Creating Equality of Opportunity
New Insights from Big Data

Raj Chetty
Harvard University
The Fading American Dream
Percent of Children Earning More than Their Parents, by Year of Birth

Source: Chetty, Grusky, Hell, Hendren, Manduca, Narang (Science 2017)
How Can We Restore the American Dream?
Understanding the Science of Economic Opportunity

- Large literature in social sciences analyzing determinants of economic mobility [e.g., Blau and Duncan 1967, Becker and Tomes 1979, Solon 1992, Mazumder 2005, Heckman and Mosso 2014]

- Recent studies make use of large-scale longitudinal administrative data ("big data") to make further progress
  - Study determinants of economic opportunity by **disaggregating** data across subgroups and using quasi-experimental methods to analyze mechanisms
  - Here, present an overview of a series of papers with John Friedman, Nathan Hendren, Matthew Jackson, Larry Katz, Johannes Stroebel, Theresa Kuchler, and many others
The Geography of Upward Mobility in the United States
Average Household Income at Age 35 for Children whose Parents Earned $27k (25th pctile)

Note: Blue = More Upward Mobility, Red = Less Upward Mobility
Source: Chetty, Hendren, Kline, Saez (QJE 2014)
Upward Mobility vs. Job Growth in the 30 Largest Metro Areas

- High mobility, low growth: San Jose, San Francisco, Boston, Minneapolis, Pittsburgh, New York, Los Angeles, San Diego
- High mobility, high growth: Seattle, Sacramento, Washington, Portland, Houston, Denver, Riverside
- Low mobility, low growth: Philadelphia, Chicago, Kansas City, Cleveland, Cincinnati, Detroit, St. Louis, Baltimore, Tampa, Charlotte
- Low mobility, high growth: San Antonio, Phoenix, Miami, Dallas, Atlanta
The Geography of Upward Mobility in the United States
Average Income at Age 35 for Children whose Parents Earned $27,000 (25th percentile)

Note: Blue = More Upward Mobility, Red = Less Upward Mobility
Source: Chetty, Friedman, Hendren, Jones, Porter 2018
Two Americas: The Geography of Upward Mobility For Black vs. White Men
Average Income at Age 35 For Men Whose Parents Earned $27,000 (25th percentile)

Seattle $21k
Cincinnati $17k
Boston $25k
Cleveland $17k
Newark $22k
Charlotte $18k
Seattle $29k
Cincinnati $25k
Cleveland $28k
Newark $33k
Charlotte $25k

Note: Blue = More Upward Mobility, Red = Less Upward Mobility
Source: Chetty, Hendren, Jones, Porter (QJE 2020)
The Geography of Upward Mobility For Black vs. White Women
Average Income at Age 35 For Women Whose Parents Earned $27,000 (25th percentile)

Note: Blue = More Upward Mobility, Red = Less Upward Mobility
Source: Chetty, Hendren, Jones, Porter (QJE 2020)
Income Gain from Moving to a Better Neighborhood
By Child’s Age at Move

Source: Chetty and Hendren (QJE 2018)
Income Gain from Moving to a Better Neighborhood
By Child’s Age at Move

- Move at age 2 from Van Dyke to the Nehemiah Houses → average earnings of $25,000

Source: Chetty and Hendren (QJE 2018)
Income Gain from Moving to a Better Neighborhood
By Child’s Age at Move

Source: Chetty and Hendren (QJE 2018)
Income Gain from Moving to a Better Neighborhood
By Child’s Age at Move

Source: Chetty and Hendren (QJE 2018)
Childhood Exposure Effects Around the World

MTO Experiment
Baltimore, Boston, Chicago, LA, NYC

Public Housing Demolitions
Chicago

Australia
Evidence of age-varying exposure effects
Evidence of age-invariant selection effects

Brazil

Canada

Africa
Exposure Effect, Average Impact Difference

Sources:
- Chetty, Hendren, Katz (AER 2018)
- Chyn (AER 2018)
- Deutscher (AEJ Applied 2019)
- Britto, Forsshe, Pinotti, Sampaio, Wanear (2022)
- Laliberté (AEJ: Econ Policy 2021)
- Alesina, Hohmann, Michalopoulos, Papageorgiou (Econometrica 2020)
Characteristics of High-Mobility Neighborhoods

- Lower Poverty Rates
- More stable family structure
- Better school quality
- Greater social capital
Economic Connectedness of Low-SES Individuals, by County
Share of Above-Median-SES Friends Among Below-Median-SES People in Facebook Data

Source: Chetty, Jackson, Kuchler, Stroebel et al. (Nature 2022a,b)
Economic Connectedness vs. Household Median Income, by ZIP Code

Source: Chetty, Jackson, Kuchler, Stroebel et al. (Nature 2022a,b)
Economic Connectedness vs. Household Median Income, by ZIP Code
Colored by Rate of Upward Mobility

Source: Chetty, Jackson, Kuchler, Stroebel et al. (Nature 2022a,b)
Economic Connectedness vs. Household Median Income, by ZIP Code
Colored by Rate of Upward Mobility

Source: Chetty, Jackson, Kuchler, Stroebel et al. (Nature 2022a,b)
Determinants of Economic Connectedness

**Exposure**
- Segregation by Income

**vs.**

**Friending Bias**
- Interaction Conditional on Exposure

School A
- High-SES
- Low-SES

School B
- High-SES
- Low-SES
Friending Bias vs. Exposure to High-SES Students, by High School

The graph shows the relationship between friending bias among low-parental-SES students and the share of high-parental-SES students in various high schools. Each point represents a high school, with points positioned according to the level of friending bias and the share of high-SES students. Schools are labeled on the graph, indicating the specific high schools included in the analysis.
Friending Bias in High Schools vs. School Size

![Graph showing the relationship between Friending Bias among Low-SES Students (%) and the number of students per cohort. The graph indicates a non-linear increase in Friending Bias as the number of students per cohort increases.]
Three Policy Approaches to Increasing Upward Mobility

- **Reducing Segregation**
  - Help Low-Income Families Move to High-Opportunity Areas

- **Place-Based Investments**
  - Increase Upward Mobility in Low-Opportunity Areas

- **Improving Higher Education**
  - Amplify Impacts of Colleges on Mobility
Three Policy Approaches to Increasing Upward Mobility

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Improving Higher Education
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The Geography of Upward Mobility in Seattle
Average Income at Age 35 for Children with Parents Earning $27,000 (25th percentile)

Source: Chetty, Friedman, Hendren, Jones, Porter (2018)
Creating Moves to Opportunity in Seattle

Randomized trial to help families with housing vouchers move to high-opportunity neighborhoods by providing customized counseling, connections to landlords, and liquidity

Fraction of Families Who Leased Units in High-Opportunity Areas

Percent of Households Who Have Moved to High Opportunity Areas

Control: 14.3%
Treatment: 54.3%

Difference: 40.0 pp
SE: (5.2)
Fraction of Families Who Leased Units in High Opportunity Areas
Phase 2: Disaggregated by Type of Treatment

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Percent of Households Who Have Moved to High Opportunity Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>16%</td>
</tr>
<tr>
<td>Financial+Info.</td>
<td>21%</td>
</tr>
<tr>
<td>Partial Support</td>
<td>32%</td>
</tr>
<tr>
<td>Customized Support</td>
<td>58%</td>
</tr>
</tbody>
</table>
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 (42 U.S.C. 1437f(o)) 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 provide that the following public housing agencies may participate:
The *Family Stability and Opportunity Vouchers Act* puts a significant down payment on evidence-based housing mobility vouchers for the nation’s most vulnerable families with young children. The bill couples mobility vouchers with customized support services to help families escape the cycle of poverty and move to high opportunity areas.

Specifically the bill:

- Creates an **additional 500,000 housing vouchers** over five years for low-income, high-need families with young children. Pregnant women and families with a **child under age 6** would qualify for these new vouchers if they have a history of homelessness or housing instability, live in an area of concentrated poverty, or are at risk of being pushed out of an opportunity area.

- Provides voucher recipients with **access to counseling and case management services** that have a proven track record of helping families move out of poverty.

- The bill's resources would enable housing agencies to **engage new landlords in the voucher program** and connect families with information about housing in high-opportunity neighborhoods, and community-based supports for families as they move.
Three Policy Approaches to Increasing Upward Mobility

1. Reducing Segregation
   - Help Low-Income Families Move to High-Opportunity Areas

2. Place-Based Investments
   - Increase Upward Mobility in Low-Opportunity Areas

3. Improving Higher Education
   - Amplify Impacts of Colleges on Mobility
A Wake-Up Call for Charlotte-Mecklenburg

January 25, 2014

Land of opportunity? Not by a long shot

Charlotte is nation’s worst big city for climbing out of poverty

The Charlotte Observer

Over the last several decades, Charlotte-Mecklenburg has transformed from a small southern town to one of the country’s largest and most dynamic communities. We continue to attract people—nearly 50 a day—who move here to take advantage of our strong business climate, favorable weather and geographic location, and our reputation as a great place to live and raise a family. Accolades from the outside regularly tell us how tall we stand among other communities. As recently as February 7, 2017, U.S. News and World Report ranked us as the 14th best place to live in the country.¹

Yet, in 2013 when the headline broke about the Harvard University/UC Berkeley study that ranked Charlotte-Mecklenburg 50th out of 50 in upward mobility² for children born into our lowest income quintile, many in our community responded with disbelief. How, on the one hand, can we be such a vital and opportunity-rich community, and on the other, be ranked dead last in the odds that our lowest income children and youth will be able to move up the economic ladder as they become adults?
Impact of Year-Up Sectoral Job Training Program on Earnings

![Graph showing the impact of Year-Up Sectoral Job Training Program on earnings over time. The graph compares the average annual earnings of the experimental treatment group and the experimental control group. The note indicates that the observational sample was matched on race, gender, age, and Census tract. The source is Chetty, Noray, Katz, et al. (in progress).]
Impact of Year-Up Sectoral Job Training Program on Earnings

- **Experimental Treatment**
- **Experimental Control**
- **Matched Control in Observational Data**

**Note:** Observational Sample matched on race, gender, age, and Census tract

Source: Chetty, Noray, Katz, et al. (in progress); see also Chetty, Athey, Imbens (2022); Andrews, Chetty, Sanders, van Dijk (in progress)
Three Policy Approaches to Increasing Upward Mobility

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Upward Mobility vs. Low-Income Access by College

Source: Chetty, Friedman, Saez, Turner, Yagan (QJE 2020)
Ivy-Plus Attendance Rates by Parental Income, Controlling for SAT Scores
Children with SAT Scores of 1500

Source: Chetty, Friedman, Saez, Turner, Yagan (QJE 2020)
The Geography of Economic Opportunity Around the World

Sweden

Annual Individual Income at Age 32-34 (2010)

- > 255,000 SEK
- < 235,000 SEK

Source: Heidrich 2017

Spain

Median Income at Age 31 for Children from Low-Income Households

- > 23.692 EUR
- < 13.001 EUR

Source: Atlas de Oportunidades 2020

Africa

Upward Mobility

- 0.00 - 0.06 (lowest)
- 0.06 - 0.12
- 0.12 - 0.18
- 0.18 - 0.25
- 0.25 - 0.32
- 0.32 - 0.40
- 0.40 - 0.50
- 0.50 - 0.60
- 0.60 - 0.70
- 0.70 - 0.80
- 0.80 - 1.00 (highest)

Source: Alesina, Hohmann, Michalopoulos, Papaioannou 2021

India

Upward Mobility

- 58.0
- 27.0

Source: Asher, Novosad, and Rafkin 2020
Thank you

Research studies and summaries
www.opportunityinsights.org

Explore your community's data
Opportunity Atlas: www.opportunityatlas.org
College Mobility: www.nytimes.com/interactive/projects/college-mobility/

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From Jasmine, 7 years old, whose family moved to a high-opportunity area in Seattle in the Creating Moves to Opportunity study