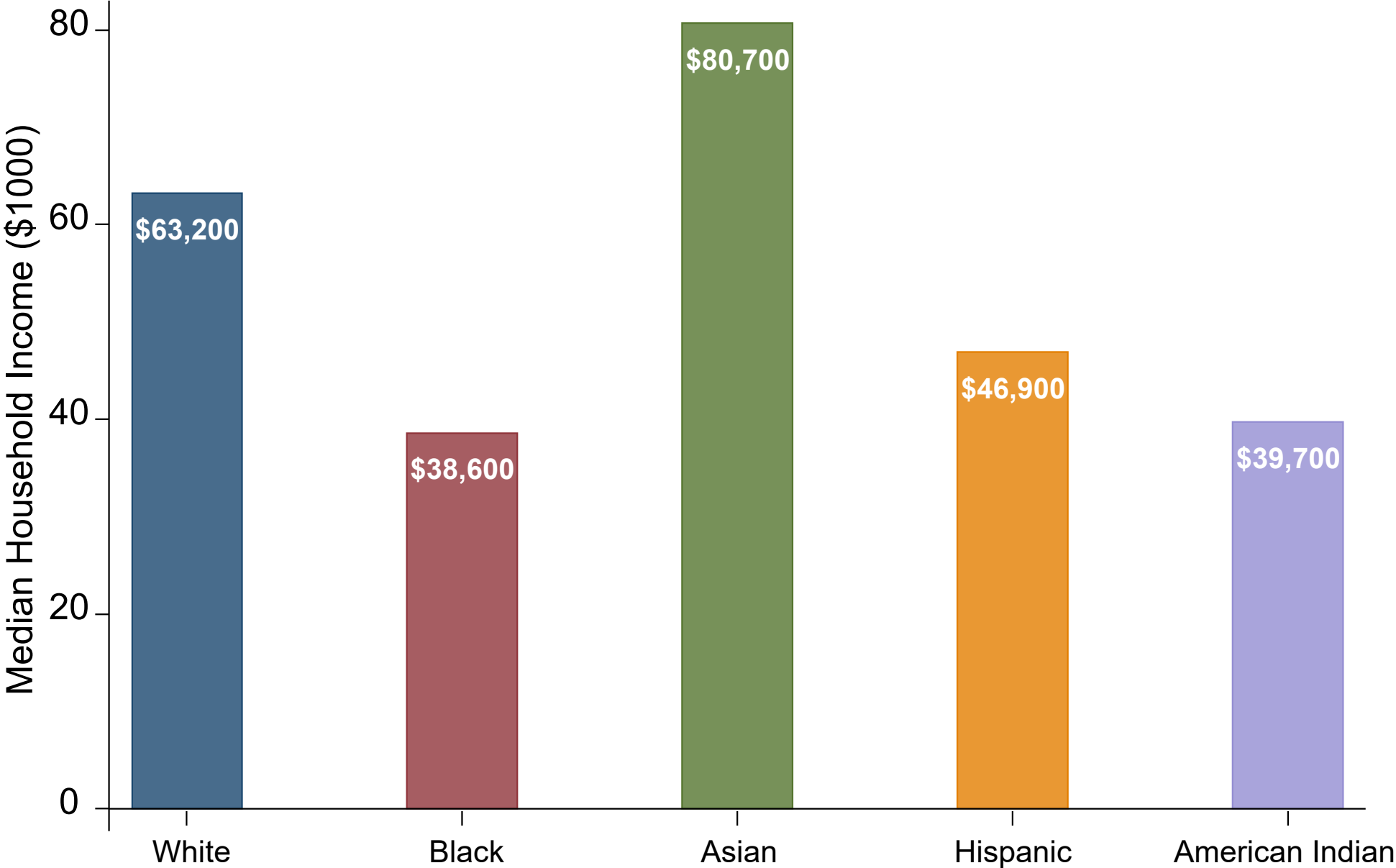# Race and Economic Opportunity in the United States
An Intergenerational Perspective

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Nathaniel Hendren, Harvard University
Maggie R. Jones, U.S. Census Bureau
Sonya Porter, U.S. Census Bureau

December 2019

Median Household Income by Race and Ethnicity in 2016

Median Household Income ($1000)

80

$80,700

60

$63,200

40

$46,900

$38,600

$39,700

20

0

White   Black   Asian   Hispanic   American Indian

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 & Wilson 1995; Smith 2005; Sampson, Morenoff & Gannon-Rowley 2002; Small, Harding & Lamont 2010
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

1 **Data and Sample Definitions**

2 **Intergenerational Mobility by Race**

3 **Marriage Rates and Gender Differences**

4 **Family Level Explanations**

5 **Neighborhood Level Explanations**

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

1. Data and Sample Definitions

2. **Intergenerational Mobility by Race**

3. Marriage Rates and Gender Differences

4. Family Level Explanations

5. Neighborhood-Level Explanations
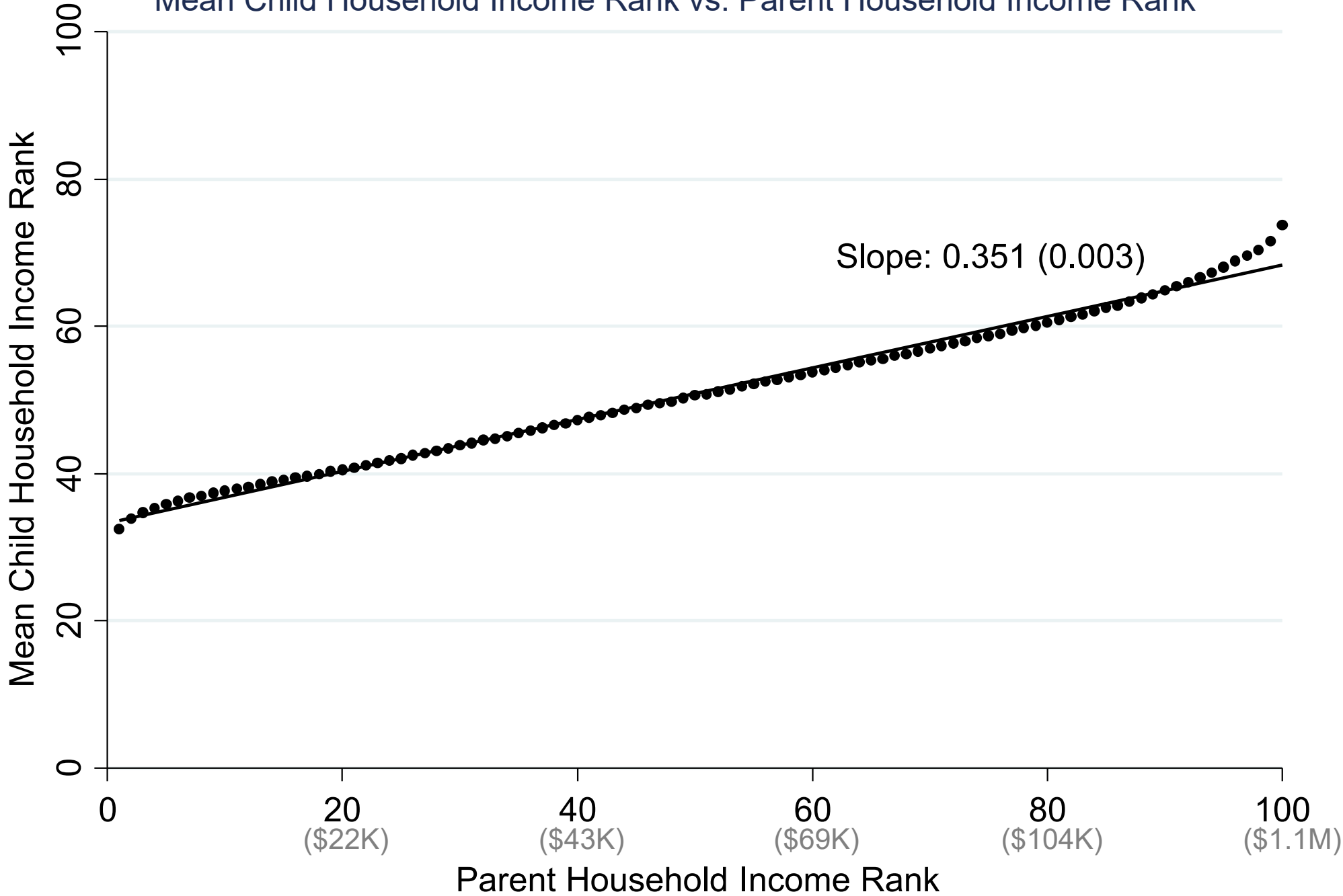
Intergenerational Mobility by Race

- 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:

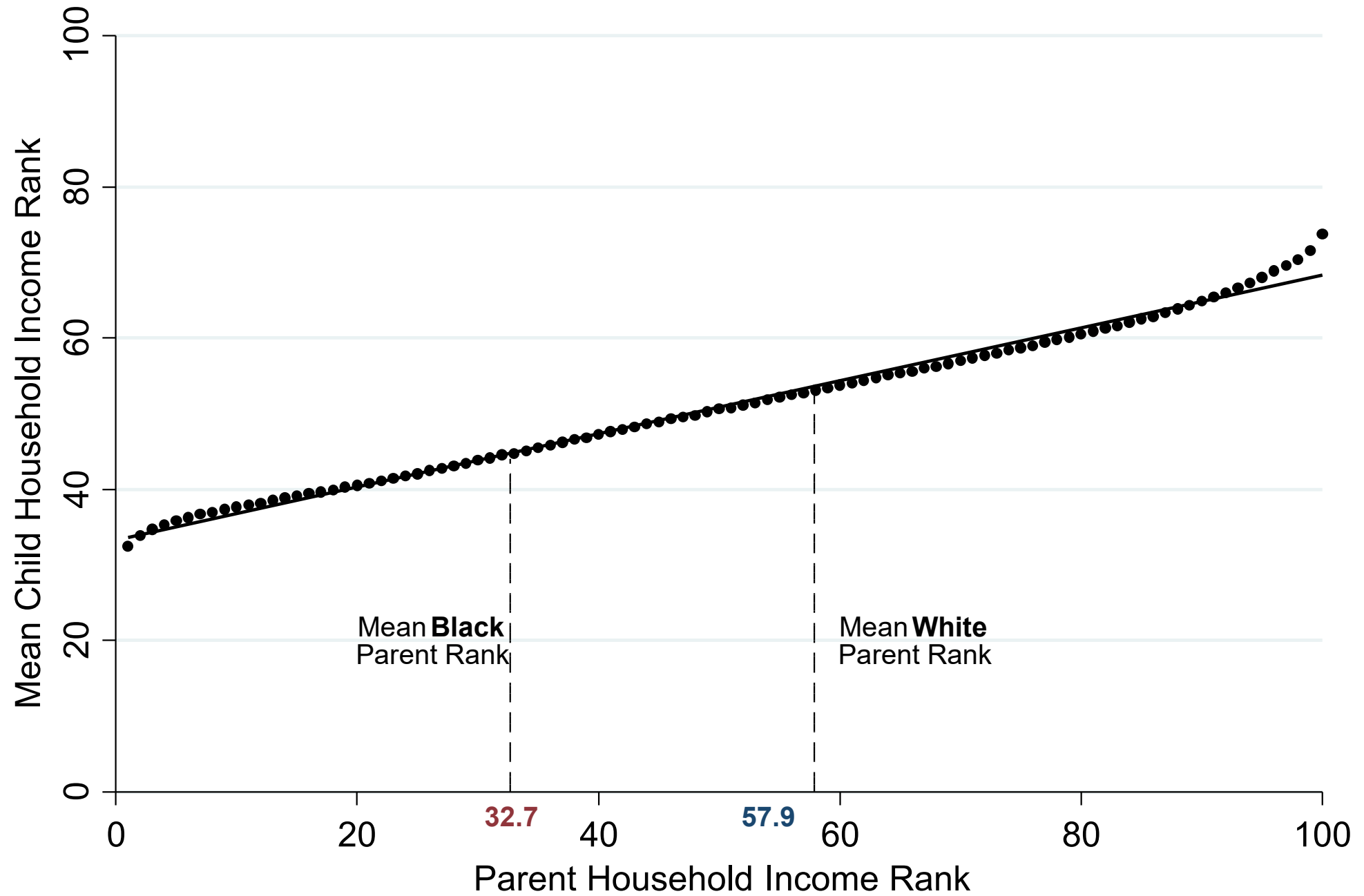 $$y_{it} = \alpha_r + \beta_r y_{i,t-1} + \varepsilon_{it}$$

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

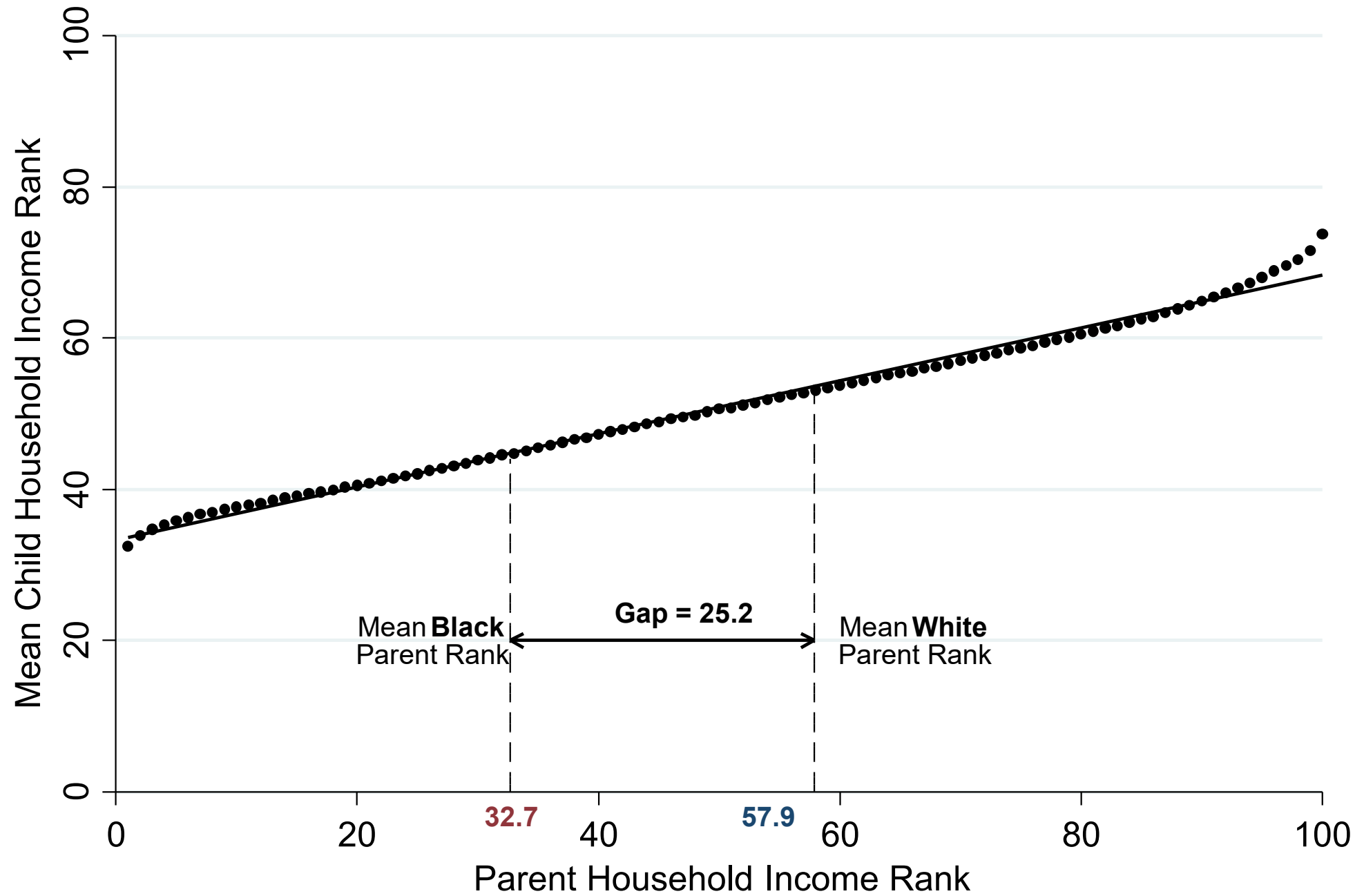**Intergenerational Mobility in the United States**
Mean Child Household Income Rank vs. Parent Household Income Rank

Slope: 0.351 (0.003)

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

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

Mean Child Household Income Rank (y-axis)

Parent Household Income Rank (x-axis)

Mean **Black** Parent Rank — 32.7
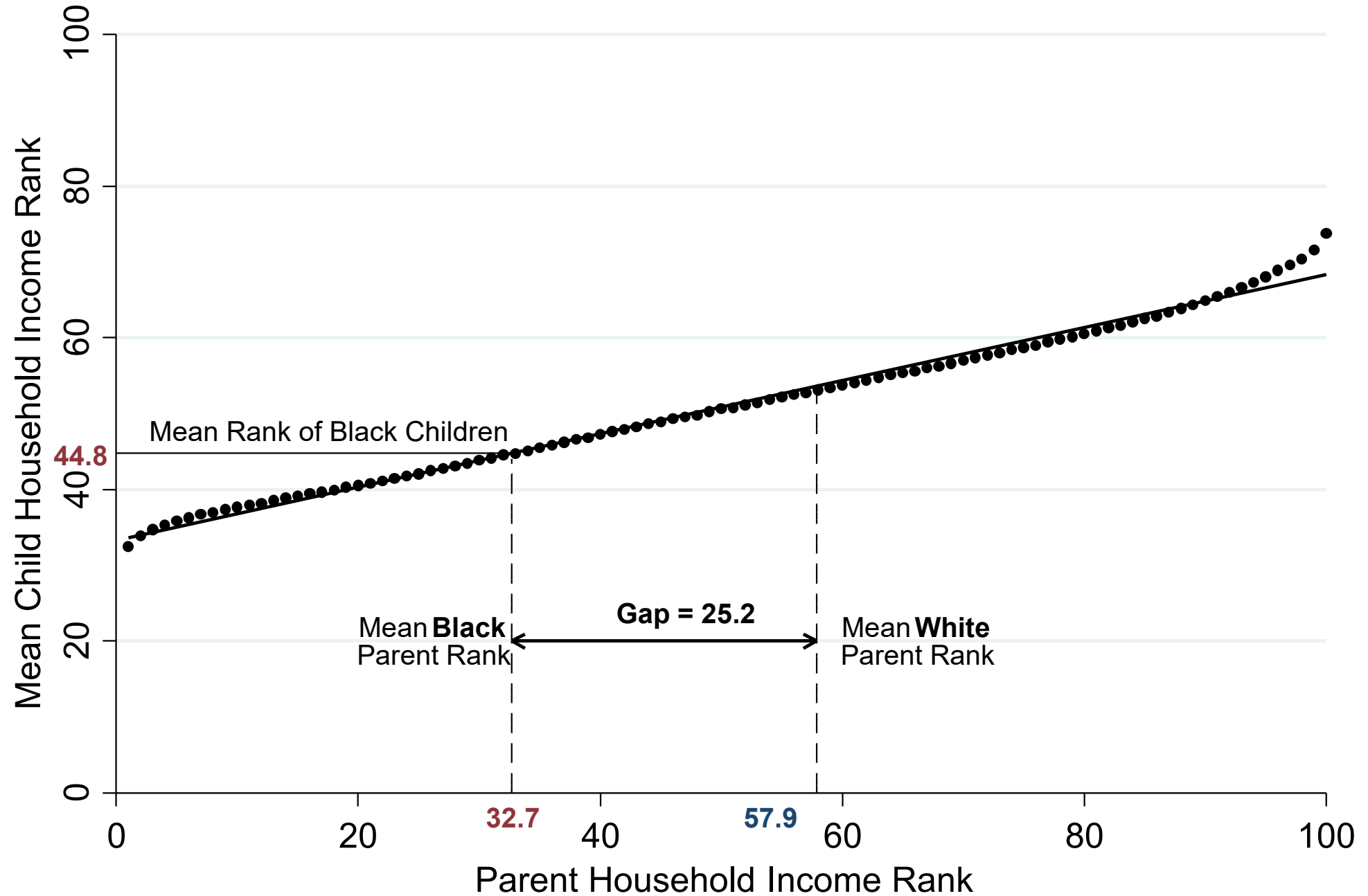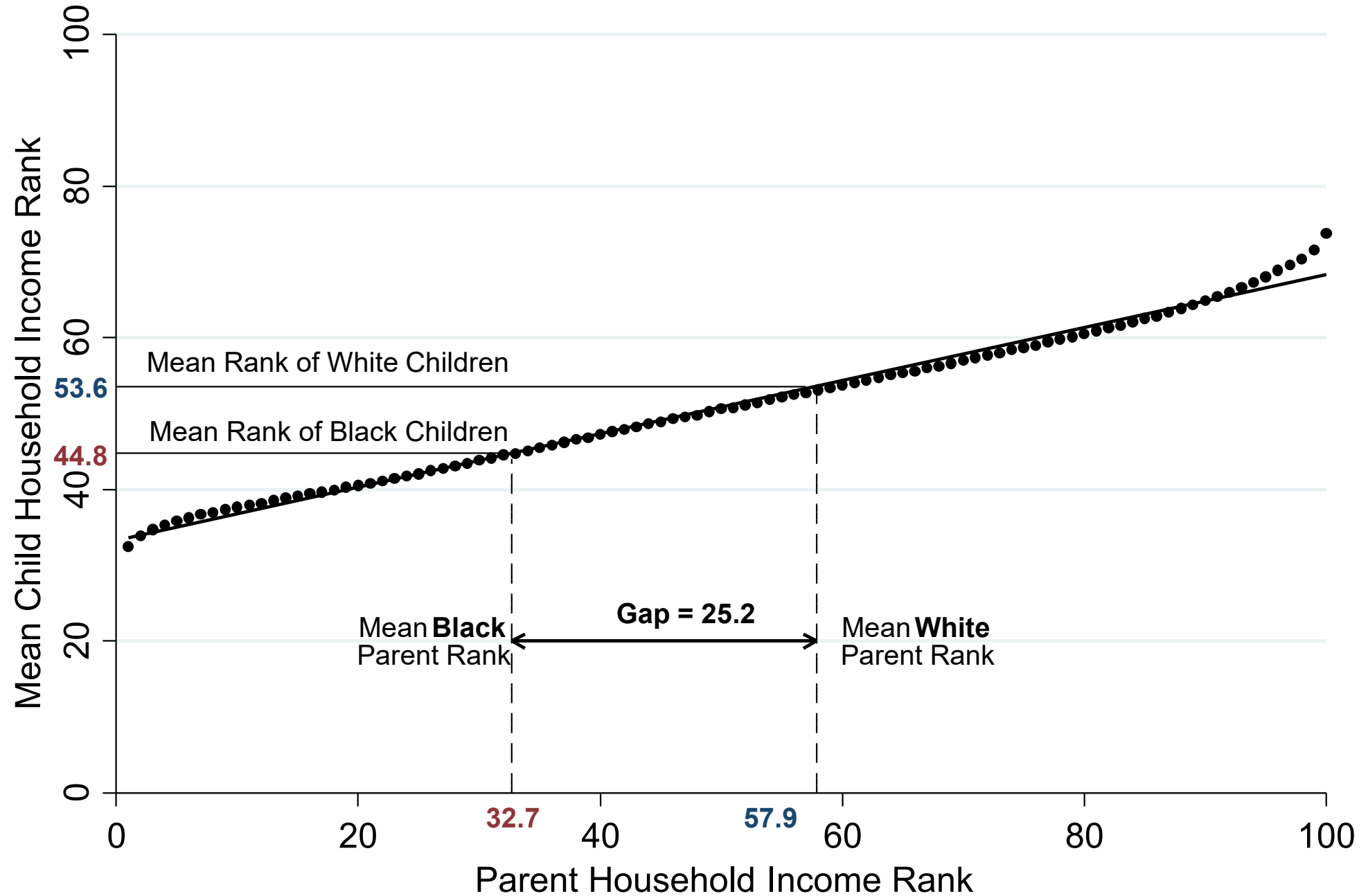
Mean **White** Parent Rank — 57.9

Gap = 25.2

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

Convergence in Black-White Gap if Intergenerational Mobility is Race-Invariant
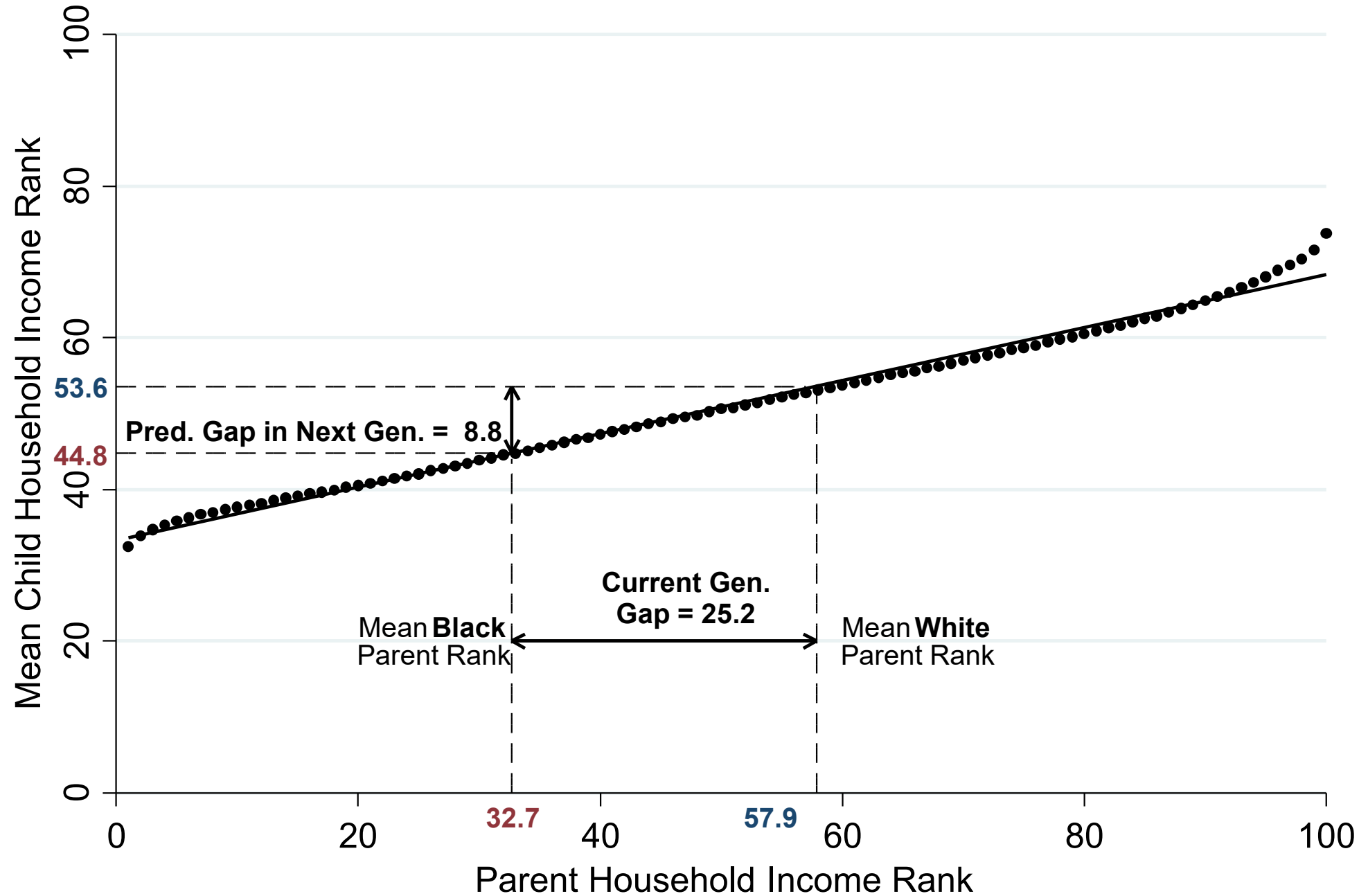
Mean Child Household Income Rank (y-axis)

Parent Household Income Rank (x-axis)

Mean Rank of White Children — 53.6
Mean Rank of Black Children — 44.8

Gap = 25.2

Mean **Black** Parent Rank — 32.7
Mean **White** Parent Rank — 57.9

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

Pred. Gap in Next Gen. = 8.8

Current Gen. Gap = 25.2

Mean **Black** Parent Rank

Mean **White** Parent Rank

53.6

44.8

32.7

57.9

y-axis: Mean Child Household Income Rank

x-axis: Parent Household Income Rank

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

Next Gen.
Gap = 8.8

44.8   53.6

Parent Household Income Rank

Mean Child Household Income Rank

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

If intergen mobility did not vary by race,
racial disparities would shrink rapidly across generations

Gen. 2 Gap = 3.1

Next Gen.
Gap = 8.8

Mean Child Household Income Rank (y-axis: 0, 20, 40, 60, 80, 100)

52.1
49.0

Parent Household Income Rank (x-axis: 0, 20, 40, 60, 80, 100)

44.8   53.6

Intergenerational Mobility for Whites vs. Blacks

Diff. at p=100: 12.4

Diff. at p=25: 12.6

White

Diff. at p=75: 15.7

Black

Mean Child Household Income Rank

Parent Household Income Rank
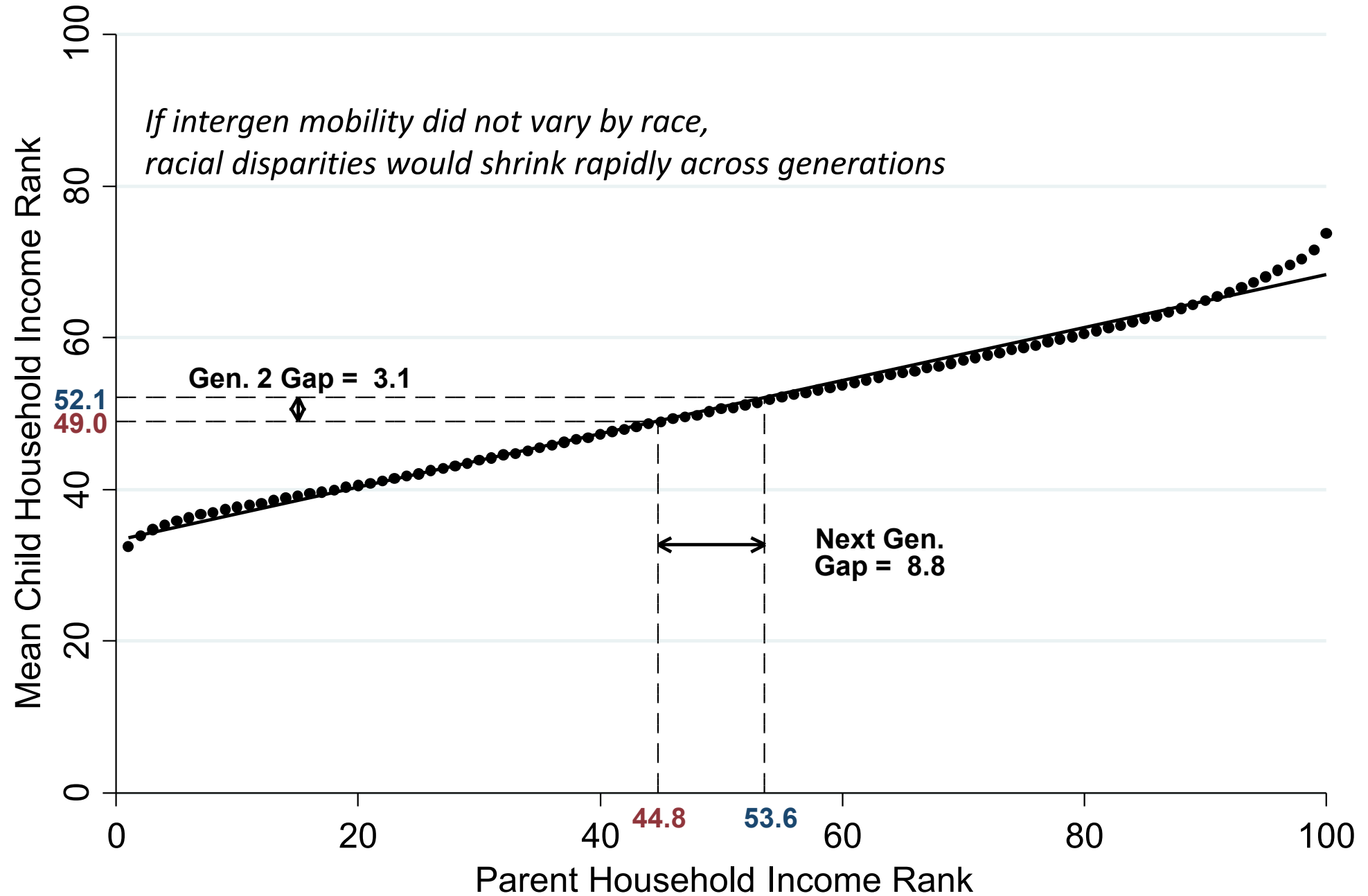
Rates of Upward and Downward Mobility: Blacks vs. Whites

Percentage of Children

- Kids Q5 Given Parents Q1: White 11%, Black 3%
- Kids Q1 Given Parents Q5: White 9%, Black 17%
- Kids Q5 Given Parents Q5: White 41%, Black 18%

White | Black
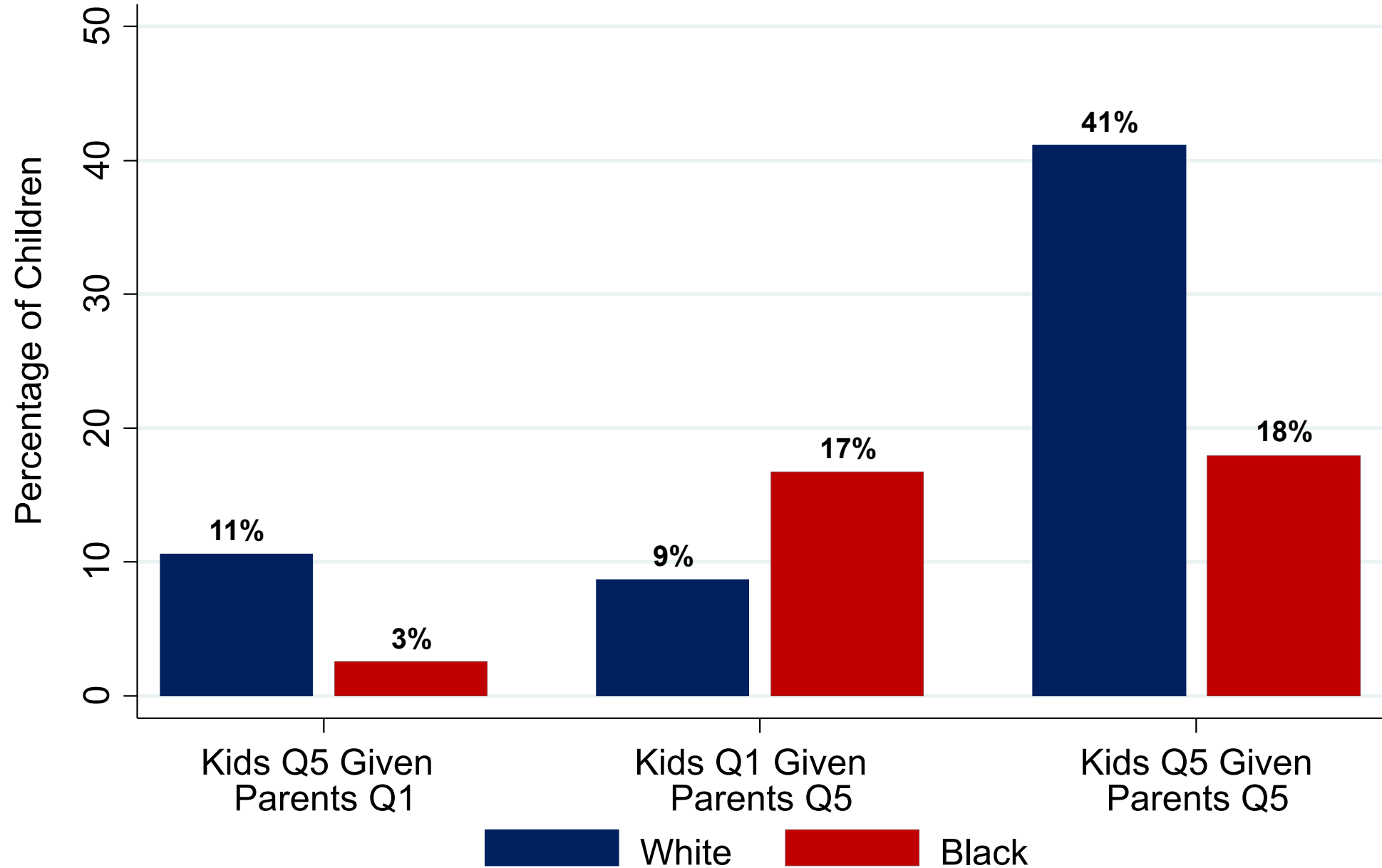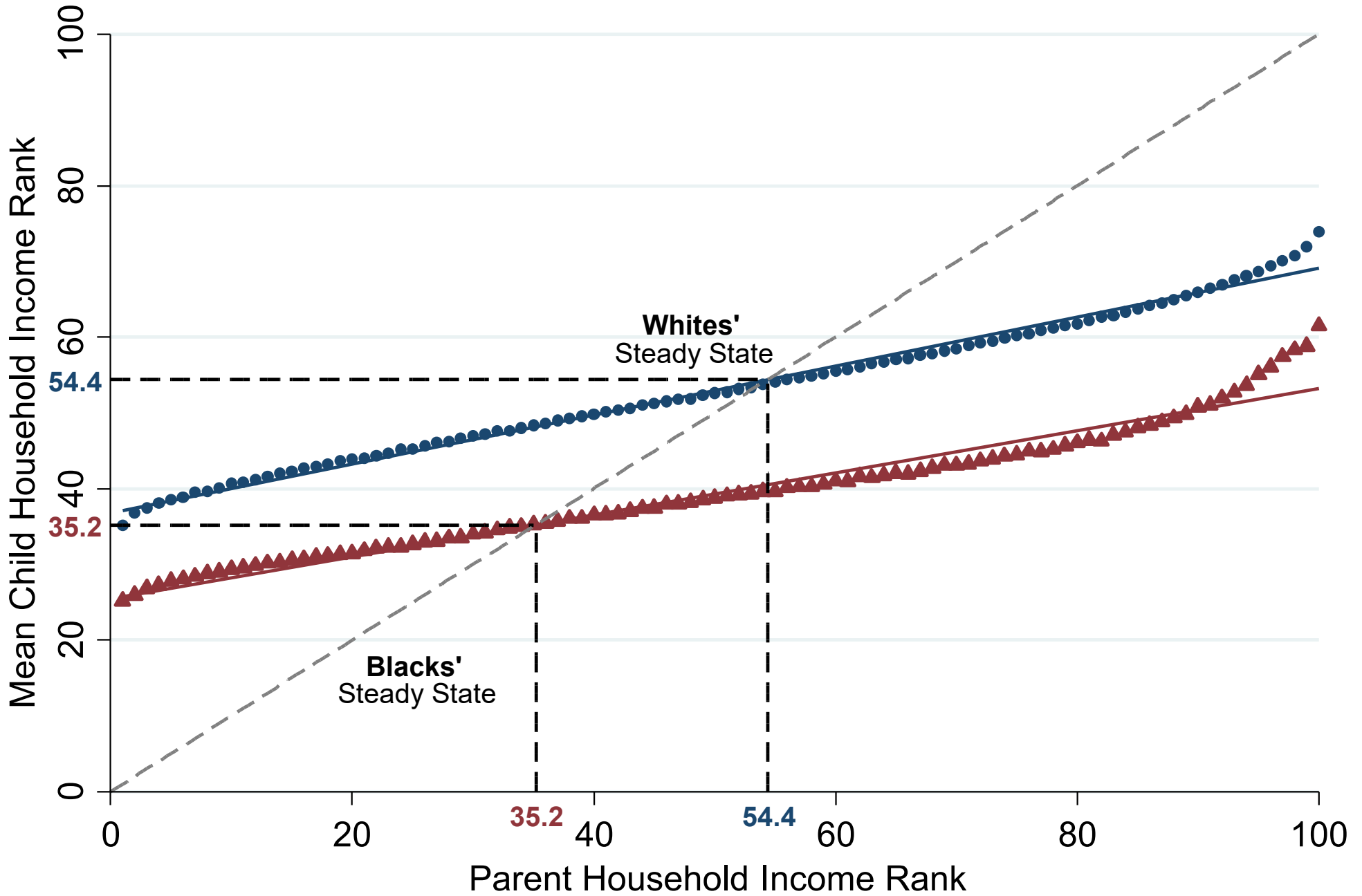
Click here to view an interactive depiction of these transition rates

Intergenerational Mobility for Whites vs. Blacks

Intergenerational Mobility for Whites vs. Blacks

Whites' Steady State

Blacks' Steady State

54.4

35.2

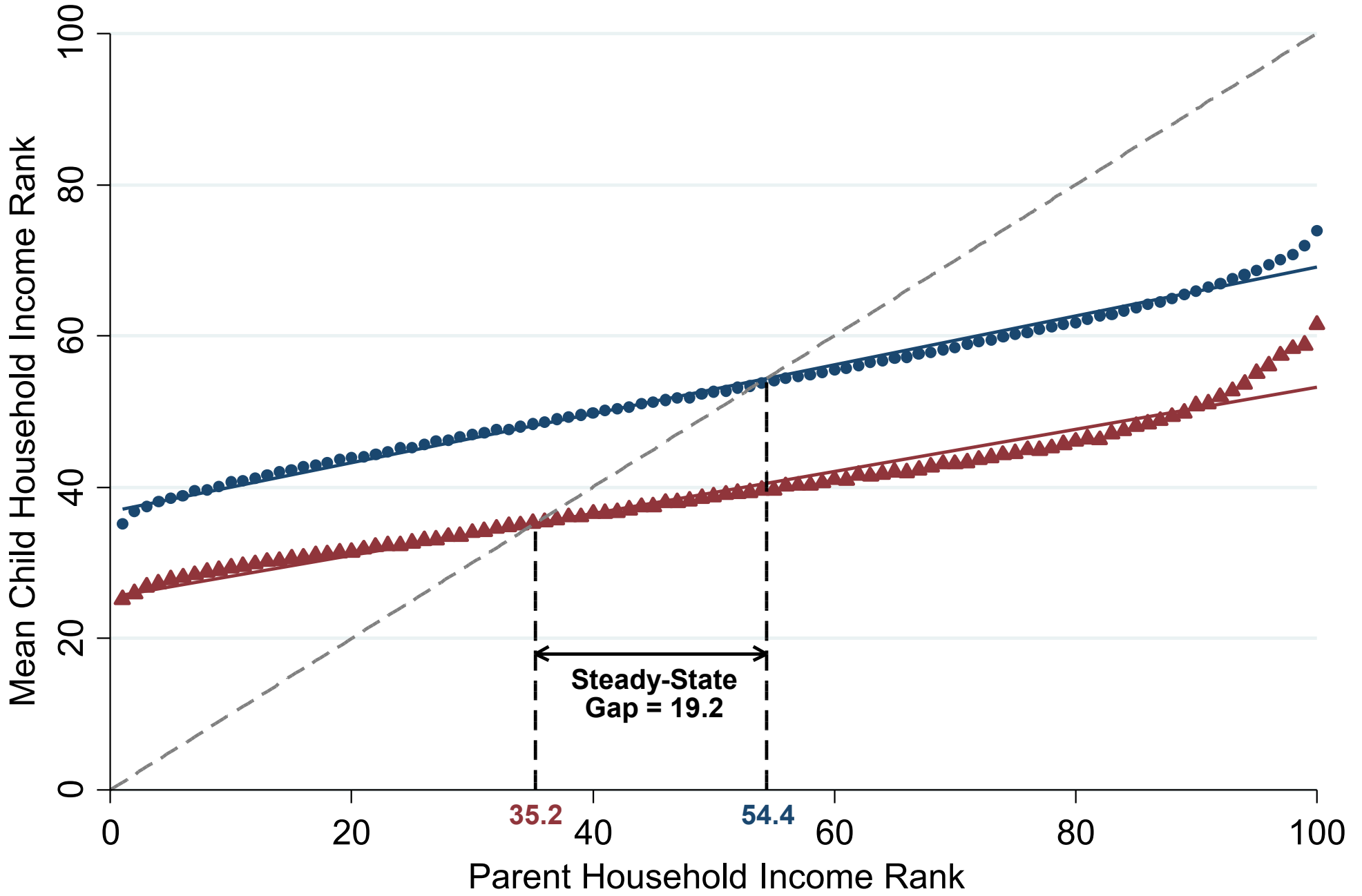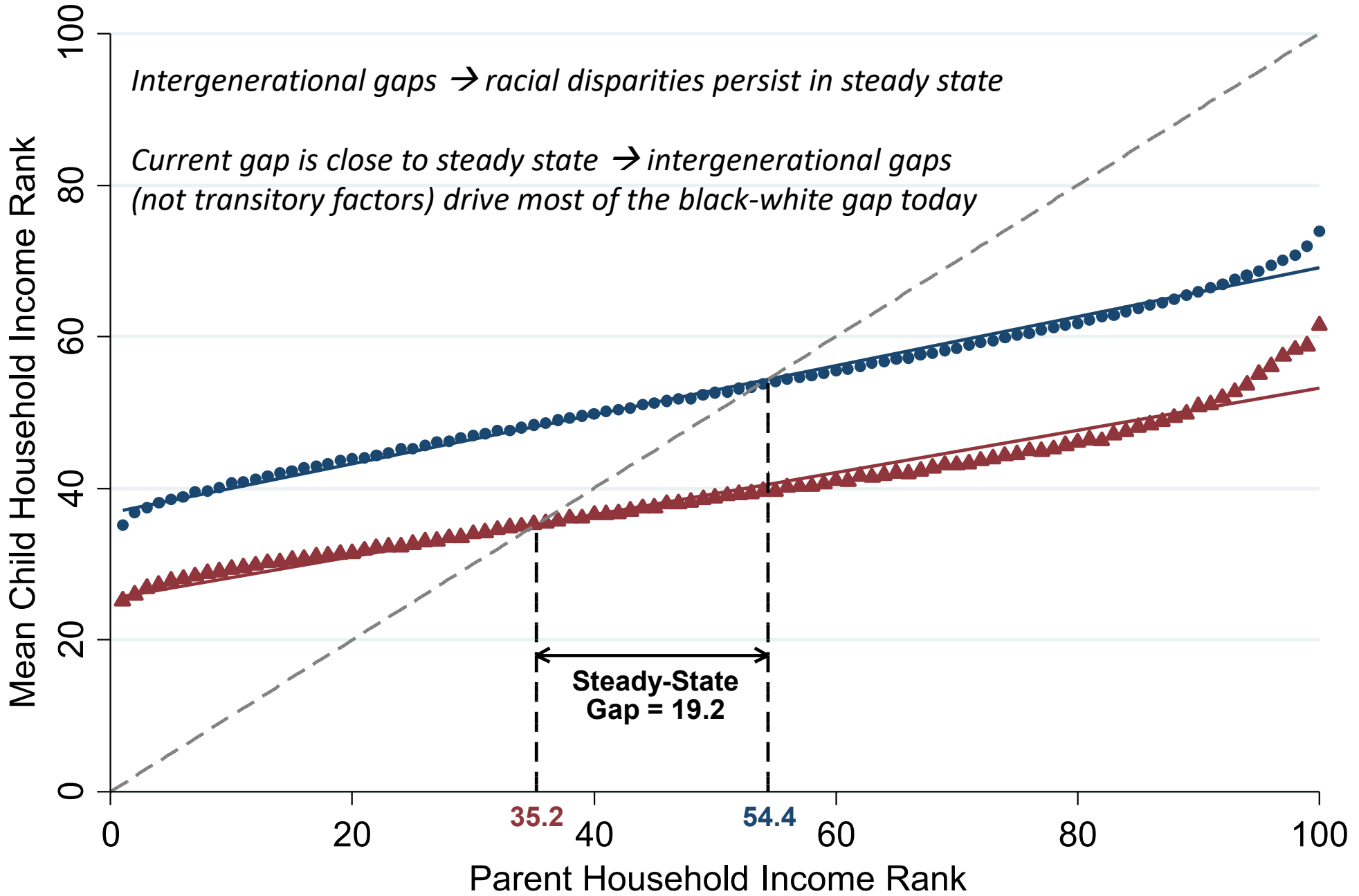35.2 54.4

Mean Child Household Income Rank

Parent Household Income Rank

Intergenerational Mobility for Whites vs. Blacks

Intergenerational Mobility for Whites vs. Blacks

Intergenerational gaps → racial disparities persist in steady state

Current gap is close to steady state → intergenerational gaps (not transitory factors) drive most of the black-white gap today

Steady-State Gap = 19.2

35.2   **54.4**

Mean Child Household Income Rank

Parent Household Income Rank

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

Mean Child Household Income Rank (y-axis)

Parent Household Income Rank (x-axis)

- White
- Black
- American Indian

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

White
Black
American Indian
Hispanic
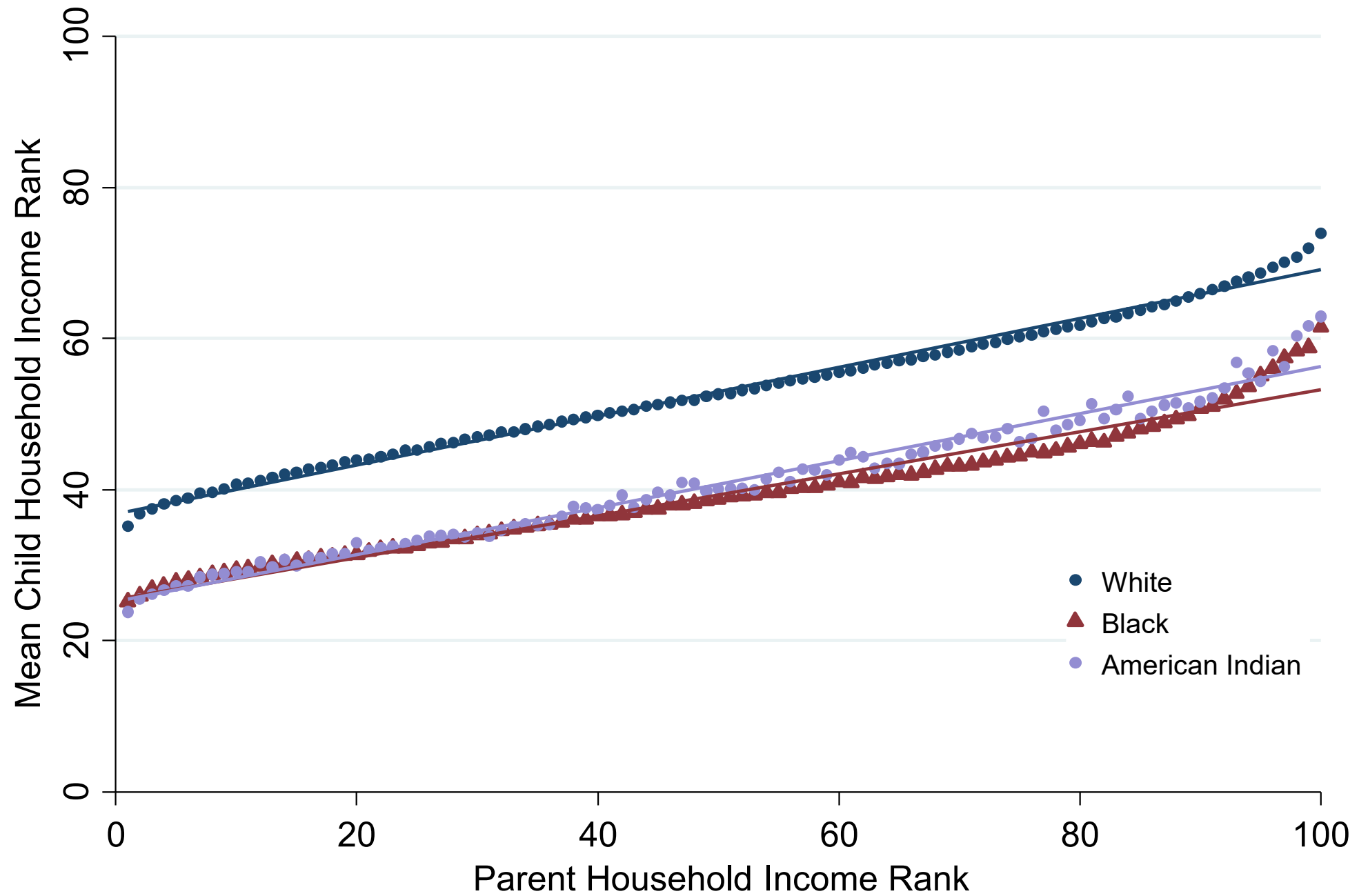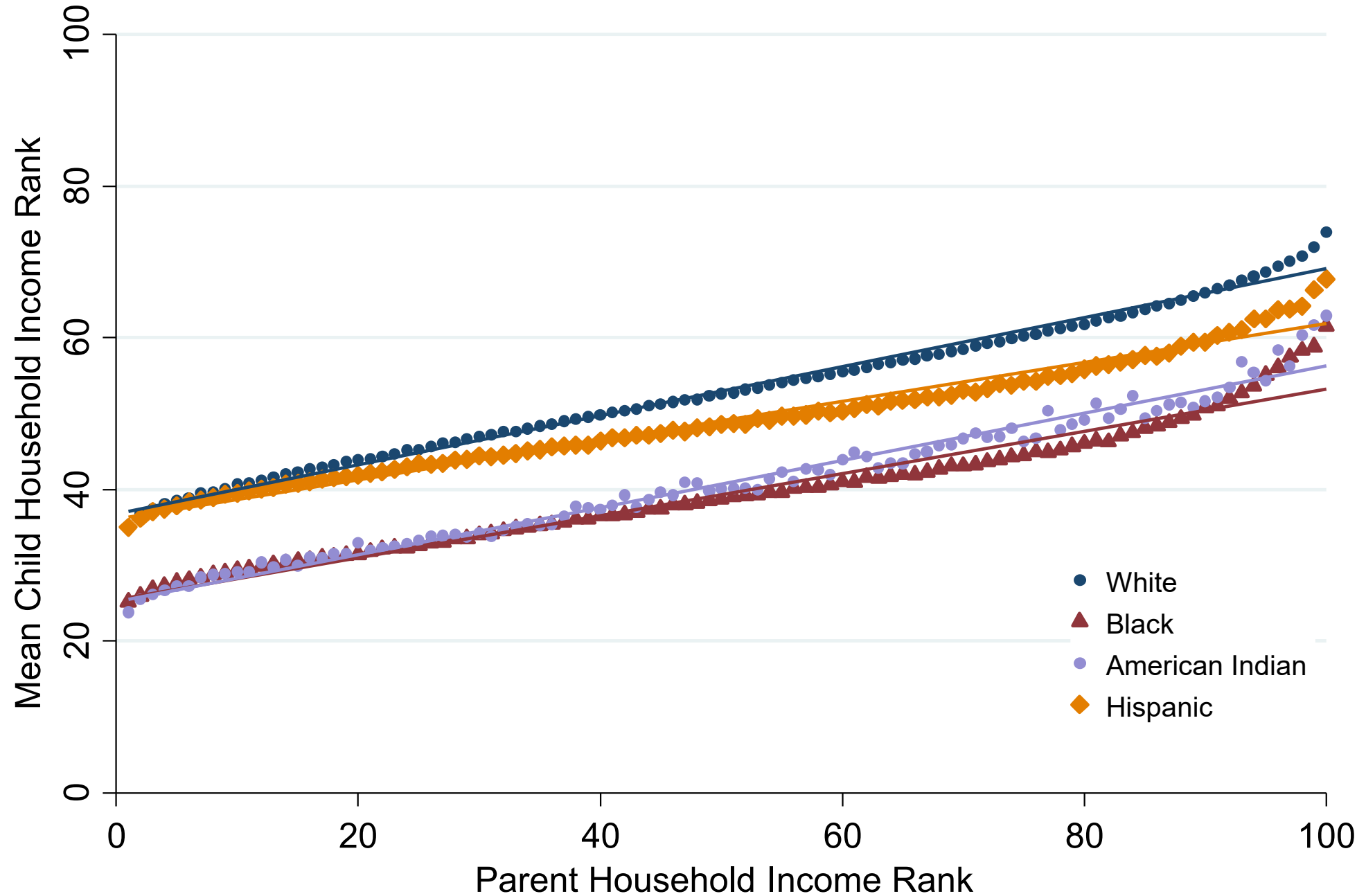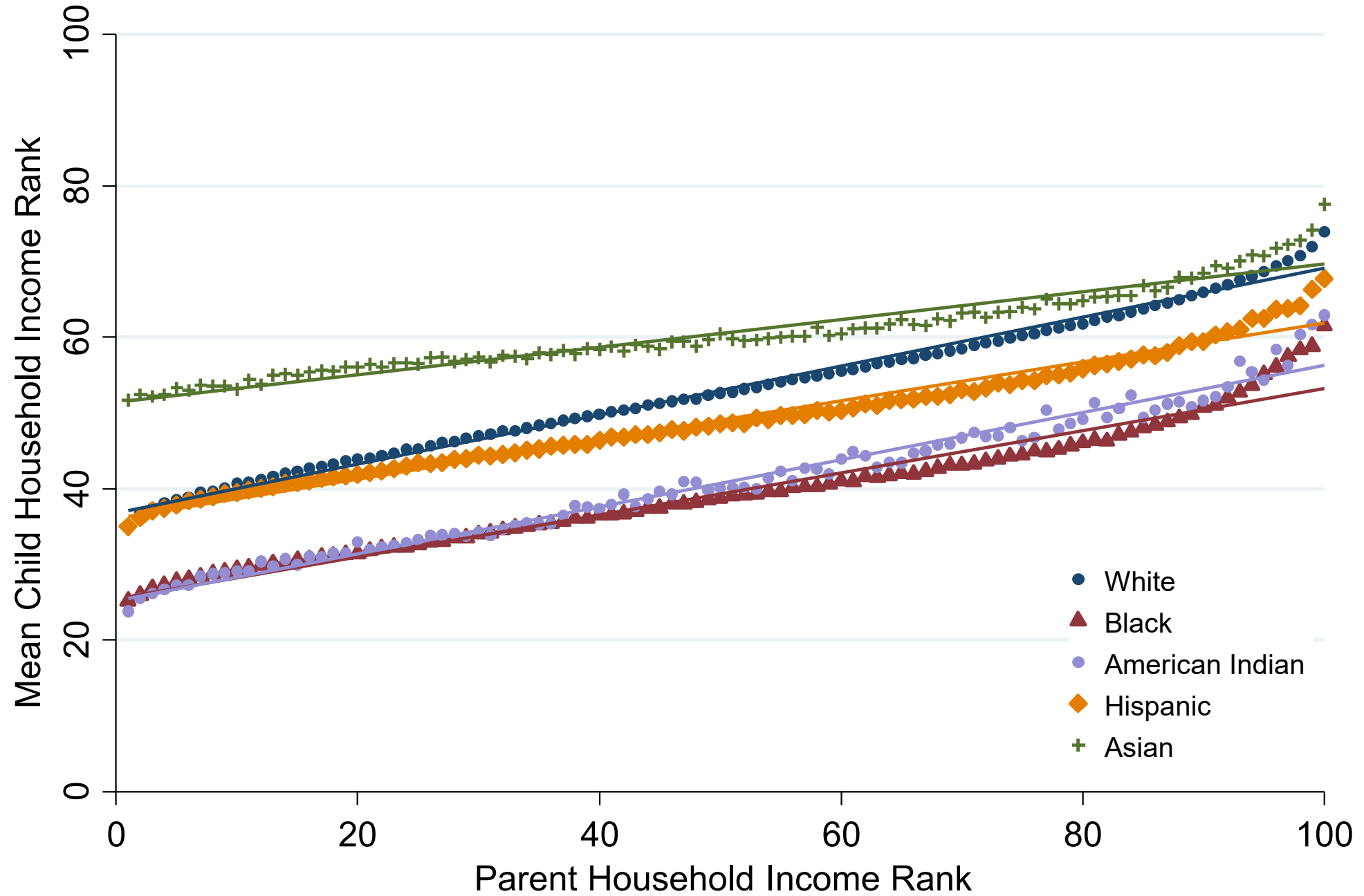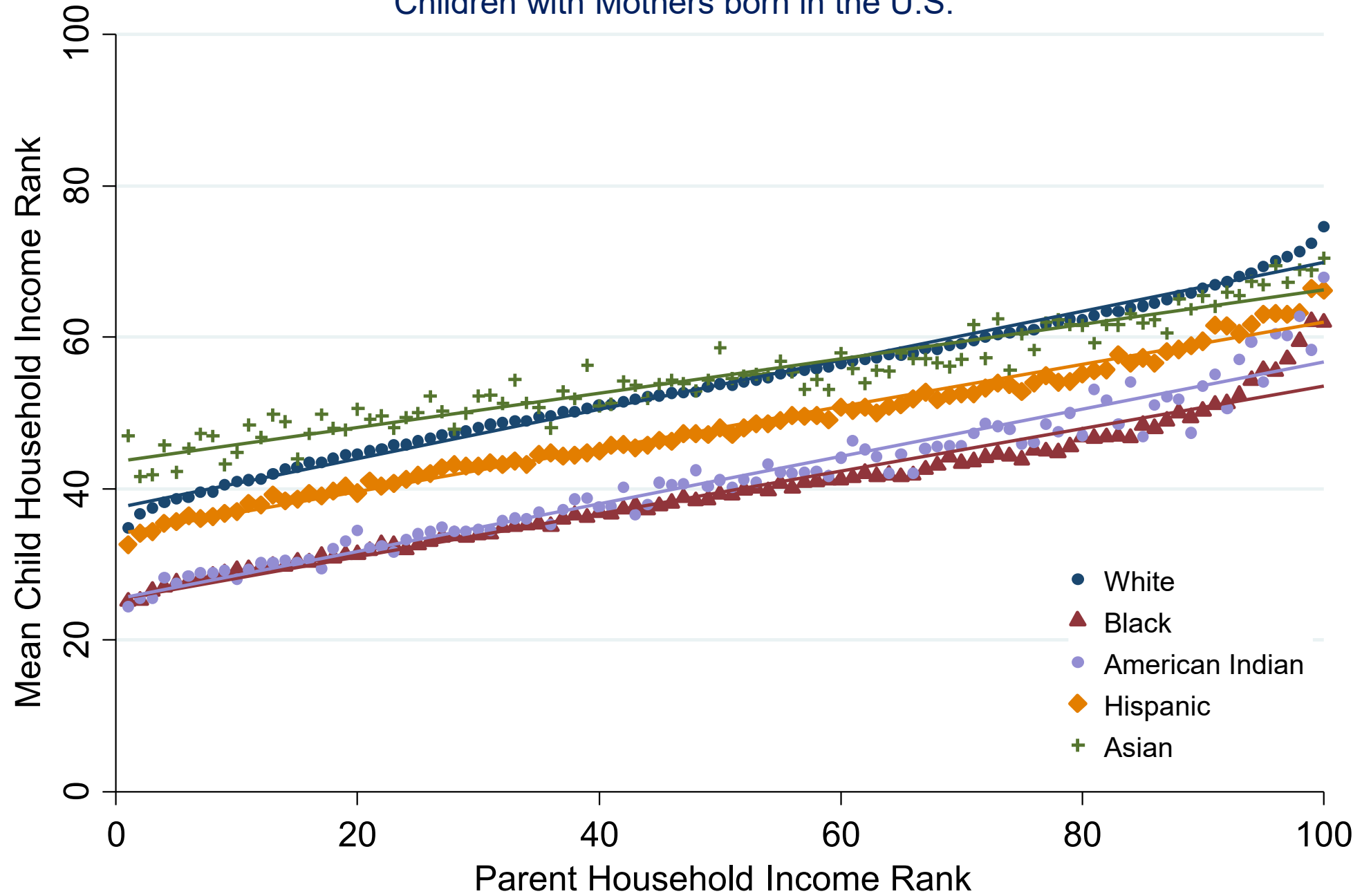
Mean Child Income Rank vs. Parent Income Rank by Race and Ethnicity

Mean Child Income Rank vs. Parent Income Rank by Race and Ethnicity
Children with Mothers born in the U.S.

White
Black
American Indian
Hispanic
Asian

Changes in Income Across Generations, by Racial Group

Steady State Mean Rank (x-axis), Empirically Observed Mean Household Income Rank (y-axis)

45 Degree Line

Asian (US Natives), White, Hispanic, American Indian, Black

○ Parents
◇ Children (born 1978-83)
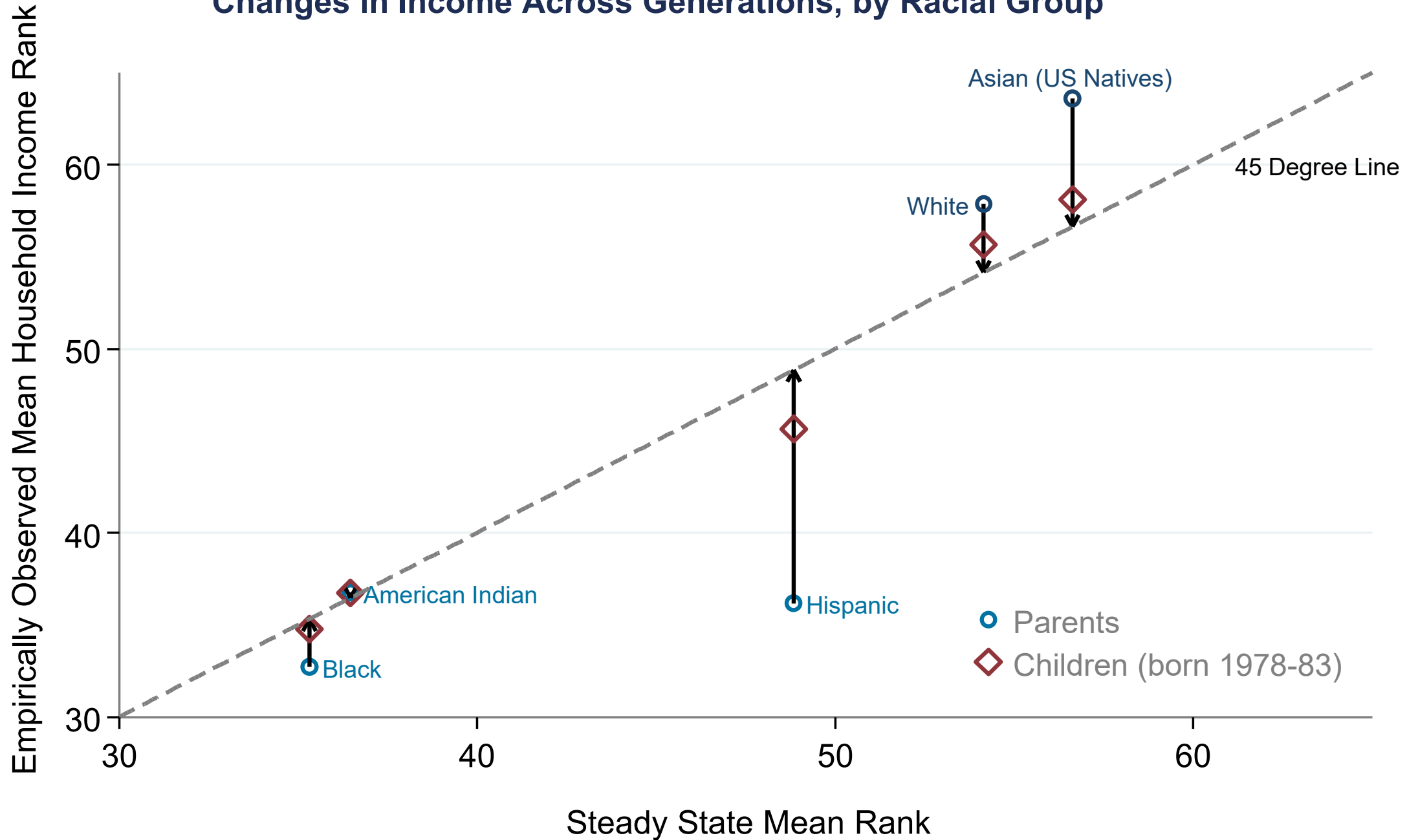
Intergenerational Persistence of Racial Disparities: Summary

- All racial groups in the U.S. have similar rates of *relative* mobility → will converge rapidly to their steady state (if mobility rates stay fixed)

- 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

1. Data and Sample Definitions

2. Intergenerational Mobility by Race

3. **Marriage Rates and Gender Differences**

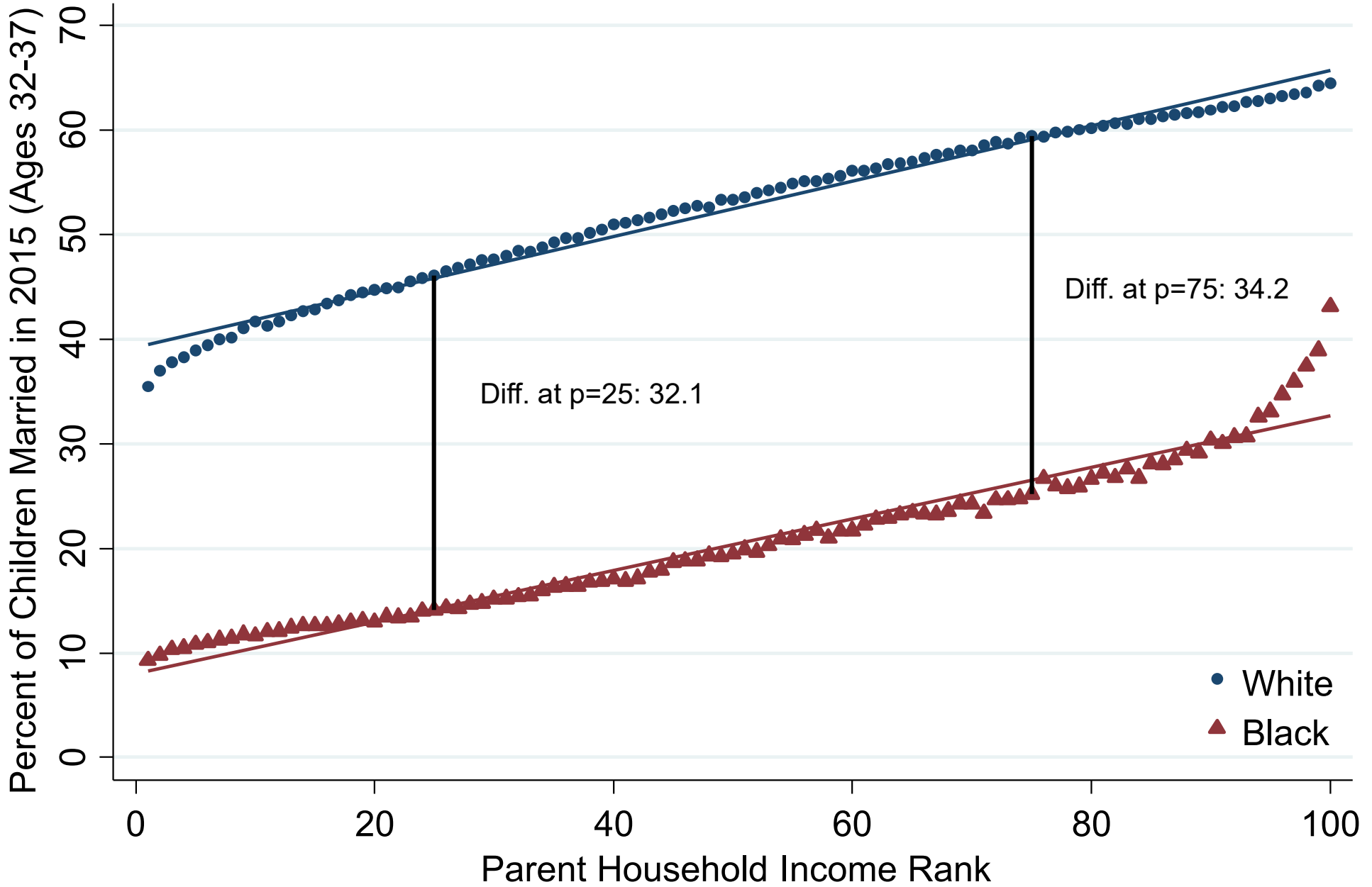4. Family Level Explanations

5. Neighborhood-Level Explanations
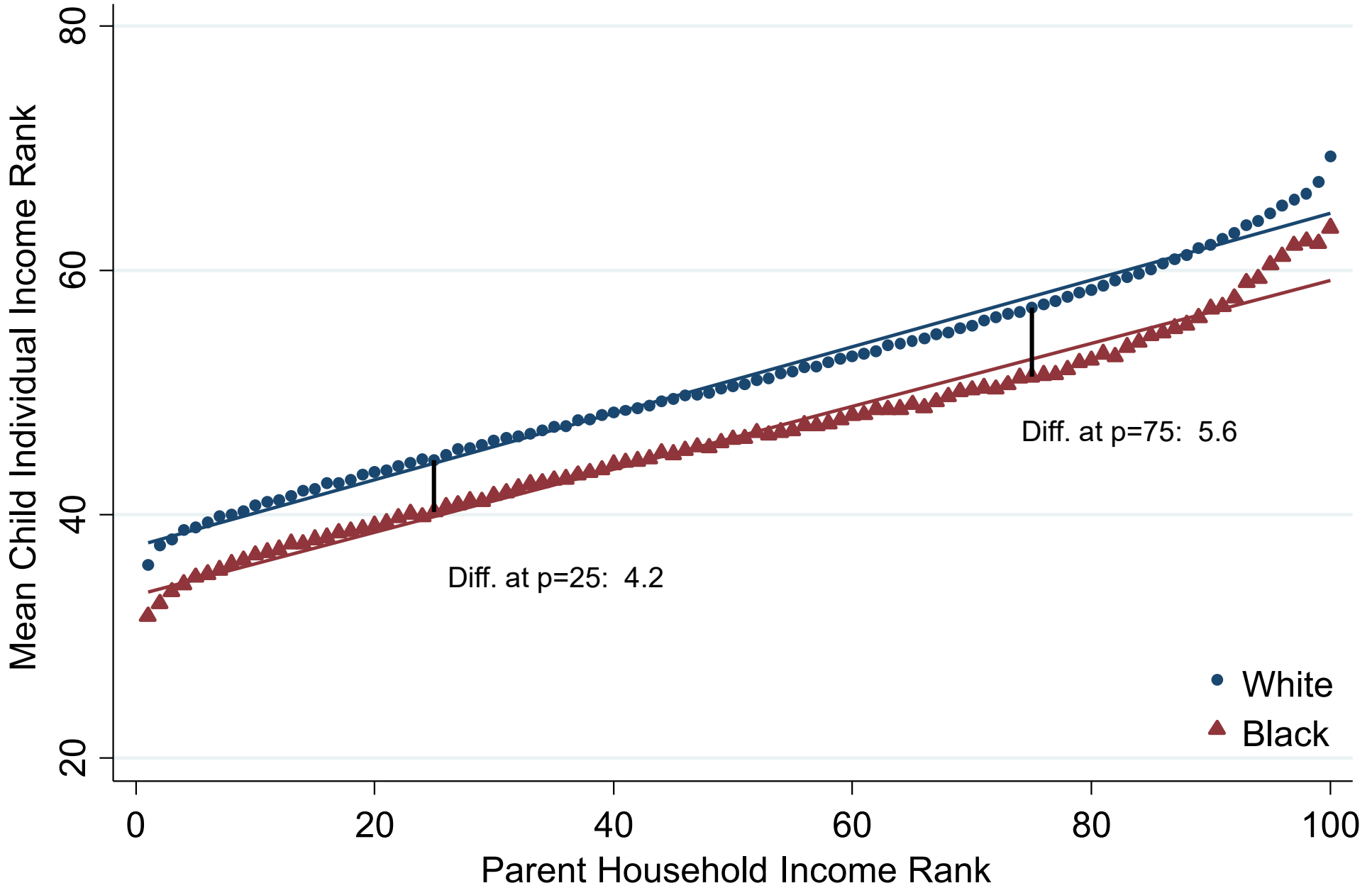
Mechanical Effects of Household Size

- 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

Percent of Children Married in 2015 (Ages 32-37)

Parent Household Income Rank

Diff. at p=25: 32.1

Diff. at p=75: 34.2

● White
▲ Black

Black-White Gap in Child <u>Individual</u> Income Rank vs. Parent Income Rank
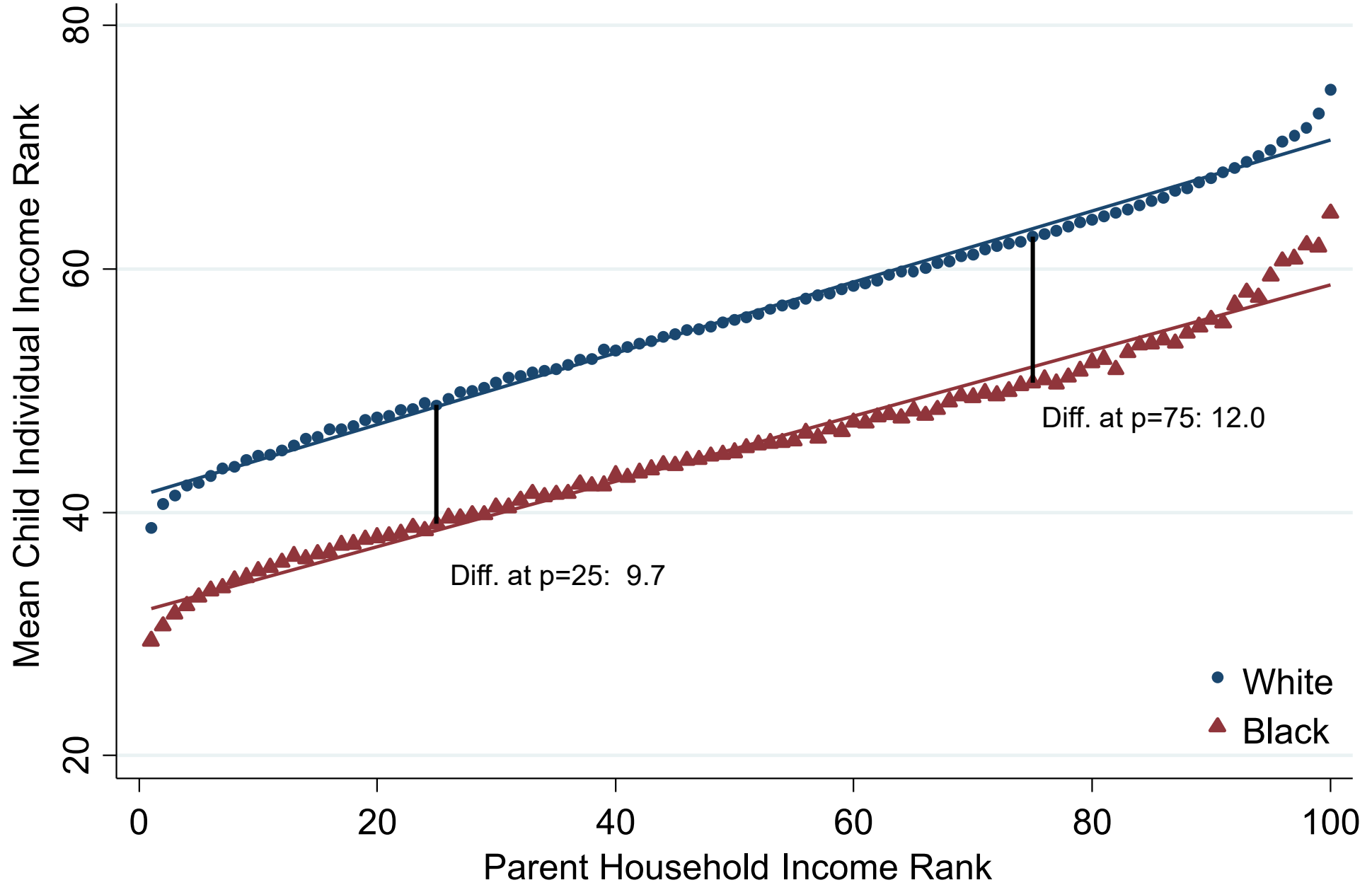
Diff. at p=75: 5.6

Diff. at p=25: 4.2

● White
▲ Black

Mean Child Individual Income Rank

Parent Household Income Rank

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

- White
- Black

Diff. at p=25: 9.7

Diff. at p=75: 12.0

Mean Child Individual Income Rank (y-axis: 20, 40, 60, 80)

Parent Household Income Rank (x-axis: 0, 20, 40, 60, 80, 100)

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

Diff. at p=75: -1.0

Diff. at p=25: -1.4

White
Black

Mean Child Individual Income Rank

Parent Household Income Rank
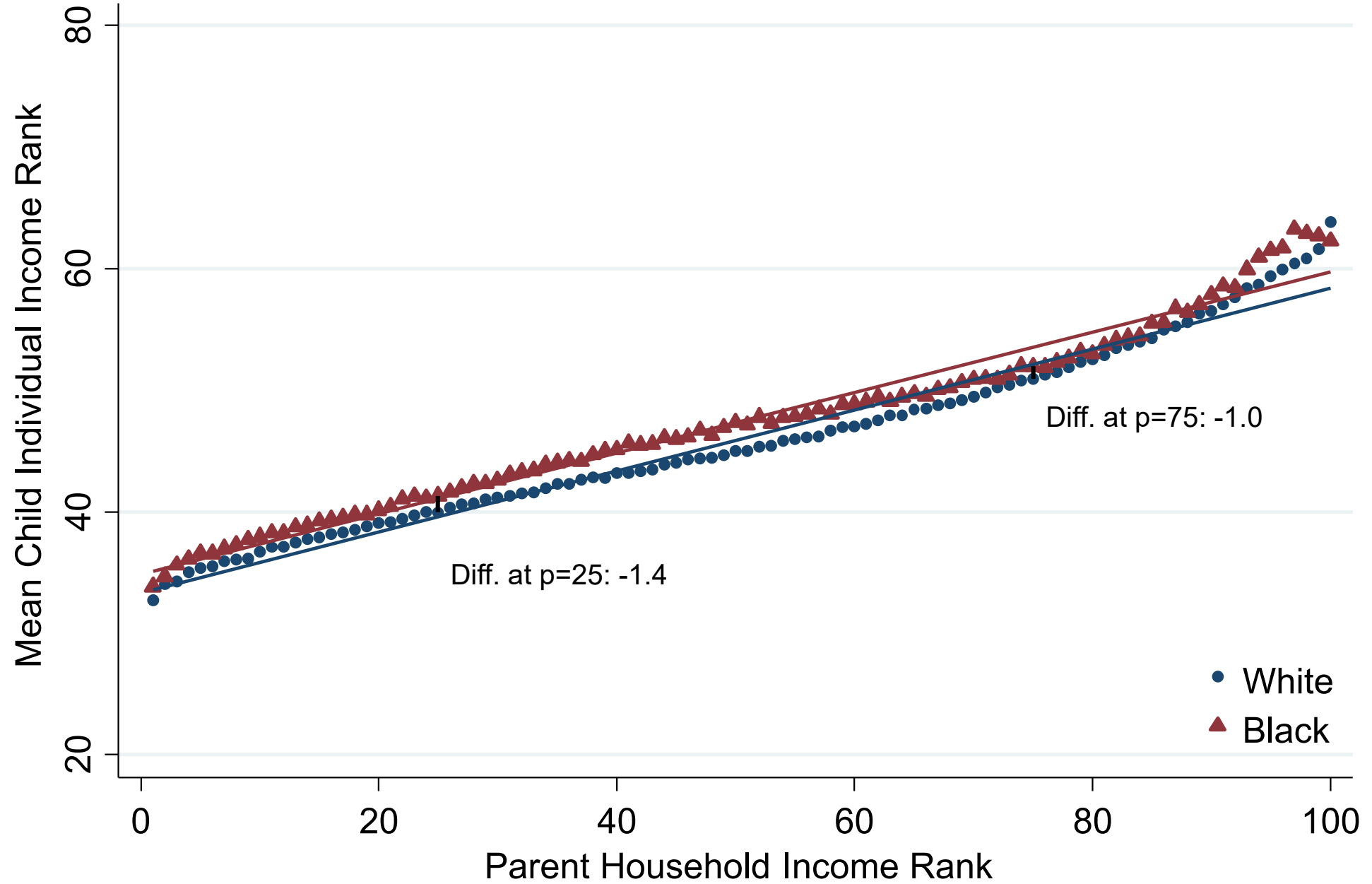
Hourly Wage Rates vs. Parent Income
Female Children
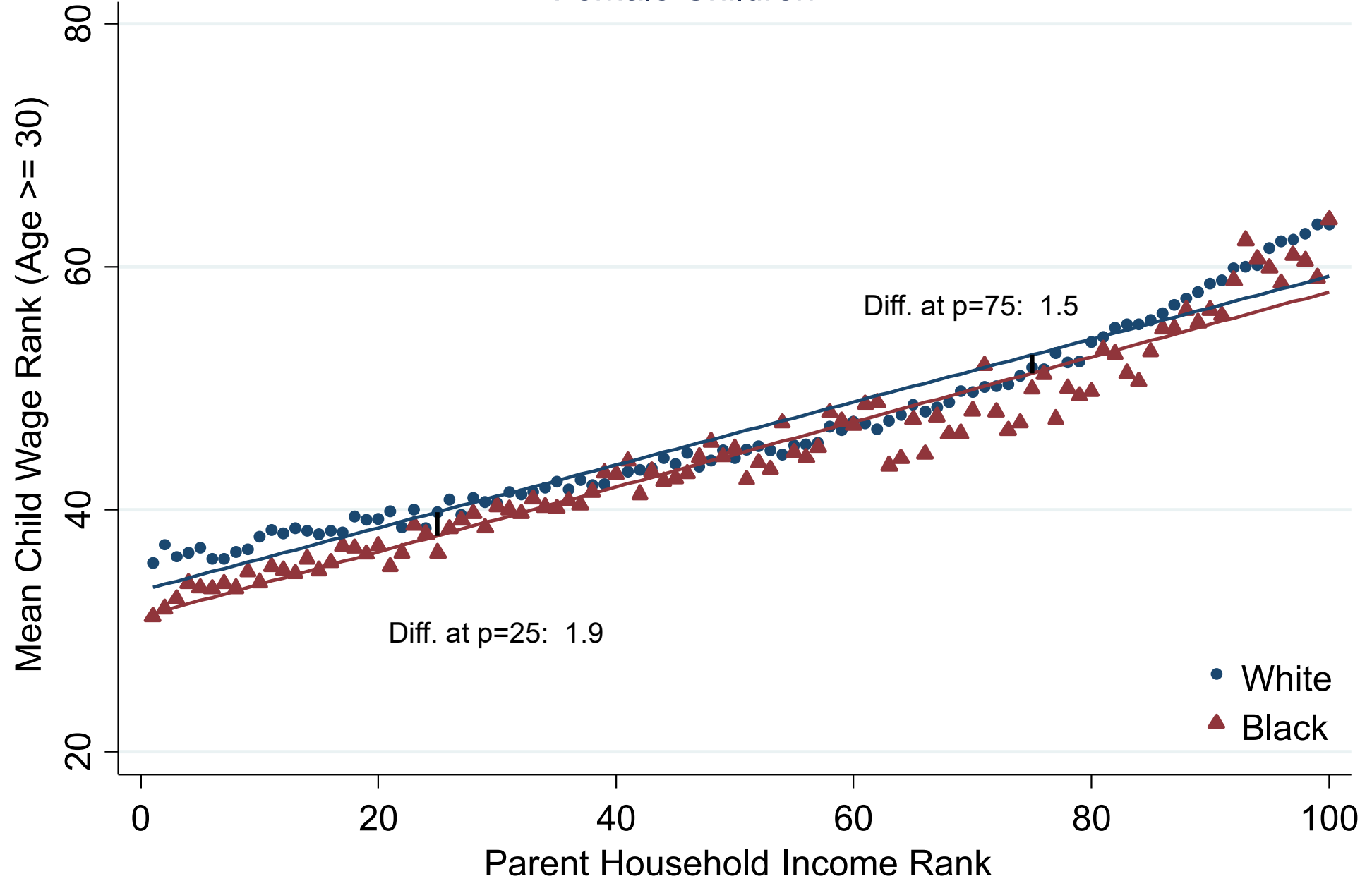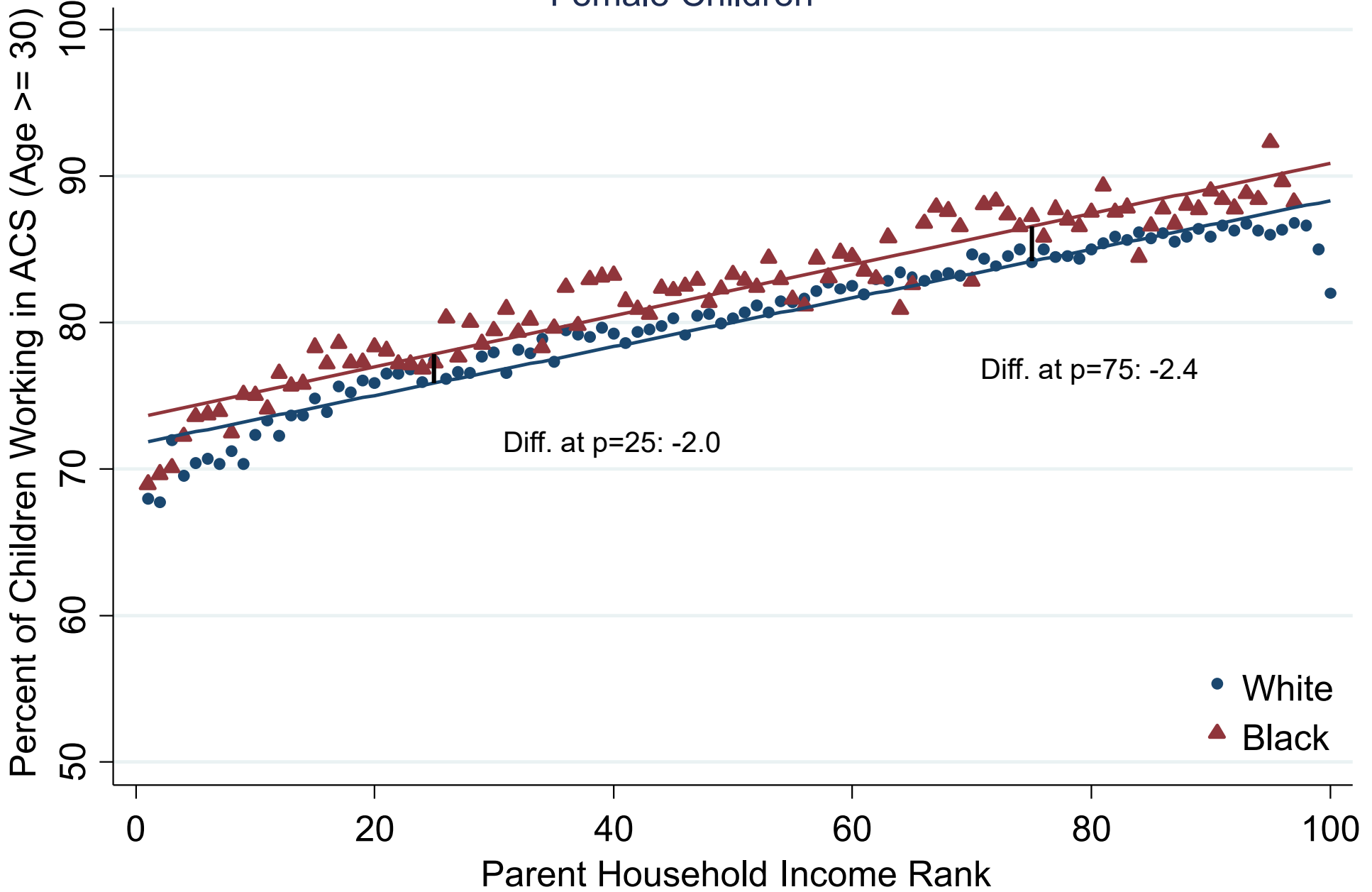
Diff. at p=75: 1.5

Diff. at p=25: 1.9

White
Black

Employment Rates vs. Parent Income Rank
Female Children

Diff. at p=25: -2.0

Diff. at p=75: -2.4

- White
- Black

Employment Rates vs. Parent Income Rank
Male Children

Diff. at p=25: 18.9

Diff. at p=75: 11.4

- White Males
- Black Males

Percent of Children Working (Age >= 30)

Parent Household Income Rank

Employment Rates vs. Parent Income Rank

Percent of Children Working (Age >= 30) vs. Parent Household Income Rank

- White Males
- Black Males
- White Females
- Black Females

College Attendance Rates vs. Parent Income Rank

Incarceration Rates vs. Parent Income Rank
Male Children

Diff. at p=25: -8.2

Diff. at p=75: -3.2

White
Black
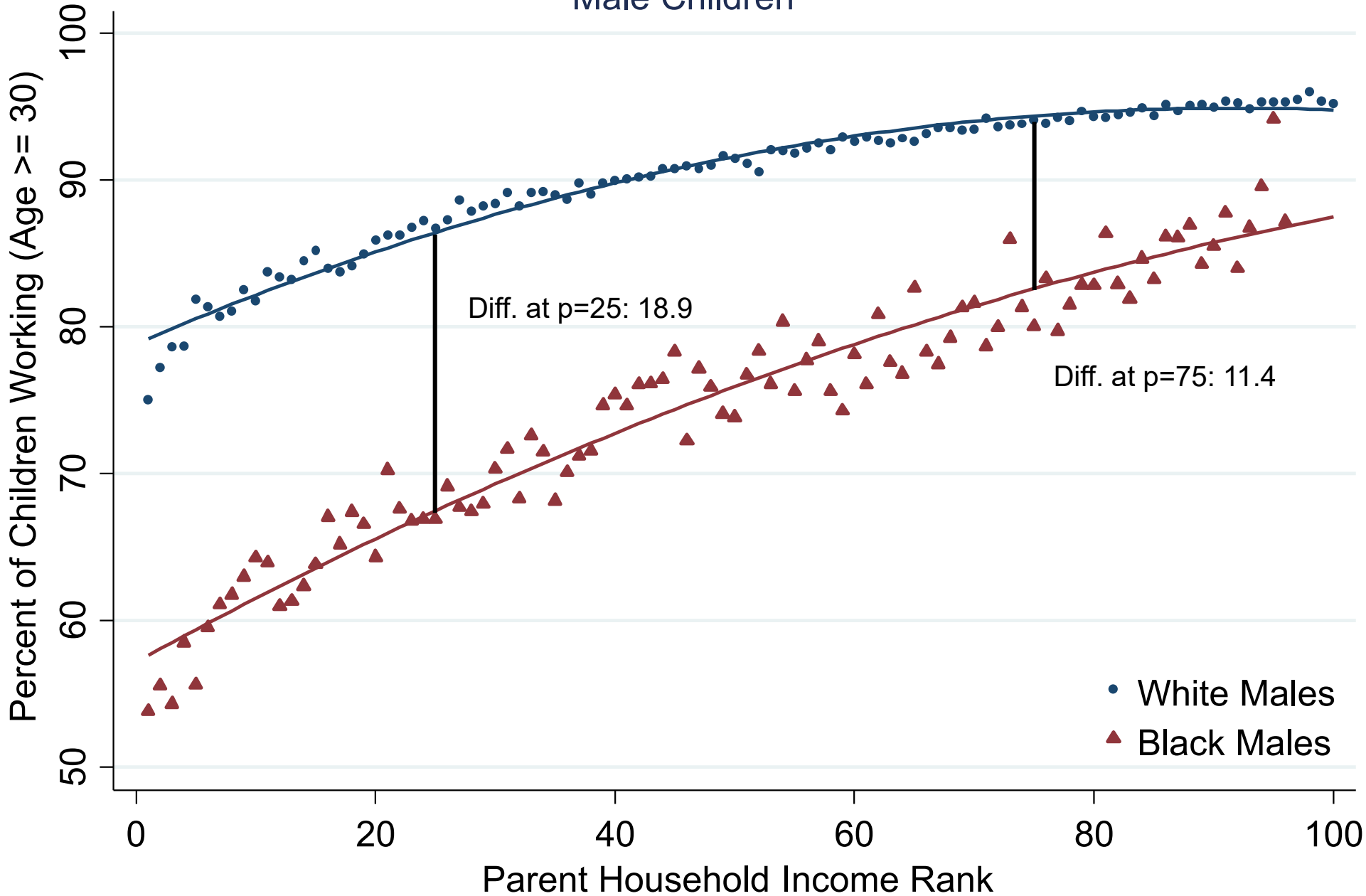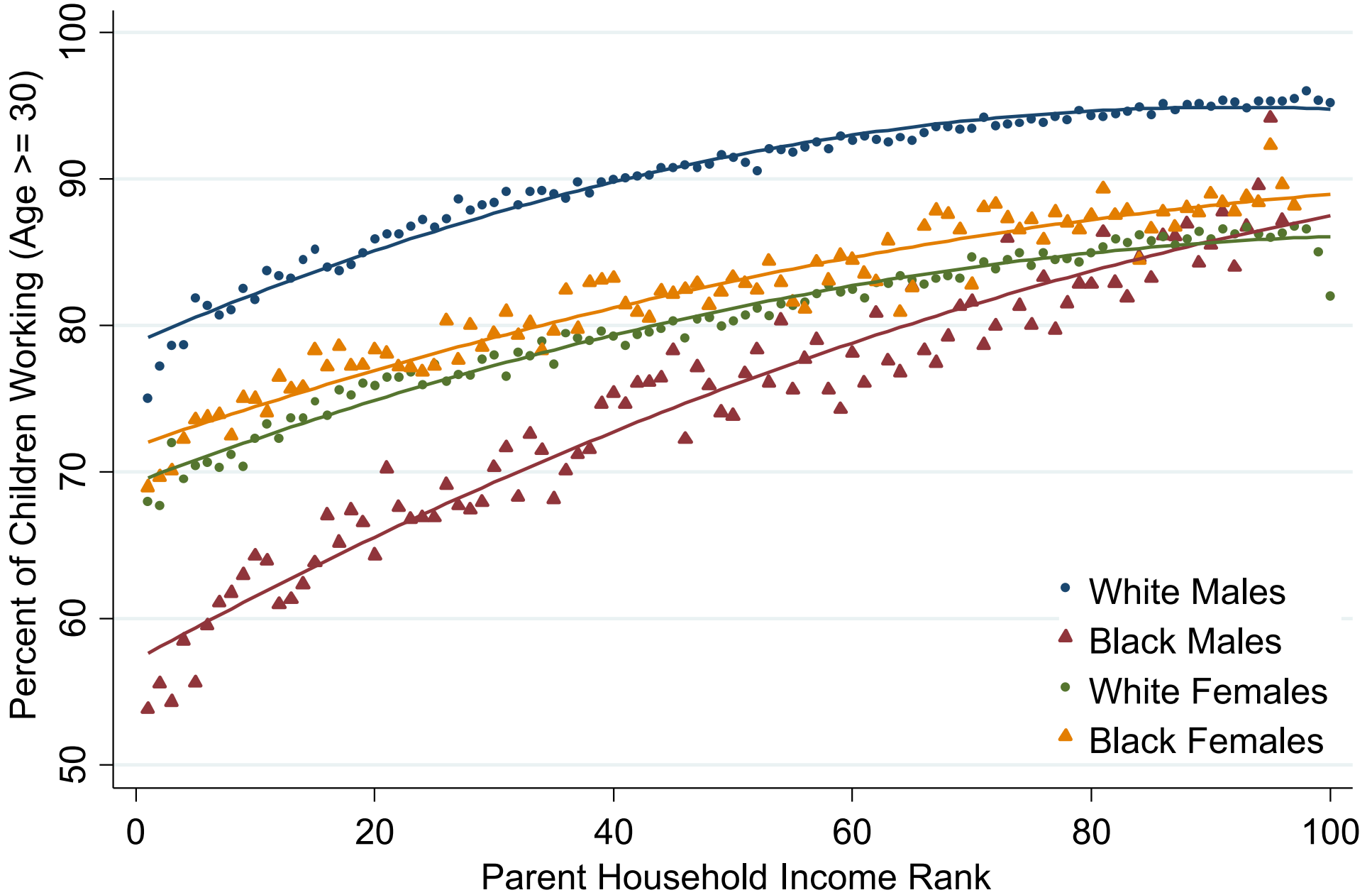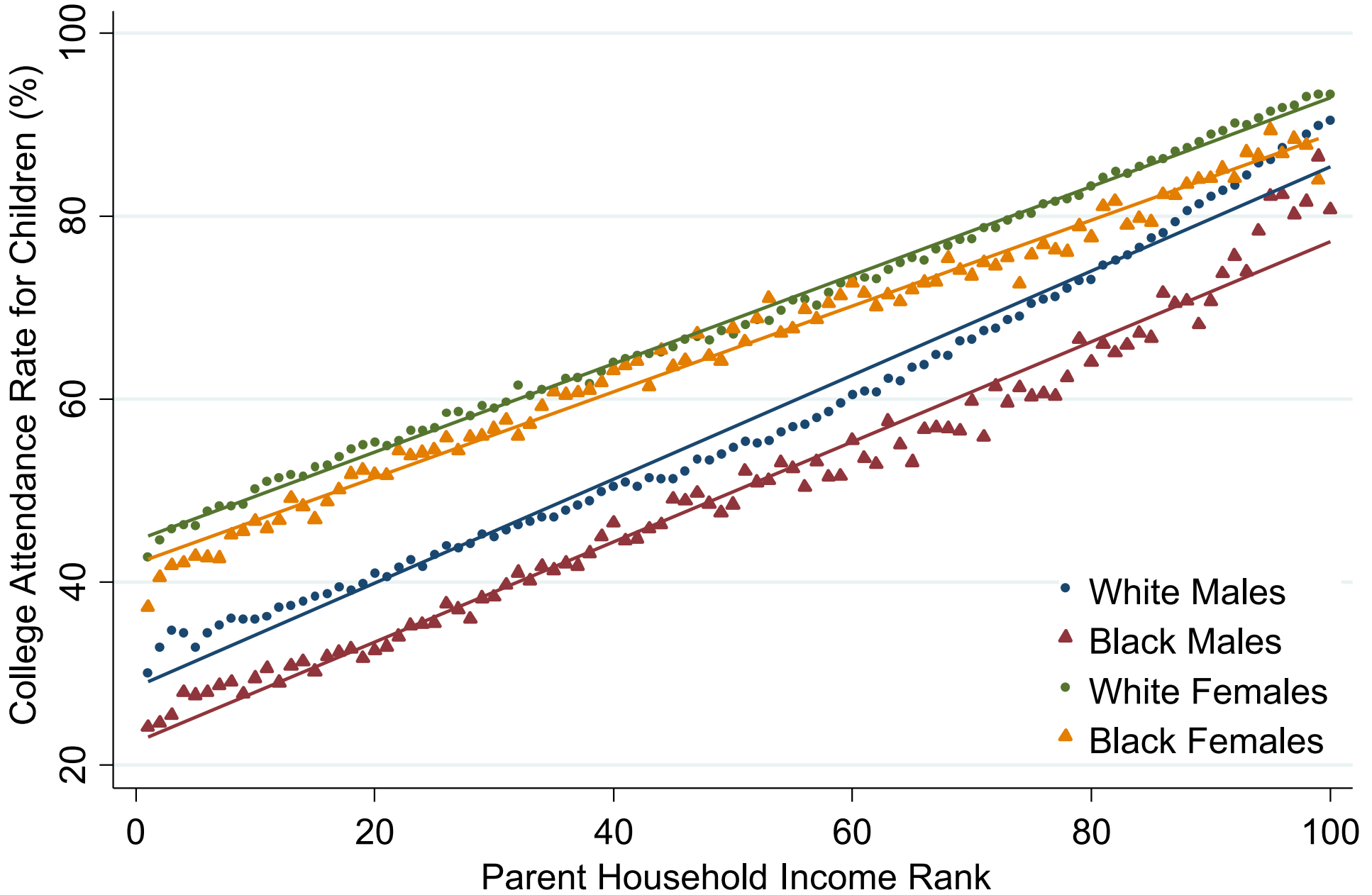
Pct. of Children Incarcerated on April 1, 2010 (Ages 27-32)

Parent Household Income Rank
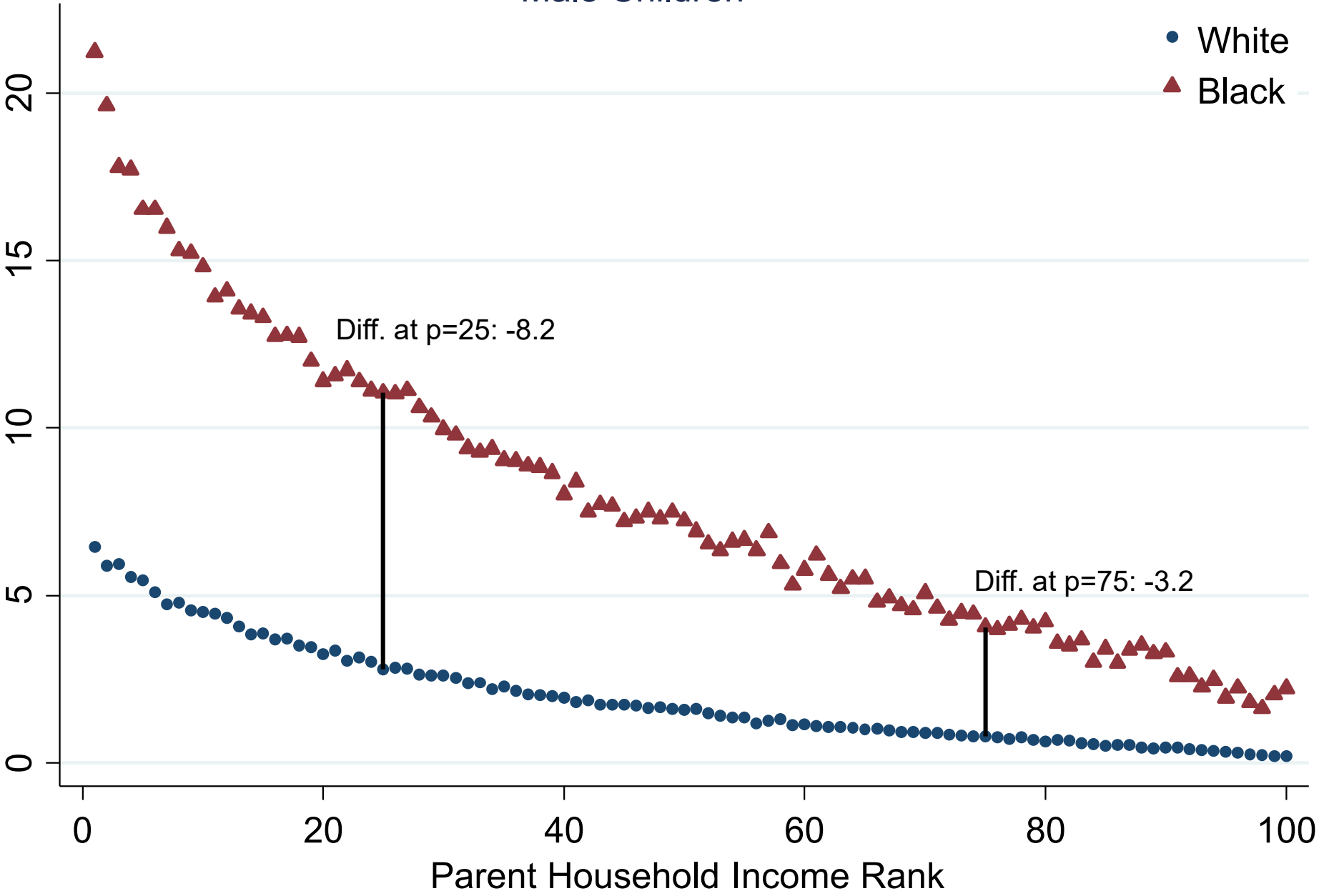
Incarceration Rates vs. Parent Income Rank
Female Children
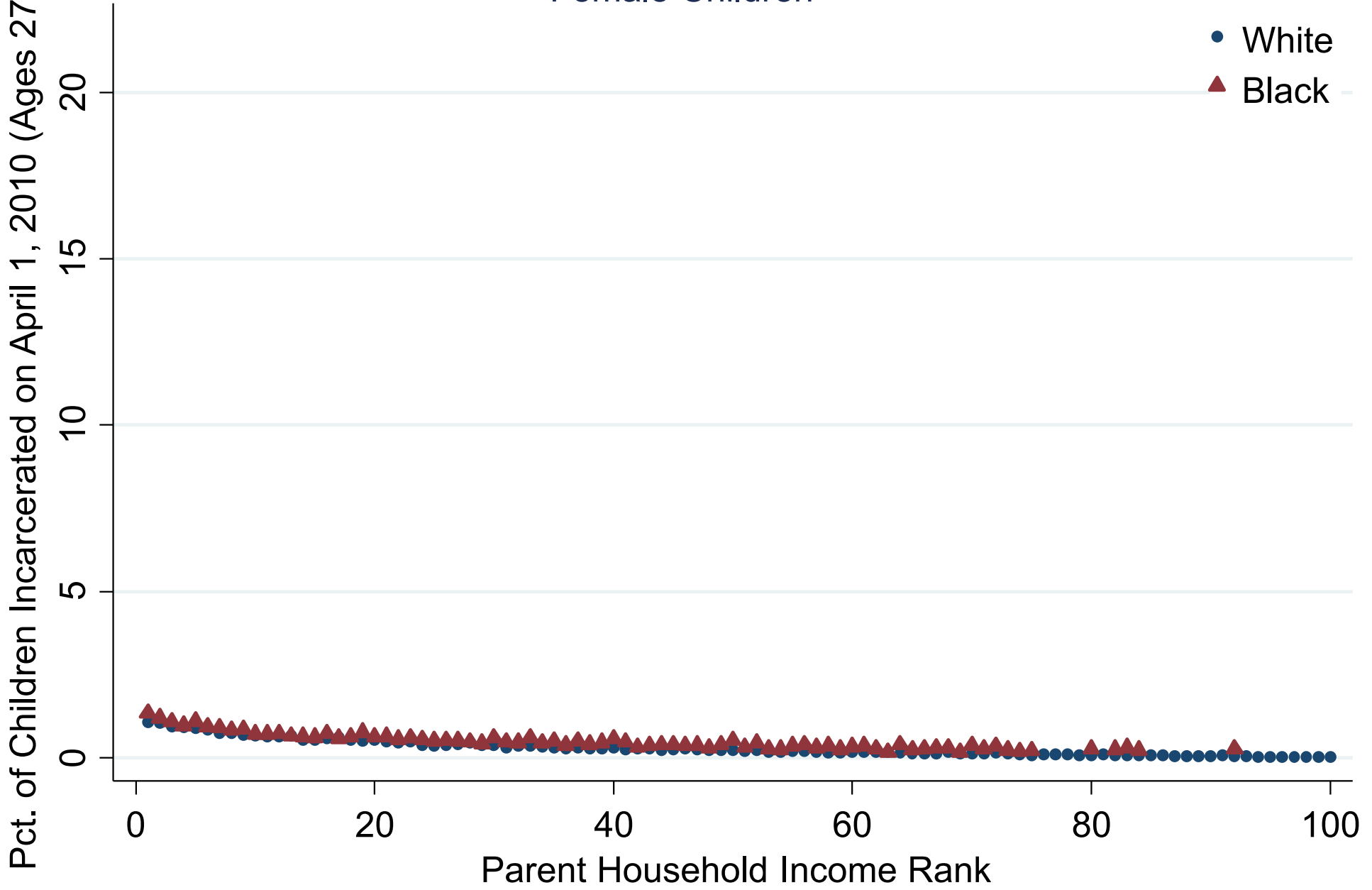
Incarceration and Intergenerational Gaps

- 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]

- 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

1. **Data and Sample Definition**

2. **Intergenerational Mobility by Race**

3. **Marriage Rates and Gender Differences**

4. **Family Level Explanations**

5. **Neighborhood-Level Explanations**

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
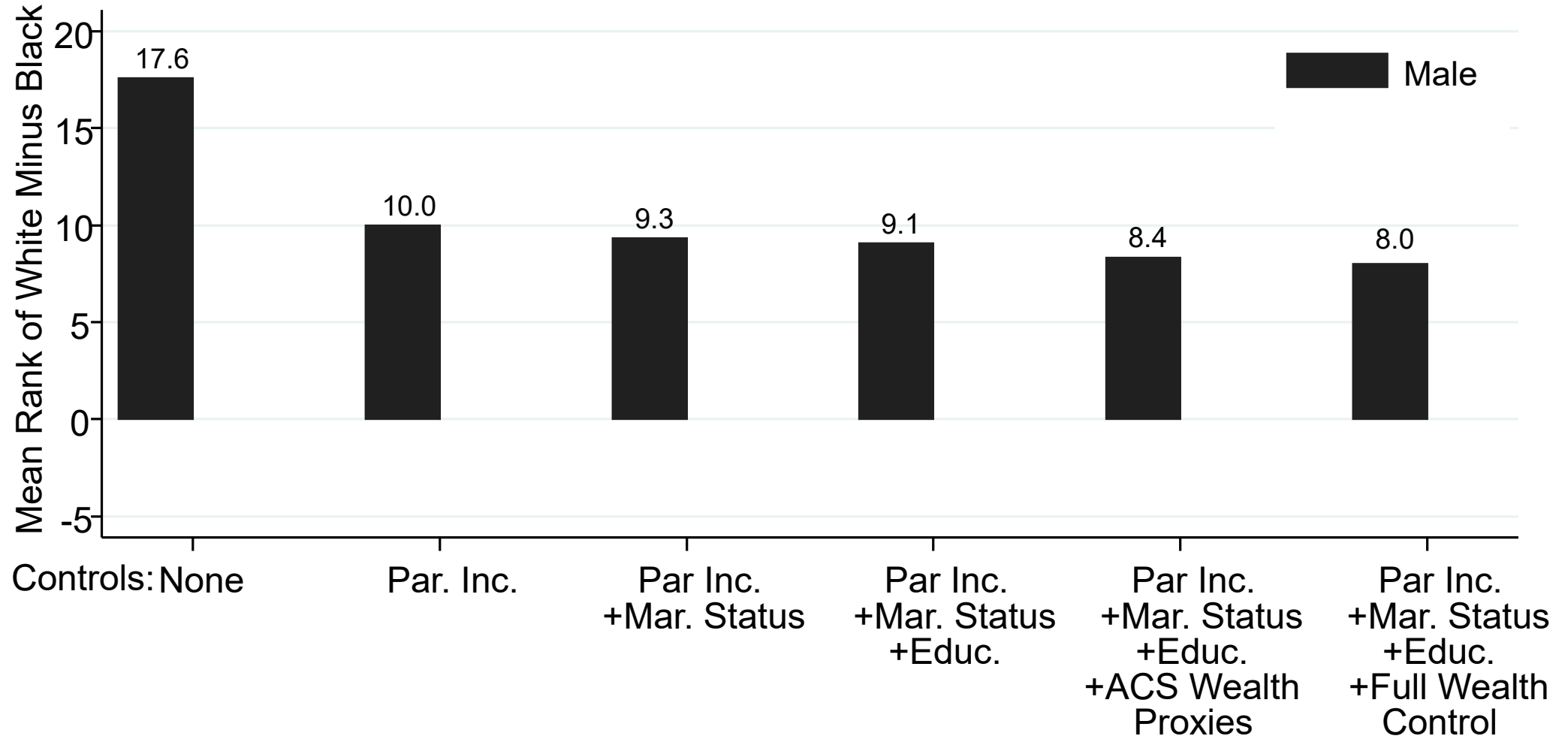
Effects of Family-Level Factors on the Black-White Income Gap
Children with Parents at 25th Percentile
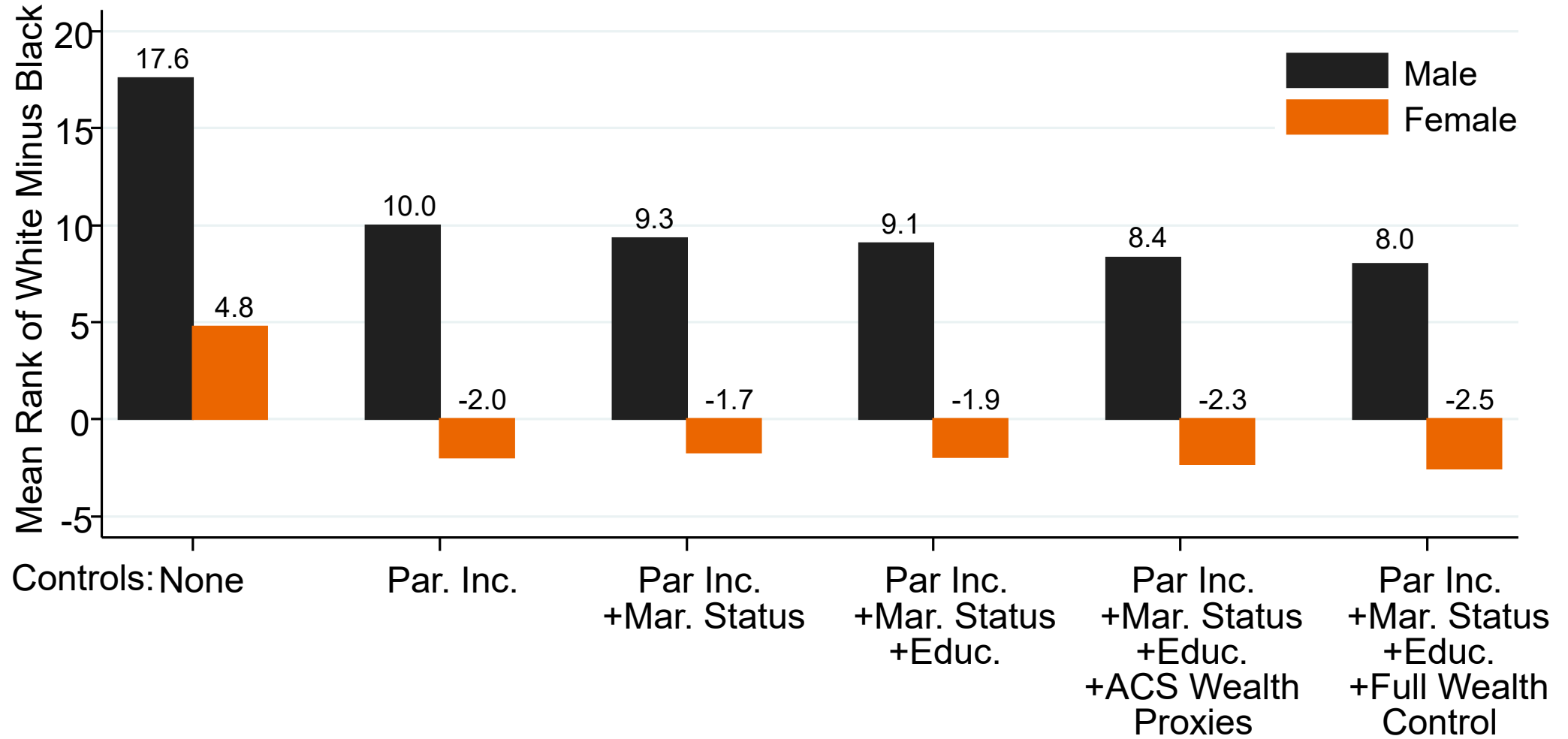
Explaining the Black-White Intergenerational Income Gap
Differences in Ability

- 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
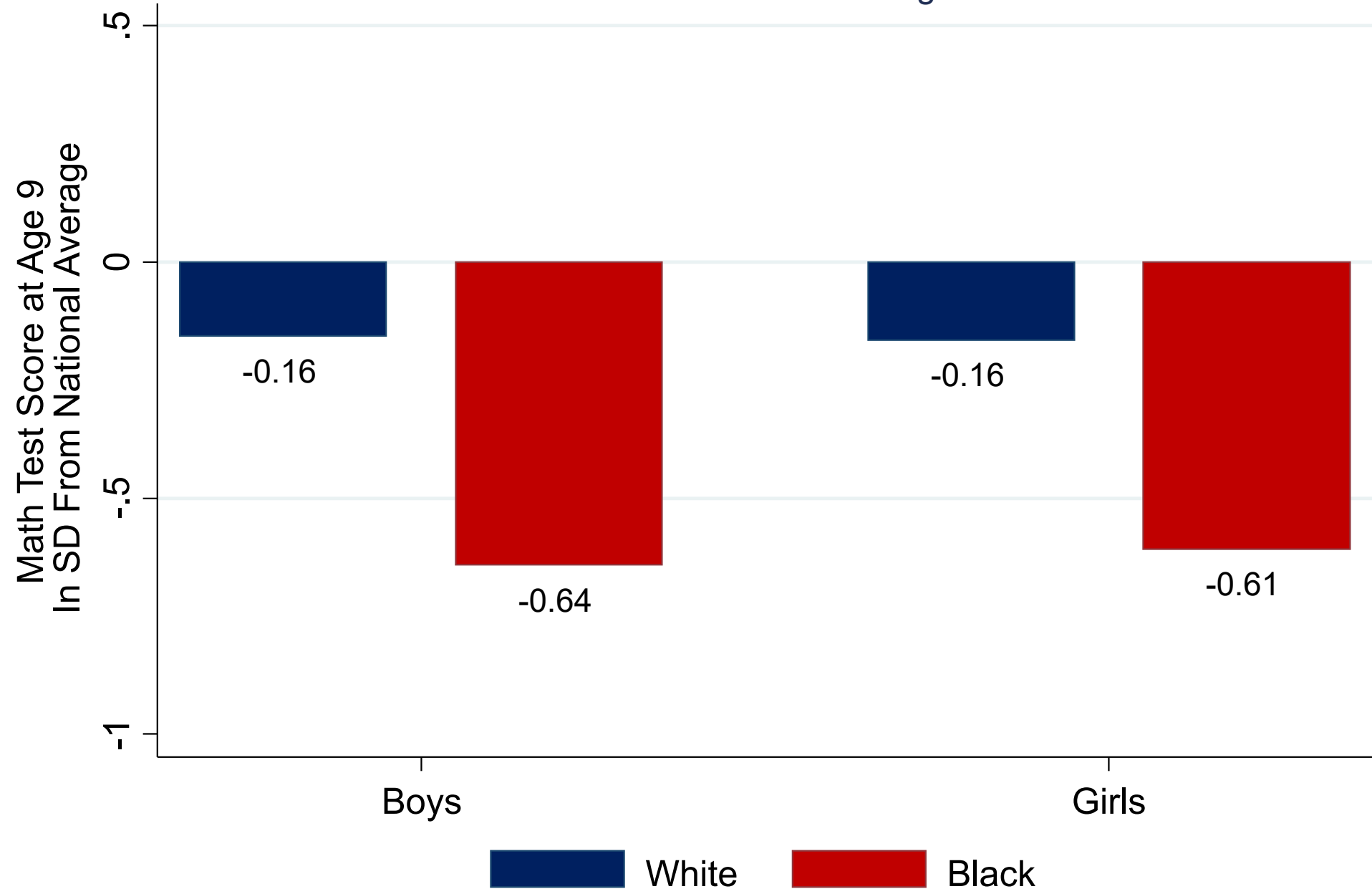
Math Test Score at Age 9
In SD From National Average

Boys: White -0.16, Black -0.64
Girls: White -0.16, Black -0.61

White | Black

1. **Data and Sample Definitions**

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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

$$\bar{y}_{25,\text{Chicago},1985} = \bar{y}_{0,\text{Chicago},1985} + (\text{Rank-Rank Slope}) \times 25$$

Predict outcome for child in CZ c using slope + intercept of rank-rank relationship

Y-axis: Mean Child Rank in National Income Distribution

X-axis: Parent Rank in National Income Distribution
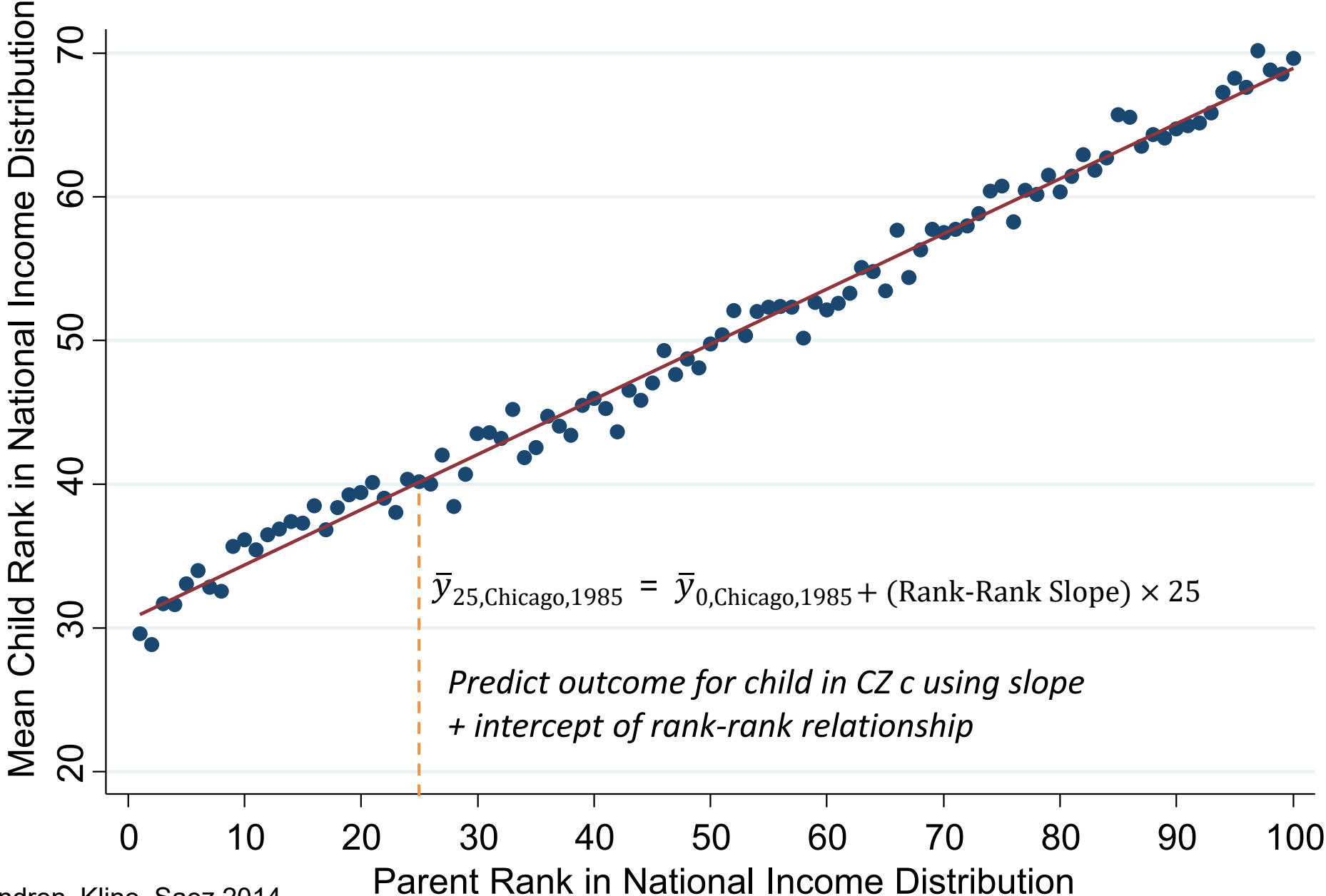
The Geography of Upward Mobility in the United States
Average Individual Income for Males with Parents Earning $25,000 (25th percentile)

Seattle $27.6k

Salt Lake City $31.2k

Dubuque $31.7k

Cleveland $24.6k

Newark $30.1k

San Francisco Bay Area $28.8k

Washington DC $27.8k

Los Angeles $27.6k

Charlotte $22.5k

Atlanta $23.1k

56.9 ($34.5k)

49.0 ($27.6k)

42.9 ($22.8k)

Insufficient Data

Note: Green = More Upward Mobility, Red = Less Upward Mobility
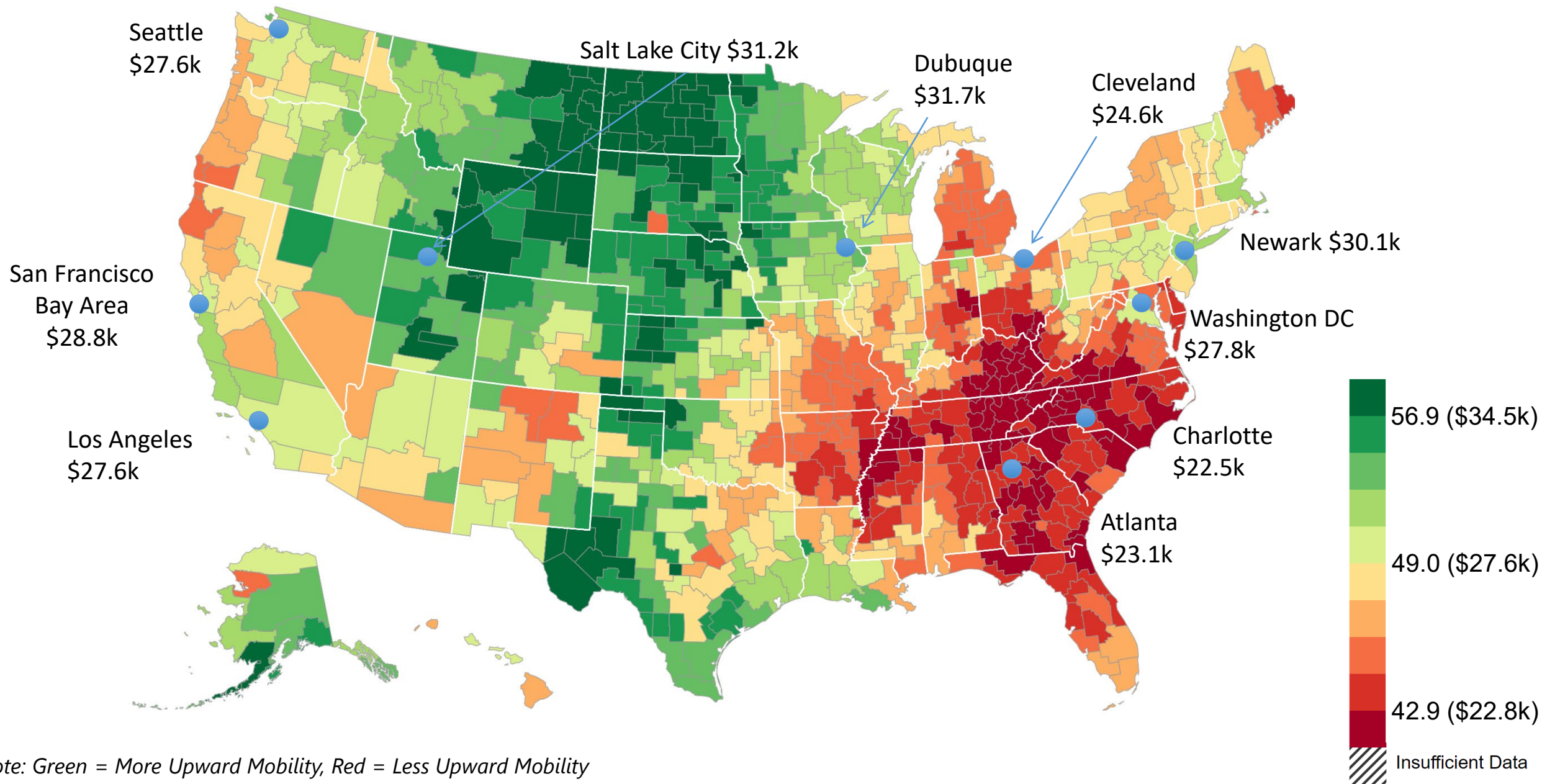
Two Americas: The Geography of Upward Mobility by Race
Average Individual Income for Boys with Parents Earning $25,000 (25th percentile)

Black Men

White Men

Boston
$24k

Newark
$20k

San
Francisco
$19k

Atlanta
$18k

Boston
$31k

Newark
$32k

San
Francisco
$31k

Atlanta
$26k

<36.5
($17k)

45.8
($25k)

>56.9
($35k)
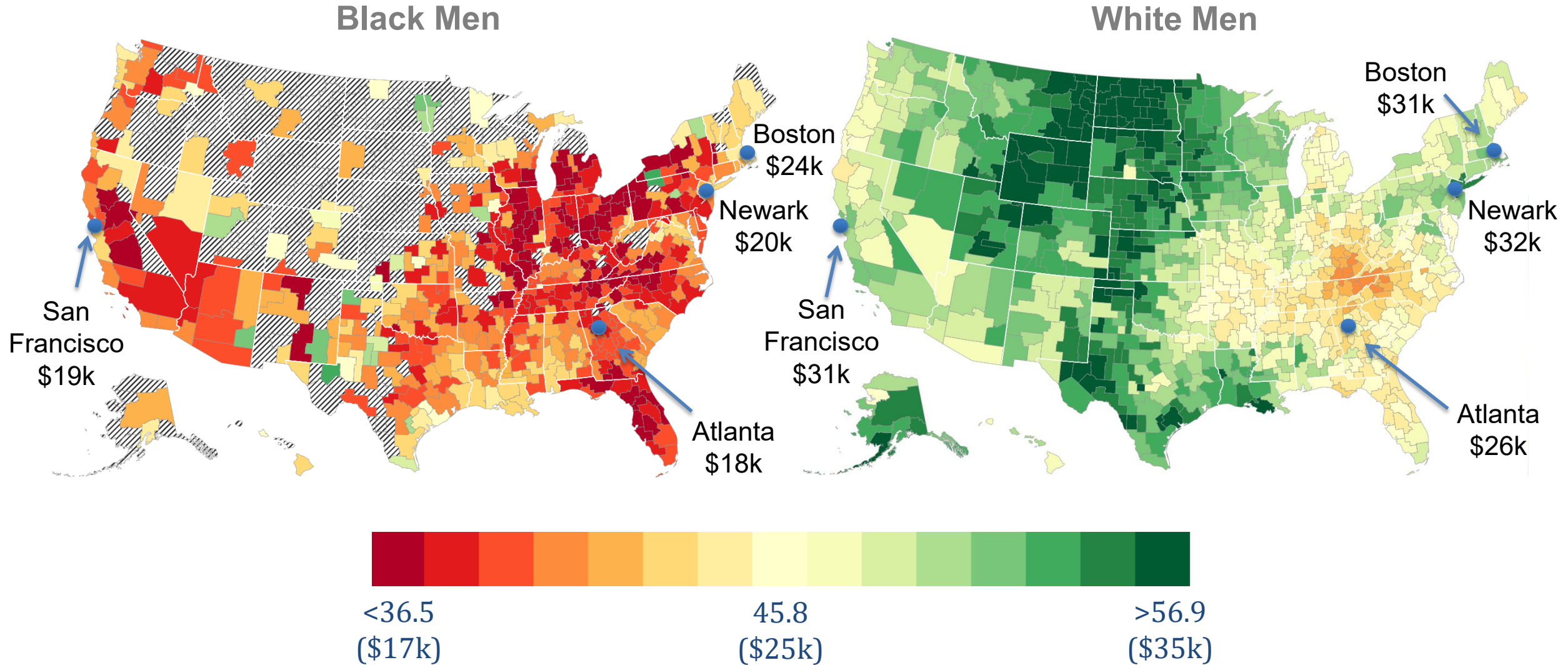
Note: Green = More Upward Mobility, Red = Less Upward Mobility; Grey = Insufficient Data
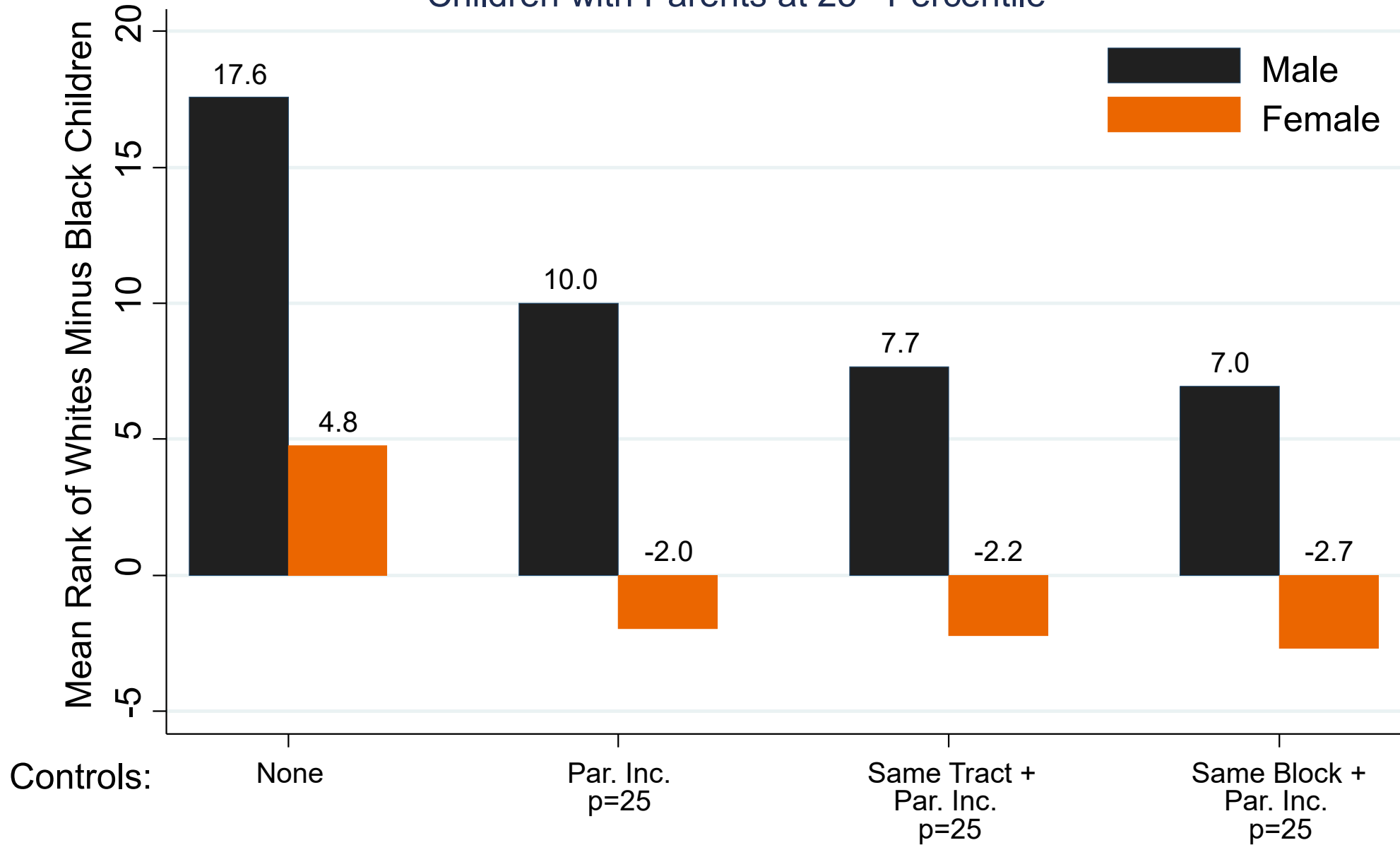
Neighborhood Environments and the Black-White Gap

- 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

Legend: Male (black), Female (orange)

Y-axis: Mean Rank of Whites Minus Black Children

Controls:	None	Par. Inc. p=75	Same Tract + Par. Inc. p=75	Same Block + Par. Inc. p=75
Male	17.6	11.7	8.9	7.9
Female	4.8	-0.9	-1.7	-2.6

Distribution of Black – White Gap in Individual Ranks Across Tracts for Men
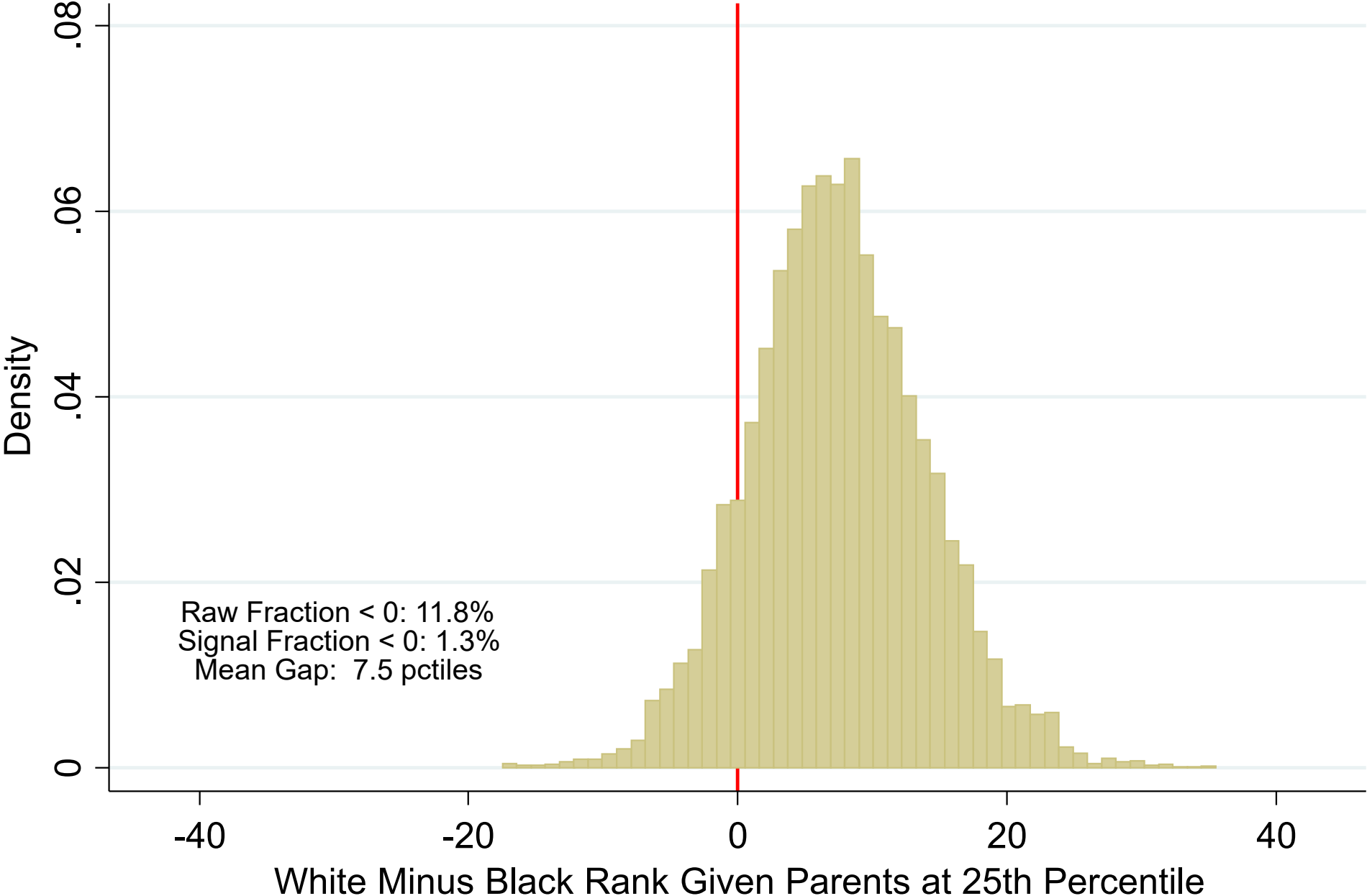
Raw Fraction < 0: 11.8%
Signal Fraction < 0: 1.3%
Mean Gap: 7.5 pctiles

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
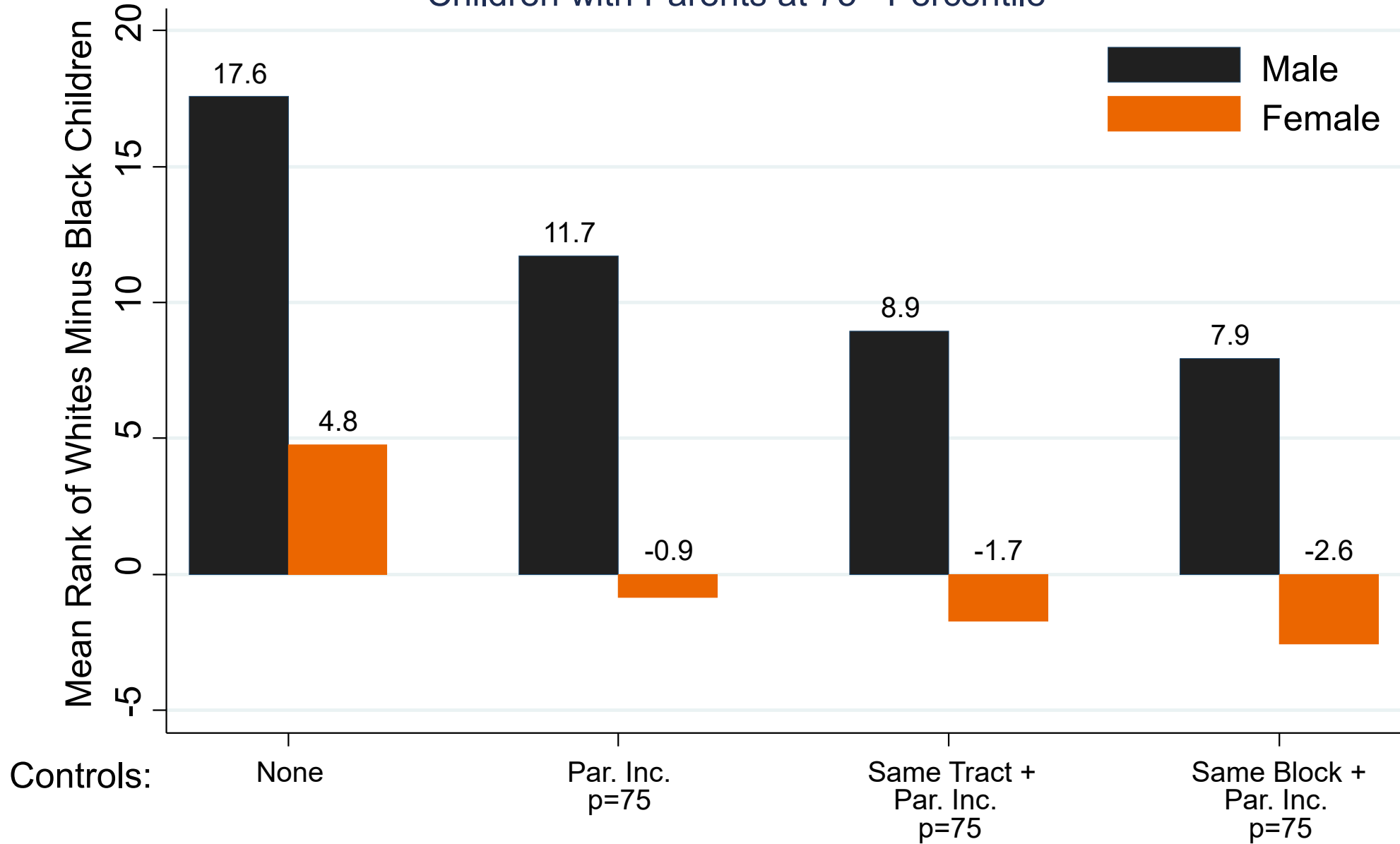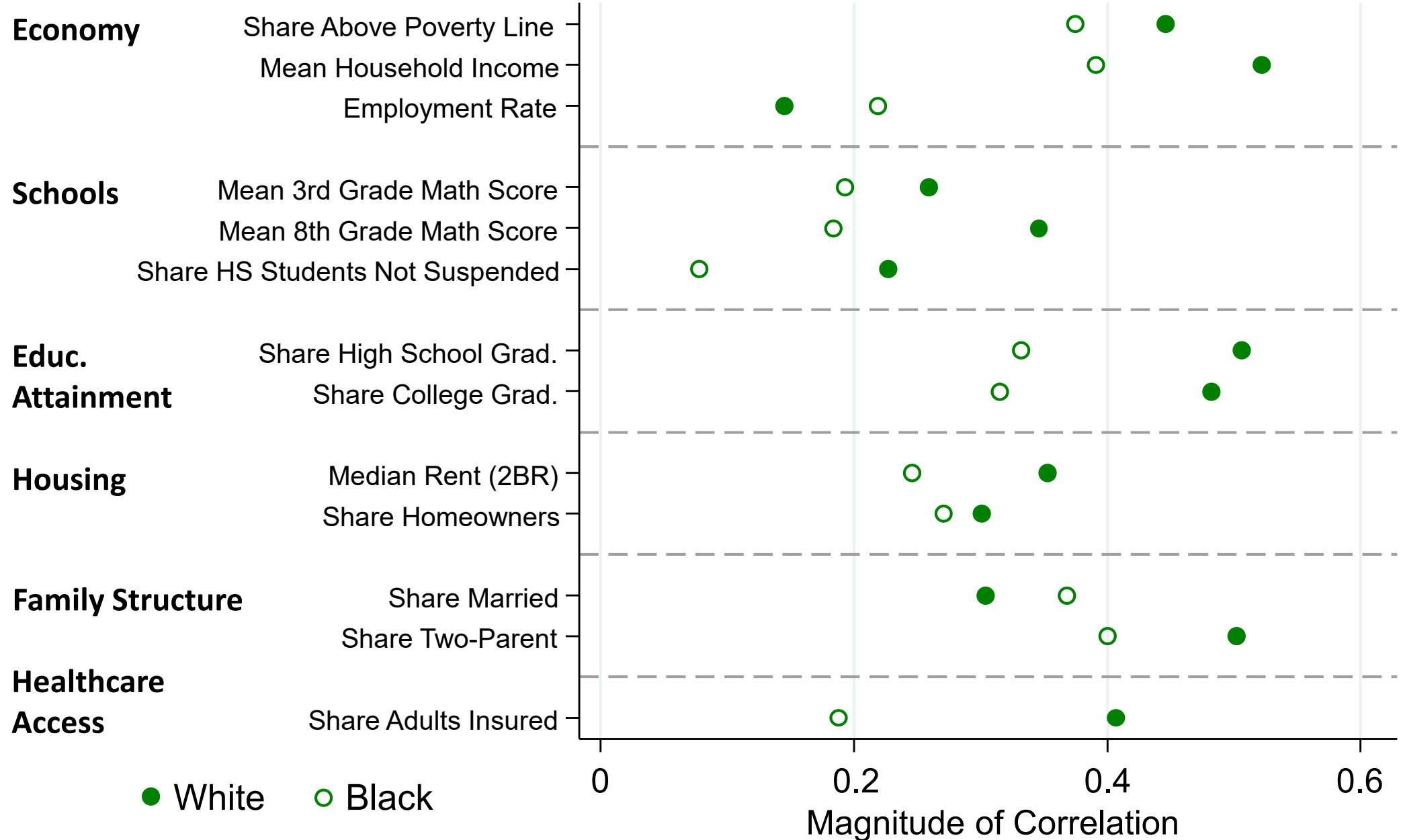
    2. Both black and white boys have better outcomes in "good" (e.g., low-poverty, higher rent) neighborhoods, but the black-white gap is *bigger* in such areas
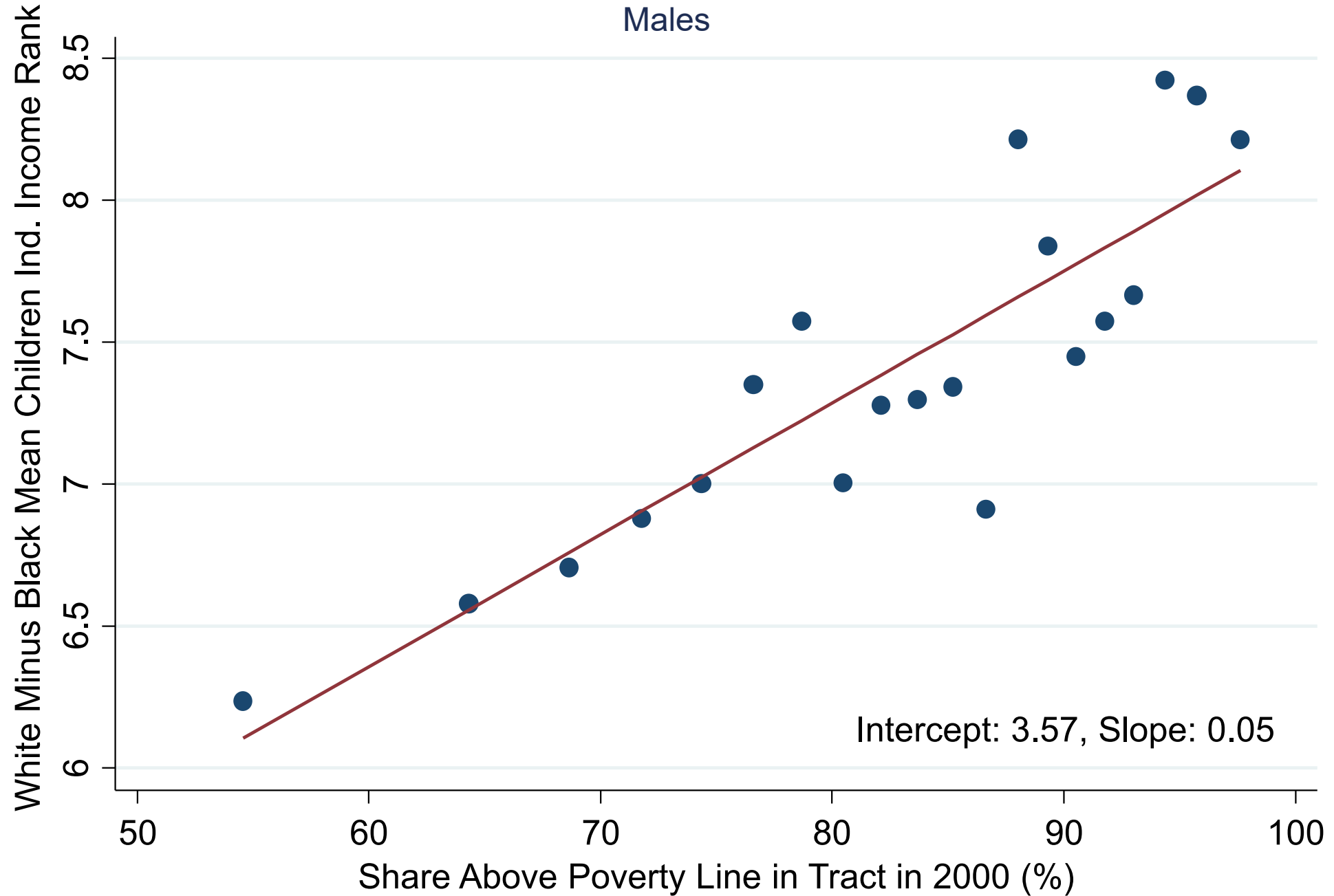
Correlations between Tract-Level Characteristics and Incomes of Black vs. White Men
Children with Parents at 25th Percentile

Economy
- Share Above Poverty Line
- Mean Household Income
- Employment Rate

Schools
- Mean 3rd Grade Math Score
- Mean 8th Grade Math Score
- Share HS Students Not Suspended

Educ. Attainment
- Share High School Grad.
- Share College Grad.

Housing
- Median Rent (2BR)
- Share Homeowners

Family Structure
- Share Married
- Share Two-Parent

Healthcare Access
- Share Adults Insured

● White   ○ Black

Magnitude of Correlation

0   0.2   0.4   0.6

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

Males

Intercept: 3.57, Slope: 0.05

X-axis: Share Above Poverty Line in Tract in 2000 (%)

Y-axis: White Minus Black Mean Children Ind. Income Rank
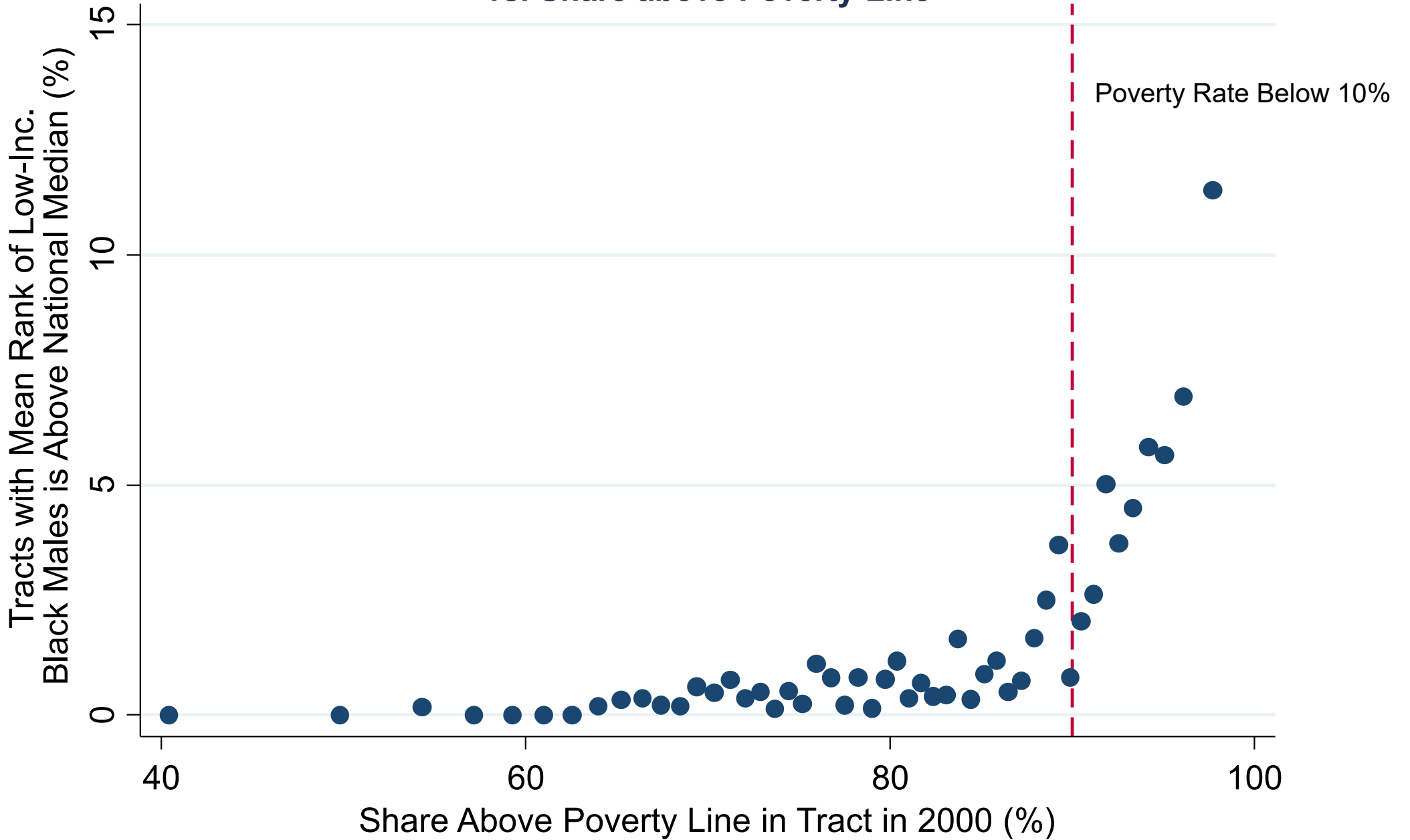
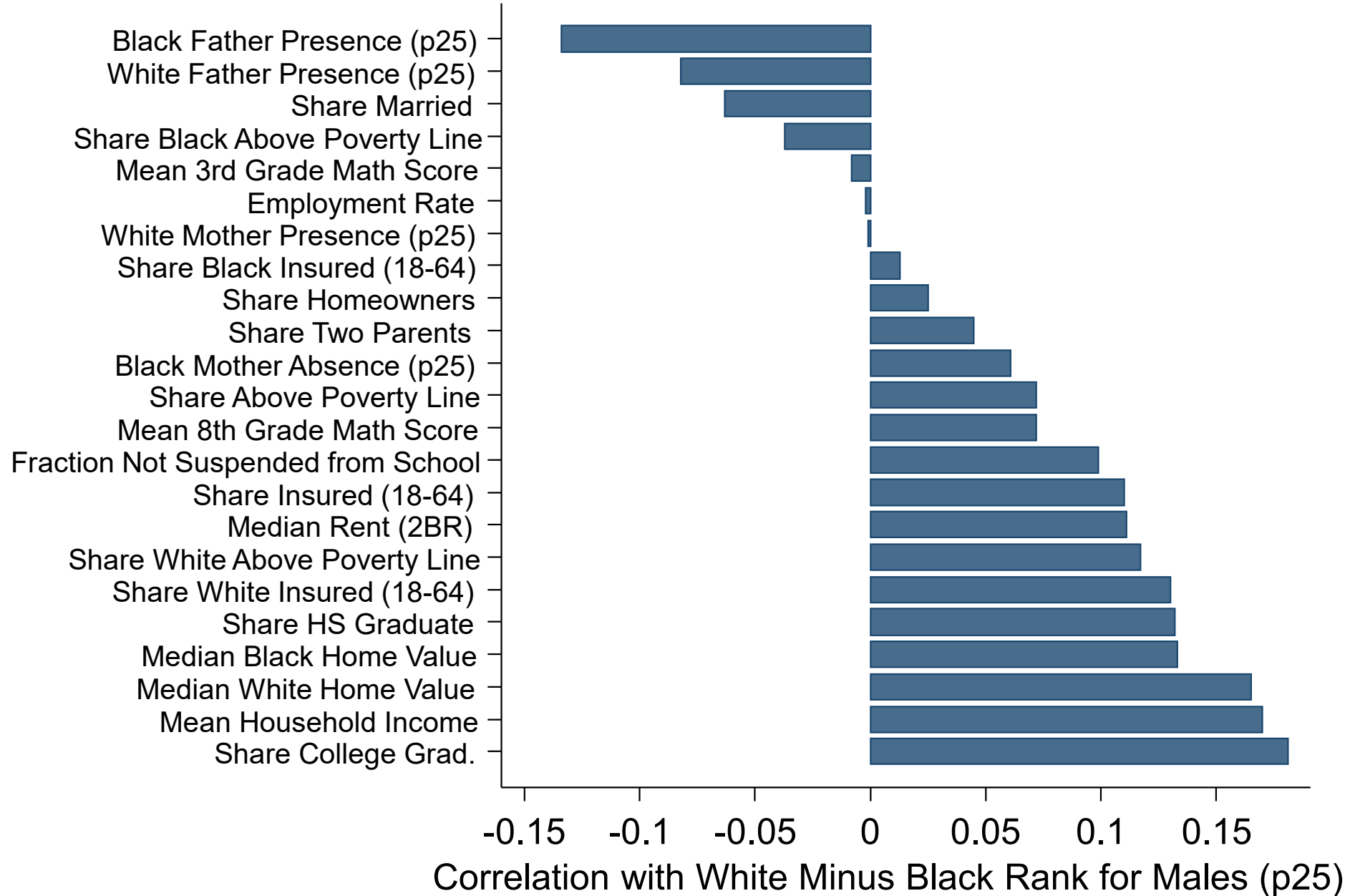# Variation in the Black-White Earnings Gap Across Tracts

- 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

Percentage of Tracts in which Predicted Rank of Black Males is above National Median vs. Share above Poverty Line
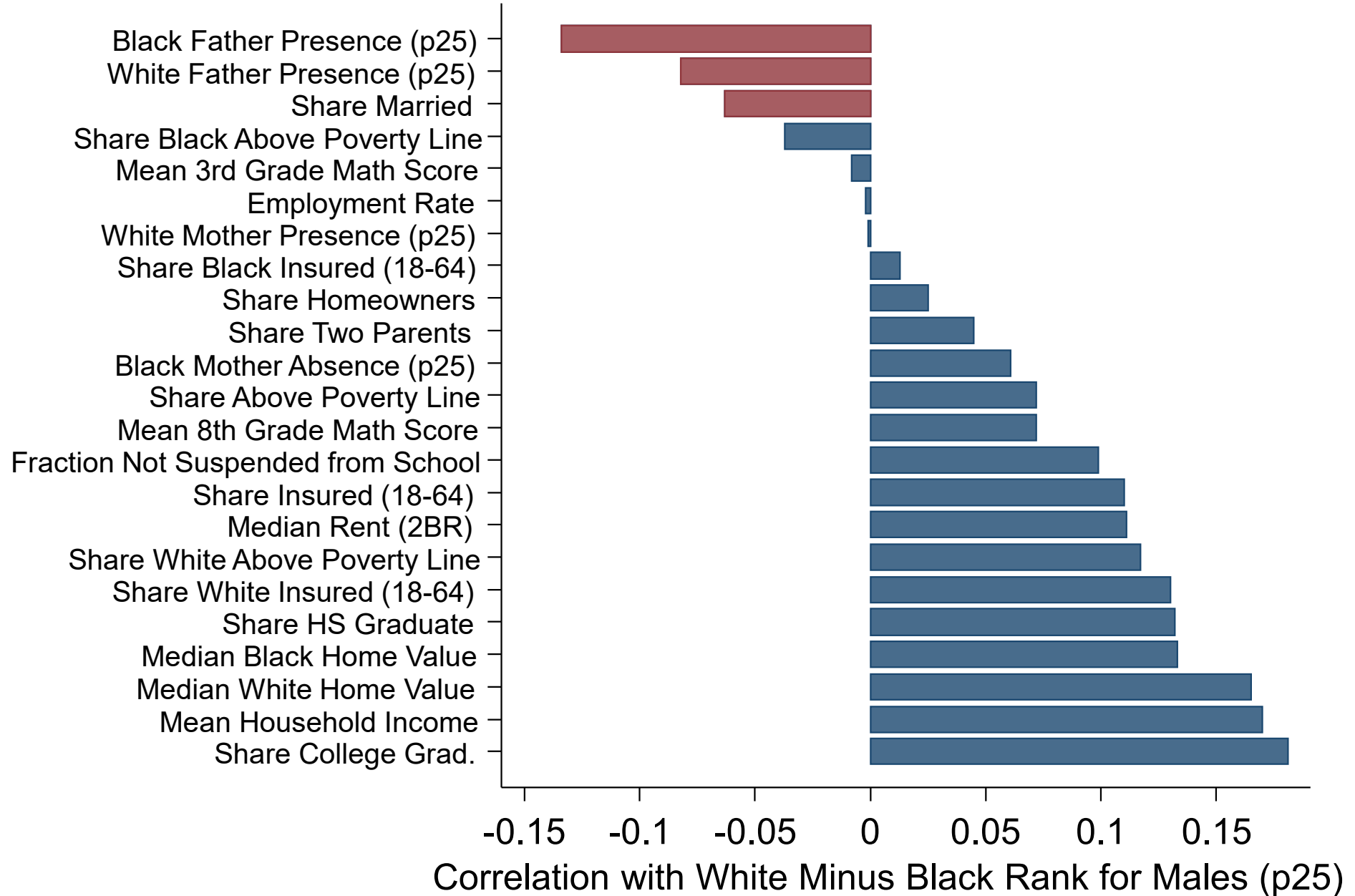
Poverty Rate Below 10%

Tracts with Mean Rank of Low-Inc. Black Males is Above National Median (%)

Share Above Poverty Line in Tract in 2000 (%)

Association Between Tract-Level Characteristics and Black-White Gap
Tracts with Poverty Rates Below 10%

Correlation with White Minus Black Rank for Males (p25)

Association Between Tract-Level Characteristics and Black-White Gap
Tracts with Poverty Rates Below 10%

Black Father Presence (p25)
White Father Presence (p25)
Share Married
Share Black Above Poverty Line
Mean 3rd Grade Math Score
Employment Rate
White Mother Presence (p25)
Share Black Insured (18-64)
Share Homeowners
Share Two Parents
Black Mother Absence (p25)
Share Above Poverty Line
Mean 8th Grade Math Score
Fraction Not Suspended from School
Share Insured (18-64)
Median Rent (2BR)
Share White Above Poverty Line
Share White Insured (18-64)
Share HS Graduate
Median Black Home Value
Median White Home Value
Mean Household Income
Share College Grad.

-0.15   -0.1   -0.05   0   0.05   0.1   0.15

Correlation with White Minus Black Rank for Males (p25)

**Black-White Gap in Individual Income Rank vs. Father Presence**
Male Children with Parents at 25th Percentile - Poverty Share Less than 10%

- White
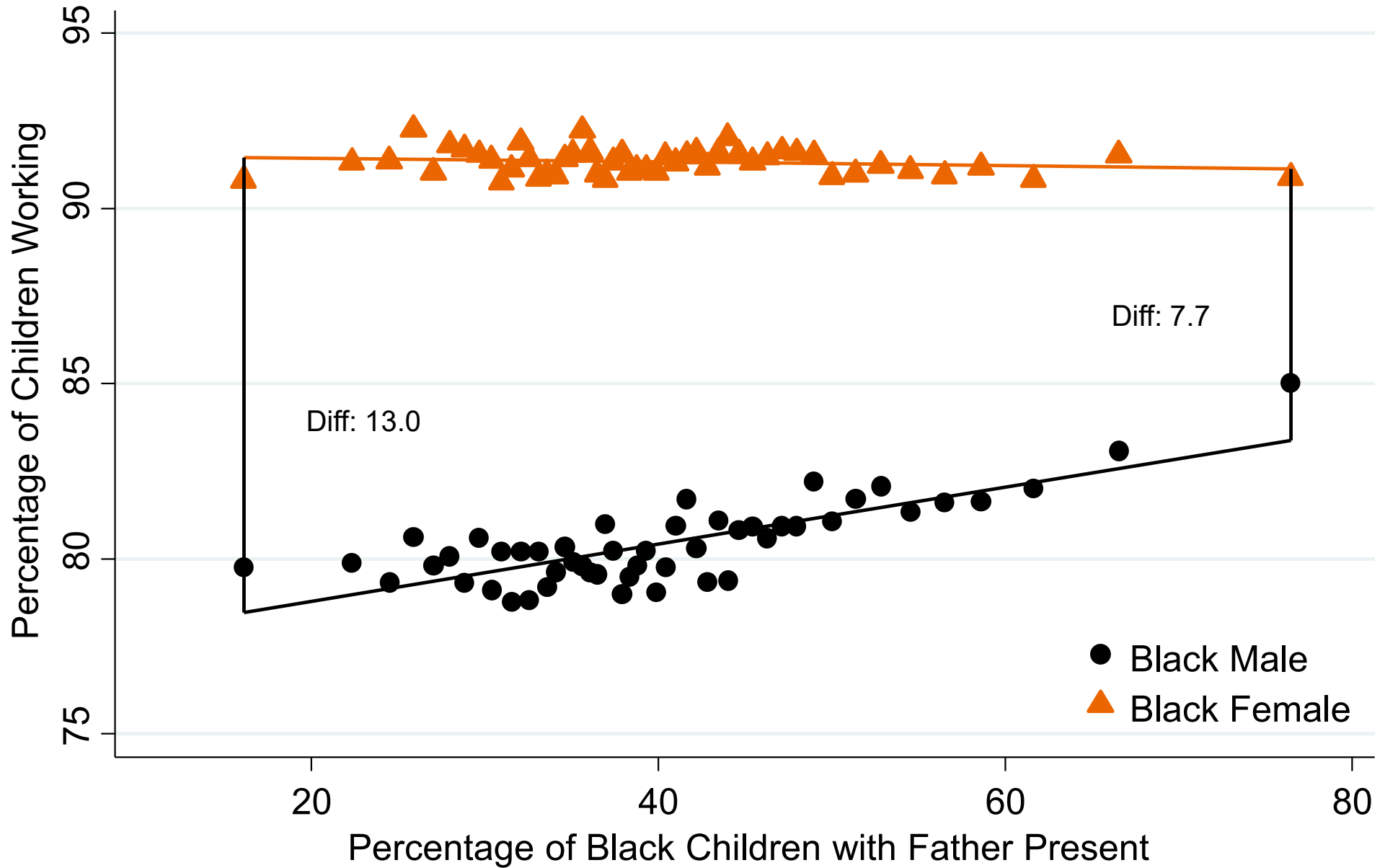- Black

Diff: 6.1

Diff: 9.3

Mean Child Individual Income Rank

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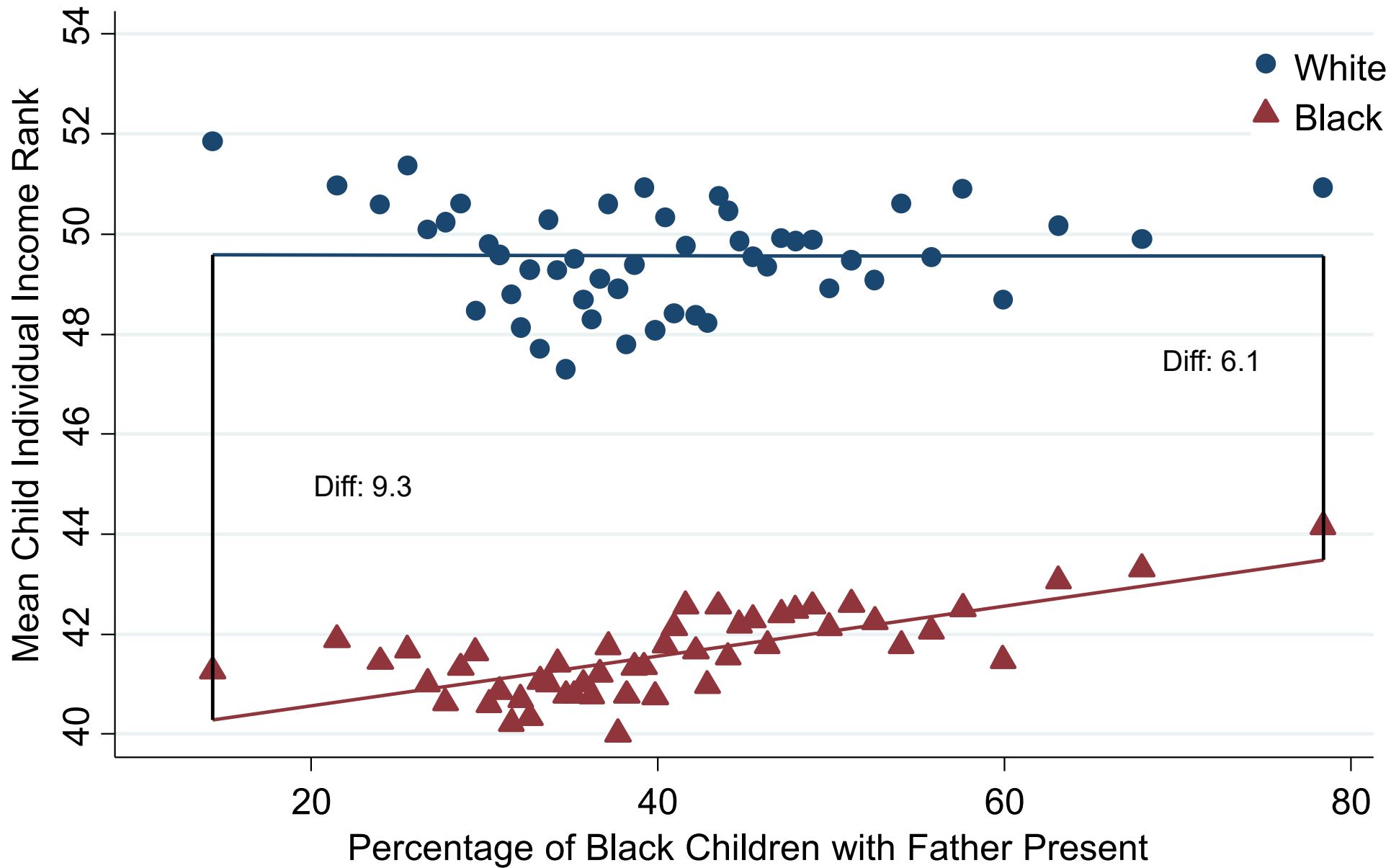
Black-White Gap in Employment Rates vs. Father Presence
Male Children with Parents at 25th Percentile - Poverty Share Less than 10%

Diff: 4.0

Diff: 7.2

Percentage of Children Working

Percentage of Black Children with Father Present

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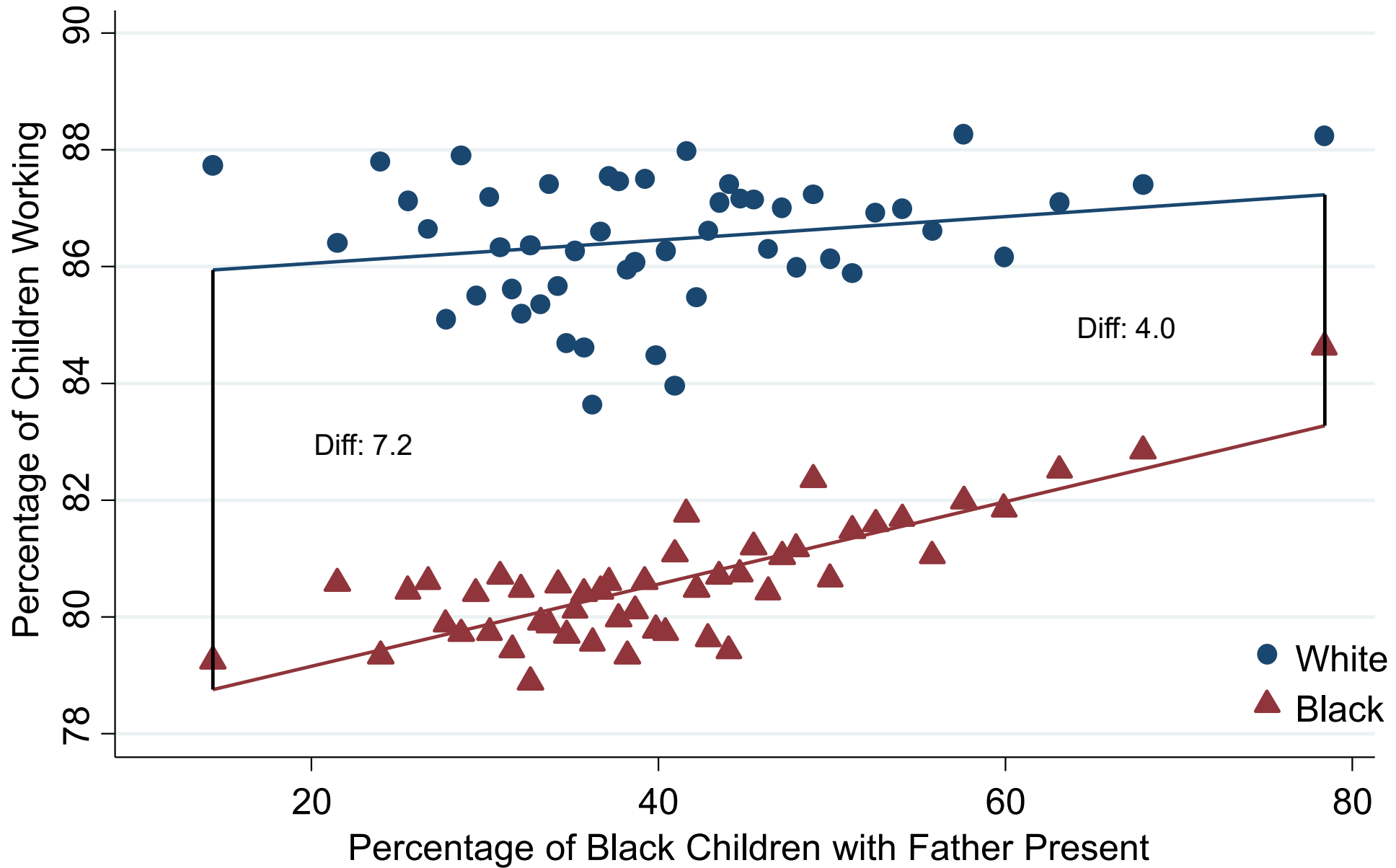
Male-Female Gap in Employment Rates vs. Father Presence
Black Children with Parents at 25th Percentile - Poverty Share Less than 10%

Percentage of Children Working

Diff: 13.0

Diff: 7.7

● Black Male
▲ Black Female

Percentage of Black Children with Father Present

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	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%.

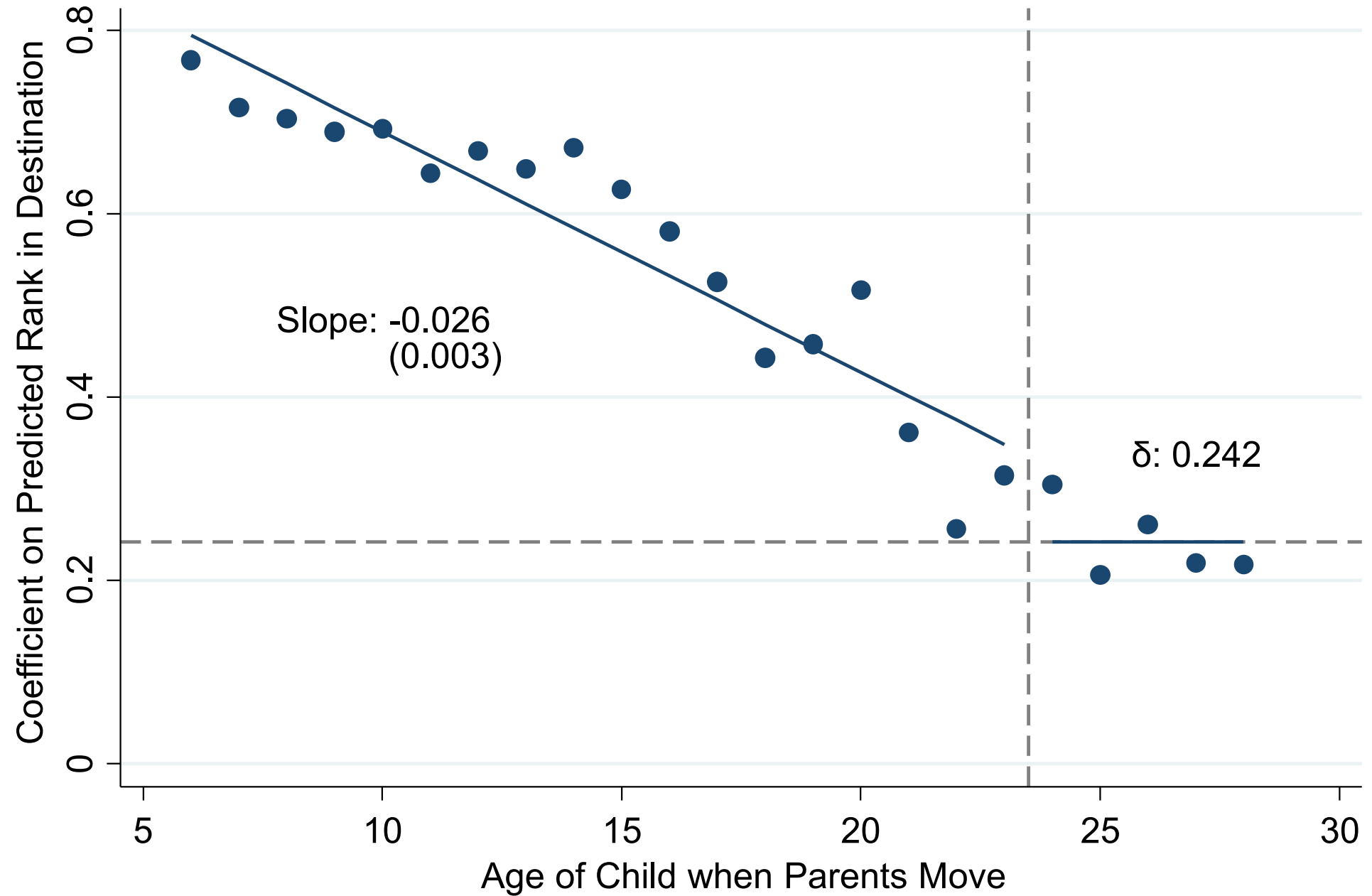# Variation in the Black-White Earnings Gap Across Tracts

- 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

Slope: -0.026
(0.003)

δ: 0.242

Childhood Exposure Effects on Income Rank at Age 30
Black Males

Slope: -0.027
(0.004)

δ: 0.119

Coefficient on Predicted Rank in Destination

Age of Child when Parents Move
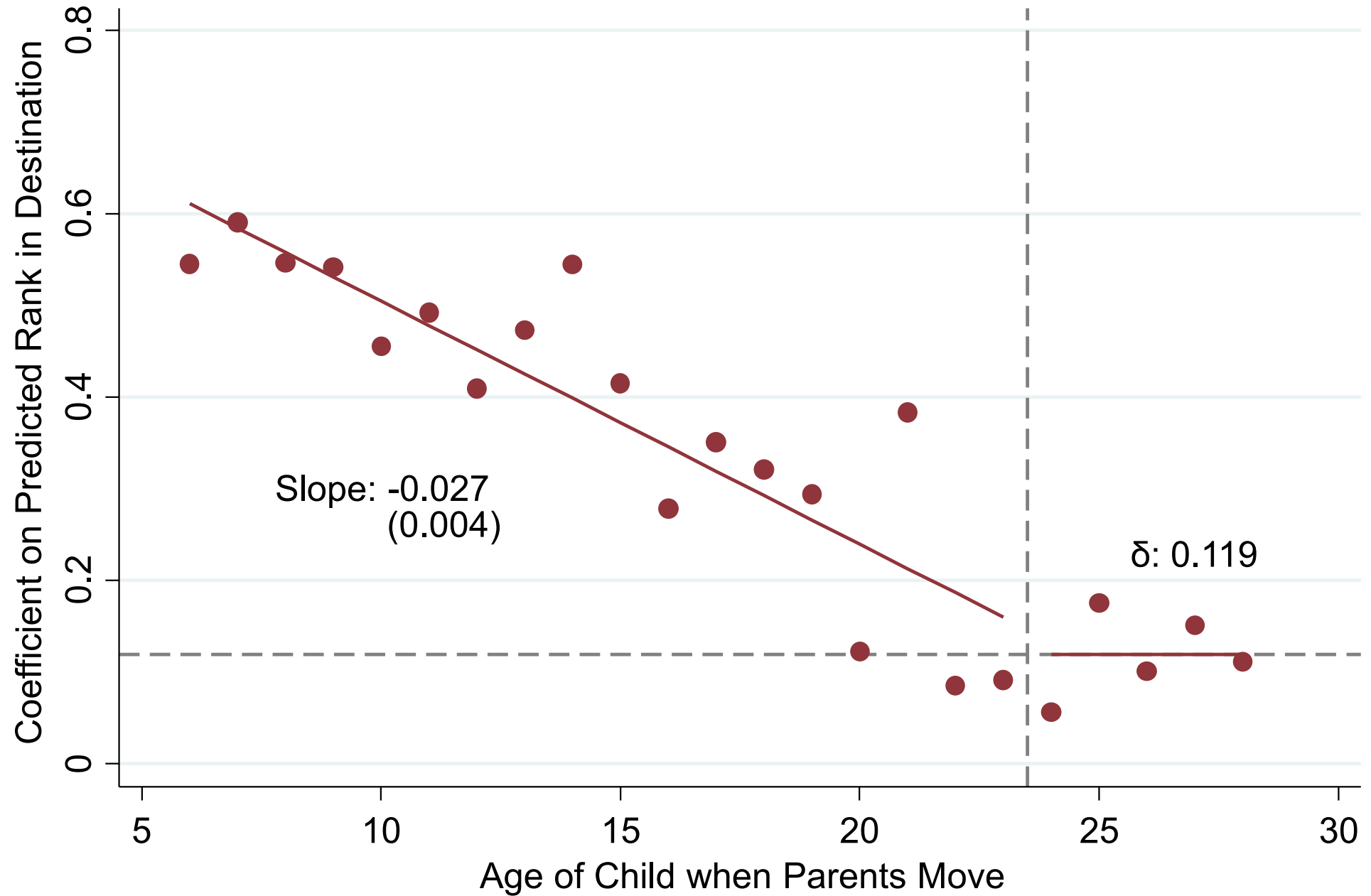
Race-Specific Childhood Exposure Effects
OLS Regression Estimates

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

Note: standard errors in parentheses

Childhood Exposure Effects on Probability of Being Incarcerated in 2010
Black Males

Slope: -0.033
(0.004)

δ: 0.055
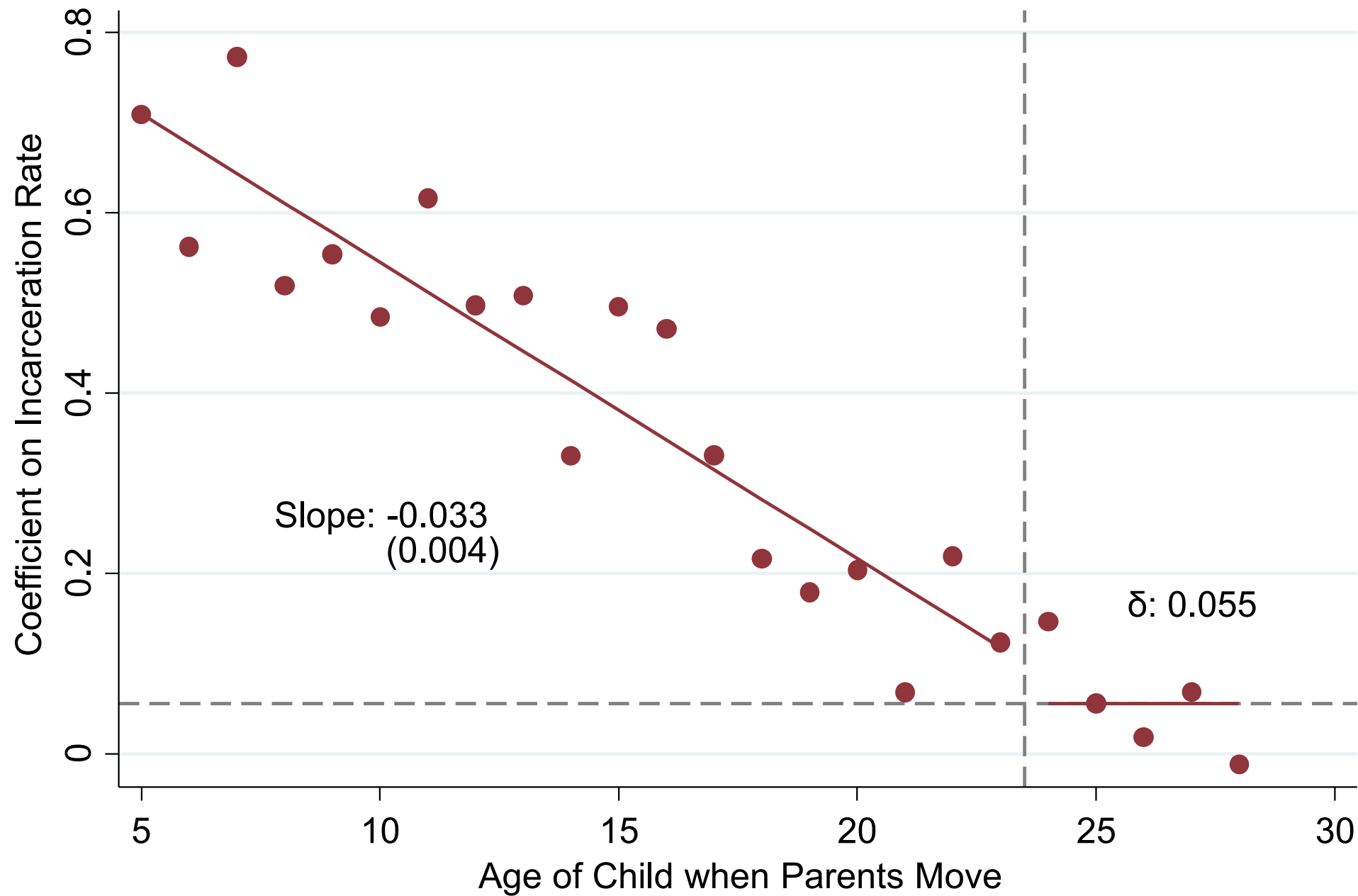
Summary: Impacts of Neighborhood Environments on Black Men

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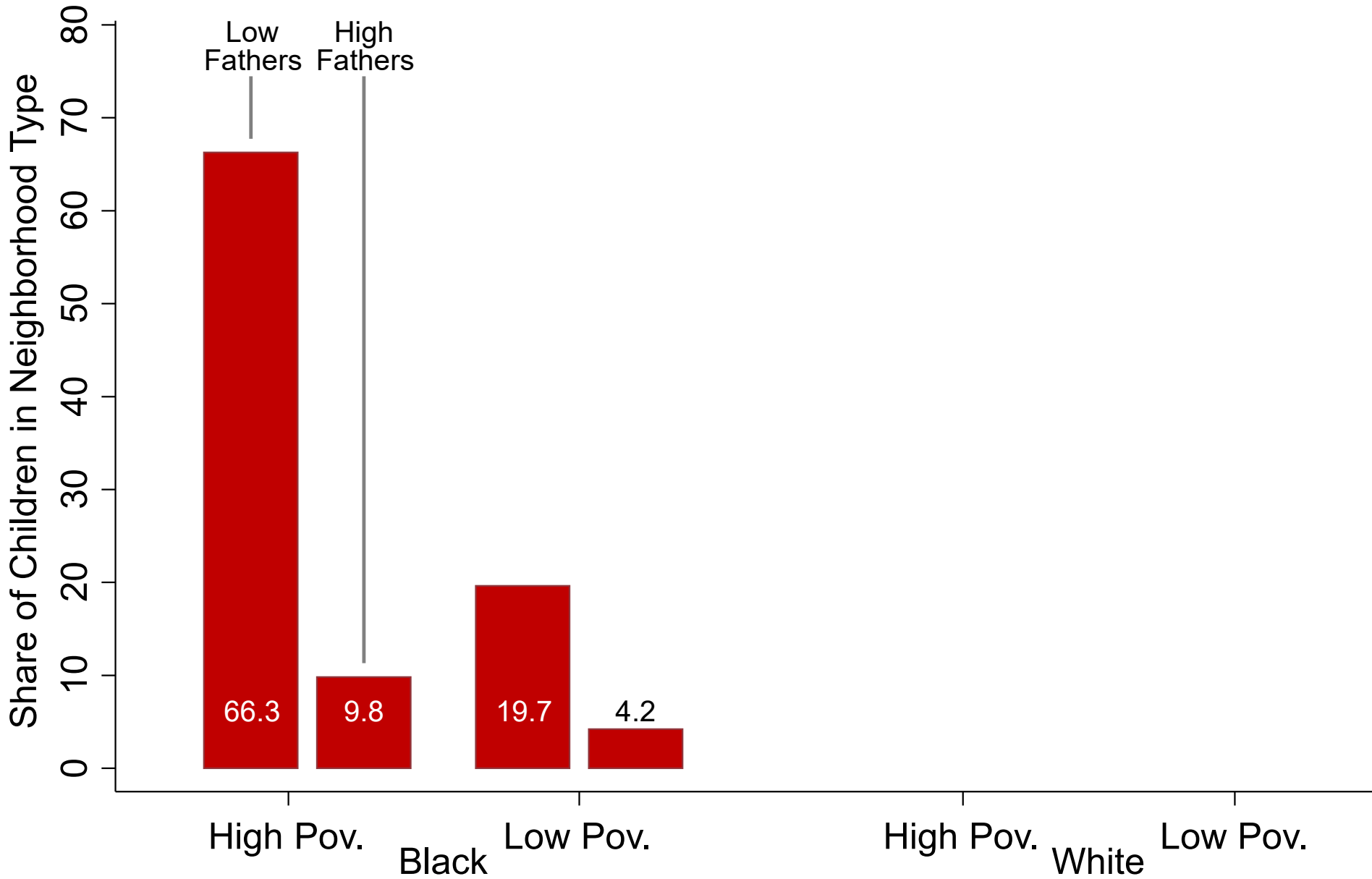
Note: Low-Poverty: Poverty Rate < 10%; High Father Presence: >50% Father Presence Among Children of Own Race

Father Presence and Poverty Rates by Tract for Blacks vs. Whites
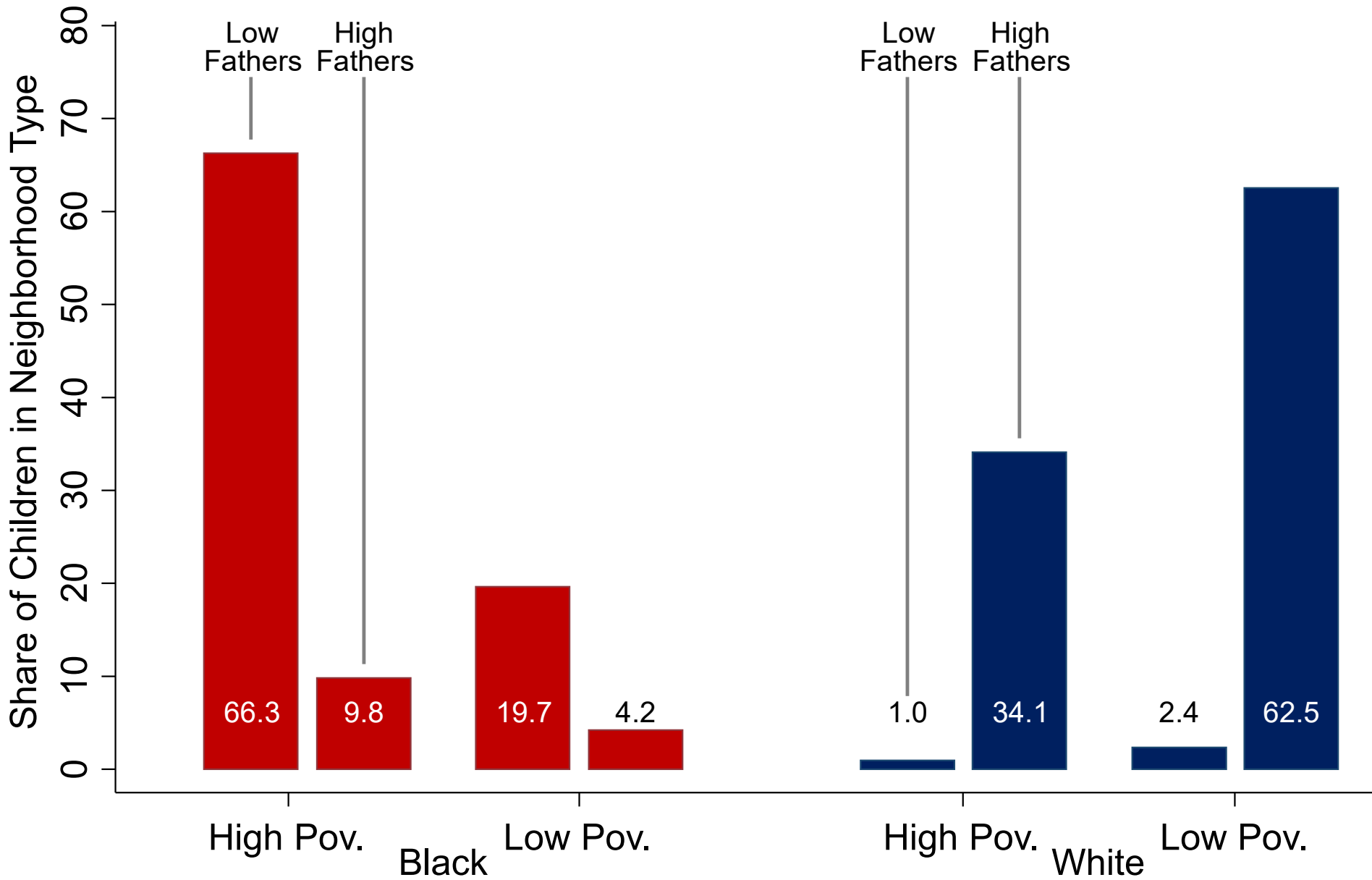
Note: Low-Poverty: Poverty Rate < 10%; High Father Presence: >50% Father Presence Among Children of Own Race

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

CZ Name	Neighborhood Name	Predicted Rank of Black Men with Parents at p=25	Fraction of Fathers Present in Tract	Poverty Rate in Tract
New York	East Flatbush, Kings County	46.1	51.3%	6.1%
New York	Laurelton, Queens County	46.7	53.9%	4.4%
New York	Queens Village, Queens County	55.4	56.2%	8.1%
Washington DC	Alexandria West, Alexandria City County	45.0	53.4%	7.3%
Washington DC	Silver Spring, Montgomery County	50.1	63.2%	4.7%

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

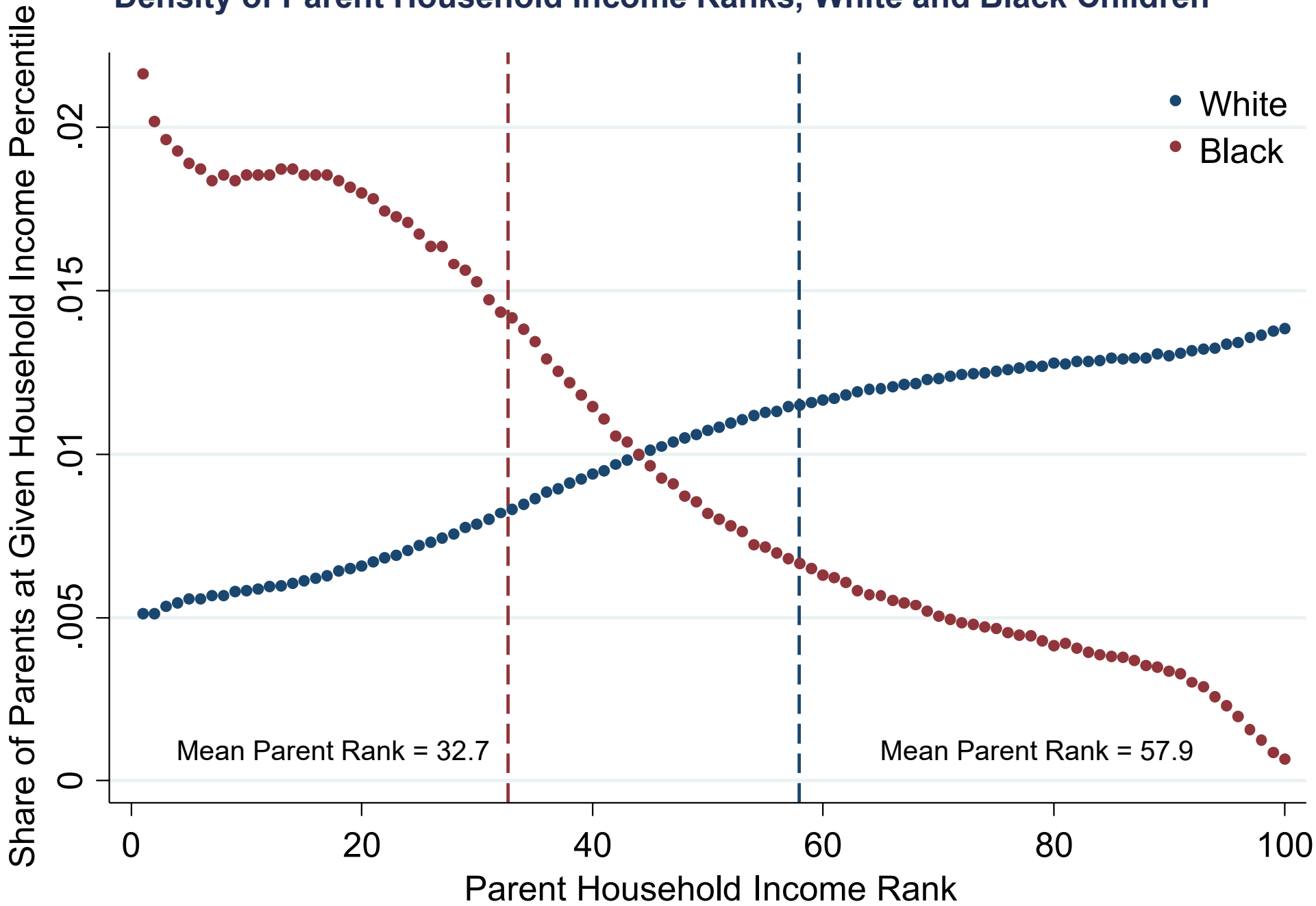   – Blacks have much lower rates of upward mobility → persistent gaps across generations

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

- White
- Black

Mean Parent Rank = 32.7

Mean Parent Rank = 57.9

(y-axis) Share of Parents at Given Household Income Percentile

(x-axis) Parent Household Income Rank

Density of Parent Household Income Ranks by Race
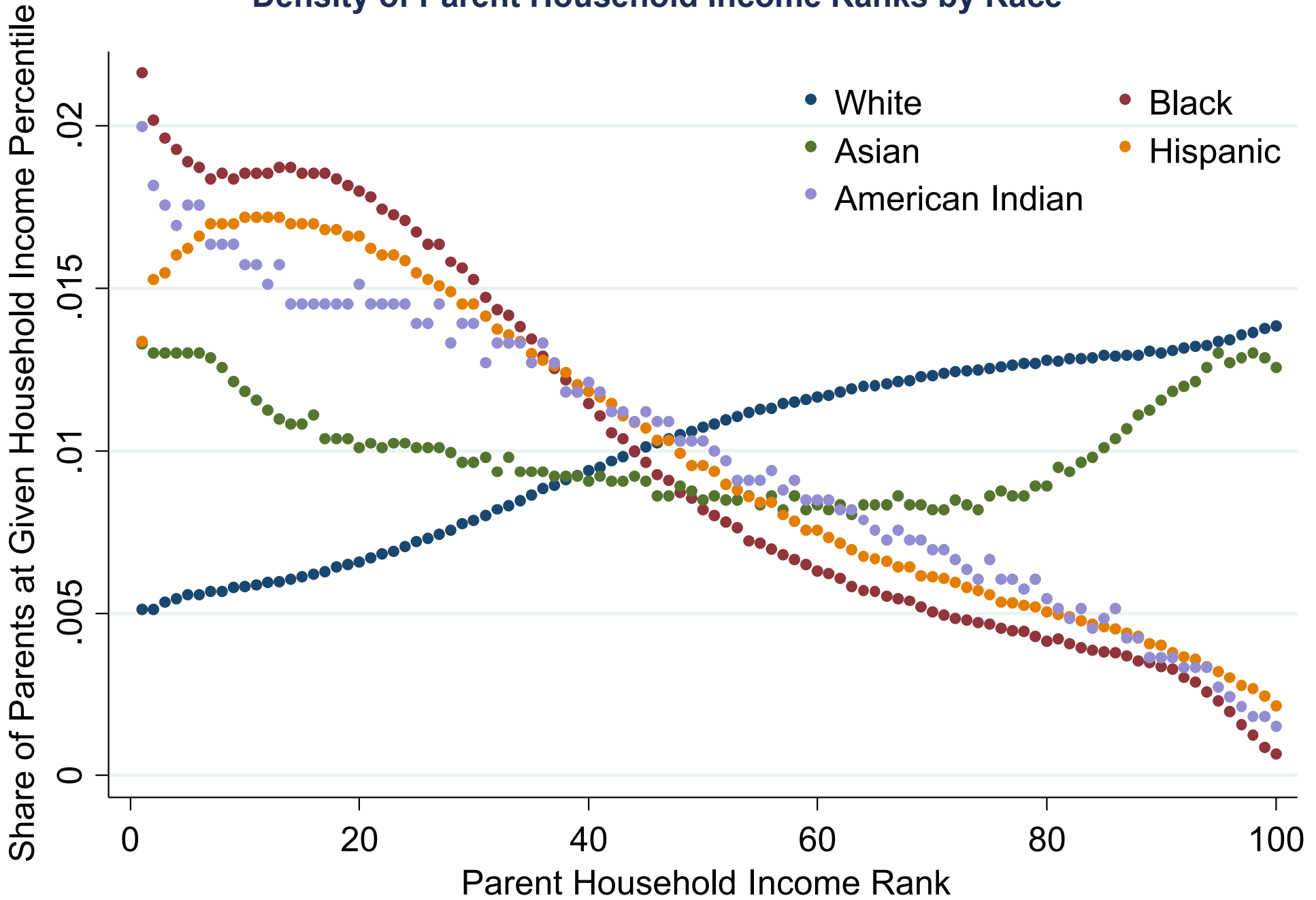
Intergenerational Mobility by Race for Children With Immigrant vs. Non-Immigrant Mothers
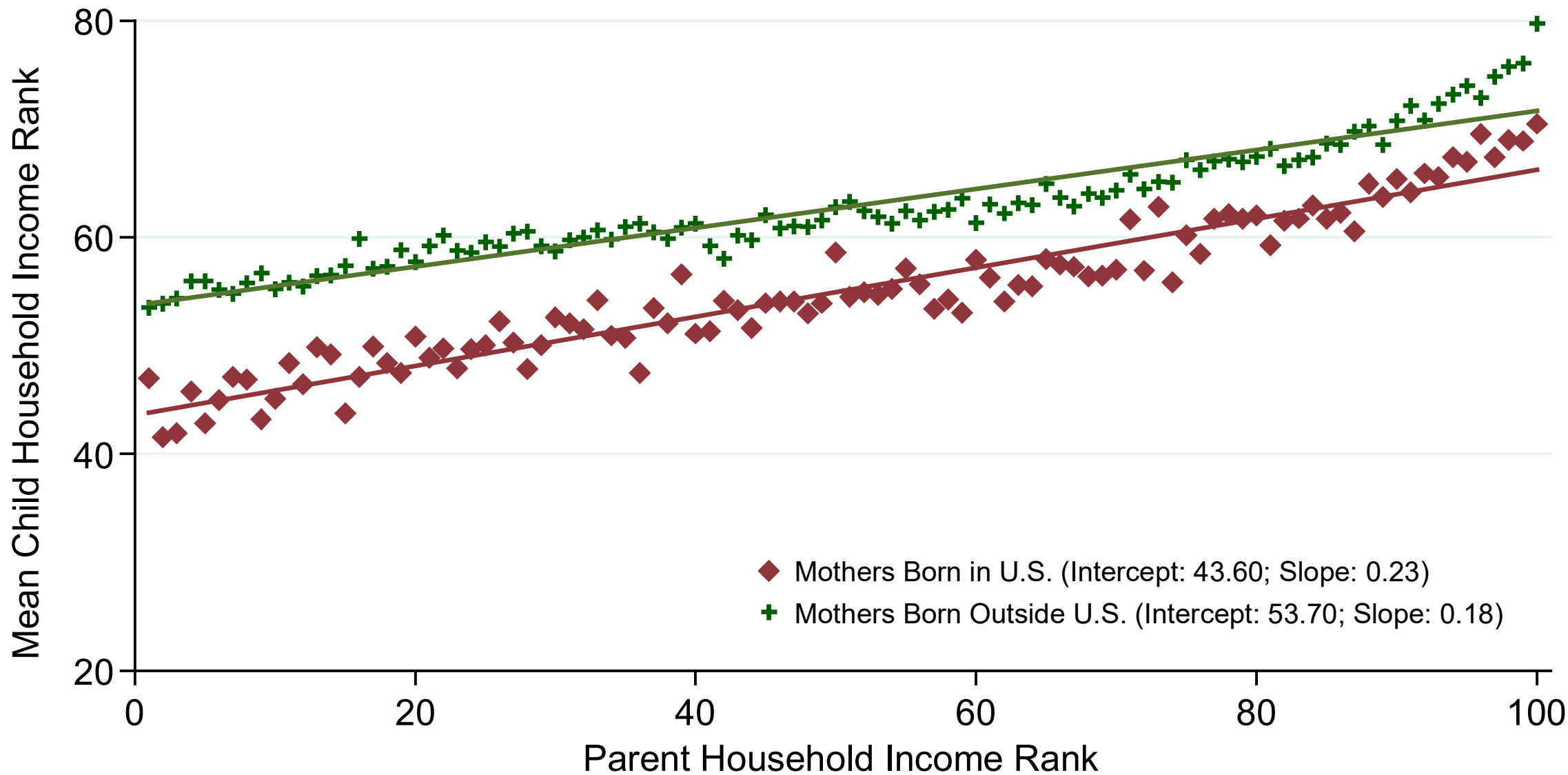White Children
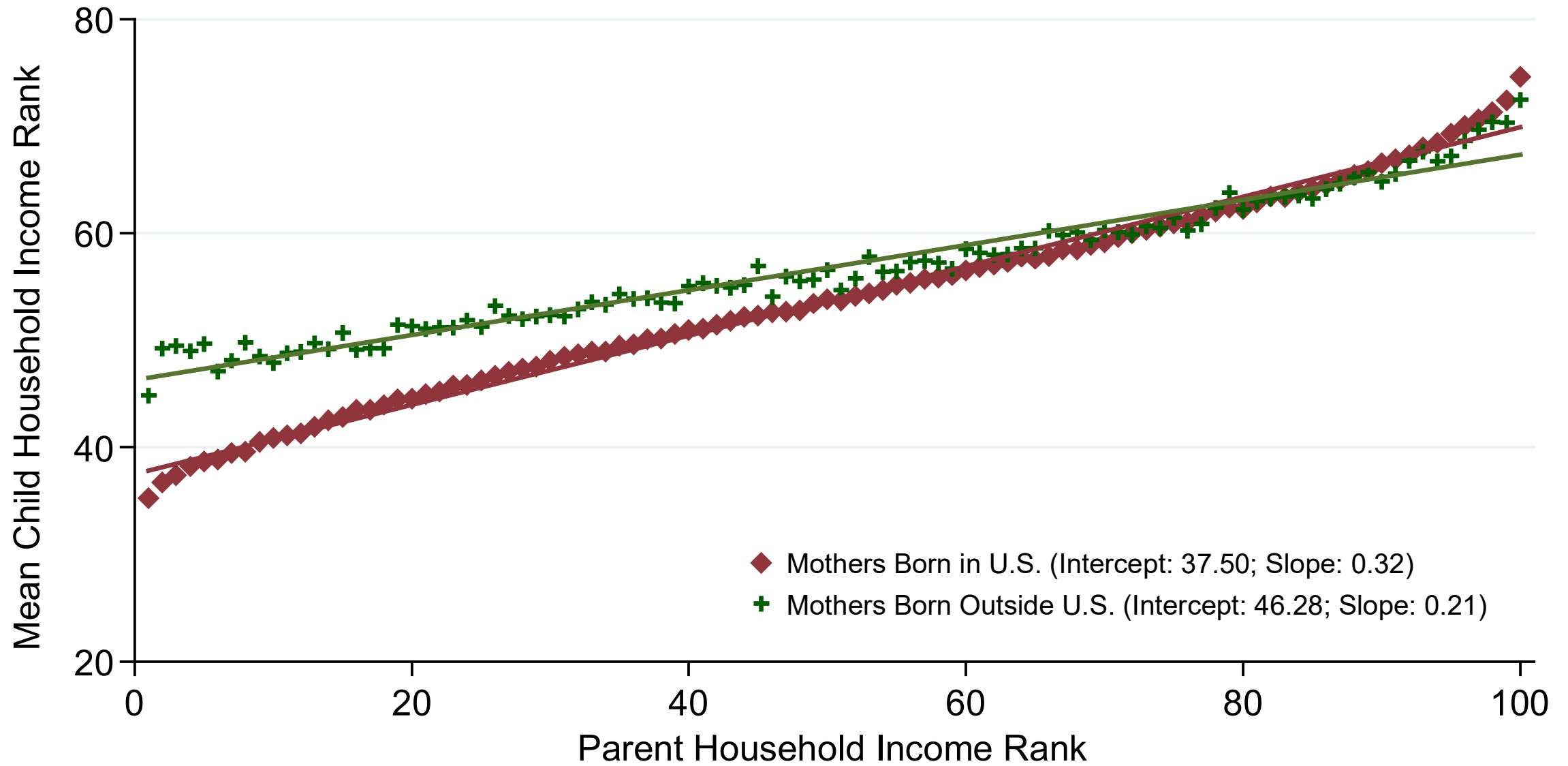
Mean Child Household Income Rank vs. Parent Household Income Rank

◆ Mothers Born in U.S. (Intercept: 37.50; Slope: 0.32)
+ Mothers Born Outside U.S. (Intercept: 46.28; Slope: 0.21)

Intergenerational Mobility by Race for Children With Immigrant vs. Non-Immigrant Mothers
Black Children
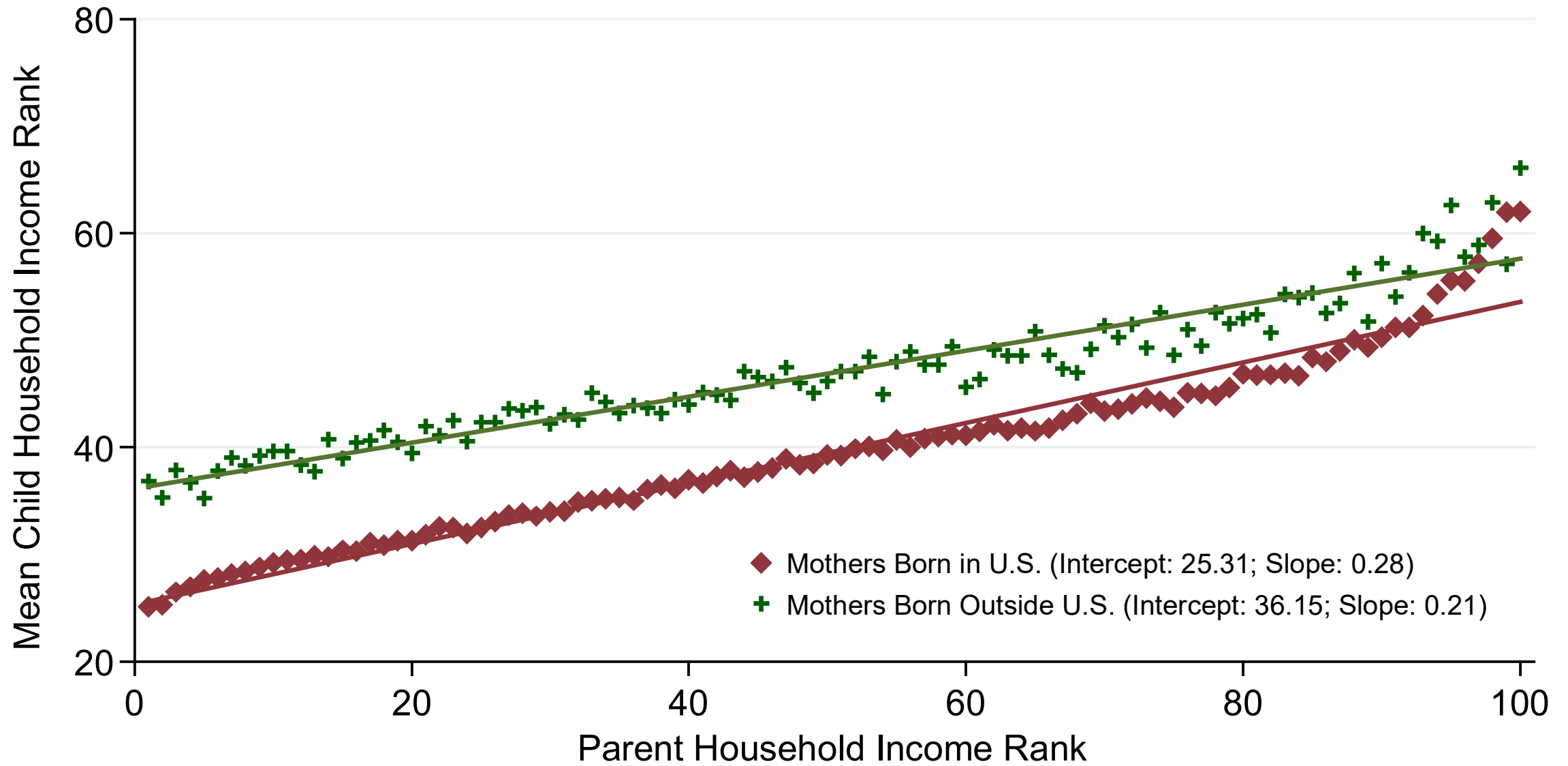
Mothers Born in U.S. (Intercept: 25.31; Slope: 0.28)

Mothers Born Outside U.S. (Intercept: 36.15; Slope: 0.21)

X-axis: Parent Household Income Rank

Y-axis: Mean Child Household Income Rank

Intergenerational Mobility by Race for Children With Immigrant vs. Non-Immigrant Mothers
Asian Children

Mothers Born in U.S. (Intercept: 43.60; Slope: 0.23)
Mothers Born Outside U.S. (Intercept: 53.70; Slope: 0.18)

Parent Household Income Rank

Mean Child Household Income Rank

Intergenerational Mobility by Race for Children With Immigrant vs. Non-Immigrant Mothers
Hispanic Children

Mean Child Household Income Rank

◆ Mothers Born in U.S. (Intercept: 34.03; Slope: 0.28)
+ Mothers Born Outside U.S. (Intercept: 39.51; Slope: 0.25)

Parent Household Income Rank
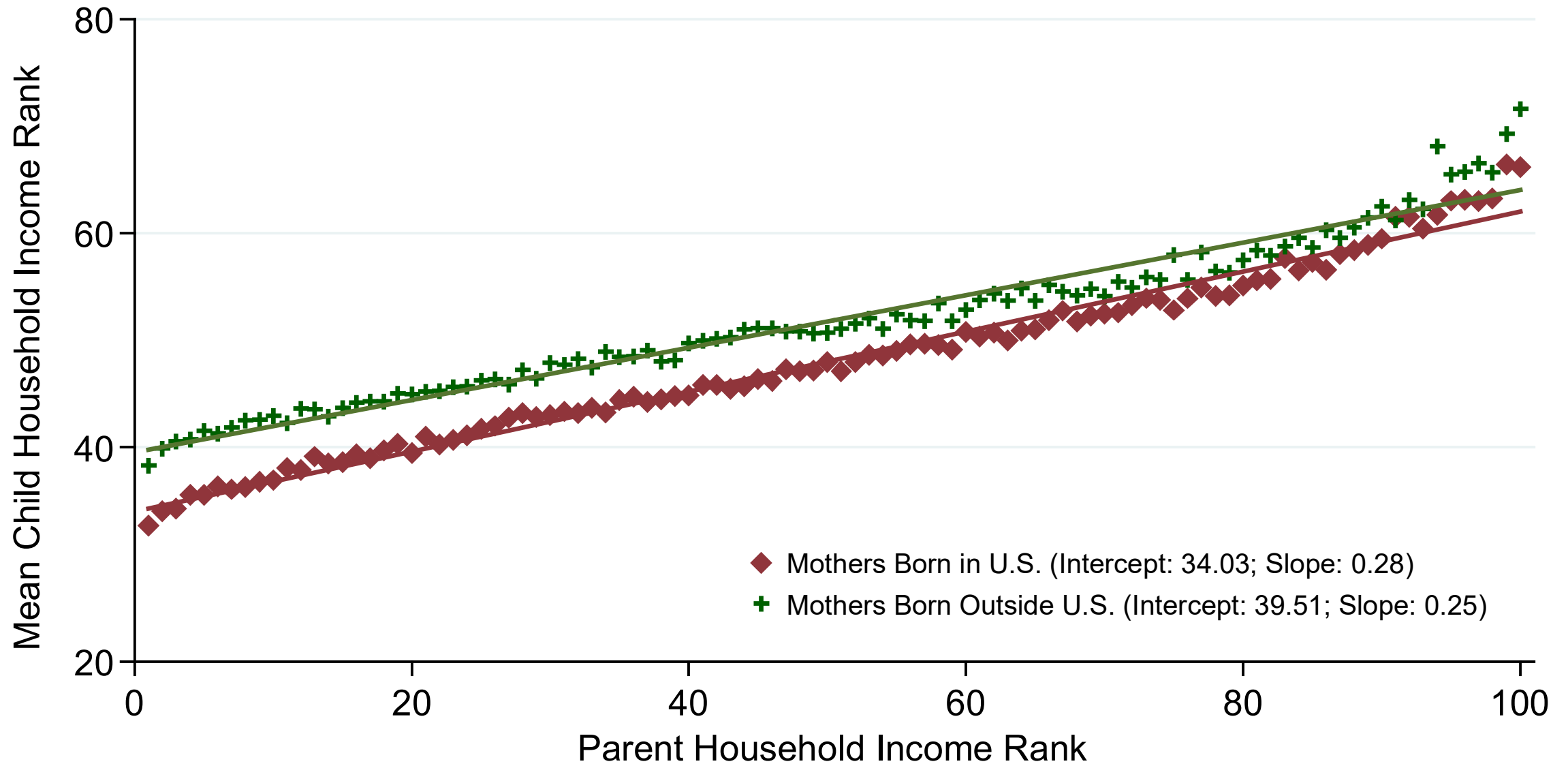
Intergenerational Mobility by Race for Children With Immigrant Mothers

White (Intercept: 46.28; Slope: 0.21)
Black (Intercept: 36.15; Slope: 0.21)
Asian (Intercept: 53.70; Slope: 0.18)
Hispanic (Intercept: 39.51; Slope: 0.25)

Parent Household Income Rank

Mean Child Household Income Rank
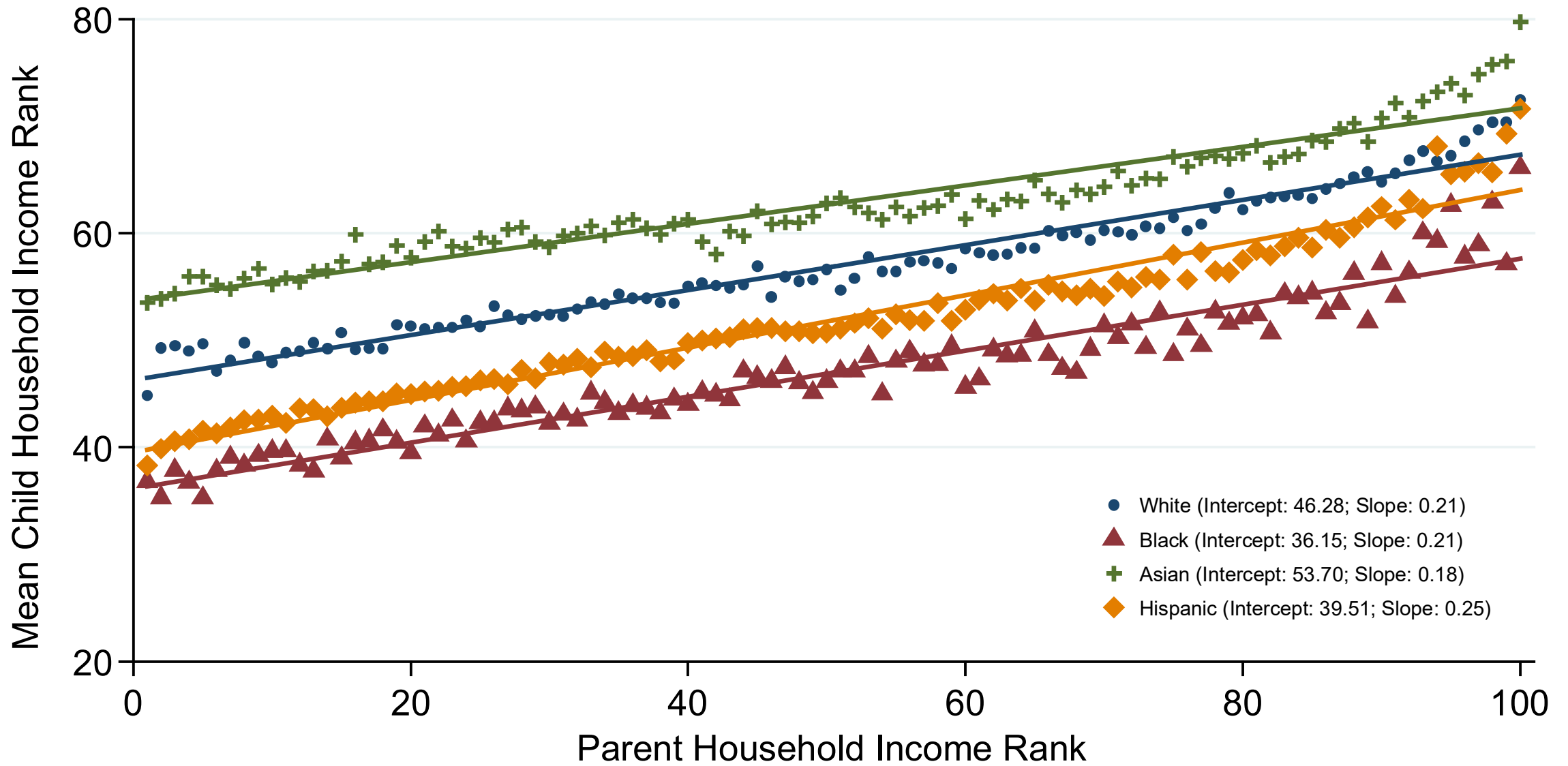
Hours Worked vs. Parent Income Rank
Male Children
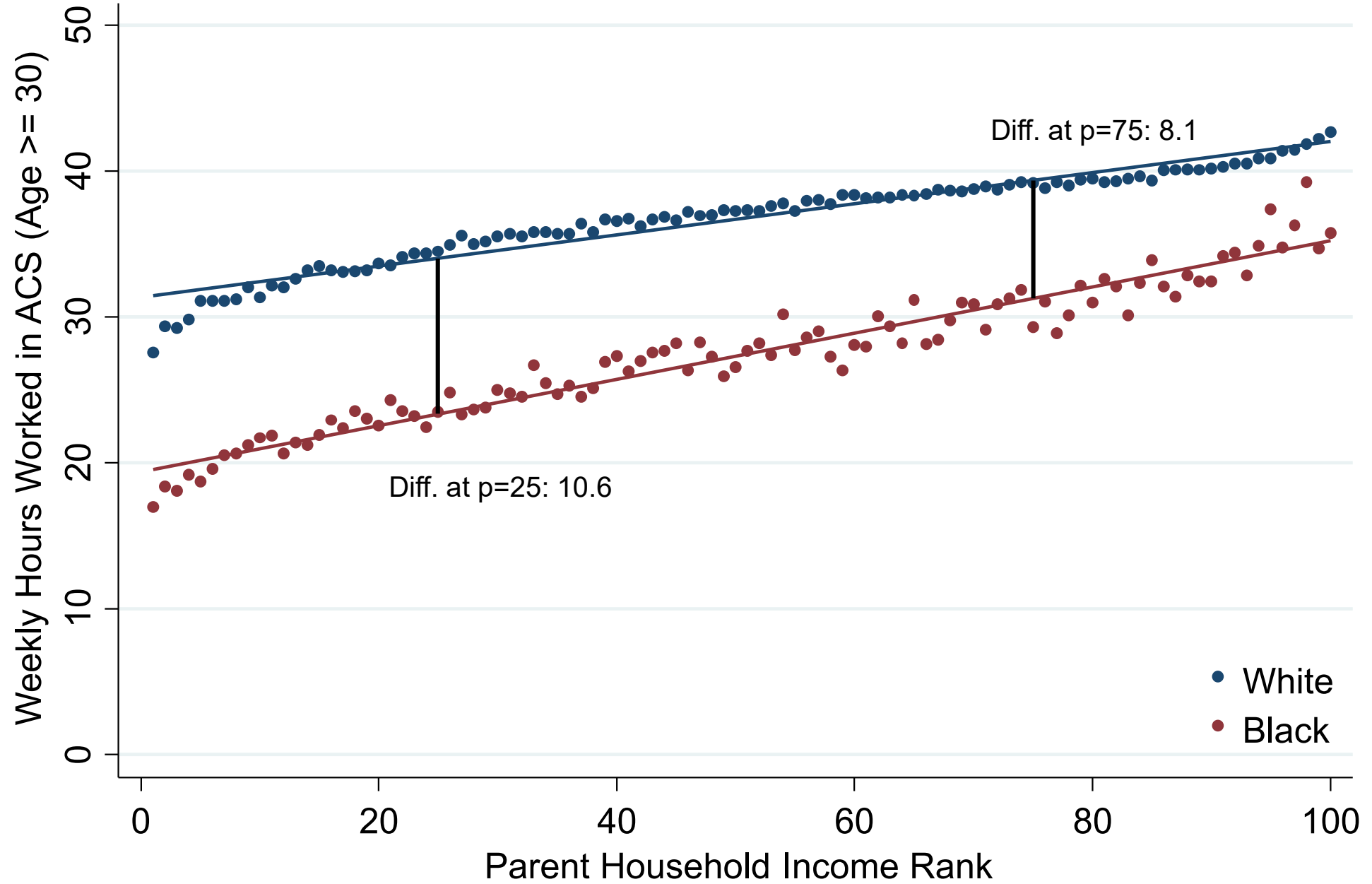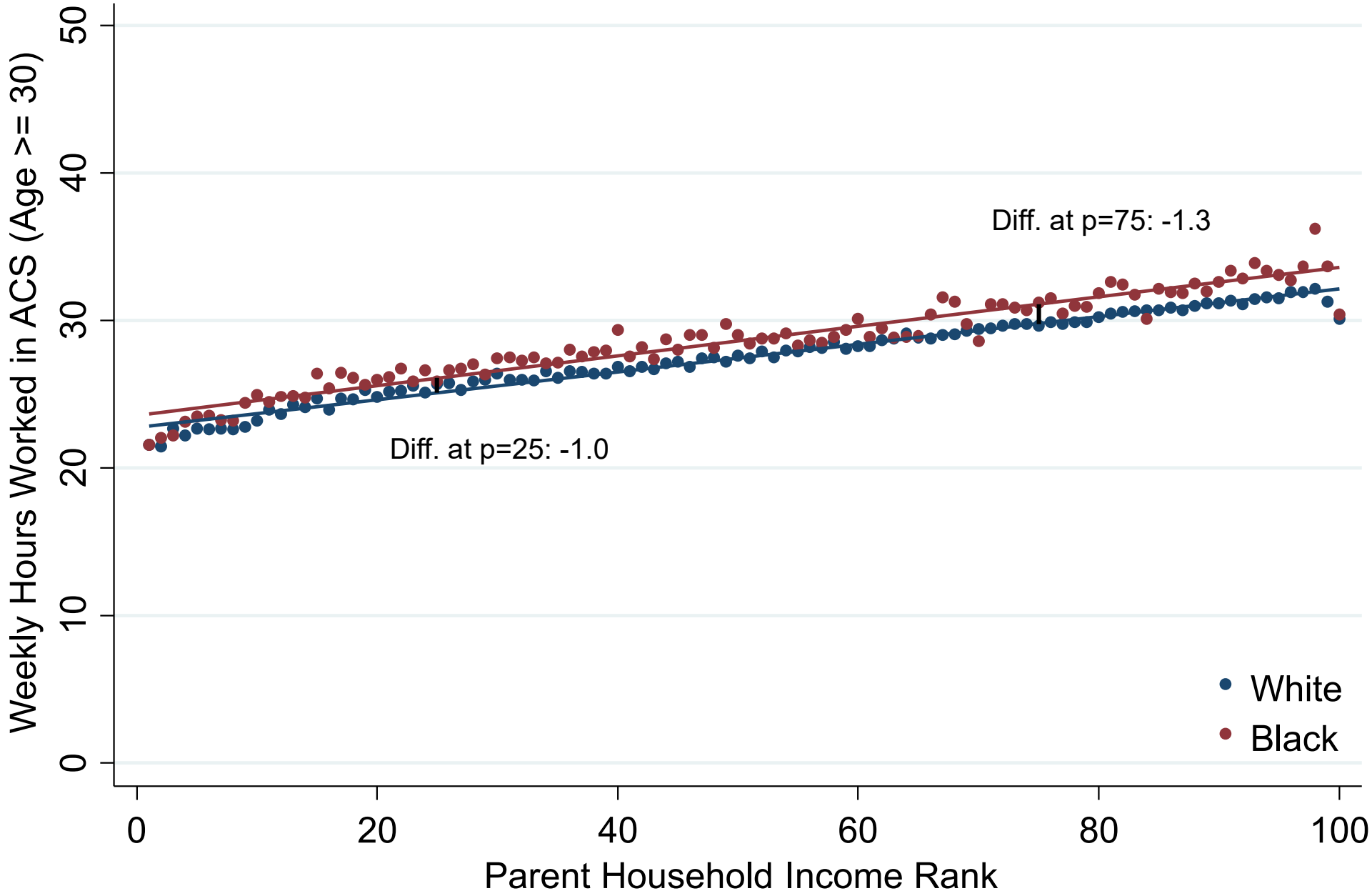
Hours Worked vs. Parent Income Rank
Female Children

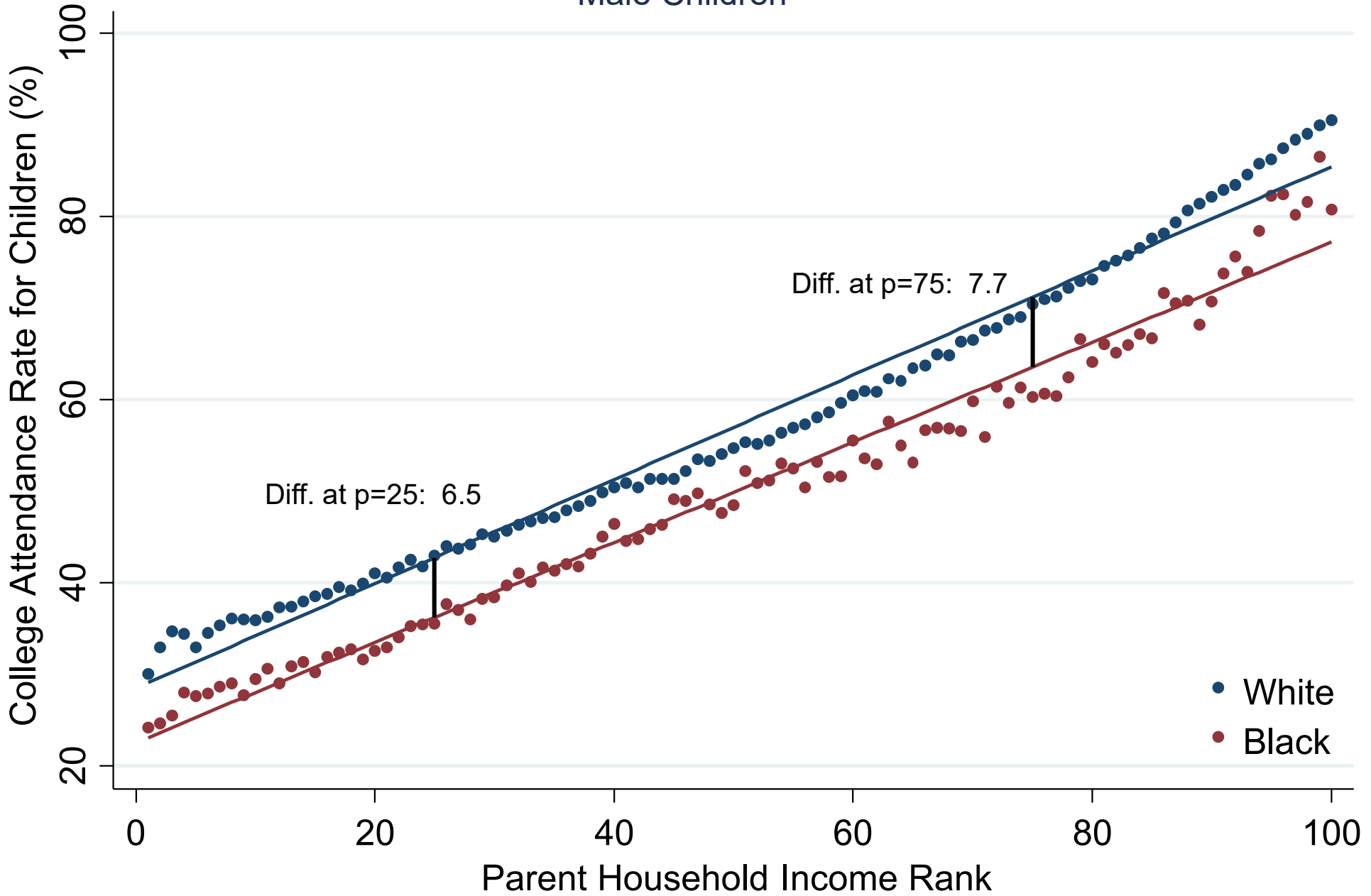**High School Completion Rates vs. Parent Income Rank**
Male Children
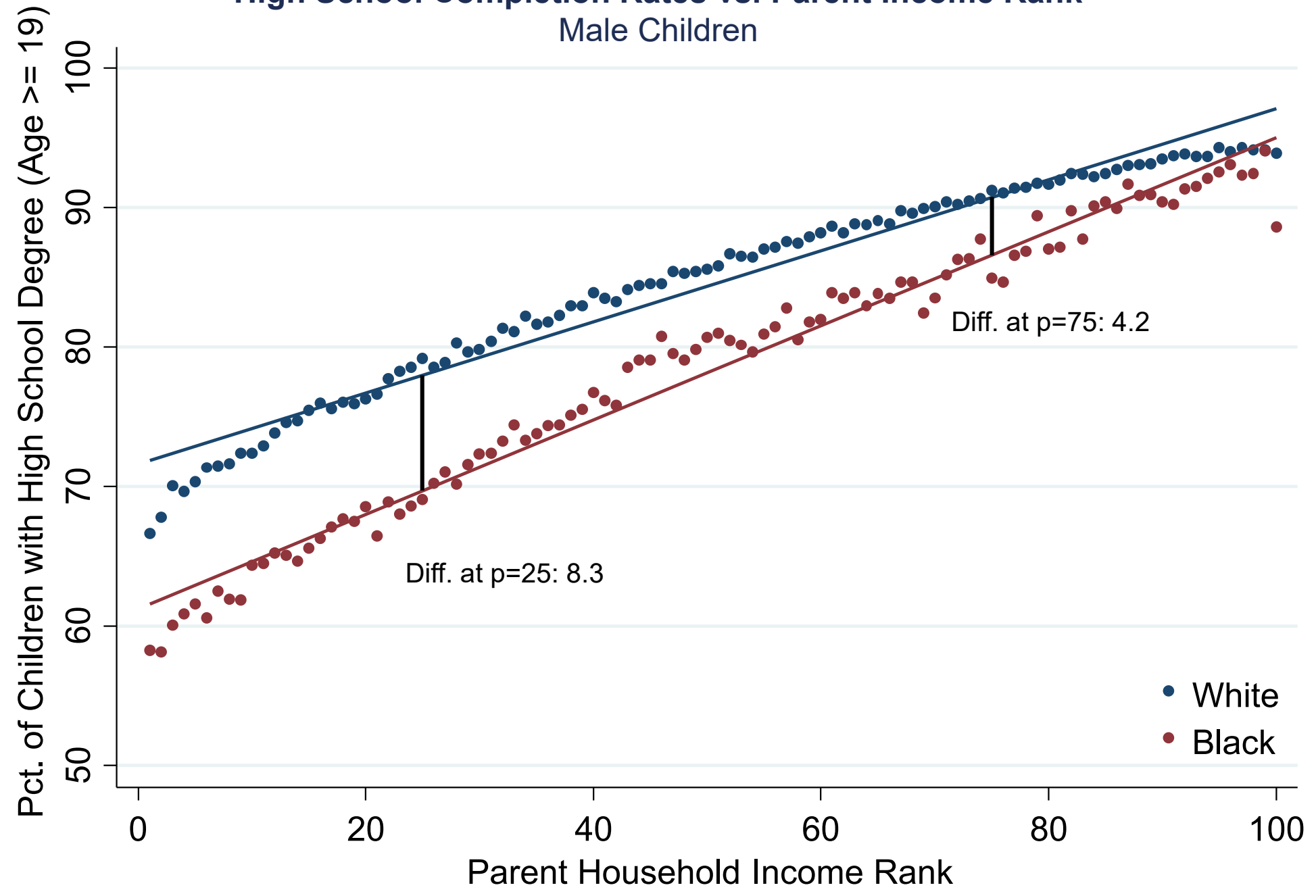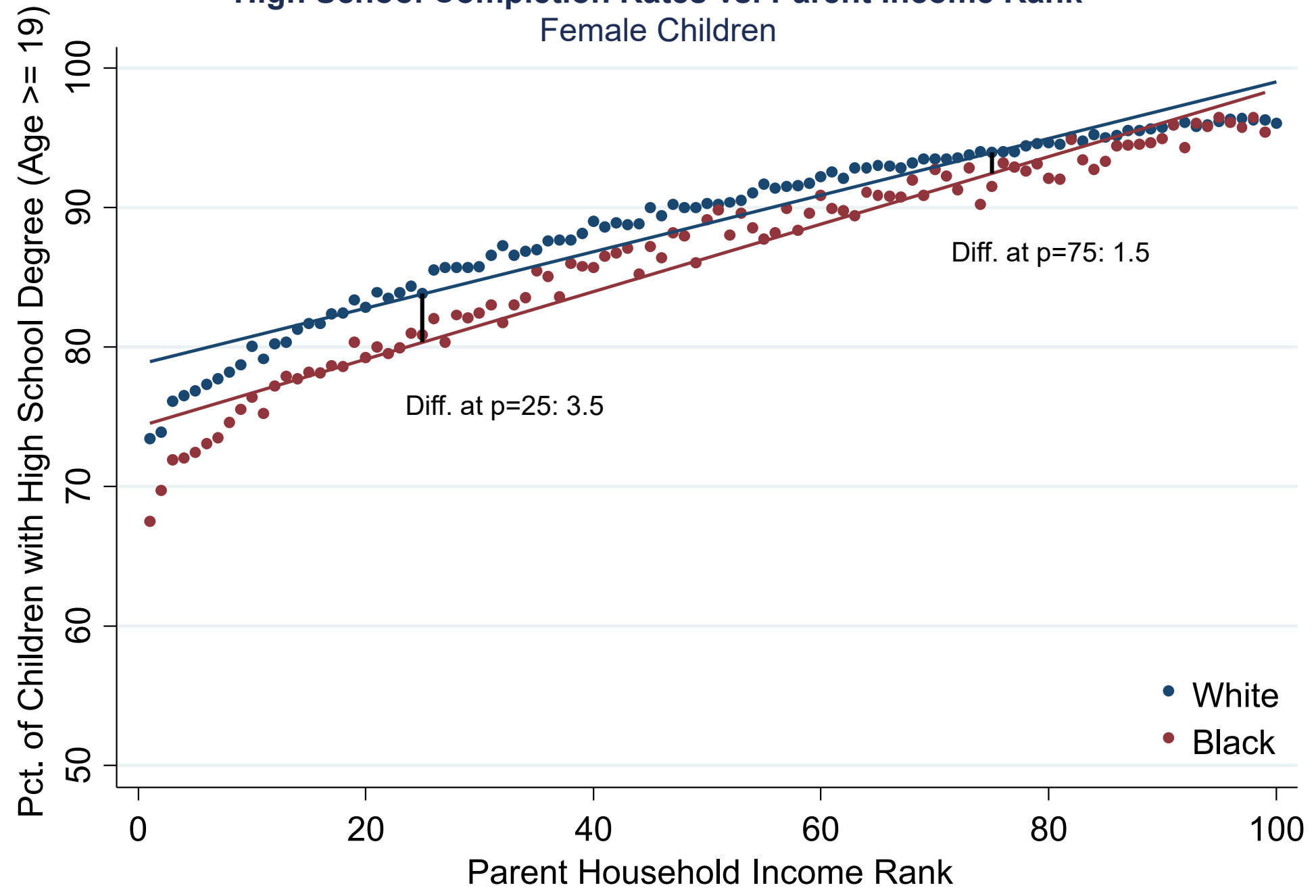
Diff. at p=75: 4.2

Diff. at p=25: 8.3

● White
● Black

Pct. of Children with High School Degree (Age >= 19)

Parent Household Income Rank

High School Completion Rates vs. Parent Income Rank
Female Children

Diff. at p=75: 1.5

Diff. at p=25: 3.5

White
Black

Pct. of Children with High School Degree (Age >= 19)

Parent Household Income Rank

College Attendance Rates vs. Parent Income Rank
Male Children

Diff. at p=25: 6.5

Diff. at p=75: 7.7

College Attendance Rate for Children (%)

Parent Household Income Rank

● White
● Black

College Attendance Rates vs. Parent Income Rank
Female Children

Diff. at p=75: 3.6

Diff. at p=25: 2.8

White
Black

College Attendance Rate for Children (%)

Parent Household Income Rank

Household Income Rank vs. Parent Income Rank
Male Children

Diff. at p=75: 16.6

Diff. at p=25: 13.6

- White
- Black

Household Income Rank vs. Parent Income Rank
Female Children

Diff. at p=75: 14.9

Diff. at p=25: 11.7
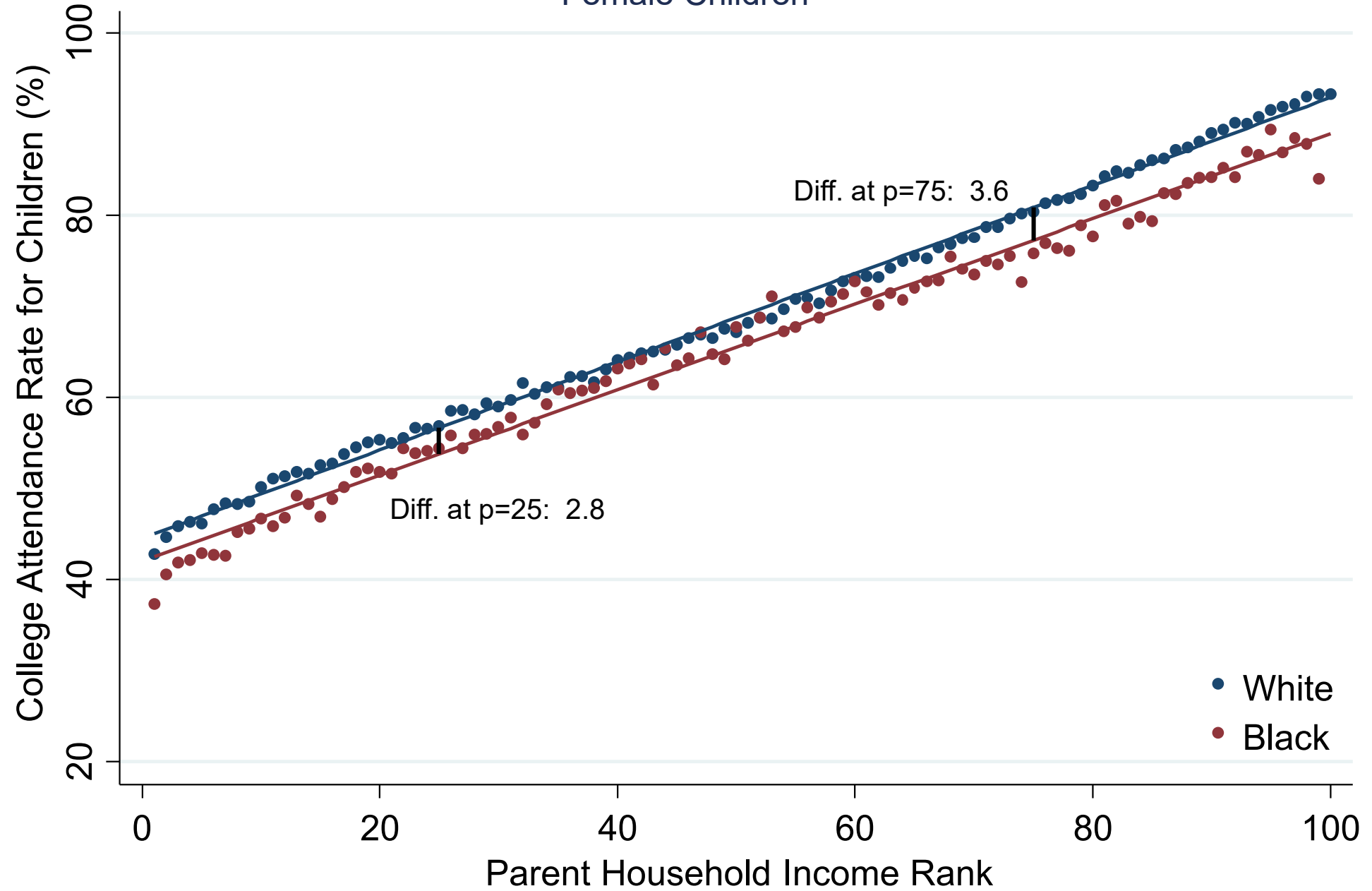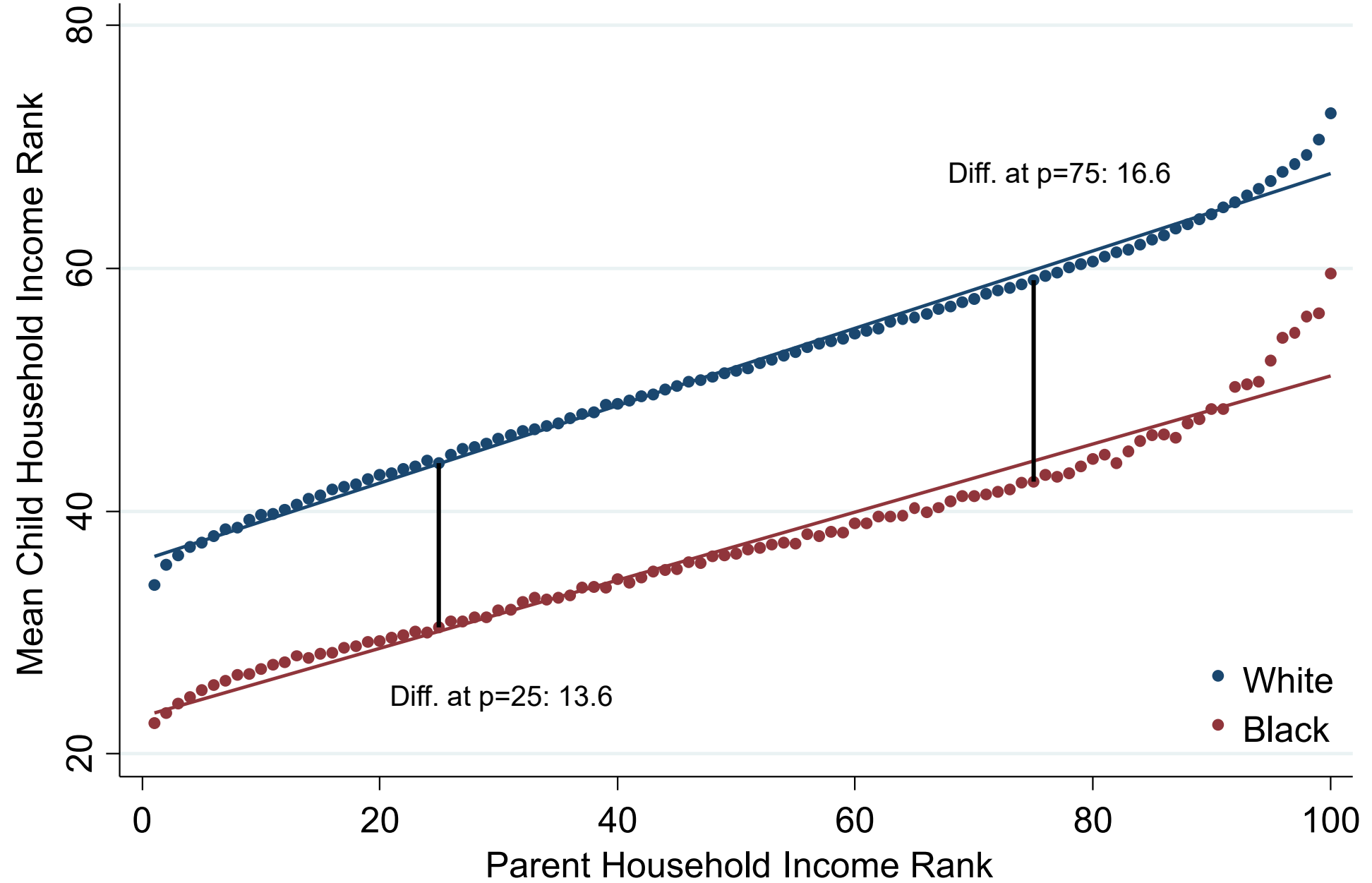
White
Black

Black-White Gap in Child Individual Income Rank vs. Parent Income Rank
Male Children in Single-Parent Families

Diff. at p=75: 12.0

Diff. at p=25: 9.7

White
Black

Mean Child Individual Income Rank

Parent Household Income Rank
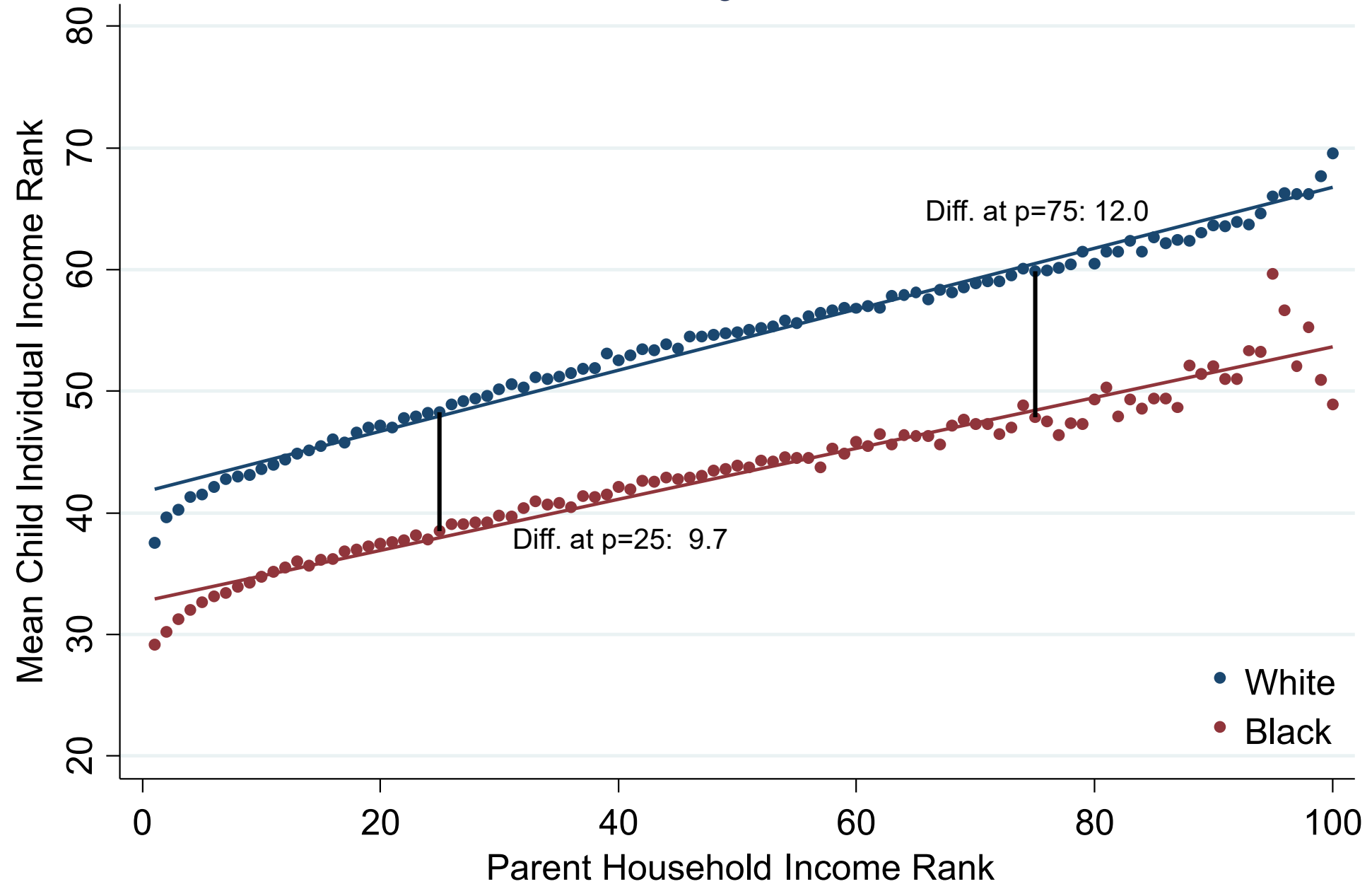
Black-White Gap in Child Individual Income Rank vs. Parent Income Rank
Male Children in Two-Parent Families

Diff. at p=75: 11.5

Diff. at p=25: 7.9

Mean Child Individual Income Rank

Parent Household Income Rank
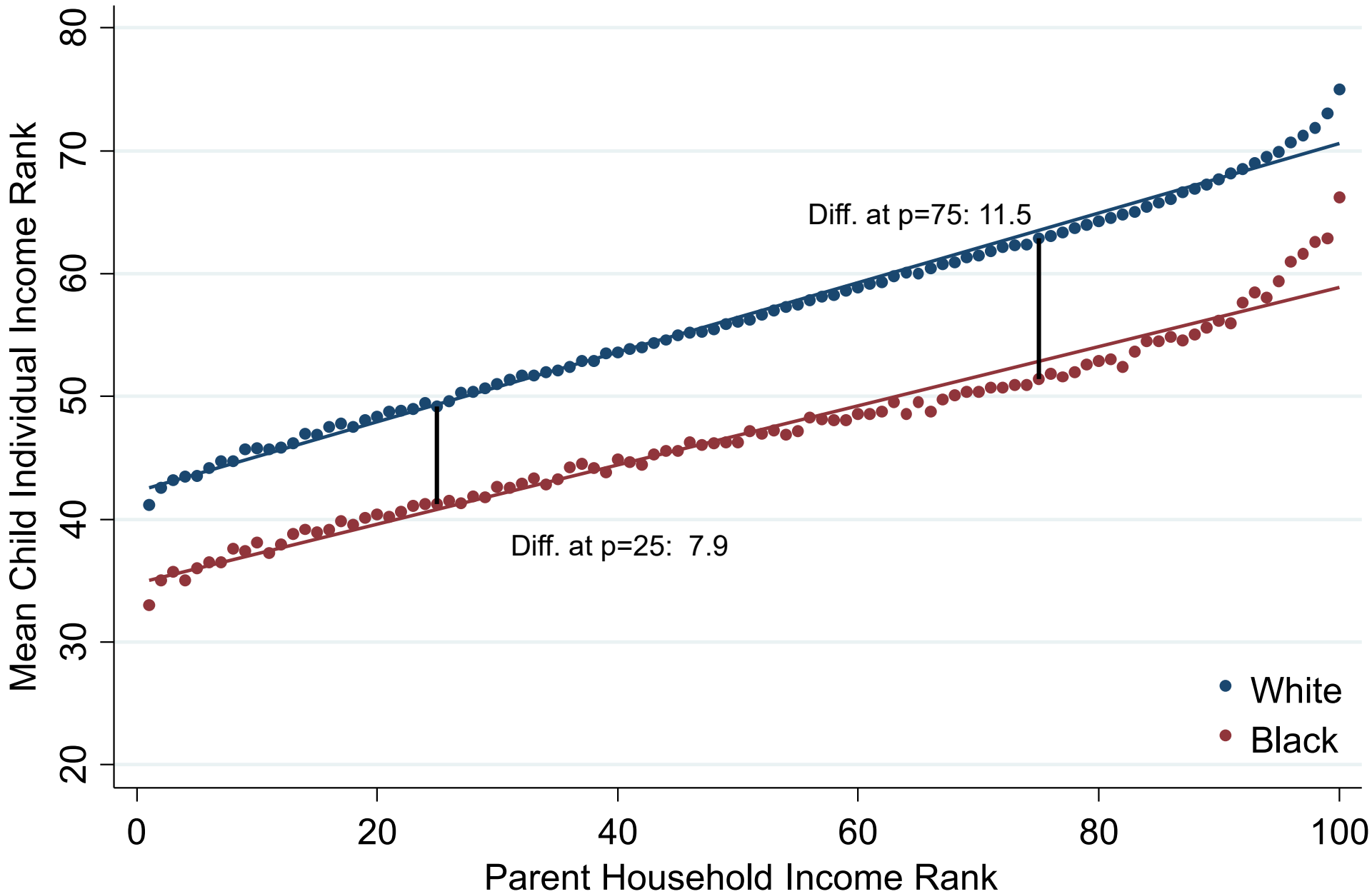
White

Black

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

Male Children, Parents Do Not Own Home
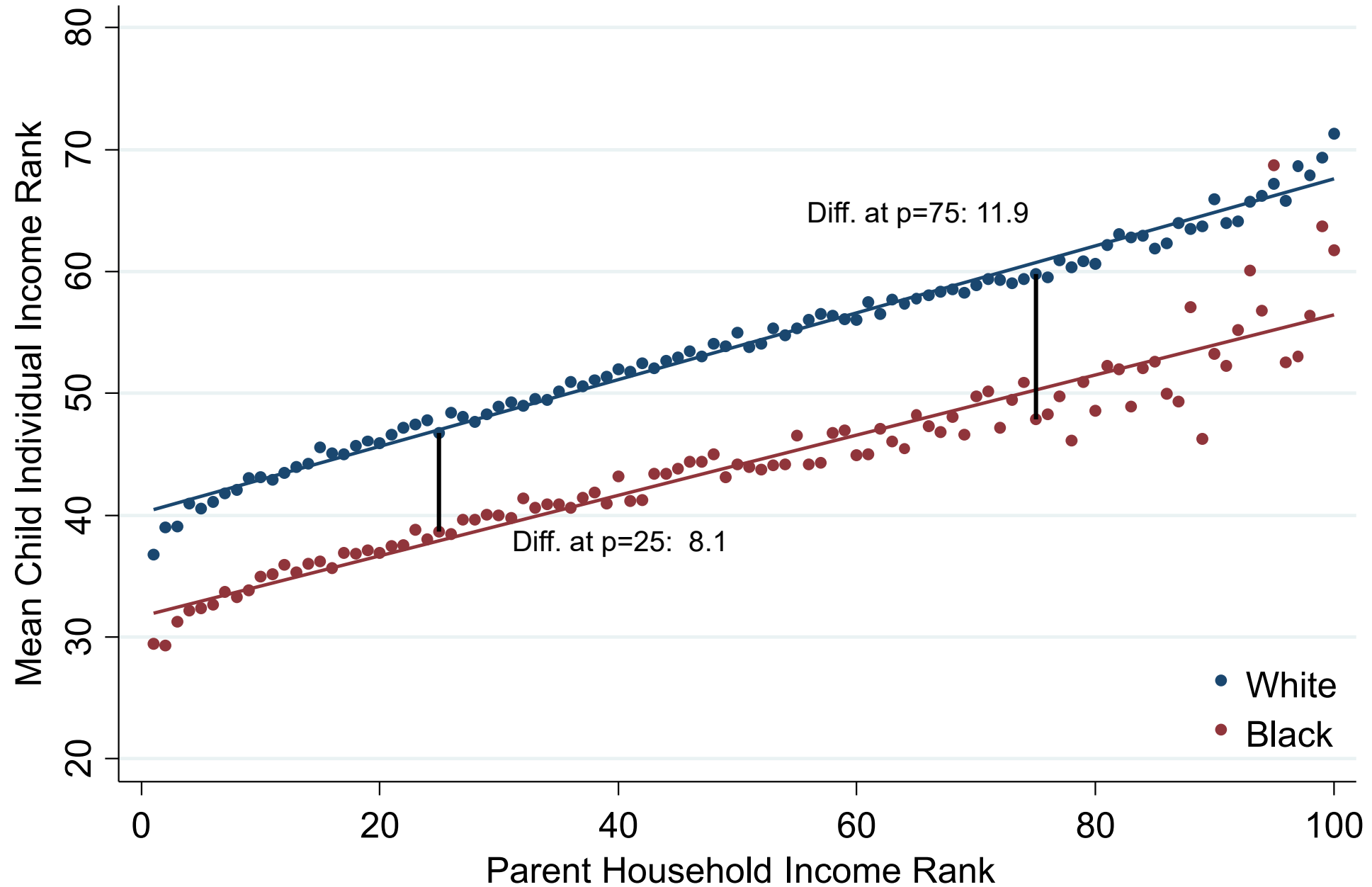
Diff. at p=75: 11.9

Diff. at p=25: 8.1

White

Black

Mean Child Individual Income Rank

Parent Household Income Rank

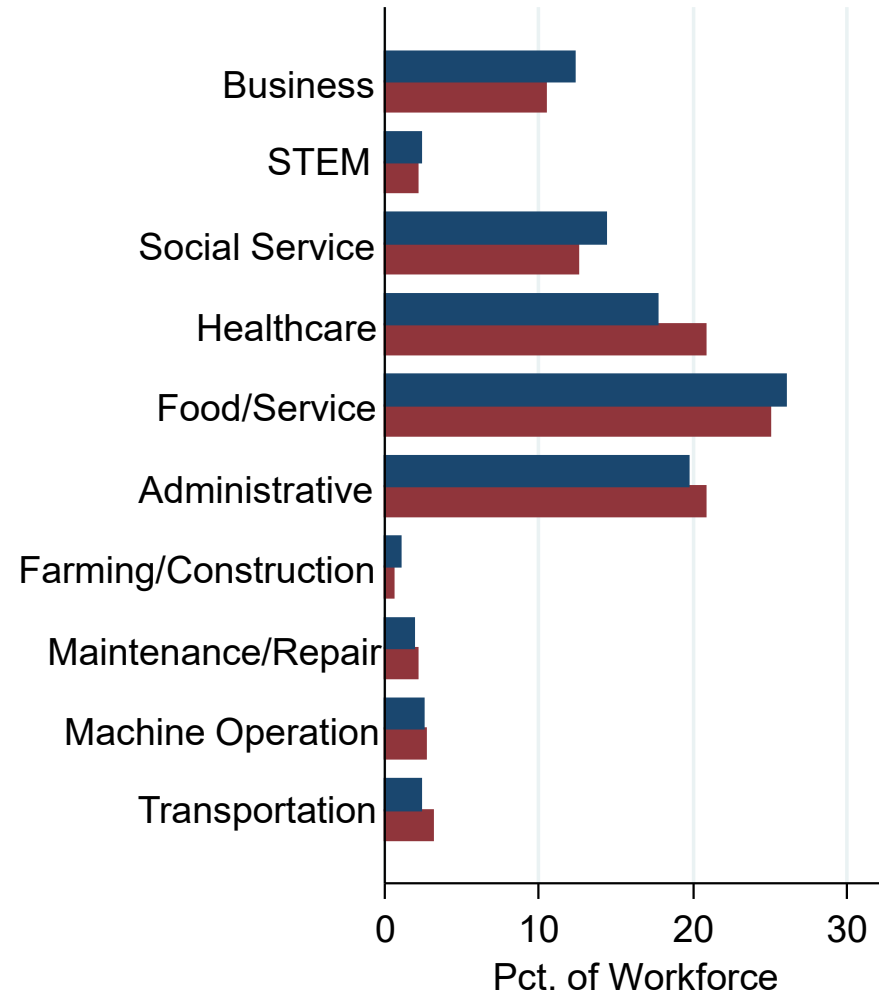# Occupational Distributions Conditional on Parent Income, by Gender
Black and White Children, Parents in 3rd Income Decile

Male
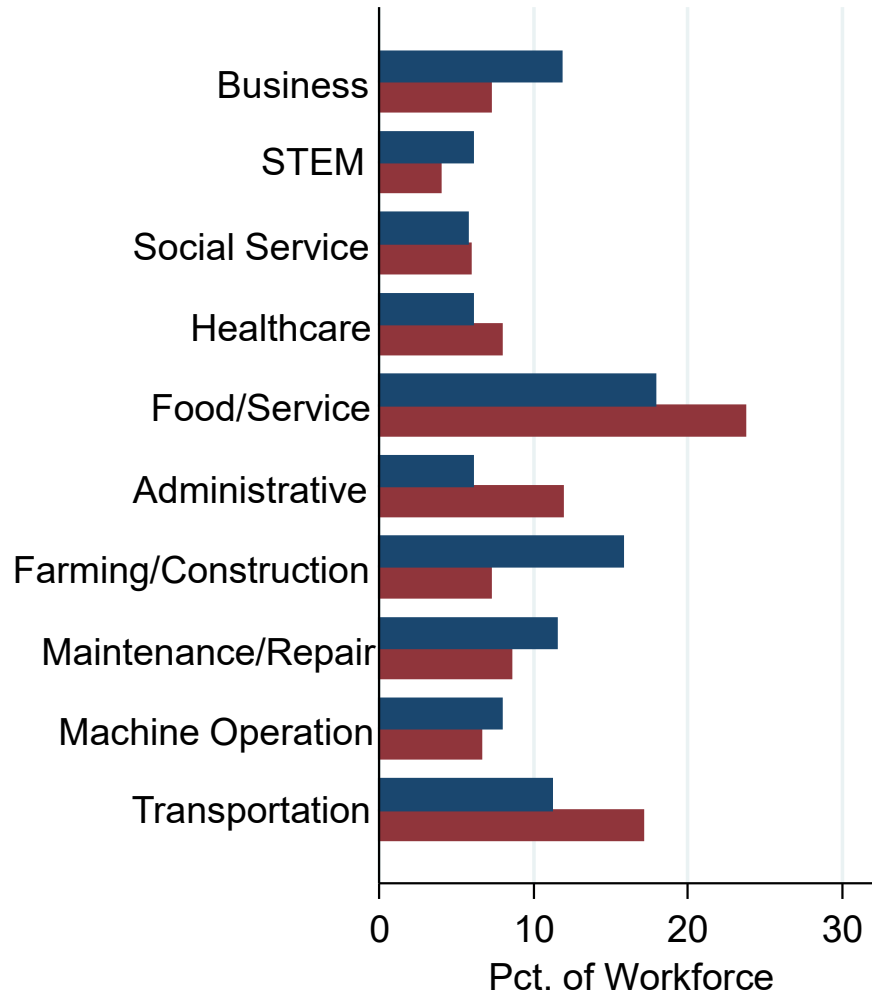
Female

Fraction to Be Reallocated = 19.5%
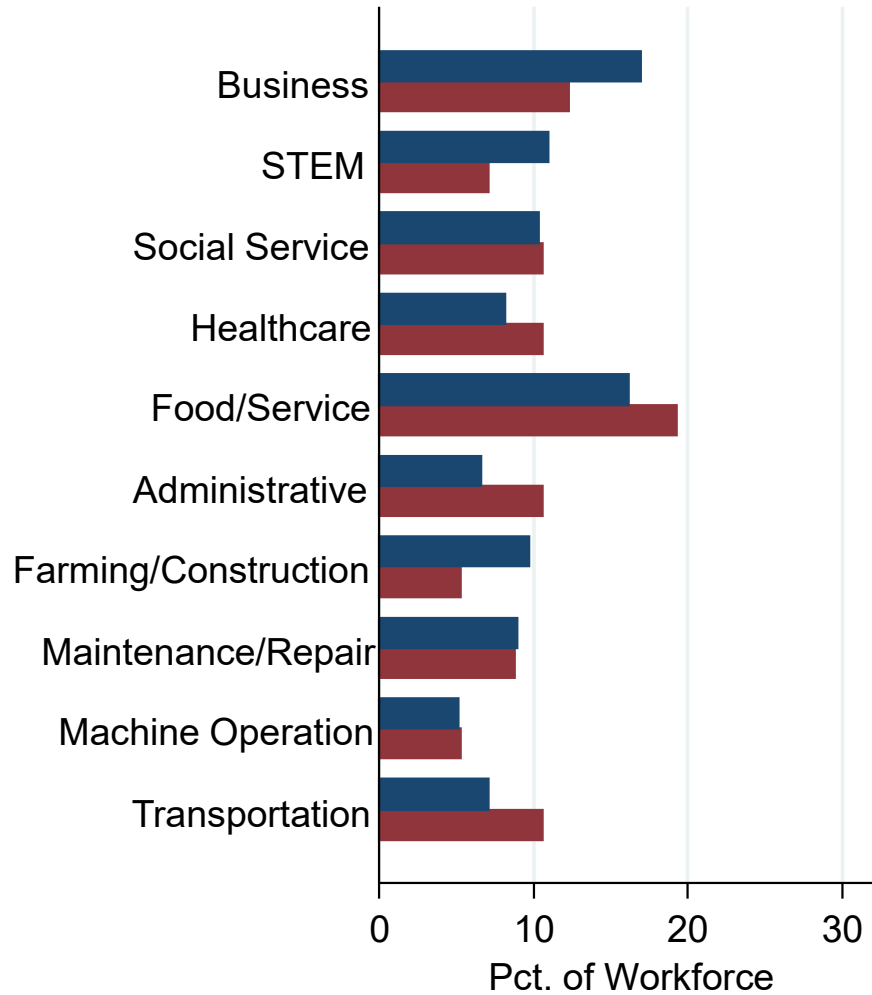
Fraction to Be Reallocated = 5.5%

White   Black

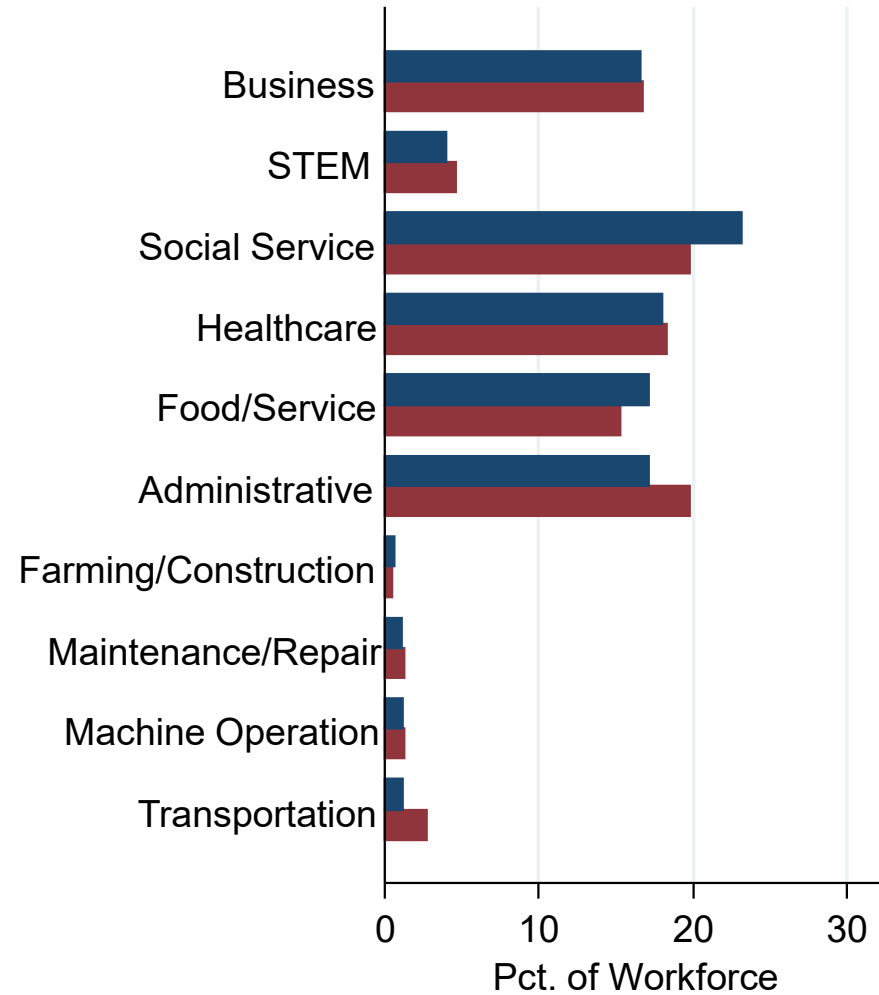# Occupational Distributions Conditional on Parent Income, by Gender
Black and White Children, Parents in 8th Income Decile

Male

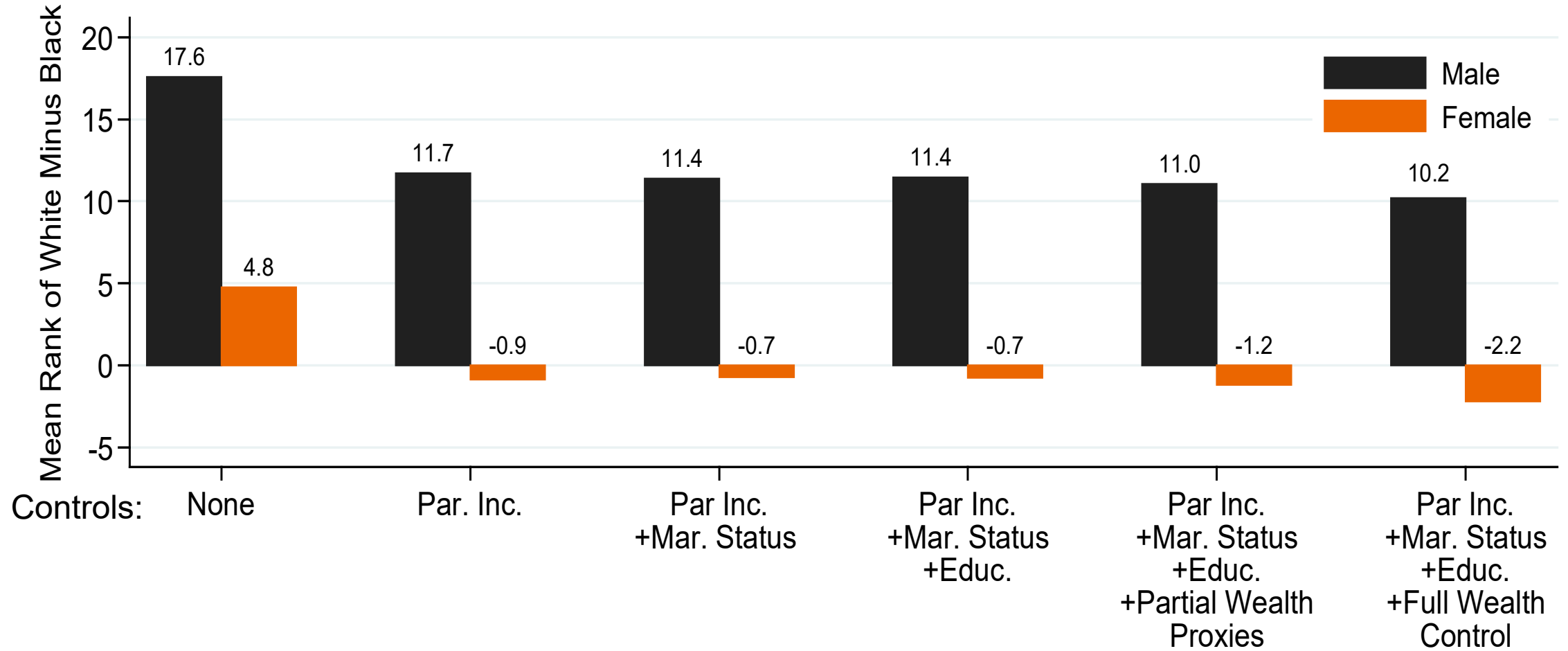Fraction to Be Reallocated = 13.2%

Female
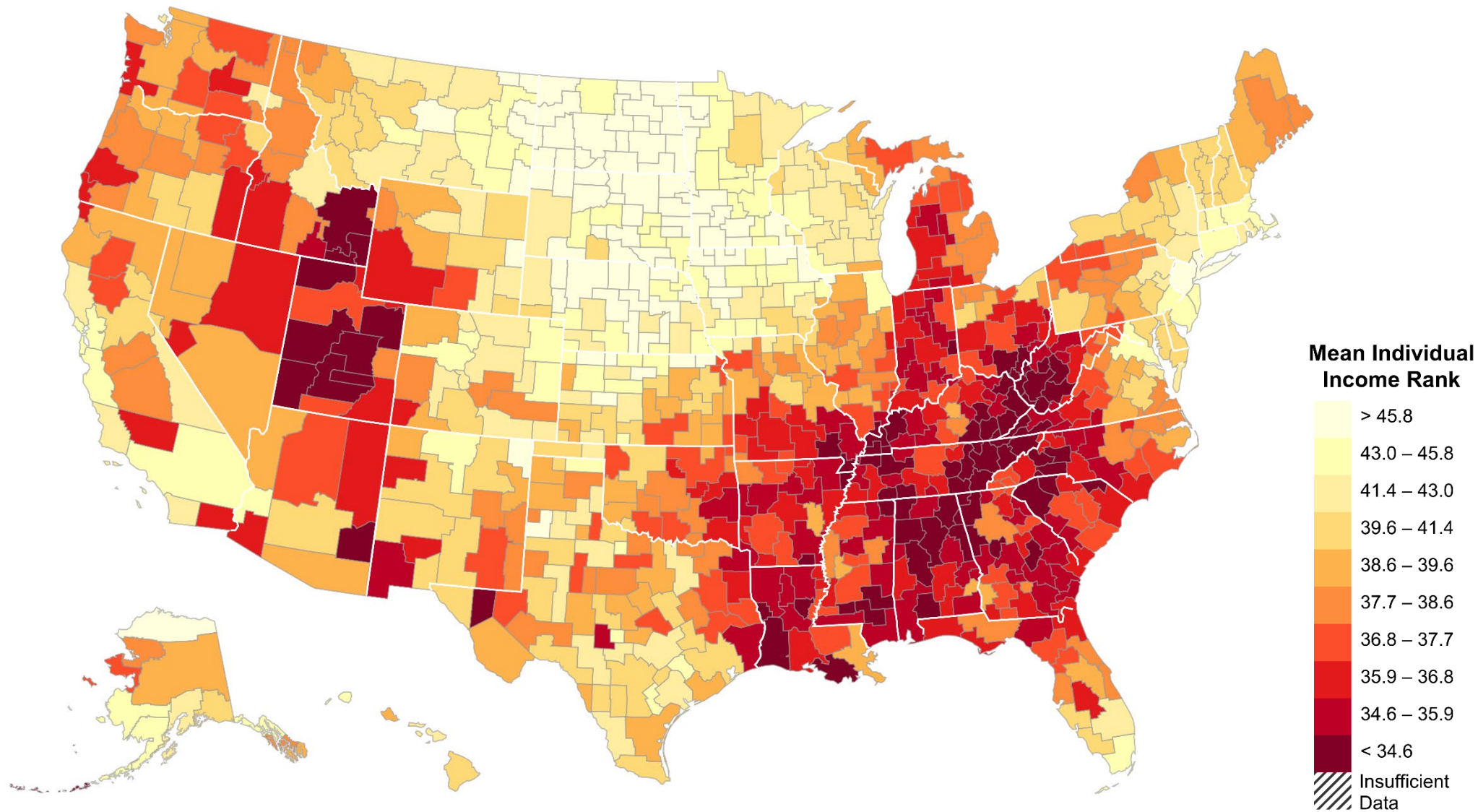
Fraction to Be Reallocated = 5.4%

White   Black

Effects of Family-Level Factors on the Black-White Income Gap
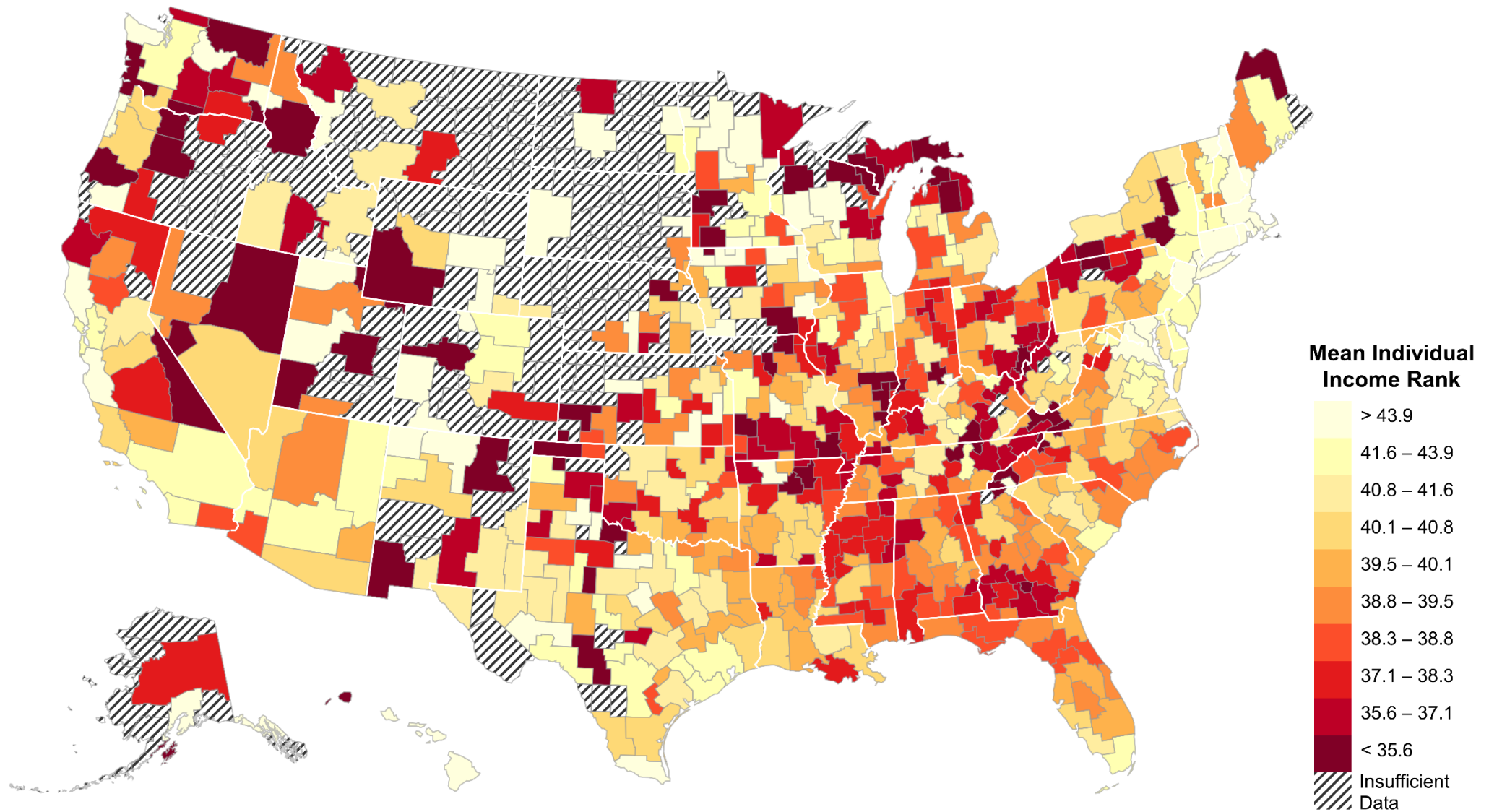Children with Parents at 75th Percentile

Mean Child Individual Income Rank by CZ
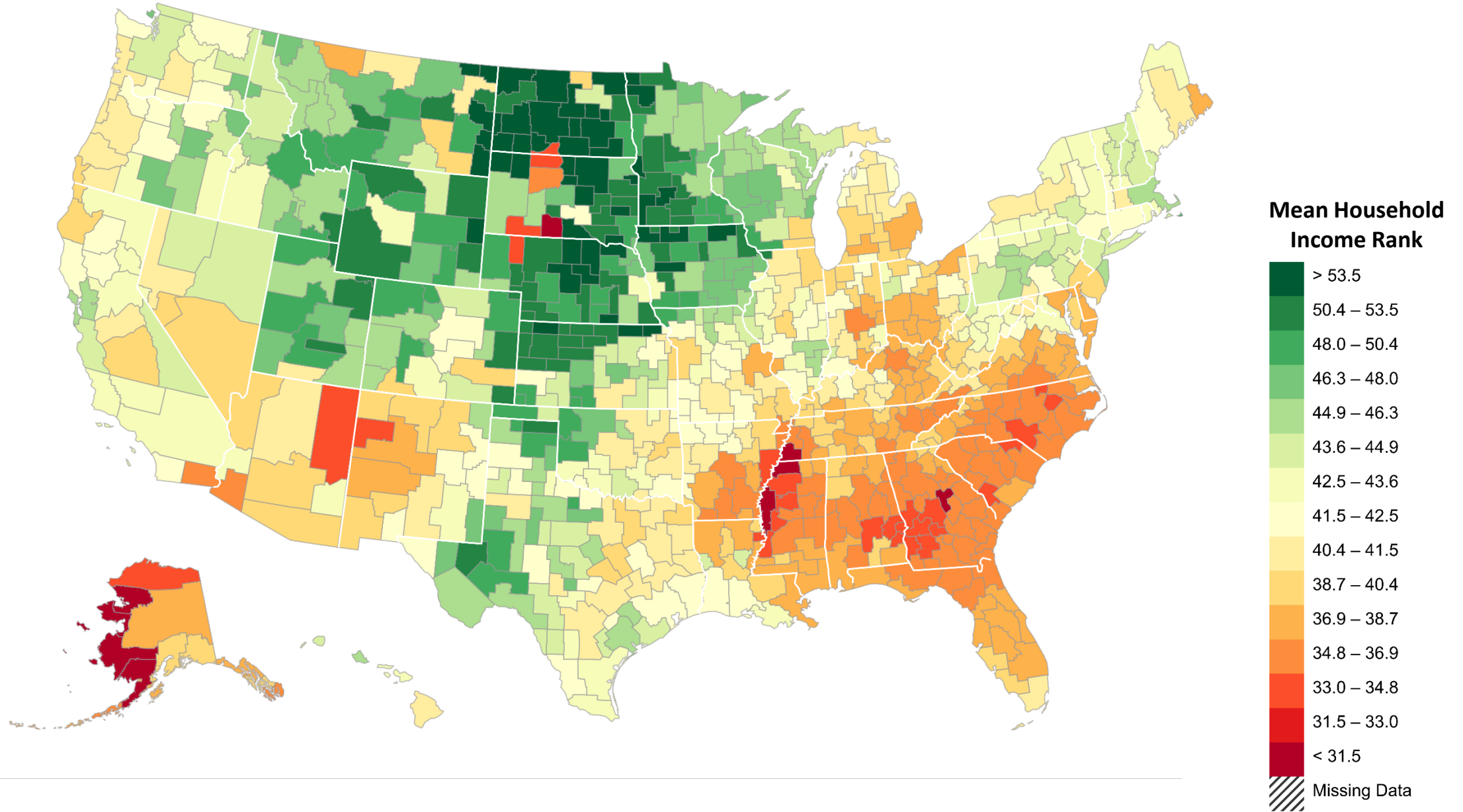## White Females with Parents at 25ᵗʰ Percentile

Mean Individual Income Rank

- > 45.8
- 43.0 – 45.8
- 41.4 – 43.0
- 39.6 – 41.4
- 38.6 – 39.6
- 37.7 – 38.6
- 36.8 – 37.7
- 35.9 – 36.8
- 34.6 – 35.9
- < 34.6
- Insufficient Data

Mean Child Individual Income Rank by CZ
Black Females with Parents at 25th Percentile

Mean Individual Income Rank

- > 43.9
- 41.6 – 43.9
- 40.8 – 41.6
- 40.1 – 40.8
- 39.5 – 40.1
- 38.8 – 39.5
- 38.3 – 38.8
- 37.1 – 38.3
- 35.6 – 37.1
- < 35.6
- Insufficient Data

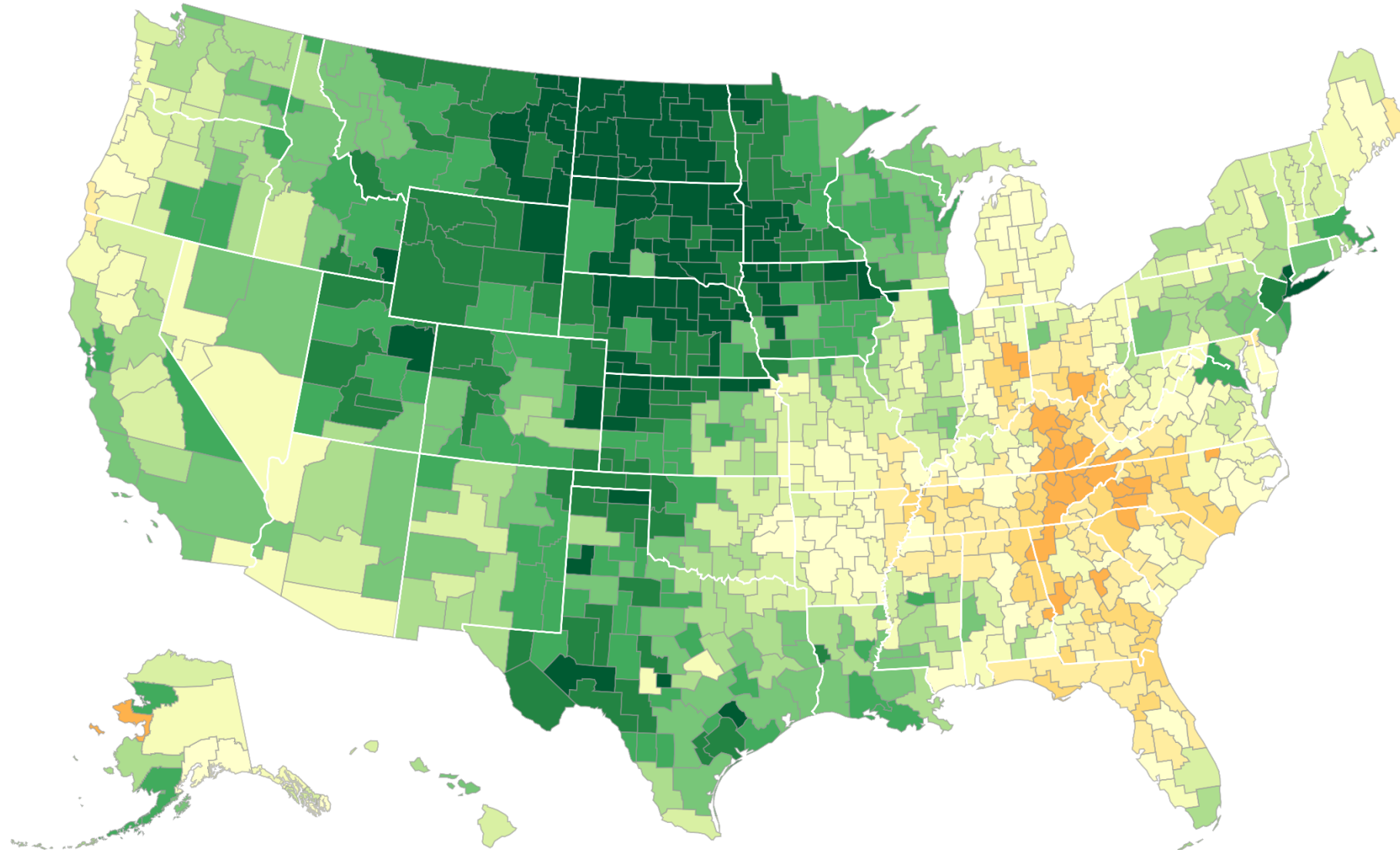**Mean Child Household Income Rank Given Parents at 25th Percentile by CZ**
Full Population

Mean Household Income Rank

> 53.5
50.4 − 53.5
48.0 − 50.4
46.3 − 48.0
44.9 − 46.3
43.6 − 44.9
42.5 − 43.6
41.5 − 42.5
40.4 − 41.5
38.7 − 40.4
36.9 − 38.7
34.8 − 36.9
33.0 − 34.8
31.5 − 33.0
< 31.5
Missing Data

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

Mean Household Income Rank

- > 53.5
- 50.4 − 53.5
- 48.0 − 50.4
- 46.3 − 48.0
- 44.9 − 46.3
- 43.6 − 44.9
- 42.5 − 43.6
- 41.5 − 42.5
- 40.4 − 41.5
- 38.7 − 40.4
- 36.9 − 38.7
- 34.8 − 36.9
- 33.0 − 34.8
- 31.5 − 33.0
- < 31.5

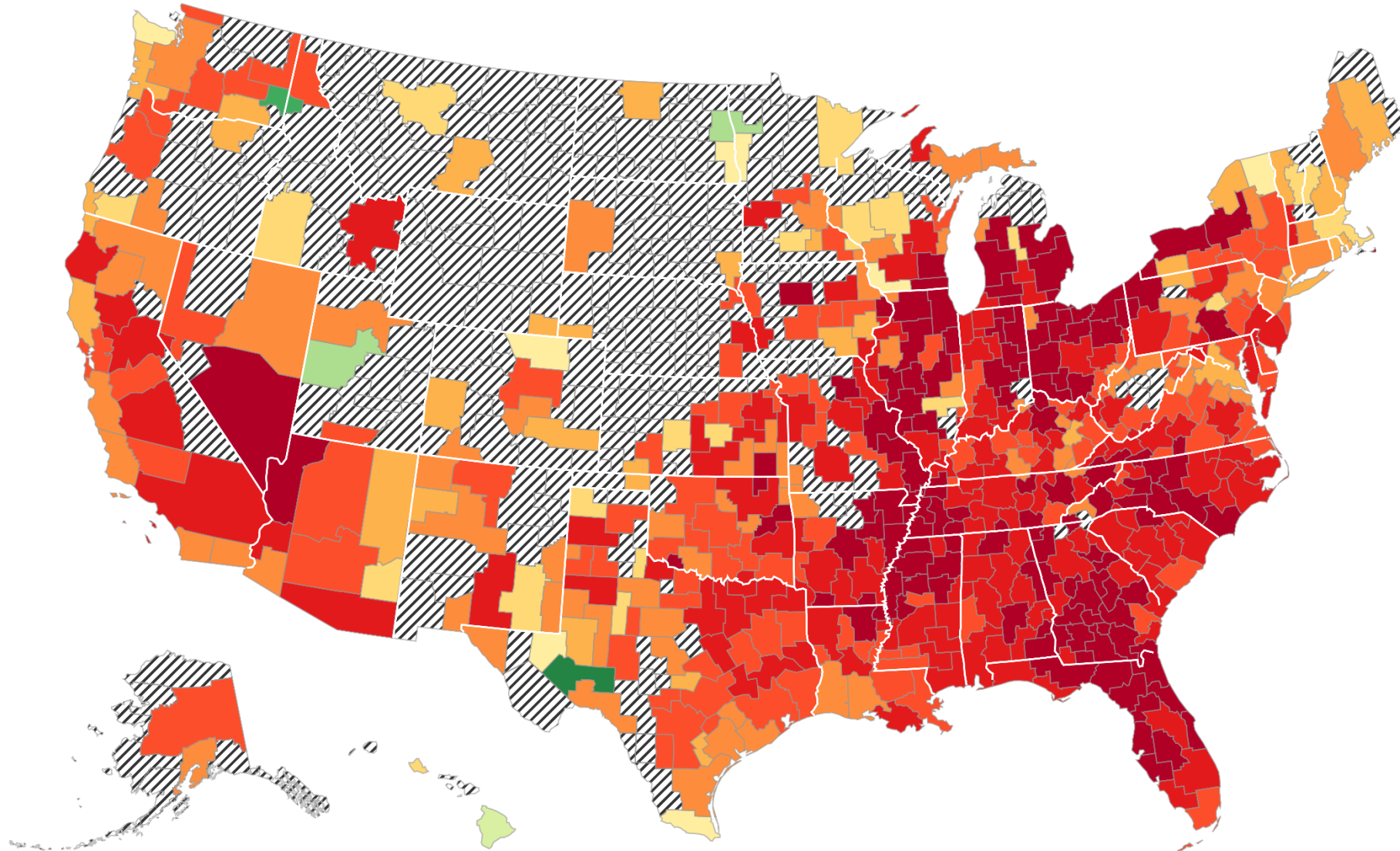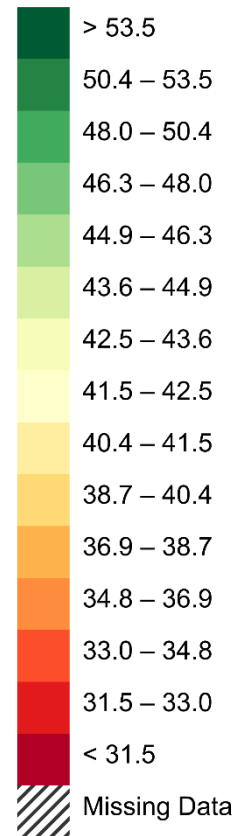Missing Data
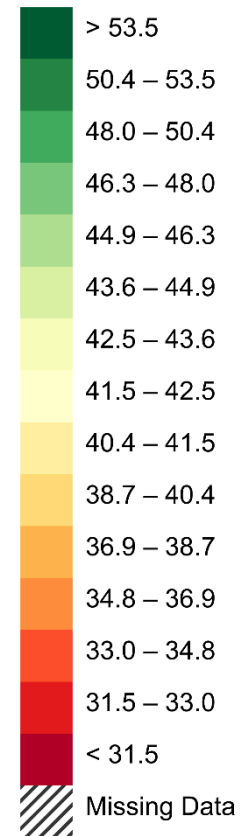
Correlation with Baseline: 0.77

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

Mean Household Income Rank

- > 53.5
- 50.4 − 53.5
- 48.0 − 50.4
- 46.3 − 48.0
- 44.9 − 46.3
- 43.6 − 44.9
- 42.5 − 43.6
- 41.5 − 42.5
- 40.4 − 41.5
- 38.7 − 40.4
- 36.9 − 38.7
- 34.8 − 36.9
- 33.0 − 34.8
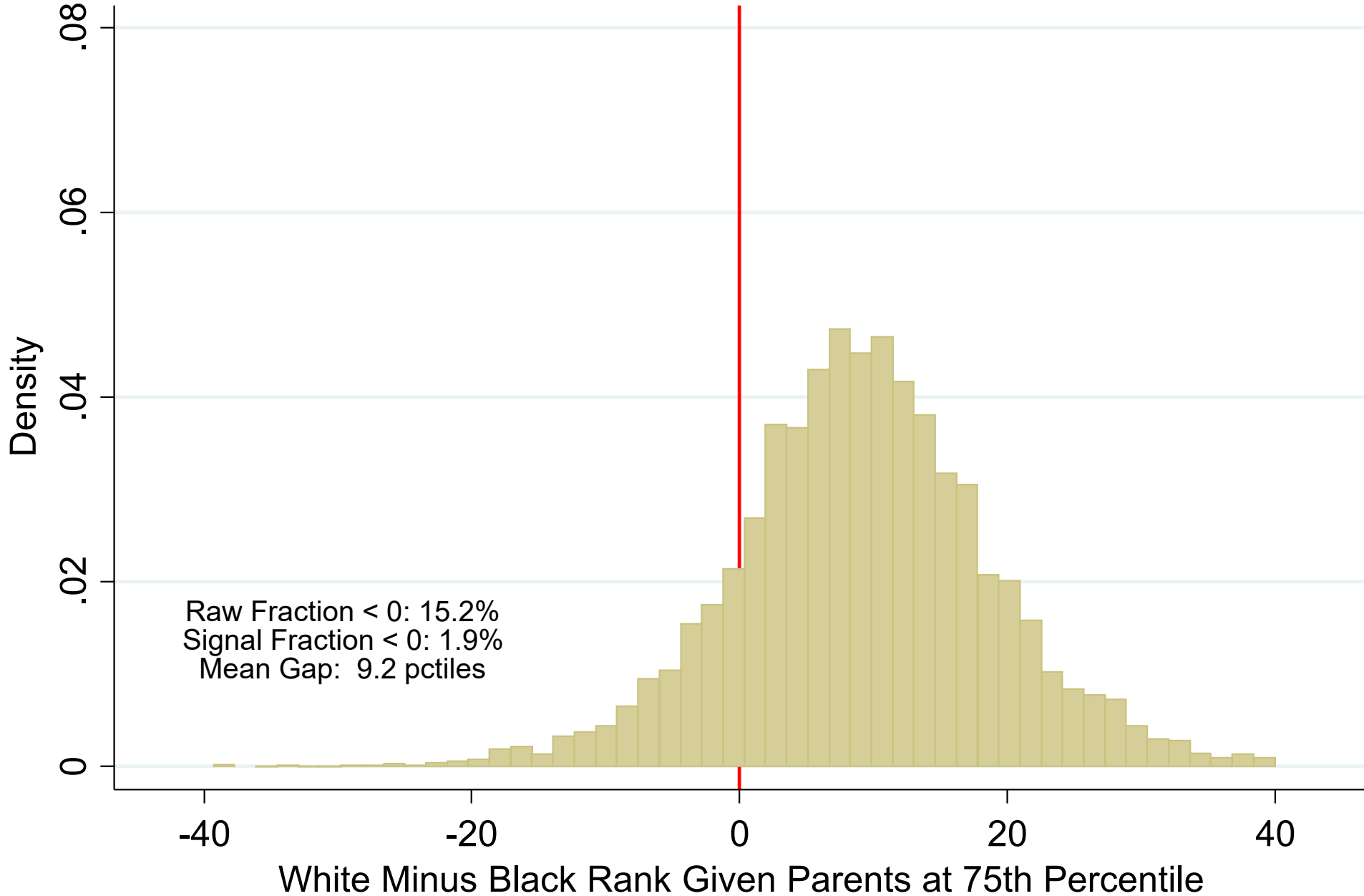- 31.5 − 33.0
- < 31.5
- Missing Data

Correlation with Baseline: 0.61
Correlation with White:　0.53

Distribution of Black – White Gap in Individual Ranks Across Tracts

Male Children with Parents at 75th Percentile

Raw Fraction < 0: 15.2%
Signal Fraction < 0: 1.9%
Mean Gap: 9.2 pctiles

Density

White Minus Black Rank Given Parents at 75th Percentile

Distribution of Black – White Gap in Individual Ranks Across Tracts
Women Children with Parents at 25th Percentile

Raw Fraction < 0: 72.5%
Signal Fraction < 0: 83.6%
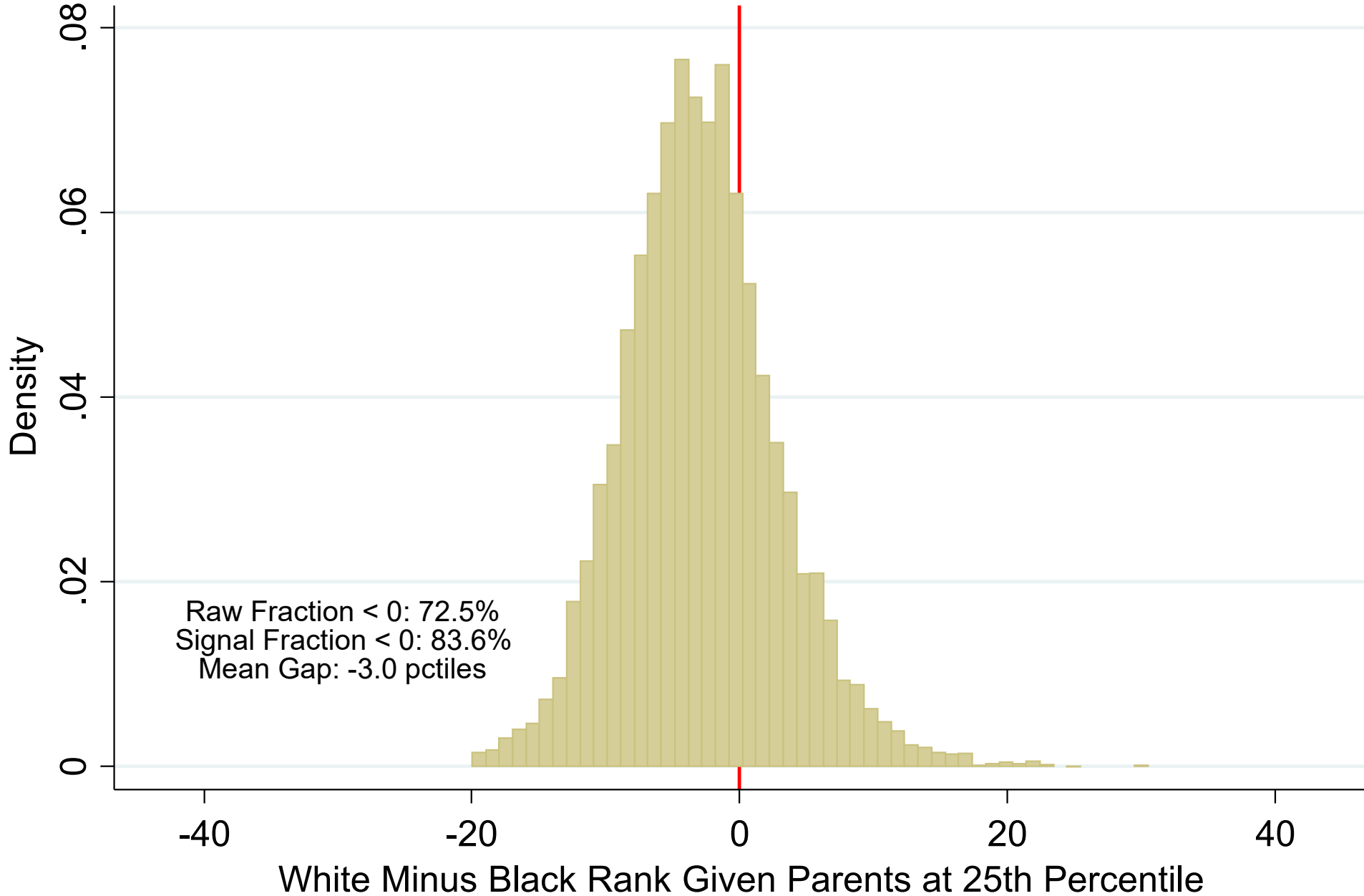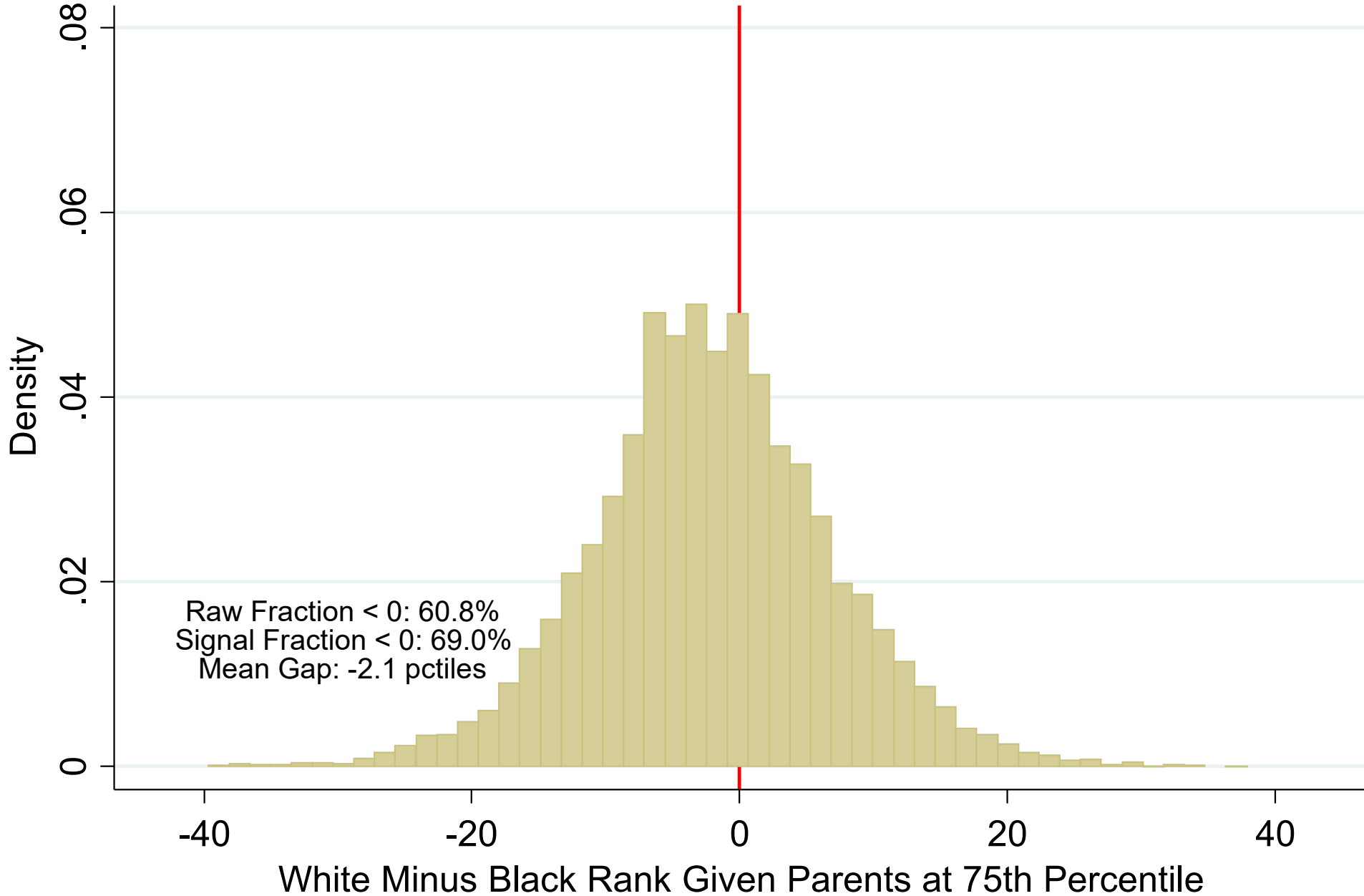Mean Gap: -3.0 pctiles

White Minus Black Rank Given Parents at 25th Percentile

Distribution of Black – White Gap in Individual Ranks Across Tracts
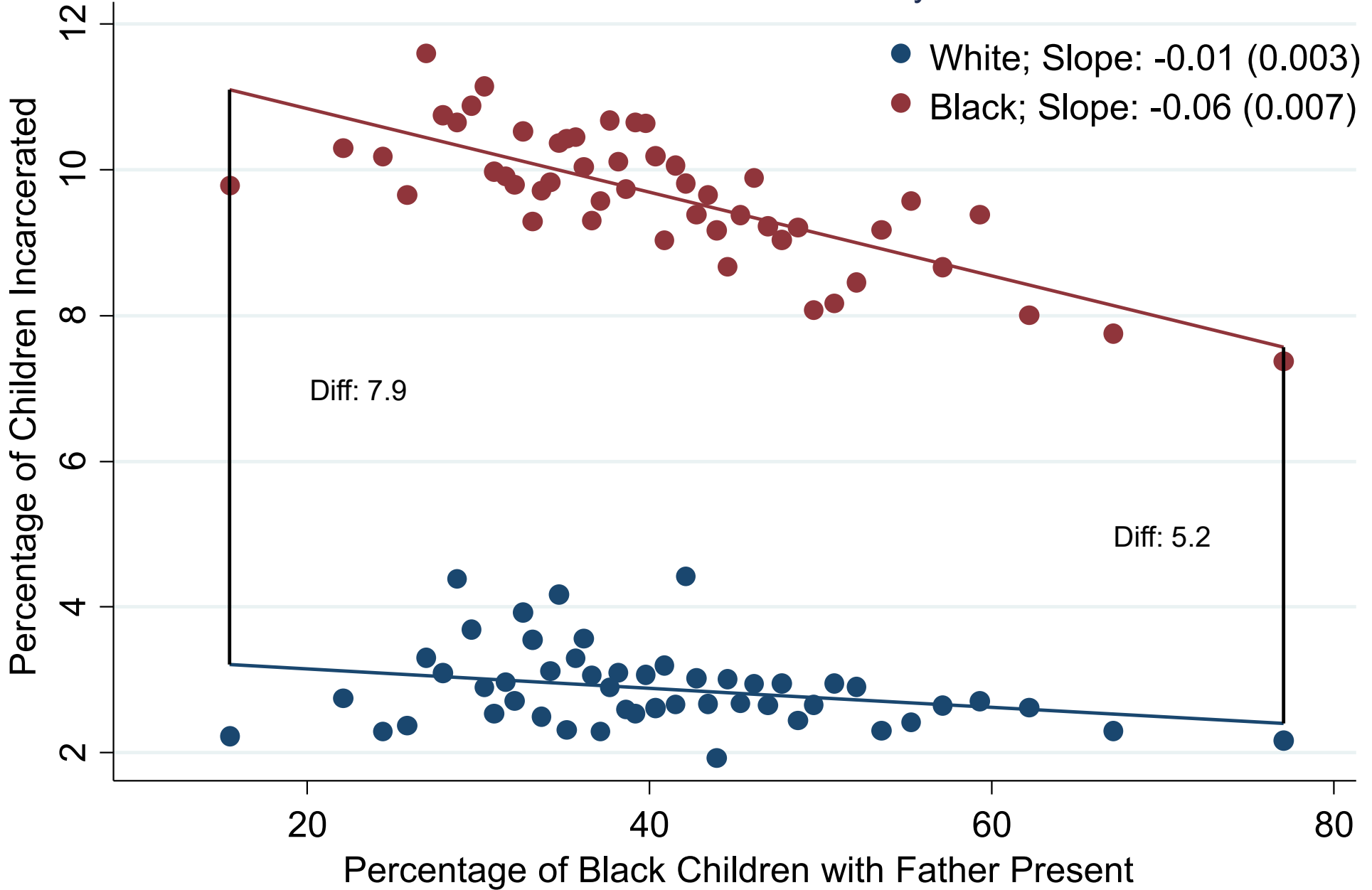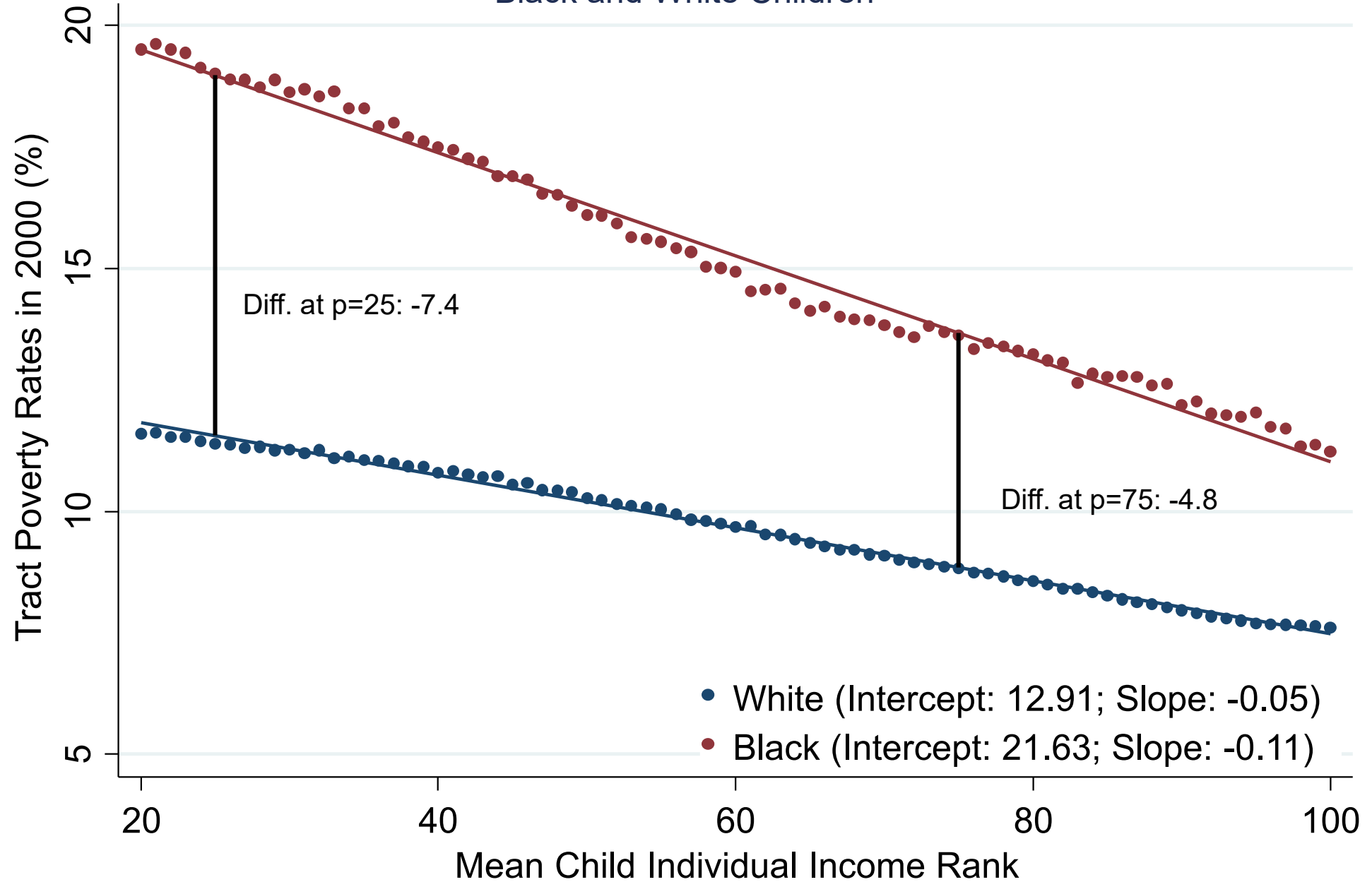## Women Children with Parents at 75th Percentile

Raw Fraction < 0: 60.8%
Signal Fraction < 0: 69.0%
Mean Gap: -2.1 pctiles

White Minus Black Rank Given 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%

- White; Slope: -0.01 (0.003)
- Black; Slope: -0.06 (0.007)

Diff: 7.9

Diff: 5.2

Percentage of Children Incarcerated

Percentage of Black Children with Father Present

Tract Poverty Rates vs. Mean Child Individual Rank
Black and White Children

Diff. at p=25: -7.4

Diff. at p=75: -4.8

- White (Intercept: 12.91; Slope: -0.05)
- Black (Intercept: 21.63; Slope: -0.11)

Tract Poverty Rates in 2000 (%)

Mean Child Individual Income Rank

Fraction of Kids with Father Present vs. Individual Income Rank
Black and White Children

Diff. at p=25: 27.8

Diff. at p=75: 26.9

White (Intercept: 69.20, Slope: -0.02)
Black (Intercept: 41.02, Slope: -0.00)

Pct. of Children with Father Present (Parent p=25)

Mean Child Individual Income Rank
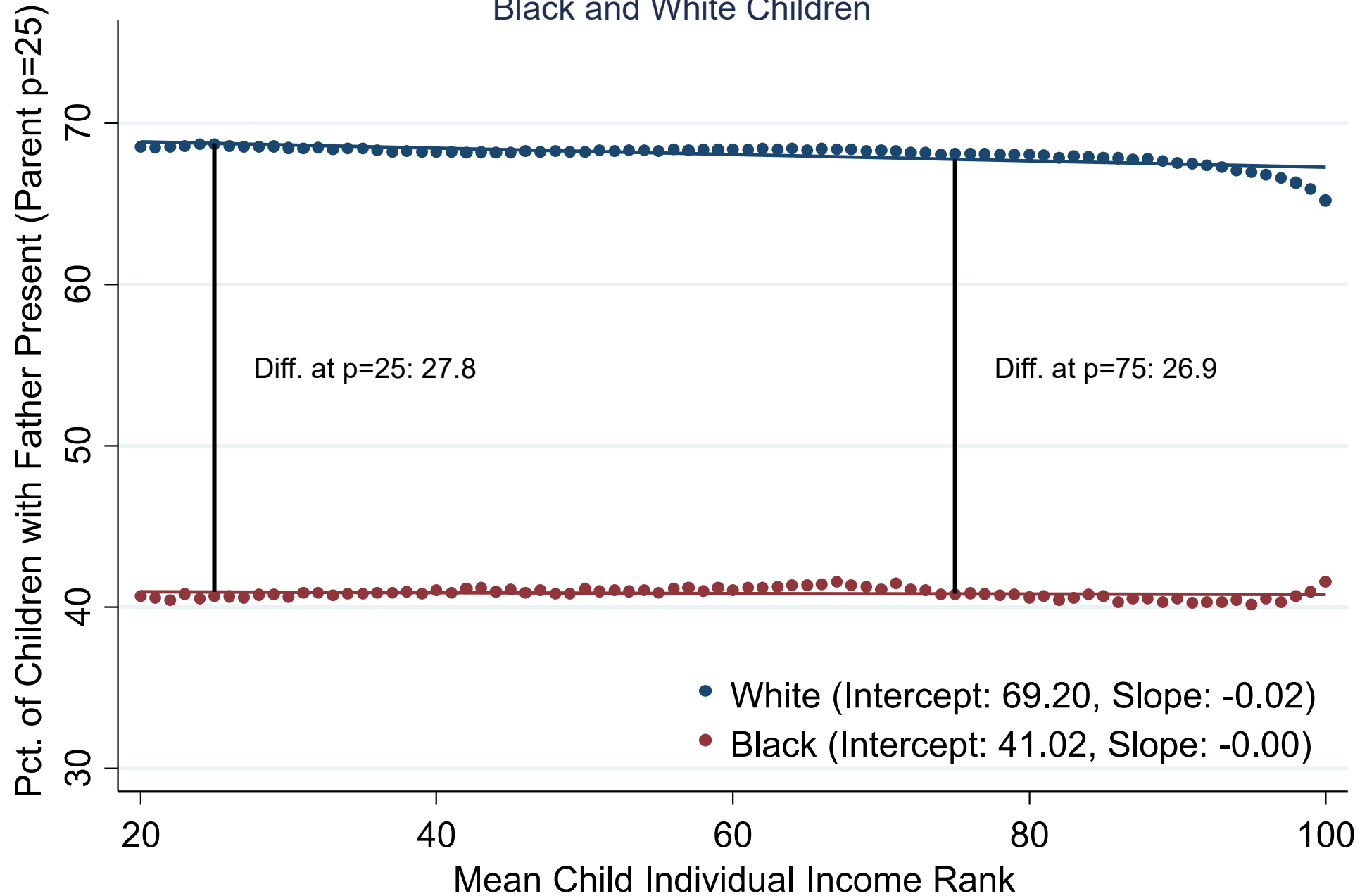
Childhood Exposure Effects on Probability of Being Incarcerated in 2010
White Males

Slope: -0.025
(0.004)

δ: 0.094

Coefficient on Incarceration Rate

Age of Child when Parents Move
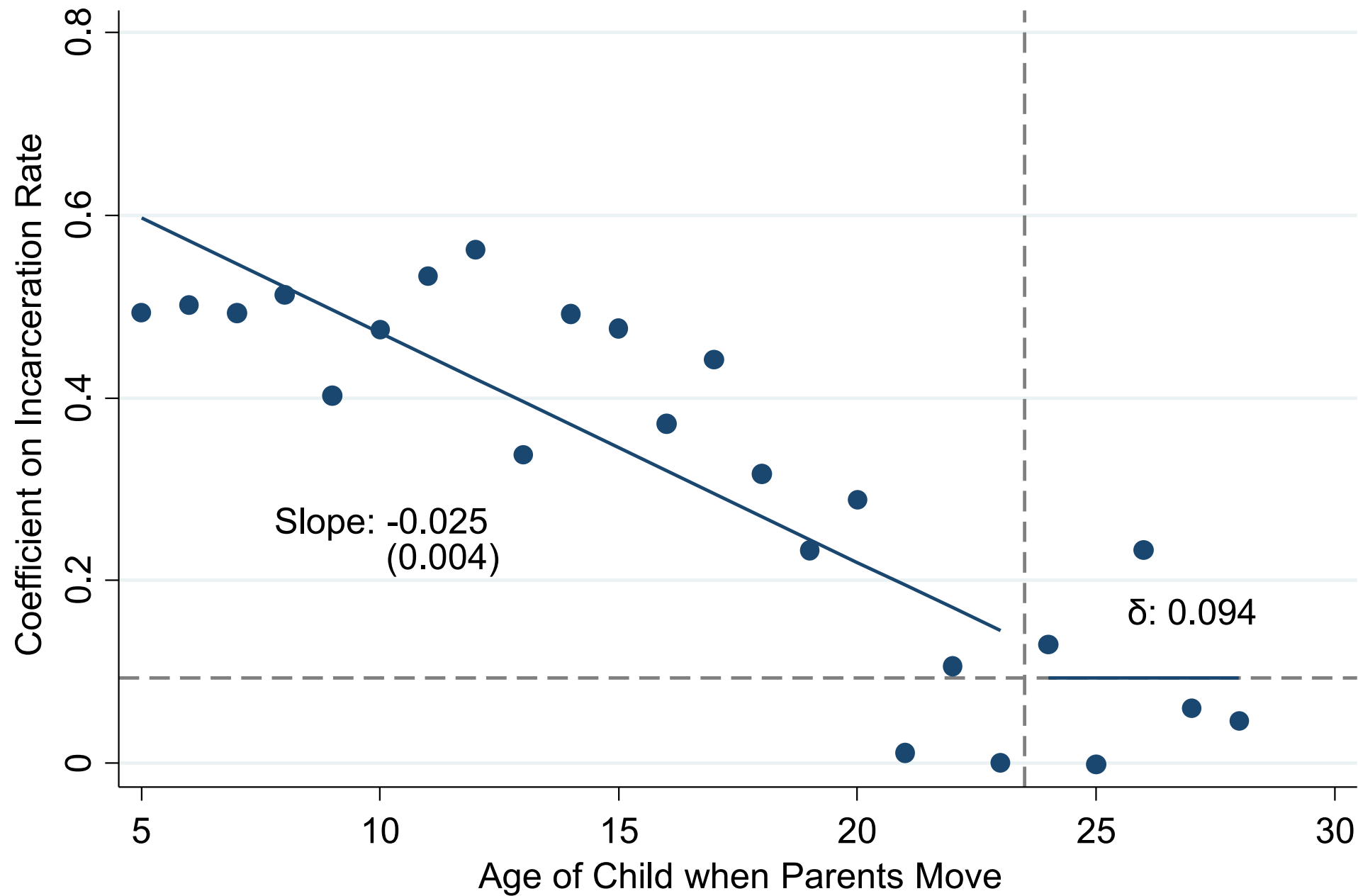
Childhood Exposure Effects for Males on Income Rank at Age 24
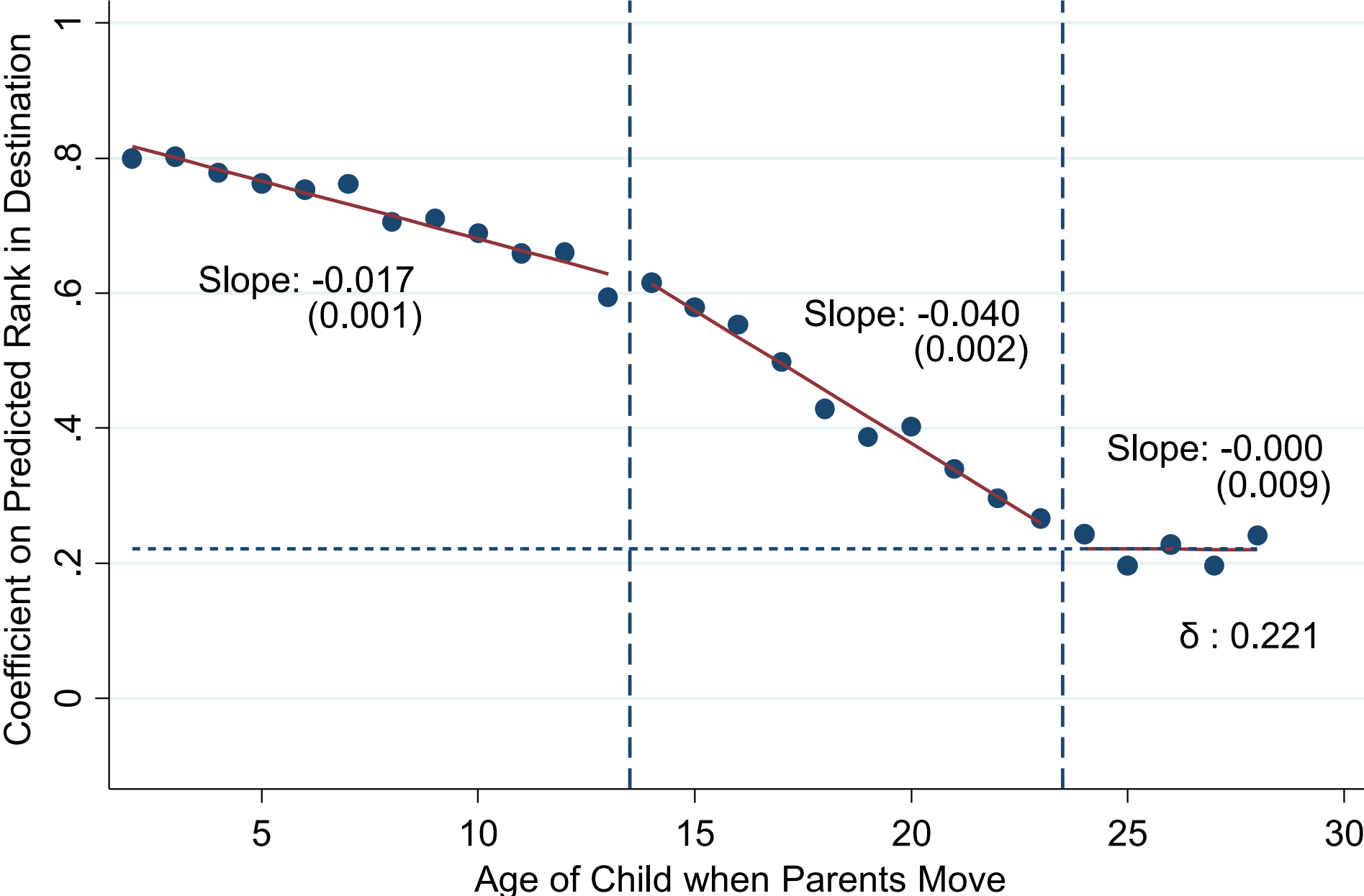
Top 5 and Bottom 5 CZs in Upward Mobility for Low-Income Black Men
Among 100 Largest CZs by Black Population

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