Changing Opportunity
Sociological Mechanisms Underlying Growing Class Gaps and Shrinking Race Gaps in Economic Mobility

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The Geography of Upward Mobility in the United States
Average Household Income at Age 35 for Children born in 1980 whose Parents Earned $27K

Source: Chetty, Hendren, Kline, Saez (QJE 2014)
Rates of Slavery in the 1860s vs. Present-Day Upward Mobility

**Rates of Slavery (1860)**
Share of the Population that Were Enumerated as Slaves in the 1860 Census

Yellow = Lower Share of Slaves
Brown = Higher Share of Slaves

**Upward Mobility**
Average Household Income at Age 35 for Children whose Parents Earned $27k (25th percentile)

Blue = More Upward Mobility
Red = Less Upward Mobility

*Source*: Berger (2018); Chetty, Hendren, Kline, Saez (2014)
Redlining in the 1930s vs. Present-Day Upward Mobility
Oakland, CA

Redlining Boundaries (1930s)
Neighborhood grade, 1930s

Green = “Best”
Blue = “Still Desirable”
Yellow = “Declining”
Red = “Hazardous”

Upward Mobility
Average Household Income at Age 35 for Children whose Parents Earned $27k (25th percentile)

Blue = More Upward Mobility
Red = Less Upward Mobility

Source: Lane, Morello-Frosch, Marshall, and Apte (2022); Chetty, Friedman, Hendren, Jones, Porter (2018)
Changing Opportunity
New Data Give us a Lens to Study Changes in Opportunity

- 2014 Opportunity Insights Land of Opportunity study focused on children born around 1980

- We use an additional decade of tax data to analyze changes in outcomes for children born in the 1978-1992 birth cohorts

- First evidence on changes in economic mobility within places and mechanisms underlying changes in opportunity
Data


- Sample: children in 1978-92 birth cohorts, linked to parents via dependent claiming
  - 57.2 million children, 92% of those in 1978-92 birth cohorts in 2000 Census
Variable Definitions

- Parents’ pre-tax household incomes: mean Adjusted Gross Income when child is 13-17, assigning zeros to non-filers

- Children’s pre-tax household incomes measured at age 27 (from 2005-2019)

- Translate to percentile ranks: rank children relative to others in their birth cohort and parents relative to other parents with children in that birth cohort

- Self-reported information on child’s race/ethnicity from 2000 Census
Intergenerational Mobility for the 1978 vs. 1992 Birth Cohorts, by Race and Class
Mean Child Household Income Percentile at Age 27 vs. Parent Household Income Percentile

![Graph showing intergenerational mobility](image-url)
Intergenerational Mobility for the 1978 vs. 1992 Birth Cohorts, by Race and Class
Mean Child Household Income Percentile at Age 27 vs. Parent Household Income Percentile
Intergenerational Mobility for the 1978 vs. 1992 Birth Cohorts, by Race and Class
Mean Child Household Income Percentile at Age 27 vs. Parent Household Income Percentile

- White 1978
- White 1992
White Class Gap for Children with High vs. Low-Income Parents, by Birth Cohort

Gap in Mean Child HH Income Percentile

- White Class Gap ($\Delta = 28\%$)
Growing Class Gaps, Shrinking Race Gaps

White-Black Gap for Children with Low-Income Parents vs. White Class Gap, by Birth Cohort

Gap in Mean Child HH Income Percentile

- White Class Gap (Δ = 28%)
- White-Black Gap at P=25 (Δ = -27%)

Birth Cohort

Race Gaps in Intergenerational Persistence of Poverty vs. Upper-Tail Mobility

Quintile Transition Probabilities for Children with Parents in Bottom Income Quintile

Persistence of Poverty

Percent of Children Who Stay in Bottom Quintile

- 24.9% for White Children
- 39.6% for Black Children

1978 Cohort
Race Gaps in Intergenerational Persistence of Poverty vs. Upper-Tail Mobility

Quintile Transition Probabilities for Children with Parents in Bottom Income Quintile

**Persistence of Poverty**

$\Delta = -14.7\text{pp}$

<table>
<thead>
<tr>
<th>Year</th>
<th>White Children</th>
<th>Black Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978 Cohort</td>
<td>24.9%</td>
<td>39.6%</td>
</tr>
</tbody>
</table>
Race Gaps in Intergenerational Persistence of Poverty vs. Upper-Tail Mobility
Quintile Transition Probabilities for Children with Parents in Bottom Income Quintile

Persistence of Poverty

Δ = -14.7pp
39.6%

Δ = -4.1pp
33.8%

1978 Cohort
24.9%
1992 Cohort
29.7%

White Children
Black Children
Race Gaps in Intergenerational Persistence of Poverty vs. Upper-Tail Mobility

Quintile Transition Probabilities for Children with Parents in Bottom Income Quintile

**Persistence of Poverty**

- Δ = -14.7pp
  - 1978 Cohort: 24.9%
  - 1992 Cohort: 29.7%

**Upper-Tail Mobility**

- Δ = 10.8pp
  - 1978 Cohort: 3.0%
  - 1992 Cohort: 3.0%

- Δ = 8.9pp
  - 1978 Cohort: 13.7%
  - 1992 Cohort: 11.9%

Δ represents the difference in the percent of children who stay in the bottom quintile or reach the top quintile between the 1978 and 1992 cohorts.
Growing Class Gaps, Shrinking Race Gaps in Mortality Rates between Ages 24-27
White-Black Gap for Children with Low-Income Parents vs. White Class Gap, by Birth Cohort
Growing Class Gaps, Shrinking Race Gaps in Educational Attainment at Age 27
White-Black Gap for Children with Low-Income Parents vs. White Class Gap, by Birth Cohort

![Graph showing the comparison of White Class Gap and White-Black Gap for children with low-income parents, by birth cohort. The graph displays the trend from 1978 to 1992, with the White Class Gap (Δ = 20%) and the White-Black Gap at P=25 (Δ = -86%).]
Changes in Economic Mobility for White Americans
White Children with Low-Income Parents

1978 Birth Cohort
Changes in Economic Mobility for White Americans
White Children with Low-Income Parents

1978 Birth Cohort

1992 Birth Cohort
Changes in Economic Mobility for Black Americans
Black Children with Low-Income Parents

1978 Birth Cohort

1992 Birth Cohort
Economic Mobility for Black vs. White Children Born in 1992

Black Children

White Children

<30.3
33.7
>38.1

<44.1
48.4
>55.3
Change in Mean Child Household Income Percentile by Race and Class
Household Income Percentile at Age 27, 1992-1978 Cohort Difference

Δ Mean Child HH Income Percentile

-2.33 0.75
White

1.63 1.42
Black

0.44 0.43
Hispanic

0.04 0.66
Asian

Parent Income P=25
Parent Income P=75
Mechanisms Underlying Trends in Mobility
Potential Explanations for Growing Class Gaps and Shrinking Race Gaps

- Begin by considering two natural explanations for changes in intergenerational mobility by race and class:

  1. Changes in family-level characteristics (e.g., education, marriage, wealth, occupation)

  2. Differential shocks across areas (e.g., predominantly Black vs. White areas)
Can Family Characteristics or Neighborhoods Explain Changes in Gaps?

Household Income Percentile at Age 27, 1992-1978 Cohort Difference

\[ Y = \beta_1 \text{White} + \beta_2 \text{Cohort} + \beta_3 \text{White} \times \text{Cohort} + \alpha_{nw} + \alpha_{nc} + \epsilon \]
Can Family Characteristics or Neighborhoods Explain Changes in Gaps?
Household Income Percentile at Age 27, 1992-1978 Cohort Difference

Δ Gap Child HH Income Percentile

-4.16 3.37 3.13 3.13

-4.56

-4

No Controls Control for Parental Education, Marital Status, Occupation, and Wealth Tract x Cohort FE (Compare Trends Across Race Groups within Tracts)
What Drives the Divergence in Outcomes by Race and Class?

- Changes in intergenerational mobility by race and class must be driven by differential trends within areas.

- One hypothesis for such changes emphasized in prior ethnographic work: changes in employment rates.

- Can differential changes in parental employment by race and class explain within-area divergence?

Many of today’s problems...crime, family dissolution, welfare, low levels of social organization, and so on...are fundamentally a consequence of the disappearance of work.

- William Julius Wilson 
  *When Work Disappears* (1996)
Changes in Economic Mobility vs. Changes in Employment Rates

- Examine link between changes in employment rates and economic mobility across areas
  
  - Measure race-specific change in parental employment rates across counties as change in adults’ employment rates from 1980 to 2000 Census
  
  - Use employment rates as a proxy for community-level environmental conditions more broadly, as in Wilson (1996)
By County and Race

$\Delta$ Child HH Income Percentile (1978-1992)

$\Delta$ County-Level Employment Rate for Same-Race Adults (1980-2000 Calendar Years)

Slope = 0.21 (0.03)
Explaining Divergence in Outcomes by Race and Class

- To explain divergence by race and class, need to measure employment rates not just by race and county but also by class.

- Measure county-level changes in parental employment rates by race and class from 1978 to 1992 birth cohorts.

- Because we define “class” as parent’s income percentile during childhood (ages 13-17), need to measure employment after child is 18.
  - In baseline analysis, measure parental employment rates when child is 27.
  - Results insensitive to alternative points of measurement because variation in employment rates is primarily across cohorts rather than calendar years.
By County, Race, and Class

Graph showing the relationship between changes in county-level parental employment rates and changes in children's income percentiles for White children at P=25.
By County, Race, and Class

![Graph showing changes in children's income percentiles vs. parental employment rates from 1978 to 1992, categorized by county, race, and class.]
By County, Race, and Class

Δ Child HH Income Percentile (1978-1992)

Δ County-Level Parental Employment Rate (1978-1992)

- White Children at P=25
- Black Children at P=25
- White Children at P=75
By County, Race, and Class
Explaining National Trends in Intergenerational Mobility Gaps by Race and Class

\[ \Delta \text{Child HH Income Percentile (1978-1992)} \]

\[ \Delta \text{Parental Employment Rate (1978-1992)} \]

Slope = 0.37 (0.06)
Correlation = 0.91
By County, Race, and Class for Children whose Own Parents Remain Employed

Δ Child HH Income Percentile (1978-1992)

Δ County-Level Parental Employment Rate (1978-1992)

-5.0          -2.5          0.0          2.5          5.0
-15           -10           -5            0            5

- White Children at P=25
- Black Children at P=25
- White Children at P=75
- Pooled Slope = 0.47 (0.01)
Changes in Children’s Income Percentiles vs. Mother’s Marriage Rates, 1978-92 Cohorts
By County, Race, and Class

- White Children at P=25
- Black Children at P=25
- White Children at P=75

Pooled Slope = 0.28 (0.00)
Why are Changes in Mobility Related to Changes in Parent Employment Rates?
Why Are Changes in Parental Outcomes Correlated with Children’s Outcomes?

**[Correlated Shocks]**
Changes in labor demand affect both parents and children directly

**[Environmental Exposure Effect]**
Changes in childhood environment have a causal effect on children’s outcomes

Test between these explanations by studying children who moved to improving vs. declining areas
Move Before Age 8

Slope = 0.26 (0.04)
Causal Effects of Childhood Environment Changes: Evidence from Movers
Children’s Incomes vs. Trends in Parental Employment in Destination, 1992 Birth Cohort

Move Before Age 8

Move Between Ages 13-17

$\Delta$ County-Level Parental Employment Rate in Destination County (1978-1992)
Effect of Trends in Parent Employment Rate in Destination

By Move Age and Cohort

Coefficient on ∆ Parental Employment Rate

- Moved Before Age 8
- Moved Between Ages 13-17

Birth Cohort

Balance Test Using Predicted Outcomes Based on Parent Characteristics
Differences in Siblings’ Outcomes vs. Trend in Parent Employment Rates
Younger Sibling’s Minus Older Sibling’s Income Percentile in Destination County

Siblings with Age Gap $\geq 4$

- Slope $= 0.10 (0.02)$

Siblings with Age Gap $< 4$

- Slope $= 0.04 (0.01)$
Changes in Children’s SAT/ACT Scores vs. Parent Employment Rates
By County, Race, and Class

Δ SAT/ACT Rank (approx. 1980-1993)
Δ County-Level Parental Employment Rate (1980-1992)

- Pooled Slope = 0.31 (0.02)
Why Does Childhood Exposure to Higher Parent Employment Improve Outcomes?
Why Does Growing Up in a Community With Higher Parent Employment Rates Improve Children’s Outcomes?

**[Social Interaction]**
Higher parental employment improves children’s outcomes via social interactions (job referrals, aspirations)

**[Economic Resources]**
Higher parental employment expands financial resources at community level (schools, local programs)

Test between these explanations by exploiting differences in **friendship patterns** across groups.
Effect of Changes in Parental Employment Rates Across Cohorts
Friendship Rates and Parent Employment Effects in Own Cohort vs. Adjacent Cohorts

![Graph showing the impact of parental employment on child HH income percentile across different birth cohorts. The graph displays the share of friends in the birth cohort and the share of high school friends in the cohort.]
Effect of Changes in Parental Employment Rates Across Cohorts
Friendship Rates and Parent Employment Effects in Own Cohort vs. Adjacent Cohorts
Effect of Group-Specific Changes in Parent Employment Rates

Race and Class Group of Δ Parental Employment Variable

Impact of Δ Parental Employment Rates on Δ Child HH Income Percentile

Low-Income White Children

0.29
Effect of Group-Specific Changes in Parent Employment Rates

Race and Class Group of Δ Parental Employment Variable

Low-Income White Children: 0.29
Low-Income Black: 0.02
Effect of Group-Specific Changes in Parent Employment Rates

Race and Class Group of $\Delta$ Parental Employment Variable
Effect of Group-Specific Changes in Parent Employment Rates

Race and Class Group of $\Delta$ Parental Employment Variable

- Low-Income White Children: 0.29
- Low-Income Black Children: 0.27
- Low-Income White: 0.07
Effect of Group-Specific Changes in Parent Employment Rates
Implications for Increasing Mobility
Policy Implications

- Most important takeaway: opportunity can change in short timeframes

- What do these findings imply for efforts to increase mobility going forward?

  1. Support next generation in communities where parents' employment rates are currently falling (not just current generation)

  2. Focus on social communities within neighborhoods – not just neighborhoods as a whole – as unit of change

  3. Provide social capital in addition to financial and human capital
Key open question: what interventions can create changes in social communities that increase mobility?

To support the field in making progress on answering this question, we have released **new data on changes in economic mobility**

Visit the Opportunity Atlas ([www.opportunityatlas.org](http://www.opportunityatlas.org)) to see data for your own county and download data by race, parental income, gender, cohort, and county
### Changes in Economic Mobility Across Areas
#### 50 Largest Metro Areas (Commuting Zones)

#### Top 5 Most Improved

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>1978 BIRTH YEAR</th>
<th>1992 BIRTH YEAR</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Brownsville, TX</td>
<td>$31.4K</td>
<td>$33.5K</td>
<td>6.7%</td>
</tr>
<tr>
<td>2 Austin, TX</td>
<td>$29.6K</td>
<td>$31.6K</td>
<td>6.4%</td>
</tr>
<tr>
<td>3 Charlotte, NC</td>
<td>$26.7K</td>
<td>$28.1K</td>
<td>5.0%</td>
</tr>
<tr>
<td>4 Nashville, TN</td>
<td>$28.7K</td>
<td>$30.1K</td>
<td>4.7%</td>
</tr>
<tr>
<td>5 Grand Rapids, MI</td>
<td>$30.1K</td>
<td>$31.4K</td>
<td>4.3%</td>
</tr>
</tbody>
</table>

#### Bottom 5: Least Improved

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>1978 BIRTH YEAR</th>
<th>1992 BIRTH YEAR</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>46 Tampa, FL</td>
<td>$29.8K</td>
<td>$27.1K</td>
<td>-9.1%</td>
</tr>
<tr>
<td>47 Washington, DC</td>
<td>$33.2K</td>
<td>$30.2K</td>
<td>-9.1%</td>
</tr>
<tr>
<td>48 San Diego, CA</td>
<td>$33.8K</td>
<td>$30.7K</td>
<td>-9.2%</td>
</tr>
<tr>
<td>49 Las Vegas, NV</td>
<td>$32.3K</td>
<td>$28.8K</td>
<td>-10.6%</td>
</tr>
<tr>
<td>50 Philadelphia, PA</td>
<td>$31.2K</td>
<td>$27.2K</td>
<td>-12.7%</td>
</tr>
</tbody>
</table>