

Race and Economic Opportunity in the United States

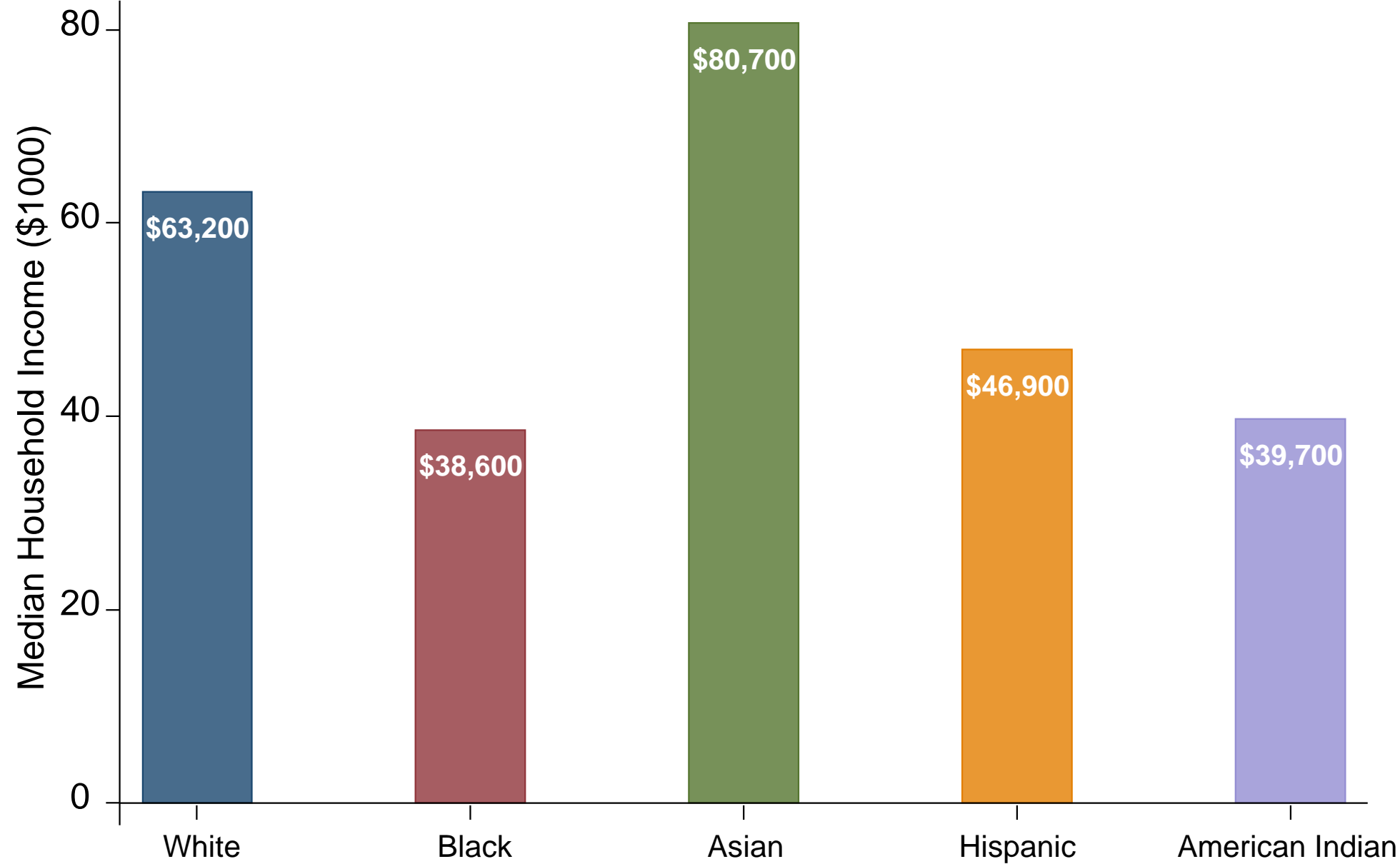
An Intergenerational Perspective

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Disclaimer: The views expressed are not necessarily those of the U.S. Census Bureau. The statistical summaries reported in these slides have been cleared by the Census Bureau's Disclosure Review Board release authorization number CBDRB-FY18-195. All values in the tables and figures that appear in this presentation have been rounded to four significant digits as part of the disclosure avoidance protocol.

Median Household Income by Race and Ethnicity in 2016



Note: We focus here and in subsequent analyses on four non-Hispanic single-race groups (white, black, Asian, American Indian and Alaska Native) and Hispanics. Source: American Community Survey 2016.

Theories of Racial Disparities

Family-Level Factors

| | |
|---------------------------------|--|
| Parental Income | Magnuson & Duncan 2006; Rothstein & Wozny 2012 |
| Parental Human Capital & Wealth | Oliver & Shapiro 1995; Orr 2003; Conley 2010 |
| Family Structure and Stability | McAdoo 2002; Burchinal et al. 2011 |
| Ability at Birth | Rushton & Jensen 2005 vs. Fryer & Levitt 2006 |

Structural Features of Environment

| | |
|--------------------------------------|--|
| Segregation, Neighborhoods | Massey & Denton 1993; Wilson 1987; Sampson and Wilson 1995; Smith 2005 |
| School Quality | Card & Krueger 1992; Jencks & Phillips 1998; Dobbie & Fryer 2011 |
| Discrimination in the Labor Market | Donohue & Heckman 1992; Heckman 1998; Pager 2003; Bertrand & Mullainathan 2004 |
| Discrimination in Criminal Justice | Steffensmeier, Ulmer, Kramer 1998; Eberhardt et al. 2004; Alexander 2010 |
| Social Alienation, Stereotype Threat | Steele & Aaronson 1995; Tatum 2004; Glover, Pallais, Pariente 2017 |

Cultural Factors and Social Norms

| | |
|---------------------------------|---|
| Identity and Oppositional Norms | Fordham & Ogbu 1986; Noguera 2003; Carter 2005; Austen-Smith & Fryer 2005 |
| Aspirations or Role Models | Mickelson 1990; Small, Harding, & Lamont 2010 |

This Paper: An Intergenerational Perspective

- Prior work has typically studied racial disparities within a single generation
 - Exceptions: school district data, longitudinal survey data, qualitative studies [e.g., Card and Rothstein 2007, Reardon et al. 2016, Mazumder 2014, Lareau 2003]
- We take an intergenerational perspective, focusing on dynamics of income across generations
 - Use new de-identified data linking parents and children covering nearly the entire U.S. population from 1989-2015
- Intergenerational approach sheds light on which disparities will persist in the long run and allows us to isolate the factors that drive persistent gaps

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Data and Sample Definitions



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Intergenerational Mobility by Race



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Marriage Rates and Gender Differences



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Family Level Explanations



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Neighborhood Level Explanations



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Data and Sample Definitions

- Data sources: Census data (2000, 2010, ACS) covering U.S. population linked to federal income tax returns from 1989-2015 [Akee, Jones, and Porter 2017]
- Intergenerational linkage: Children linked to parents who first claim them as a dependent on a tax return
- Target sample: Children in 1978-83 birth cohorts who were born in the U.S. or are authorized immigrants who came to the U.S. in childhood
- Analysis sample: 20 million children, 94% coverage rate of target sample

Income Measures

- Parents' pre-tax household incomes: mean Adjusted Gross Income from 1994-2000, assigning non-filers zeros
- Children's pre-tax incomes measured in 2014-15 (ages 31-37)
 - Non-filers assigned incomes based on W-2's (available since 2005)
 - Begin with household income, then turn to individual (own) income
- Focus on percentile ranks: rank children relative to others in their birth cohort and parents relative to other parents

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Intergenerational Mobility by Race

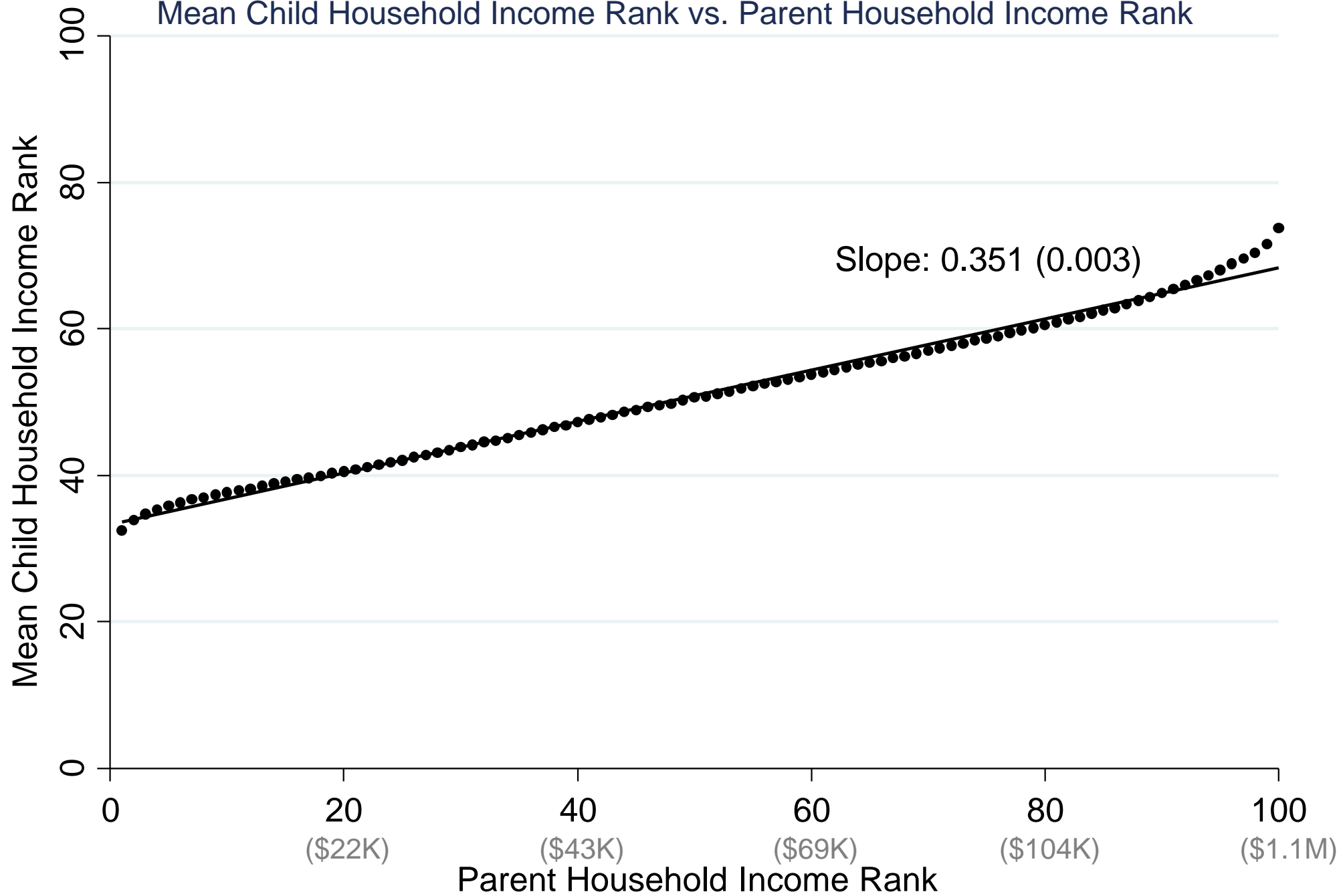
- Organize empirical analysis using a statistical model of intergenerational mobility and inequality [Becker and Tomes 1979]
 - Let i index families, t index generations, and $r(i)$ denote race of family i
 - Model child's income rank as a race-specific linear function of parent's income rank:

$$y_{it} = \alpha_r + \beta_r y_{i,t-1} + \varepsilon_{it}$$

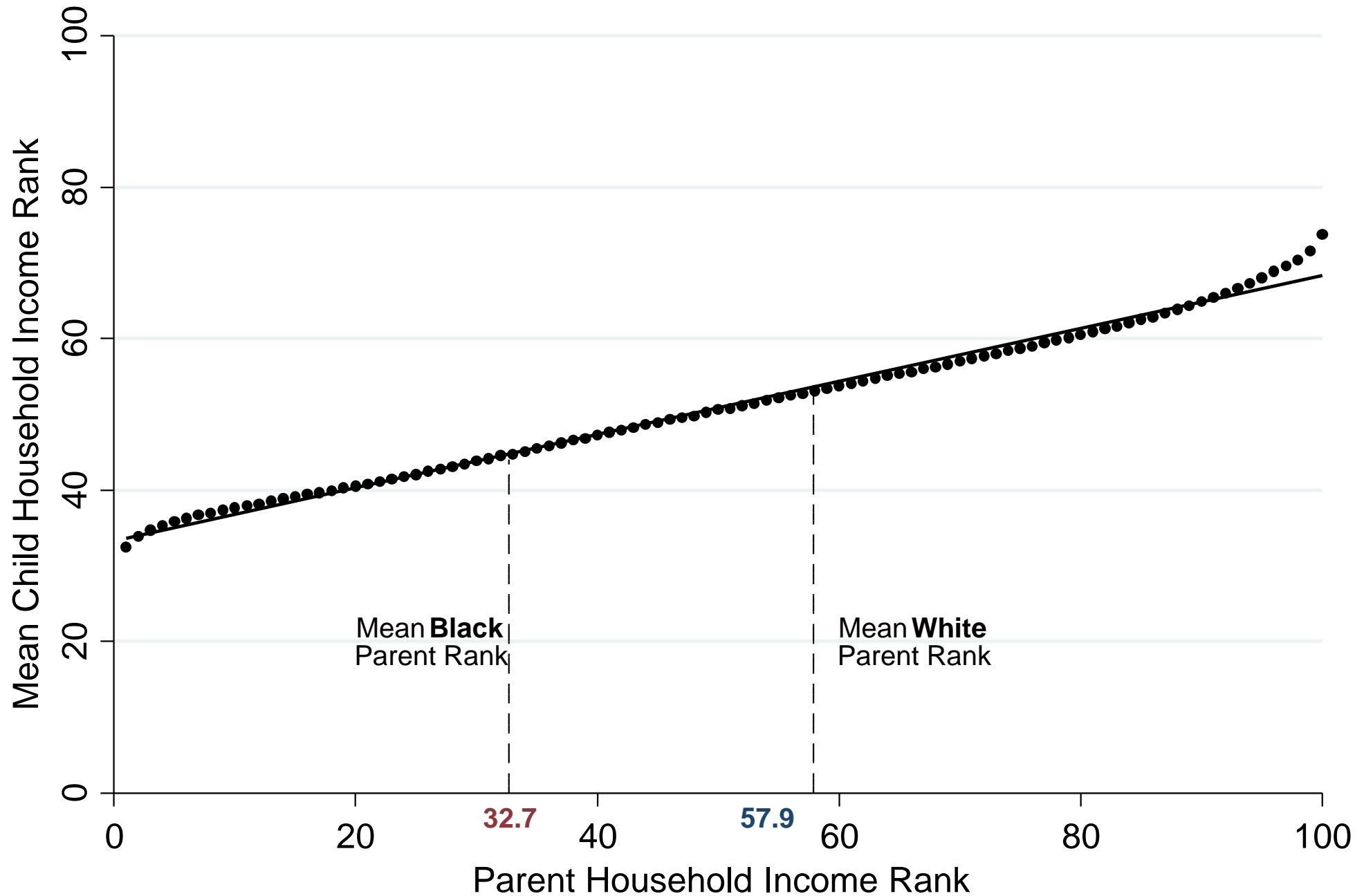
- Evolution of racial gaps and steady-state disparities in mean ranks controlled by rates of relative and absolute mobility (α_r , β_r)

Intergenerational Mobility in the United States

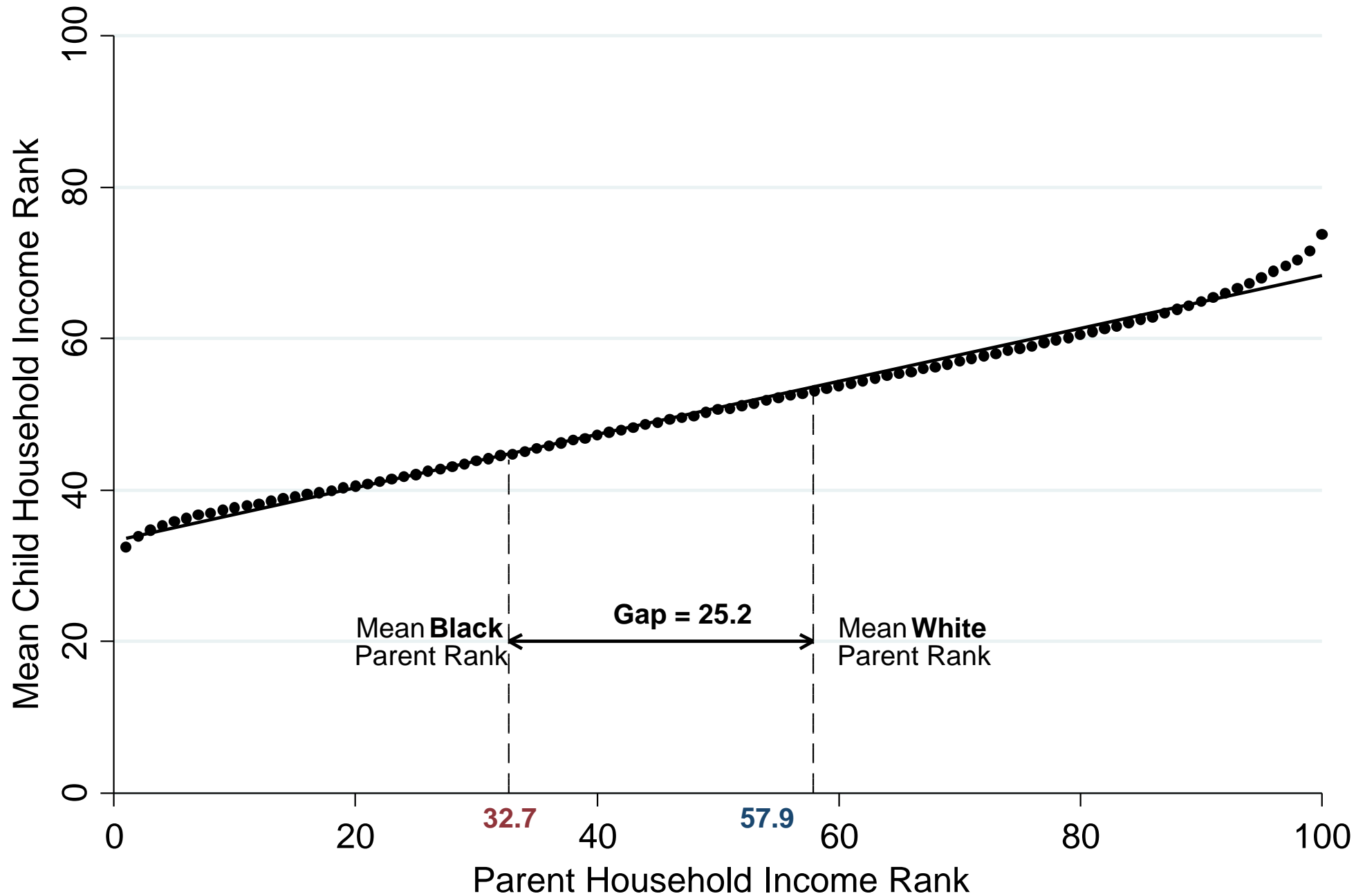
Mean Child Household Income Rank vs. Parent Household Income Rank



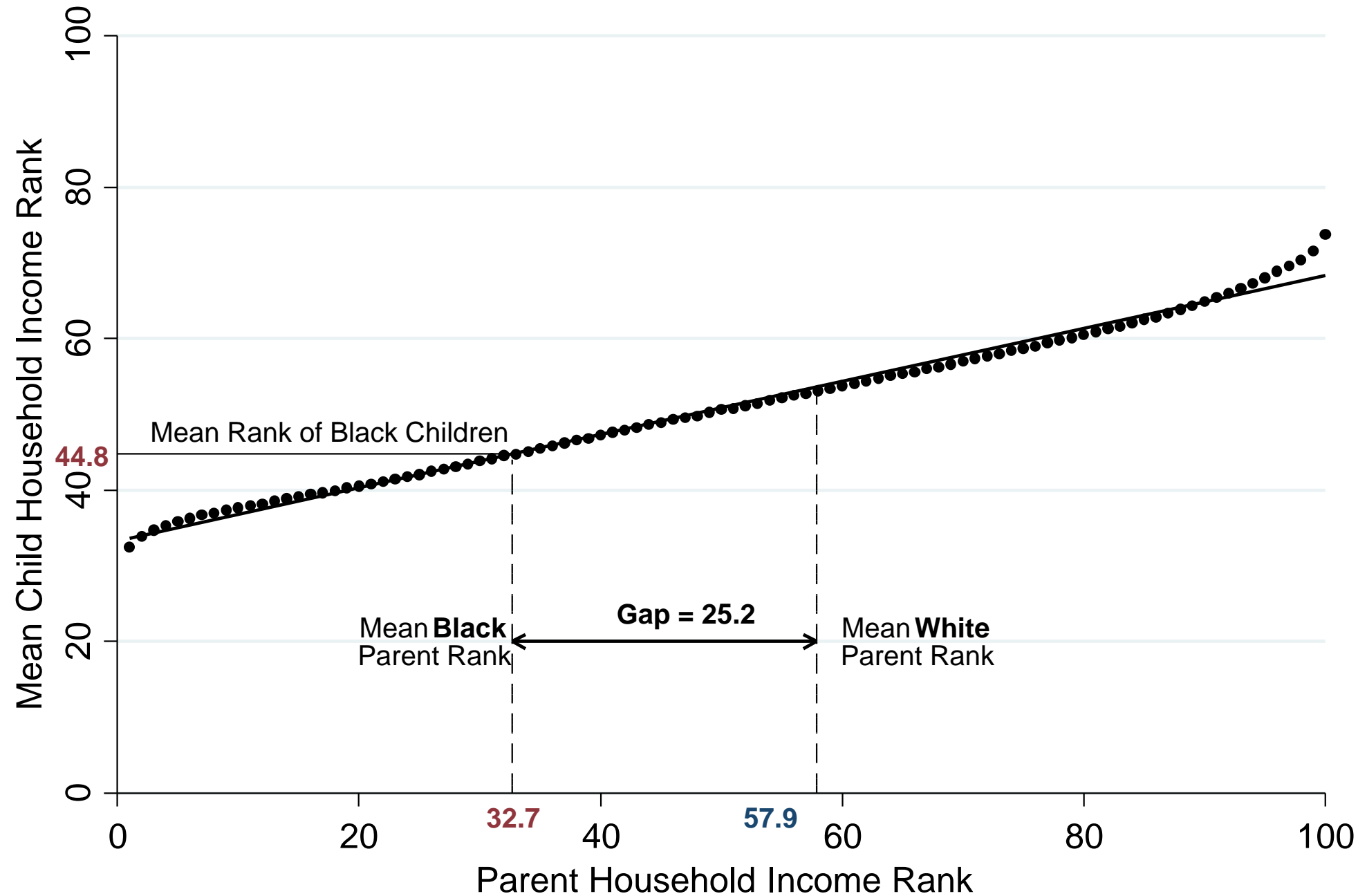
Convergence in Black-White Gap if Intergenerational Mobility is Race-Invariant



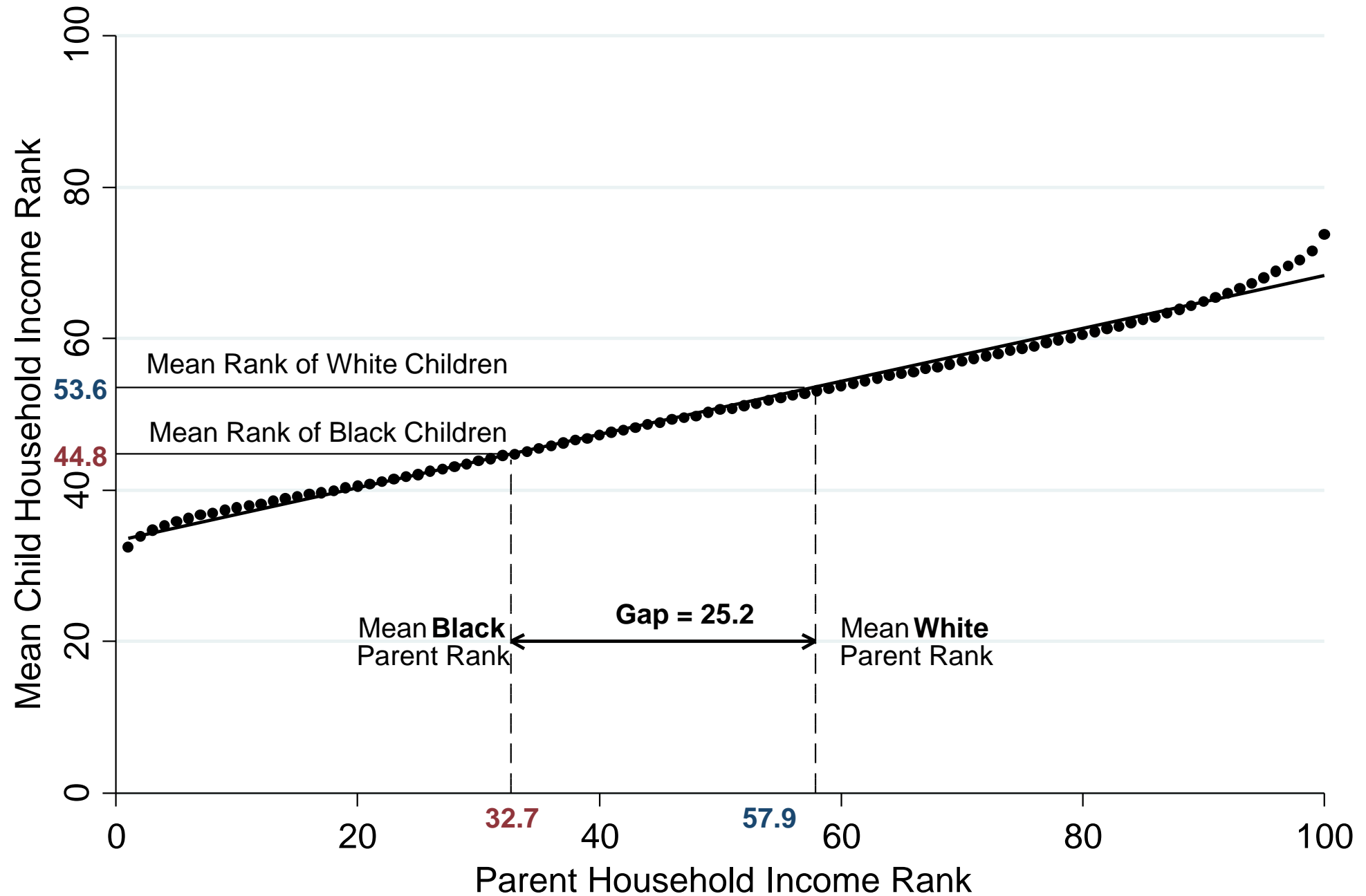
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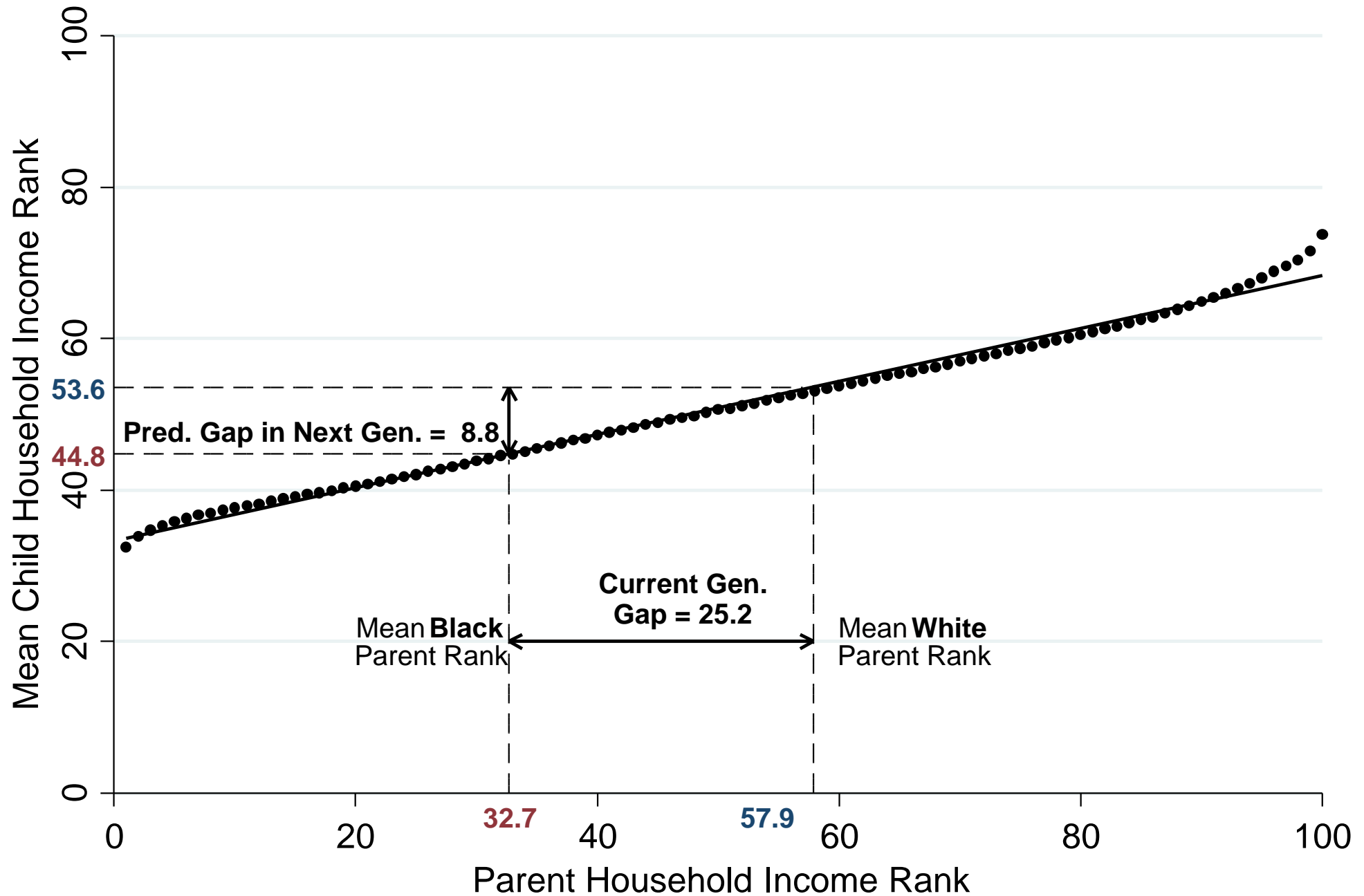
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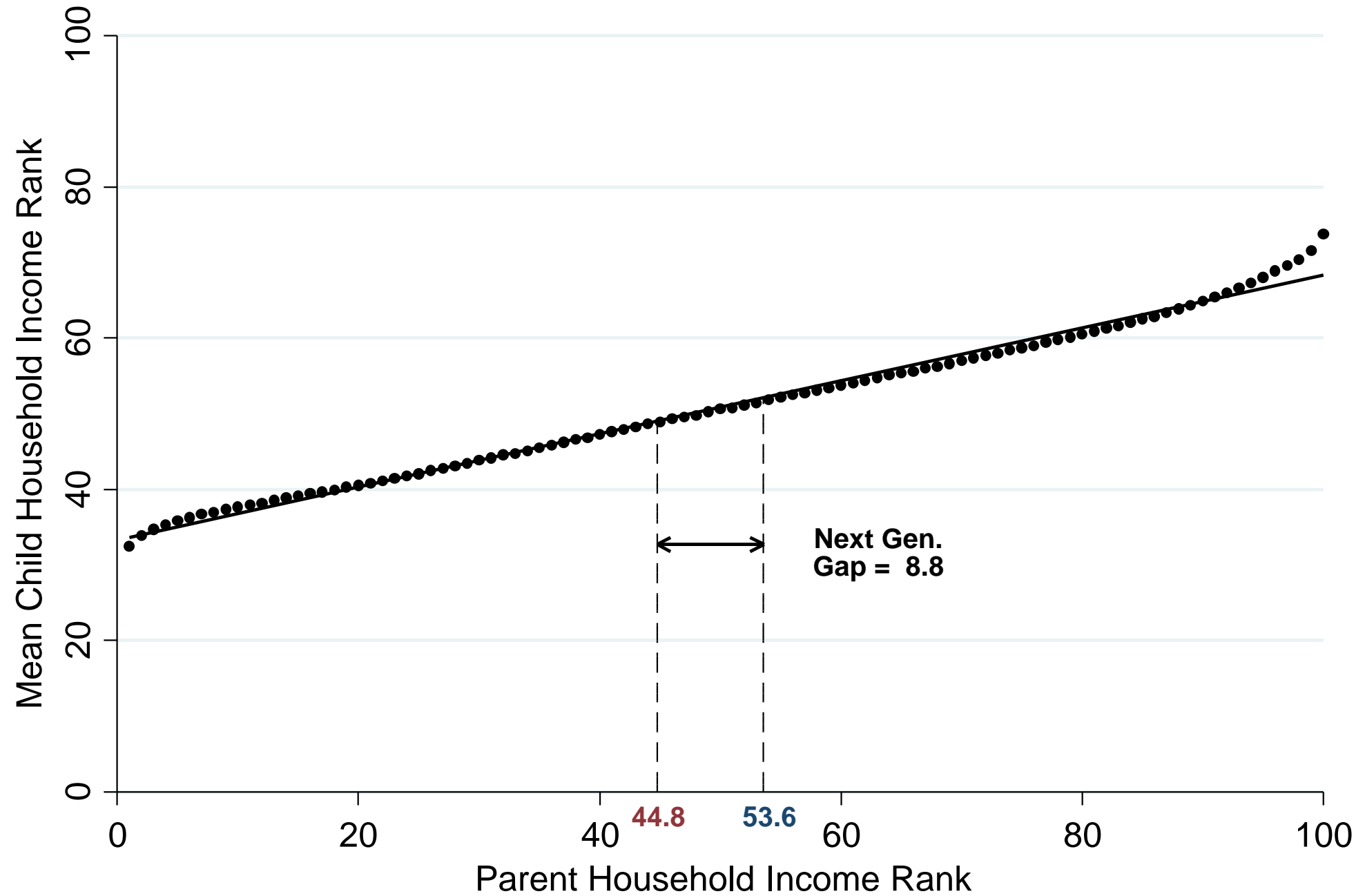
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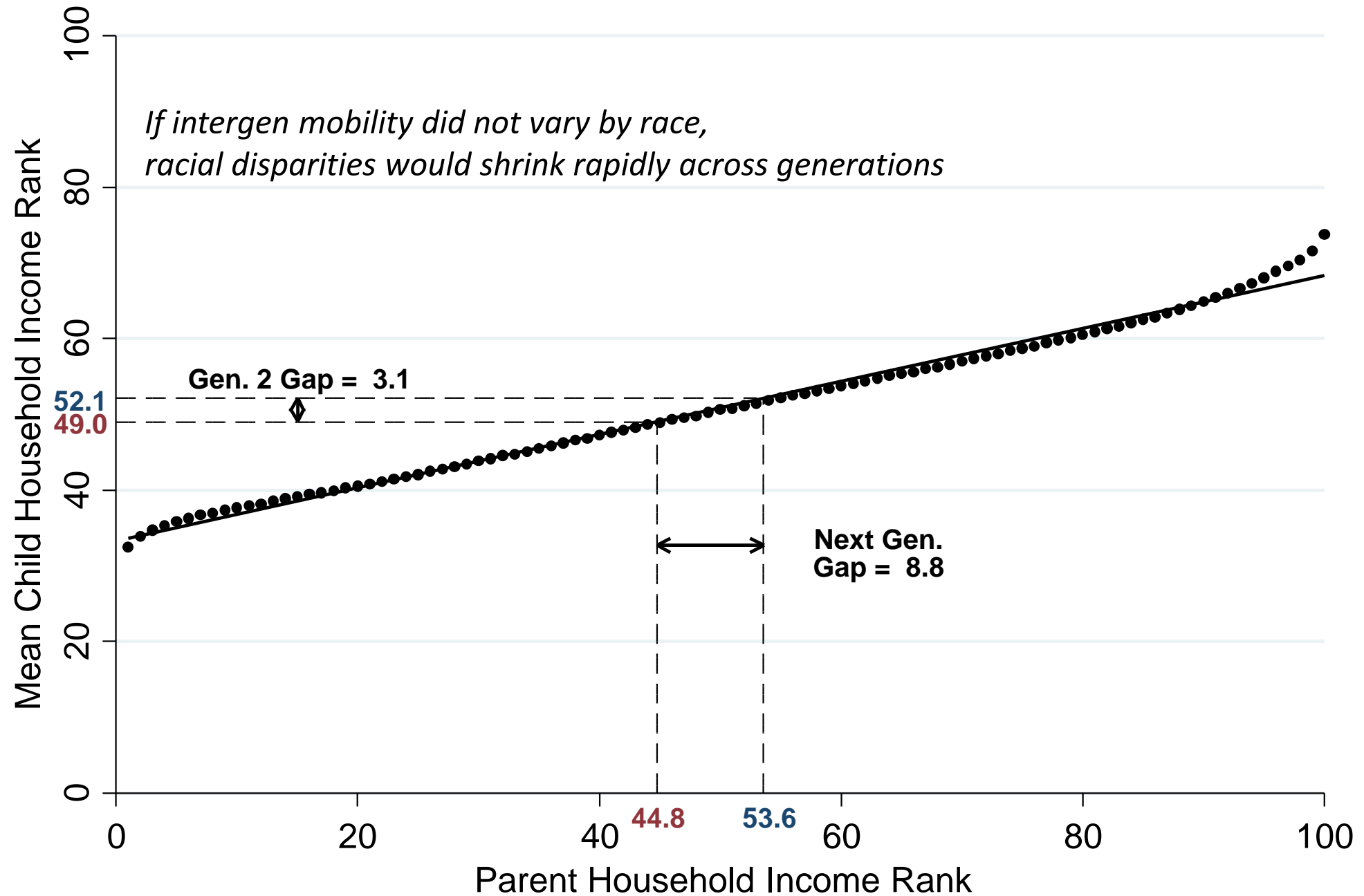
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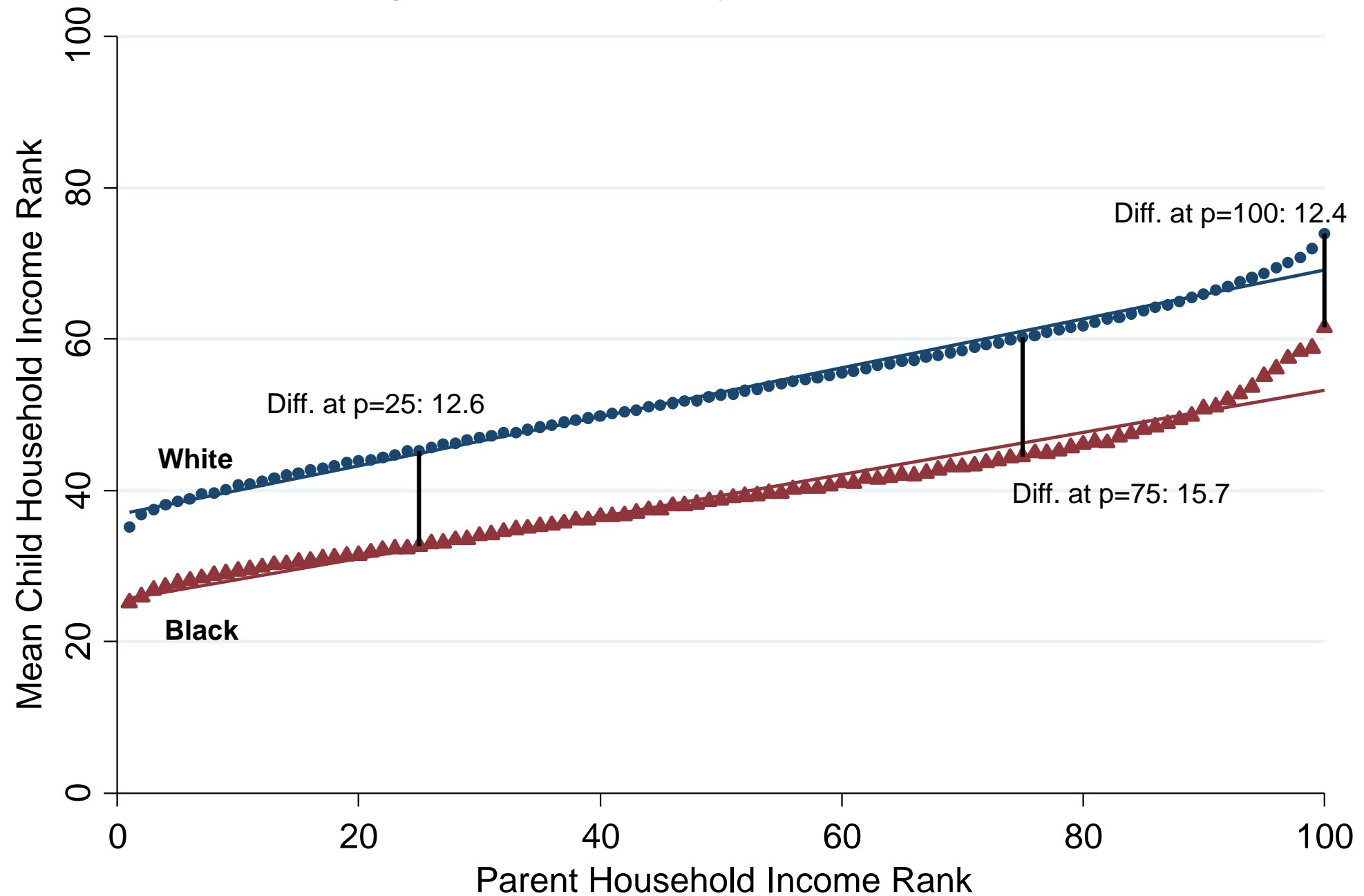
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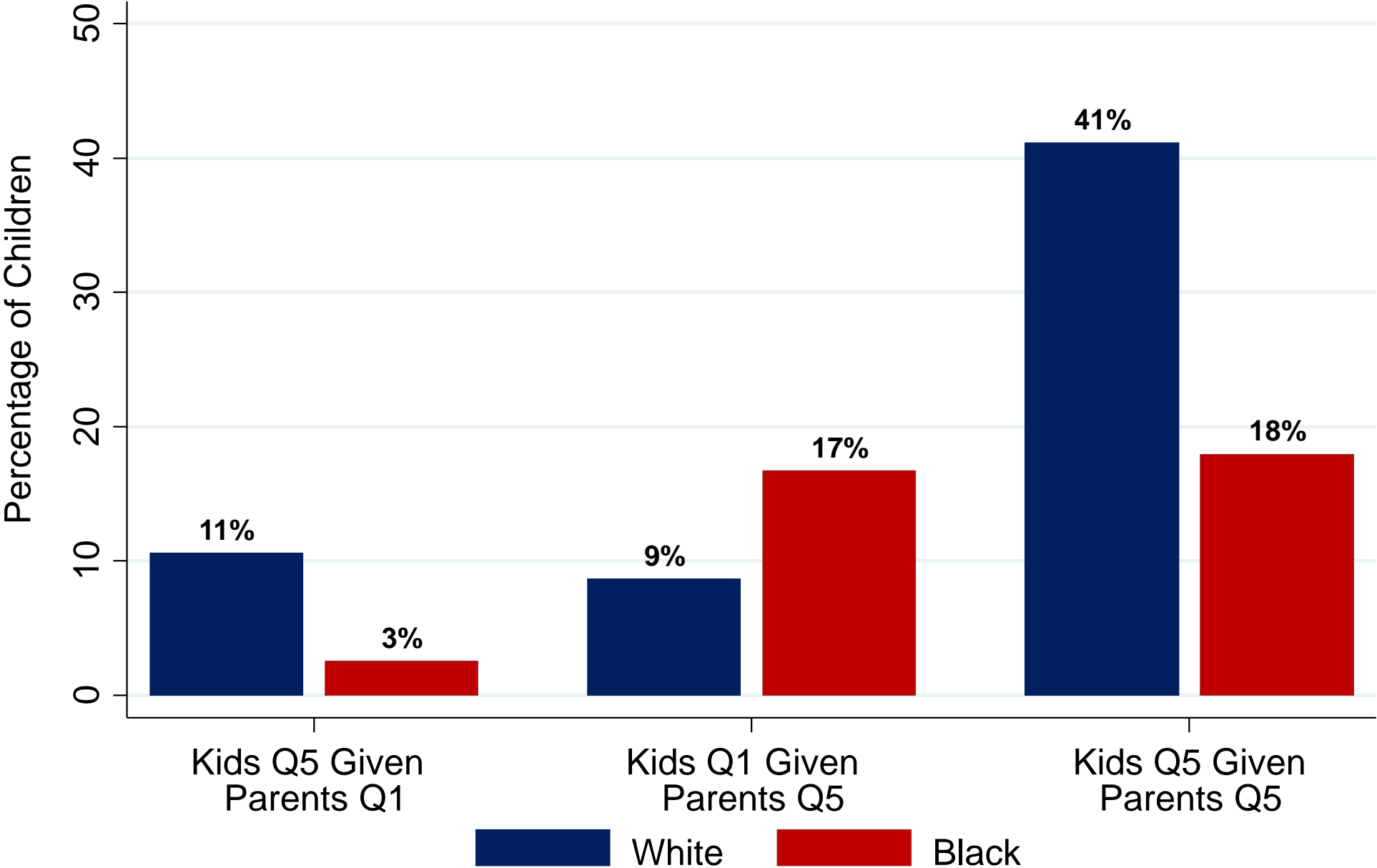
Convergence in Black-White Gap if Intergenerational Mobility is Race-Invariant



Intergenerational Mobility for Whites vs. Blacks

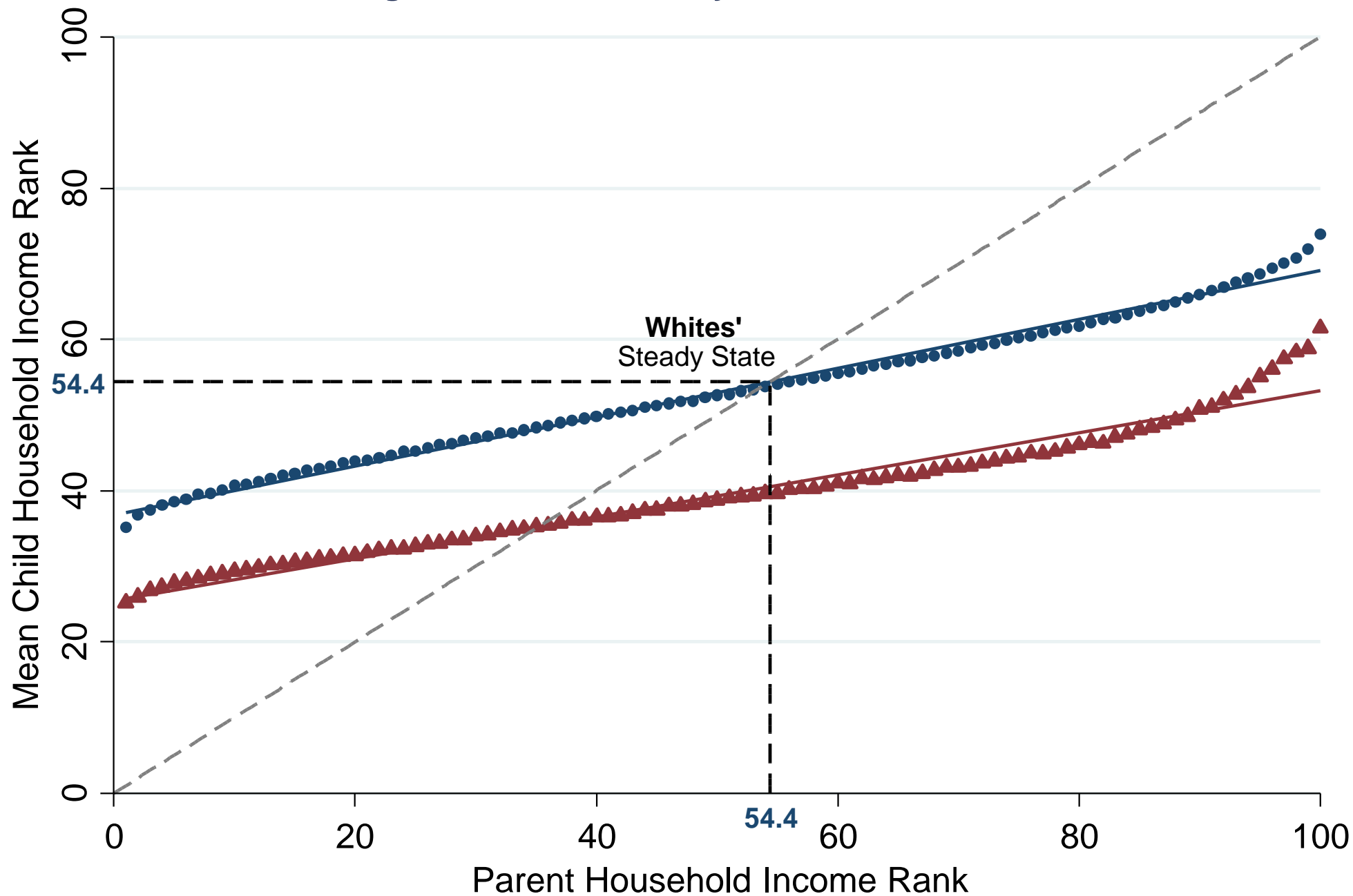


Rates of Upward and Downward Mobility: Blacks vs. Whites

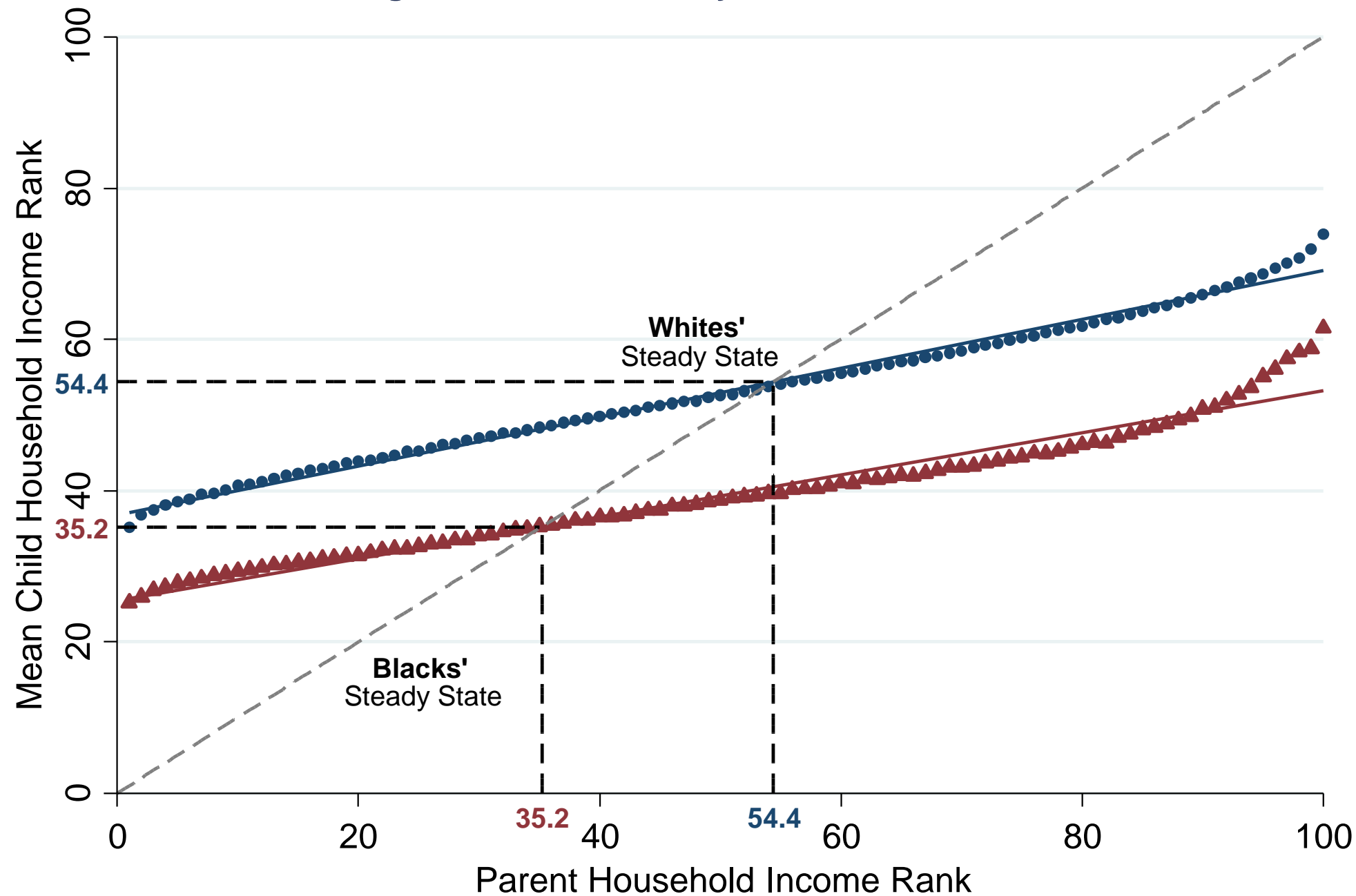


Click [here](#) to view an interactive depiction of these transition rates

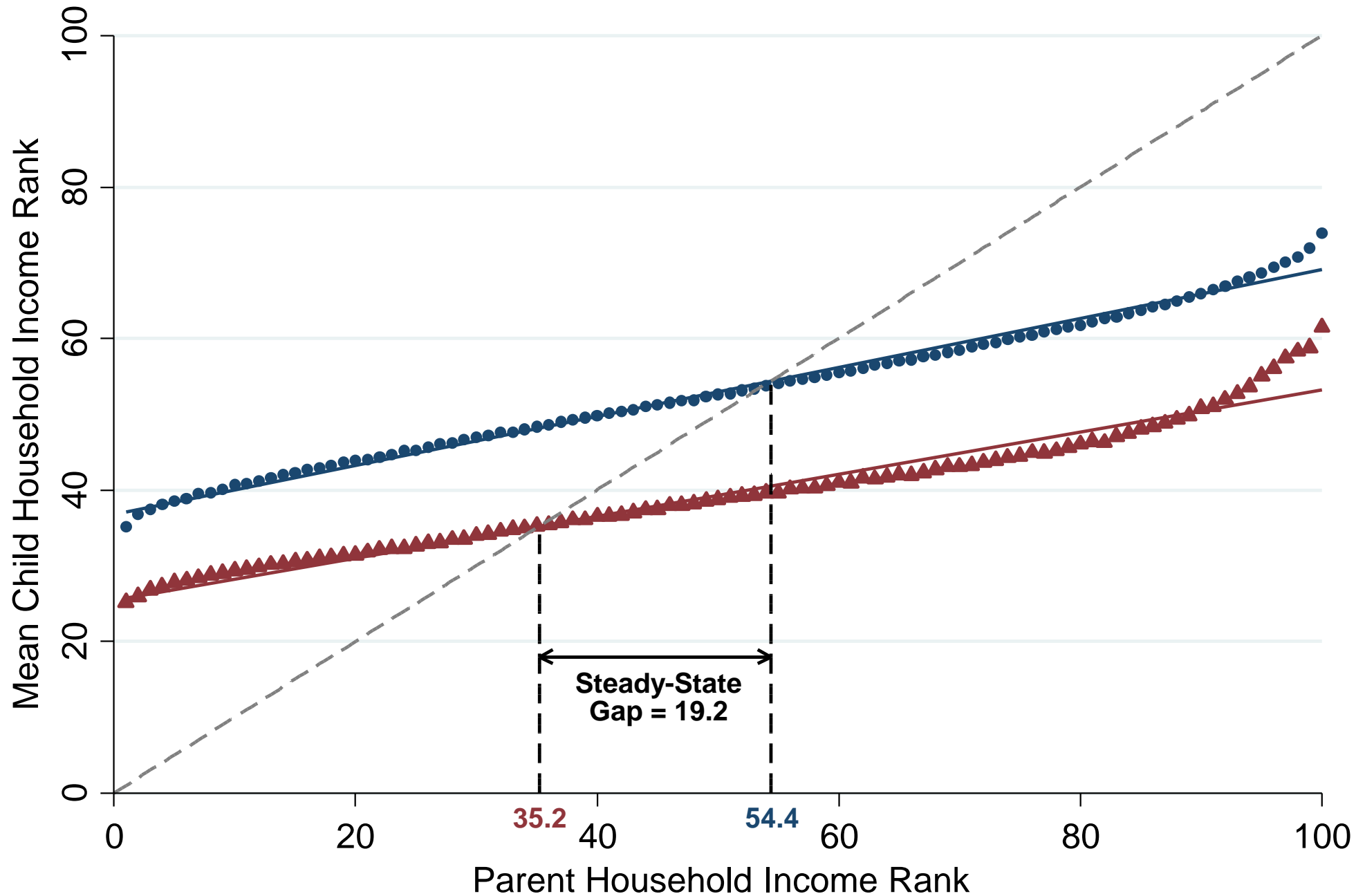
Intergenerational Mobility for Whites vs. Blacks



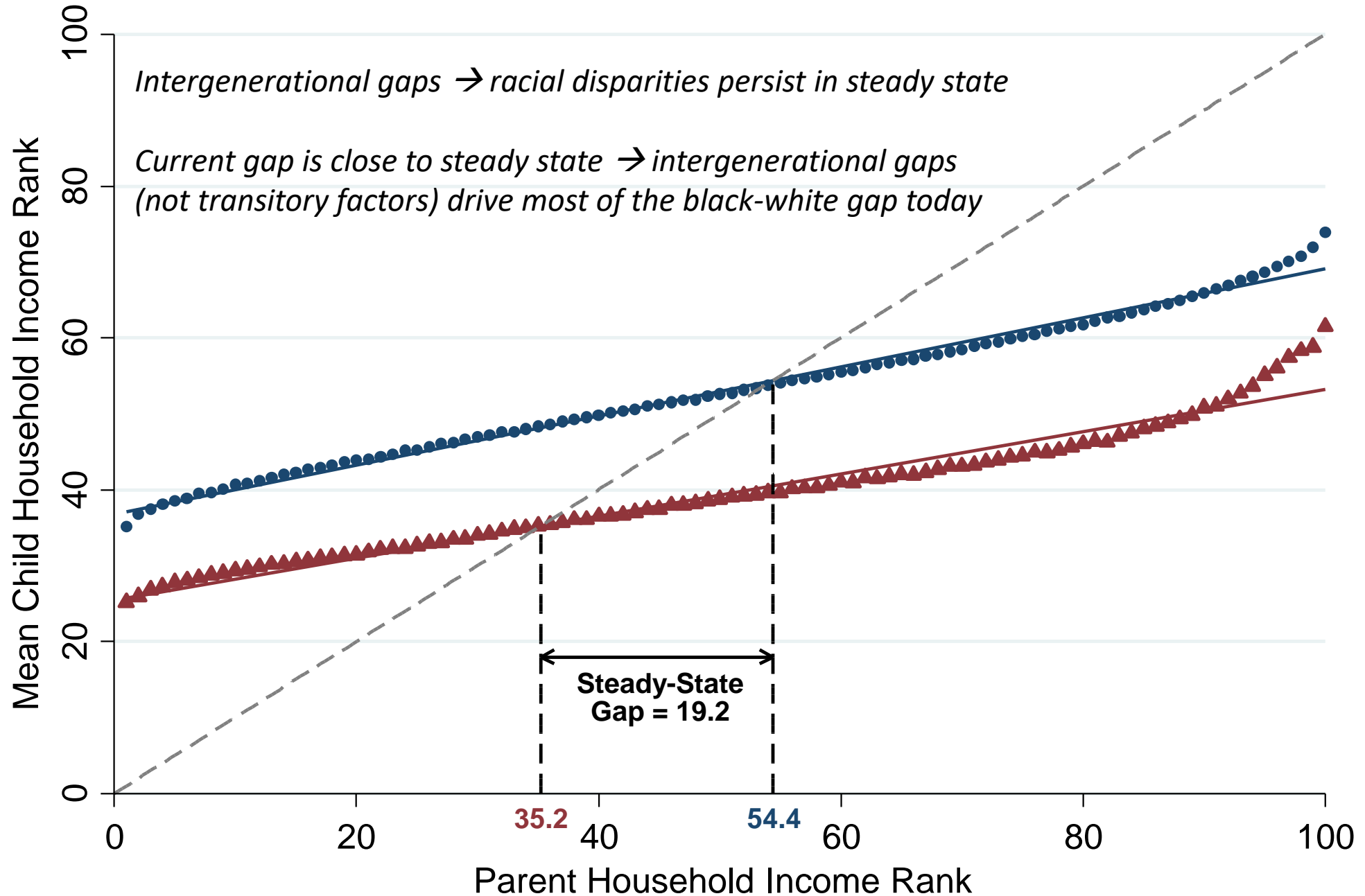
Intergenerational Mobility for Whites vs. Blacks



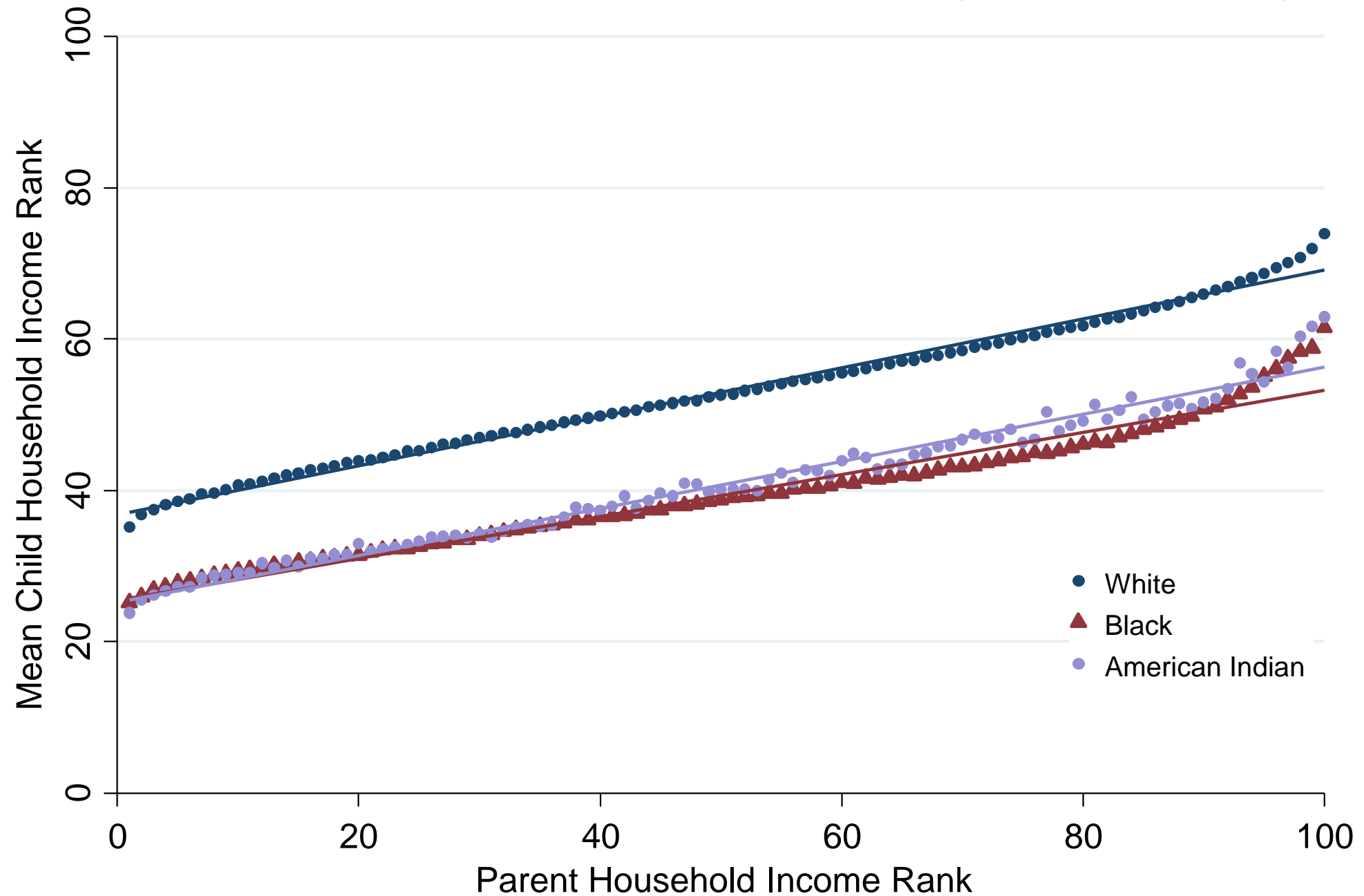
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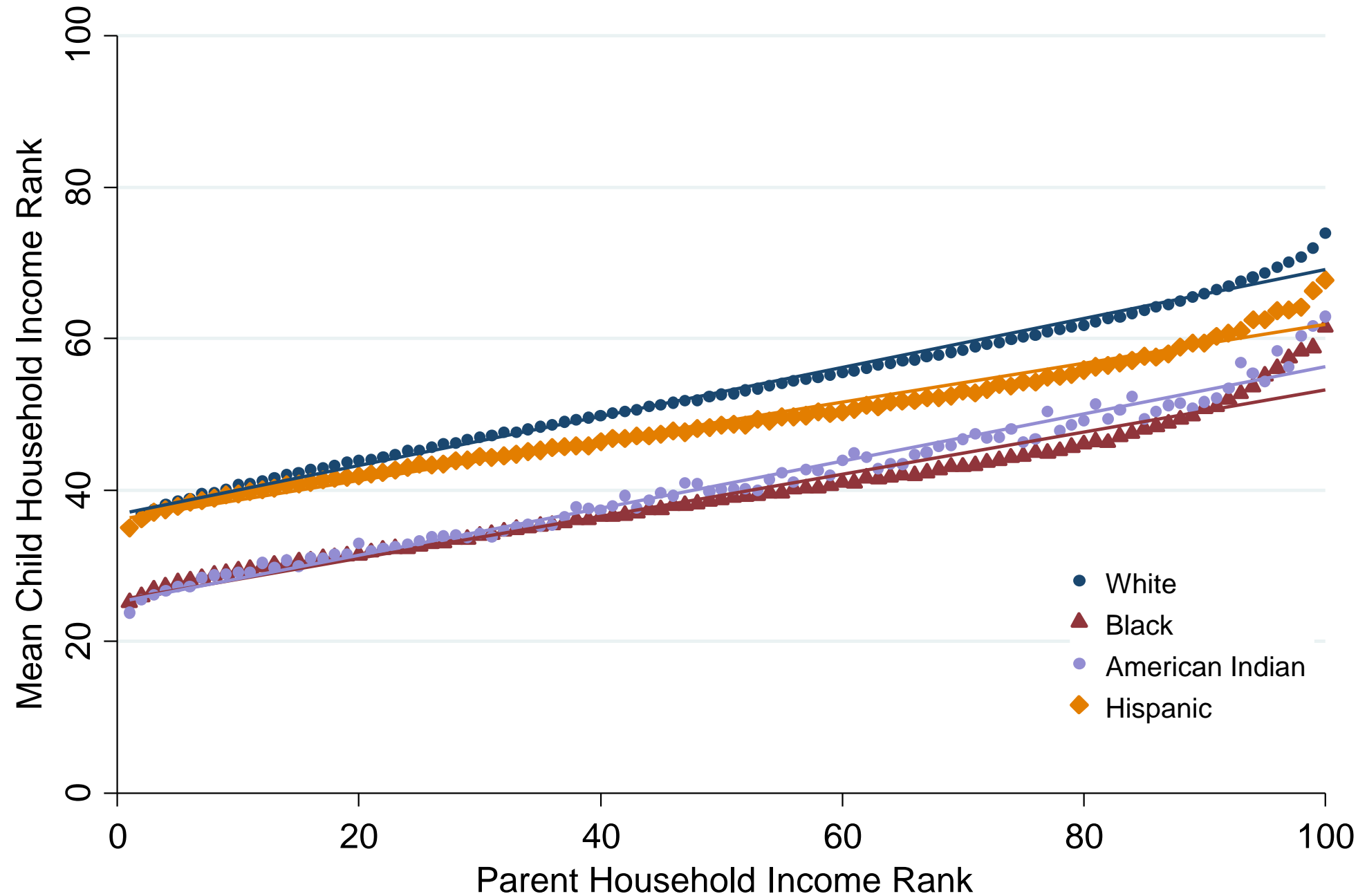
Intergenerational Mobility for Whites vs. Blacks



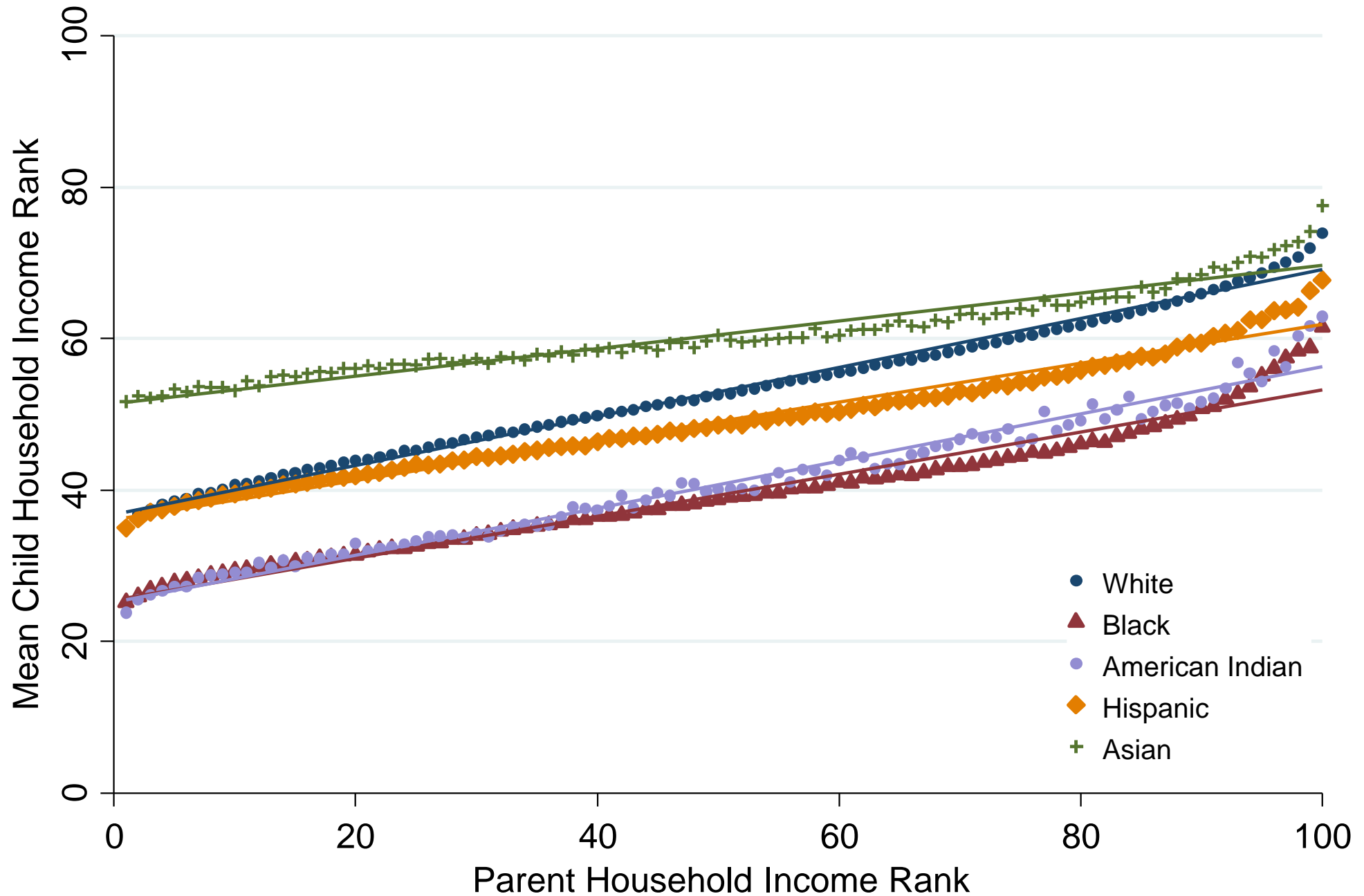
Mean Child Income Rank vs. Parent Income Rank by Race and Ethnicity



Mean Child Income Rank vs. Parent Income Rank by Race and Ethnicity

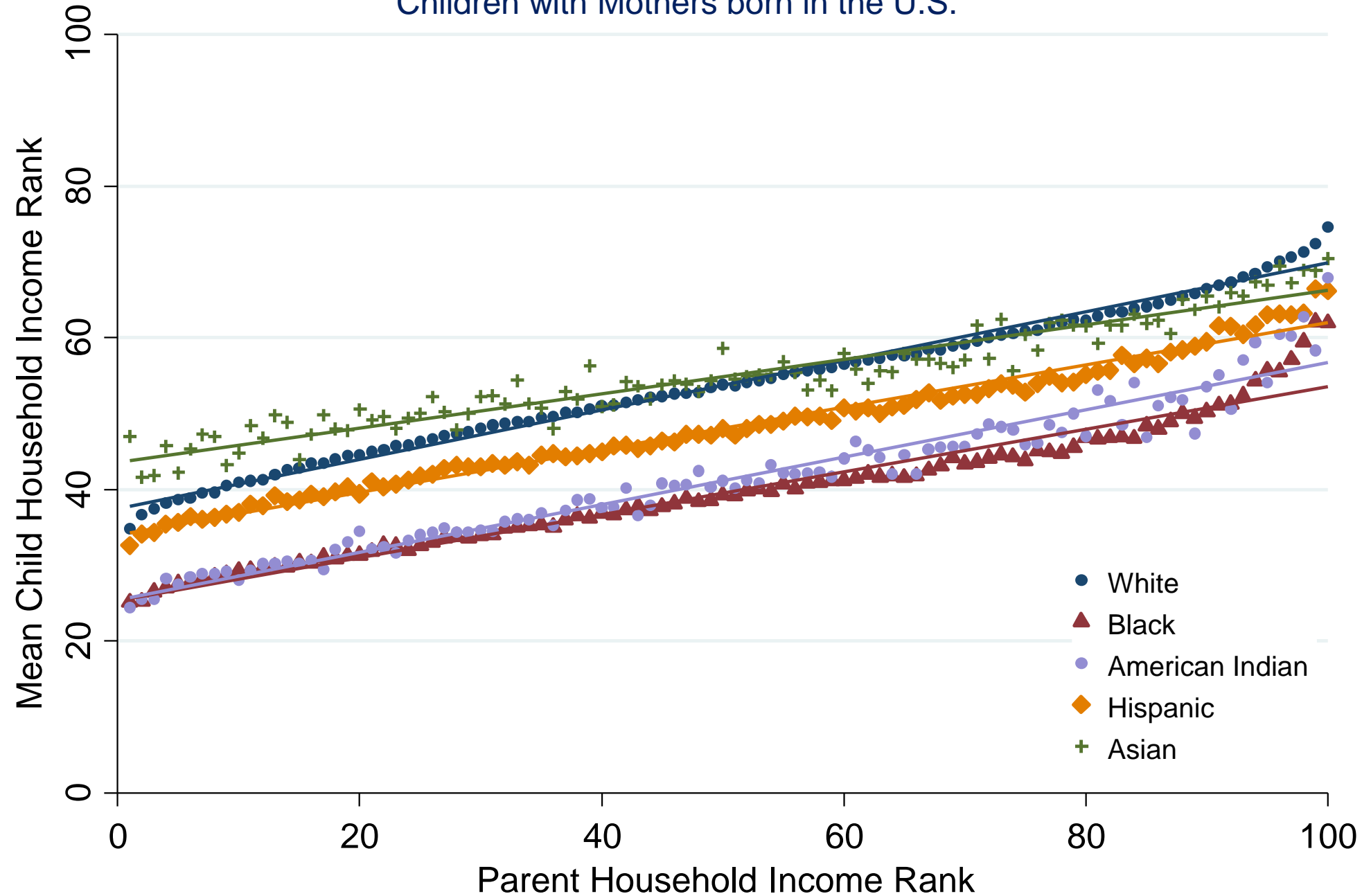


Mean Child Income Rank vs. Parent Income Rank by Race and Ethnicity

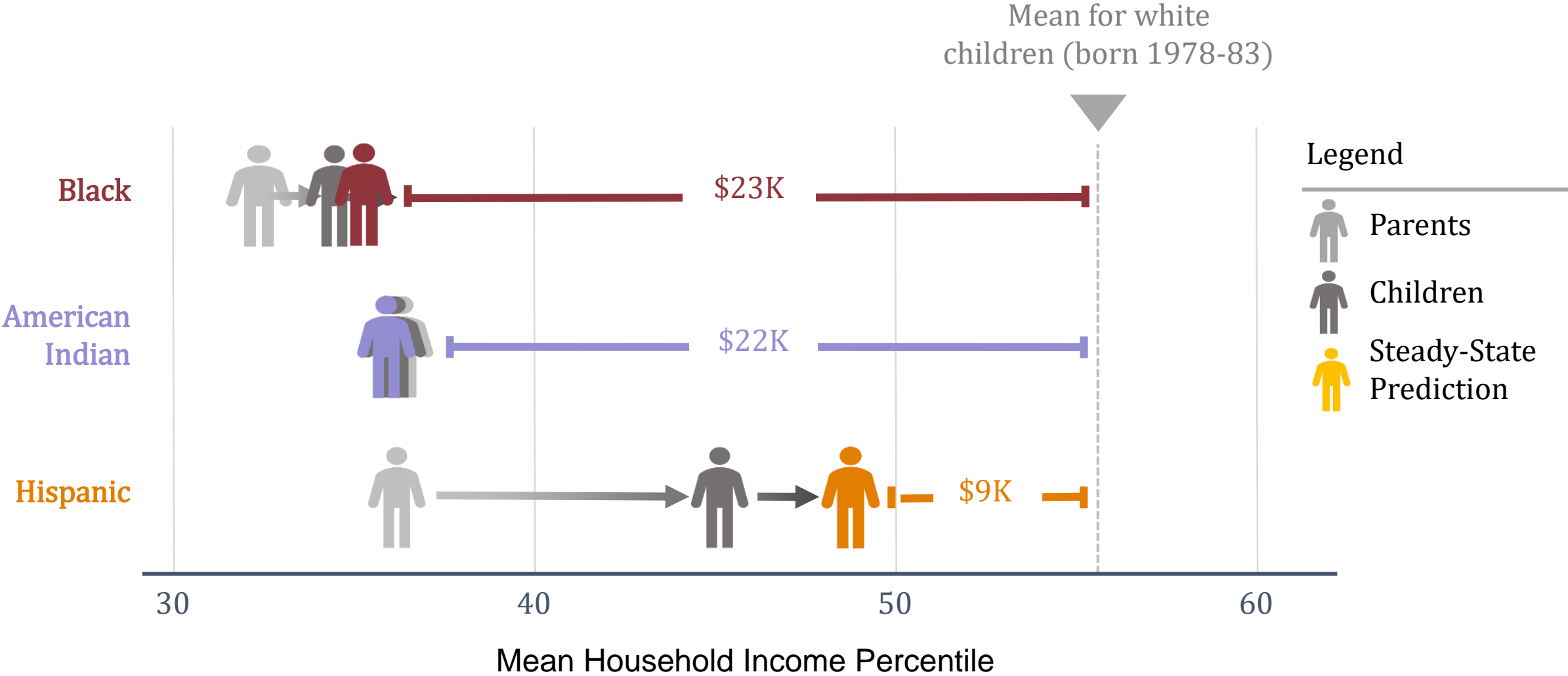


Mean Child Income Rank vs. Parent Income Rank by Race and Ethnicity

Children with Mothers born in the U.S.



Changes in Income Across Generations, by Racial Group



Intergenerational Persistence of Racial Disparities: Summary

- All racial groups in the U.S. have similar rates of *relative* mobility → will converge rapidly to steady state
- Key driver of disparities is therefore intergenerational gap in absolute mobility, e.g. between blacks and whites
 - Why do black children have lower incomes than white children *conditional* on parent income?
- Rest of the talk: test a range of explanations for black-white intergenerational gaps

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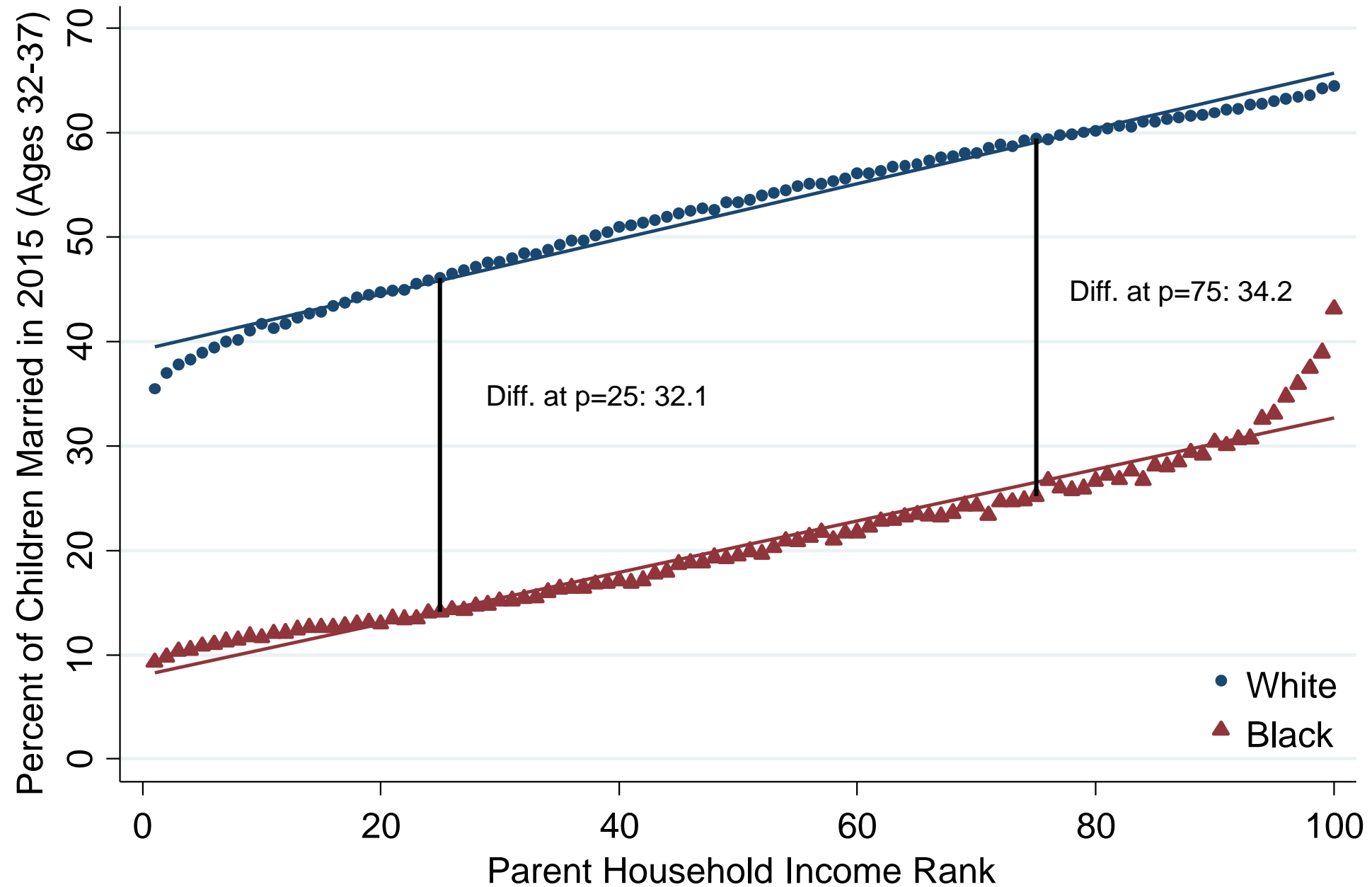
Neighborhood-Level Explanations



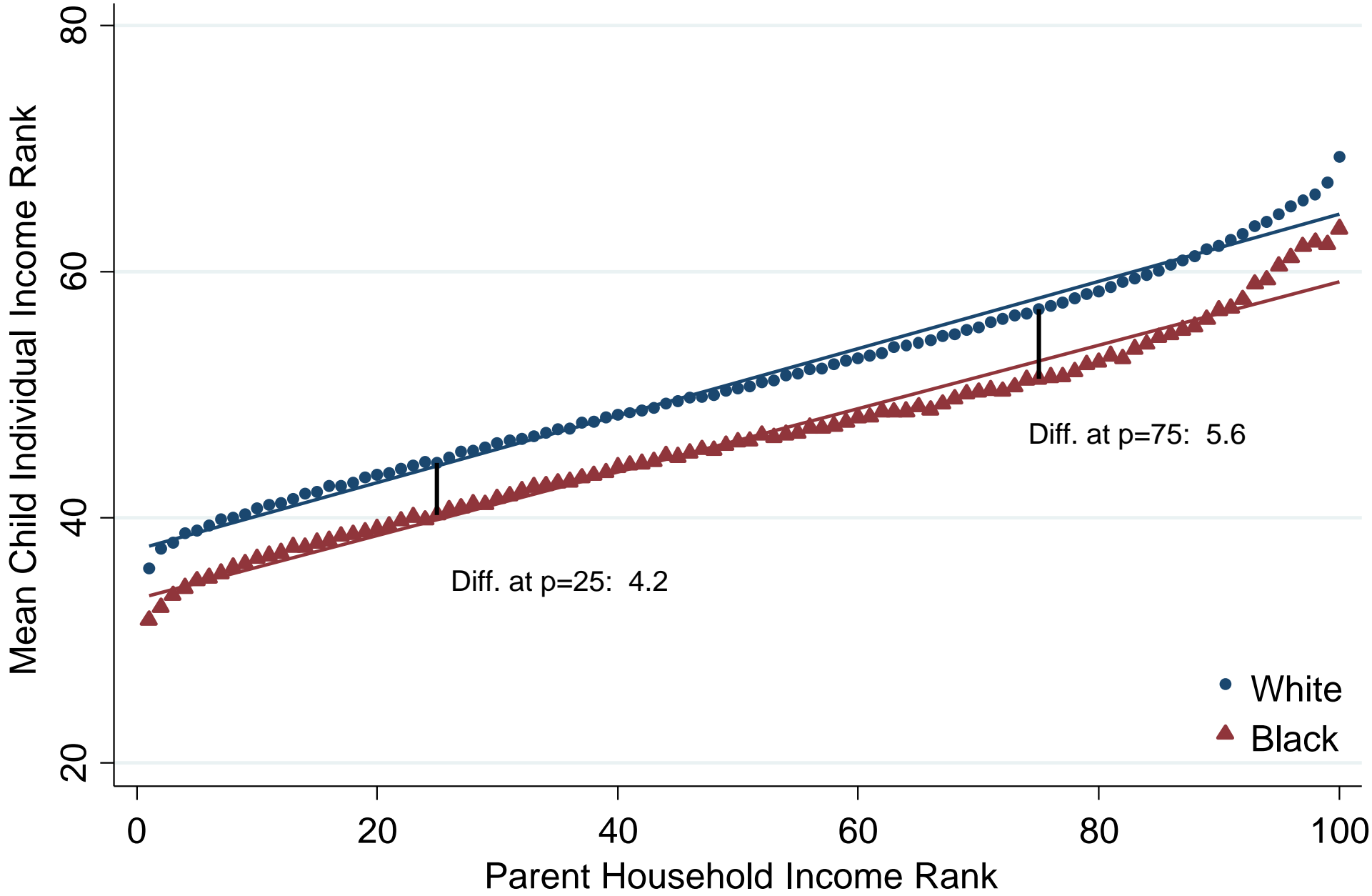
Mechanical Effects of Household Size

- Well-known that blacks marry at much lower rates than whites
- Do differences in marriage rates create mechanical differences between the household incomes of blacks and whites?
- Examine marriage rates and children's *individual* incomes by parental income

Marriage Rates vs. Parent Income, Blacks vs. Whites

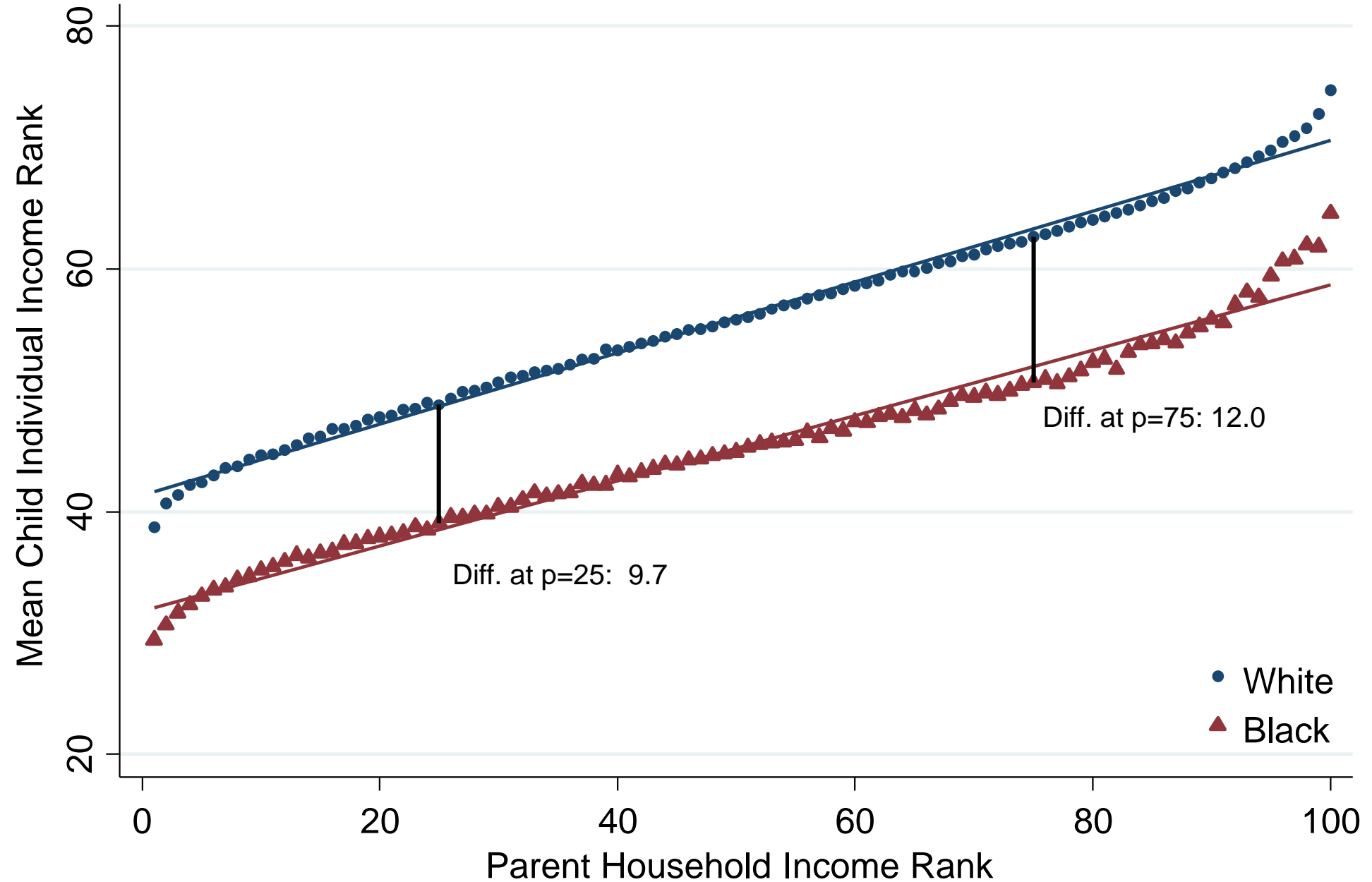


Black-White Gap in Child Individual Income Rank vs. Parent Income Rank



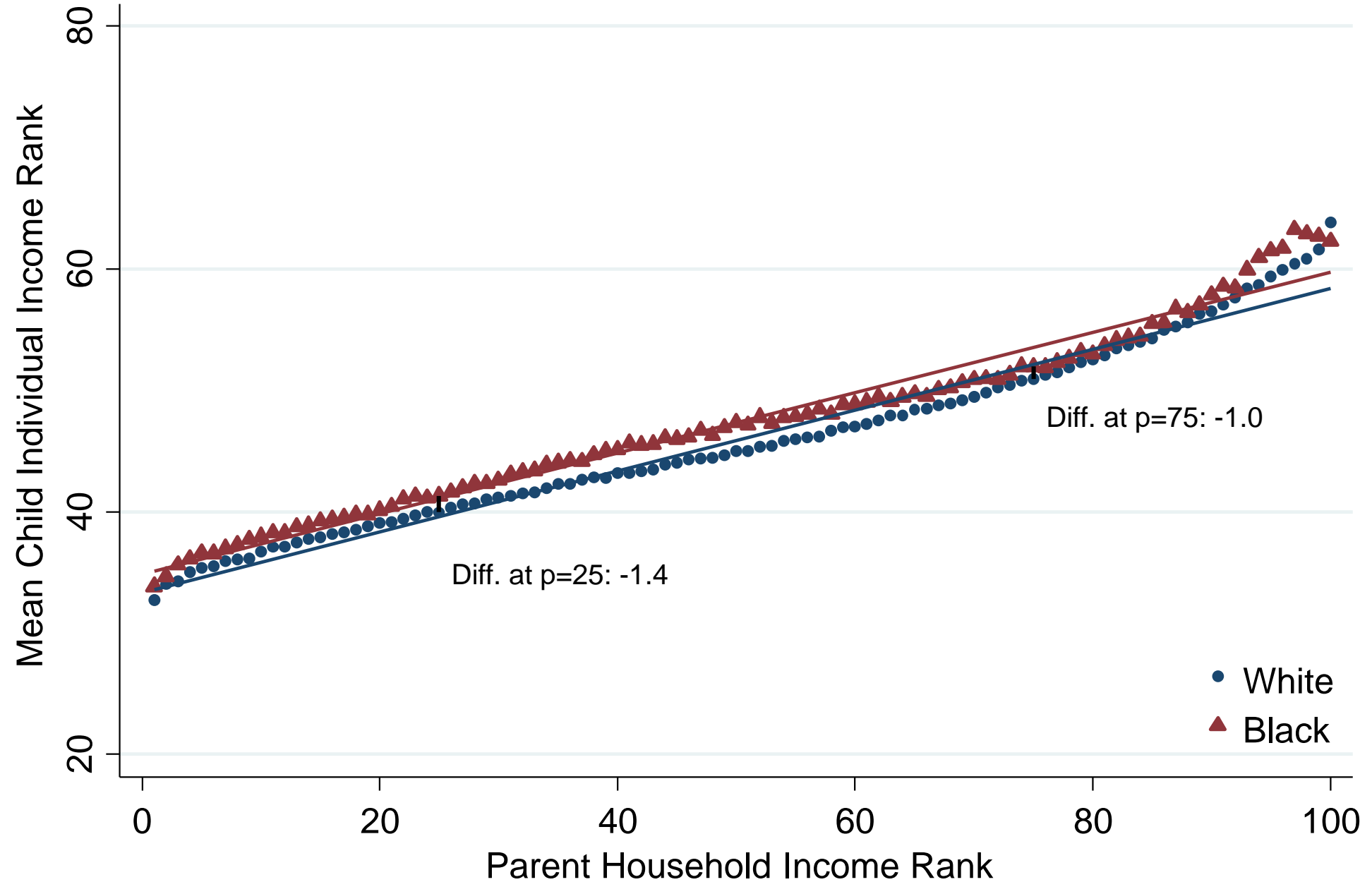
Black-White Gap in Child Individual Income Rank vs. Parent Income Rank

Male Children



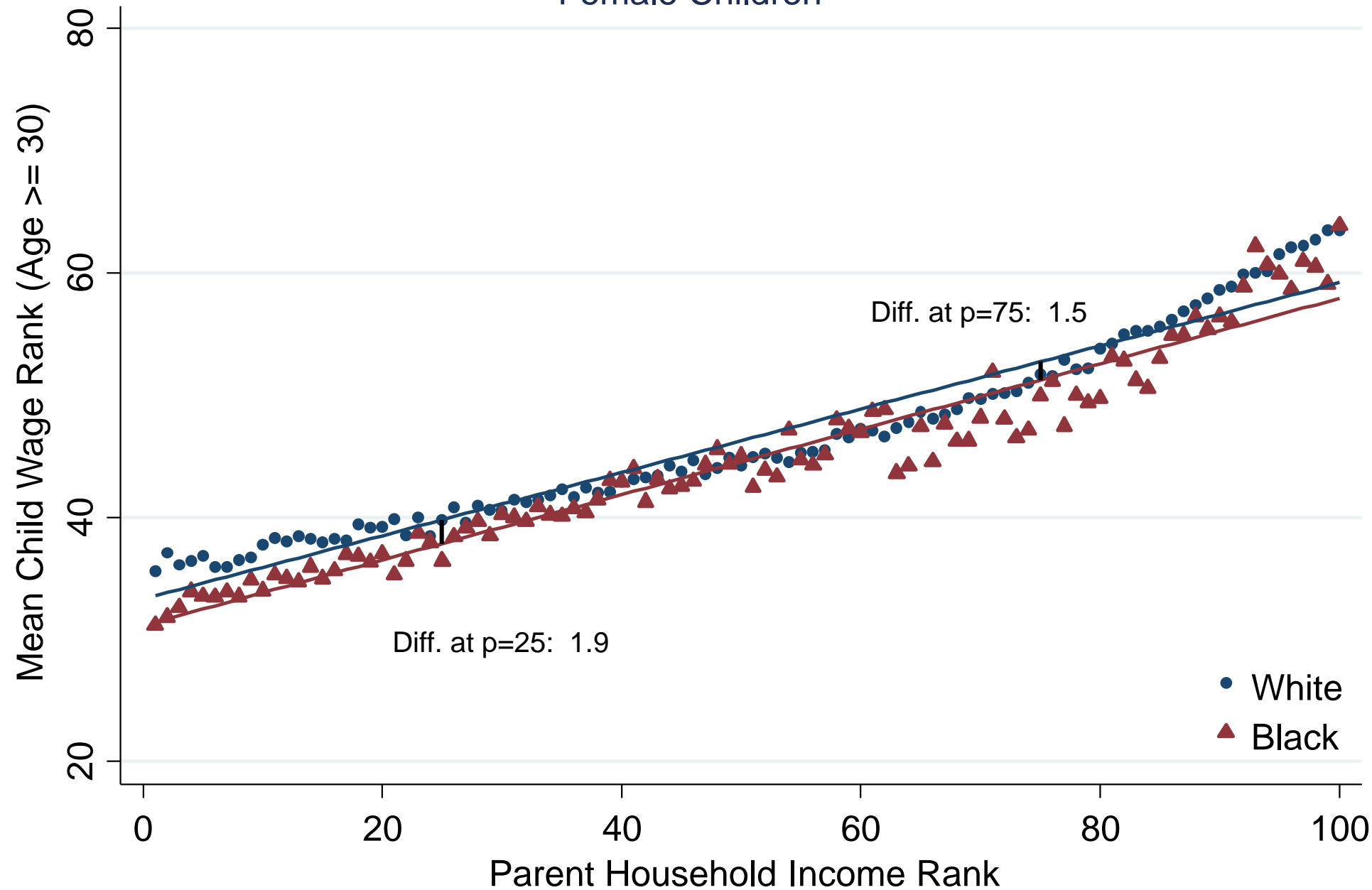
Black-White Gap in Child Individual Income Rank vs. Parent Income Rank

Female Children



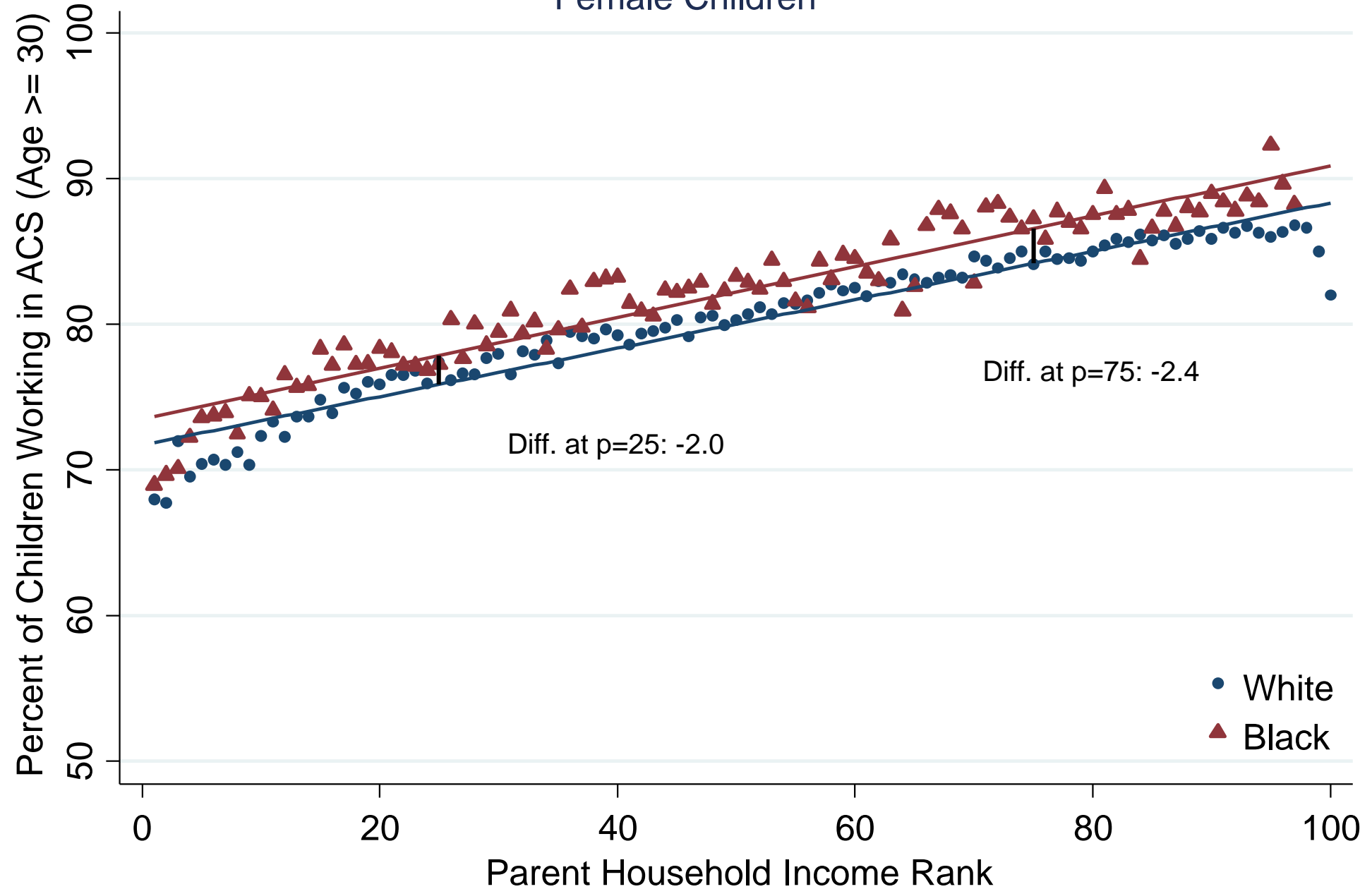
Hourly Wage Rates vs. Parent Income

Female Children



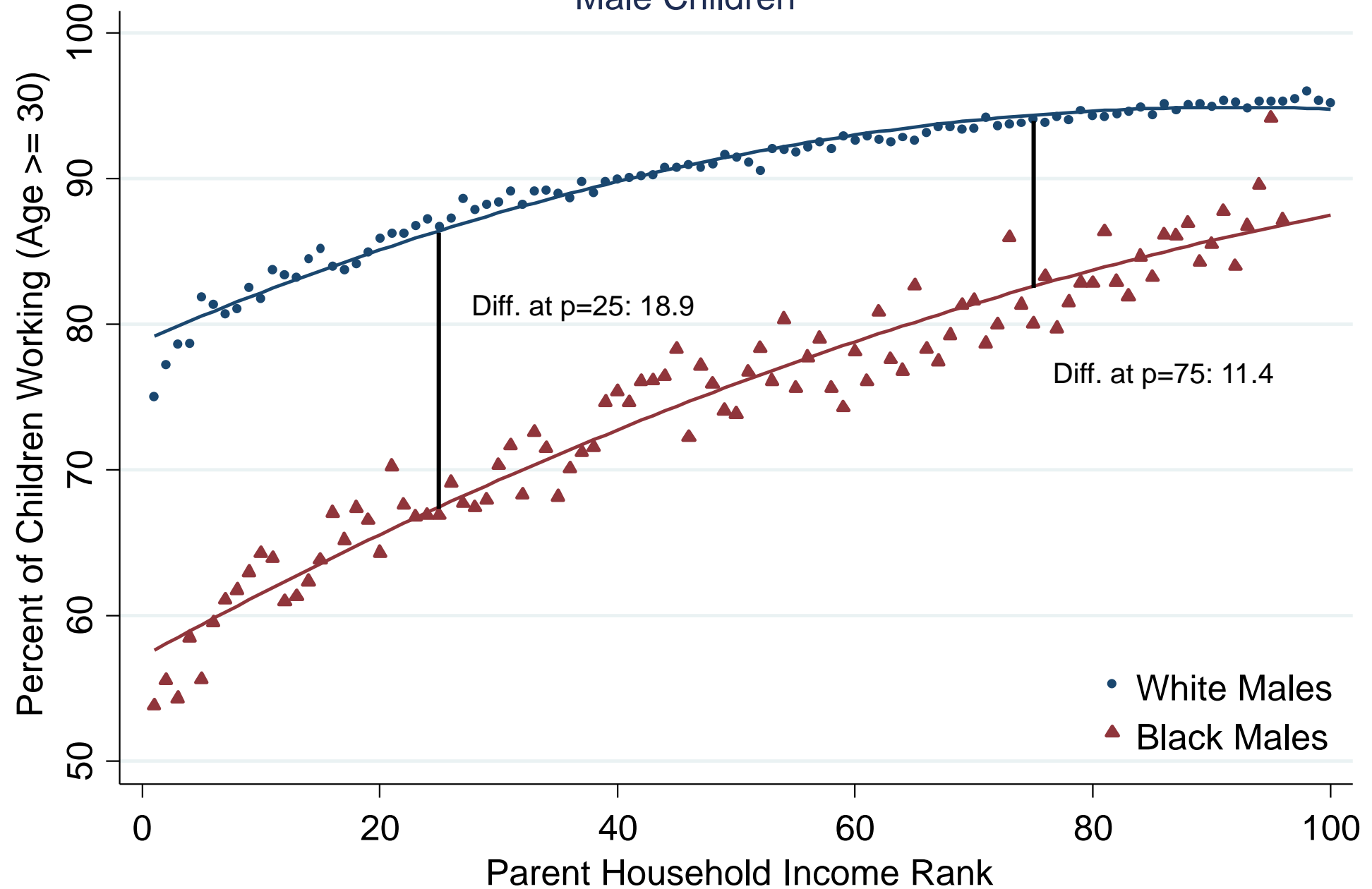
Employment Rates vs. Parent Income Rank

Female Children

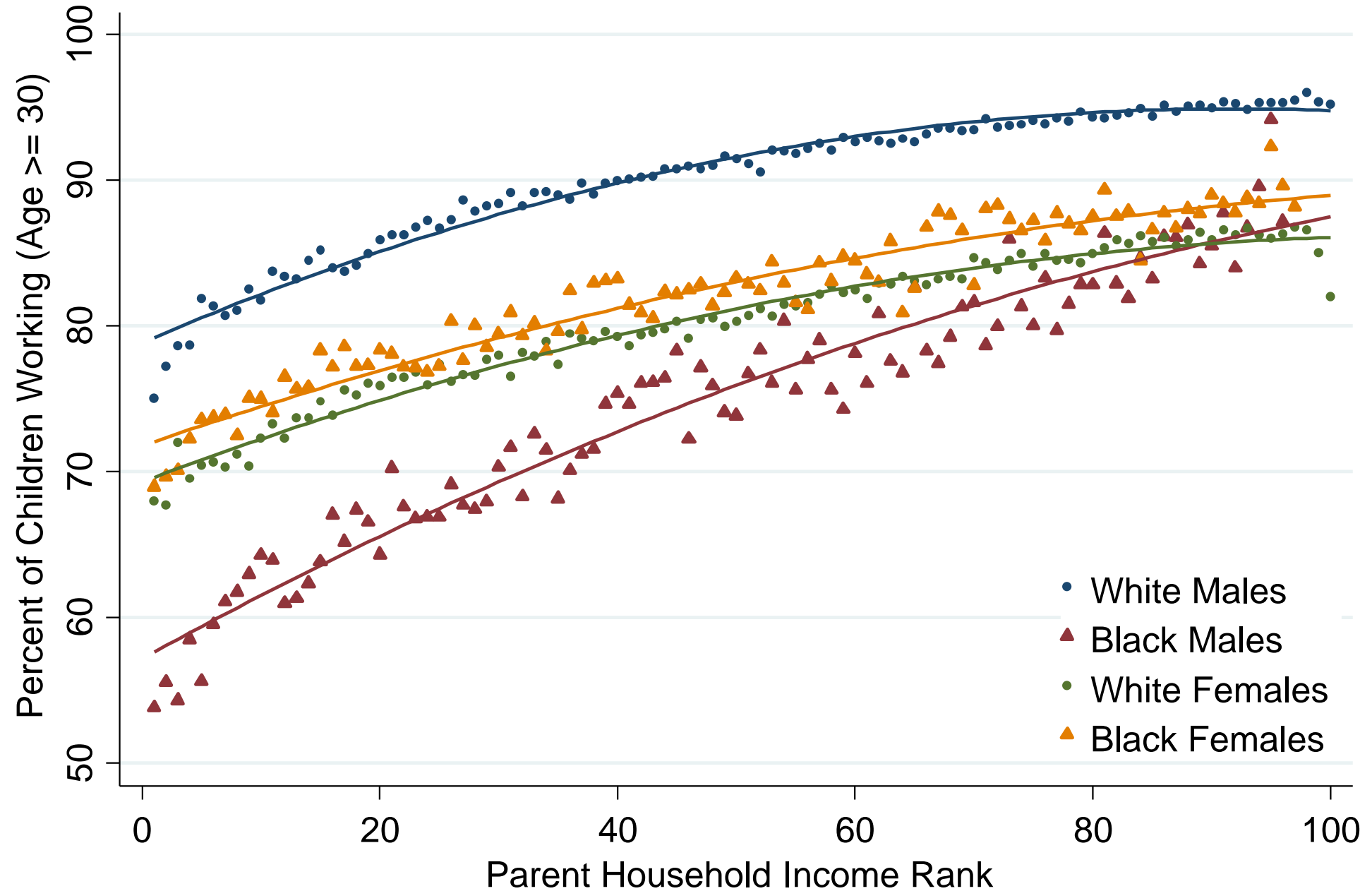


Employment Rates vs. Parent Income Rank

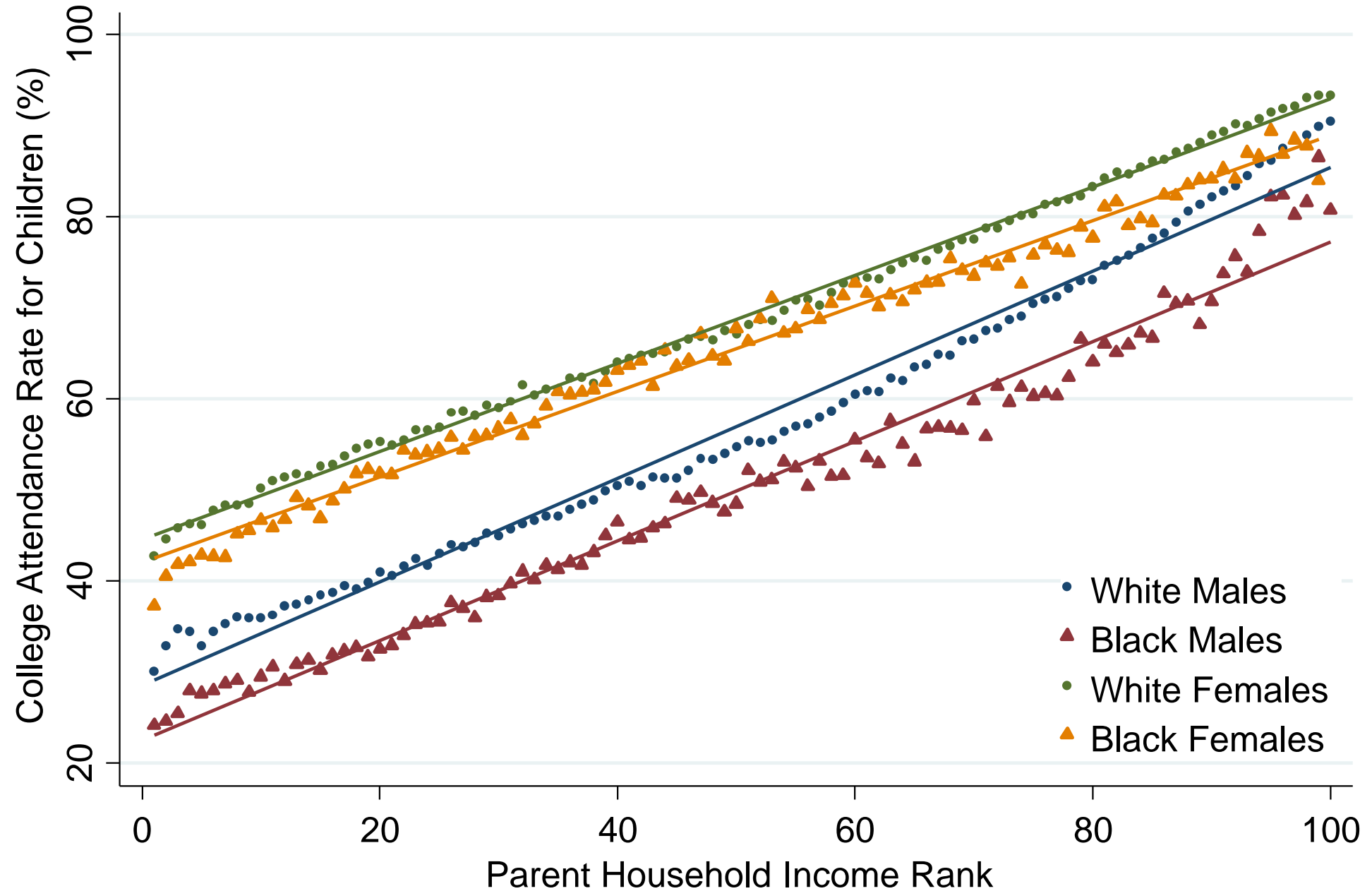
Male Children



Employment Rates vs. Parent Income Rank

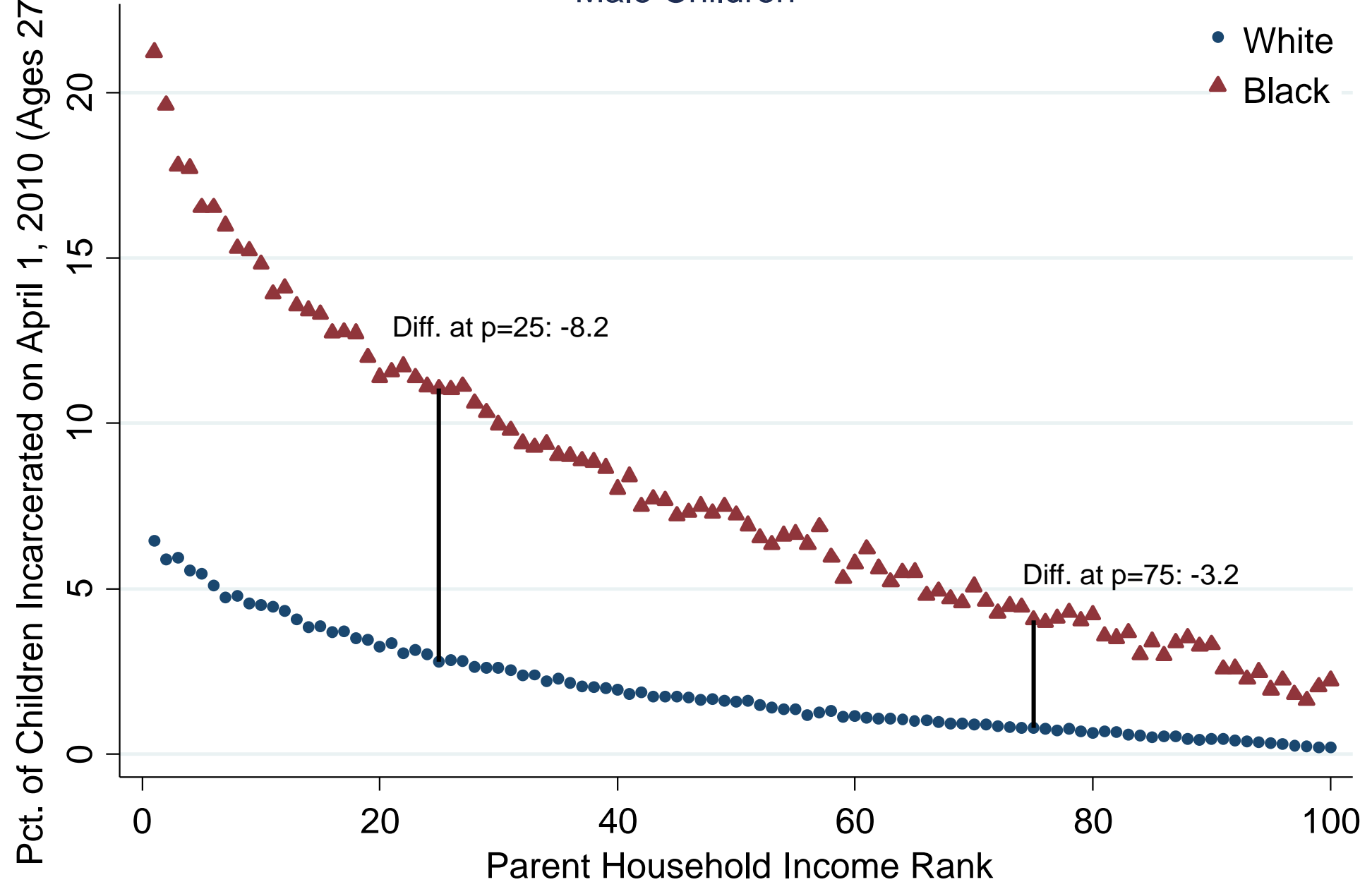


College Attendance Rates vs. Parent Income Rank



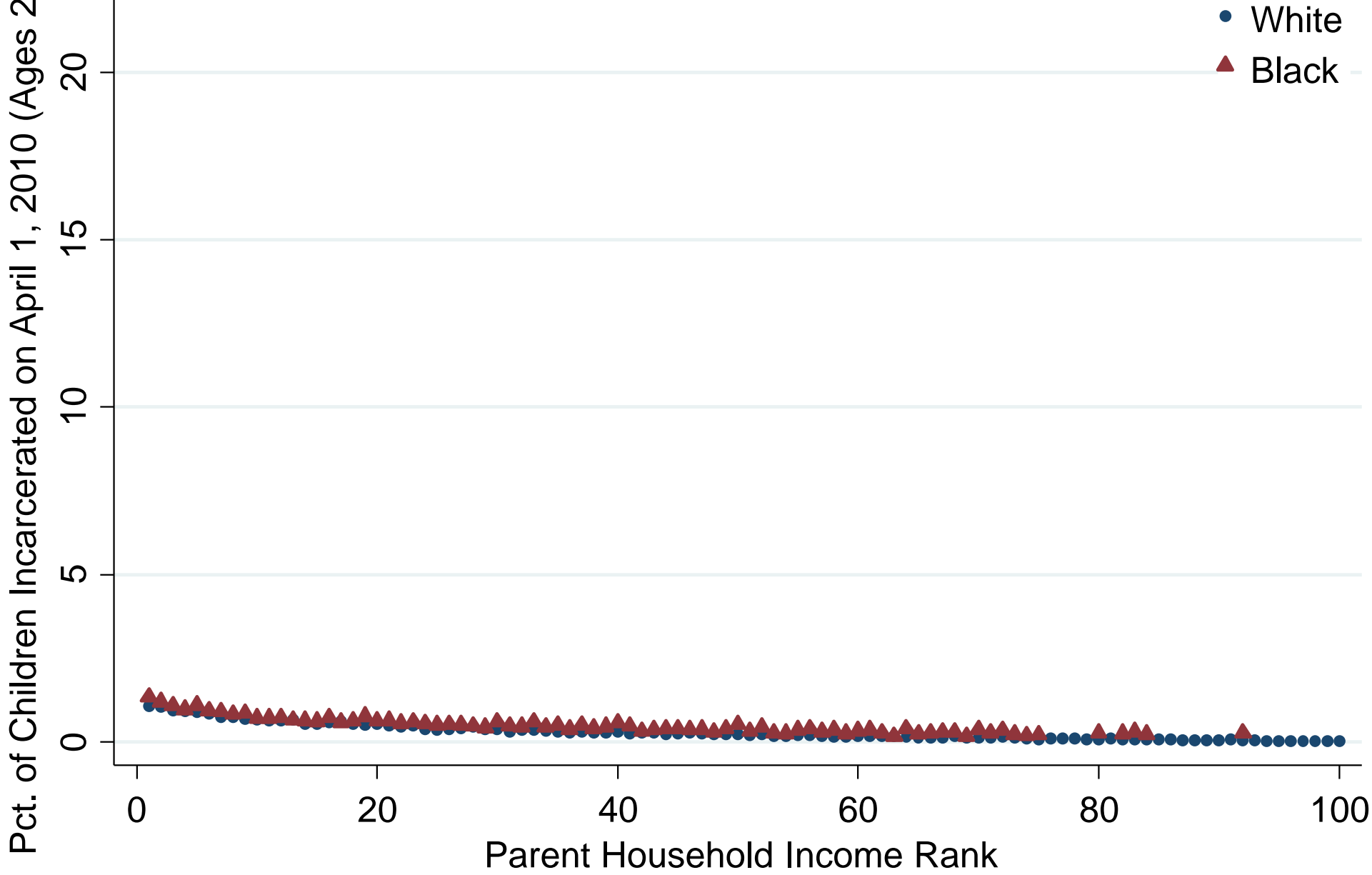
Incarceration Rates vs. Parent Income Rank

Male Children



Incarceration Rates vs. Parent Income Rank

Female Children



Incarceration and Intergenerational Gaps

- Differences in incarceration rates are substantial, but unlikely to “mechanically” explain entirety of black-white income gap for males
 - Income gaps remains substantial even among children in the highest-income families
 - Incarcerated individuals have low earnings even prior to incarceration [Looney and Turner 2018]
 - Would be useful to quantify impacts of incarceration directly using panel data on incarceration in future work
- We treat incarceration as an outcome determined by the same processes that shape labor market outcomes

Gender Differences in Racial Disparities: Summary

- Black-white gaps in earnings conditional on parental income are large for men, but small for women
- Does not imply that black women have the same level of welfare as white women
 - Black women have lower *household* income, conditional on parent income
- Also does not mean that incomes of black women will converge to those of white women across generations
 - Black women grow up in lower-income households in each generation
- But does suggest that addressing the unique challenges faced by black men may ultimately raise the incomes of both black men and women

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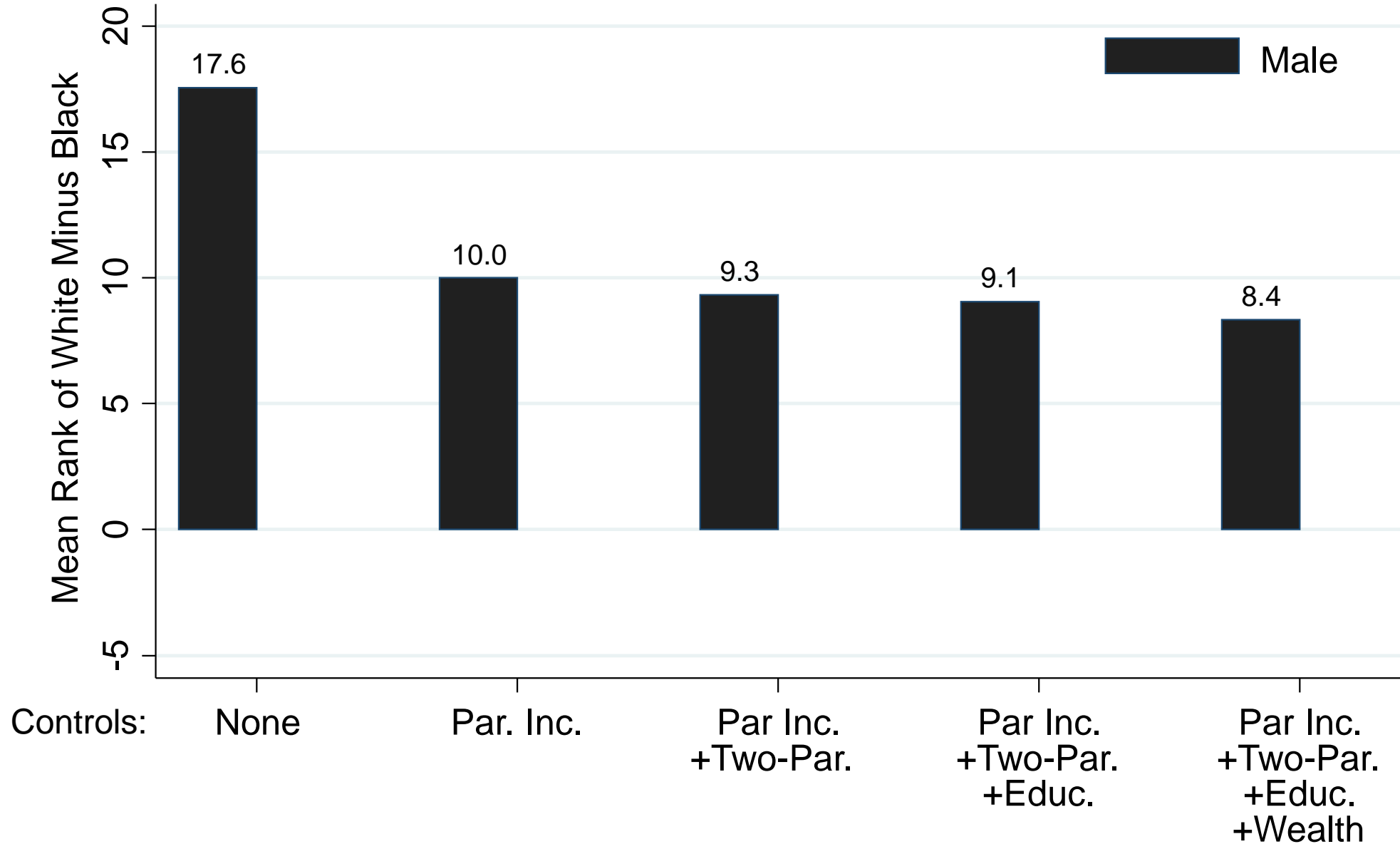
Explaining the Black-White Intergenerational Income Gap

Parental Education, Wealth, and Family Structure

- Do family-level factors (e.g., parental wealth) explain intergenerational gaps between black and white men?
- Condition on family-level characteristics to answer this question

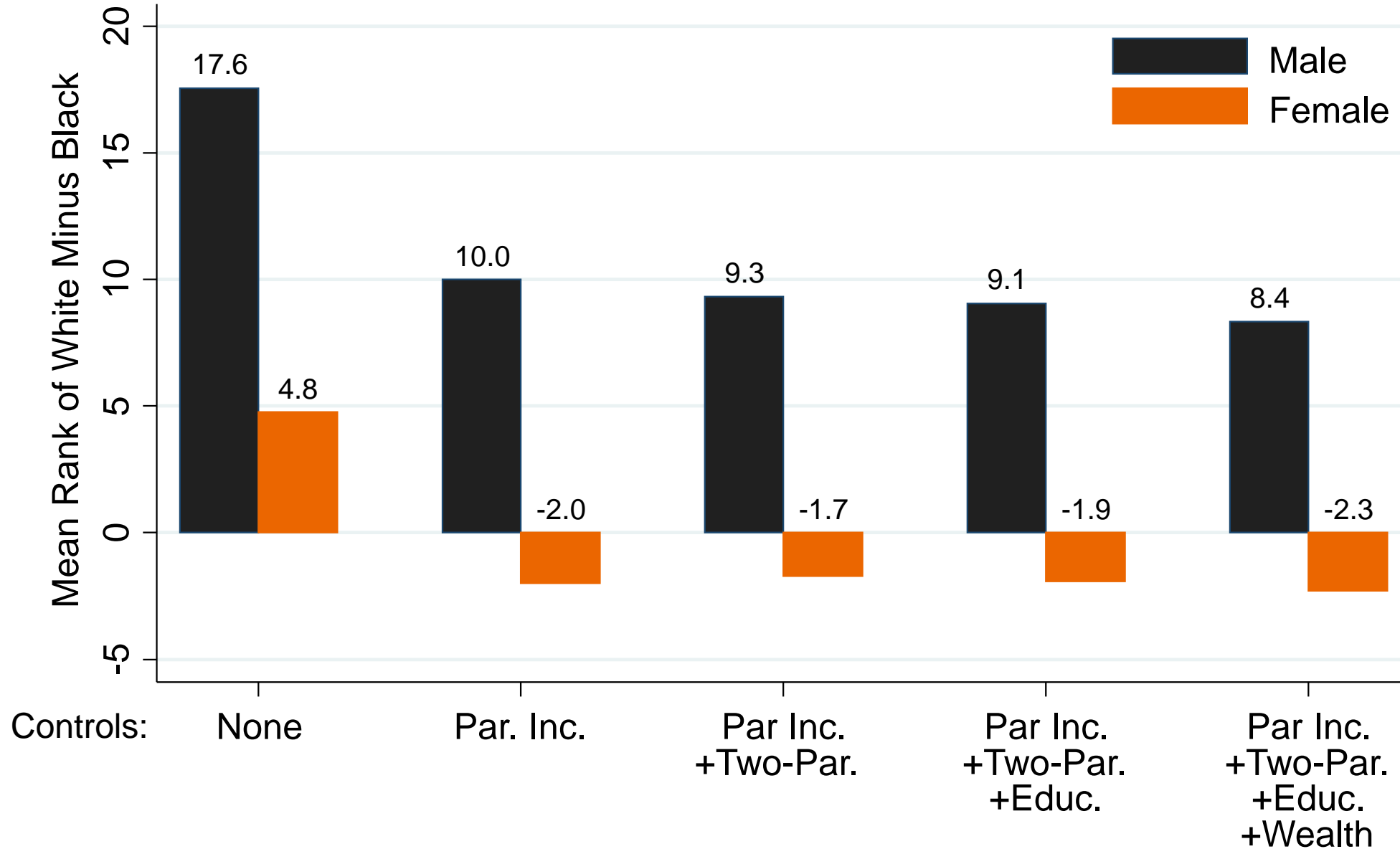
Effects of Family-Level Factors on the Black-White Income Gap

Children with Parents at 25th Percentile



Effects of Family-Level Factors on the Black-White Income Gap

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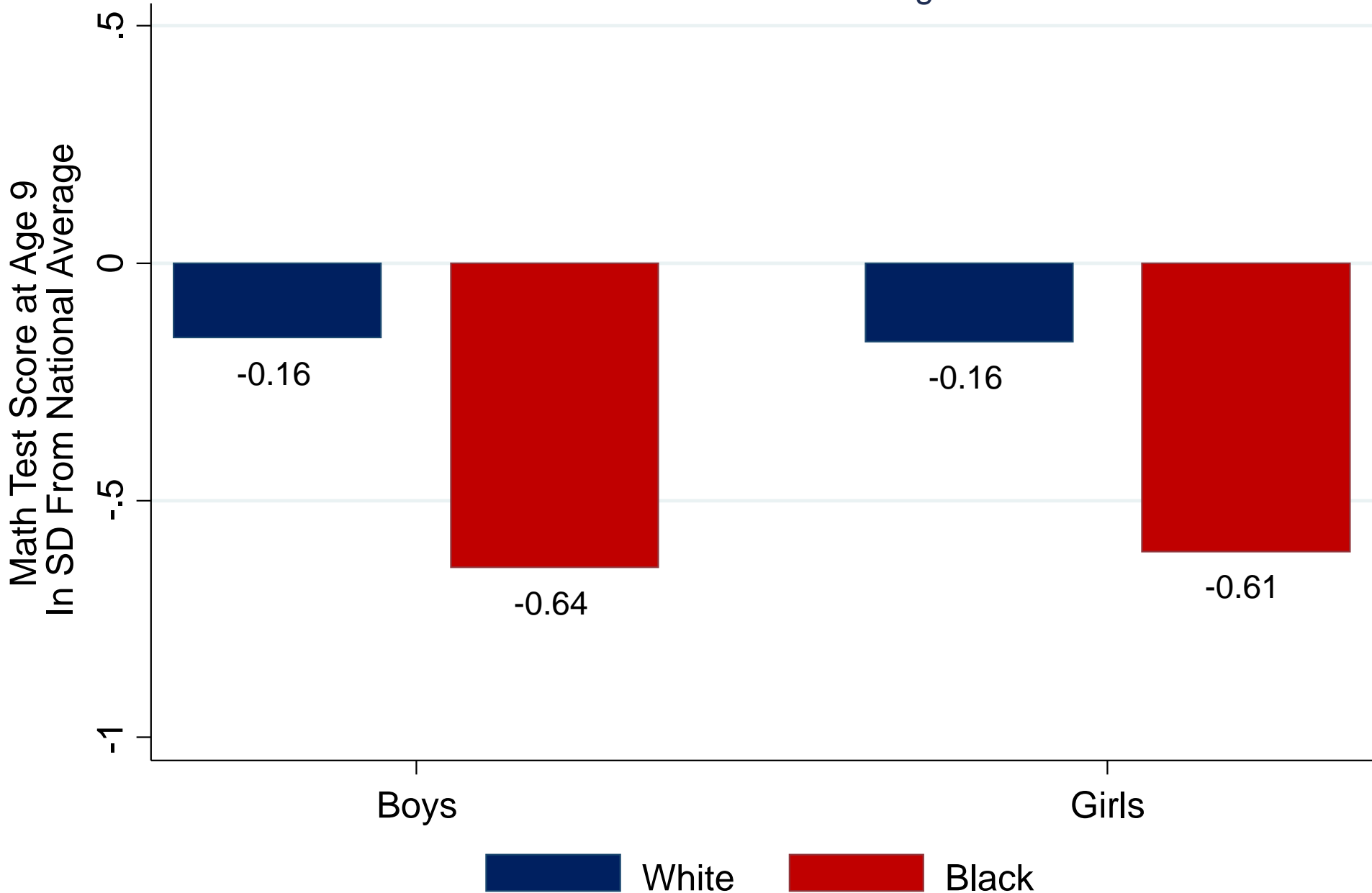
Explaining the Black-White Intergenerational Income Gap

Differences in Ability

- Ability hypothesis is inconsistent with gender heterogeneity in intergenerational gaps
 1. No ex-ante reason that racial differences in ability would produce differences in outcomes for boys but not girls
 2. Prior arguments for ability diffs. based on test score gaps, but black-white test score gaps do not vary by gender

Test Scores at Age 9 for Low-Income (Free-Lunch Eligible) Students

National Assessment of Educational Progress 2012



Explaining the Black-White Intergenerational Income Gap

Differences in Ability

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 1. No ex-ante reason that racial differences in ability would produce differences in outcomes for boys but not girls
 2. Prior arguments for ability diffs. based on test score gaps, but black-white test score gaps do not vary by gender
 - Test scores may not be an accurate measure of ability for black children, e.g. because of test bias or stereotype threat [Steele et al. 1995, Jencks et al. 1998]

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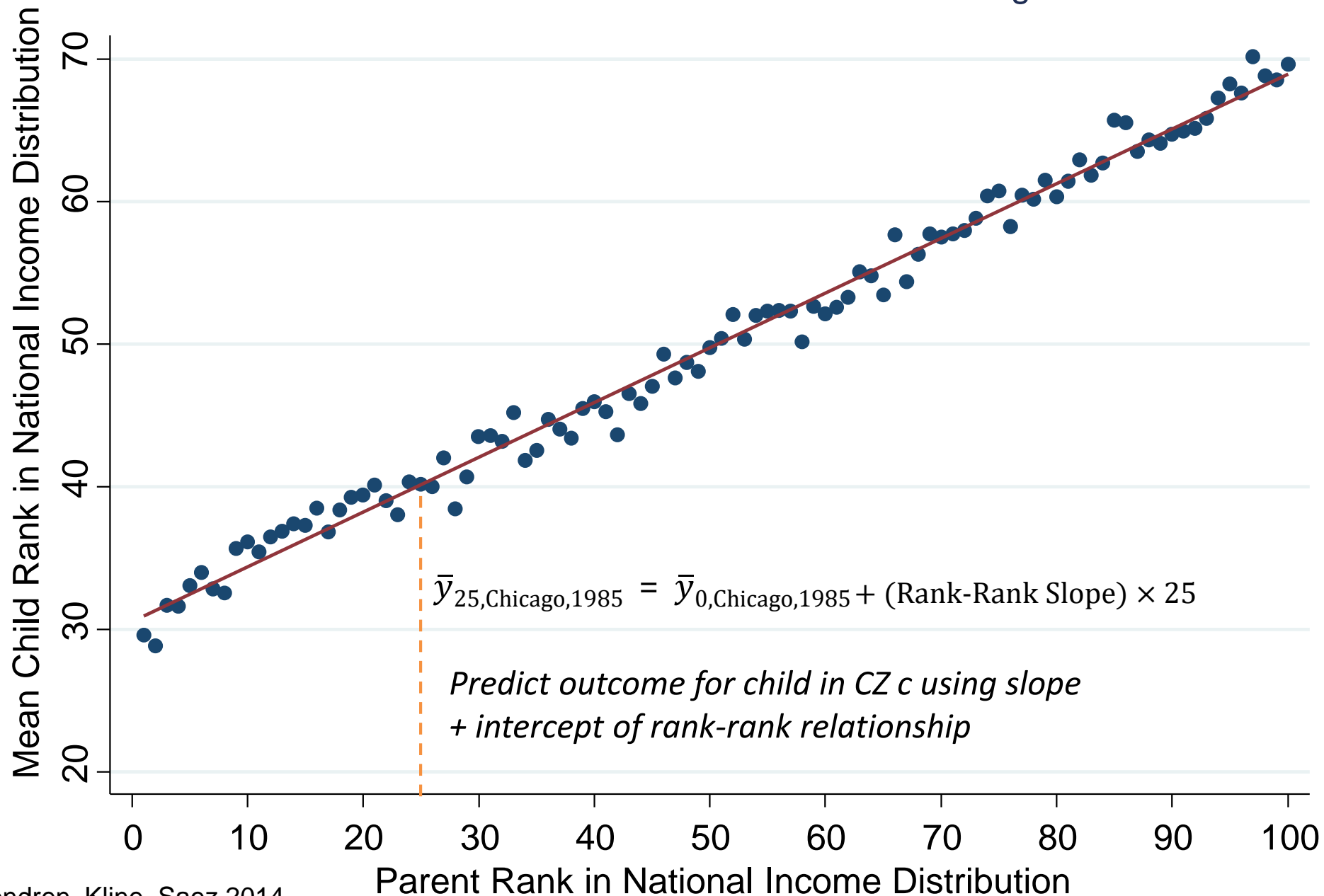
Neighborhood-Level Explanations



Neighborhood Environments and the Black-White Gap

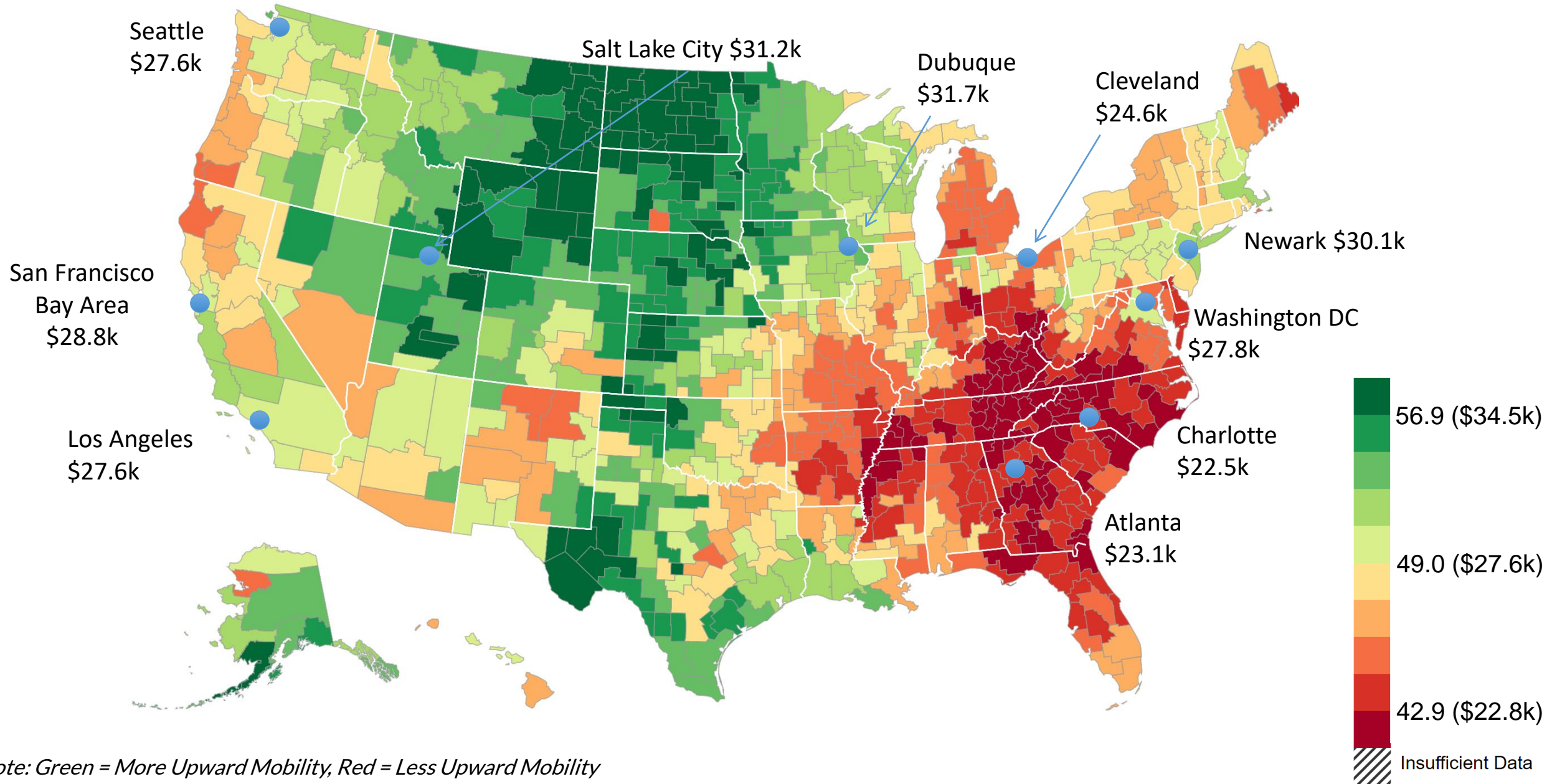
- Do blacks have worse outcomes than whites because they live in different neighborhoods?
- Begin by examining broad geographic variation across commuting zones [Chetty, Hendren, Kline, and Saez 2014]
 - Assign children to locations in proportion to the fraction of their childhood that they spent in each CZ
- Estimate expected rank of children with parents at the 25th percentile of national income distribution using linear regression within each CZ

Mean Child Income Rank at Age 30 vs. Parent Income Rank for Children Born in 1980 and Raised in Chicago



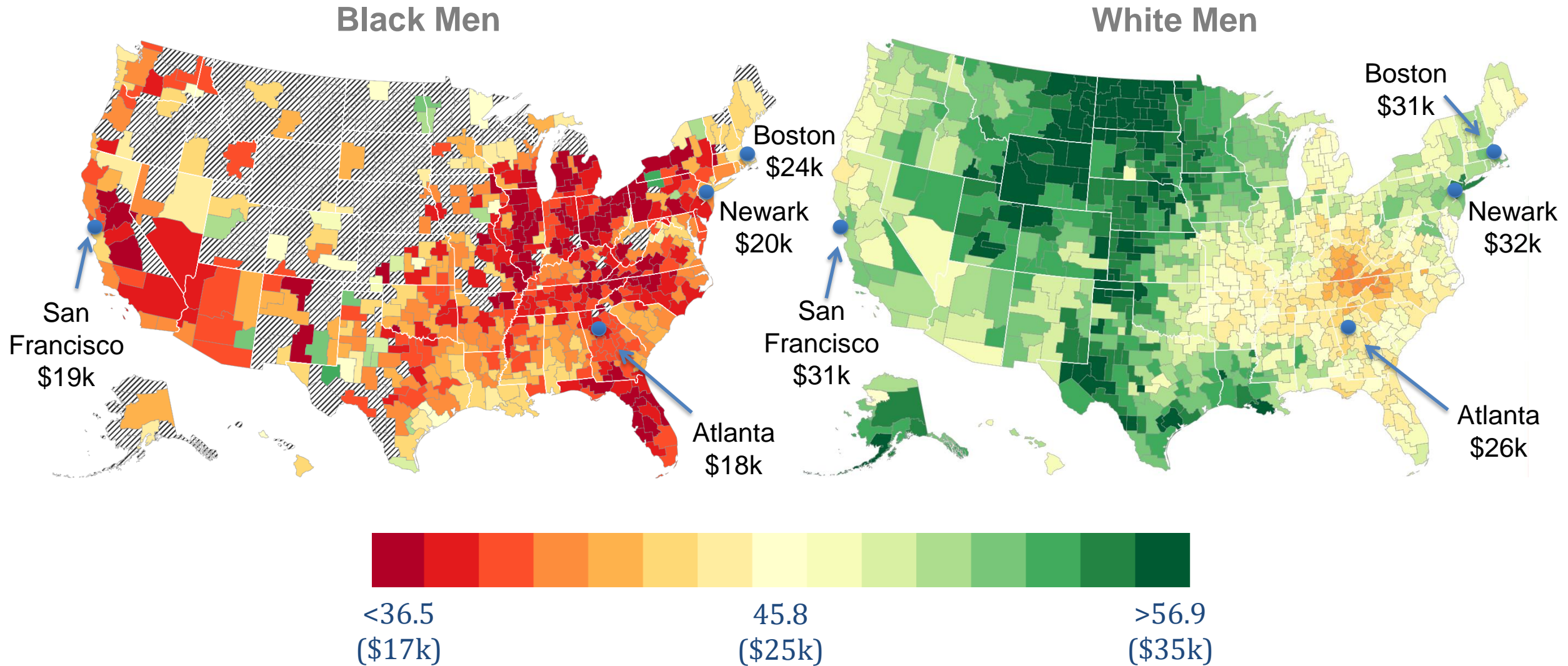
The Geography of Upward Mobility in the United States

Average Individual Income for Males with Parents Earning \$25,000 (25th percentile)



Two Americas: The Geography of Upward Mobility by Race

Average Individual Income for Boys with Parents Earning \$25,000 (25th percentile)



Note: Green = More Upward Mobility, Red = Less Upward Mobility; Grey = Insufficient Data

Neighborhood Environments and the Black-White Gap

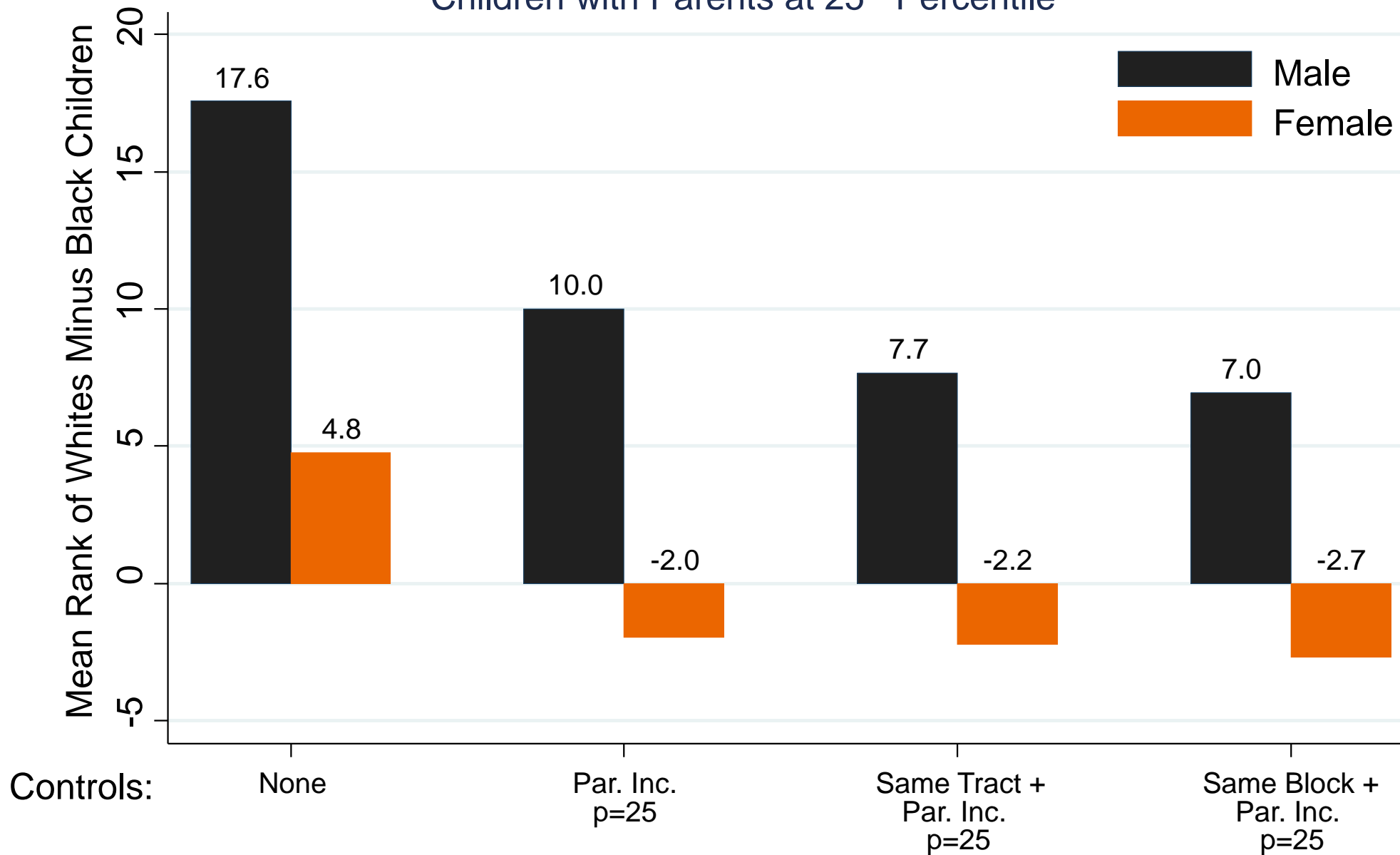
- Commuting-zone level variation illuminates broad regional patterns but does not directly test for “neighborhood” effects
- Blacks live in different neighborhoods from whites within CZs
- Zoom in to examine variation across Census tracts in the rest of the lecture
 - 70,000 Census tracts with about 4,250 people per tract in the U.S.

Variation in the Black-White Gap Across Tracts

- Four key results:
 1. Black boys have lower earnings than white boys in 99% of Census tracts in America, controlling for parental income

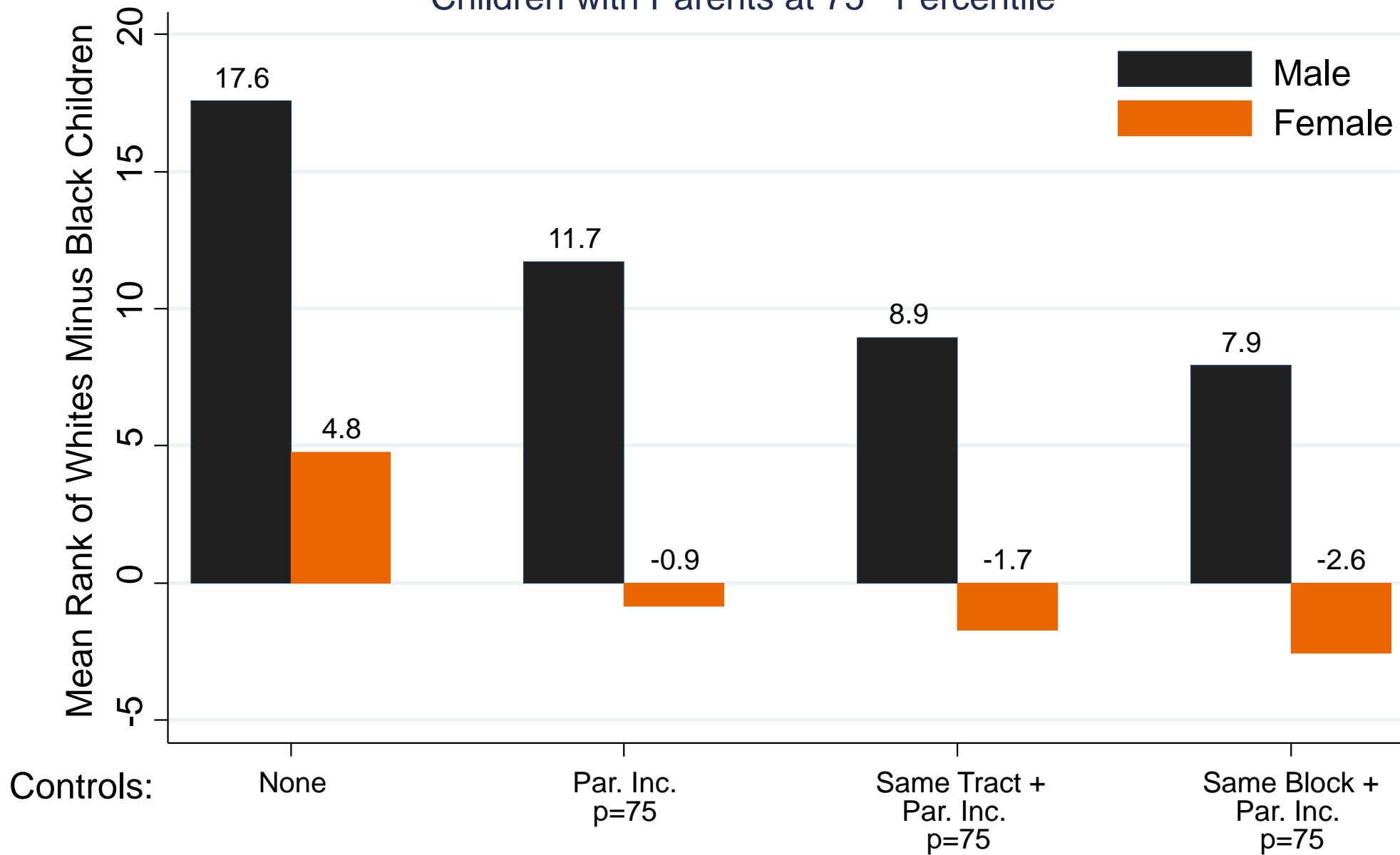
Black-White Gaps within Neighborhoods by Gender

Children with Parents at 25th Percentile

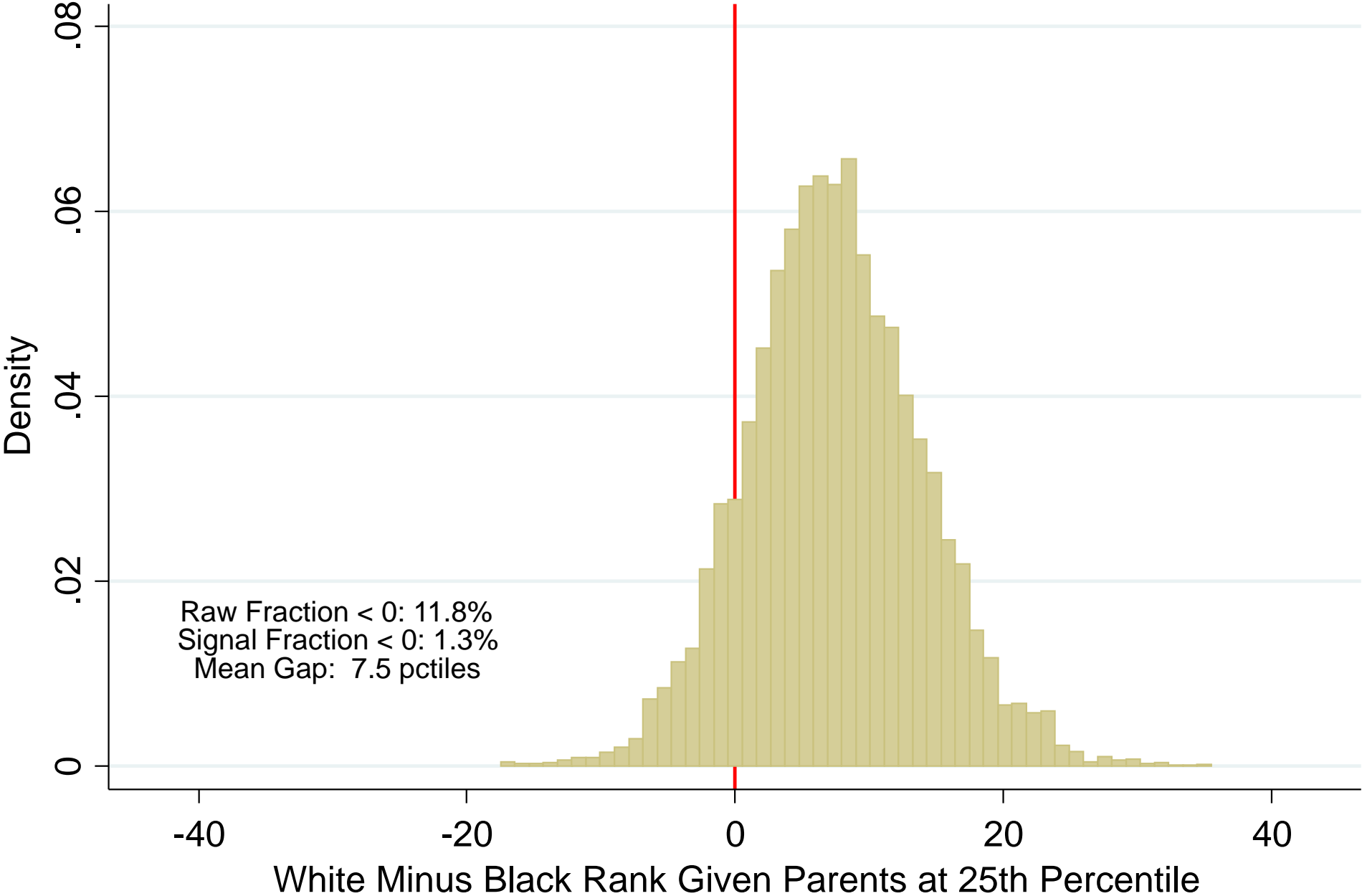


Black-White Gaps within Neighborhoods by Gender

Children with Parents at 75th Percentile



Distribution of Black – White Gap in Individual Ranks Across Tracts for Men

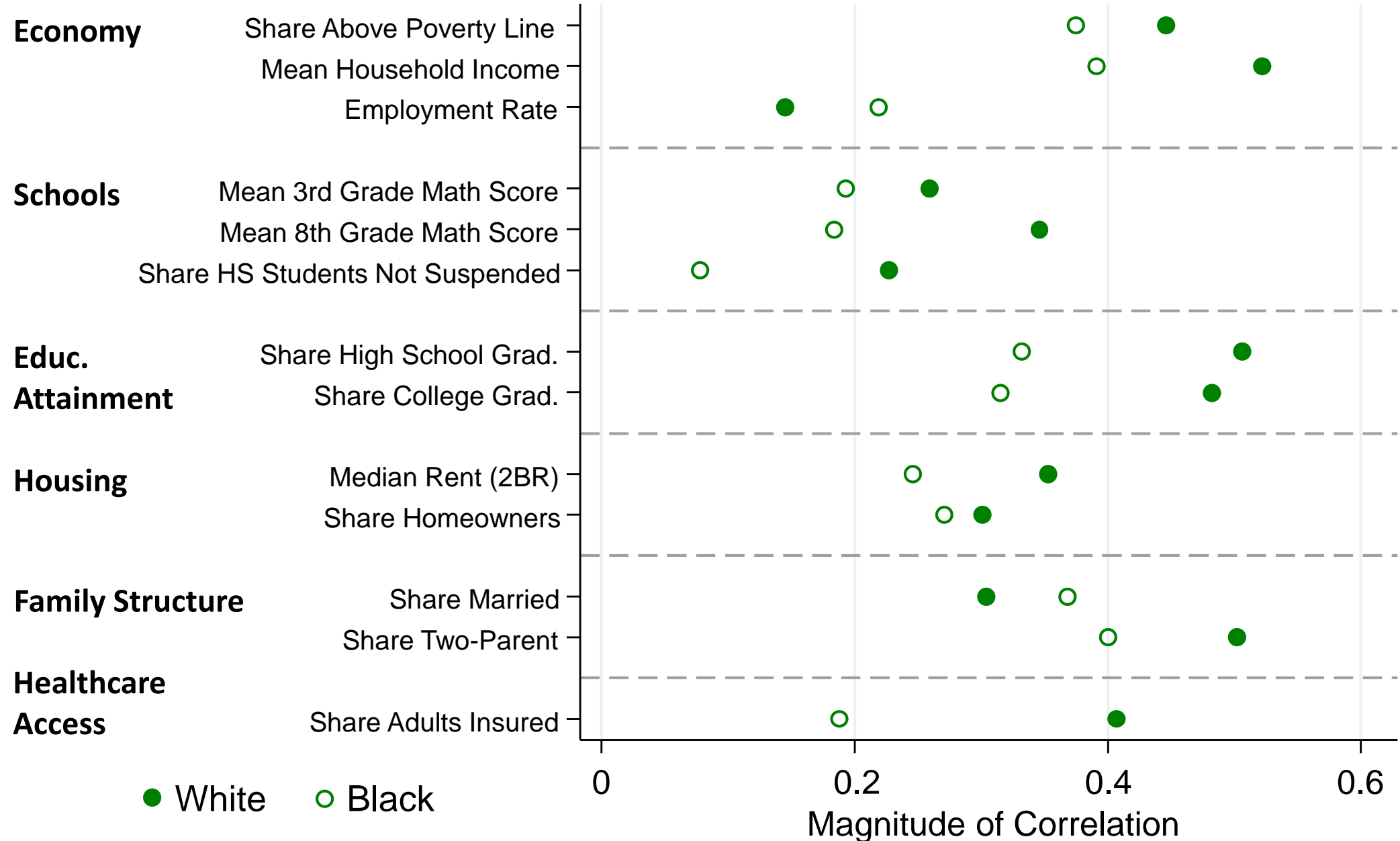


Variation in the Black-White Earnings Gap Across Tracts

- Four key results:
 1. Black boys have lower earnings than white boys in 99% of Census tracts in America, controlling for parental income
 2. Both black and white boys have better outcomes in “good” (e.g., low-poverty, higher rent) neighborhoods, but the black-white gap is *bigger* in such areas

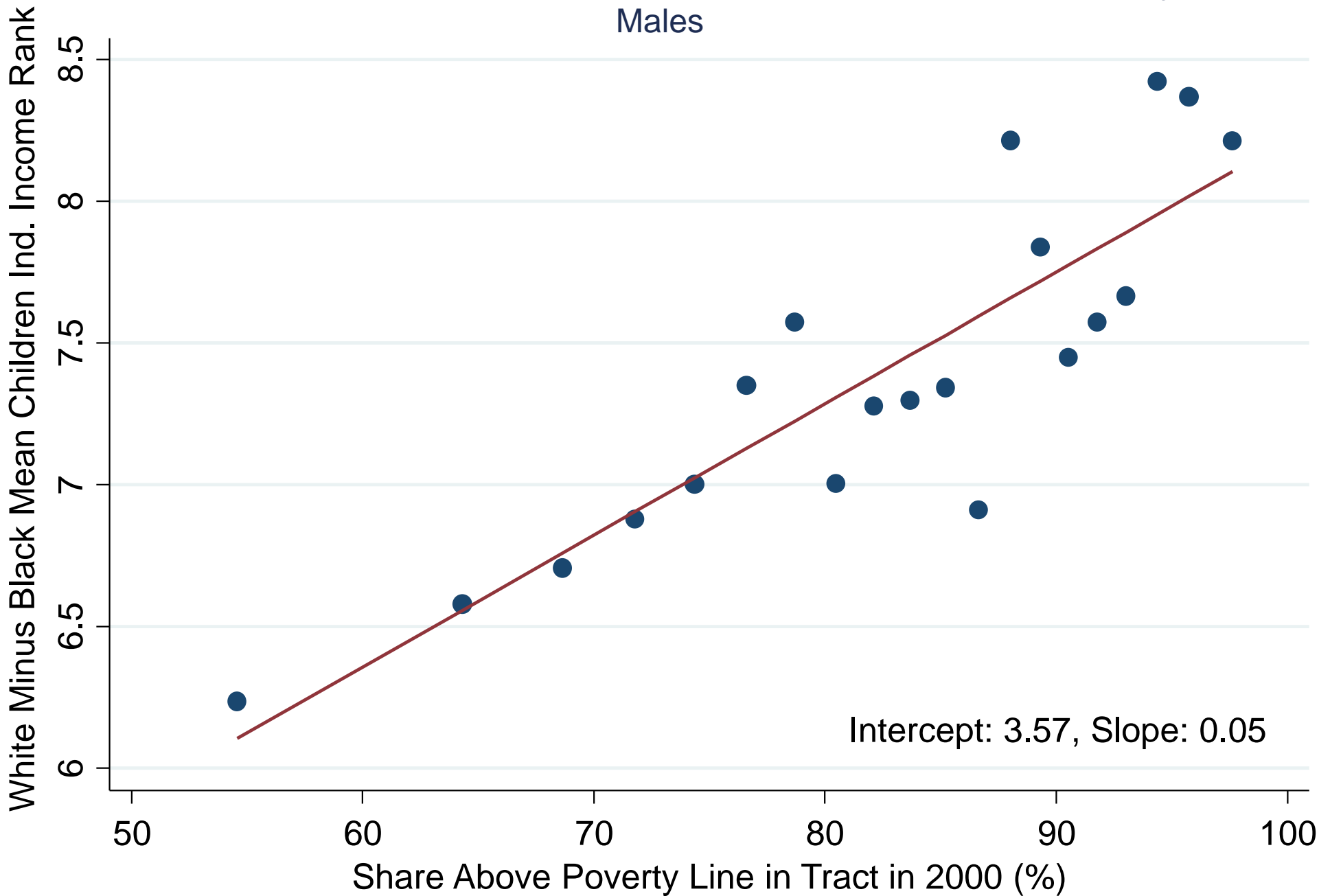
Correlations between Tract-Level Characteristics and Incomes of Black vs. White Men

Children with Parents at 25th Percentile



Black – White Gap in Individual Income Ranks vs. Share Above Poverty Line

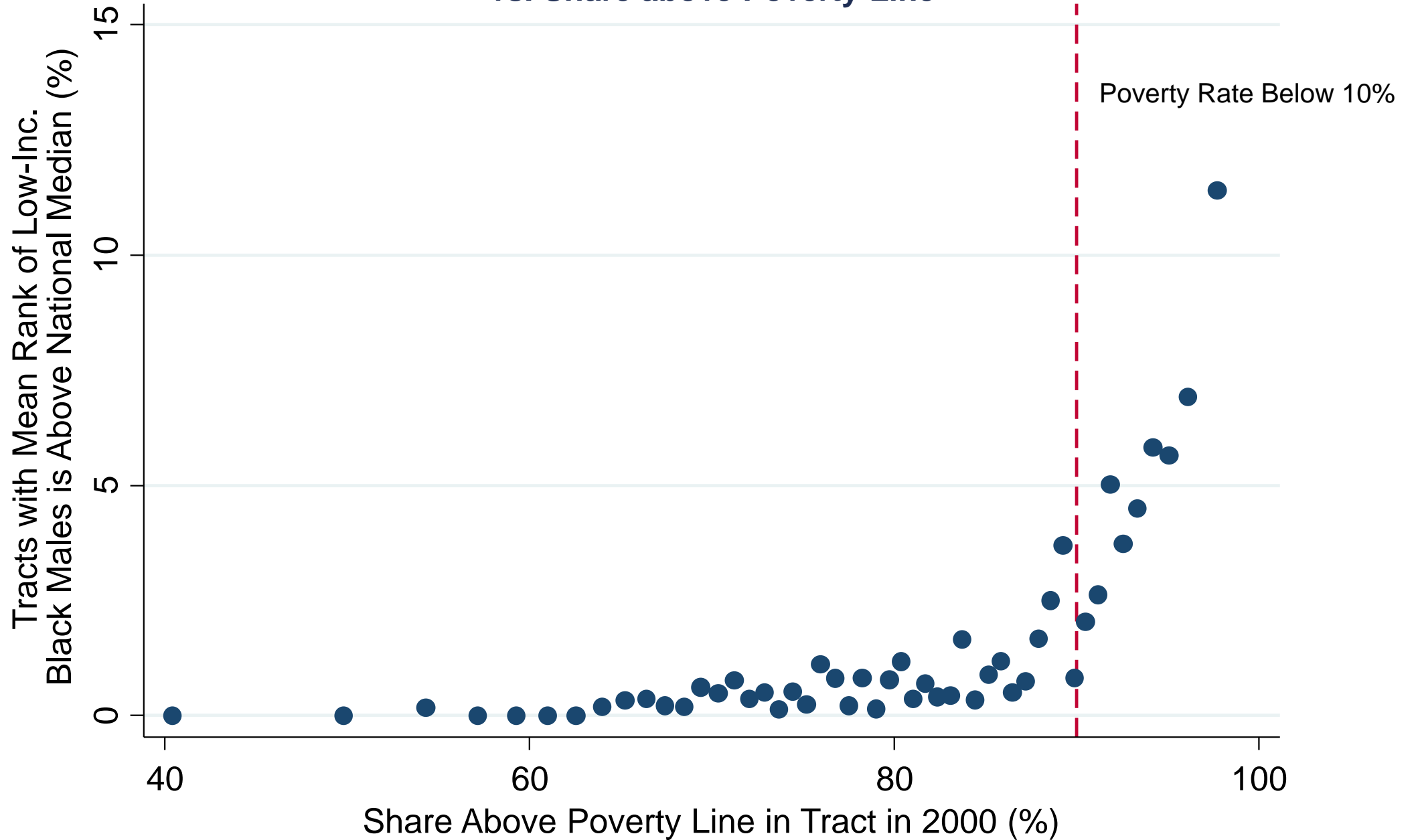
Males



Variation in the Black-White Earnings Gap Across Tracts

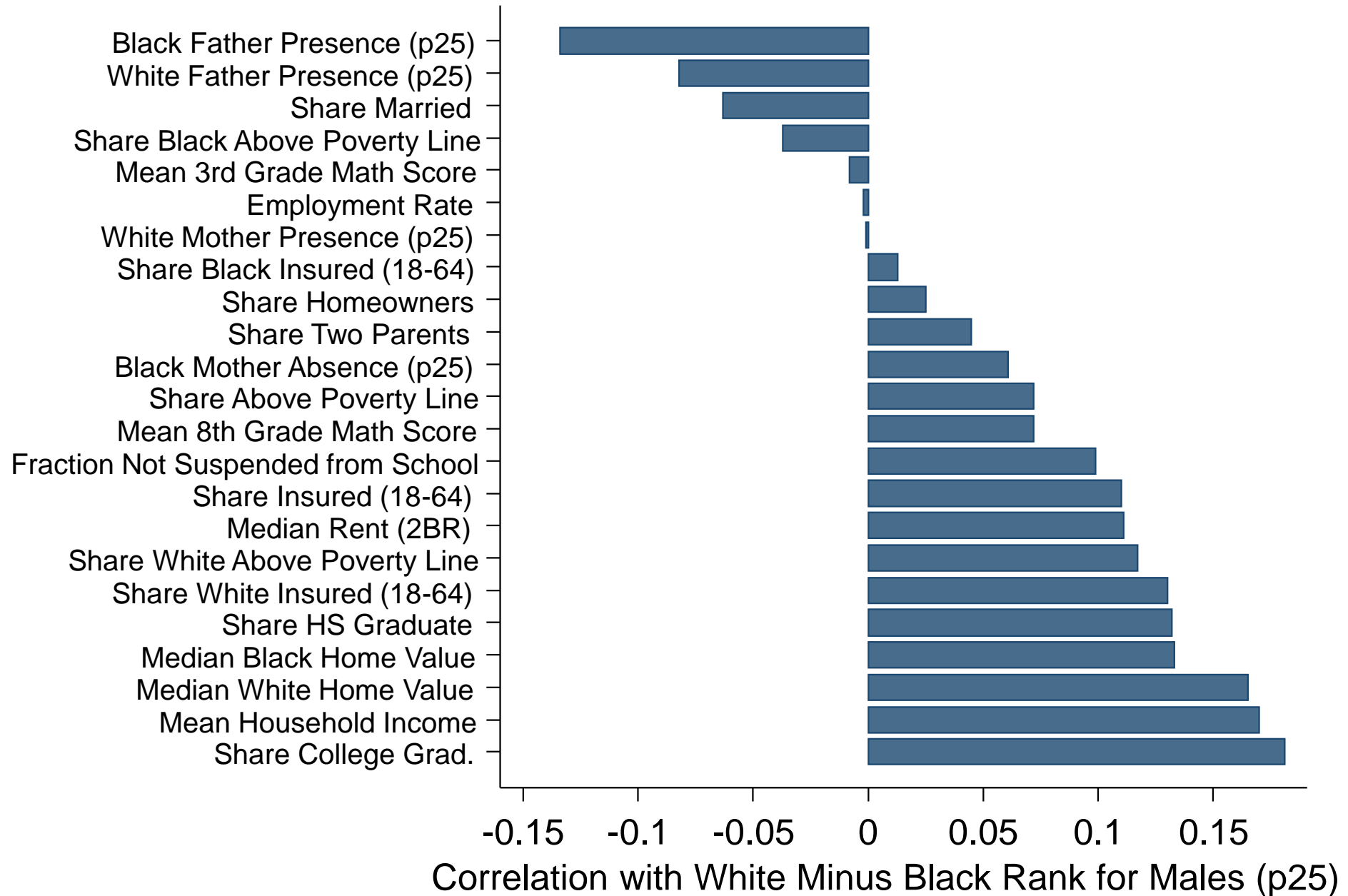
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 2. Both black and white boys have better outcomes in “good” (e.g., low-poverty, higher rent) neighborhoods, but the black-white gap is *bigger* in such areas
 3. Within low-poverty areas, there are two factors associated with better outcomes for black boys *and* smaller gaps: greater father presence and less racial bias

Percentage of Tracts in which Predicted Rank of Black Males is above National Median vs. Share above Poverty Line



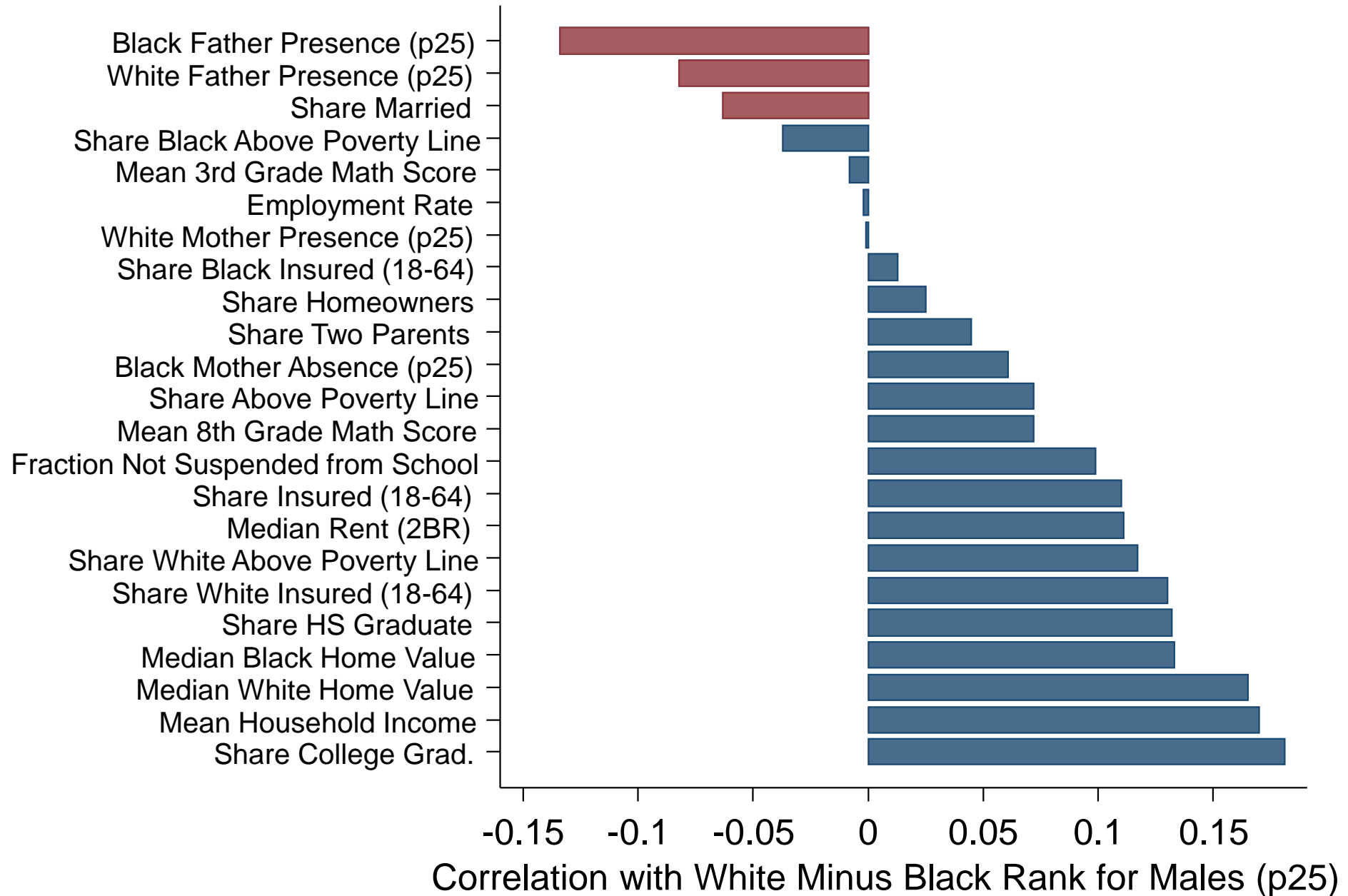
Association Between Tract-Level Characteristics and Black-White Gap

Tracts with Poverty Rates Below 10%



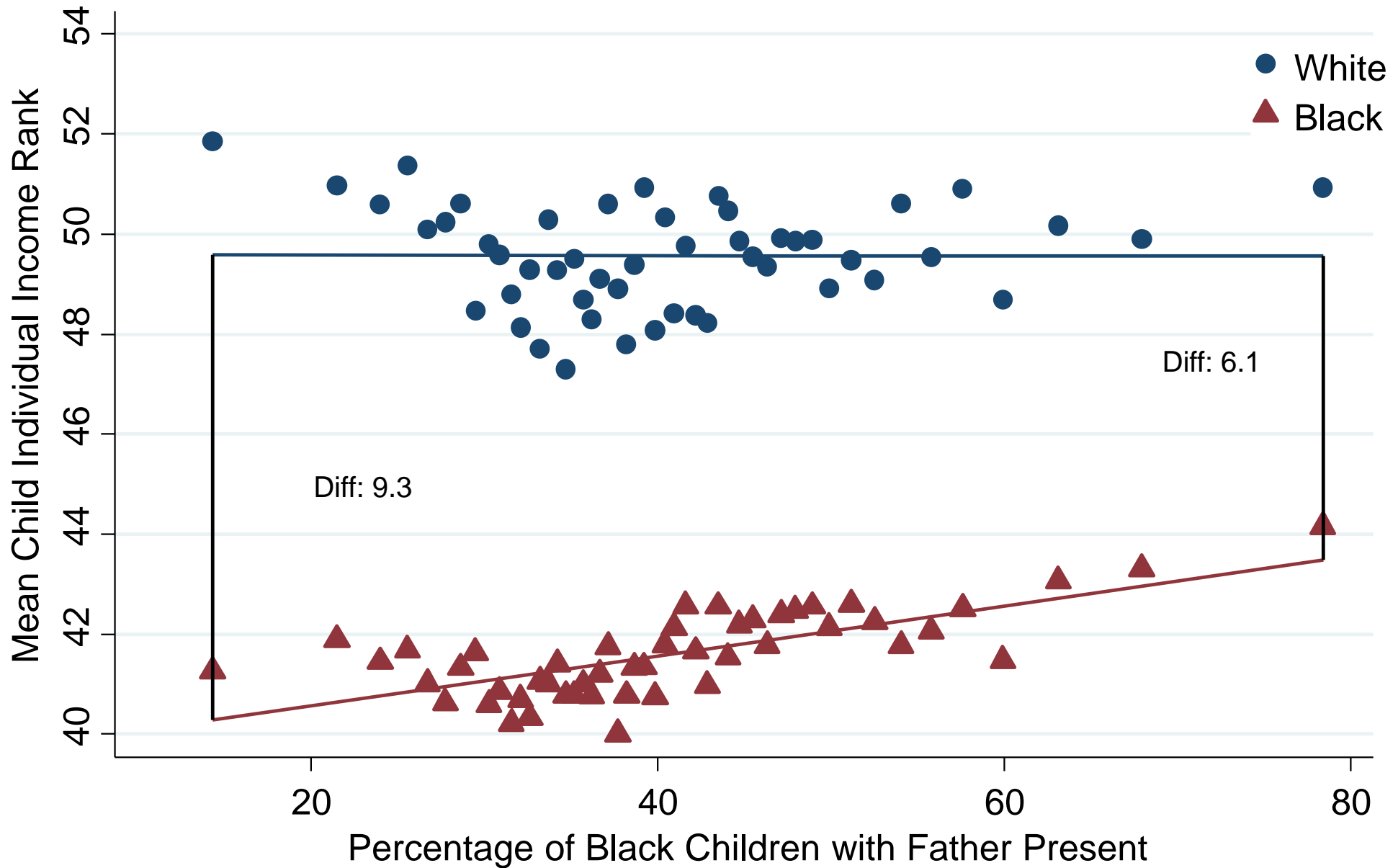
Association Between Tract-Level Characteristics and Black-White Gap

Tracts with Poverty Rates Below 10%



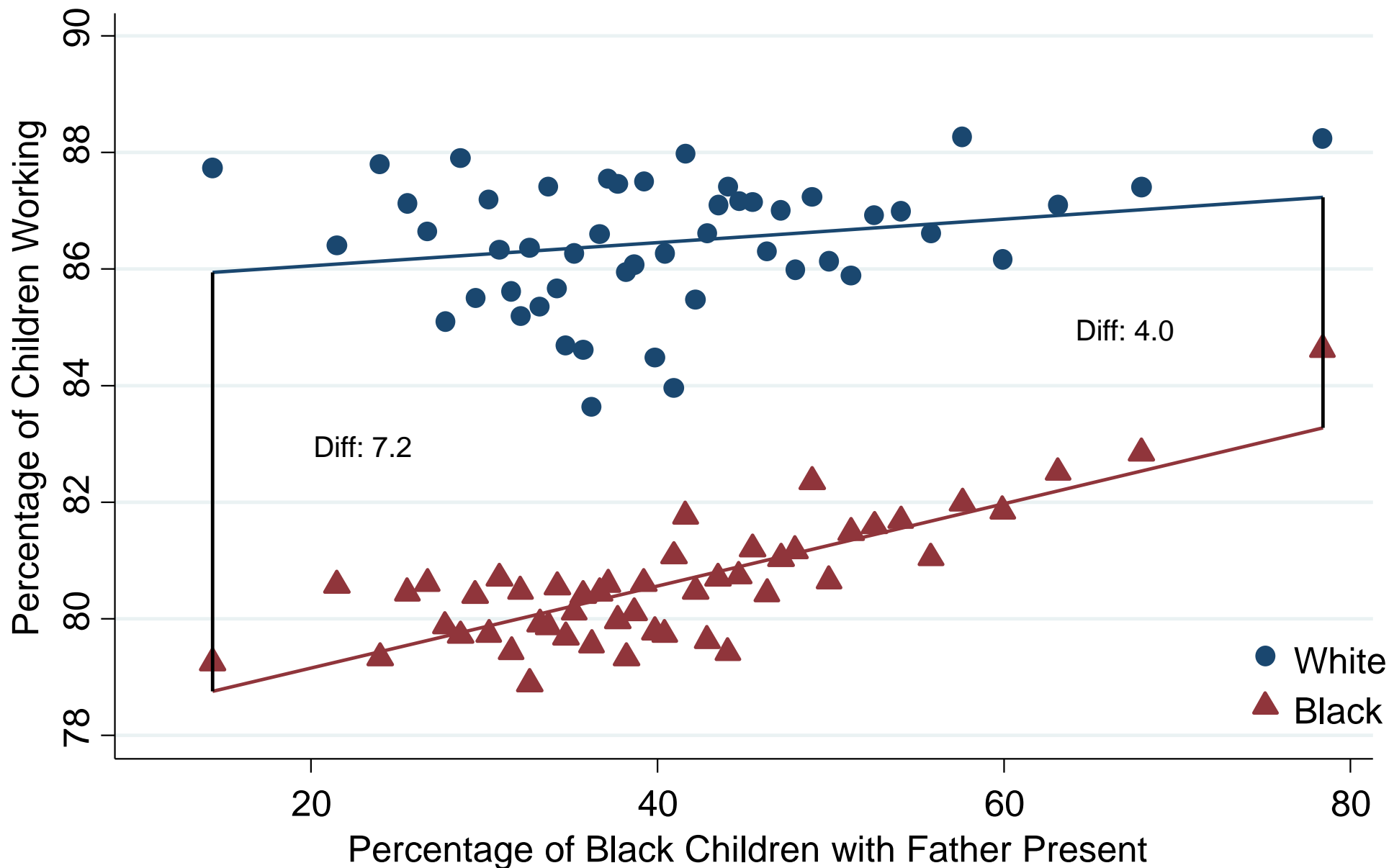
Black-White Gap in Individual Income Rank vs. Father Presence

Male Children with Parents at 25th Percentile - Poverty Share Less than 10%

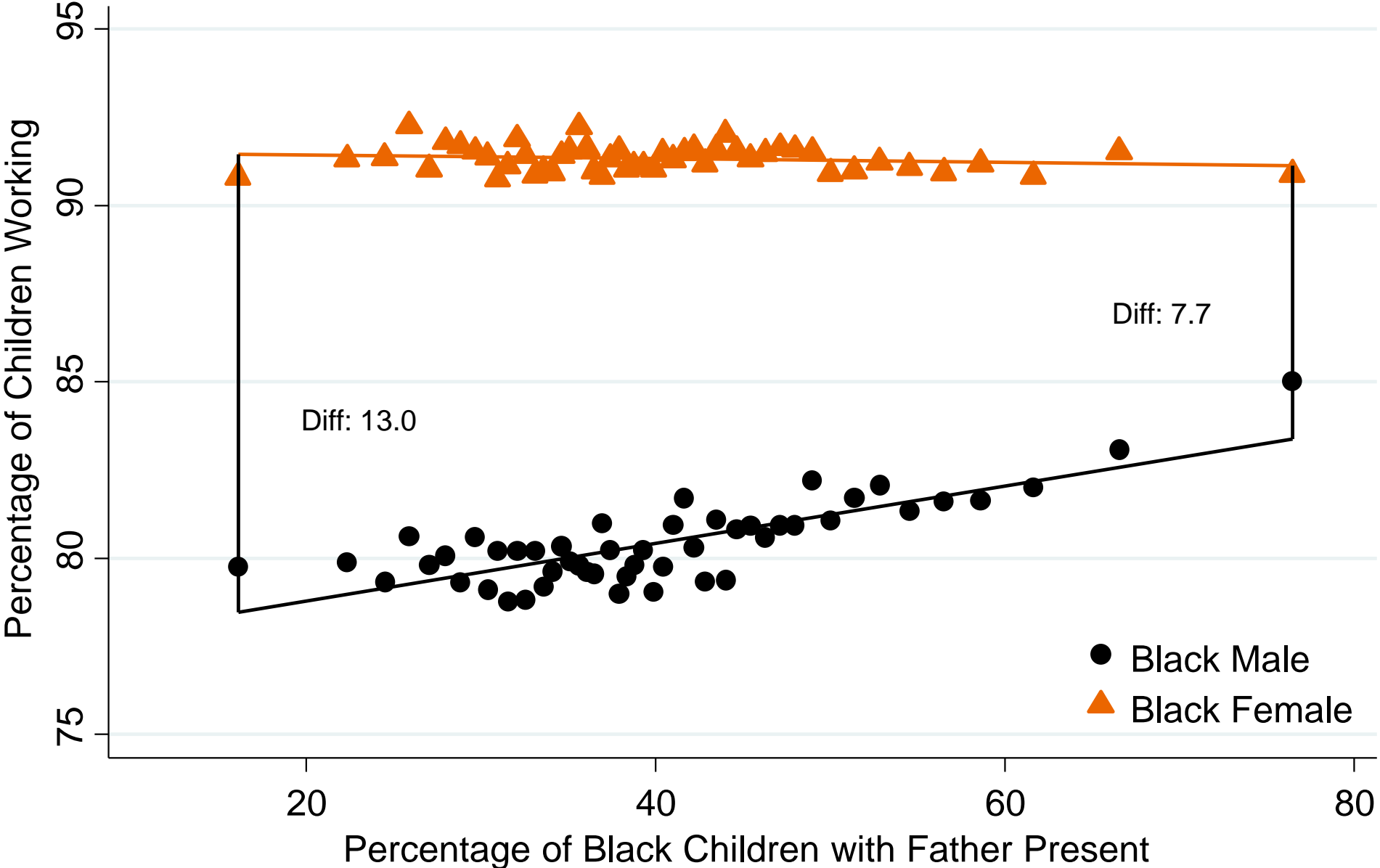


Black-White Gap in Employment Rates vs. Father Presence

Male Children with Parents at 25th Percentile - Poverty Share Less than 10%



Male-Female Gap in Employment Rates vs. Father Presence
Black Children with Parents at 25th Percentile - Poverty Share Less than 10%



Association Between Father Presence and Black Boys' Outcomes: Regression Estimates

Dependent Variable: Mean Rank of Black Boys with Parents at 25th Percentile in Tract

| | Baseline | Black and White Father Presence | Children with Two Parents | Gender Ratio |
|---|--------------------|------------------------------------|------------------------------|---------------------|
| | (1) | (2) | (3) | (4) |
| Low-Income Black Father Presence | 0.0492 (0.0062) | 0.0450 (0.0068) | 0.0461 (0.0128) | |
| Low-Income White Father Presence | | 0.0077 (0.0076) | | |
| Low-Income Black Father Presence | | | | 0.0387 (0.0043) |
| Low-Income Black Male Adults Per Child | | | | -0.0011 (0.0011) |
| Low-Poverty Tracts | X | X | X | |

Results from OLS regressions at the tract level. Standard errors in parentheses.

Father Presence: Additional Results

- Greater presence of *white* fathers in tract is predictive of white boys' outcomes
 - Phenomenon is not unique to black boys; but rates of father presence are much lower for black boys
- Black father presence in *childhood* neighborhood is predictive even conditional on tract in which child lives as an adult
 - Not a mechanical consequence of black boys and their fathers being subject to the same set of environmental factors (e.g., policing)

Racial Bias and Black Children's Outcomes

- Now turn to another set of factors that are associated with both better outcomes for black boys and smaller black-white gaps: racial bias
- Racial bias measures unavailable at the Census tract level
- Instead focus on two measures available at county and media market level:
 1. Implicit racial bias: index based on participants' ability to match positive and negative words with black vs. white faces [Greenwald et al. 1998]
 2. Explicit racial animus: index based on frequency of Google searches for racial epithets [Stephens-Davidowitz 2014]

Association Between Racial Bias and Black Boys' Outcomes: Regression Estimates

Dependent Variable: Mean Rank of Black Children with Parents at 25th Percentile in Tract

| Dependent Variable: | Males Baseline | White vs. Black IAT | State Fixed Effects | Females | Males | Females |
|------------------------|---------------------|------------------------|------------------------|---------------------|---------------------|---------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Difference in IAT | -0.0081 (0.0024) | | -0.0060 (0.0019) | -0.0082 (0.0029) | | |
| IAT for Whites | | -0.0080 (0.0023) | | | | |
| IAT for Blacks | | 0.0047 (0.0023) | | | | |
| Racial Animus | | | | | -0.0263 (0.0056) | -0.0191 (0.0080) |
| State FE's | | | X | | | |
| Number of Cells | 340 | 340 | 340 | 325 | 28 | 27 |
| Number of Observations | 492,200 | 492,200 | 492,200 | 491,700 | 386,600 | 386,600 |

Columns (1)-(4) are at the county level. Columns (5)-(6) are at the media market level. We restrict to counties (media markets) with poverty rates less than 10%.

Variation in the Black-White Earnings Gap Across Tracts

- Four key results:

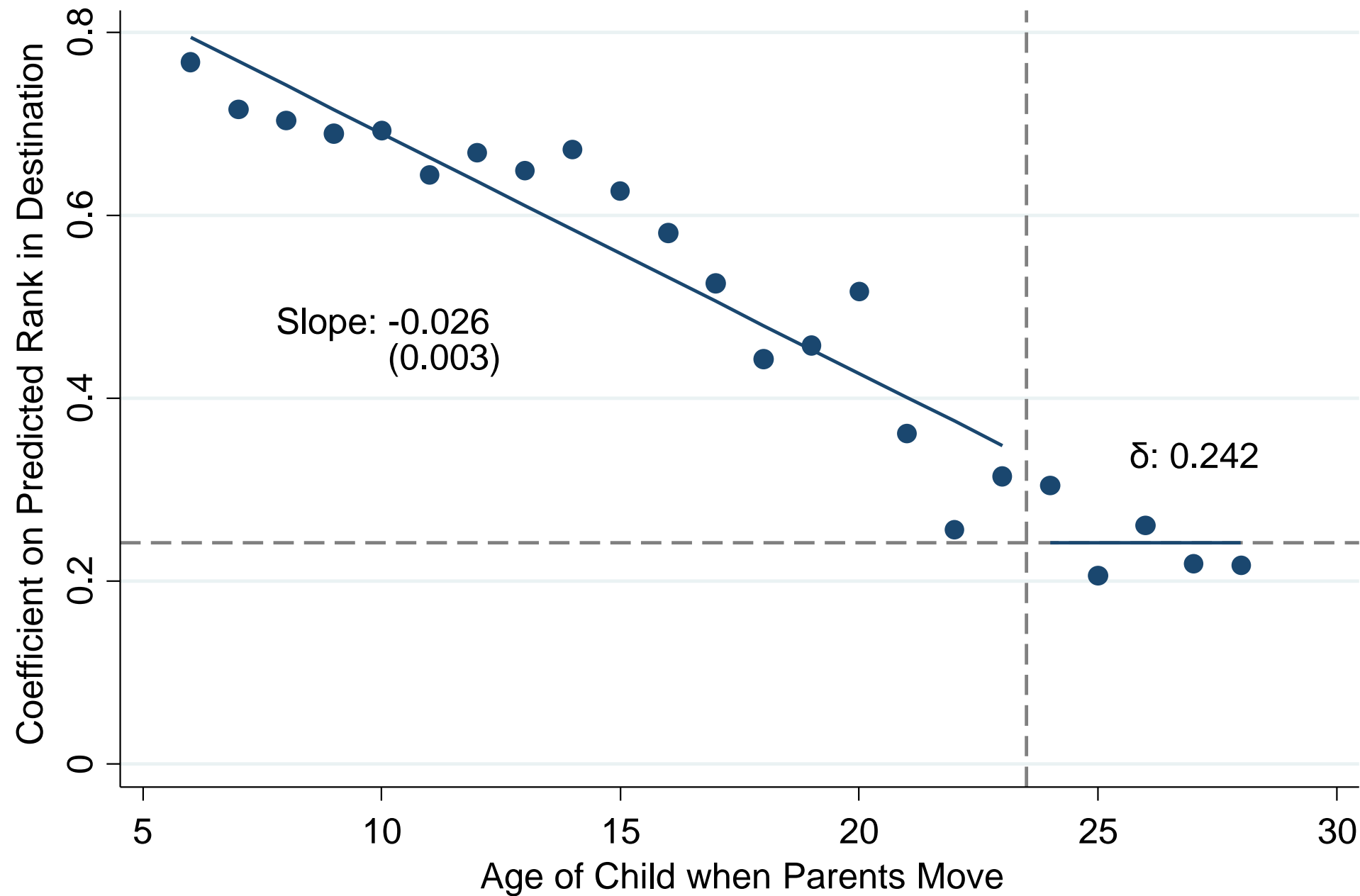
1. Black boys have lower earnings than white boys in 99% of Census tracts in America, controlling for parental income
2. Both black and white boys have better outcomes in “good” (e.g., low-poverty, higher rent) neighborhoods, but the black-white gap is *bigger* in such areas
3. Within low-poverty areas, there are two factors associated with better outcomes for black boys *and* smaller gaps: greater father presence and less racial bias
4. Neighborhoods have *causal* childhood exposure effects: black boys who move to good areas at a younger age do better

Identifying the Causal Effects of Neighborhoods

- Ideal experiment: randomly assign children to neighborhoods and compare outcomes in adulthood, by race
- We approximate this experiment using quasi-experimental design developed by Chetty and Hendren (2018)
 - Study families who move across areas in observational data
 - Exploit variation in *age of child* when family moves to identify causal effects of neighborhoods
- Identifying assumption: potential outcomes of children are orthogonal to age at which family moves to a better/worse neighborhood
 - Validated by Chetty and Hendren (2018) and Chetty, Hendren, and Katz (2016)

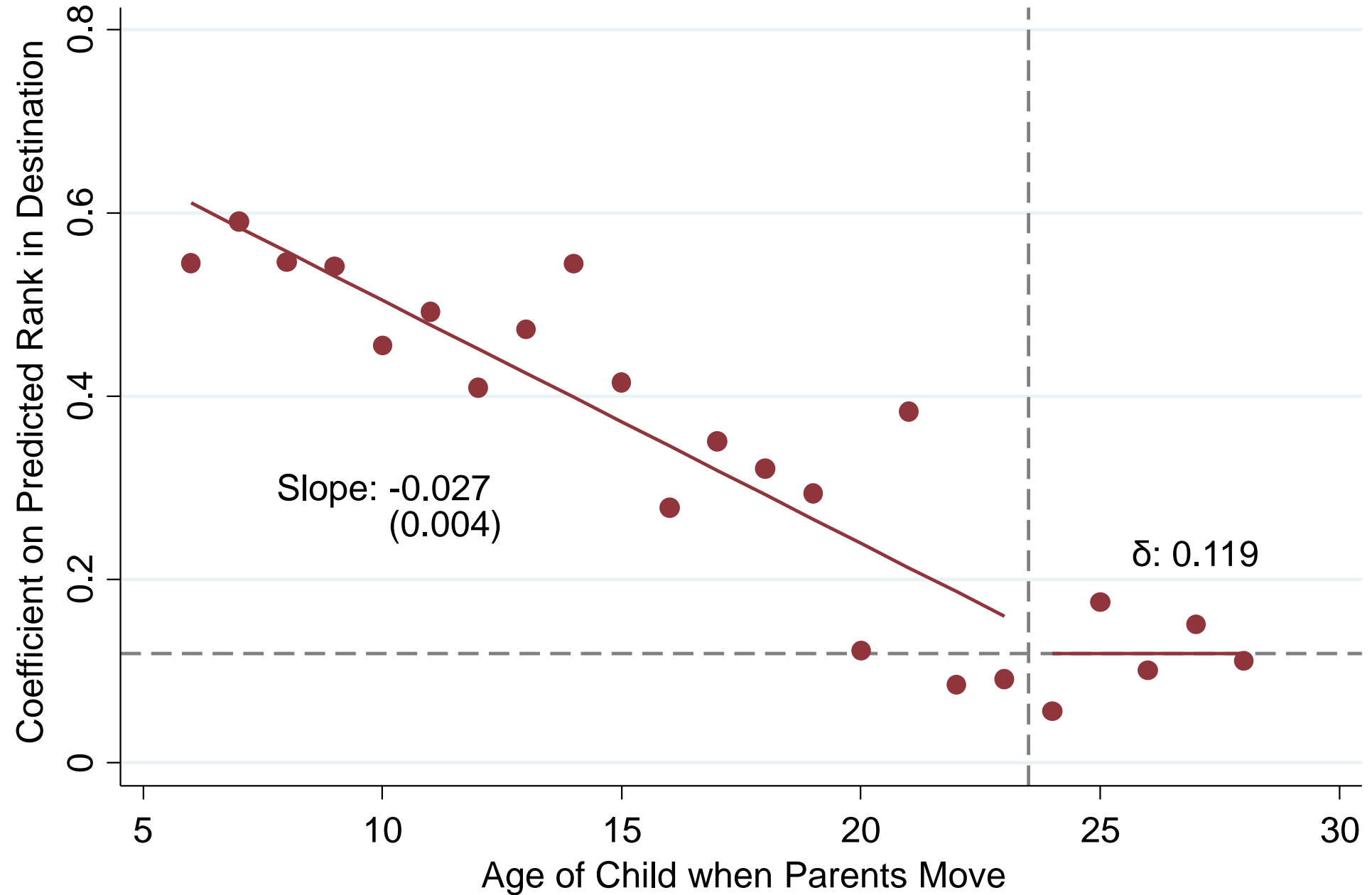
Childhood Exposure Effects on Income Rank at Age 30

White Males



Childhood Exposure Effects on Income Rank at Age 30

Black Males



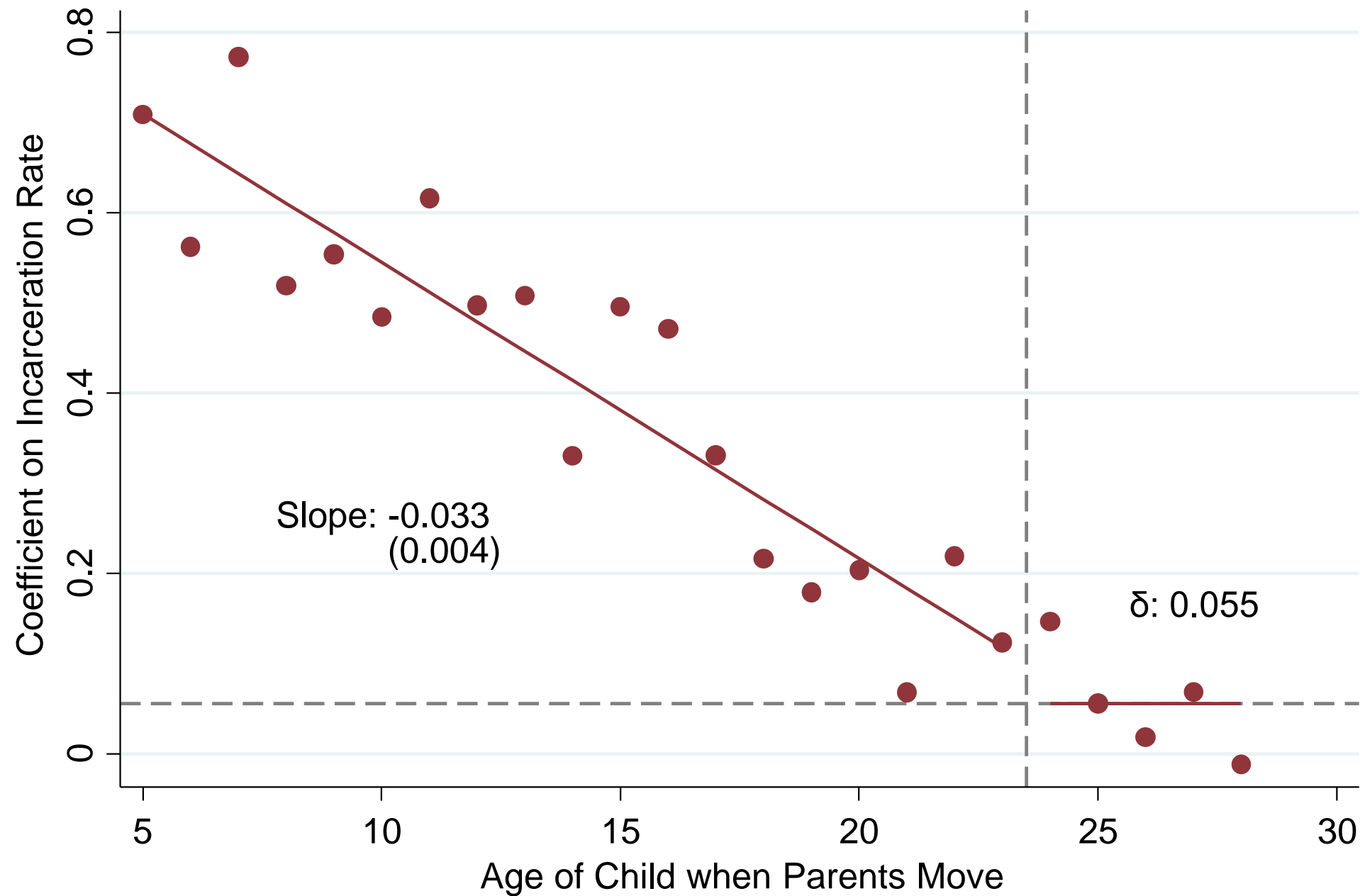
Race-Specific Childhood Exposure Effects
OLS Regression Estimates

| | Whites | Blacks |
|-----------------------|--------------------------|--------------------------|
| | (1) | (2) |
| Prediction for Whites | -0.023 (0.002) | 0.003 (0.004) |
| Prediction for Blacks | -0.004 (0.001) | -0.029 (0.004) |

Note: standard errors in parentheses

Childhood Exposure Effects on Probability of Being Incarcerated in 2010

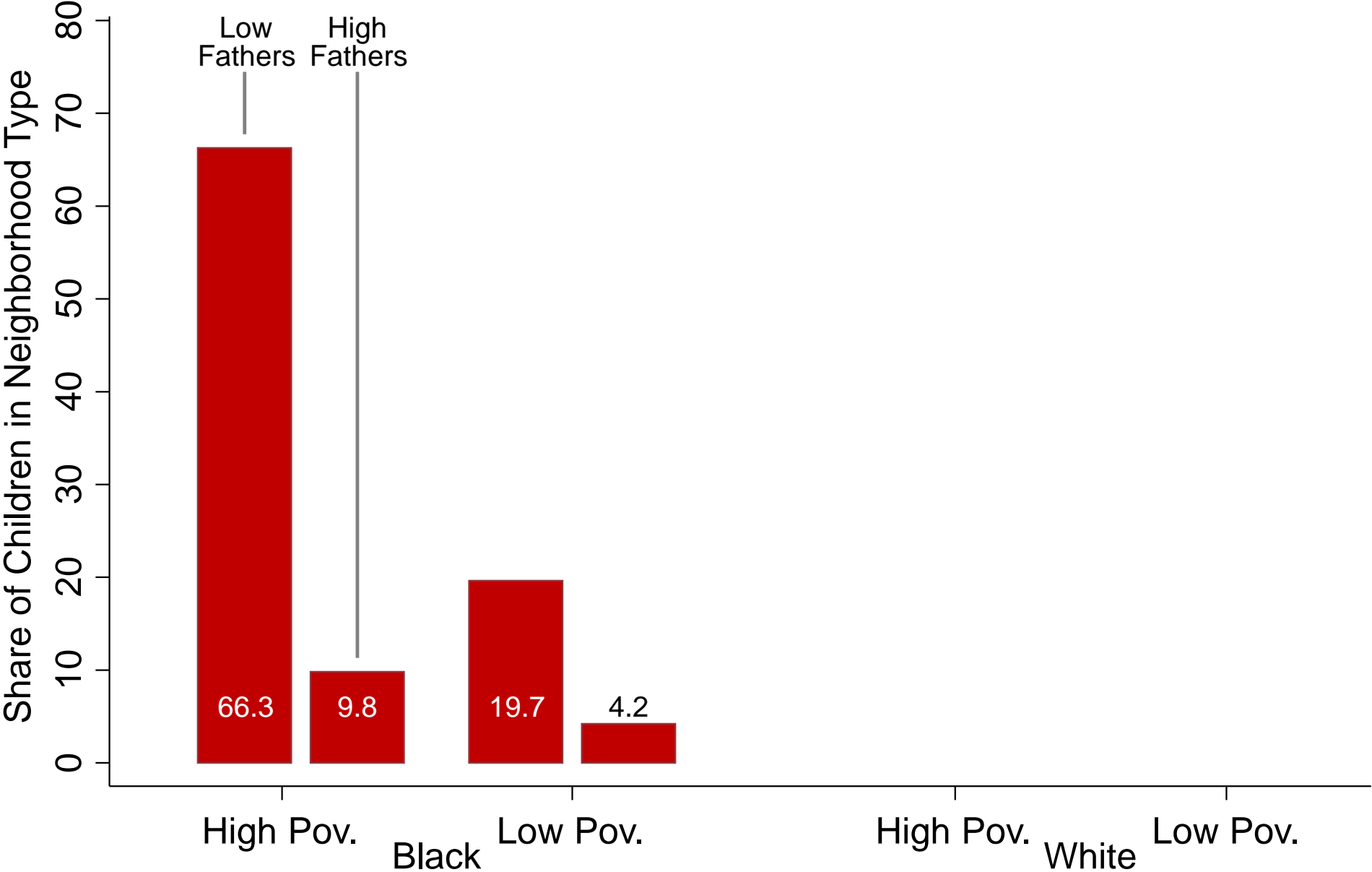
Black Males



Summary: Impacts of Neighborhood Environments on Black Men

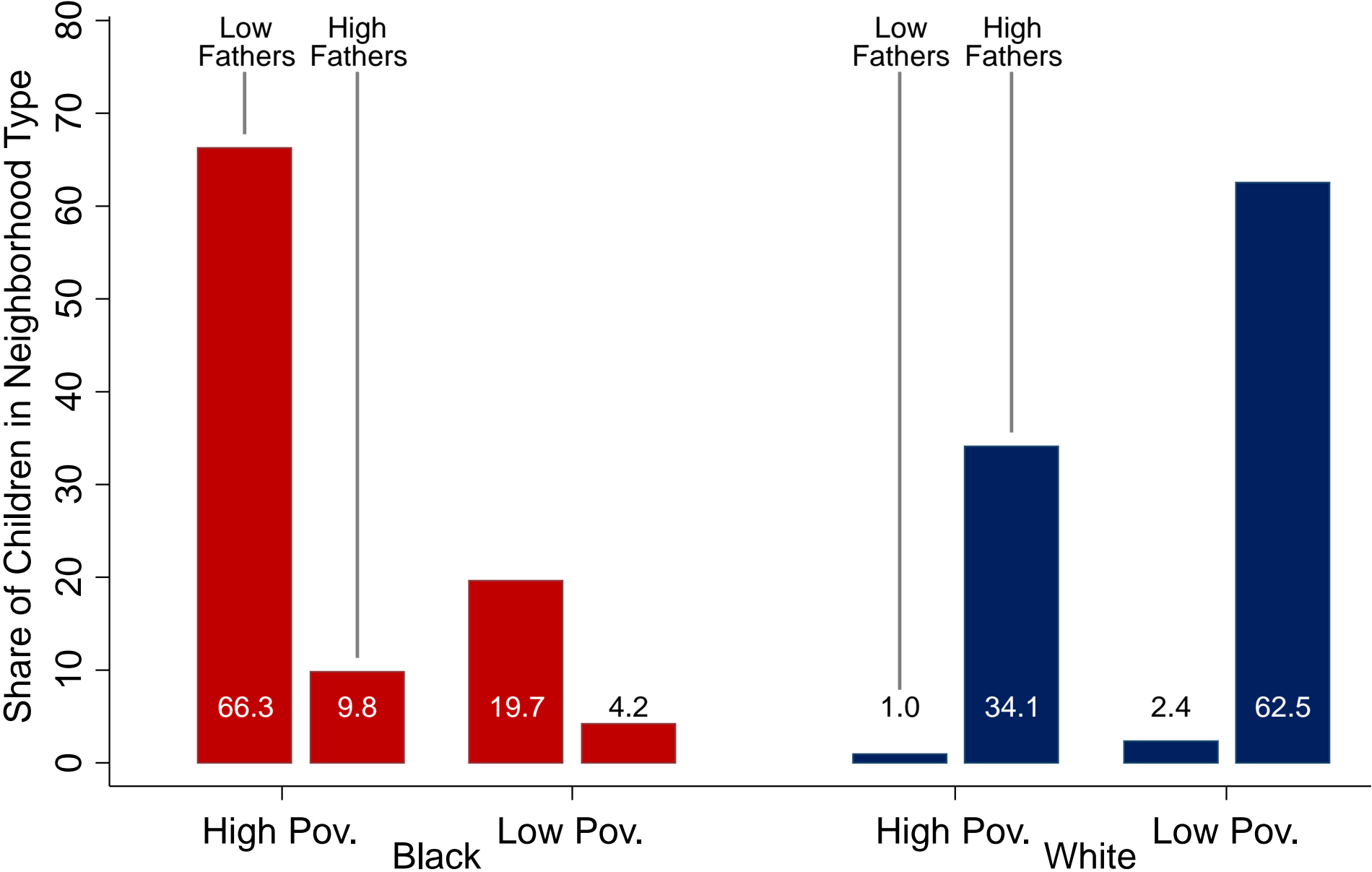
- Main lesson: childhood environment is an important driver of black-white gaps
- But the environmental factors that matter *differ* by race
 - Neighborhood effects cannot be reduced to a common set of factors that affect both black and white boys
- Black boys do well in nbhds. with good resources (low poverty rates) *and* good race-specific factors (high father presence, less racial bias)
- The problem is that there are essentially no such neighborhoods in America

Father Presence and Poverty Rates by Tract for Blacks vs. Whites



Note: Low-Poverty: Poverty Rate < 10%; High Father Presence: >50% Father Presence Among Children of Own Race

Father Presence and Poverty Rates by Tract for Blacks vs. Whites



Note: Low-Poverty: Poverty Rate < 10%; High Father Presence: >50% Father Presence Among Children of Own Race

Examples of High Upward Mobility Neighborhoods for Low-Income Black Men

| | |
|--|--|
| New York City, NY | |
| Eastchester / Wakefield | Bronx, NYC |
| Queens Village / Laurelton | Queens, NYC |
| Washington, DC | |
| Downtown Silver Spring / Woodside Park / Woodside Forest | Silver Spring (MD) – Washington DC CZ |
| New Carrollton / College Park / Greenbelt | Prince Georges’ County (MD) - Washington DC CZ |

Conclusions

1. Mobility into and out of poverty is a central determinant of racial disparities
 - Hispanics have relatively high rates of upward mobility → increasing income across generations
 - Blacks have much lower rates of upward mobility → persistent gaps across generations

Conclusions

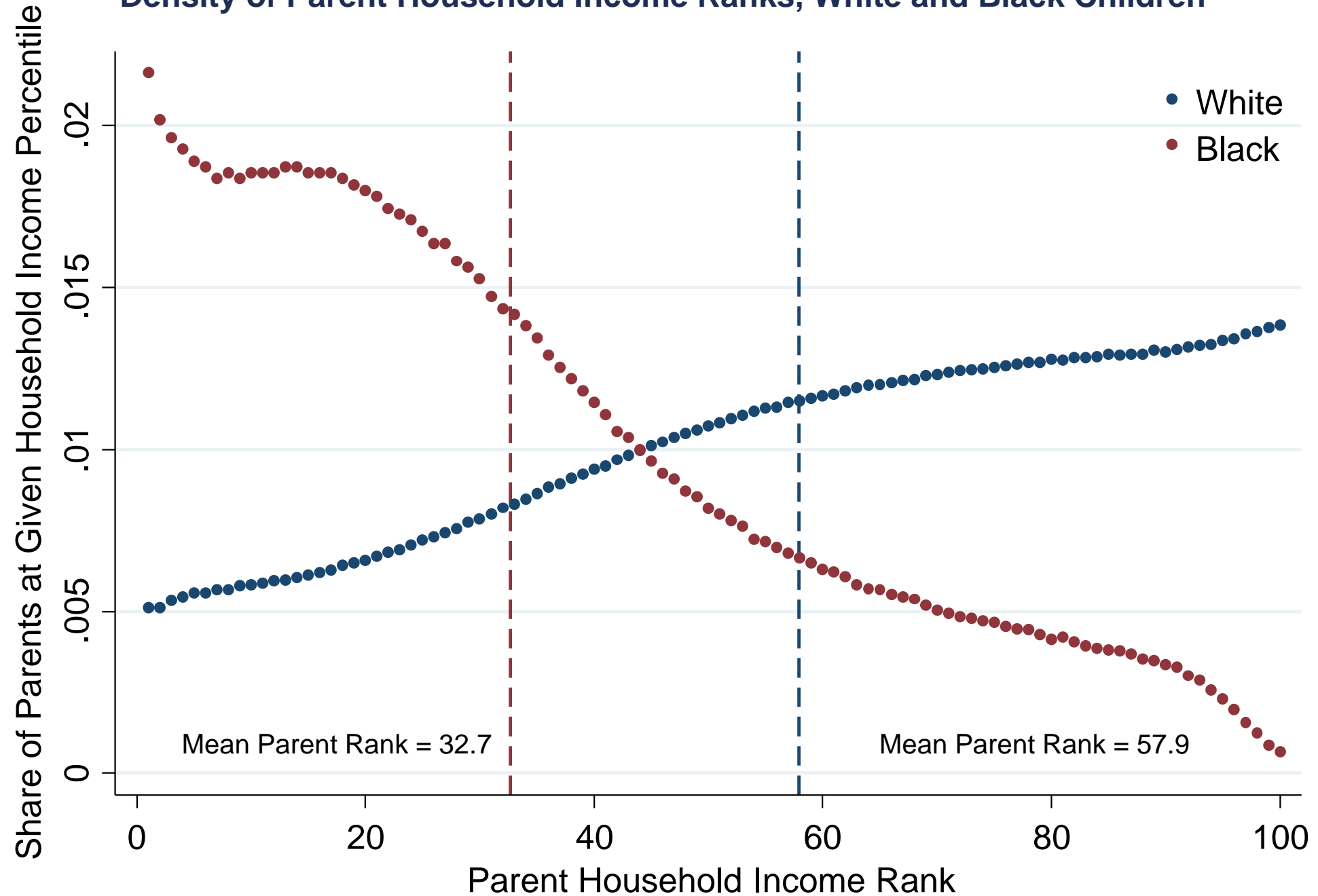
1. Mobility into and out of poverty is a central determinant of racial disparities
2. Commonly proposed policies likely to be insufficient to close black-white gap by themselves
 - Changes in transfer programs and minimum wages unlikely to have persistent effects, unless they change rates of mobility [Cameron and Heckman 2001]
 - Reducing residential or school segregation can improve the *level* of outcomes of both black and white children, but may not narrow gaps

Conclusions

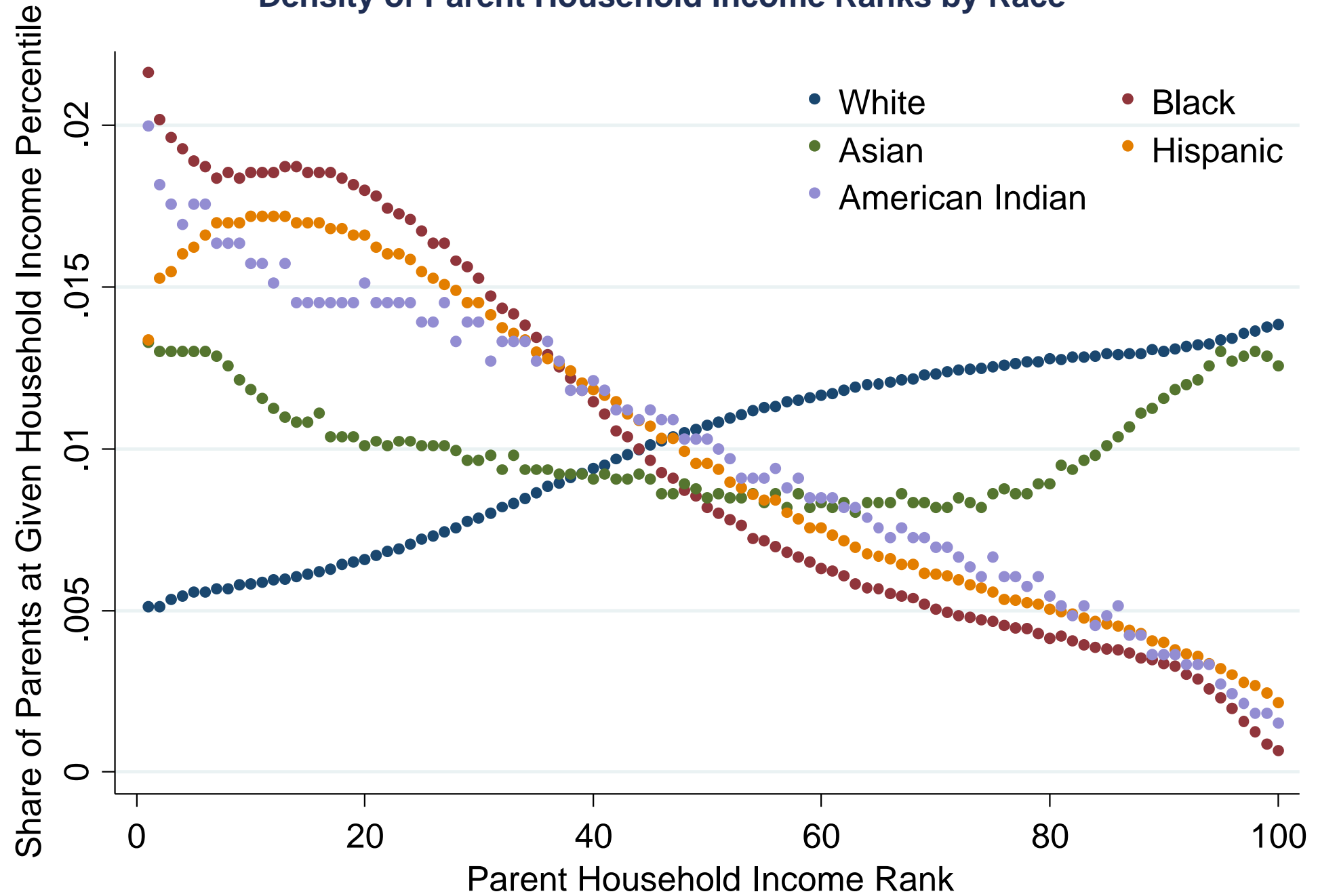
1. Mobility into and out of poverty is a central determinant of racial disparities
2. Commonly proposed policies likely to be insufficient to close black-white gap by themselves
3. Reducing racial gaps requires policies that cut *within* neighborhoods and improves environments for specific subgroups, such as black males
 - Ex: Mentoring programs, efforts to reduce racial bias, achieving racial integration within schools, criminal justice reform [Heller et al. 2015, Devine et al. 2012]
 - Further development and evaluation of such efforts would be valuable

Supplementary Figures

Density of Parent Household Income Ranks, White and Black Children

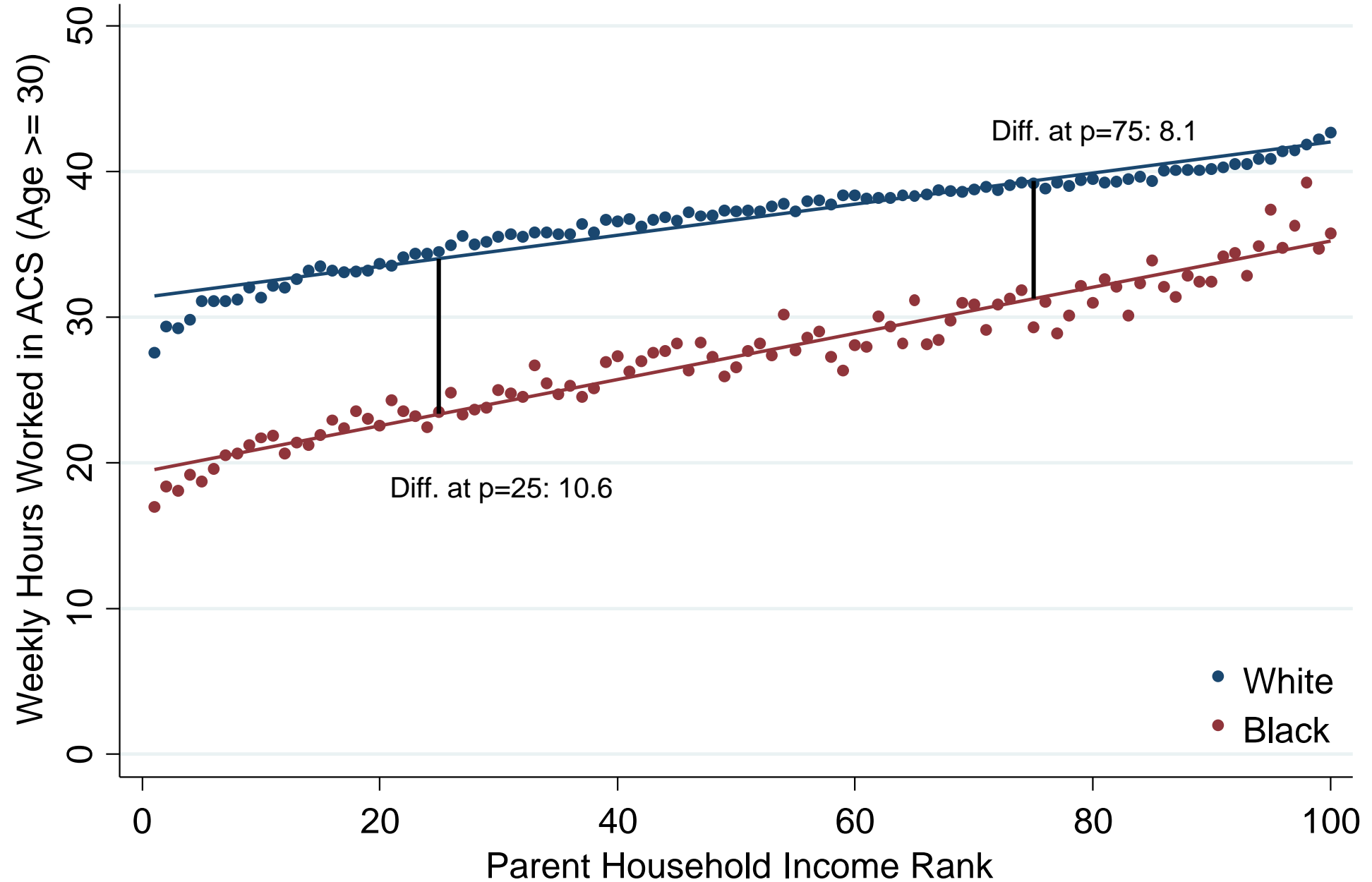


Density of Parent Household Income Ranks by Race



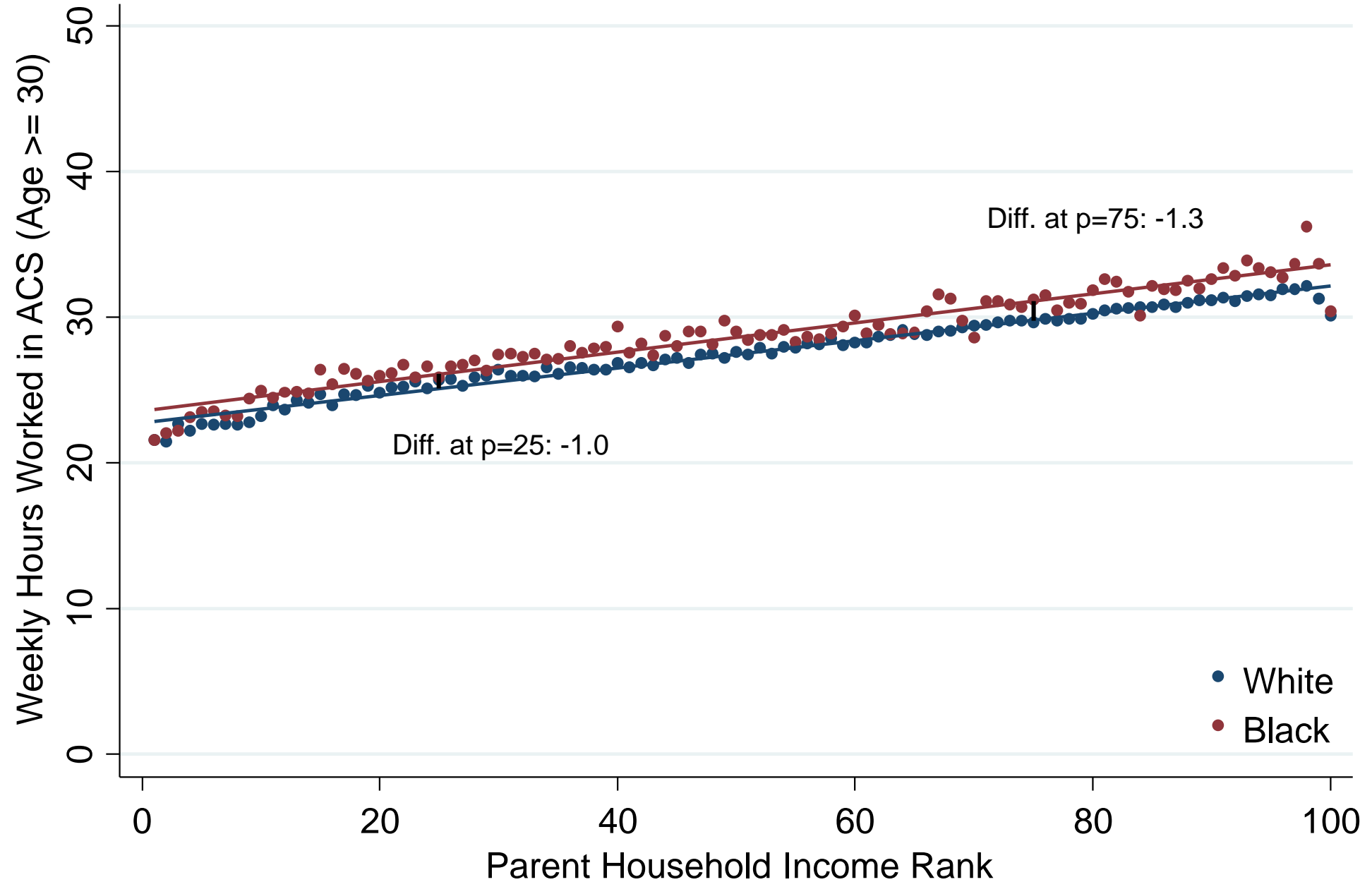
Hours Worked vs. Parent Income Rank

Male Children



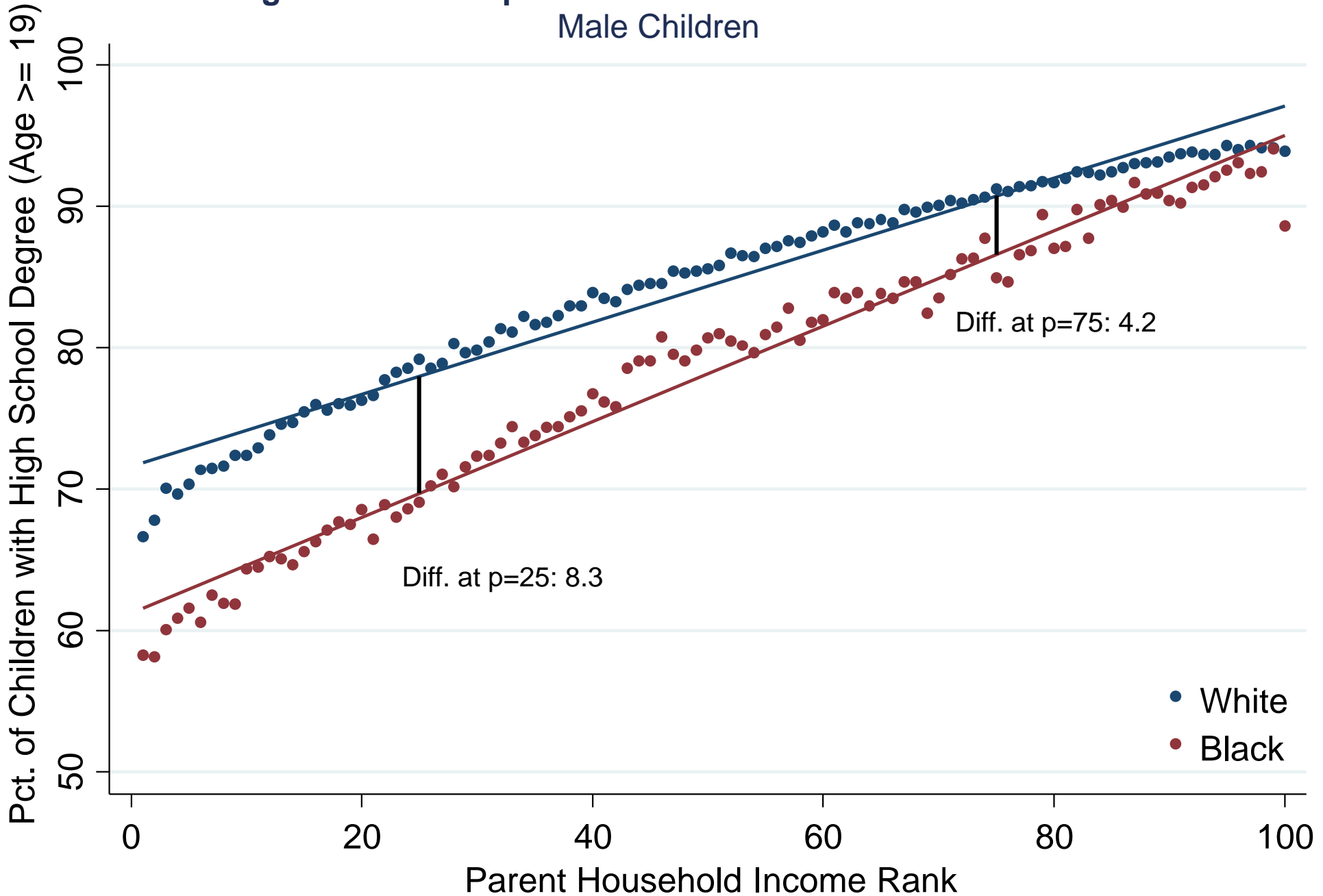
Hours Worked vs. Parent Income Rank

Female Children



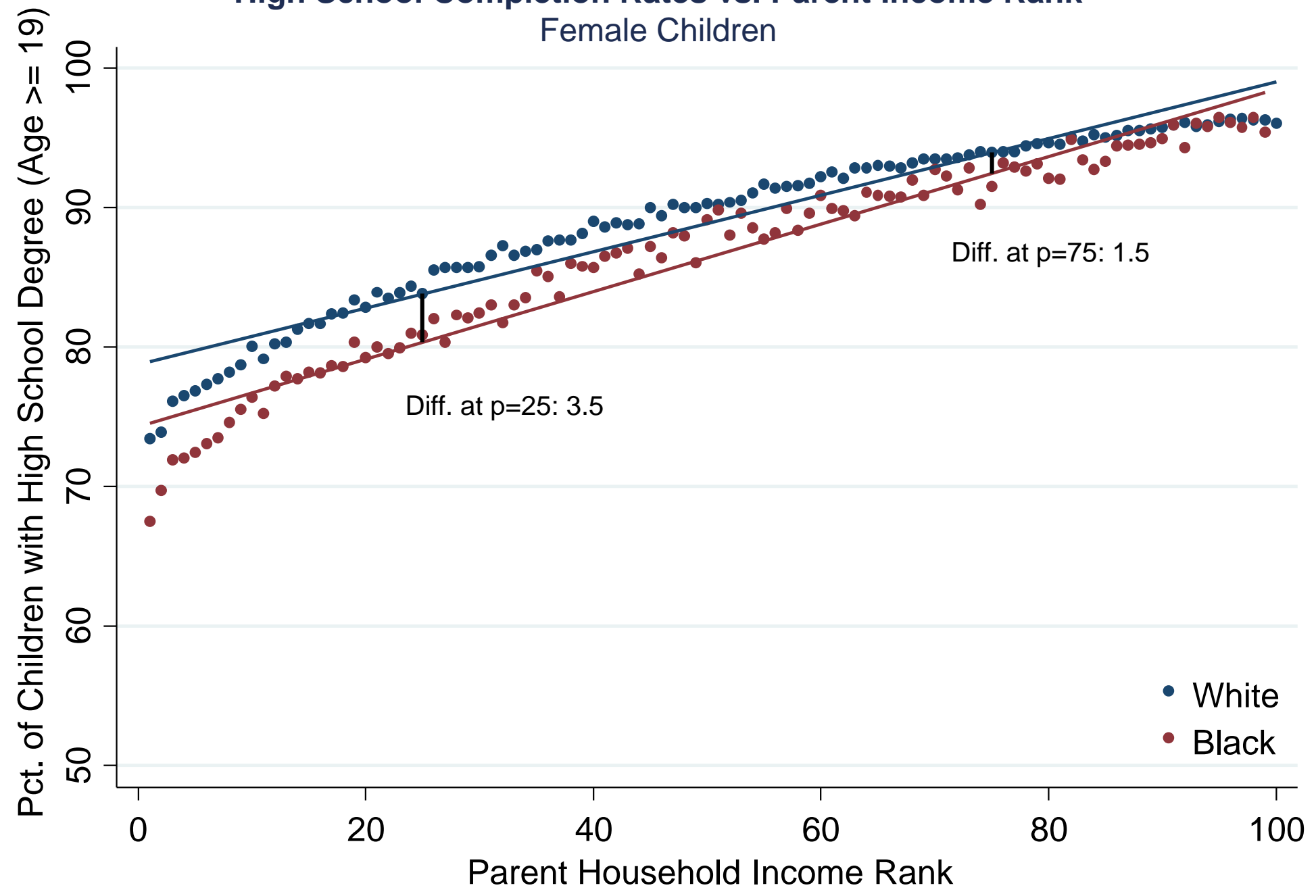
High School Completion Rates vs. Parent Income Rank

Male Children



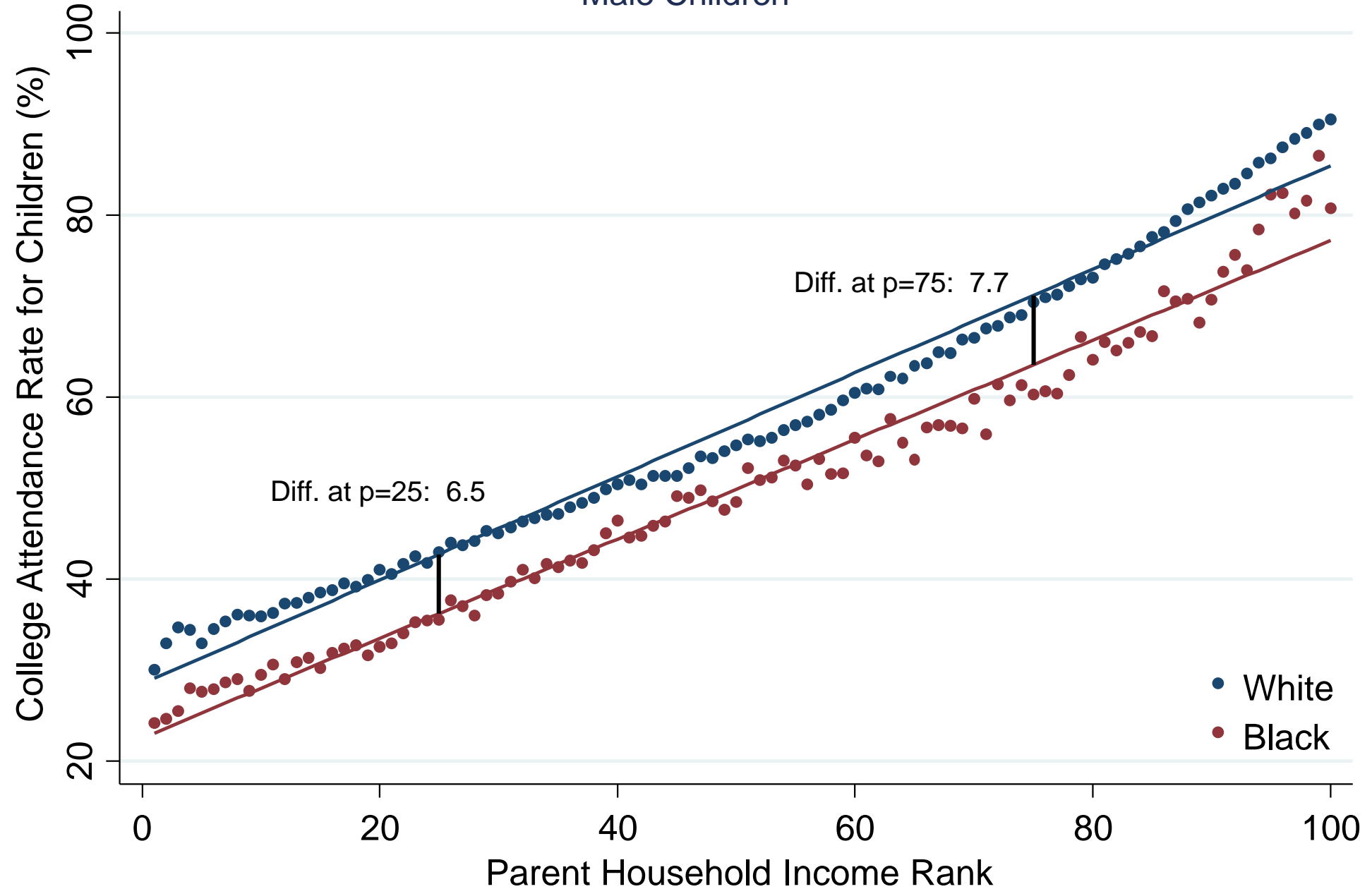
High School Completion Rates vs. Parent Income Rank

Female Children



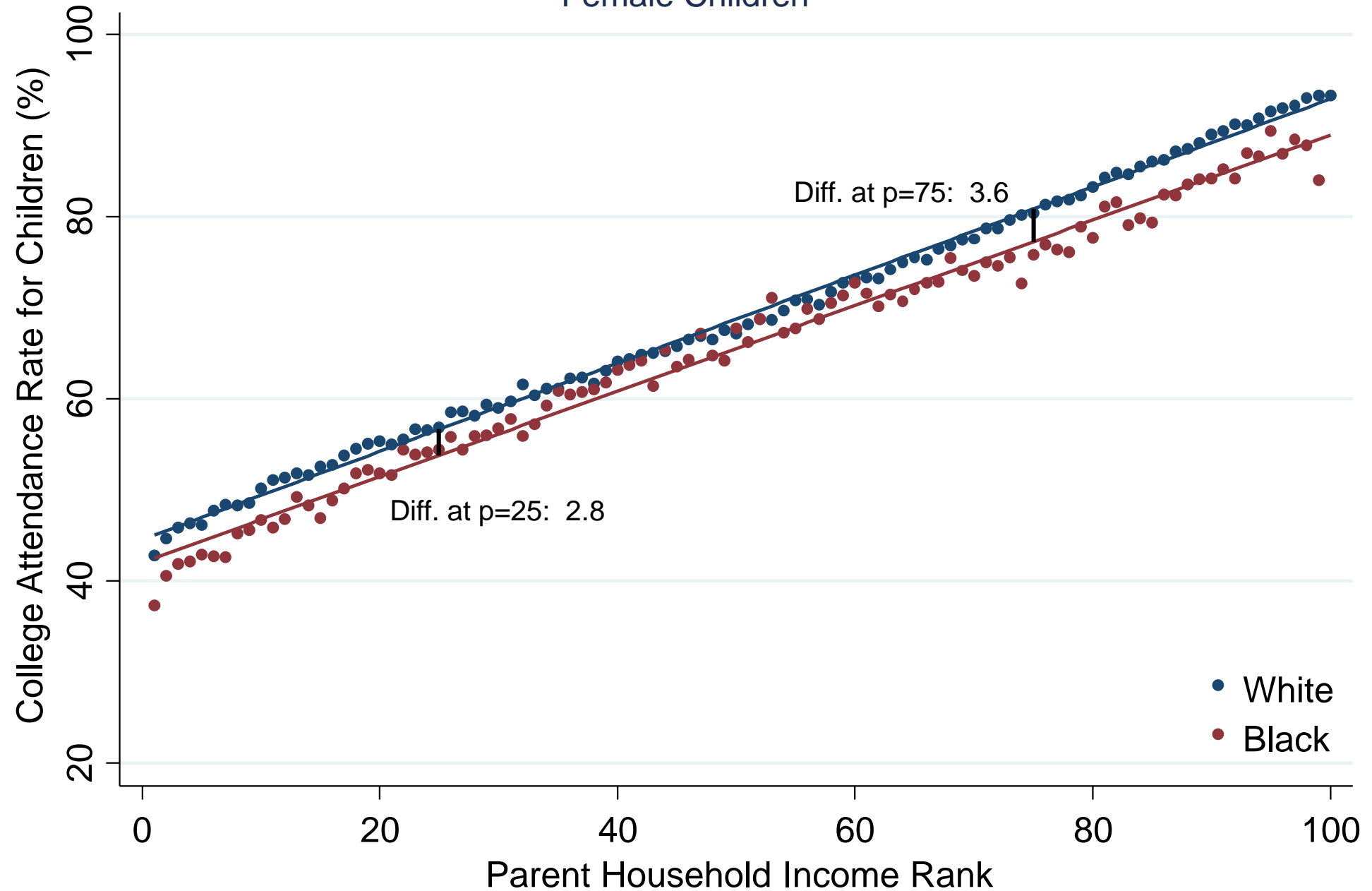
College Attendance Rates vs. Parent Income Rank

Male Children



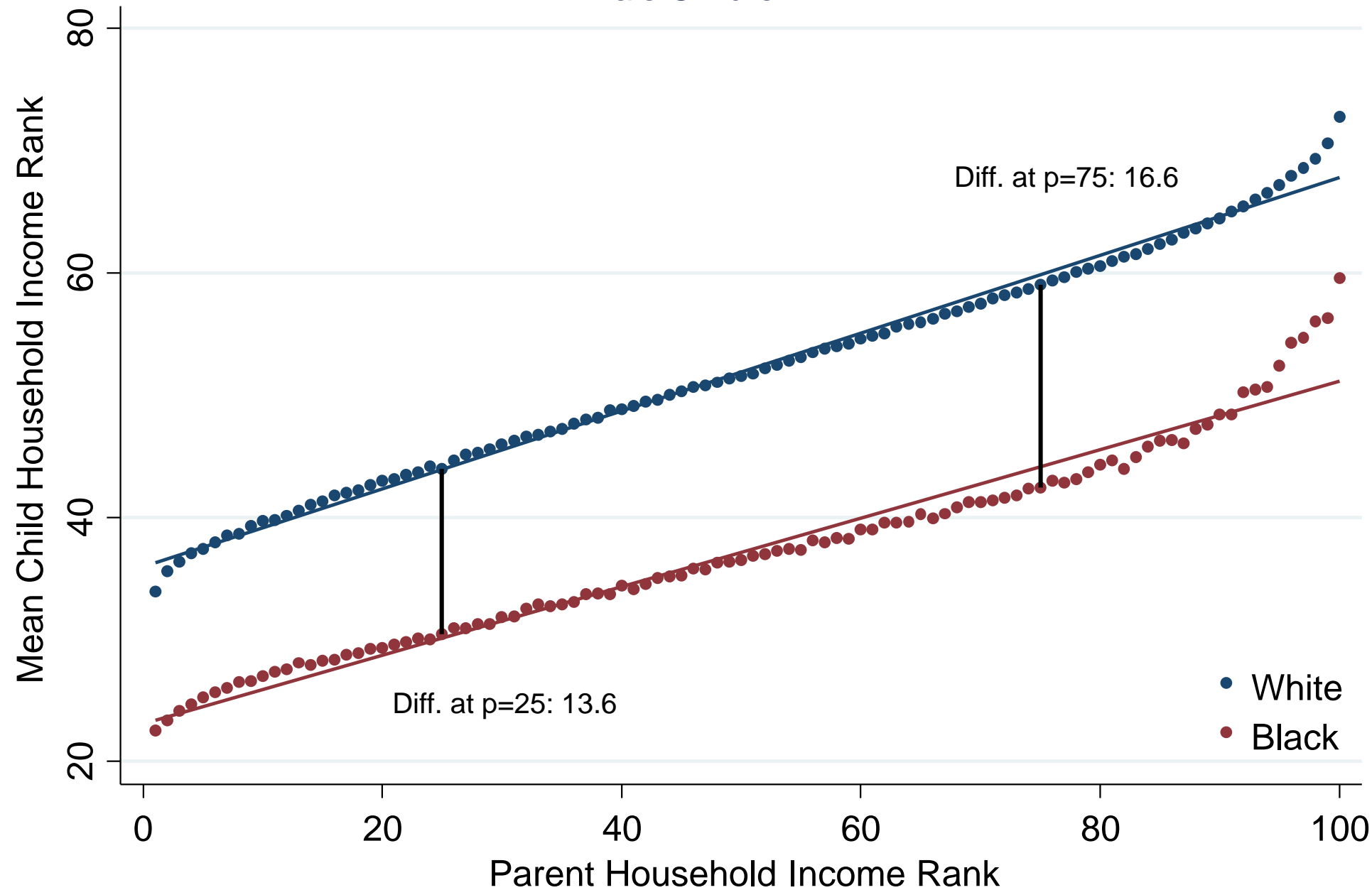
College Attendance Rates vs. Parent Income Rank

Female Children



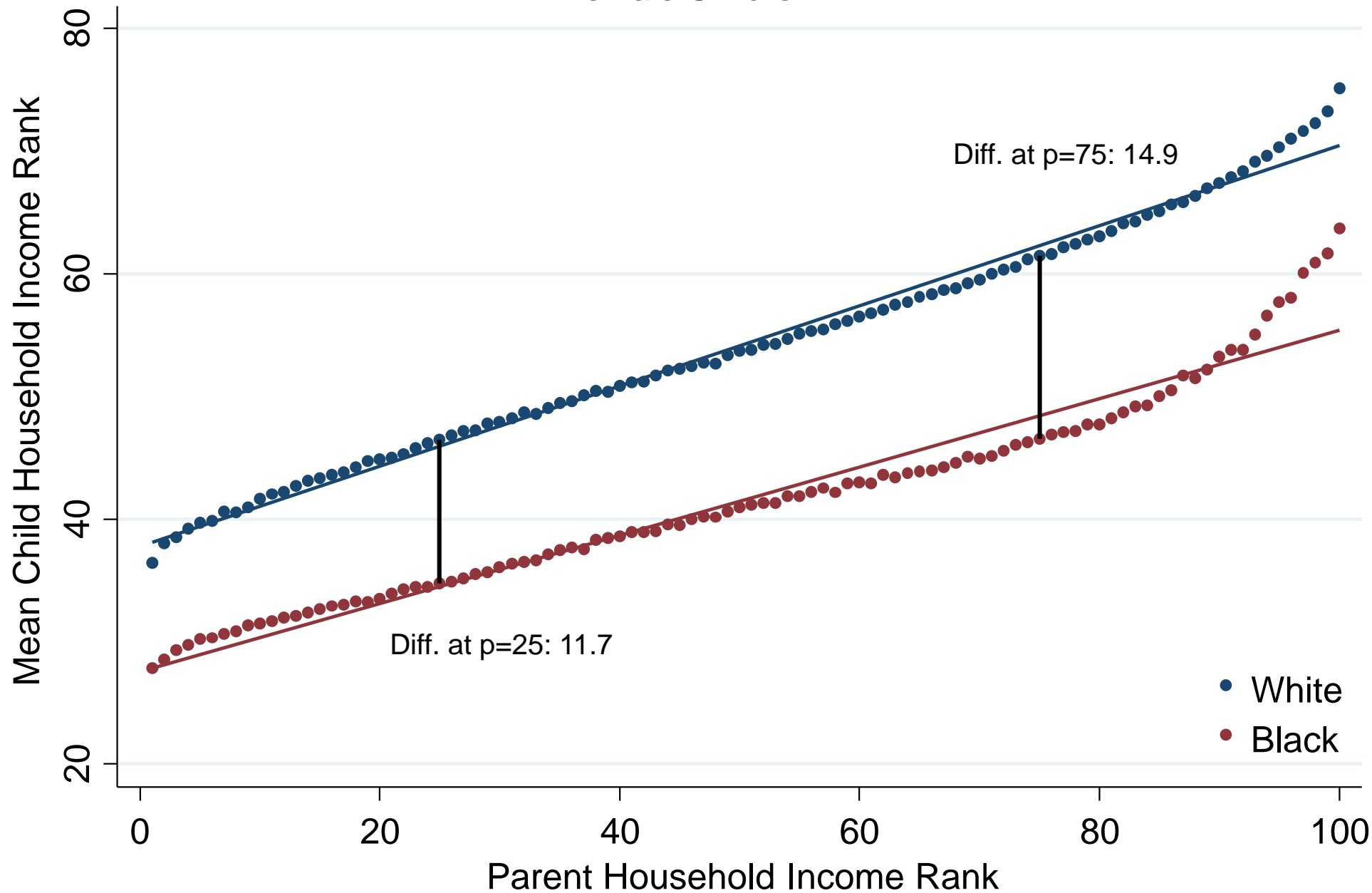
Household Income Rank vs. Parent Income Rank

Male Children



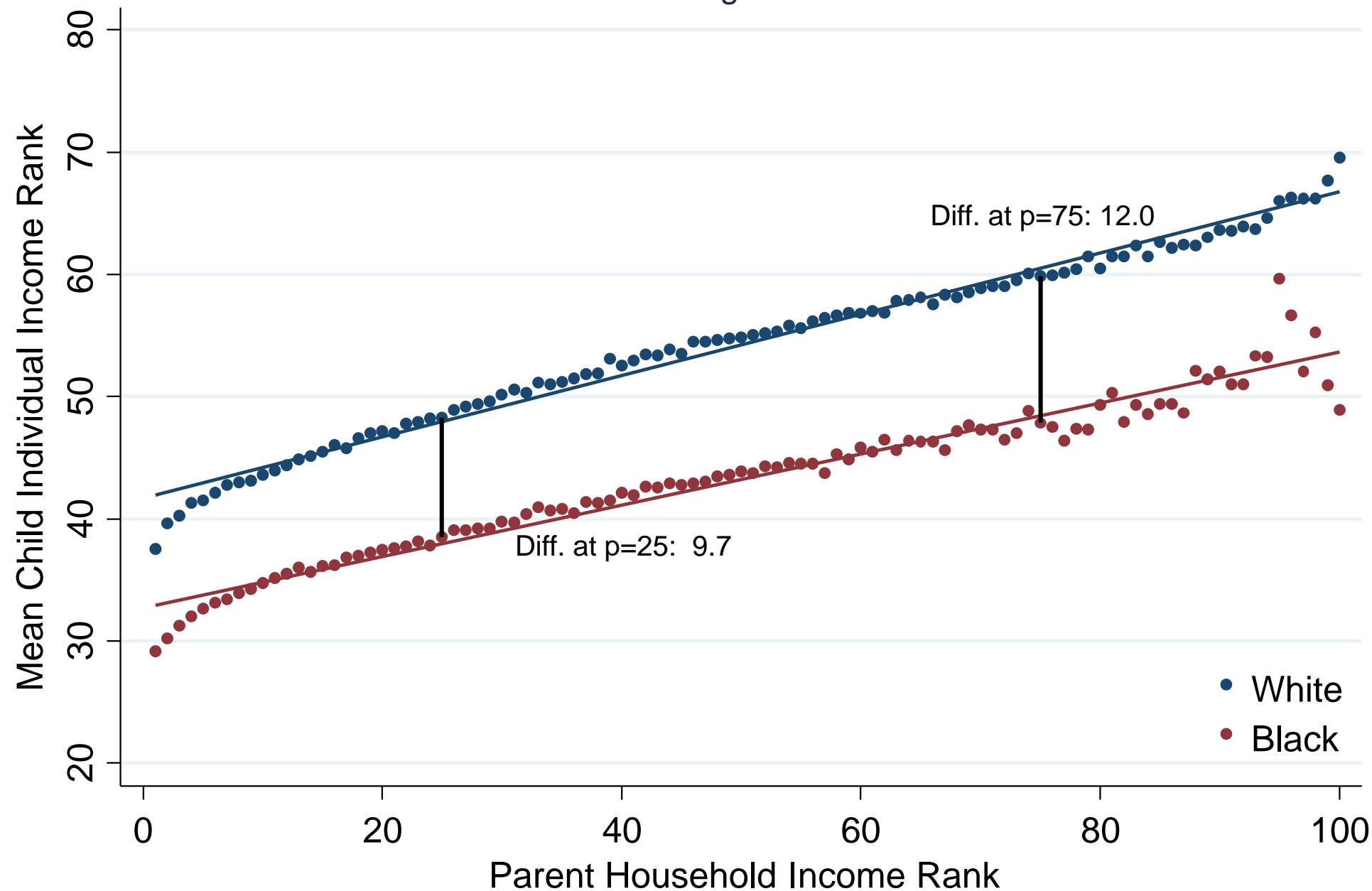
Household Income Rank vs. Parent Income Rank

Female Children



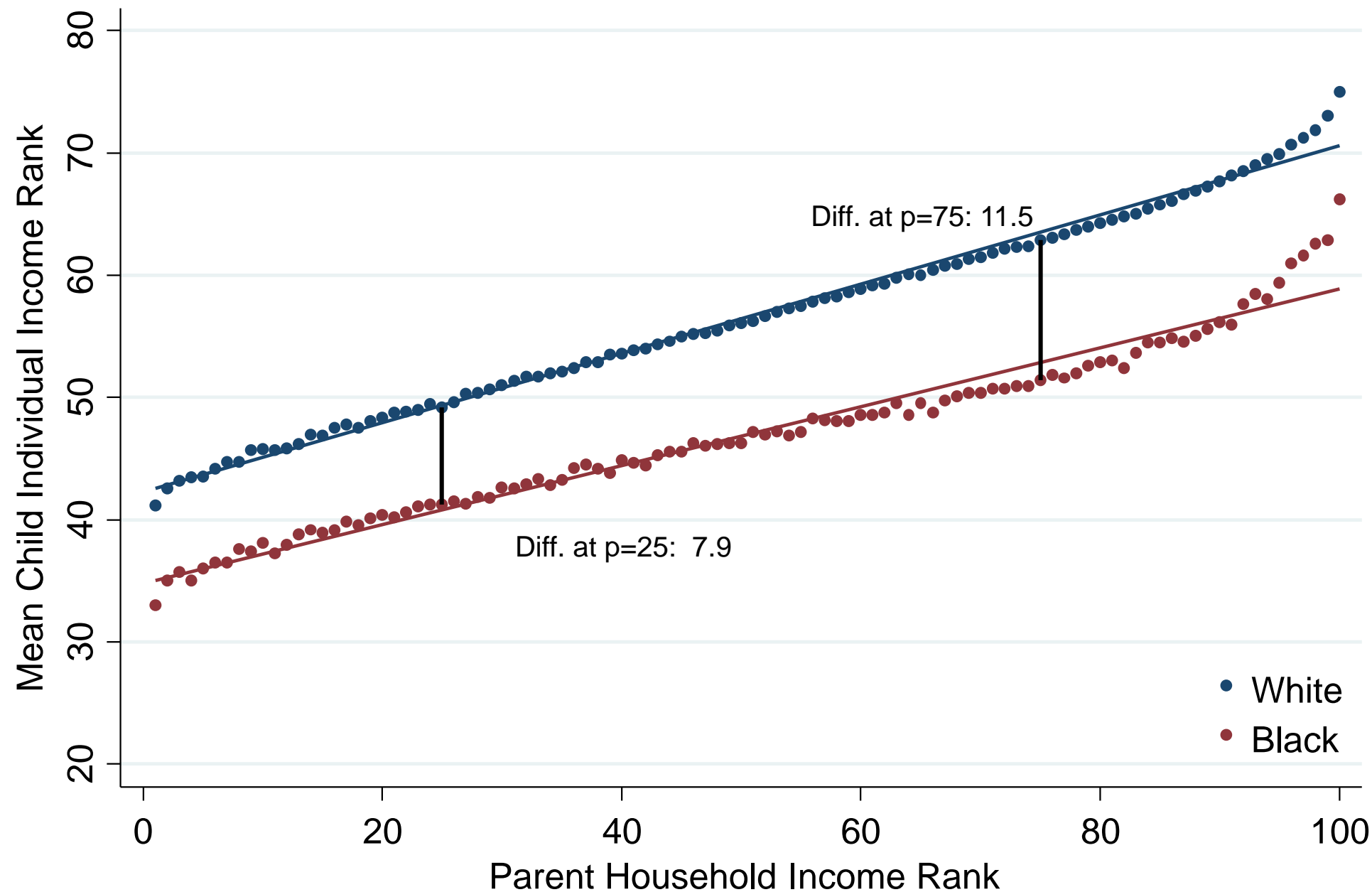
Black-White Gap in Child Individual Income Rank vs. Parent Income Rank

Male Children in Single-Parent Families



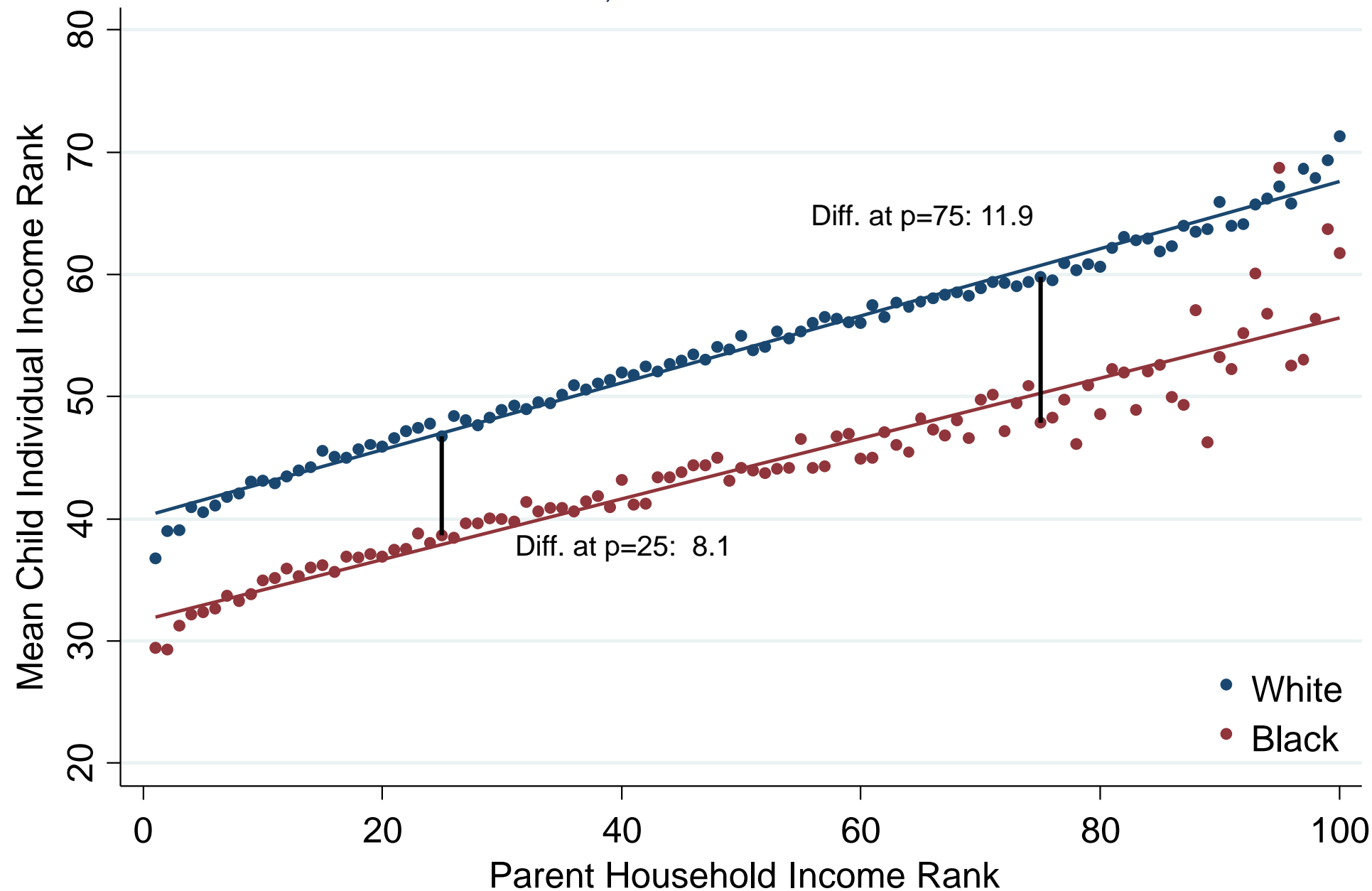
Black-White Gap in Child Individual Income Rank vs. Parent Income Rank

Male Children in Two-Parent Families



Black-White Gap in Child Individual Income Rank vs. Parent Income Rank

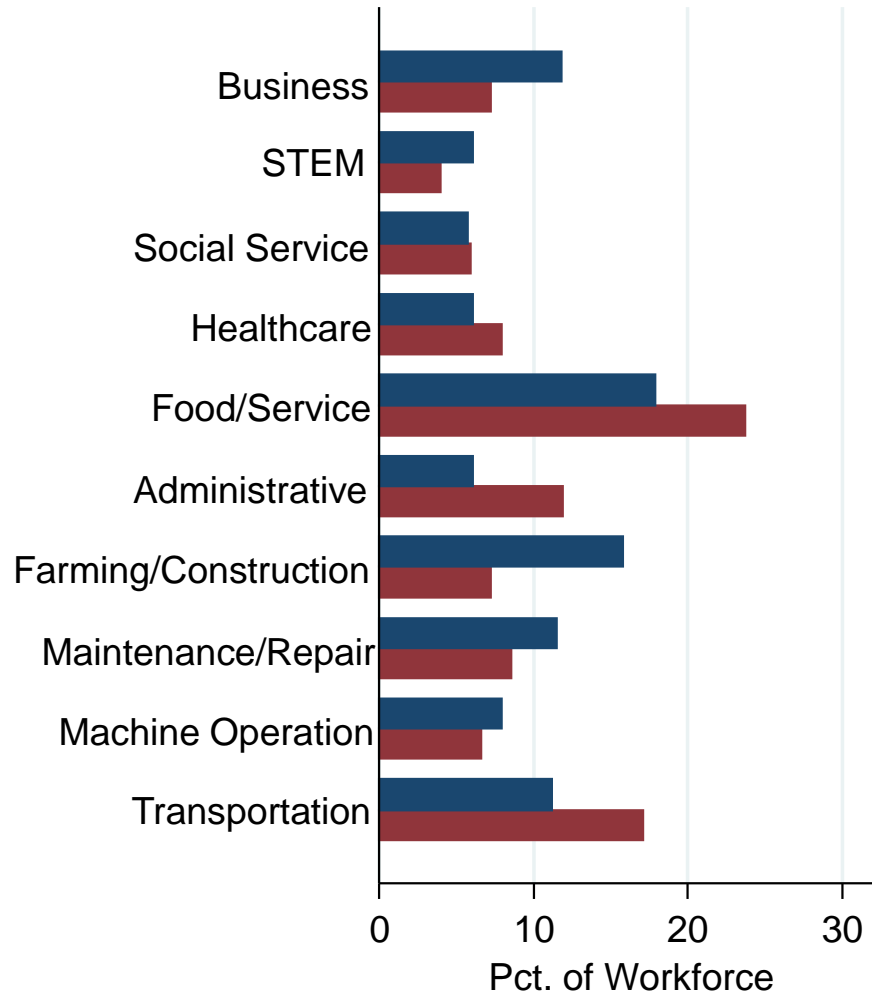
Male Children, Parents Do Not Own Home



Occupational Distributions Conditional on Parent Income, by Gender

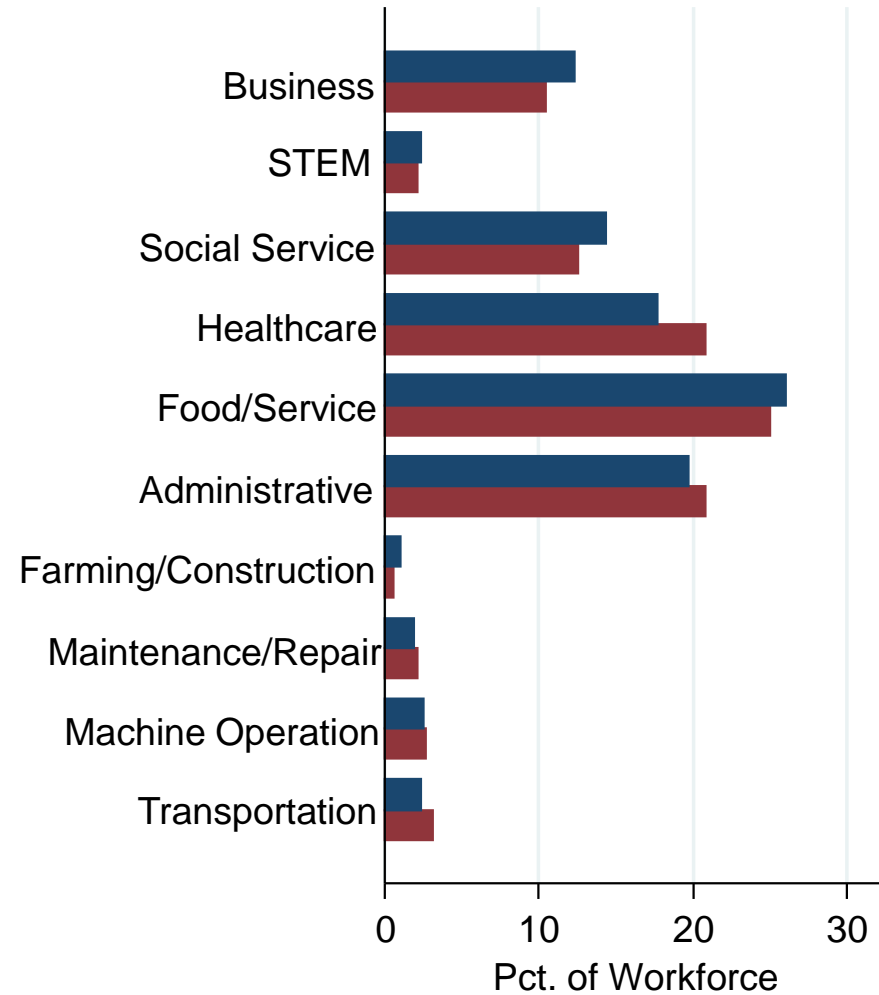
Black and White Children, Parents in 3rd Income Decile

Male



Fraction to Be Reallocated = 19.5%

Female



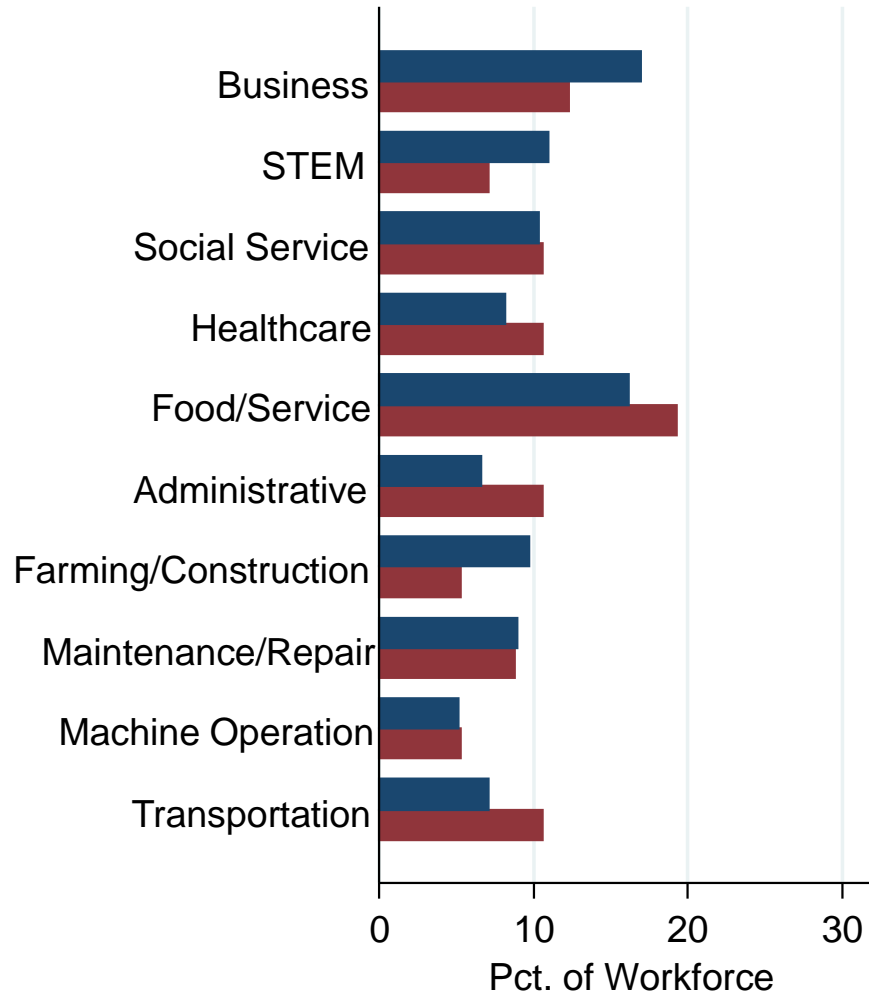
Fraction to Be Reallocated = 5.5%

White Black

Occupational Distributions Conditional on Parent Income, by Gender

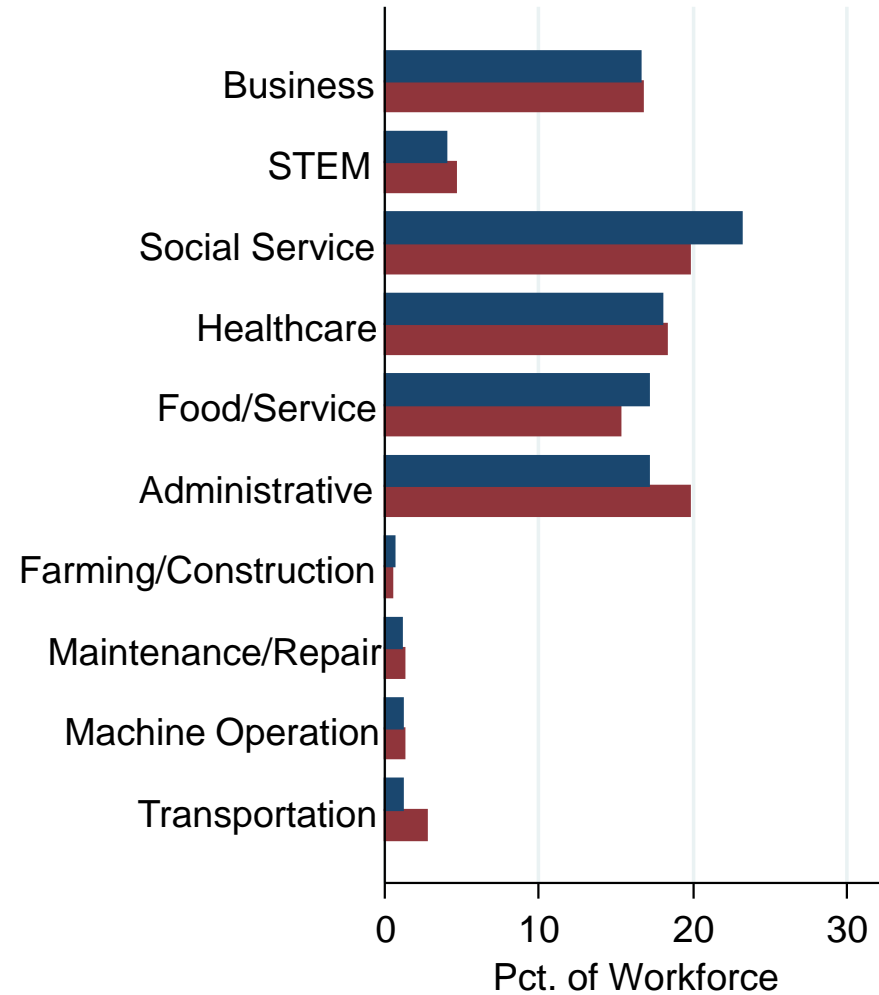
Black and White Children, Parents in 8th Income Decile

Male



Fraction to Be Reallocated = 13.2%

Female

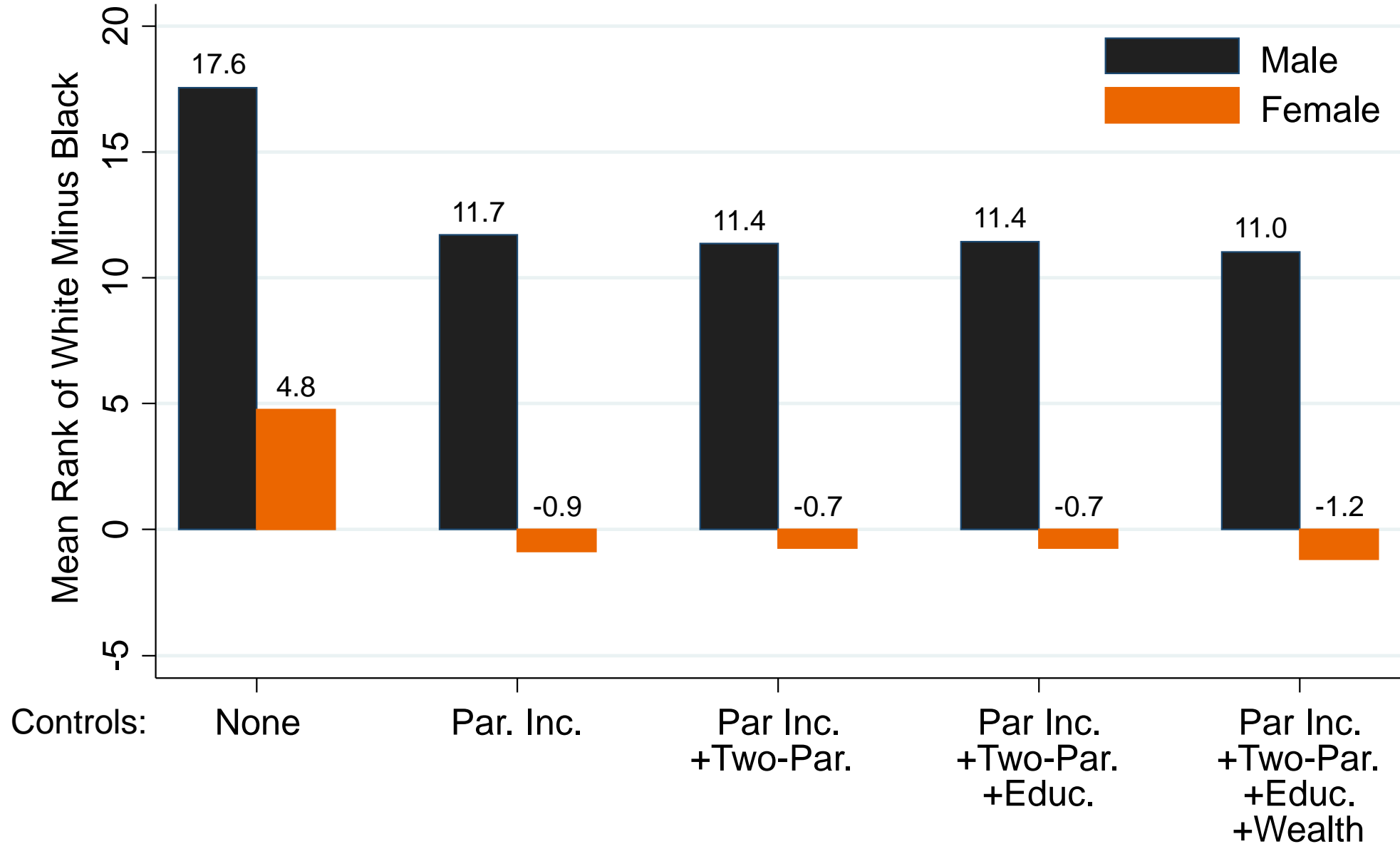


Fraction to Be Reallocated = 5.4%

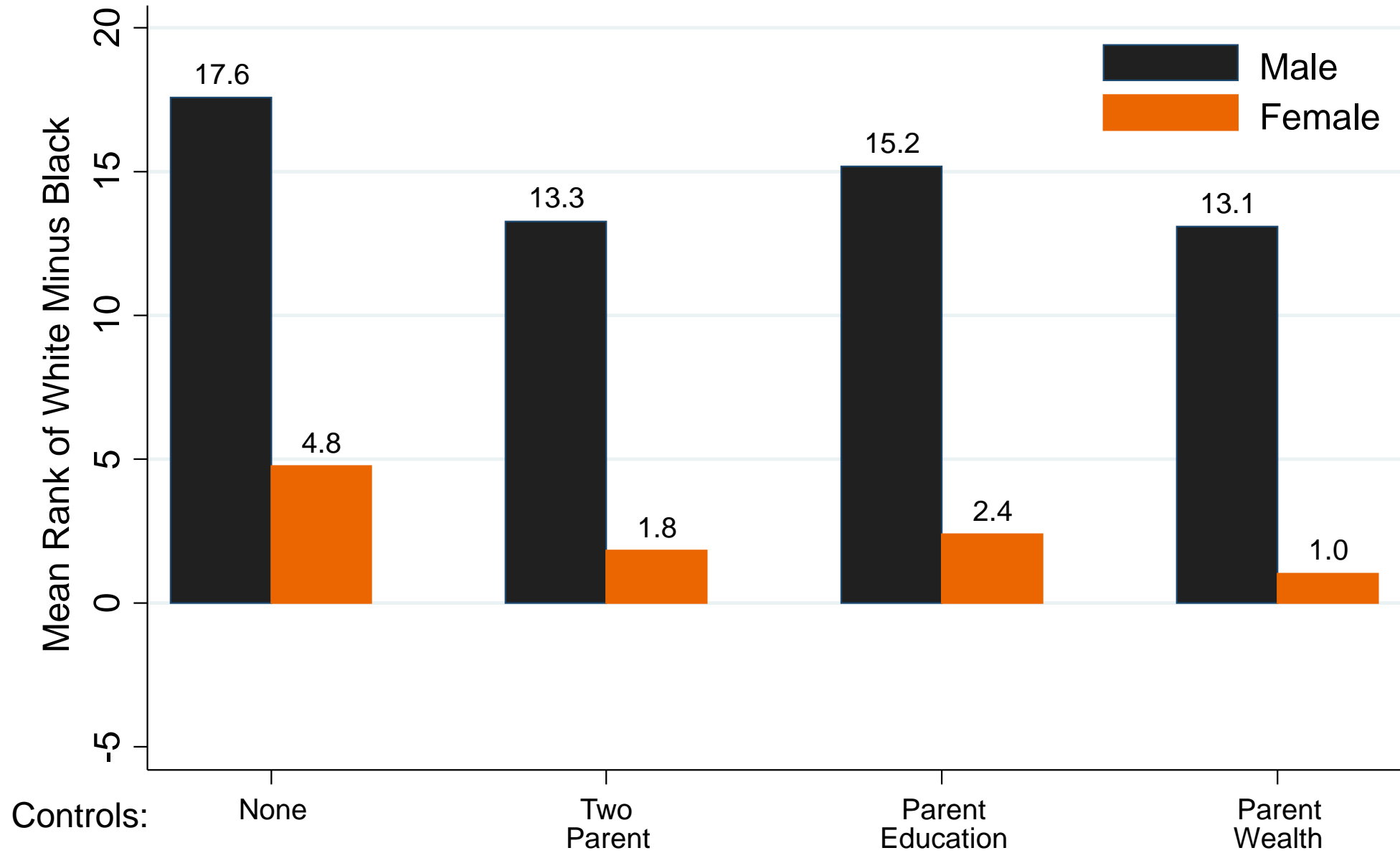
White Black

Effects of Family-Level Factors on the Black-White Income Gap

Children with Parents at 75th Percentile

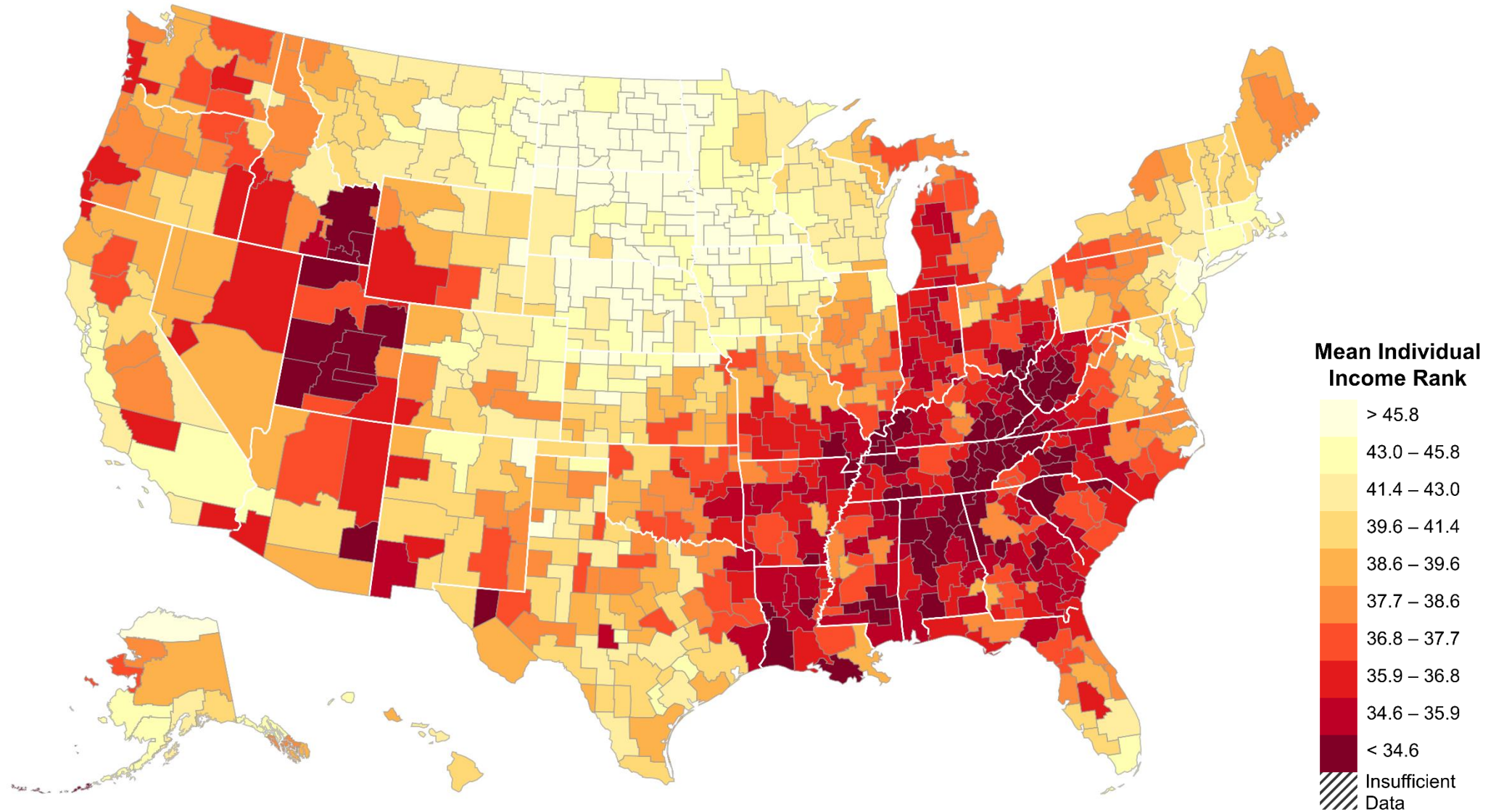


Effects of Family-Level Factors on the Unconditional Black-White Gap



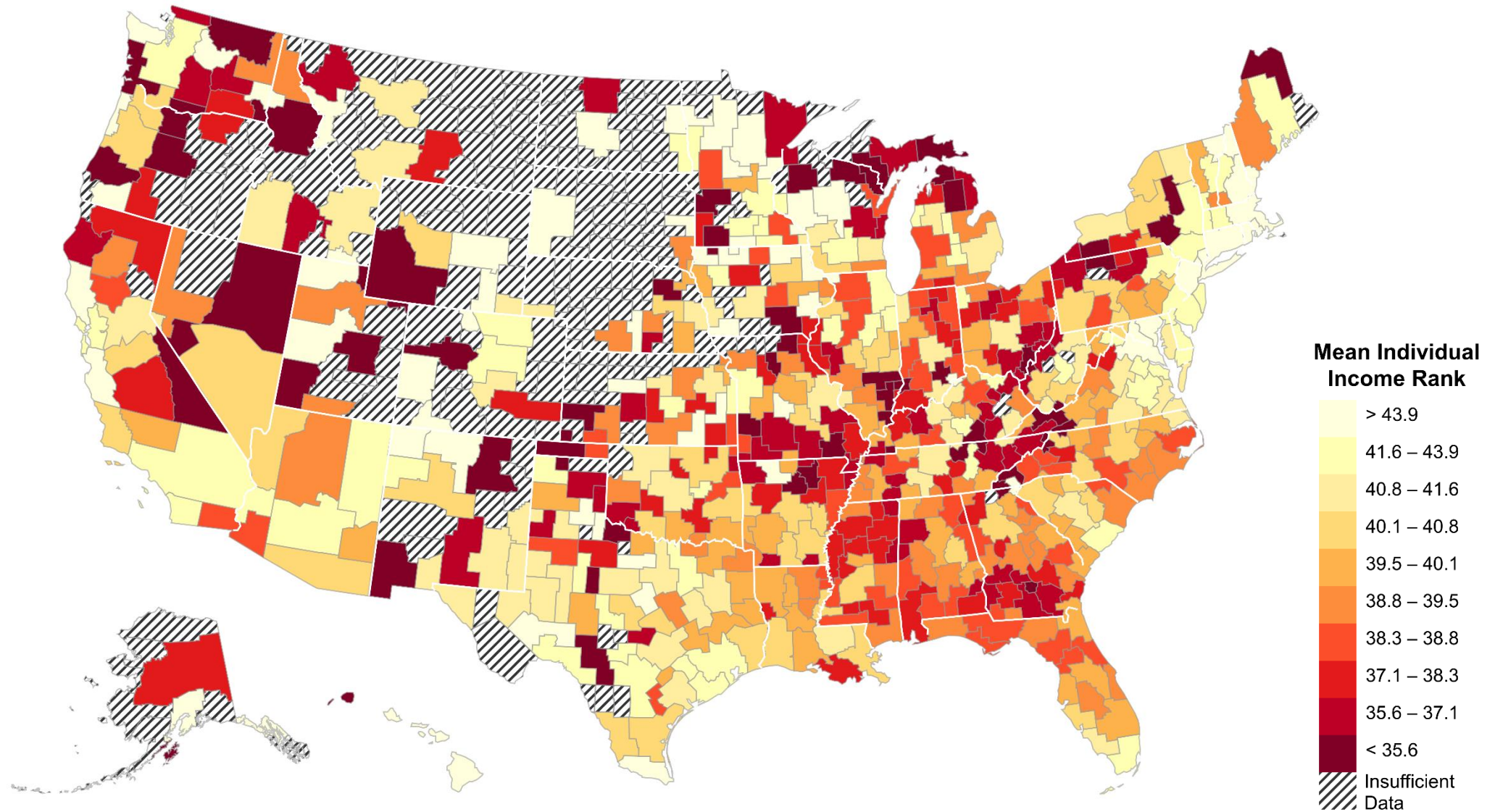
Mean Child Individual Income Rank by CZ

White Females with Parents at 25th Percentile



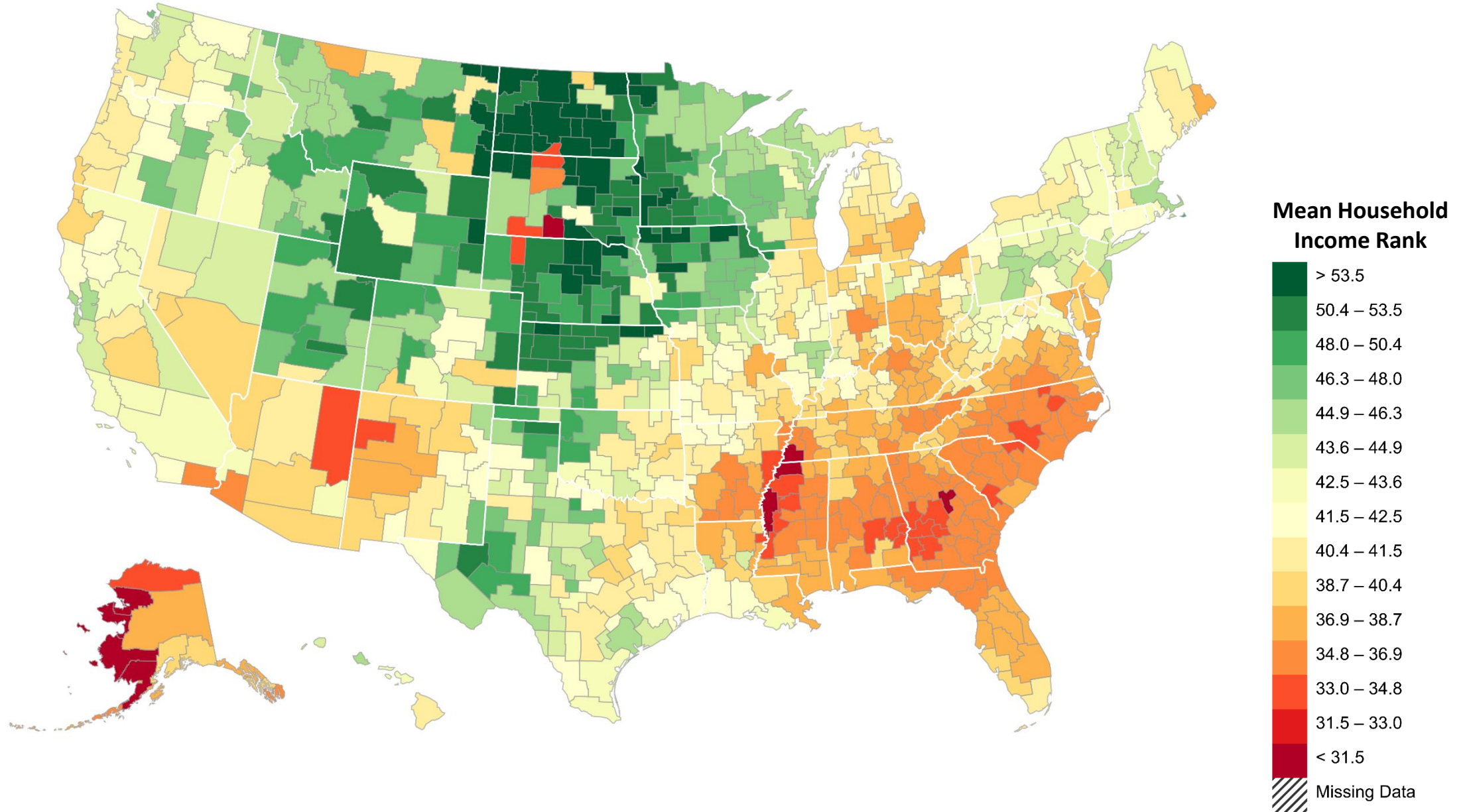
Mean Child Individual Income Rank by CZ

Black Females with Parents at 25th Percentile



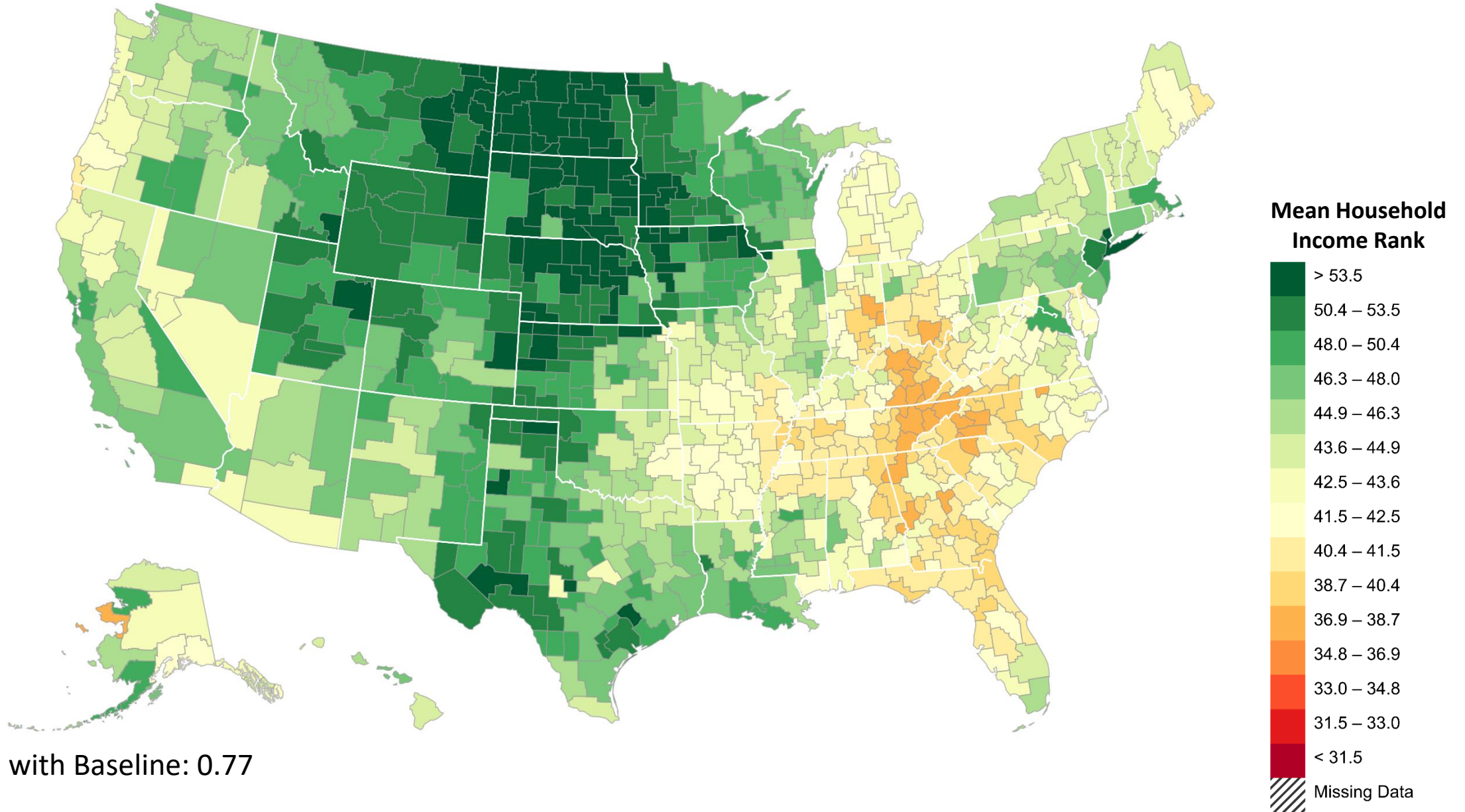
Mean Child Household Income Rank Given Parents at 25th Percentile by CZ

Full Population



Mean Child Household Income Rank Given Parents at 25th Percentile by CZ

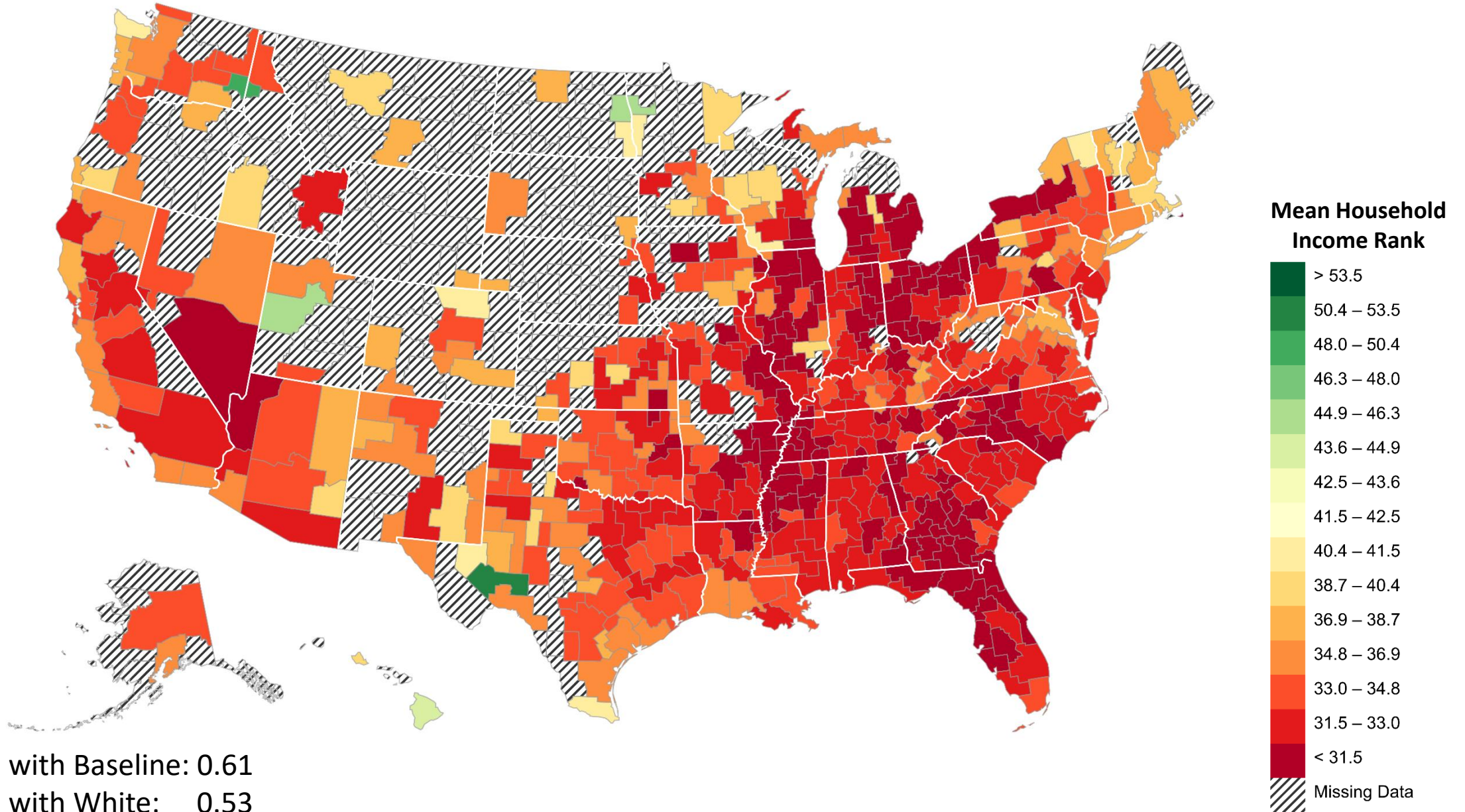
Whites



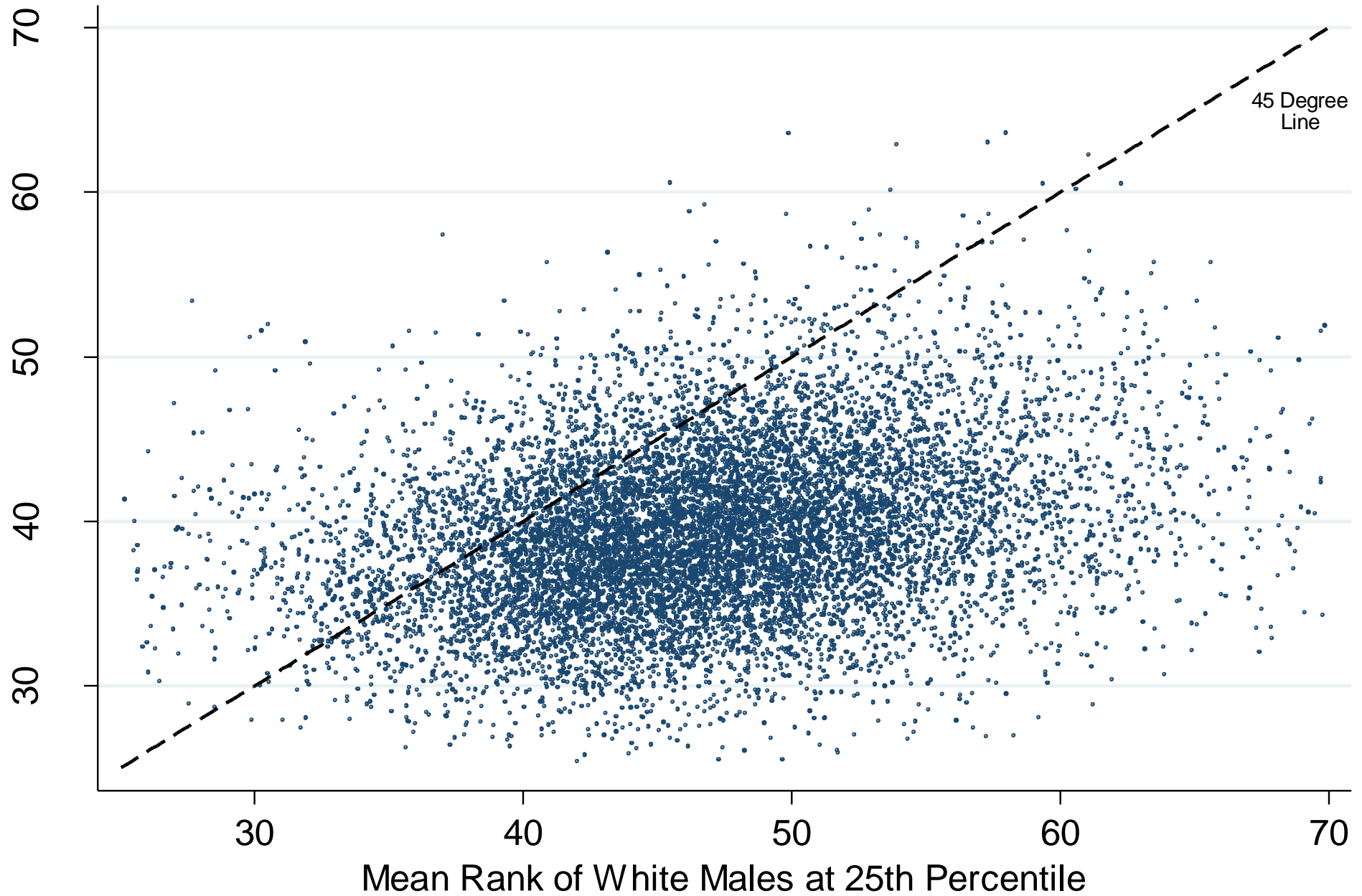
Correlation with Baseline: 0.77

Mean Child Household Income Rank Given Parents at 25th Percentile by CZ

Blacks

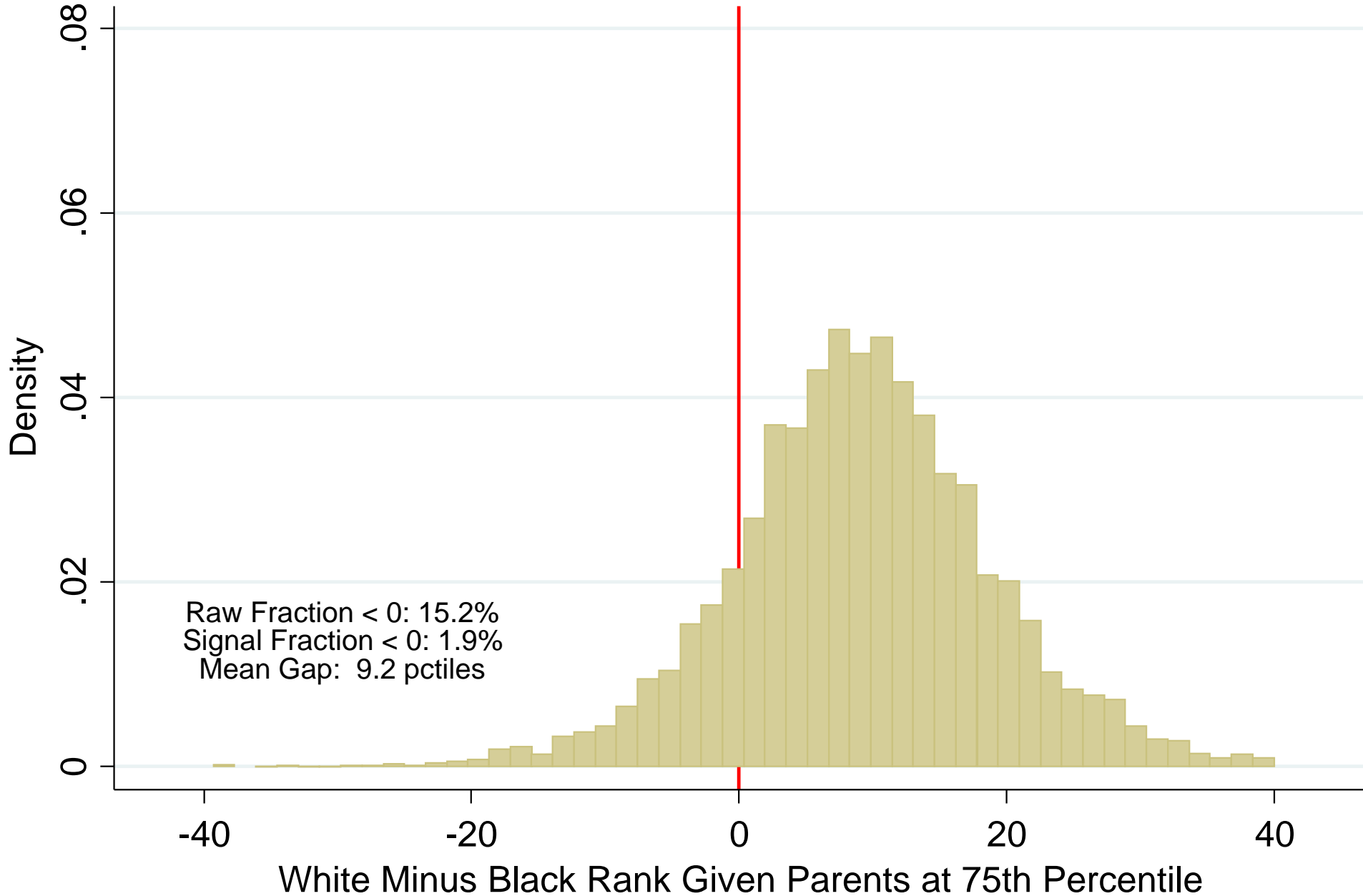


Mean Child Individual Income Rank for Males with Parents at 25th Percentile

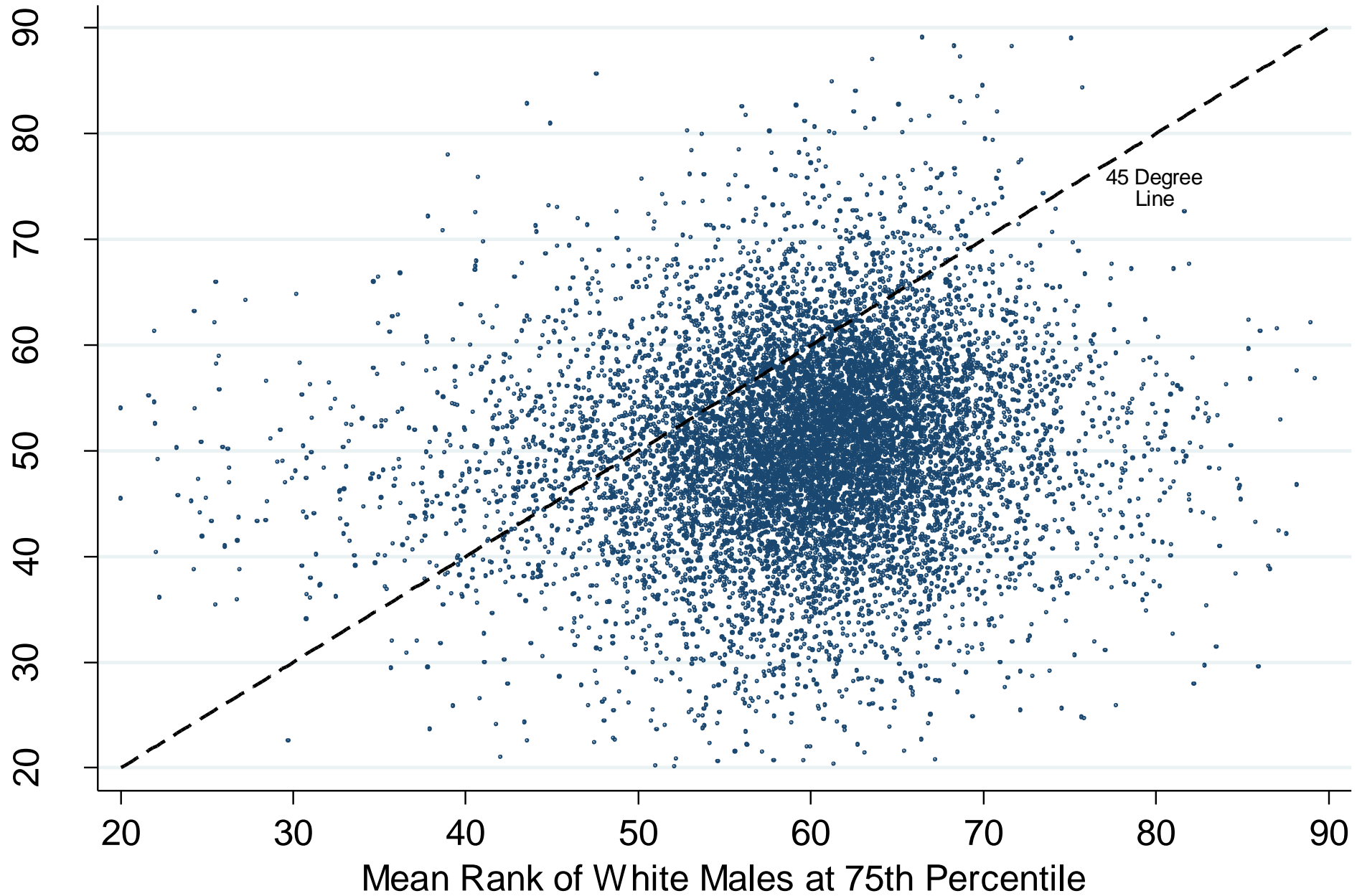


Distribution of Black – White Gap in Individual Ranks Across Tracts

Male Children with Parents at 75th Percentile

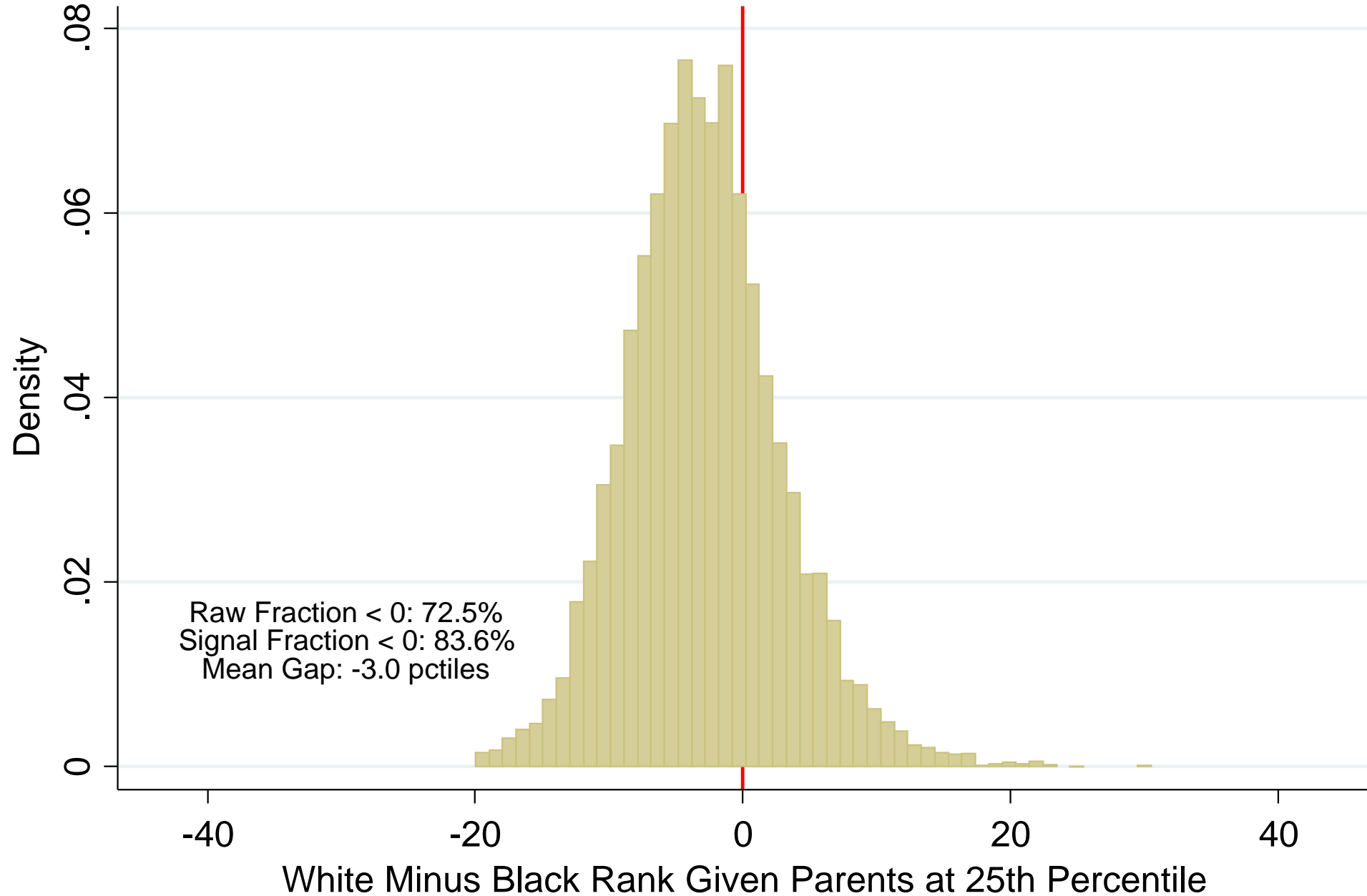


Mean Child Individual Income Rank for Males with Parents at 75th Percentile



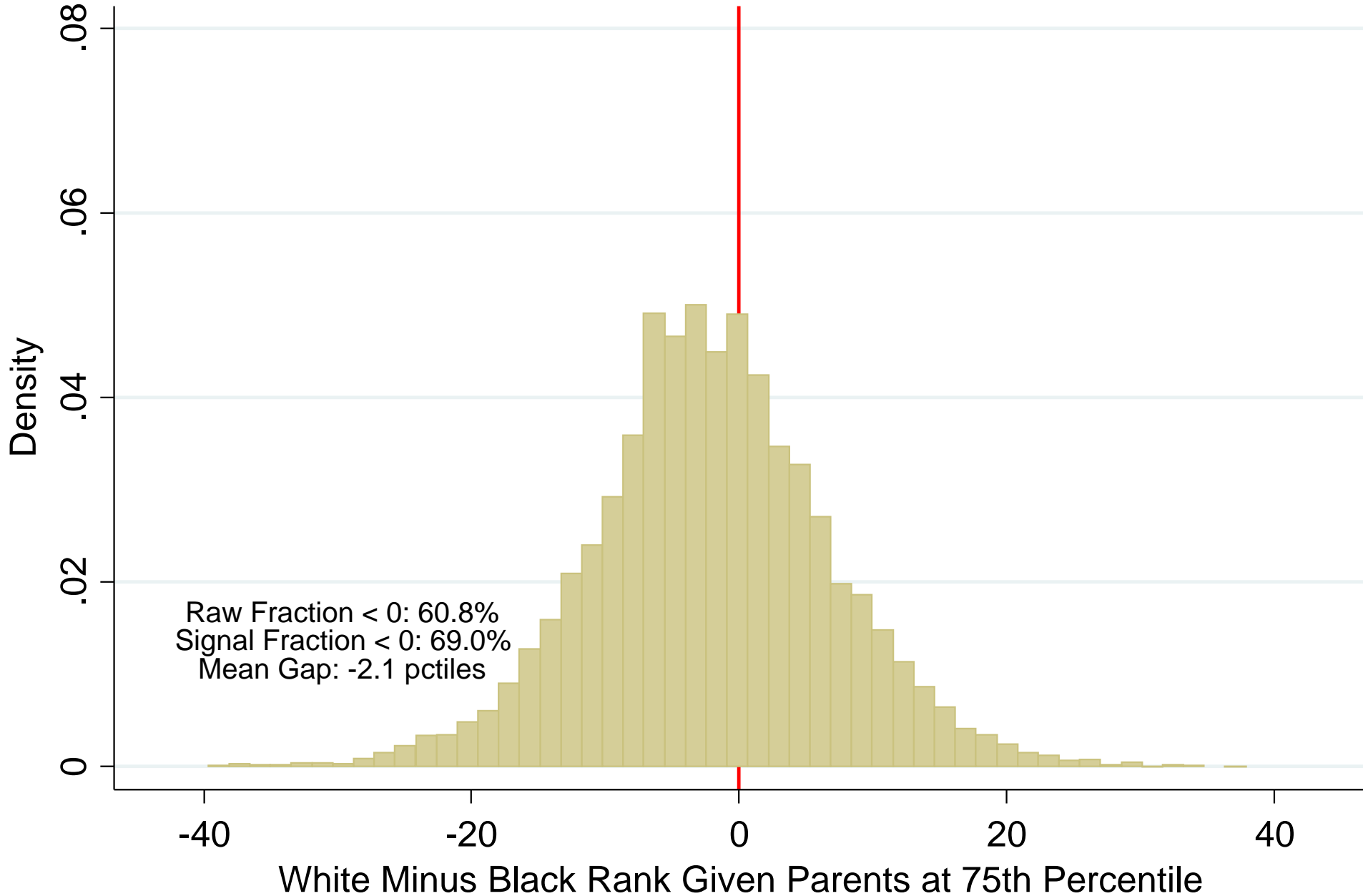
Distribution of Black – White Gap in Individual Ranks Across Tracts

Women Children with Parents at 25th Percentile



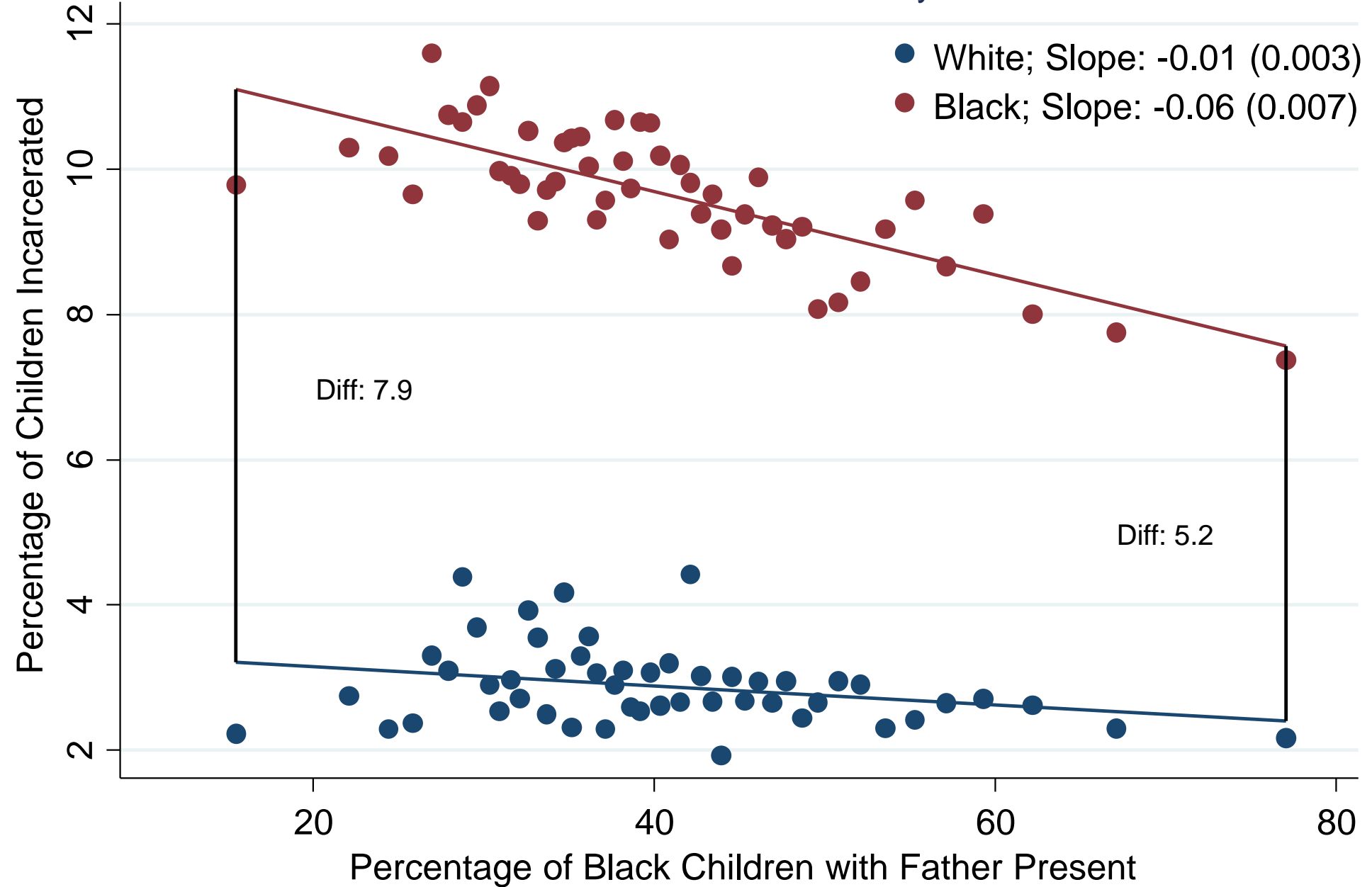
Distribution of Black – White Gap in Individual Ranks Across Tracts

Women Children with Parents at 75th Percentile



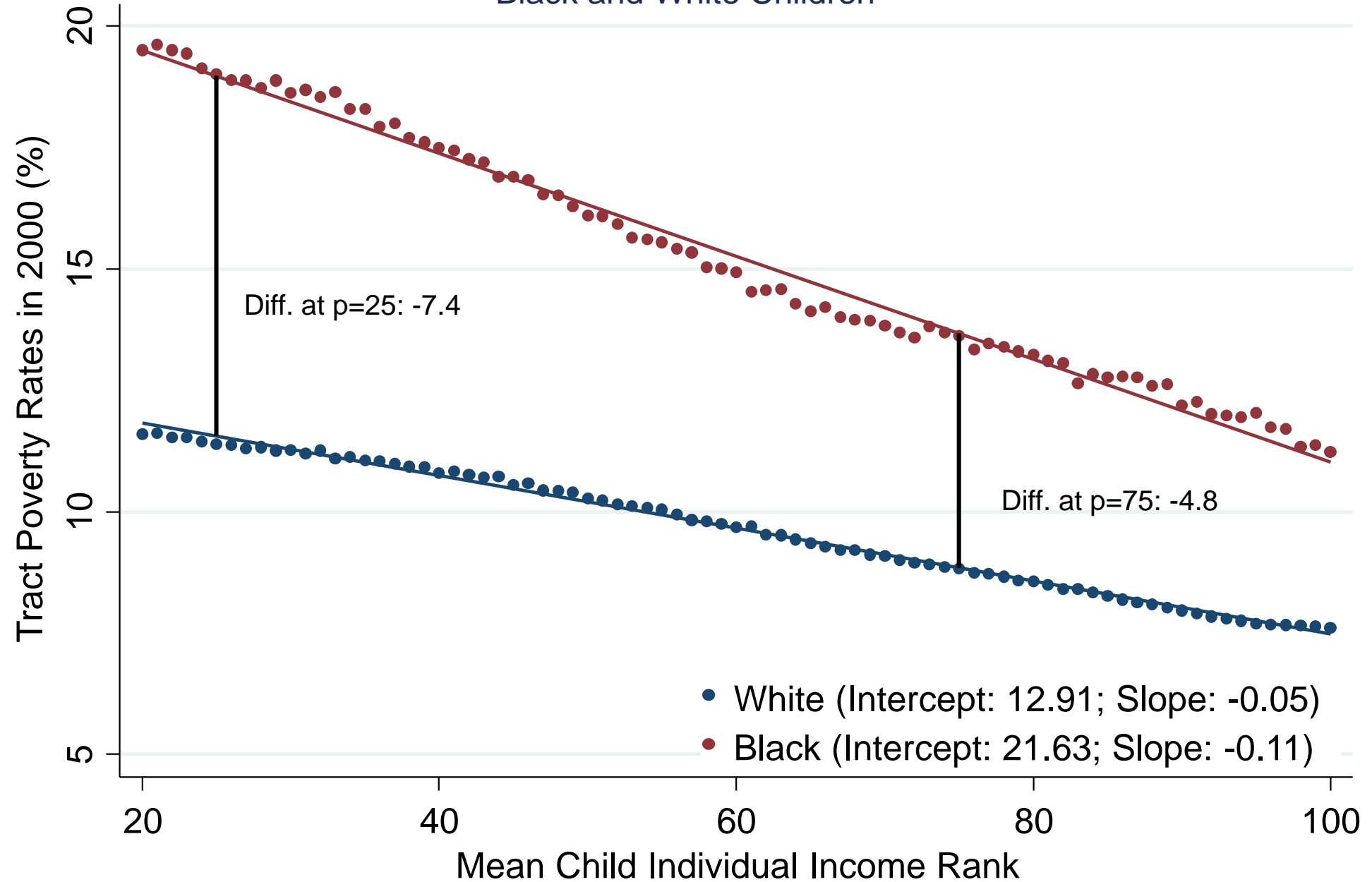
Black-White Gap in Incarceration Rate vs. Father Presence

Male Children with Parents at 25th Percentile - Poverty Share Less than 10%



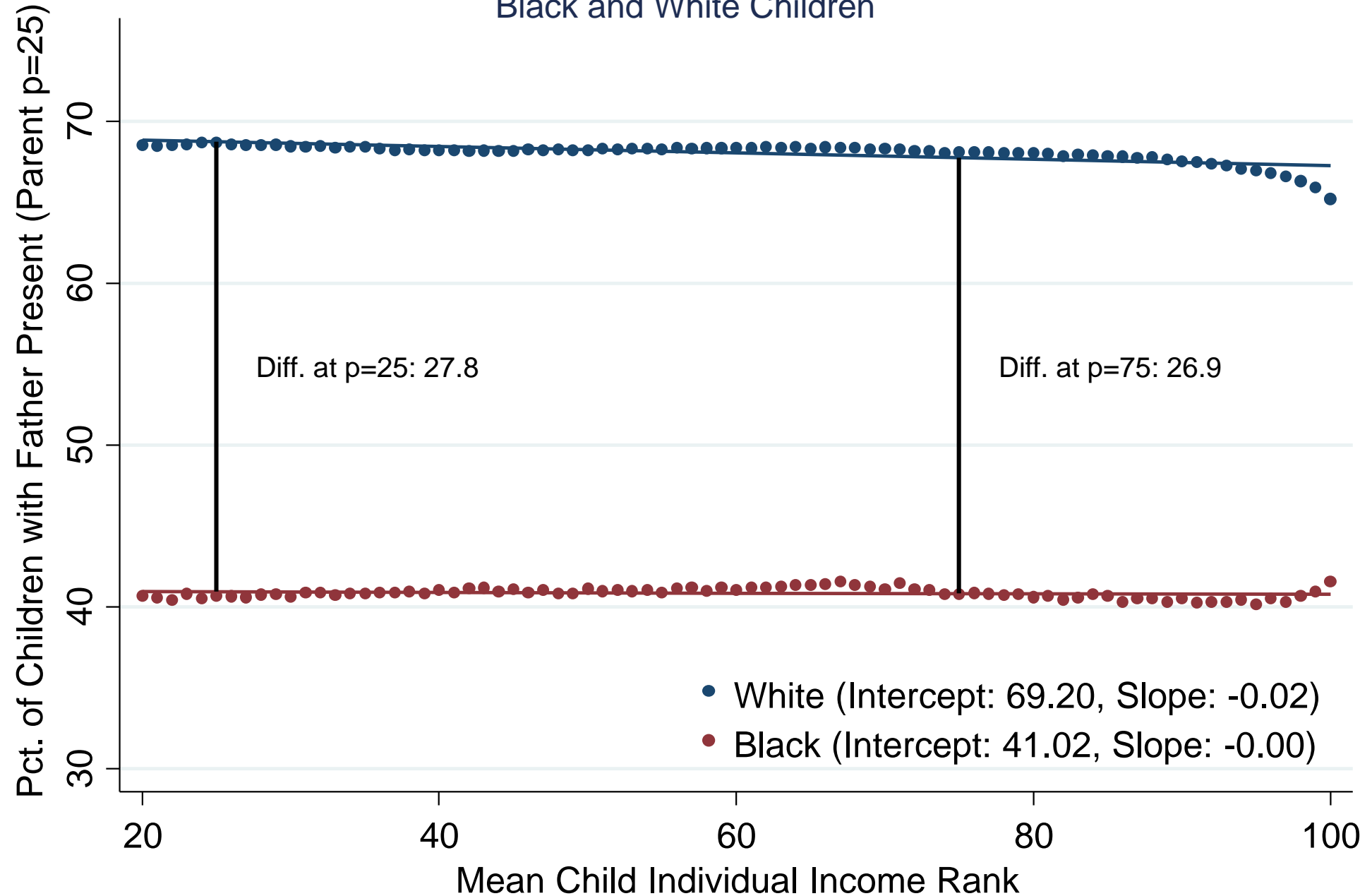
Tract Poverty Rates vs. Mean Child Individual Rank

Black and White Children

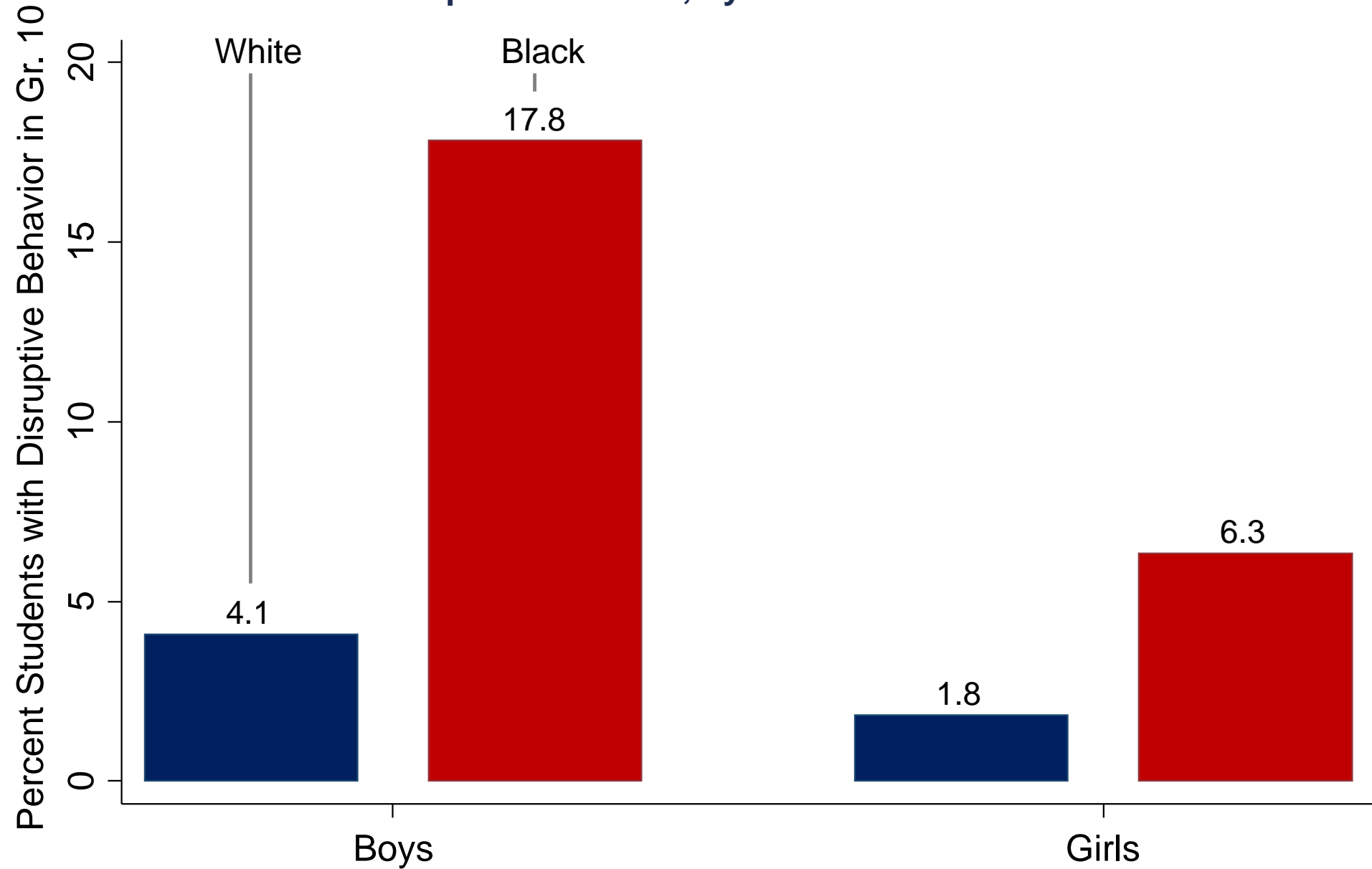


Fraction of Kids with Father Present vs. Individual Income Rank

Black and White Children

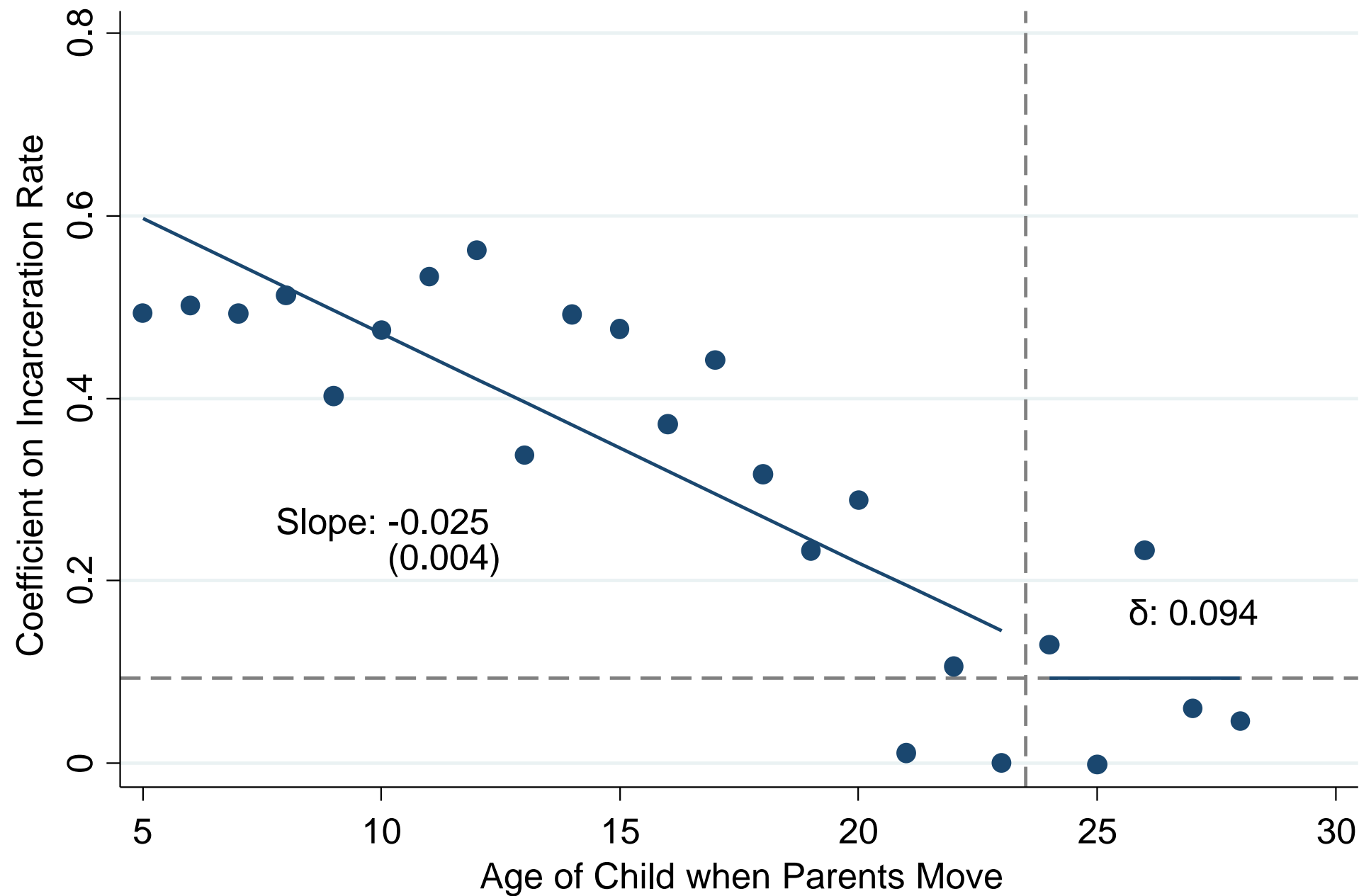


Disruptive Behavior, by Race and Gender

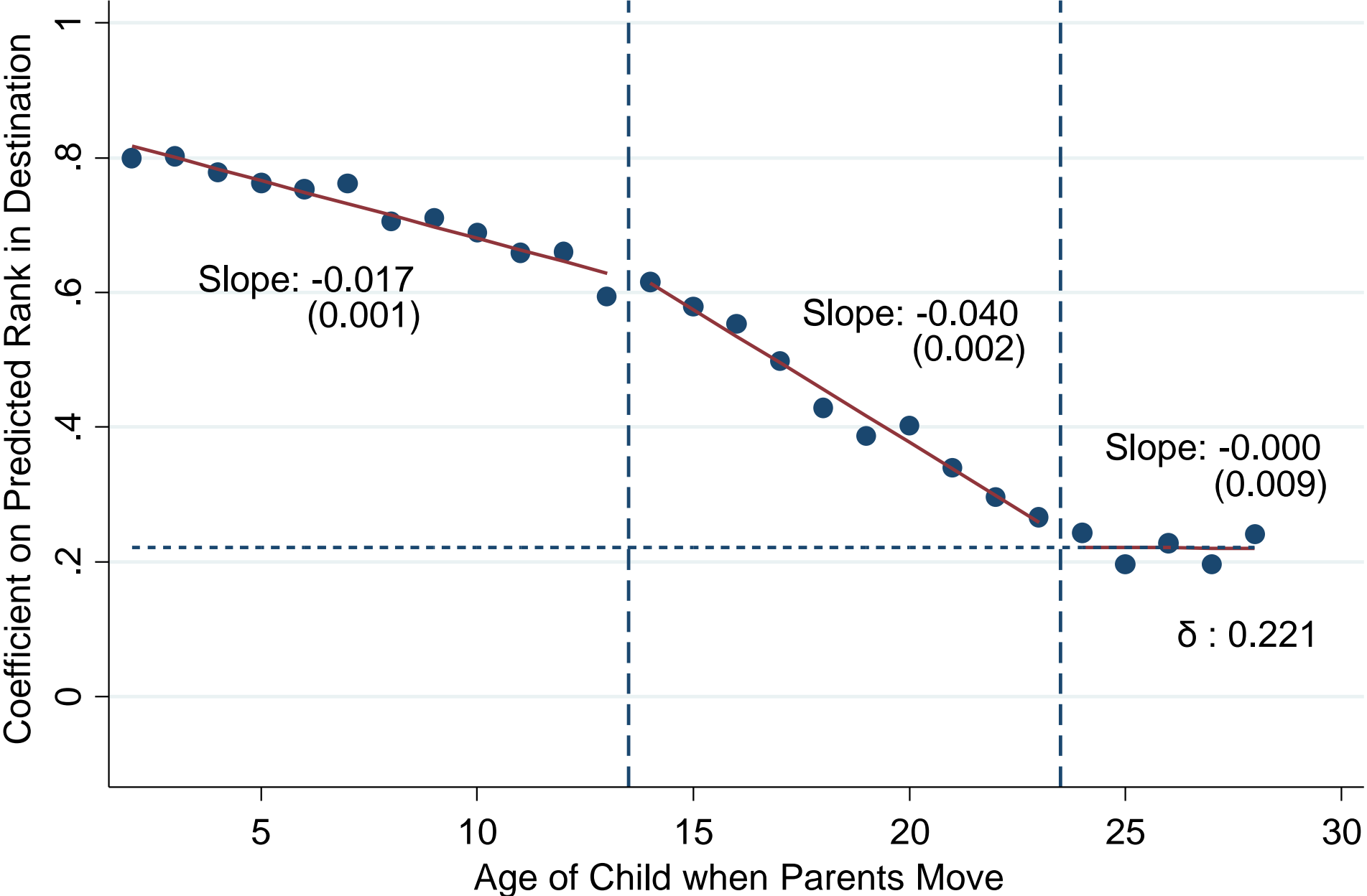


Childhood Exposure Effects on Probability of Being Incarcerated in 2010

White Males



Childhood Exposure Effects for Males on Income Rank at Age 24



Top 5 and Bottom 5 CZs in Upward Mobility for Low-Income Black Men

Among 100 Largest CZs by Black Population

| Commuting Zone | Mean Individual Income Rank Black Males (p=25) | White Minus Black Individual Income Rank (p=25) |
|------------------------|--|---|
| A. Top 5 CZs | | |
| Boston, MA | 44.3 | 7.8 |
| Lafayette, LA | 44.0 | 11.6 |
| Lake Charles, LA | 43.1 | 11.1 |
| Baton Rouge, LA | 43.1 | 10.8 |
| New York, NY | 42.4 | 13.2 |
| B. Bottom 5 CZs | | |
| Grand Rapids, MI | 35.5 | 11.1 |
| Cleveland, OH | 35.2 | 12.6 |
| Youngstown, OH | 35.2 | 12.9 |
| Tampa, FL | 34.9 | 9.3 |
| Cincinnati, OH | 34.7 | 10.1 |