

Social Mobility and Investments in Children

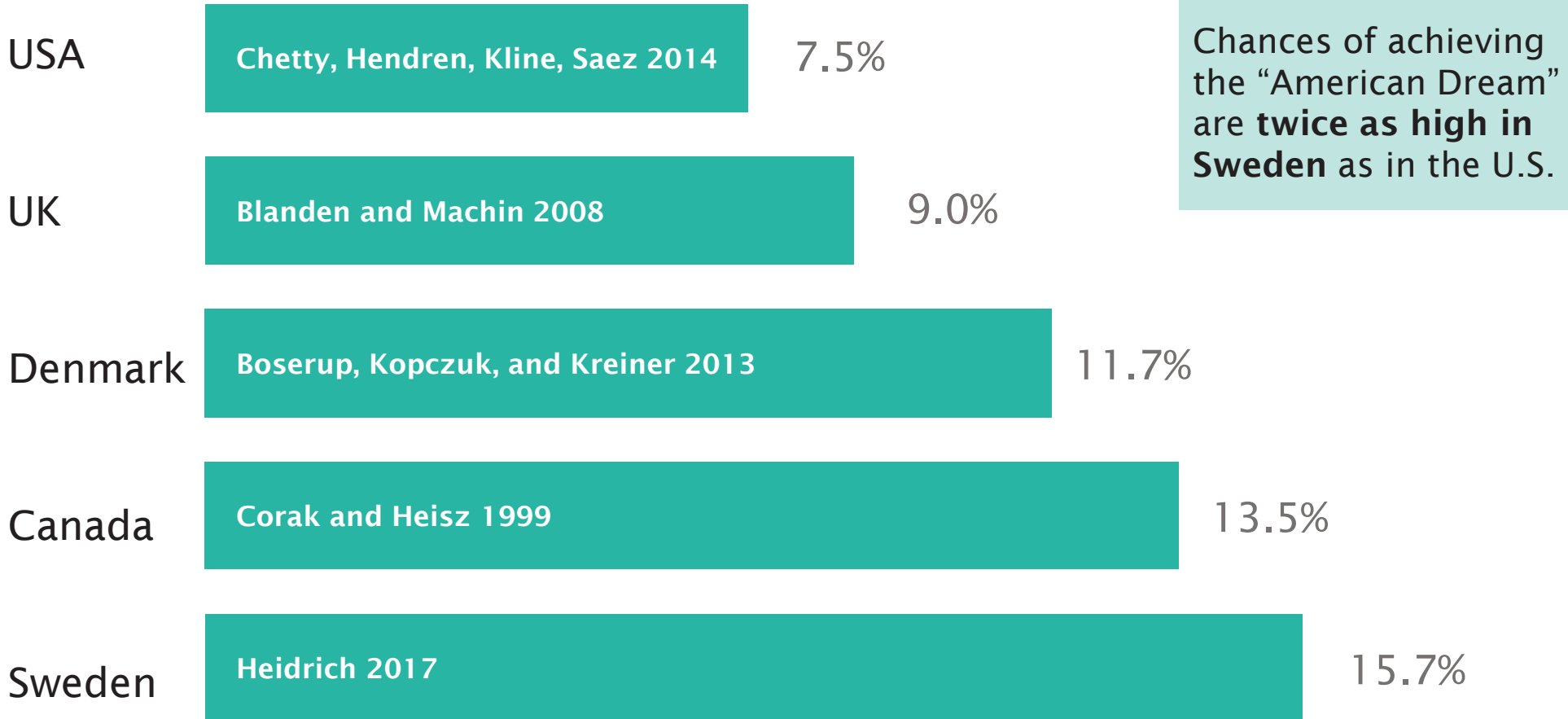
Nathaniel Hendren
Harvard University



 OPPORTUNITY
INSIGHTS

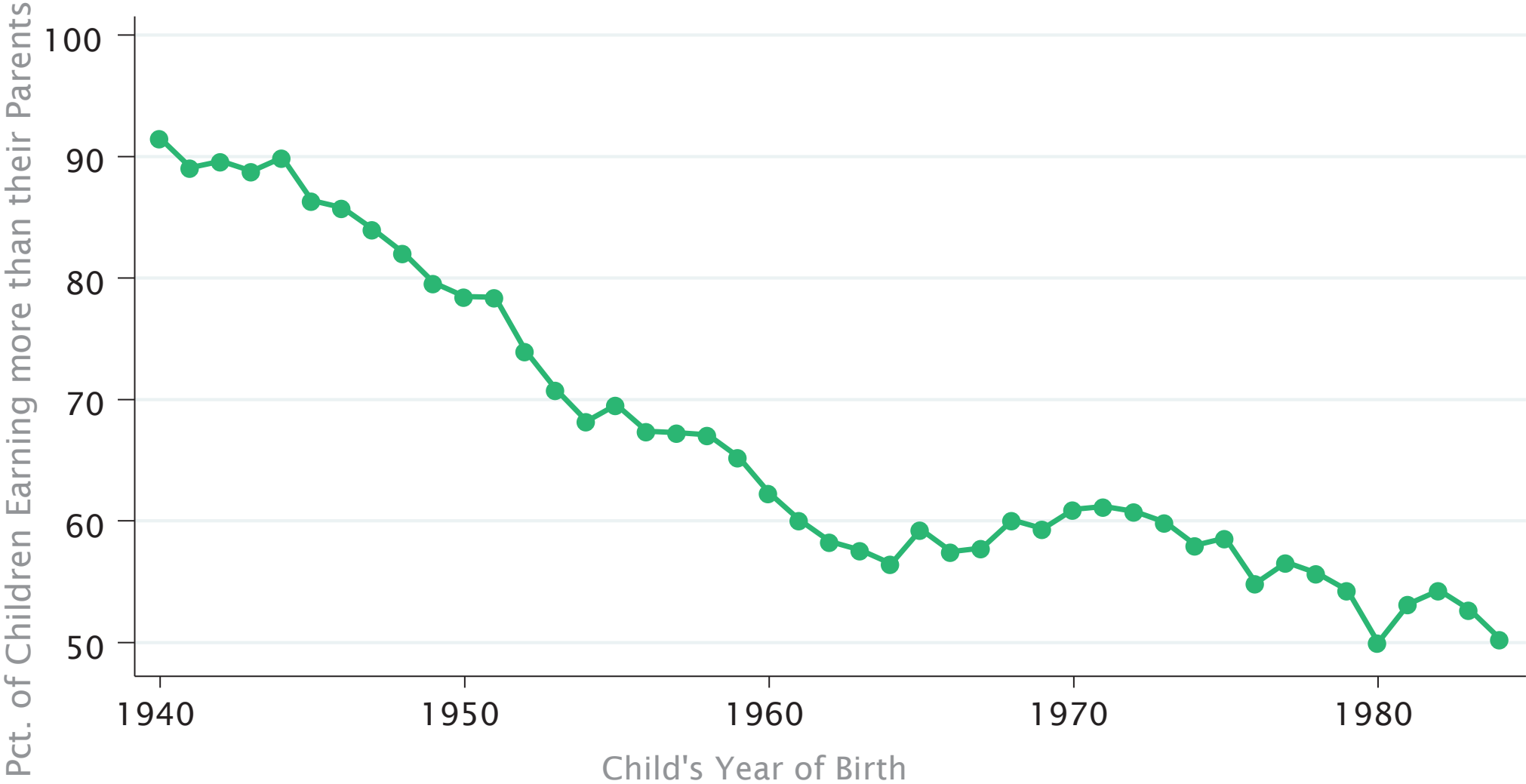
Social Mobility Around the World

Chance that a child born to parents in the bottom fifth of the income distribution reaches the top fifth:



Percent of Children Earning More than Their Parents, by Year of Birth in US

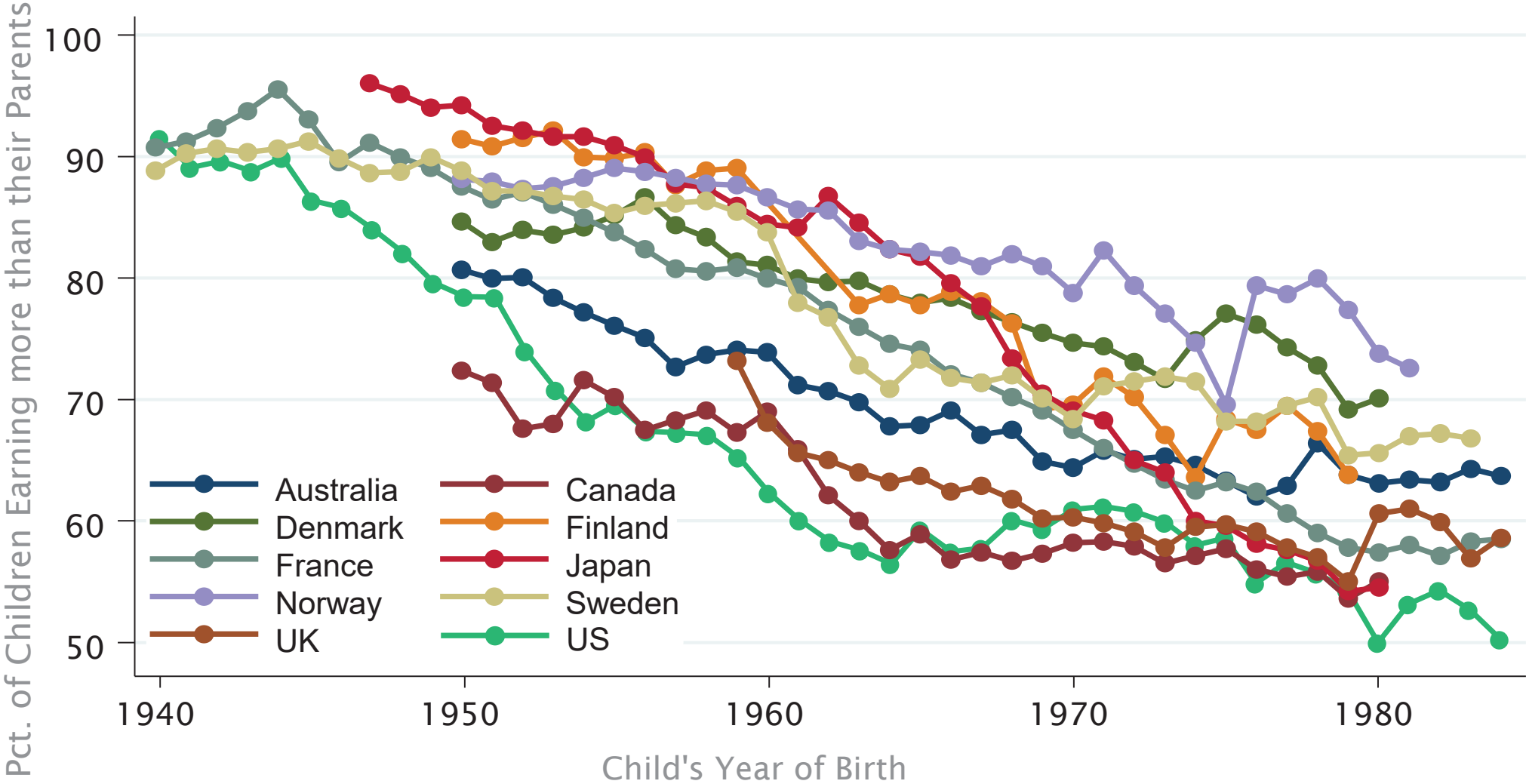
Chetty, Grusky, Hell, Hendren, Manduca, Narang (Science 2017)



Source: Chetty, Grusky, Hell, Hendren, Manduca, Narang (Science 2017)

Percent of Children Earning More than Their Parents, by Year of Birth

Berman (2019)



Source: Berman (2019), Chetty, Grusky, Hell, Hendren, Manduca, Narang (Science 2017)

Three Questions for the Talk



1. What causes low social mobility?



2. What (if any) barriers/constraints do parents face investing in their children?



3. What are the policy implications of low mobility?

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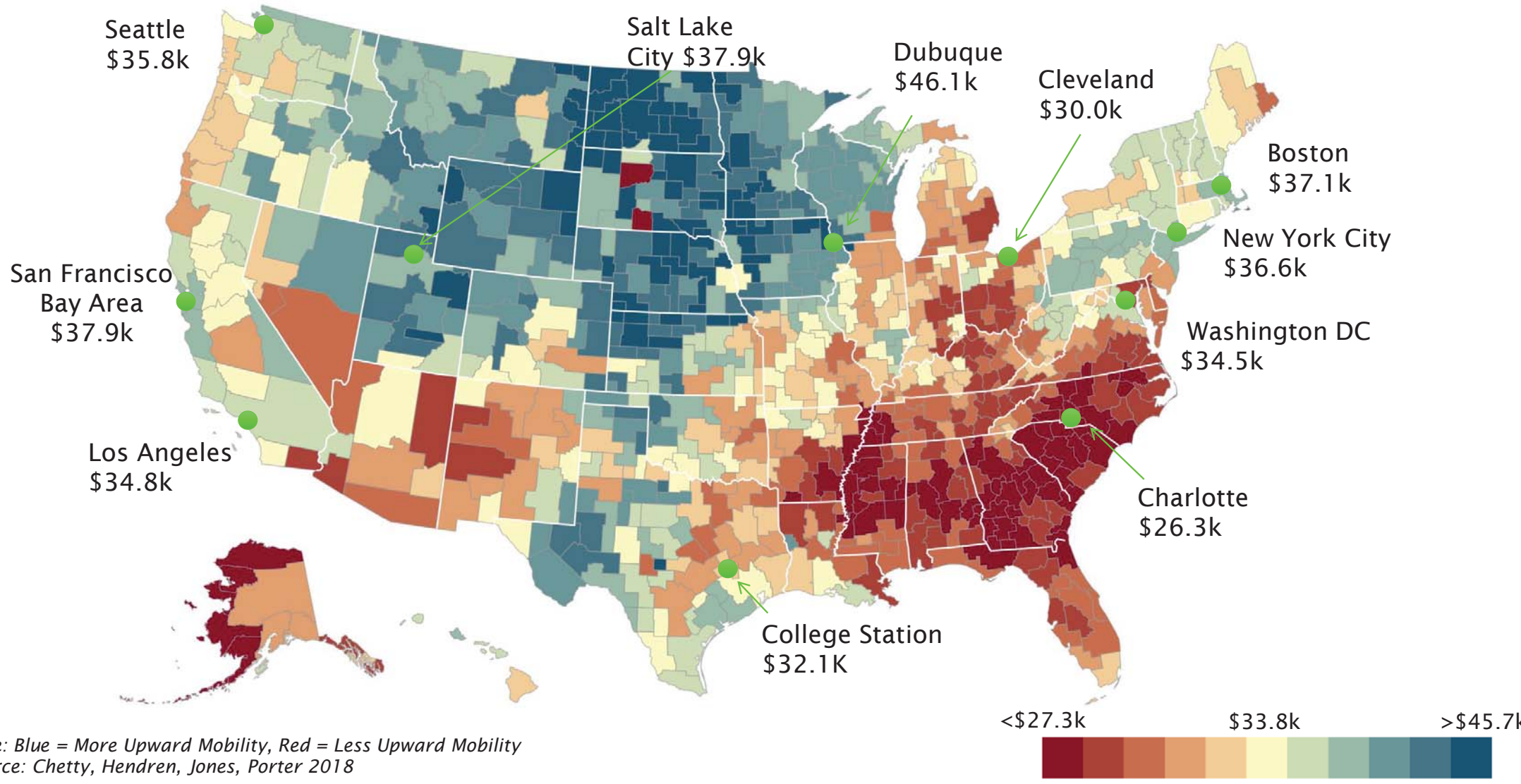
What Causes Low Social Mobility?

Tracing the Roots of Social Mobility to Childhood Environments

- Use large variation across **neighborhoods** as a lens to understand determinants of social mobility
 - Based on work with John Friedman, Raj Chetty, Sonya Porter, Maggie Jones, and many others
- Data sources: Census data covering U.S. population linked to federal income tax returns from 1989-2015
 - Intergenerational sample: 20.5 million children in 1978-83 birth cohorts who grew up in the U.S.
- Trace roots of social mobility to childhood environments in which they grew up
 - Focus on children who grew up in below-median income families (p25 ~ \$27K)

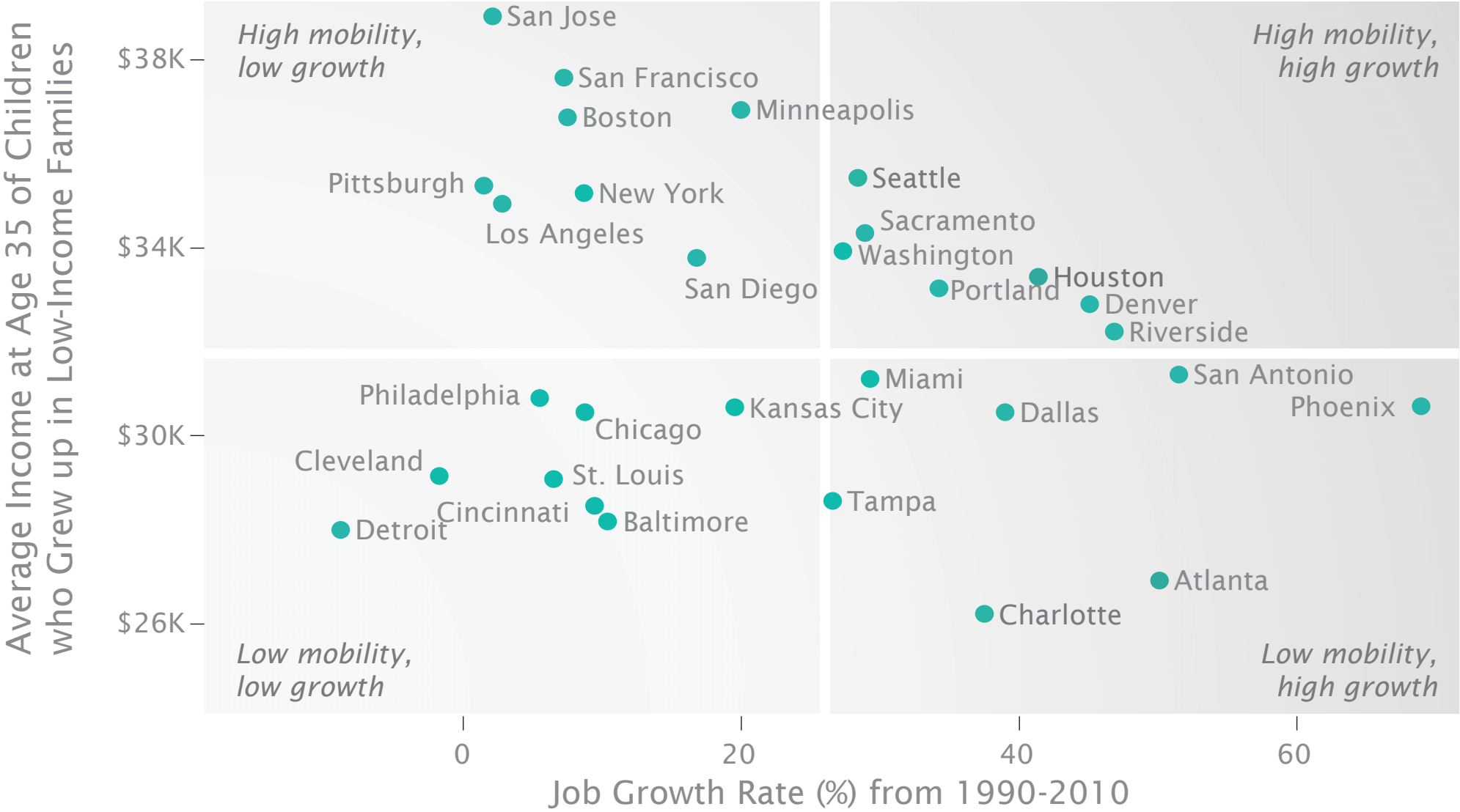
The Geography of Upward Mobility in the United States

Average Income at Age 35 for Children whose Parents Earned \$27,000 (25th percentile)



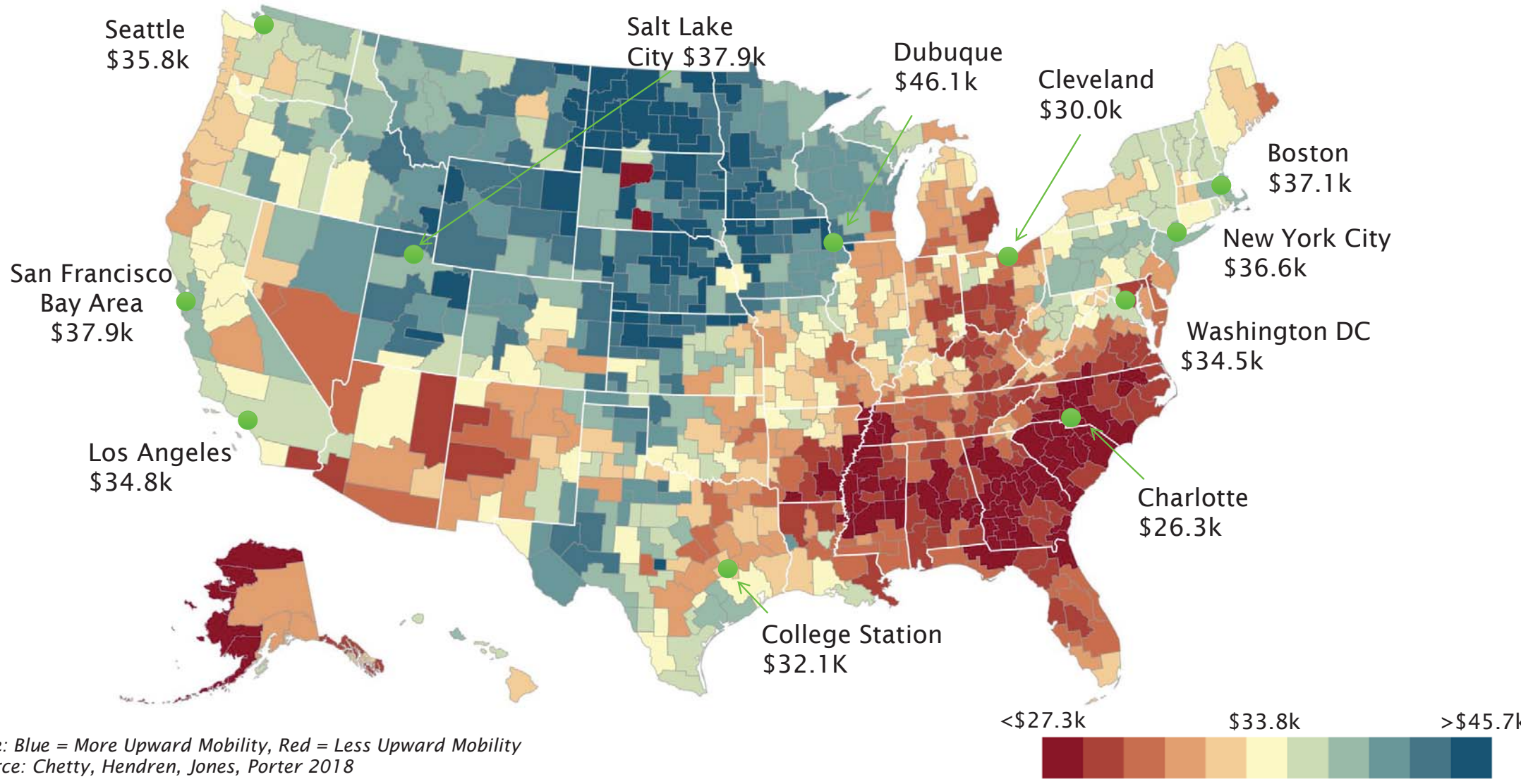
Note: Blue = More Upward Mobility, Red = Less Upward Mobility
Source: Chetty, Hendren, Jones, Porter 2018

Upward Mobility vs. Job Growth in the 30 Largest Metro Areas



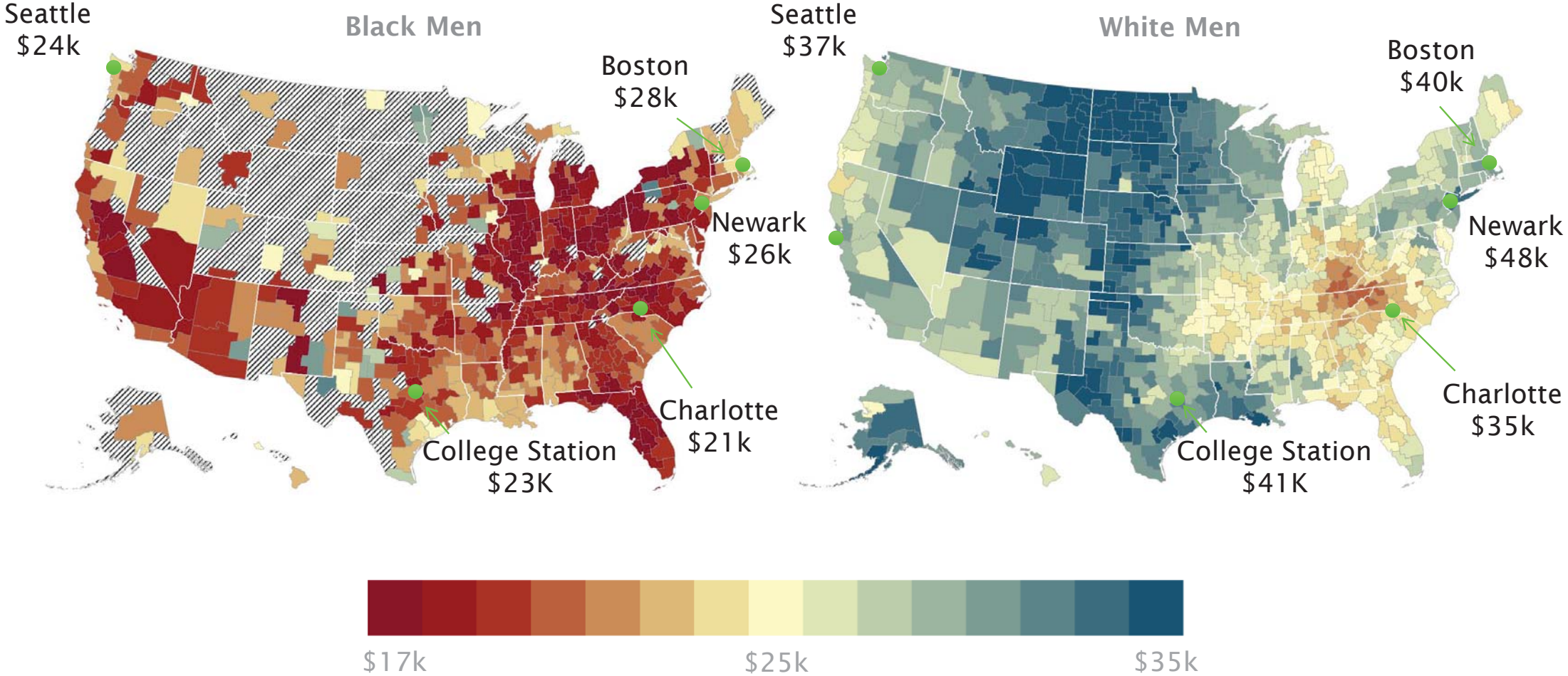
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Two Americas: The Geography of Upward Mobility For Black vs. White Men

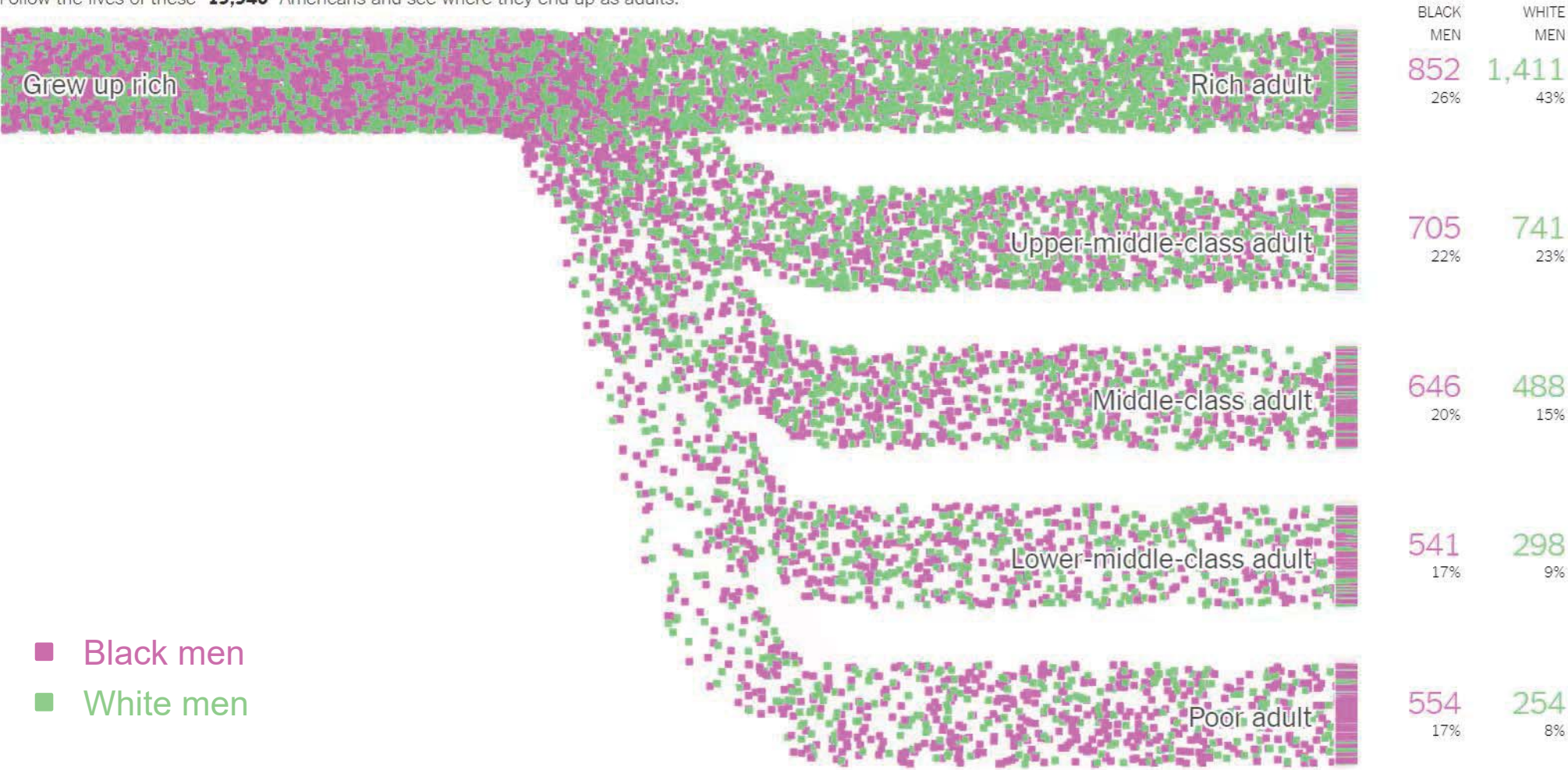
Average Income at Age 35 For Men Whose Parents Earned \$27,000 (25th percentile)



Note: Blue = More Upward Mobility, Red = Less Upward Mobility
Source: Chetty, Hendren, Jones, Porter 2018

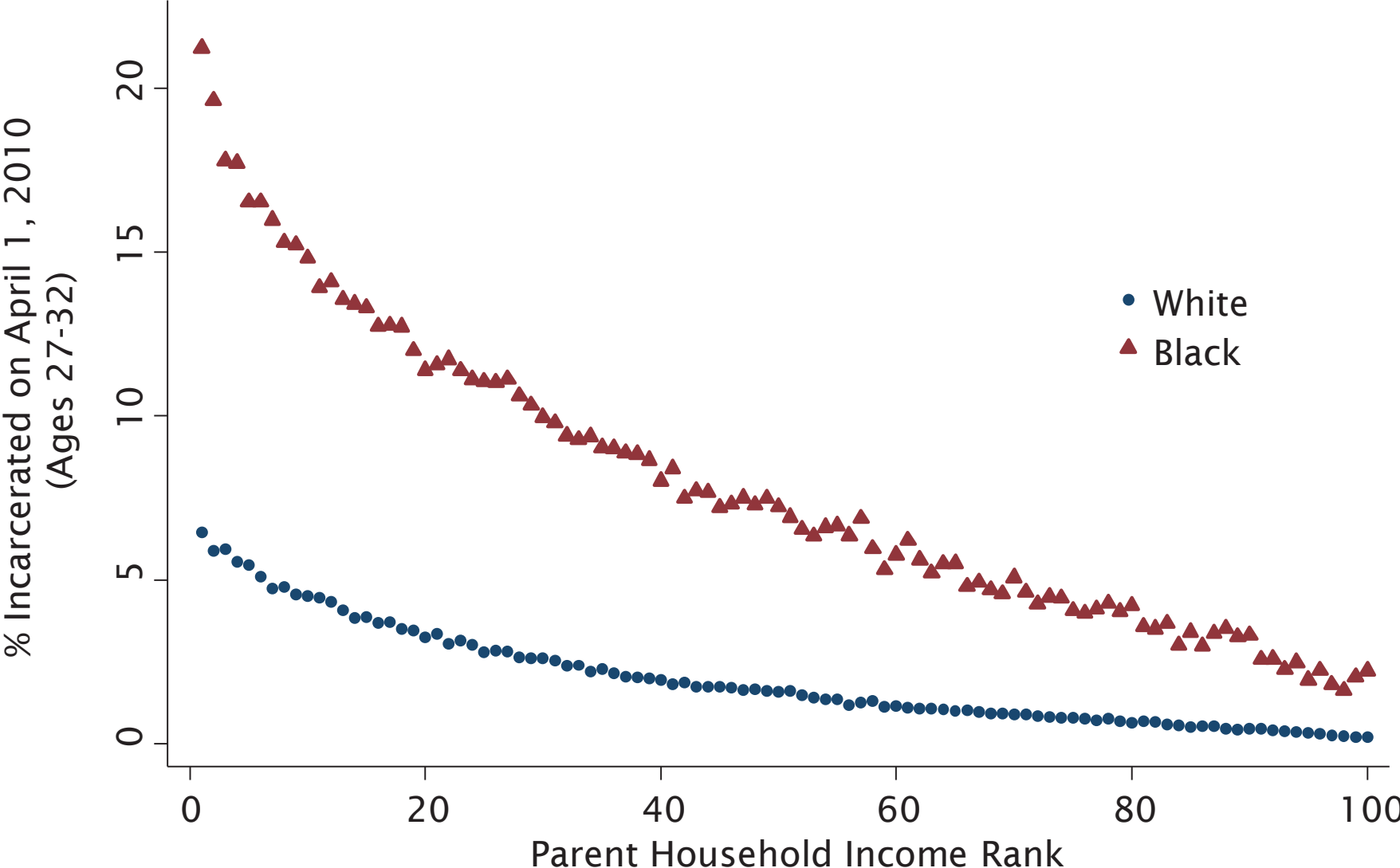
Income Mobility for Black vs. White Men Raised in High-Income Families

Follow the lives of these **19,940** Americans and see where they end up as adults:



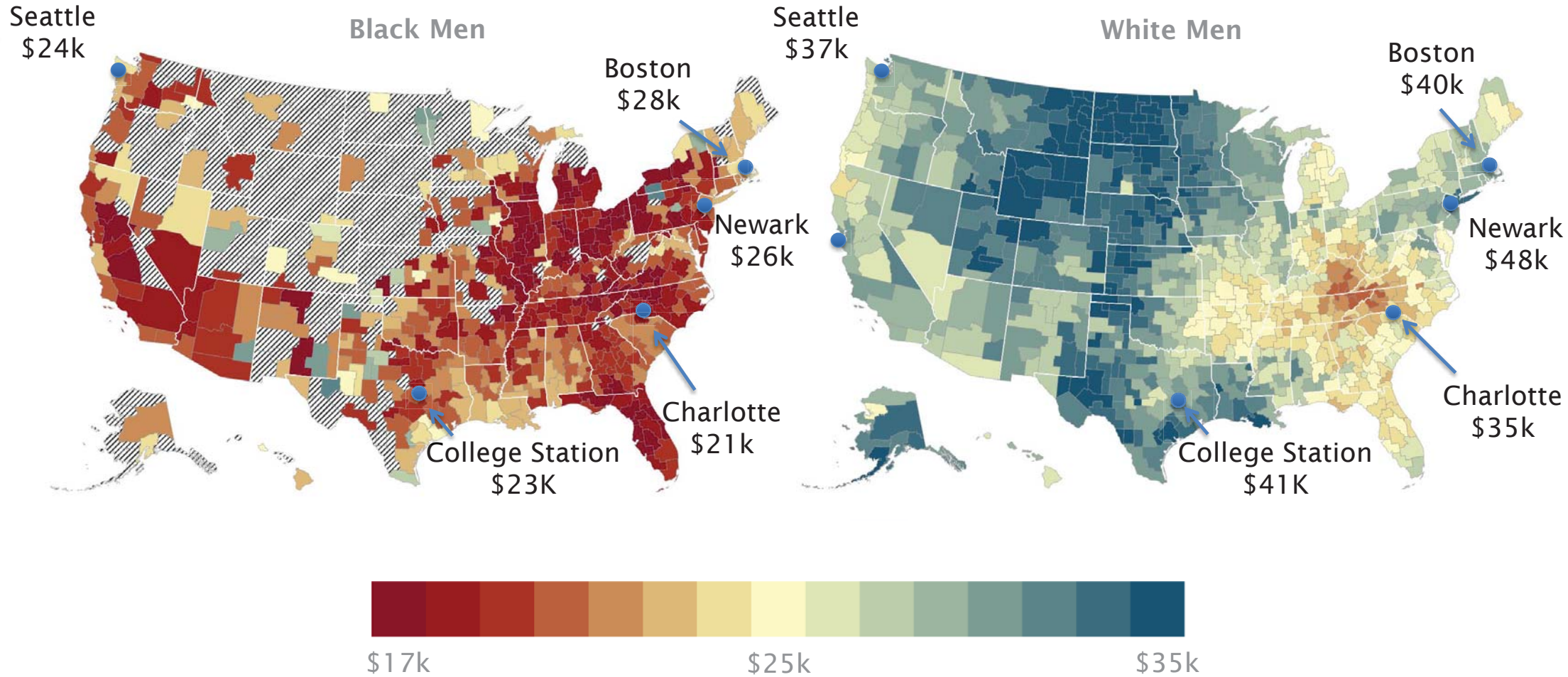
Source: Chetty, Hendren, Jones, Porter 2018; New York Times 2018

Male Incarceration Rates vs. their Parent's Income, by Race



Two Americas: The Geography of Upward Mobility For Black vs. White Men

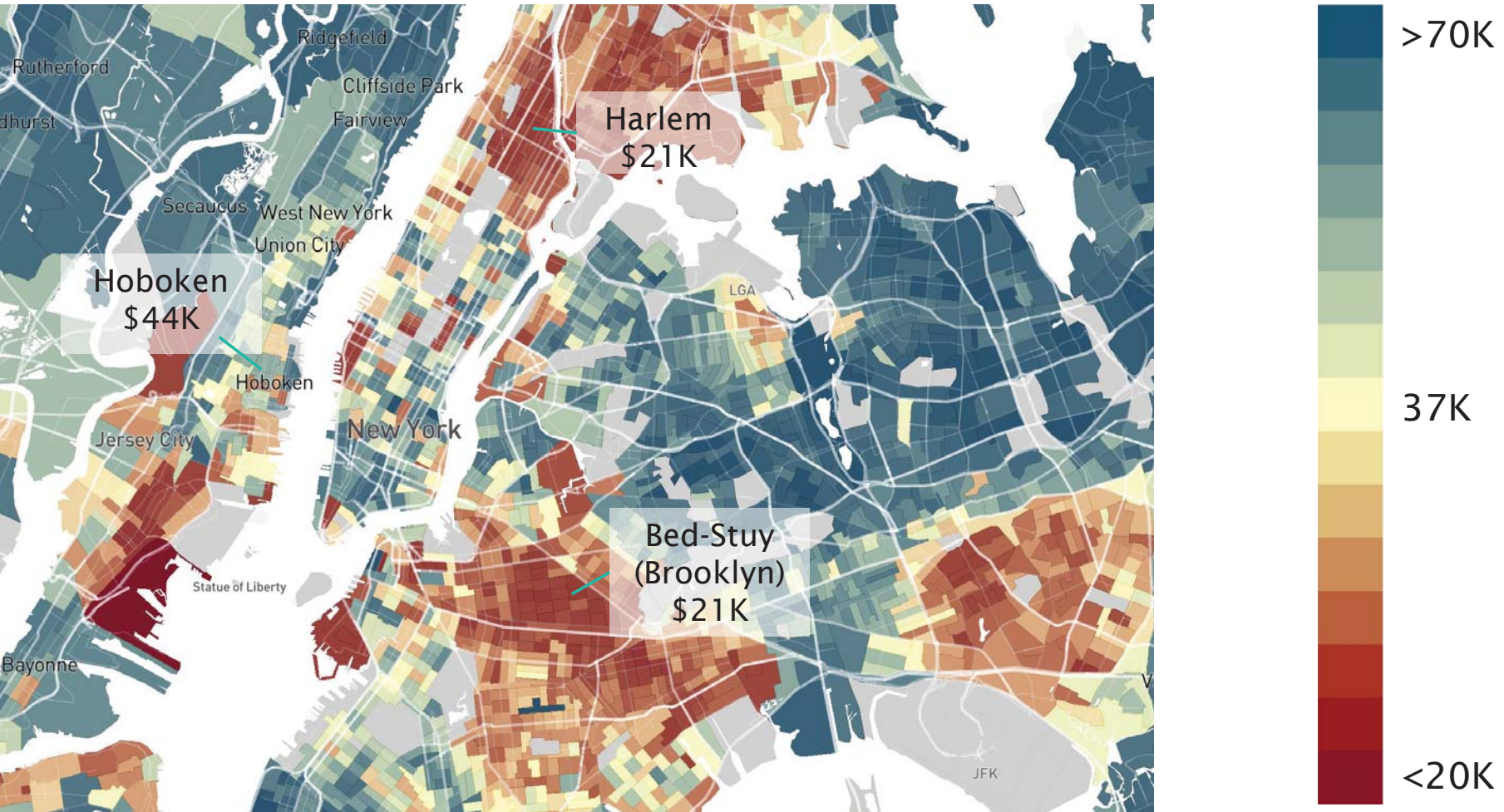
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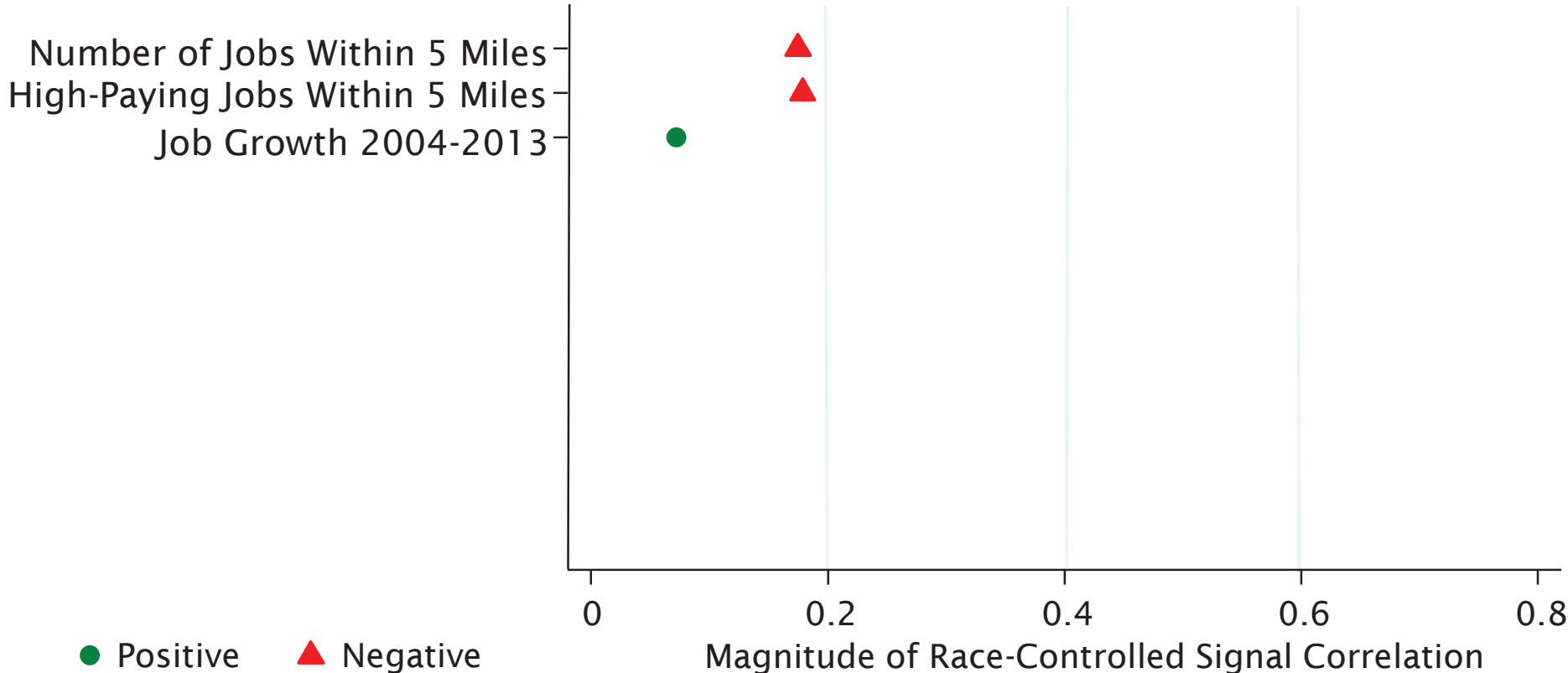
Opportunity is Local: The Geography of Upward Mobility in NYC

Average Household Income for Children with Parents Earning \$25,000 (25th percentile)



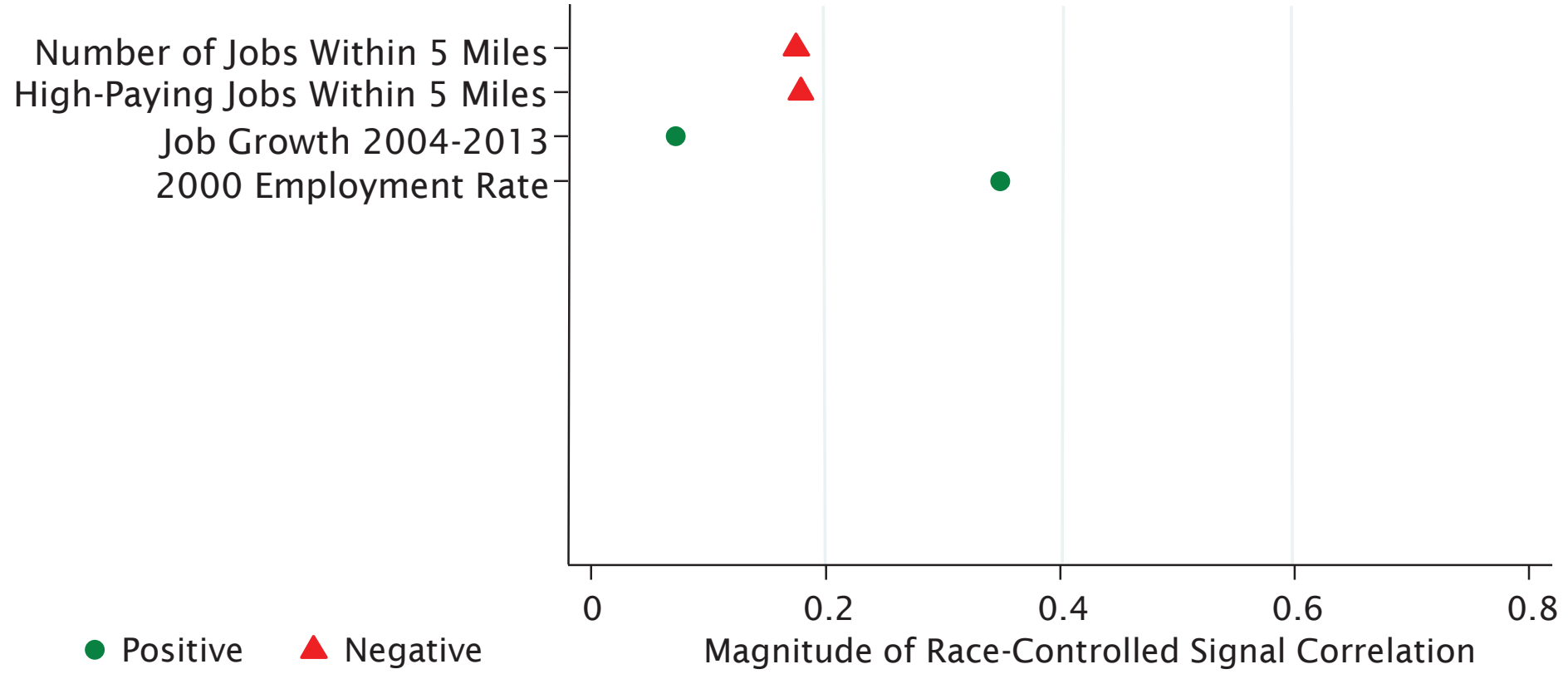
Characteristics of Neighborhoods with High Upward Mobility

Race-Adjusted Correlations with Household Income Rank, Parent Income at 25th Percentile



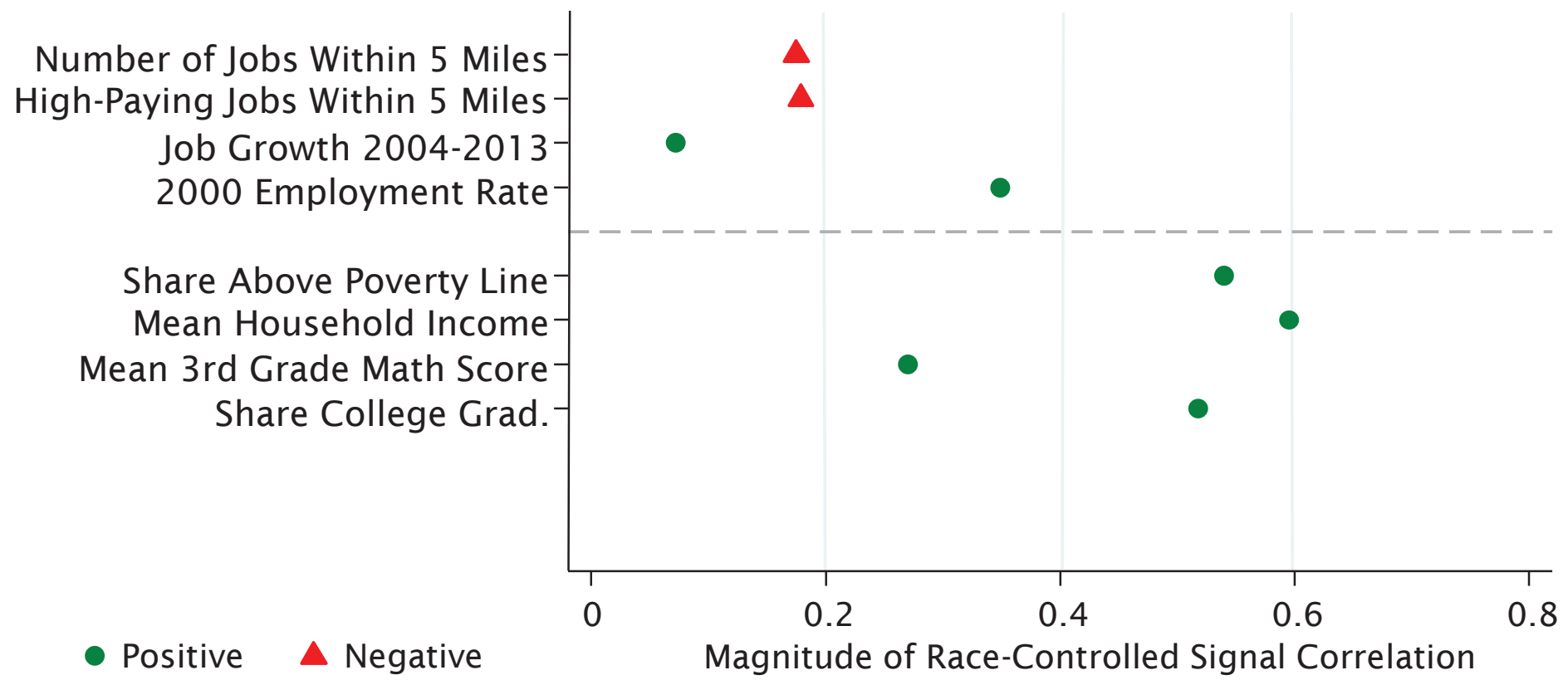
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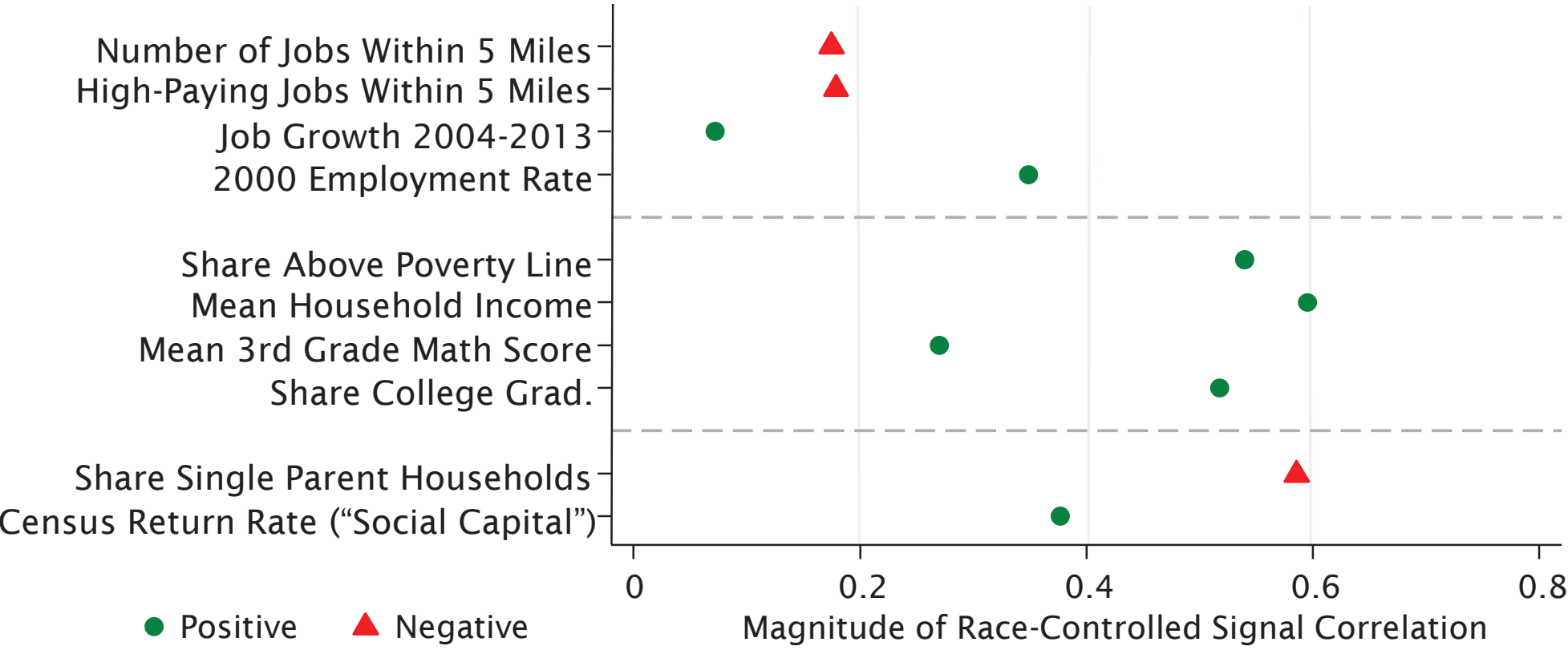
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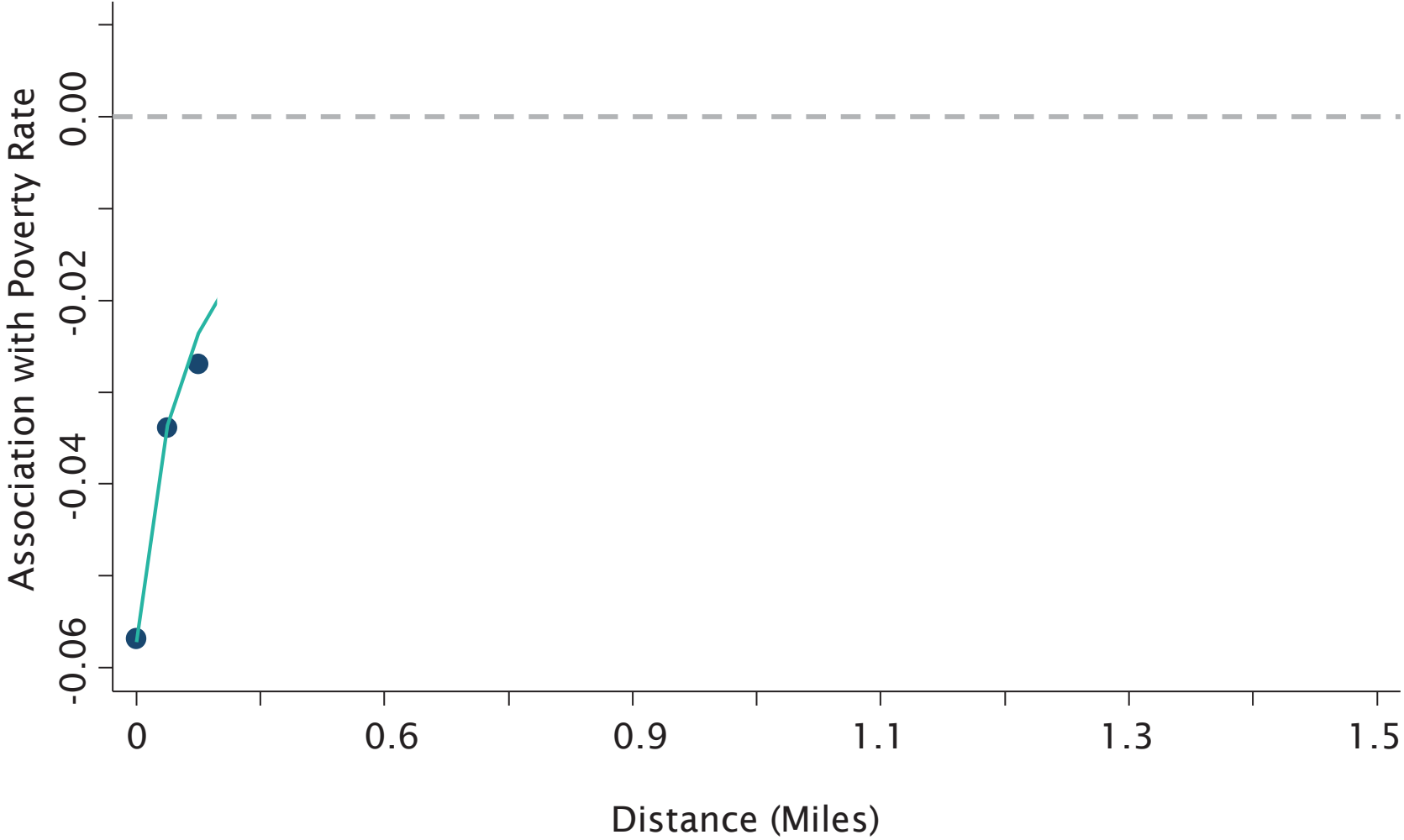


Characteristics of Neighborhoods with High Upward Mobility

Race-Adjusted Correlations with Household Income Rank, Parent Income at 25th Percentile



How Large is a Neighborhood?



Does the Geographic Variation Reflect Selection or Causation?

Large variation in upward mobility across neighborhoods can be driven by two sources:

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- **Causation:** A child randomly assigned to grow up in a different neighborhood would have different outcomes

Does the Geographic Variation Reflect Selection or Causation?

Large variation in upward mobility across neighborhoods can be driven by two sources:

- **Selection:** Different types of people live in different places
- **Causation:** A child randomly assigned to grow up in a different neighborhood would have different outcomes

We study the experiences of 7 million children who move across areas during childhood [Chetty, Friedman, Hendren, Jones, and Porter (2018)]

- Most of the variation in upward mobility is caused by differences in childhood environment

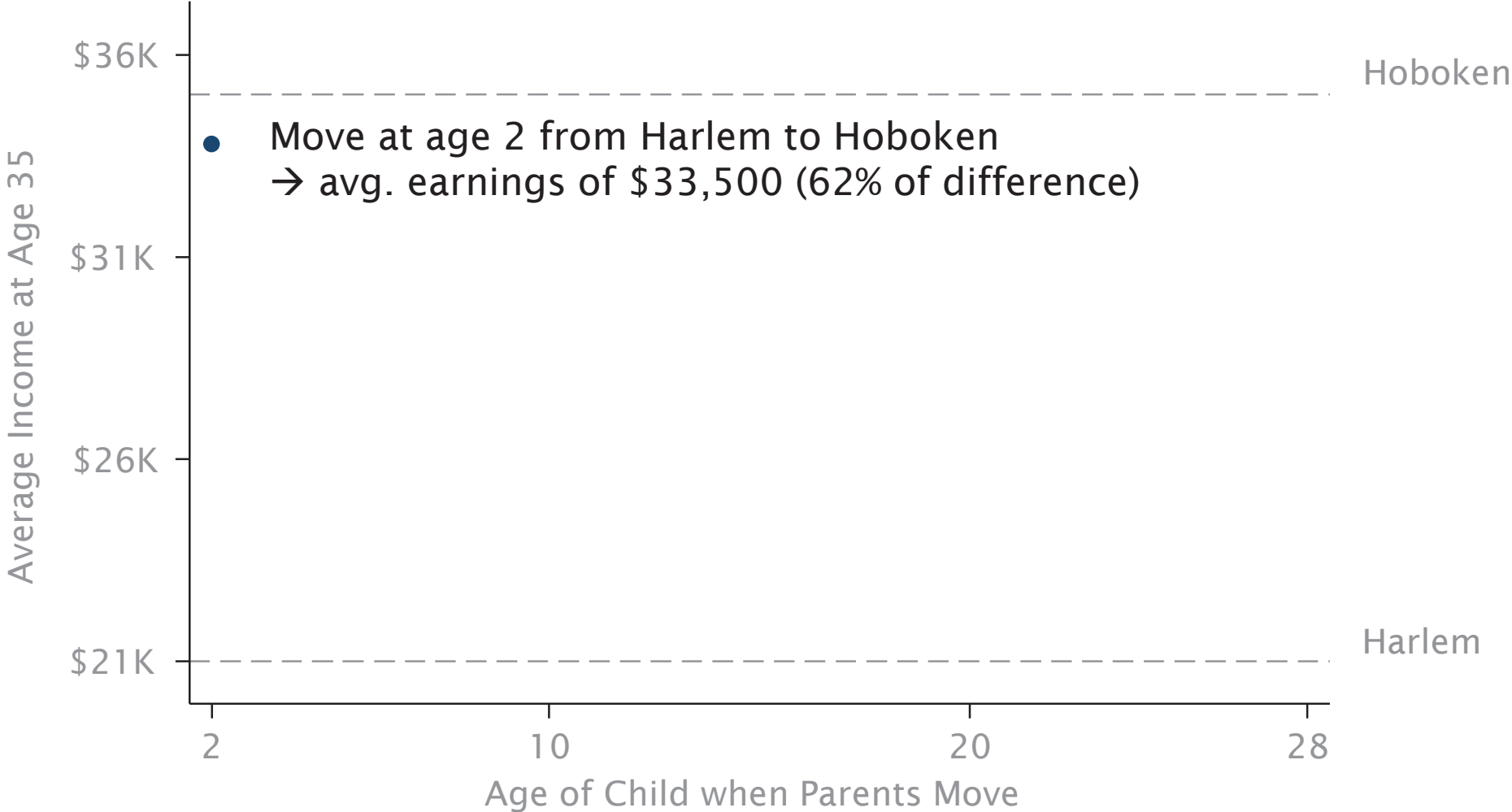
Income Gain from Moving to a Better Neighborhood

Forecasted Average Income at Age 35 by Child's Age at Move



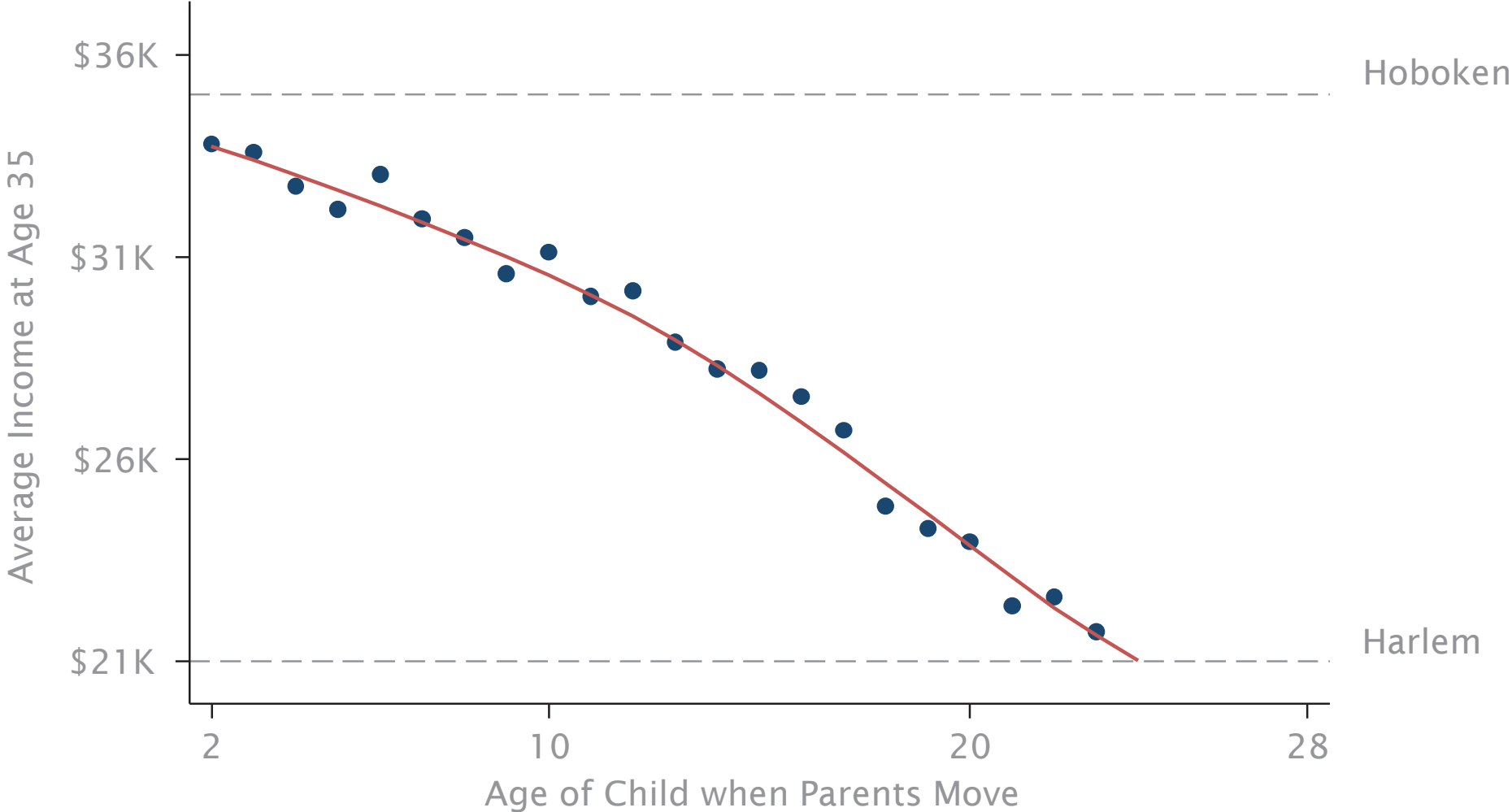
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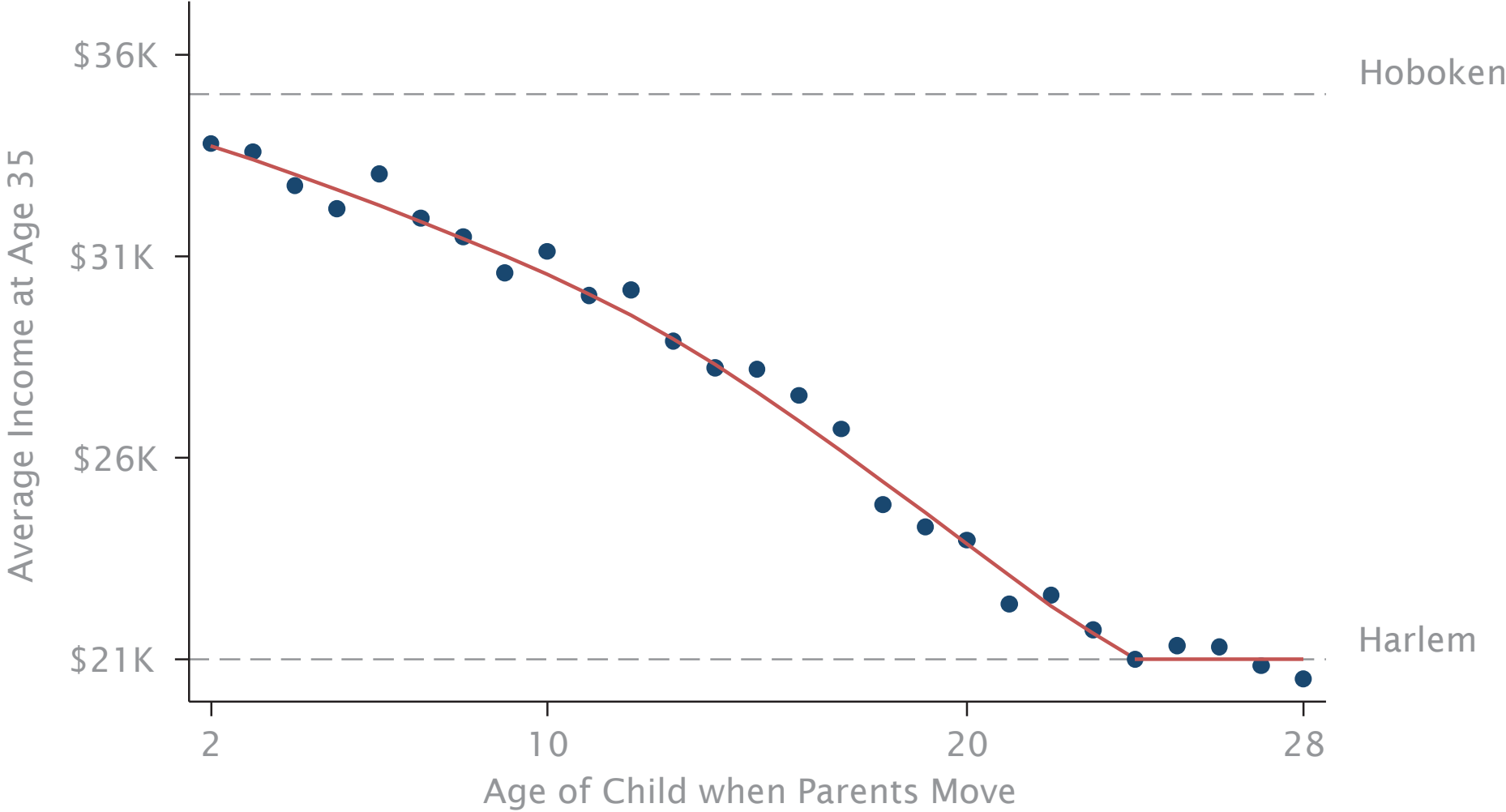
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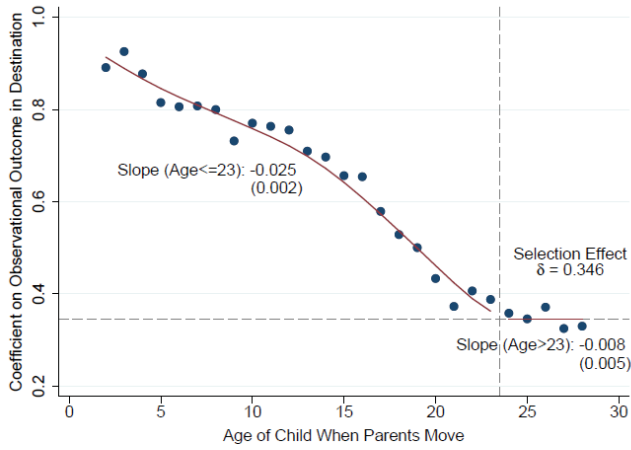
Evaluating the Validity of the Identification Assumption

Chetty, Friedman, Hendren, Jones, and Porter (2018)

- Use two approaches to evaluate validity of key assumption:
 1. Sibling comparisons to control for family fixed effects
 2. Outcome-based placebo tests exploiting heterogeneity in place effects by gender, quantile, and outcome
 - Ex: moving to a place where boys have high earnings → son improves in proportion to exposure but daughter does not

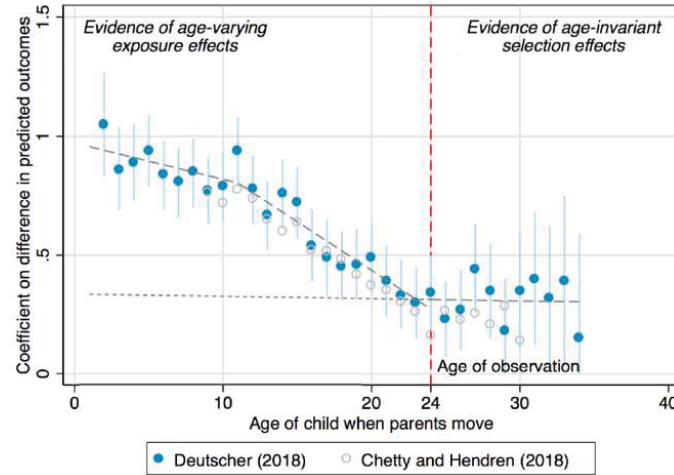
Childhood Exposure Effects Around the World

United States



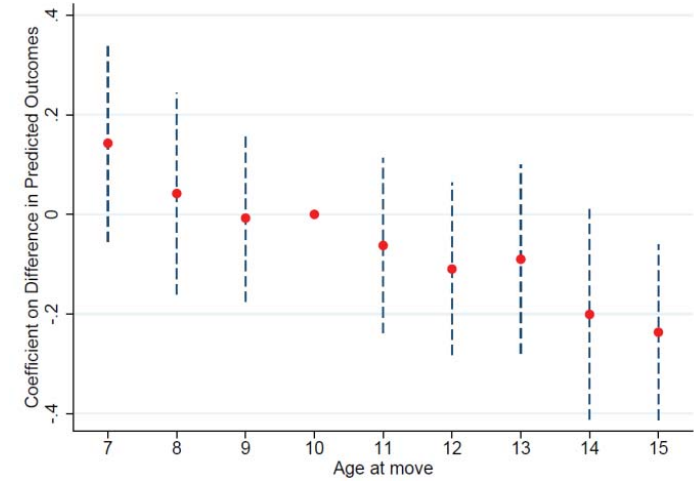
Source: Chetty, Friedman, Hendren, Jones, Porter (2018)

Australia



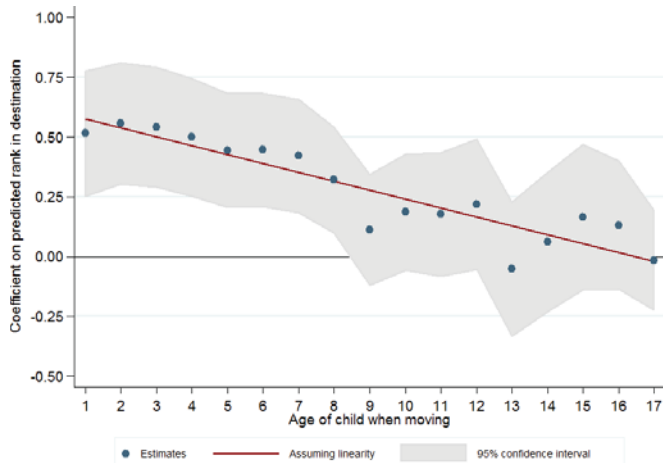
Source: Deutscher (2018)

Montreal, Canada



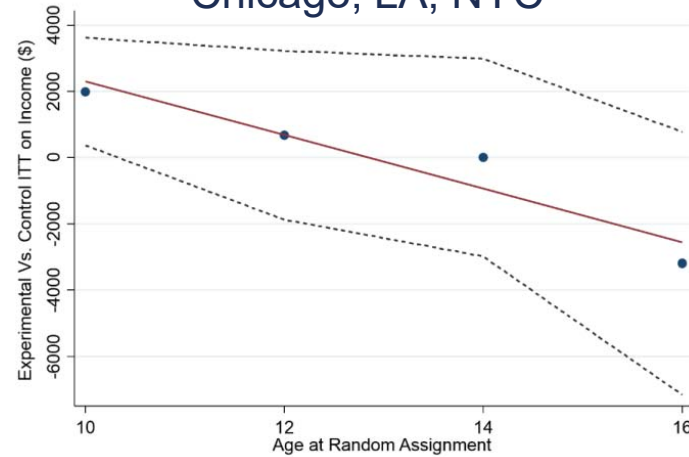
Source: Laliberté (2018)

Denmark



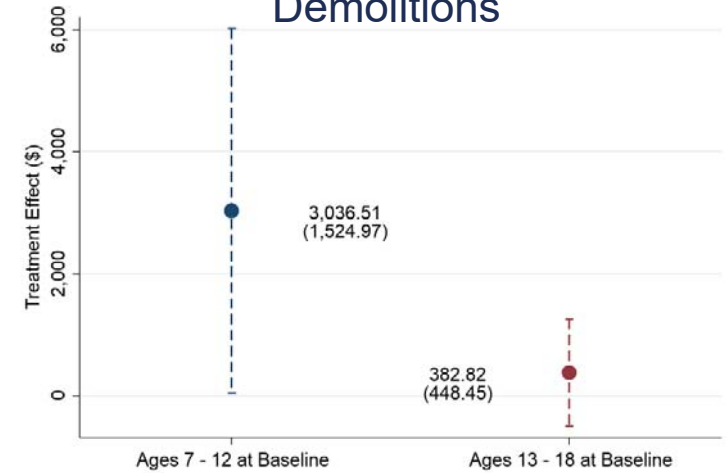
Source: Faurschou (2018)

MTO: Baltimore, Boston, Chicago, LA, NYC



Source: Chetty, Hendren, Katz (AER 2016)

Chicago Public Housing Demolitions



Source: Chyn (AER 2018)

Quantification of Impacts of Moving to an Upwardly-Mobile Neighborhood

- Childhood neighborhoods have substantial causal effects on children's long-run outcomes
- Moving at birth from tract at 25th percentile of distribution of upward mobility to a tract at 75th percentile within county → **\$206,000 gain in lifetime earnings**

Three Questions for the Talk



1. What causes low social mobility?



2. What (if any) barriers/constraints do parents face investing in their children?



3. What are the policy implications of low mobility?

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1. Differences in social mobility is largely driven by **childhood exposure**



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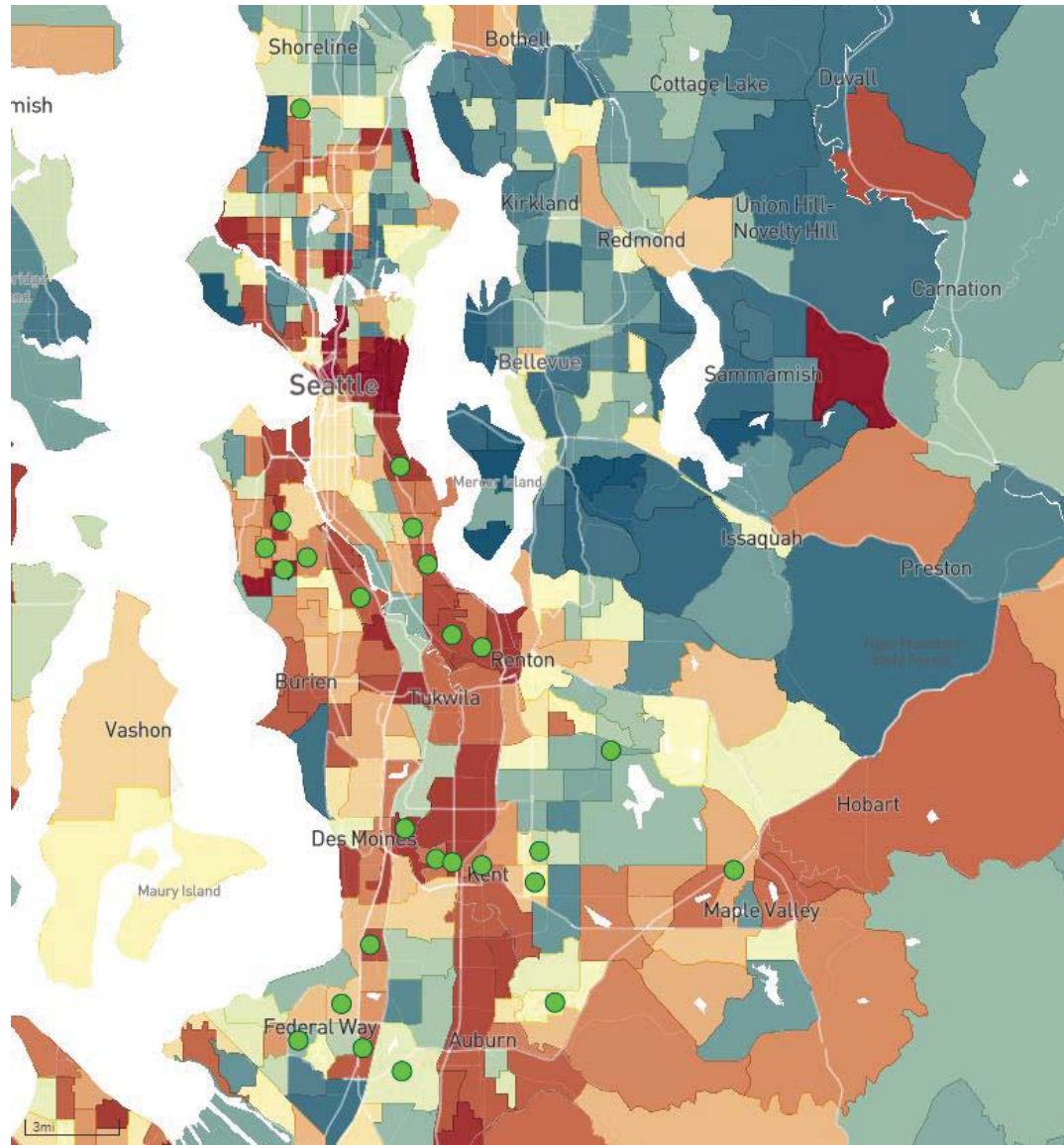


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Quantification of Impacts of Moving to an Upwardly-Mobile Neighborhood

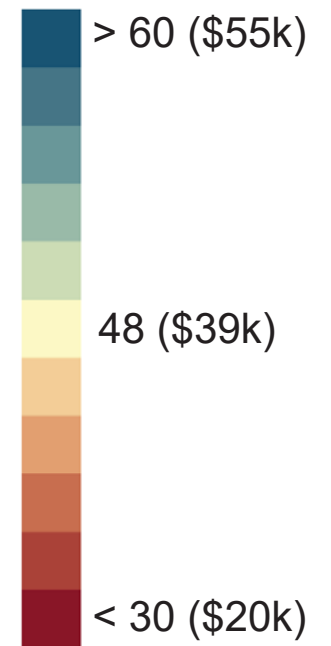
- Do families face constraints when making choices over neighborhoods and other investments in their children?
- Motivation: Low-income families typically live in neighborhoods with low upward mobility
- Even families with housing vouchers that covers rental costs

Most Common Locations of Families with Housing Vouchers in Seattle



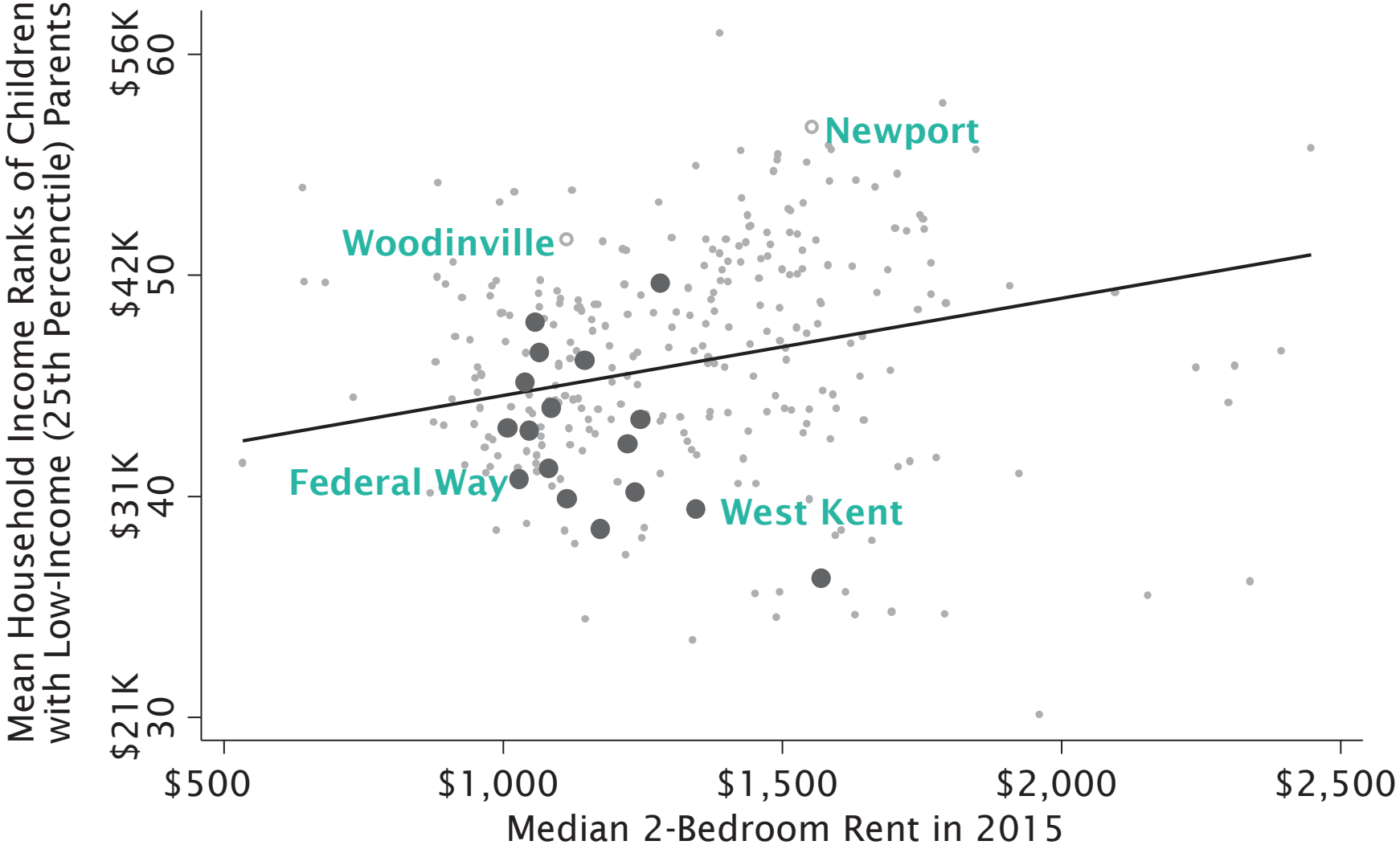
- 25 most common tracts where voucher holders with children lived before the CMTO experiment

Percentile Rank in Adulthood



The Price of Opportunity in Seattle: Upward Mobility vs. Rents

By Census Tract



Why Don't Families Move to Neighborhoods with More Upward Mobility?

- Two classes of explanations:
 1. **Preferences:** families may prefer to stay in current neighborhoods because of other amenities (e.g., commute time, proximity to family)
 2. **Barriers:** families may be unable to find housing in high-opportunity areas because of lack of information, search frictions, or landlords' tastes

Creating Moves to Opportunity in Seattle

Randomized trial to reduce barriers housing voucher recipients face in moving to high-opportunity areas in Seattle



CMTO Treatment Interventions

CMTO Treatment

CMTO paired families with **rental brokers** to help families rent units in high-opportunity neighborhoods

Components

CUSTOMIZED
SEARCH
ASSISTANCE

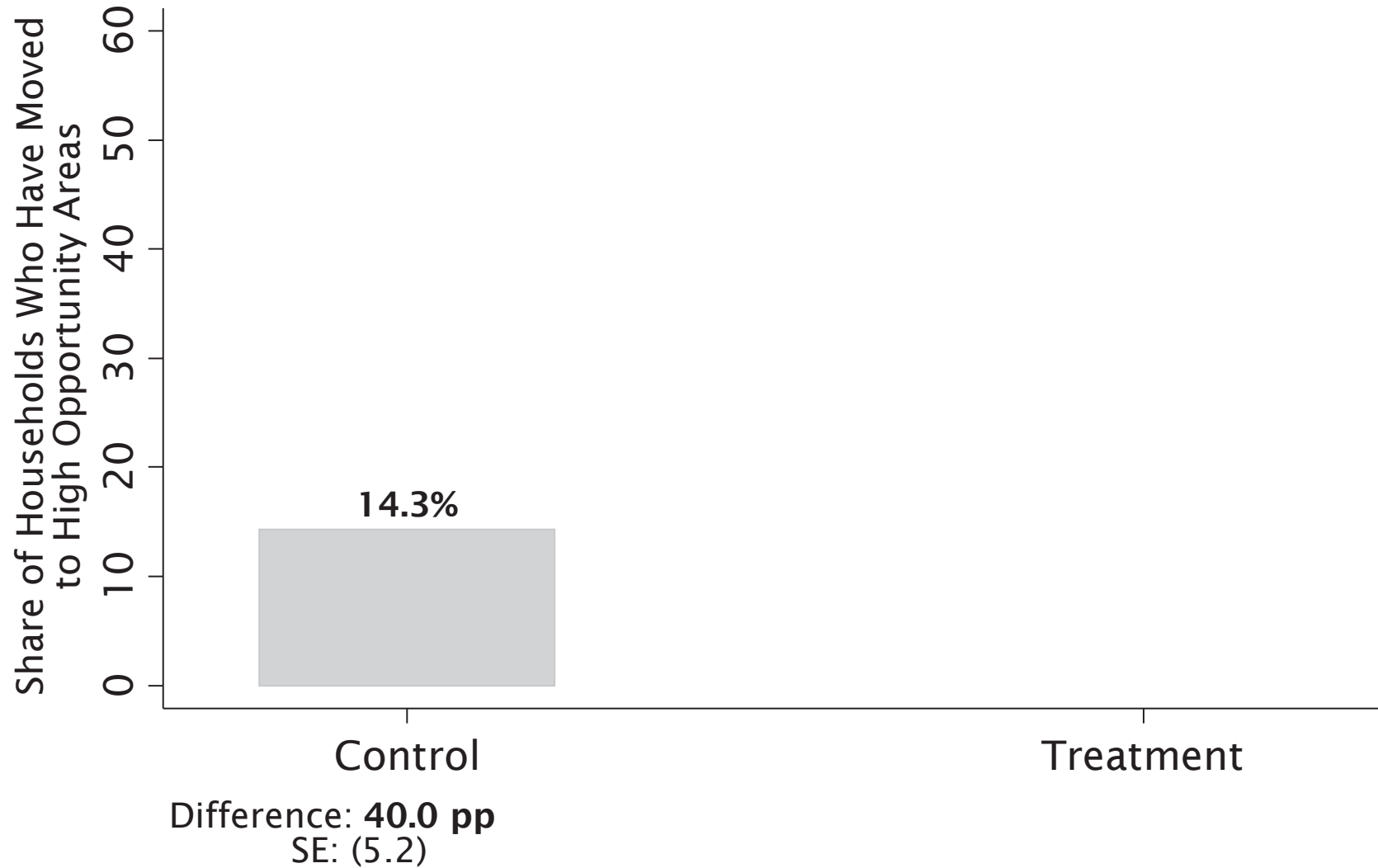
DIRECT
LANDLORD
ENGAGEMENT

SHORT-TERM
FINANCIAL
ASSISTANCE

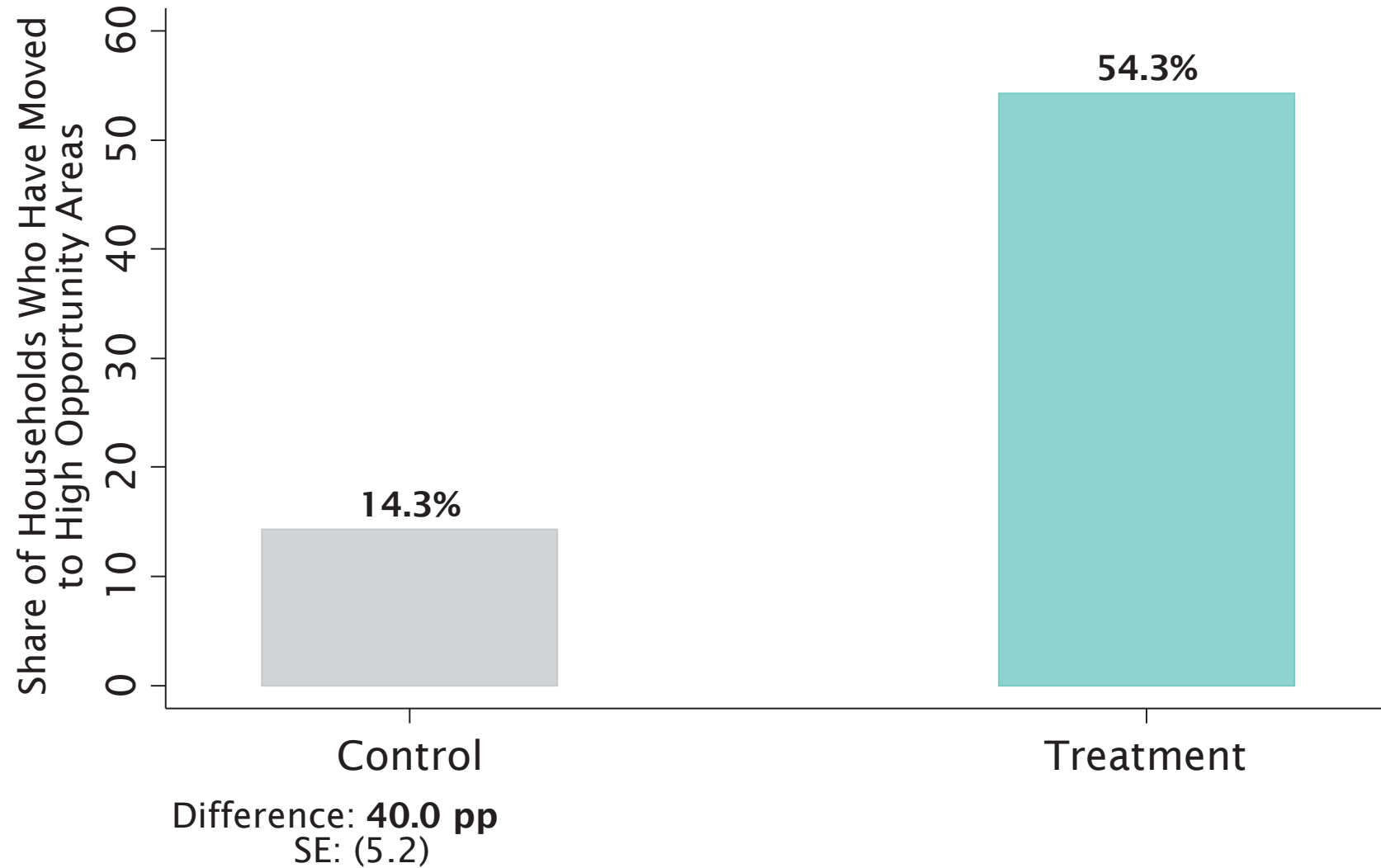
Program Cost: \$2,600 per family issued a voucher
(2.2% of average voucher payments over 7 years)

*Note: Families **not** required to move to high-opportunity areas*

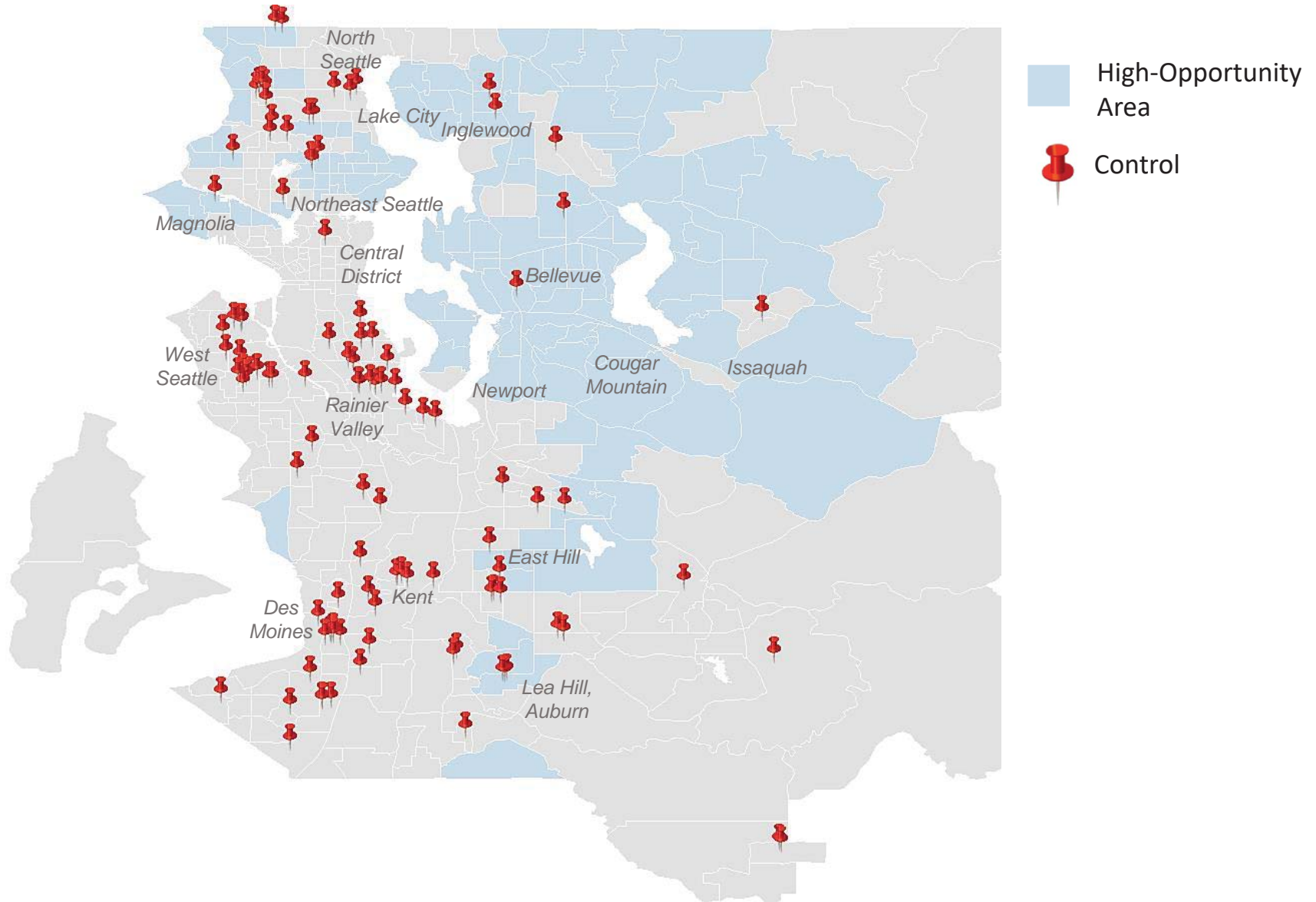
Fraction of Families who Leased Units in High Opportunity Areas



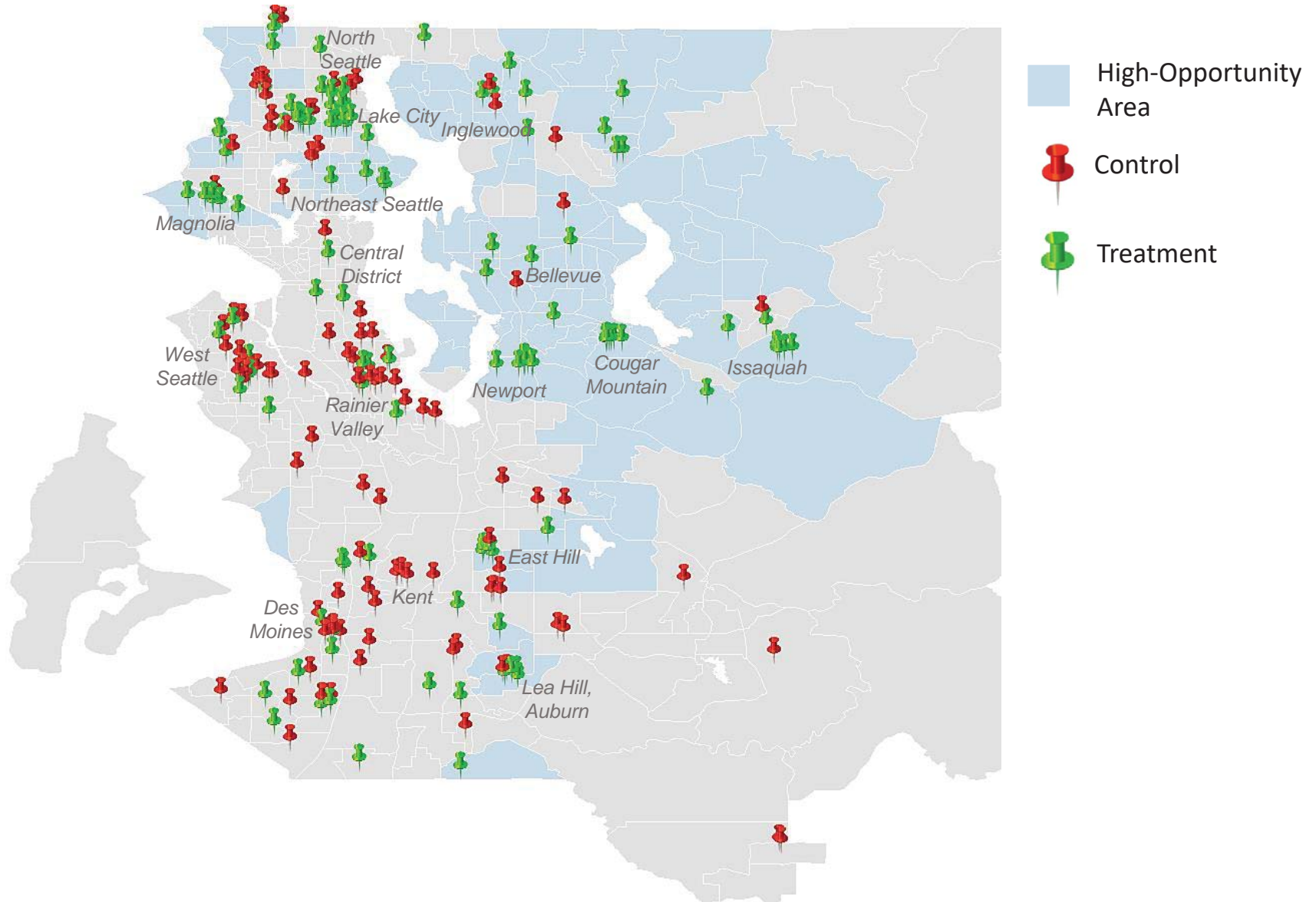
Fraction of Families who Leased Units in High Opportunity Areas



Destination Locations for CMT0 Families



Destination Locations for CMT0 Families



Qualitative Evidence on Mechanisms

Emotional/Psychological Support

“It was this whole flood of relief. It was this whole flood of, “I don’t know how I’m going to do this” and “I don’t know what I’m going to do” and “This isn’t working,” and yeah...I think it was just the supportive nature of having lots of conversations with Megan.” –Jackie

Brokering with Landlords

“When you find a place, I will come with you and we will help you to fill out the application. I will talk with the landlord, I will help you to do a lot of stuff, that maybe sometimes will be complicated.” –Leah

Short-Term Financial Assistance / Liquidity Constraints

“I’m not going to be able to pay here and then there [in the new apartment] ...They were able to get me more money, so that they would pay more of my first portion of my rent. Because they understood the situation that I was in.” –Jennifer

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2. Low-income parents face complex constraints when investing in their children for things like nbhd choice



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What are the Implications for Policy?

Main Result

Constraints not innate preferences drive residential segregation and limit investments in children by low-income families

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Policy Implications



Housing Policy

- Reduce barriers to choosing neighborhoods
- Target investments in low-mobility neighborhoods
 - Location as a “tag” for investment/redistribution

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Broader Policies

- Low-income families face constraints to investments in children
 - Perhaps other policies targeting children have high returns?

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A Unified Welfare Analysis of Government Policies

Hendren and Sprung-Keyser (2019)

- We conduct a unified welfare analysis of 133 historical policy changes in the US over the past half century
 - Study policy changes spanning four major categories: Social insurance, education and job training, taxes and cash transfers, and in-kind transfers

The Marginal Value of Public Funds

- For each policy change, we draw upon estimates in existing literature to measure:
 - The benefits to its recipients (measured as willingness to pay)
 - The net cost to the government (inclusive of fiscal externalities)
- We take the ratio of benefits to net cost to form its **Marginal Value of Public Funds (MVPF)**:

$$MVPF = \frac{\textit{Beneficiaries' Willingness to Pay}}{\textit{Net Government Cost}}$$

- Differs from traditional benefit/cost ratios by focusing on incidence of costs on government

The Marginal Value of Public Funds and Social Welfare

- Comparisons of MVPFs yield social welfare impacts of budget neutral policies
 - Suppose Policy 1 has $MVPF_1 = 1$ and Policy 2 has $MVPF_2 = 2$
 - More spending on policy 1 financed by less on 2 increases social welfare iff prefer to take \$2 from Policy 2 beneficiaries to give \$1 to policy 1 beneficiaries
- MVPF quantifies the tradeoffs across policies
- Infinite MVPFs correspond to policies that pay for themselves
 - $WTP > 0$ and $Cost < 0$
 - “Laffer Effects”

Example MVPF Construction: Admission to Florida International University

- Example: Admitting additional students into college
- Florida International University (FIU) had a minimum GPA threshold for admission that created a fuzzy discontinuity
- Zimmerman (2014) utilizes this discontinuity to examine the impact of FIU admission on earnings for 14 years after admission.

Admission to Florida International University: Zimmerman (2014)

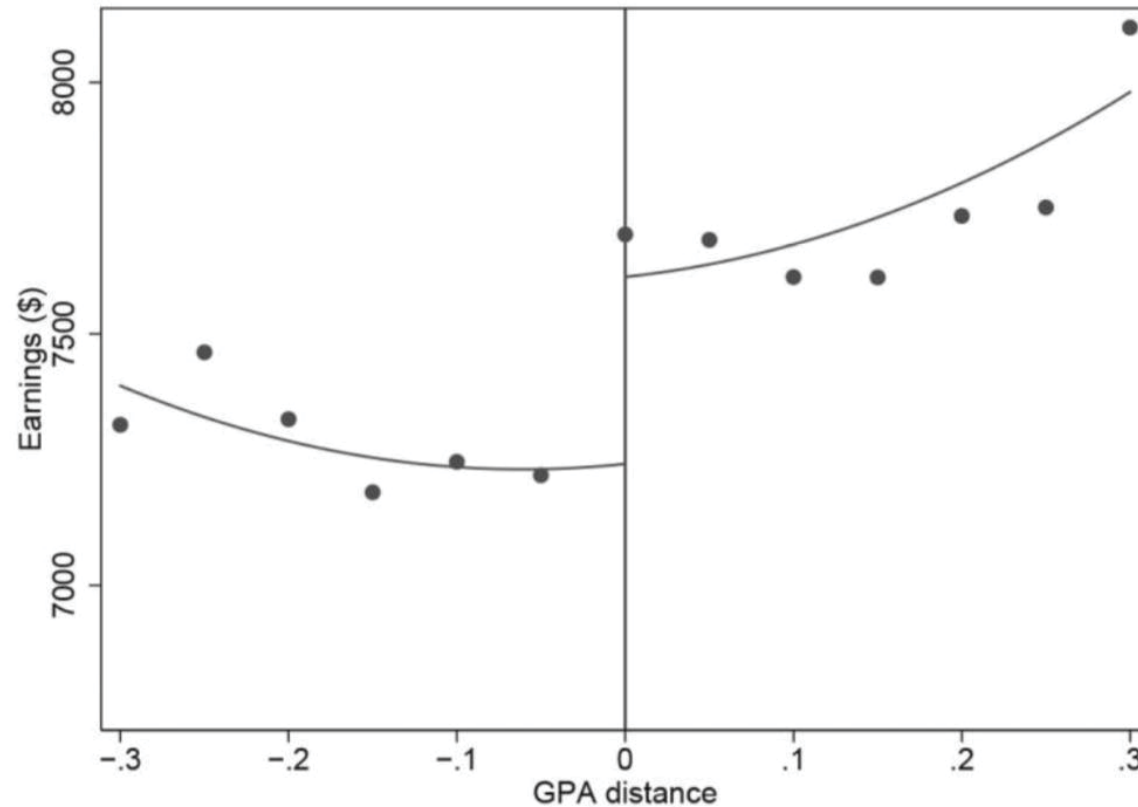
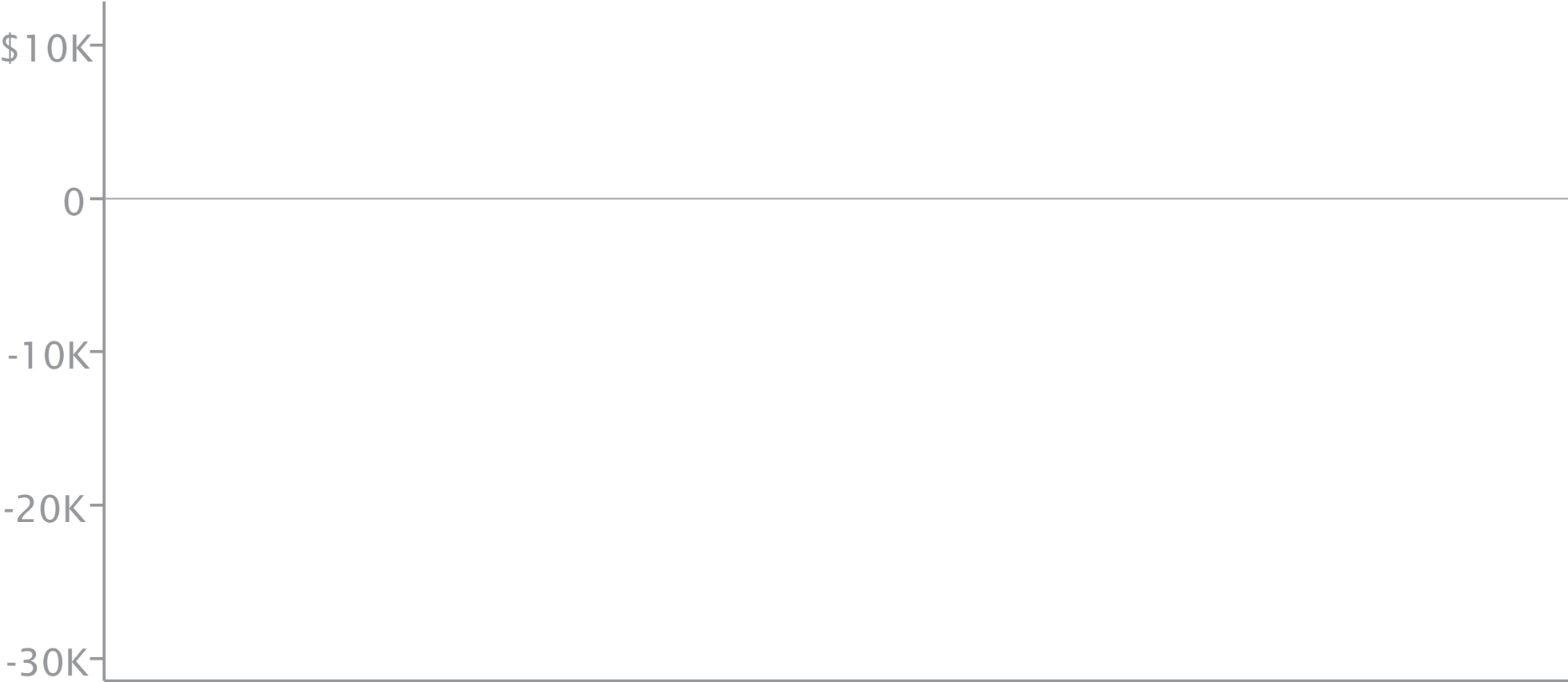


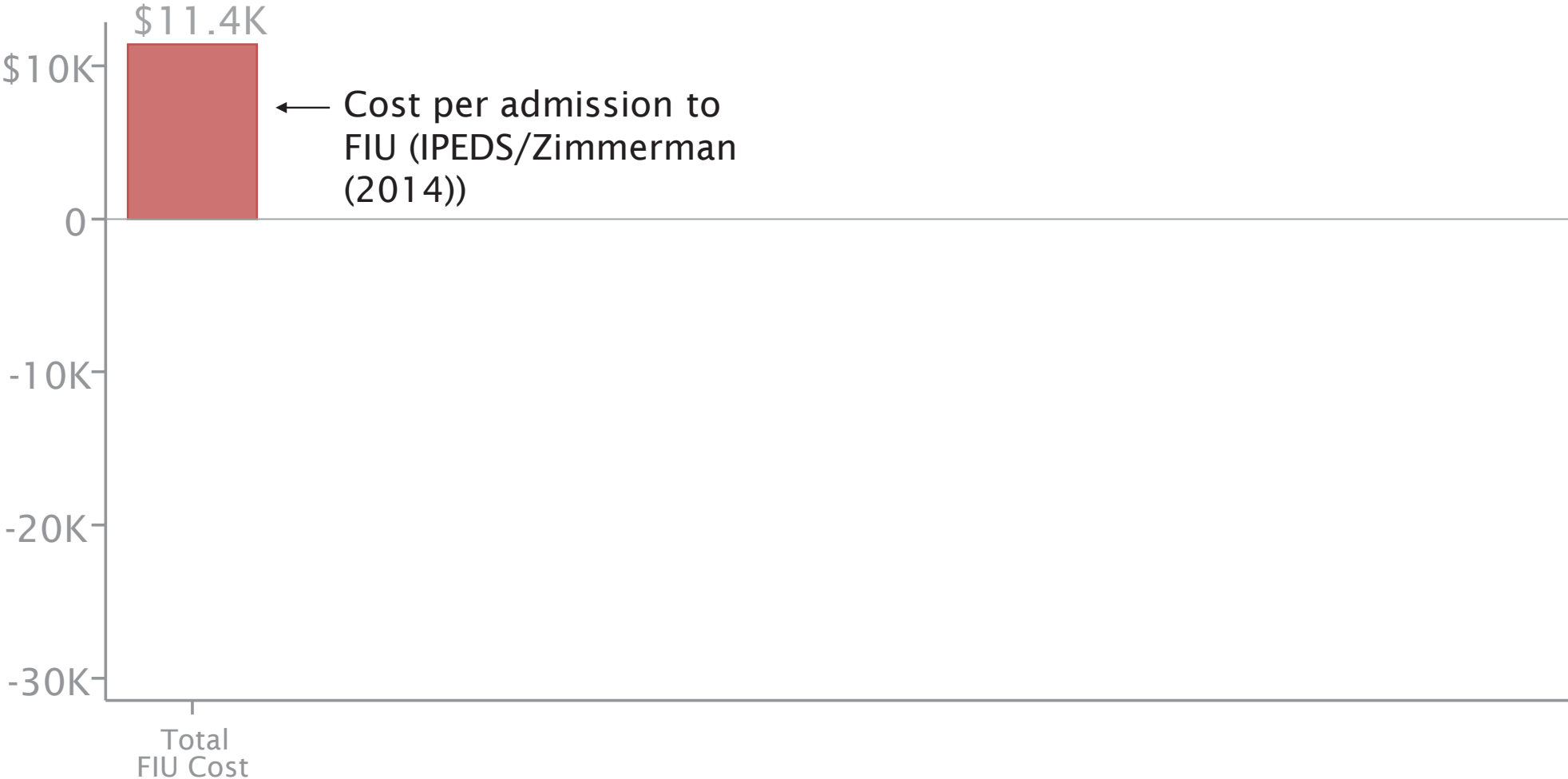
FIG. 8.—Quarterly earnings by distance from GPA cutoff. Lines are fitted values based on the main specification. Dots, shown every .05 grade points, are rolling averages of values within .05 grade points on either side that have the same value of the threshold-crossing dummy.

Net Cost to Government of Admission to Florida International University



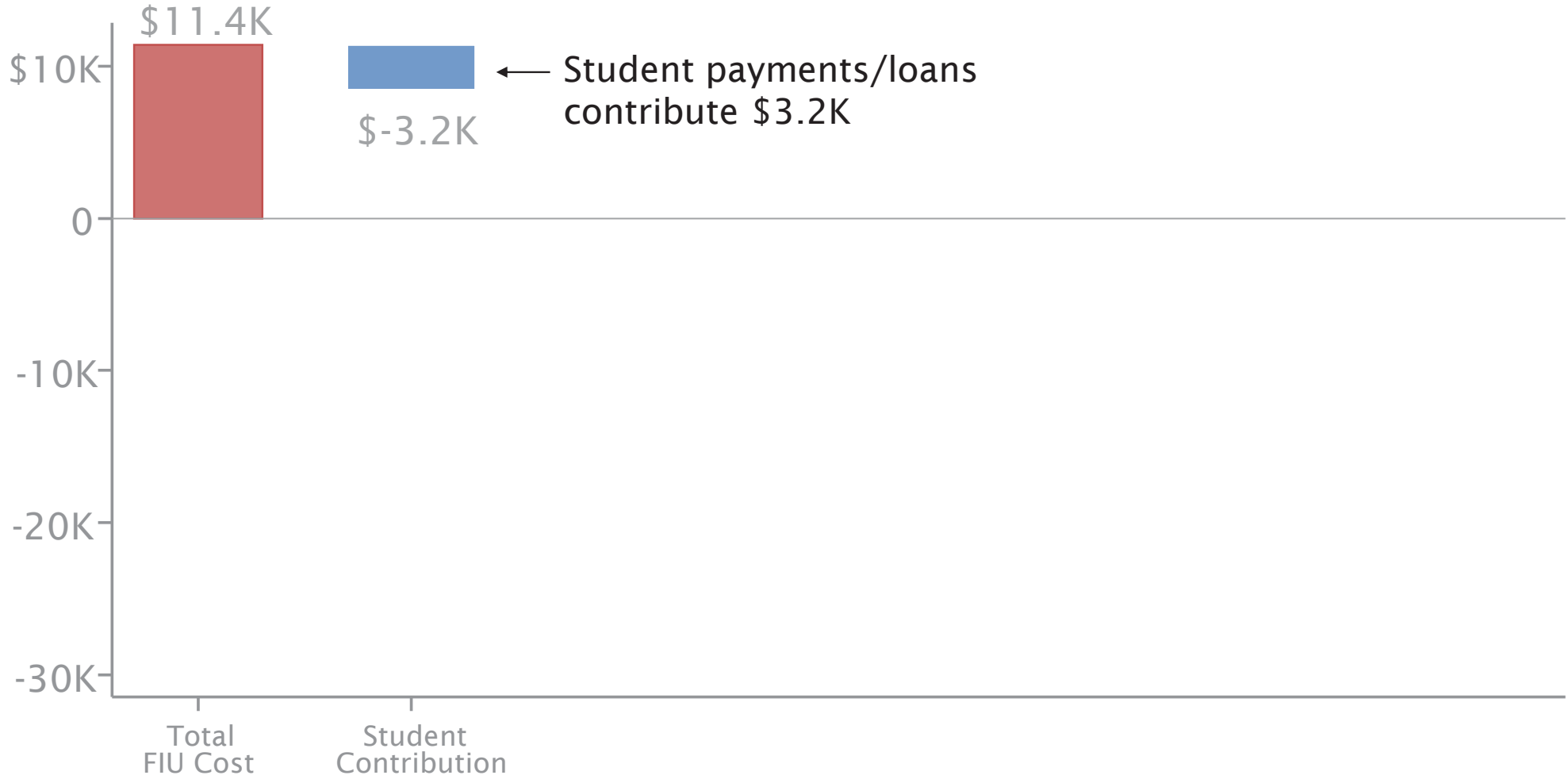
Note: All amounts in 2005 USD, discounted using a 3% real interest rate

Net Cost to Government of Admission to Florida International University



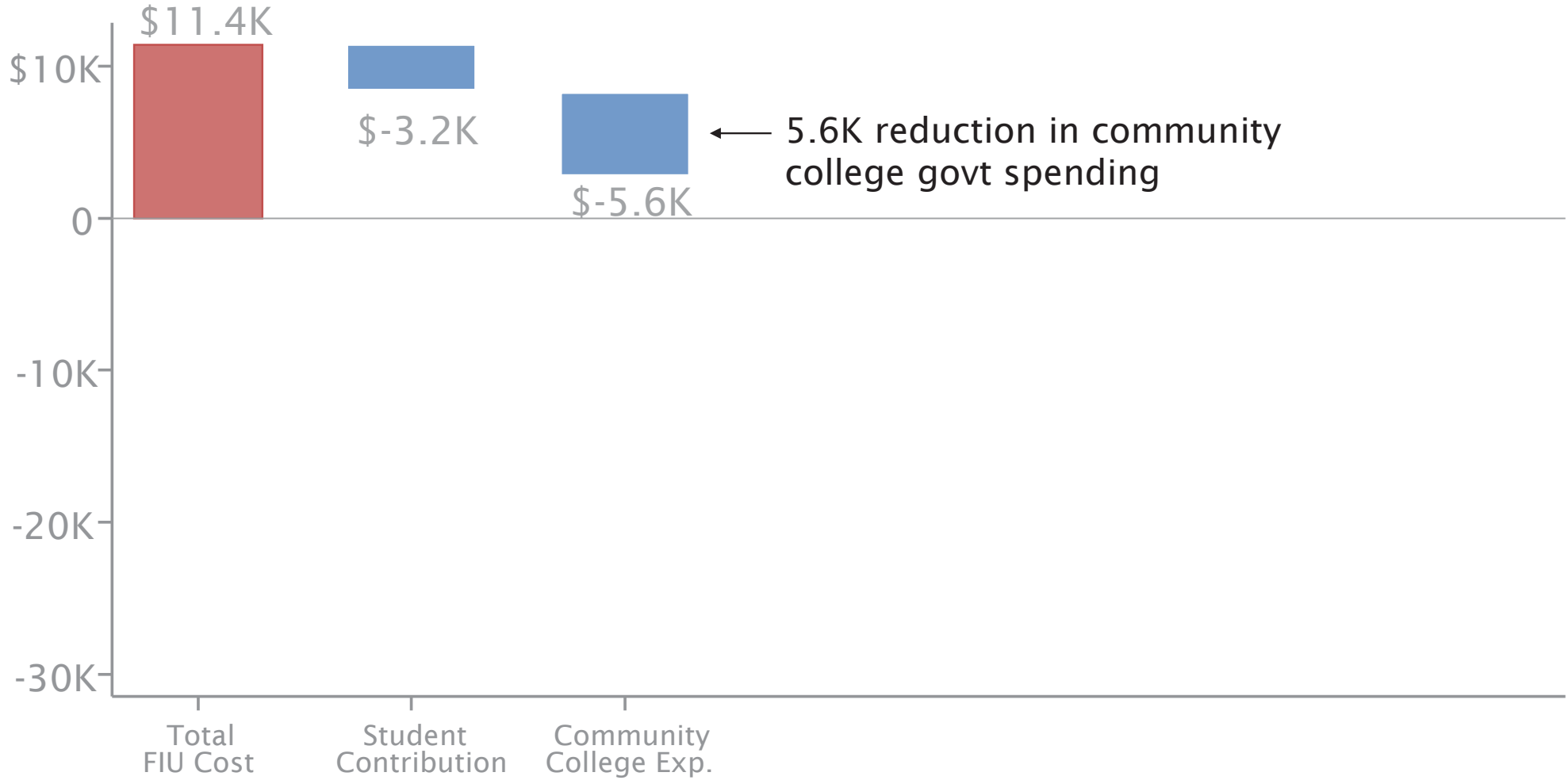
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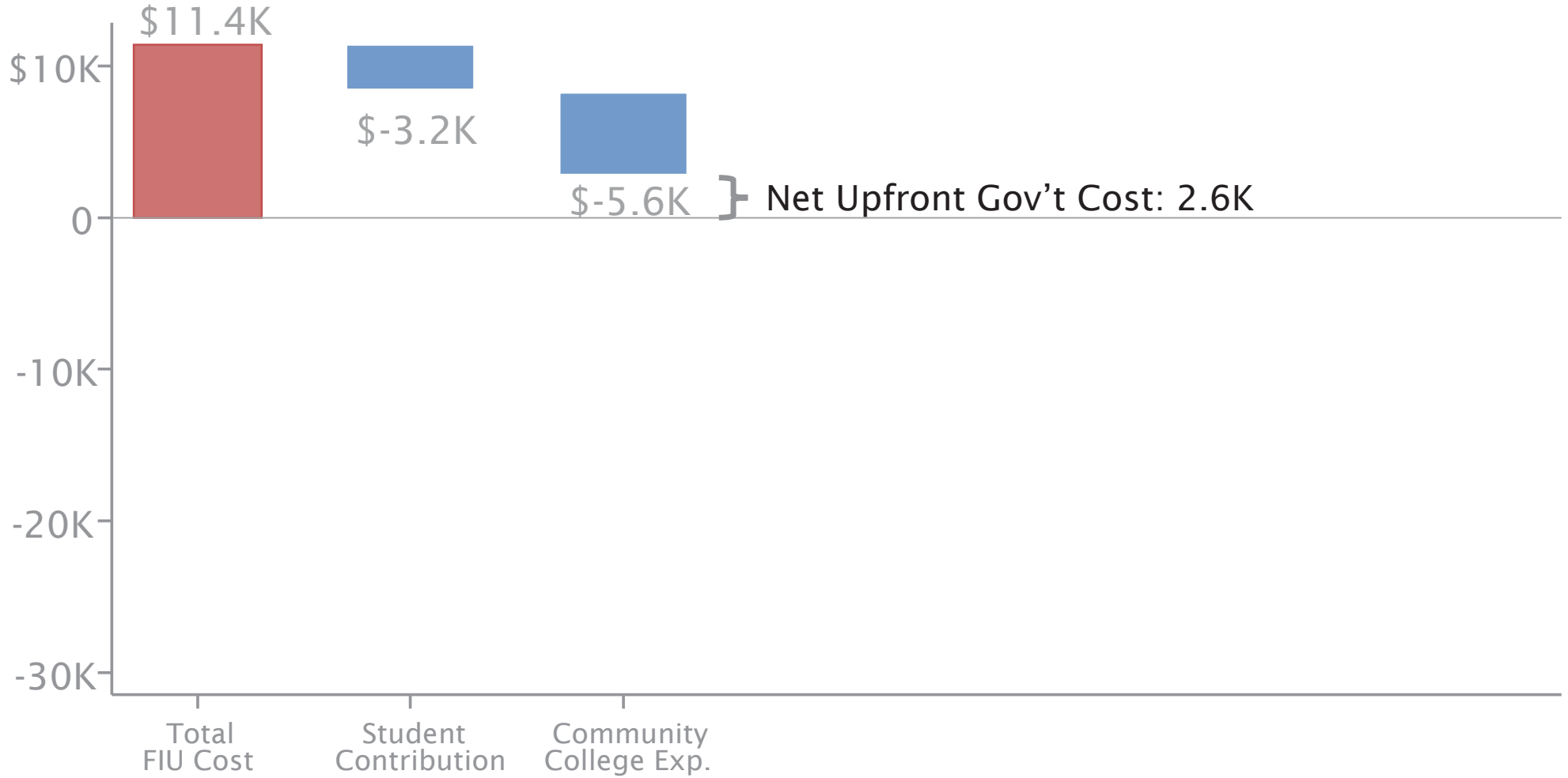
Note: All amounts in 2012 USD, discounted using CPI-U-RS and 3% real interest rate

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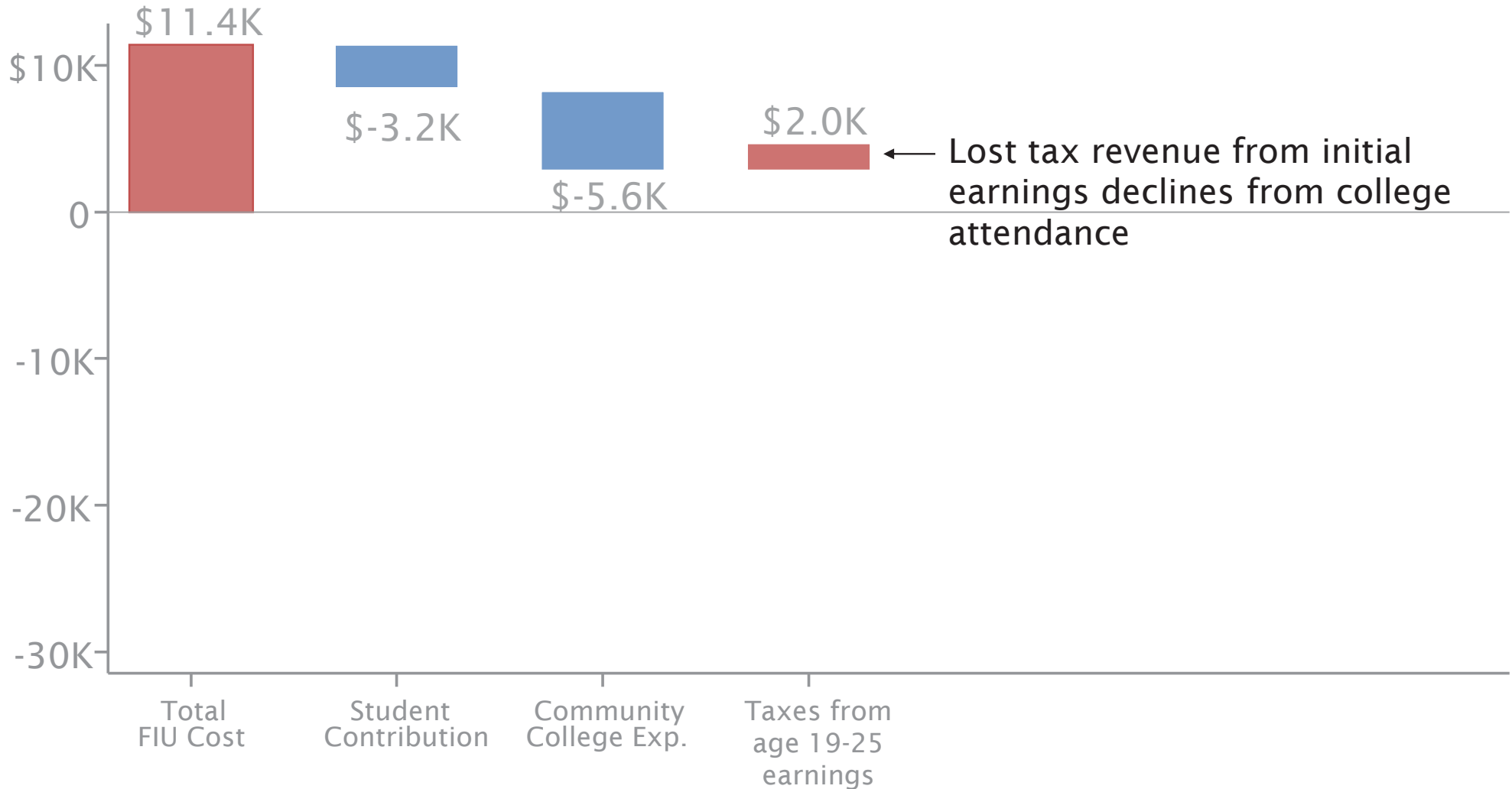
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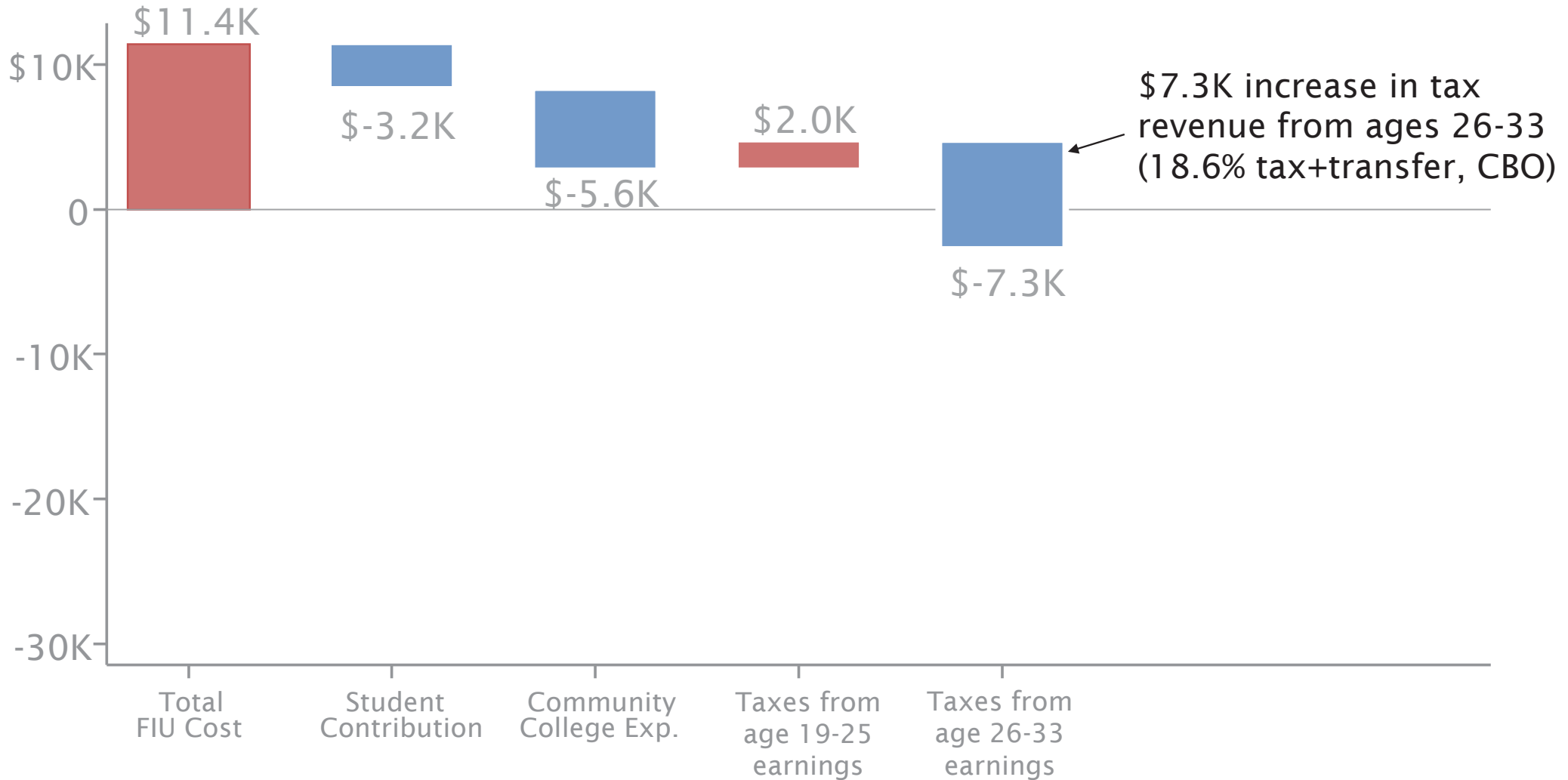
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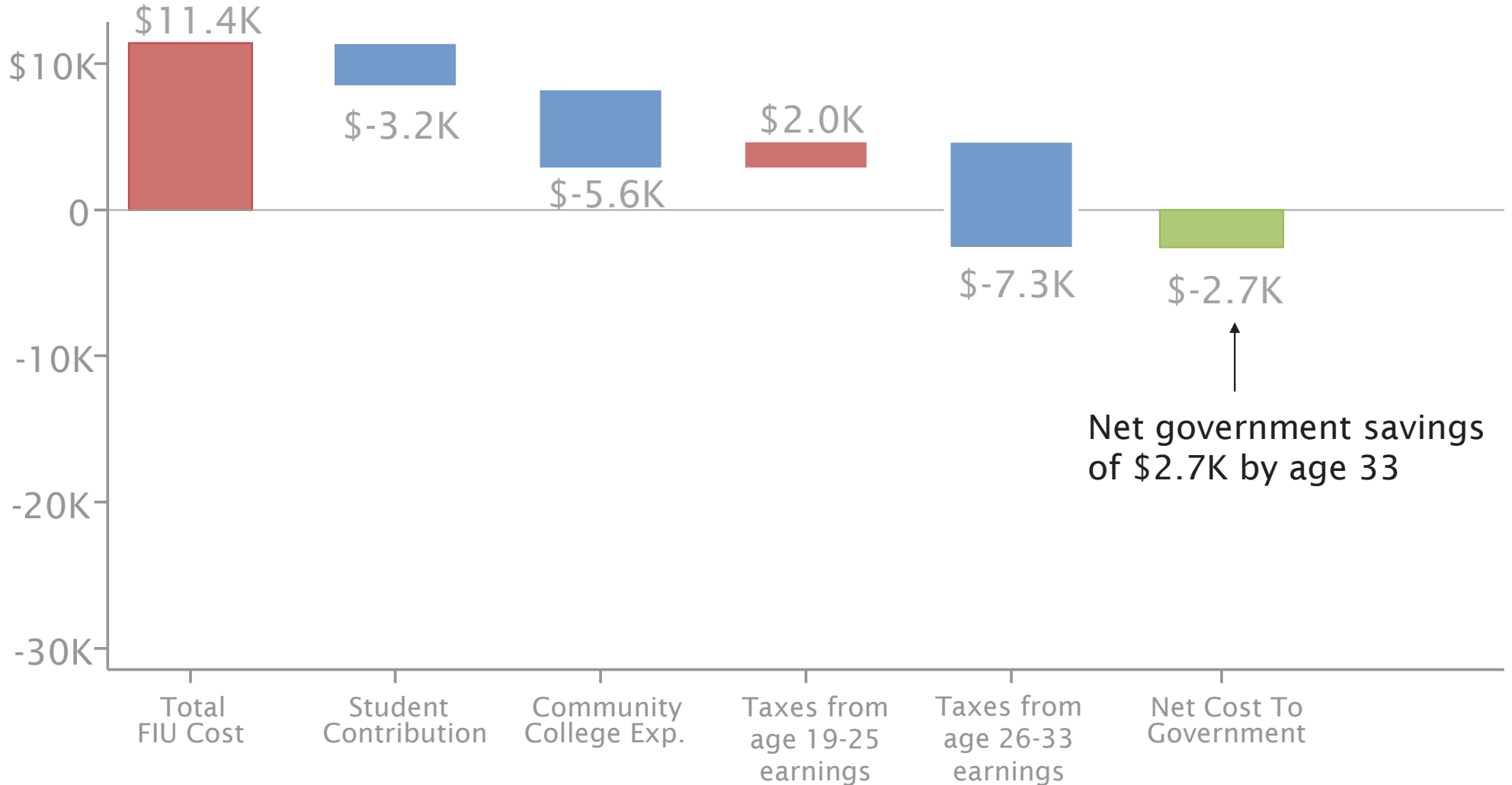
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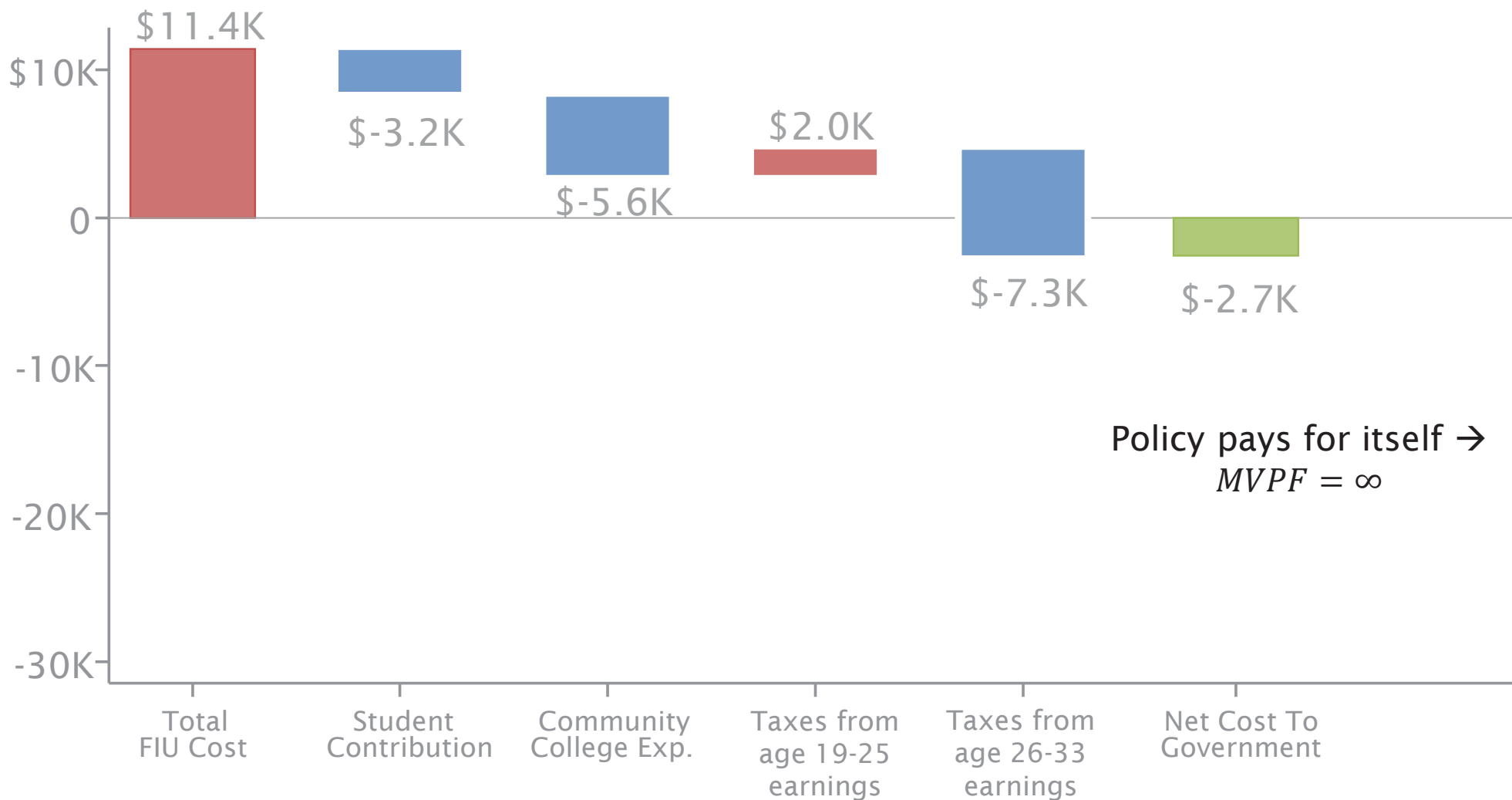
Net Cost to Government of Admission to Florida International University



Net government savings
of \$2.7K by age 33

Note: All amounts in 2012 USD, discounted using CPI-U-RS and 3% real interest rate

Net Cost to Government of Admission to Florida International University



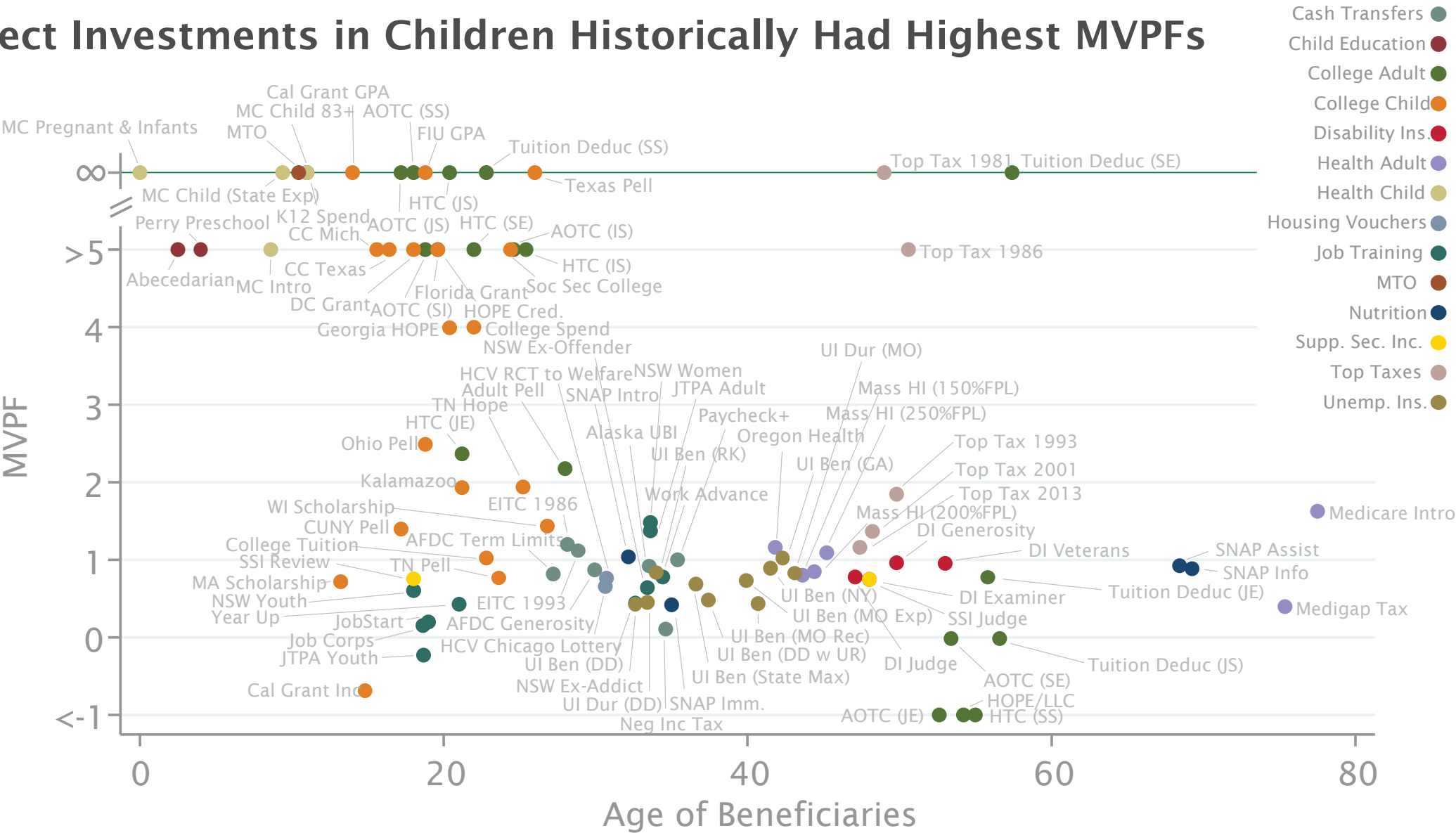
Policy pays for itself →
MVPF = ∞

Note: All amounts in 2012 USD, discounted using CPI-U-RS and 3% real interest rate

MVPFs by Age of Beneficiary

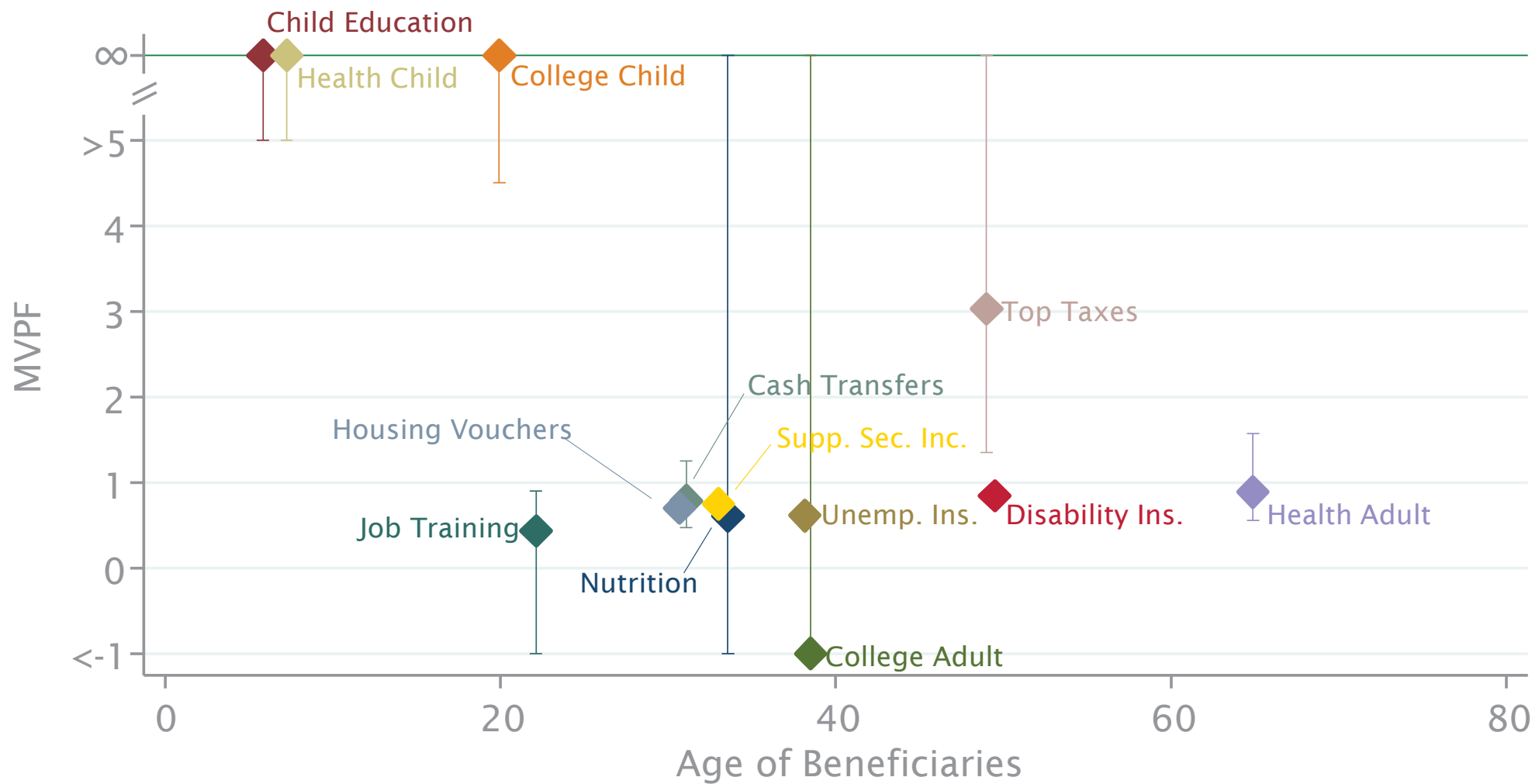


Direct Investments in Children Historically Had Highest MVPFs



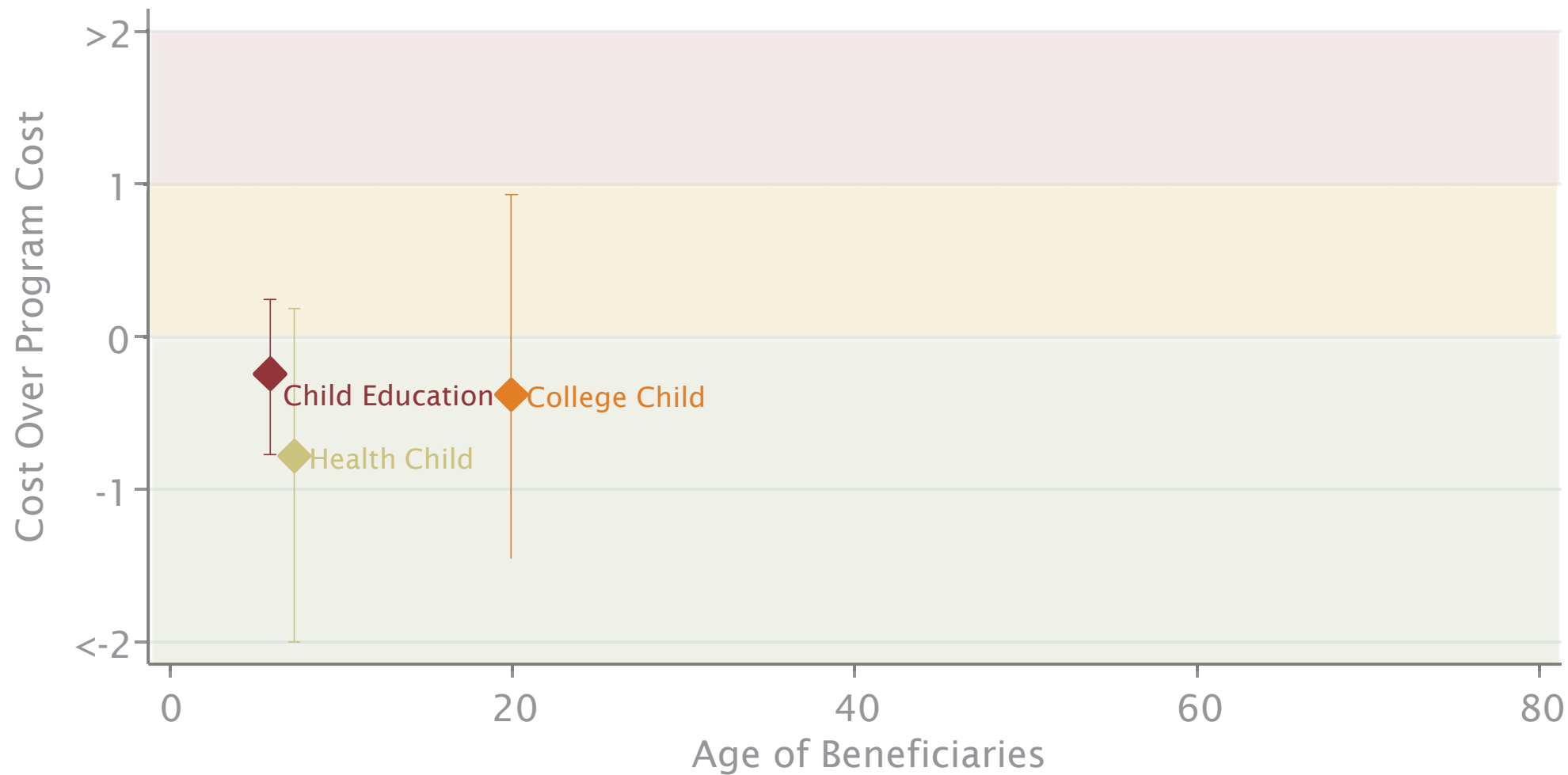
Direct Investments in Children Historically Had Highest MVPFs

Category Averages



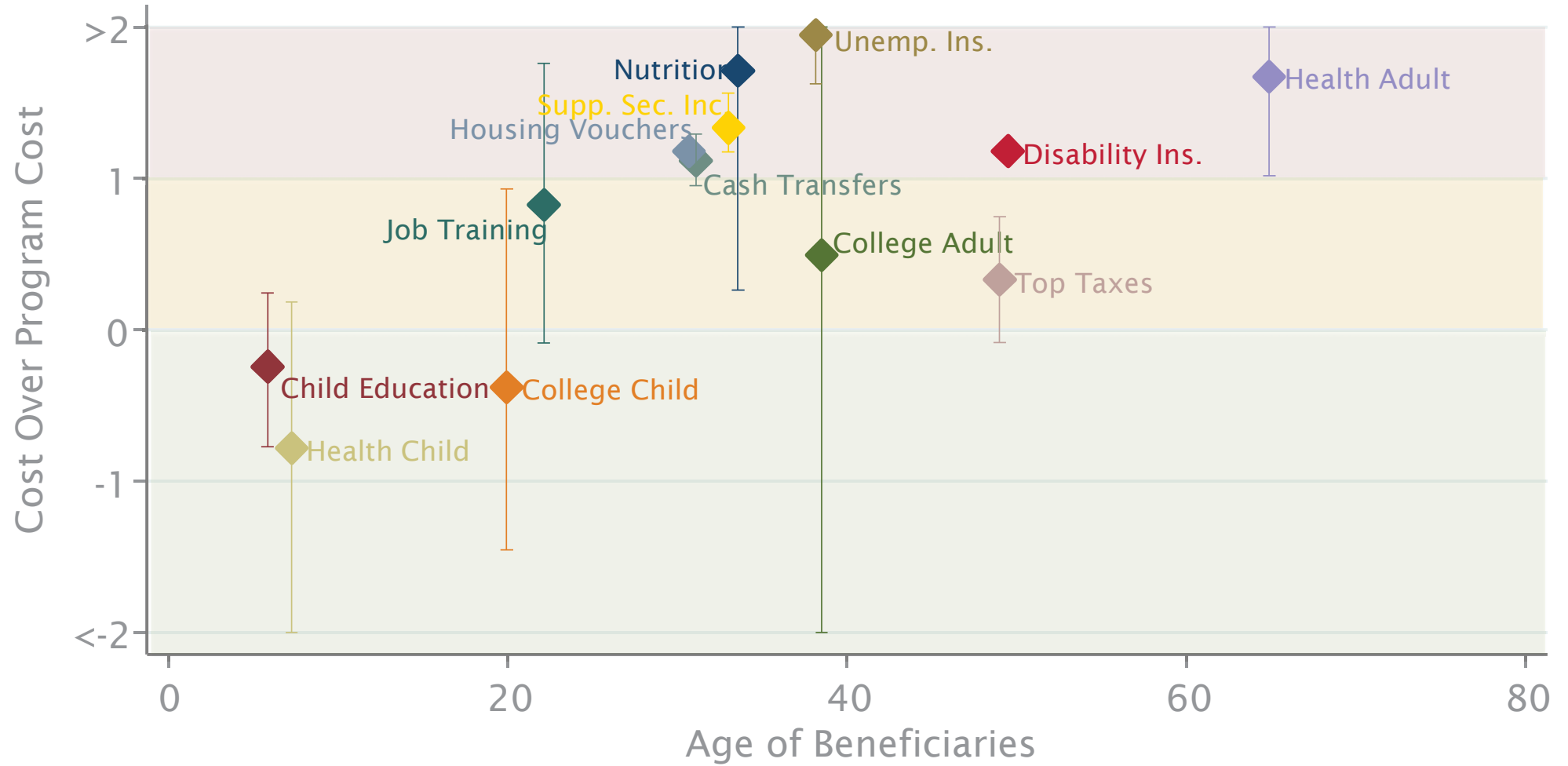
Net Costs to Government per \$1 of Initial Expenditure

Category Averages



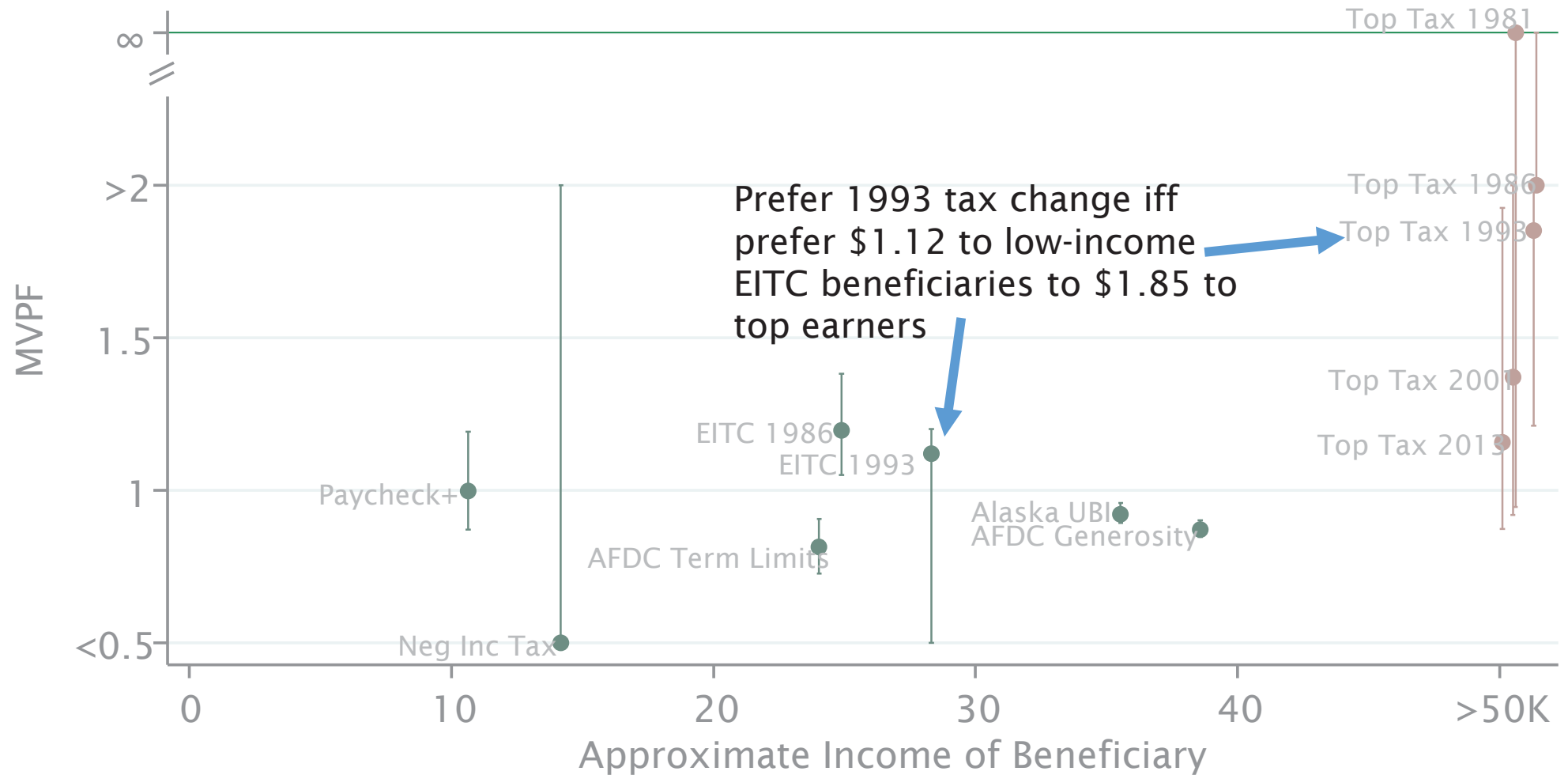
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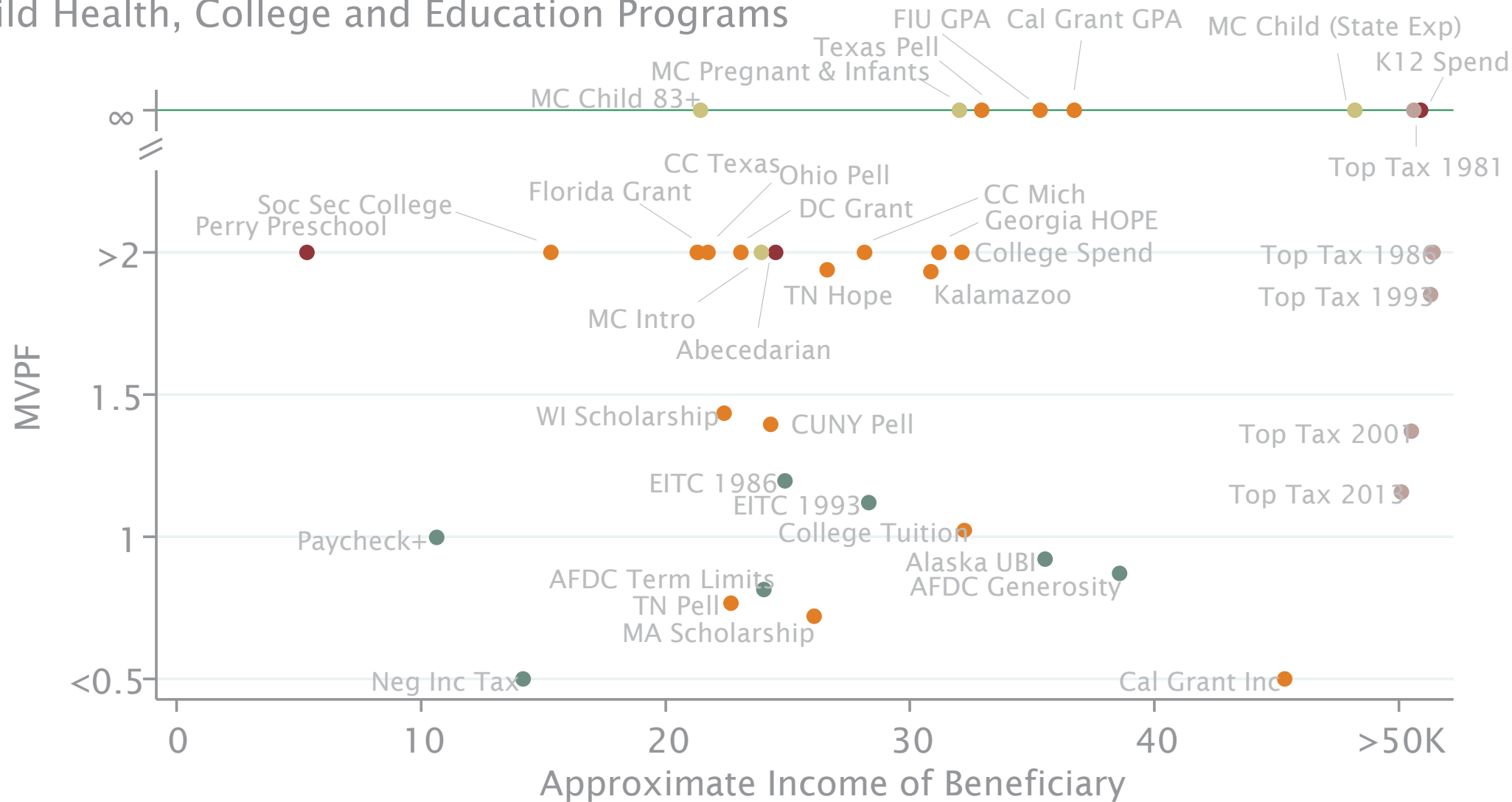
Quantifying the Tradeoffs of Redistribution through the Tax Schedule

Mirrlees (1976)



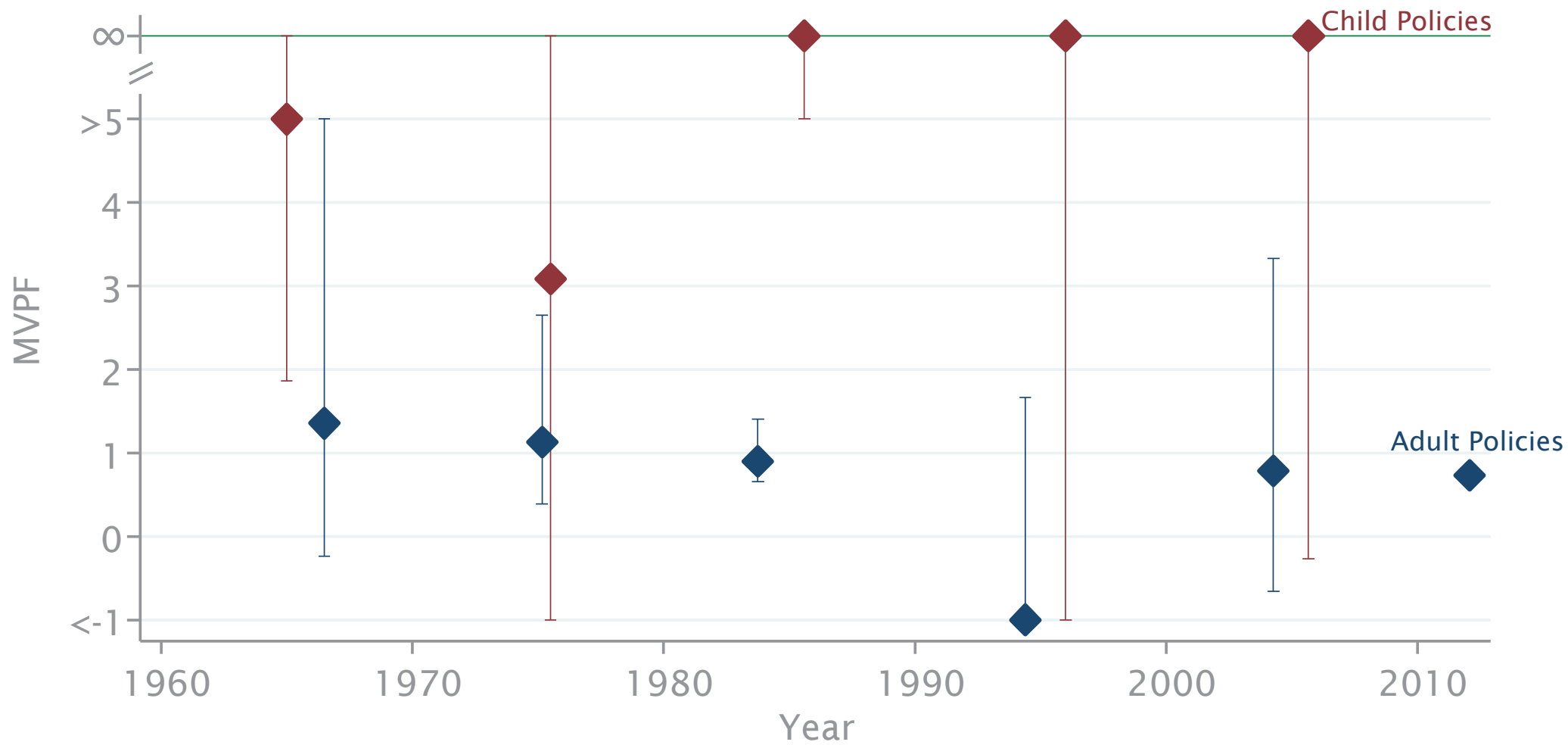
Efficient Redistribution through Investments in Low-Income Children

Child Health, College and Education Programs



MVPF by Year of Policy

Averages by Decade



Conclusion



1. Differences in social mobility is largely driven by **childhood exposure**

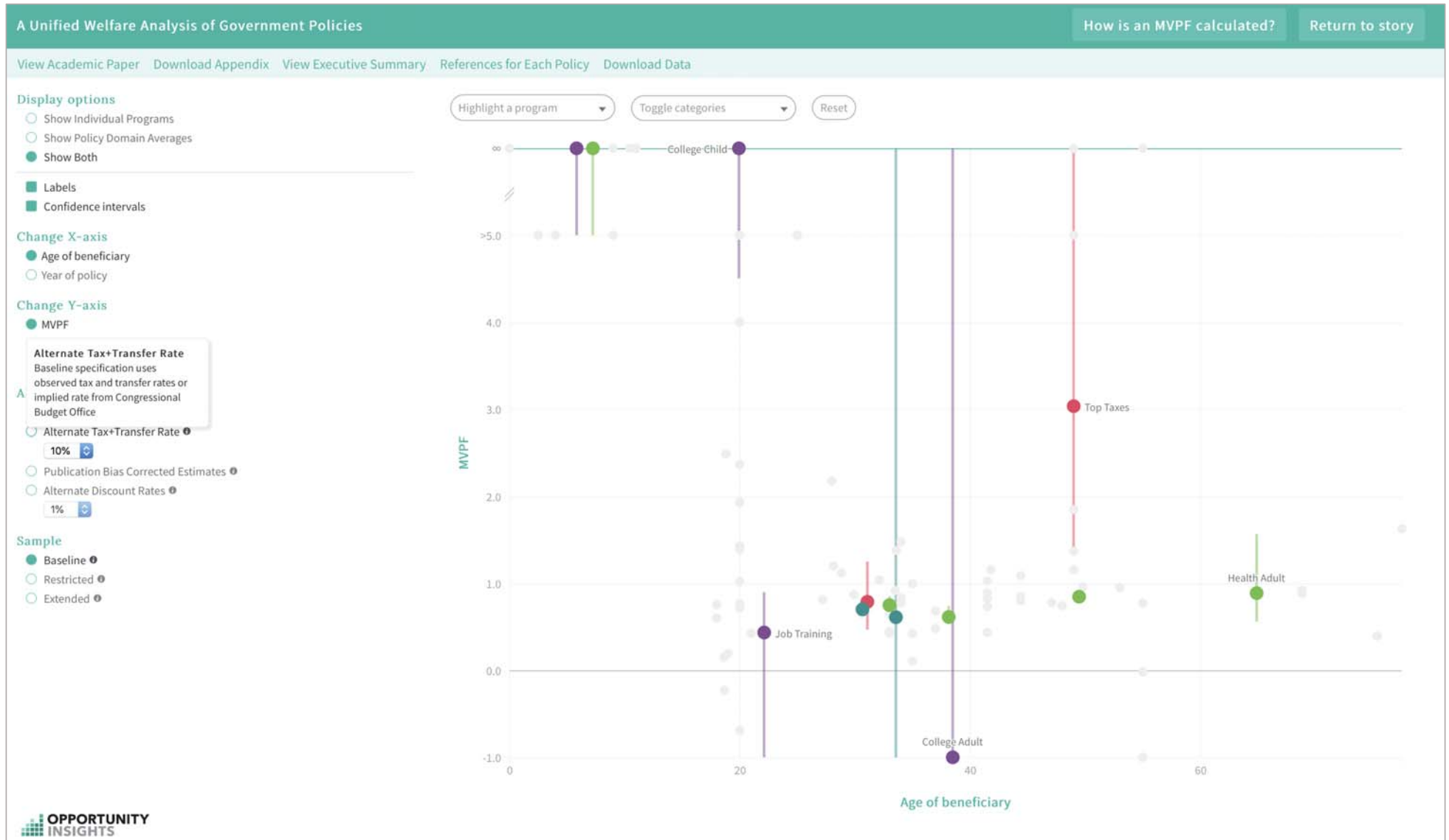


2. Low-income parents face complex constraints when investing in their children for things like nbhd choice



3. Historically, direct **investments** in low-income children have had the highest returns

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