Higher Education and Upward Mobility
New Lessons from Big Data

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

Source: Chetty, Grusky, Hell, Hendren, Manduca, Narang 2016
Higher Education and Upward Mobility

- Higher education is widely viewed as a pathway to upward mobility
  - But little systematic data on which colleges contribute the most to helping children climb the income ladder
Mobility Report Cards

- We show how colleges shape upward mobility by constructing *mobility report cards* for every college in America

  - Statistics on parents’ incomes and students’ earnings outcomes at each college

  - Use de-identified attendance and income data on 30 million students from 1999-2013 from Treasury and Dept. of Ed.

*Source: Chetty, Friedman, Saez, Turner, Yagan 2017*
Low-Income Access

- Start by examining how access to colleges varies with parents’ household income
Parent Income Distribution at Ivy-Plus Colleges

Note: “Ivy Plus” = Ivy League, Chicago, Duke, MIT, Stanford
14.5% of students from top 1%

More students from the top 1% than the bottom 50%

13.5% of students from bottom 50%
Parent Income Distributions: Columbia vs. CUNY

Percent of Students

Parent Income Quintile

Columbia

Columbia vs. CUNY
Parent Income Distributions: Columbia vs. CUNY

Percent of Students

Parent Income Quintile

Columbia

CUNY System

0% 20% 40% 60% 80%

1 2 3 4 5

5.0 28.7 26.5 9.3 12.8 11.8

66.7
Now turn to students’ earnings outcomes in adulthood

- Measure children’s individual earnings in their mid-30s
- How many students from families in the bottom fifth reach the top fifth?
Mobility Report Card for CUNY – Hunter College

Access: Fraction of Parents from the Bottom Fifth = 21%

Percent of Students

Parent Income Quintile
Mobility Report Card for CUNY – Hunter College

Success Rate: Fraction of Students who Reach the Top Fifth (>\$60K) = 36%

Access: Fraction of Parents from the Bottom Fifth (<\$25K) = 21%
Mobility Rates

- Measure a college’s *mobility rate* (MR) as the fraction of its students who come from bottom fifth and end up in top fifth.

- Mobility rate equals access times success rate:

  \[
  \text{Mobility Rate} = \text{Access} \times \text{Success Rate}
  \]

At Hunter College: \(7.5\% = 21\% \times 36\%\)
Access and Success Rates Across Colleges

Success Rate: \( P(\text{Child in Q5 | Par in Q1}) \)

Access: Percent of Parents in Bottom Quintile

Hunter
Access and Success Rates Across Colleges

Success Rate: $P(\text{Child in Q5} \mid \text{Par in Q1})$

Access: Percent of Parents in Bottom Quintile

Staten Island
Brooklyn
Kingsborough
John Jay
Queensborough
Bernard Baruch
Medgar
City College
Borough of Manhattan
Lehman
Laguardia
Bronx
Hostos
Hunter
Queens
York
NY City Tech
Kingsborough
Medgar
NYC Tech
Access and Success Rates Across Colleges

- CUNY System: Mobility Rate = 7.2%
- Other NYC Colleges: Mobility Rate = 3.5%
Access and Success Rates Across Colleges

- **CUNY System**: Mobility Rate = 7.2%
- **Other NYC Colleges**: Mobility Rate = 3.5%
Top 10 Colleges in America By Mobility Rate

<table>
<thead>
<tr>
<th>College</th>
<th>Mobility Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUNY-Bernard Baruch</td>
<td>12.9%</td>
</tr>
<tr>
<td>CUNY-City</td>
<td>11.7%</td>
</tr>
<tr>
<td>CUNY-Lehman</td>
<td>10.2%</td>
</tr>
<tr>
<td>Cal State-Los Angeles</td>
<td>9.9%</td>
</tr>
<tr>
<td>CUNY-John Jay</td>
<td>9.7%</td>
</tr>
<tr>
<td>Pace University</td>
<td>8.4%</td>
</tr>
<tr>
<td>SUNY-Stony Brook</td>
<td>8.4%</td>
</tr>
<tr>
<td>CUNY-NY City Tech</td>
<td>8.3%</td>
</tr>
<tr>
<td>CUNY-Brooklyn</td>
<td>8.1%</td>
</tr>
<tr>
<td>Technical Career Institutes</td>
<td>8.0%</td>
</tr>
<tr>
<td>Columbia</td>
<td>3.1%</td>
</tr>
<tr>
<td>Avg. College in the U.S.</td>
<td>1.9%</td>
</tr>
</tbody>
</table>
Mobility Rates for Four-Year State College Systems

- CUNY: 8.3%
- CA: 4.3%
- NJ: 3.3%
- TX: 3.1%
- FL: 2.9%
- LA: 2.7%
- NM: 2.6%
- SUNY: 2.5%
- AR: 2.4%
- OK: 2.1%
- Average: 2.0%
Mobility Rates for Two-Year State College Systems

<table>
<thead>
<tr>
<th>State</th>
<th>Mobility Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUNY</td>
<td>5.7%</td>
</tr>
<tr>
<td>ND</td>
<td>2.7%</td>
</tr>
<tr>
<td>TX</td>
<td>2.6%</td>
</tr>
<tr>
<td>LA</td>
<td>2.6%</td>
</tr>
<tr>
<td>CA</td>
<td>2.5%</td>
</tr>
<tr>
<td>MS</td>
<td>2.1%</td>
</tr>
<tr>
<td>WV</td>
<td>2.1%</td>
</tr>
<tr>
<td>NM</td>
<td>1.9%</td>
</tr>
<tr>
<td>WY</td>
<td>1.9%</td>
</tr>
<tr>
<td>NJ</td>
<td>1.9%</td>
</tr>
<tr>
<td>Average</td>
<td>1.8%</td>
</tr>
</tbody>
</table>
Changes Over Time

- How have access and mobility rates changed in recent years?
  - Are colleges like CUNY continuing to provide ladders to opportunity?
Trends in Low-Income Access from 2000-2011

- CUNY System
- SUNY Stony Brook
- Columbia

Year When Child was 20

Percent of Parents in the Bottom Quintile
Trends in Low-Income Access from 2000-2011 by CUNY Campus

Change in Pct. of Students from Bottom Quintile (pp)

- Staten Island
- Brooklyn
- Bronx
- Hunter
- York
- John Jay
- Kingsborough
- Manhattan
- Medgar
- Bernard Baruch
- Hostos
- Queens
- City Tech
- Queensborough
- Lehman
- City
- LaGuardia
Key Questions for Future Work

- How can we preserve or increase access to institutions like CUNY for children from low-income families?

- Why are mobility rates at CUNY so high, and how can this success be replicated and expanded?
  - Is CUNY successful in selecting upwardly mobile students or does studying at CUNY increase a given child’s chance of success?

Download data for every college from the Equality of Opportunity Project
www.equality-of-opportunity.org
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