roughly **12% less** growing up in Fulton county than the average county in the country.
- In our data, the Atlanta metro area is at:
  - The **99th** percentile of commute time
  - The **94th** percentile of racial segregation
  - The **97th** percentile of income inequality
  - The **77th** percentile of percent of families with a single mom
  - The **15th** percentile of test scores
  - The **14th** percentile of social capital
- Although we cannot say which, or if any, of these factors *cause* outcomes for children to be worse in Atlanta than in the average city, evidence strongly suggests that interventions to improve these characteristics could have very large effects on the outcomes of children raised here.

Conclusions: Policy Lessons

- How can we improve neighborhood environments for disadvantaged youth?
- **Short-term solution:** Provide targeted housing vouchers at birth conditional on moving to better (e.g. mixed-income) areas.
  - MTO experimental vouchers increased tax revenue substantially $\rightarrow$ taxpayers may ultimately gain from this investment.
- **Long-term solution:** improve neighborhoods with poor outcomes, concentrating on factors that affect children.
- Estimates here tell us which areas need improvement, but further work needed to determine which policies can make a difference.