Race, Class, and Mobility in U.S. Marriage Markets

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Motivation

Disparities in intergenerational mobility by race and ethnicity (Chetty, et al. 2018; Pfeffer and Killewald 2019)

- Inequality in parent generation → disparate child outcomes
- But also differences in transmission of advantage across generations by race
  - Black Americans have lower rates of upward mobility and higher rates of downward mobility than white Americans
- Thinks of outcomes for individuals
- BUT persistence of econ disadvantage may drive family formation patterns as those individuals partner, become next gen of parents

Large disparities in HH structure by race and ethnicity (Smock & Schwartz 2020; Cross 2020)

- Gap in union formation well-documented
- What are the characteristics of partners in unions that form? How do they differ by race and ethnicity?

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Research Questions

- Descriptively:
  - How do economic circumstances in childhood translate to marriage market outcomes in adulthood?
    - Union formation
    - Assortative matching
    - Expected income from partner (EIFP)
  - How do these outcomes differ by racial-ethnic identity?
- How do these disparities translate to intergenerational mobility?
- What socioeconomic mechanisms may explain racial-ethnic disparities in marriage market outcomes?

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Data and Results preview

We link IRS 1040 forms to the 2011-2019 ACS and find:

- Modest effect of CFI on partnering, large disparities by race/ethnicity
- Compared to median CFI, assortative matching is
  - High at the top (but especially for average-rich groups)
  - High at the bottom (but especially for average-poor groups)
- Large racial-ethnic gaps in women's partner's income, adult family income
- Differences in women's partners incomes (rather than personal income) explain bulk of gaps in mobility
- Women's marriage market outcomes improve with lower racial segregation, lower income inequality

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Outline

- Data and samples.
- Descriptive results on partnering and marriage.
- Investigation of CFI assortative matching.
- Local marriage market regressions.

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Data overview

ACS 2011-2019	IRS 1040 forms
• Marital and cohabitation links based on reln to reference person • Marital status • Sex • Age • Race/ethnicity • Adulthood family income	• Marital and cohabitation links based on future joint tax returns • Childhood family income • Childhood tract of residence

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Sample definitions

- ACS person record received a PIK.
- Person was born in the U.S.
- Criteria for birth year and age depend on sex and family structure.
  - Birth years approximately 1979-86.
  - Ages approximately 28-35.
- *N*: ~1.3 million individuals, ~450,000 couples.

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Measures of family income

- Childhood family income (CFI)
  - Average AGI of tax units claiming child as dependent when child is age 10-18.
  - AGIs deflated to 2015 dollars.
  - Omit negative AGIs.
  - Filer(s) who claim the child may change over time.
- Adulthood family income (AFI)
  - ACS Personal income of focal person + personal income of partner (0 if no partner).

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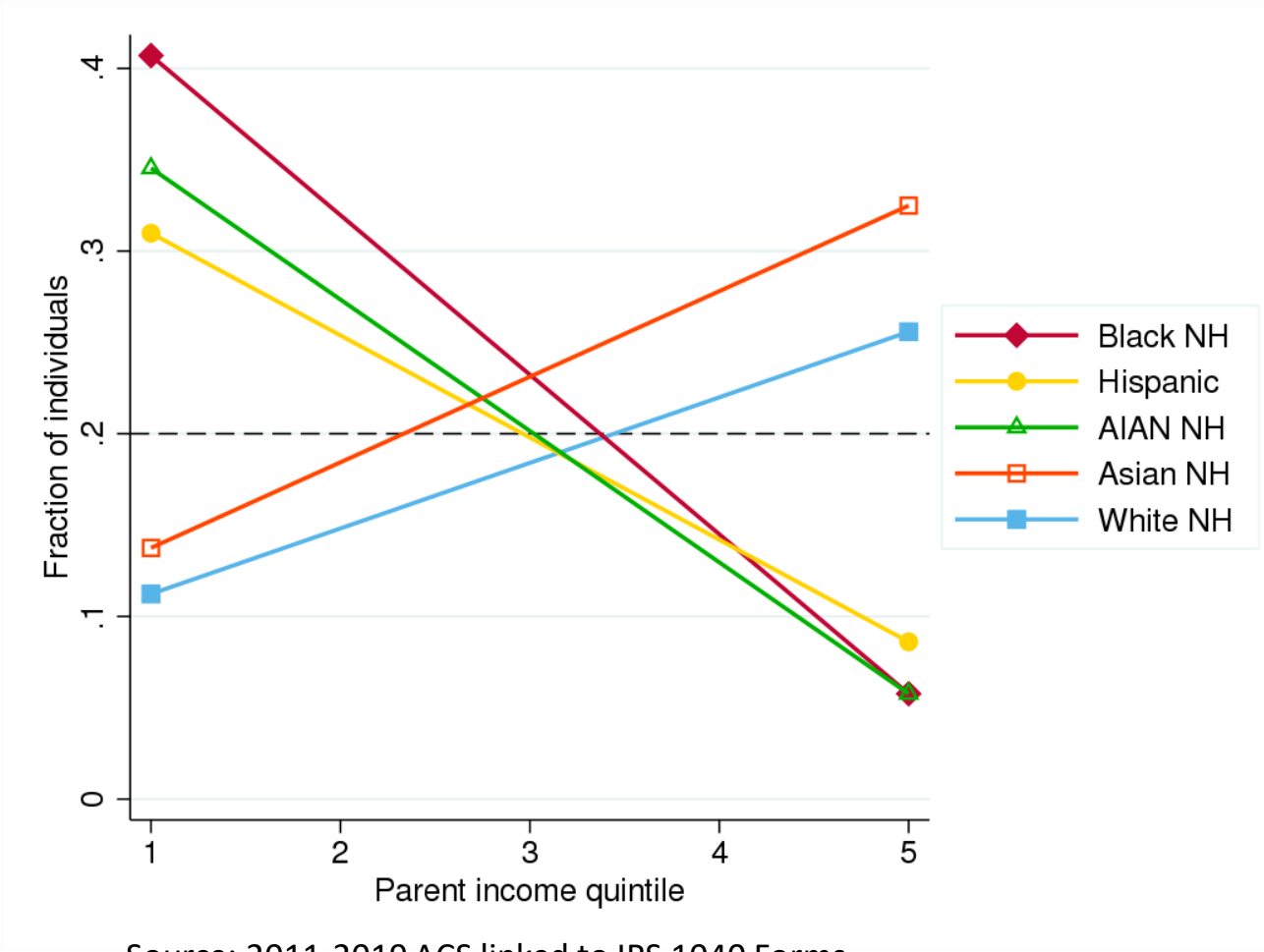
Childhood family income breakdown



Source: 2011-2019 ACS linked to IRS 1040 Forms.
Note: NH stands for non-Hispanic, AIAN stands for American Indian / Alaska Native.

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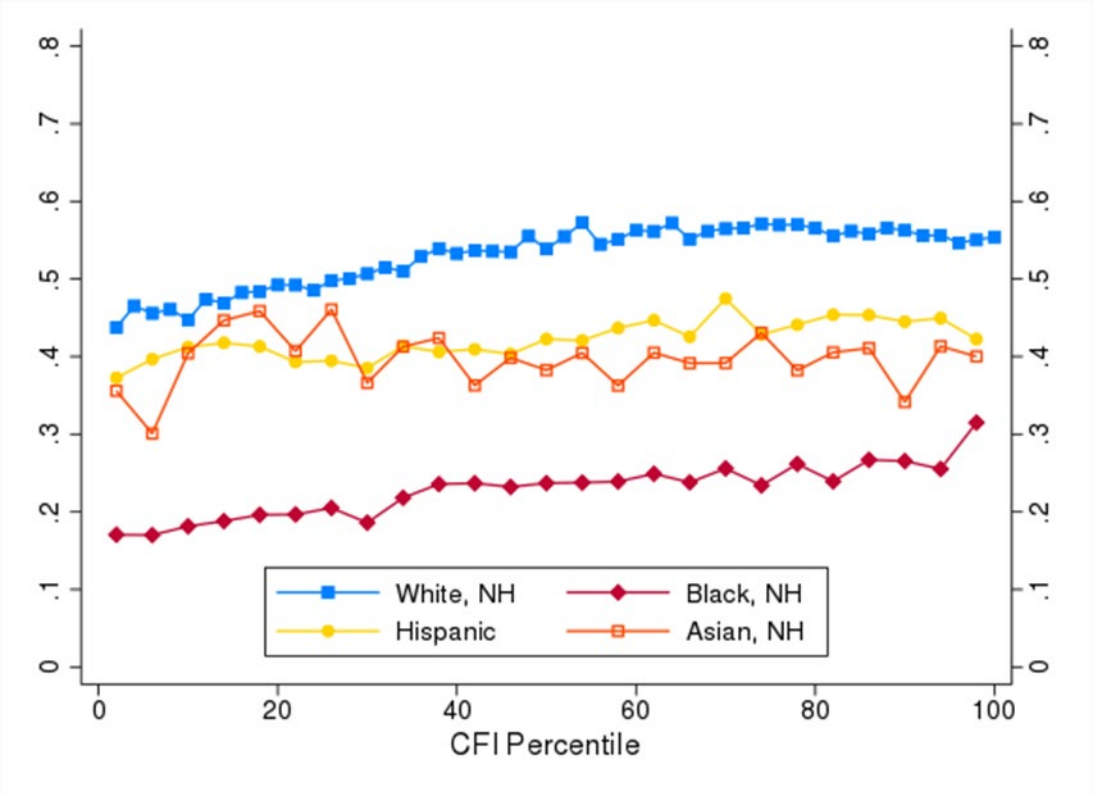
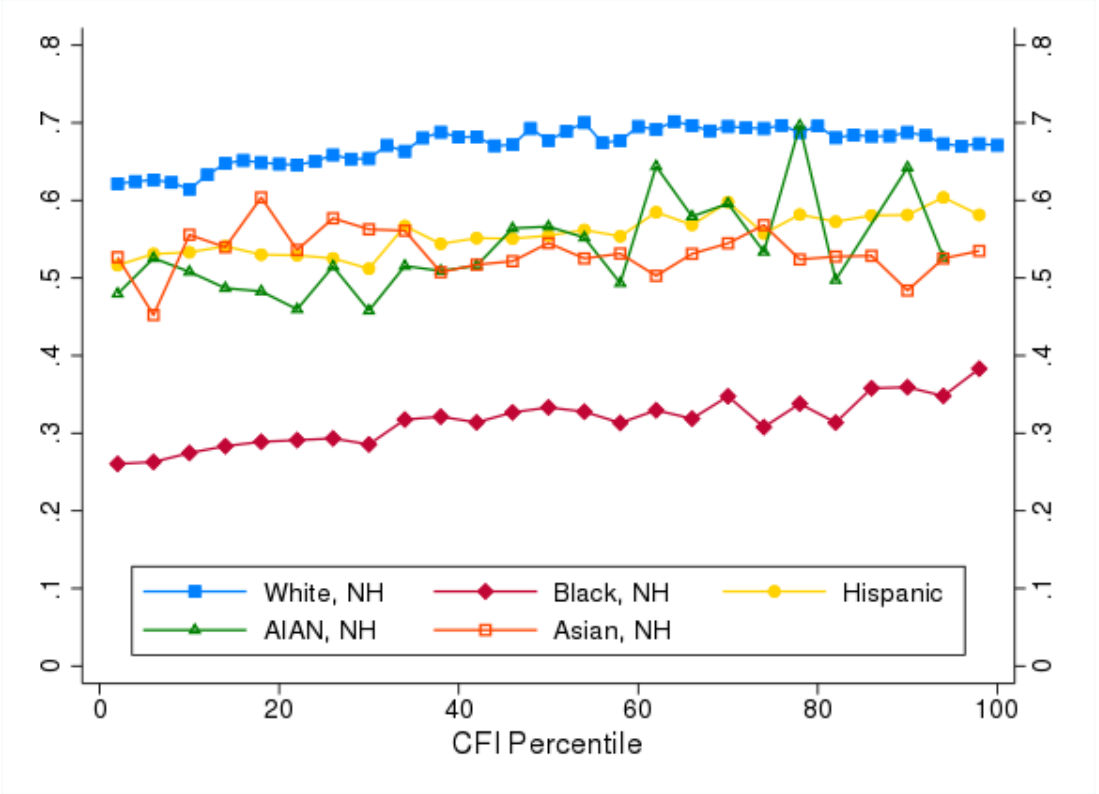
Shares married and partnered by CFI (Women)

Married



Partnered



Source: 2011-2019 ACS linked to IRS 1040 Forms.

Notes: Note: CFI stands for childhood family income, NH stands for non-Hispanic, AIAN stands for American Indian / Alaska Native. AIAN, NH line omitted from left panel for disclosure reasons.

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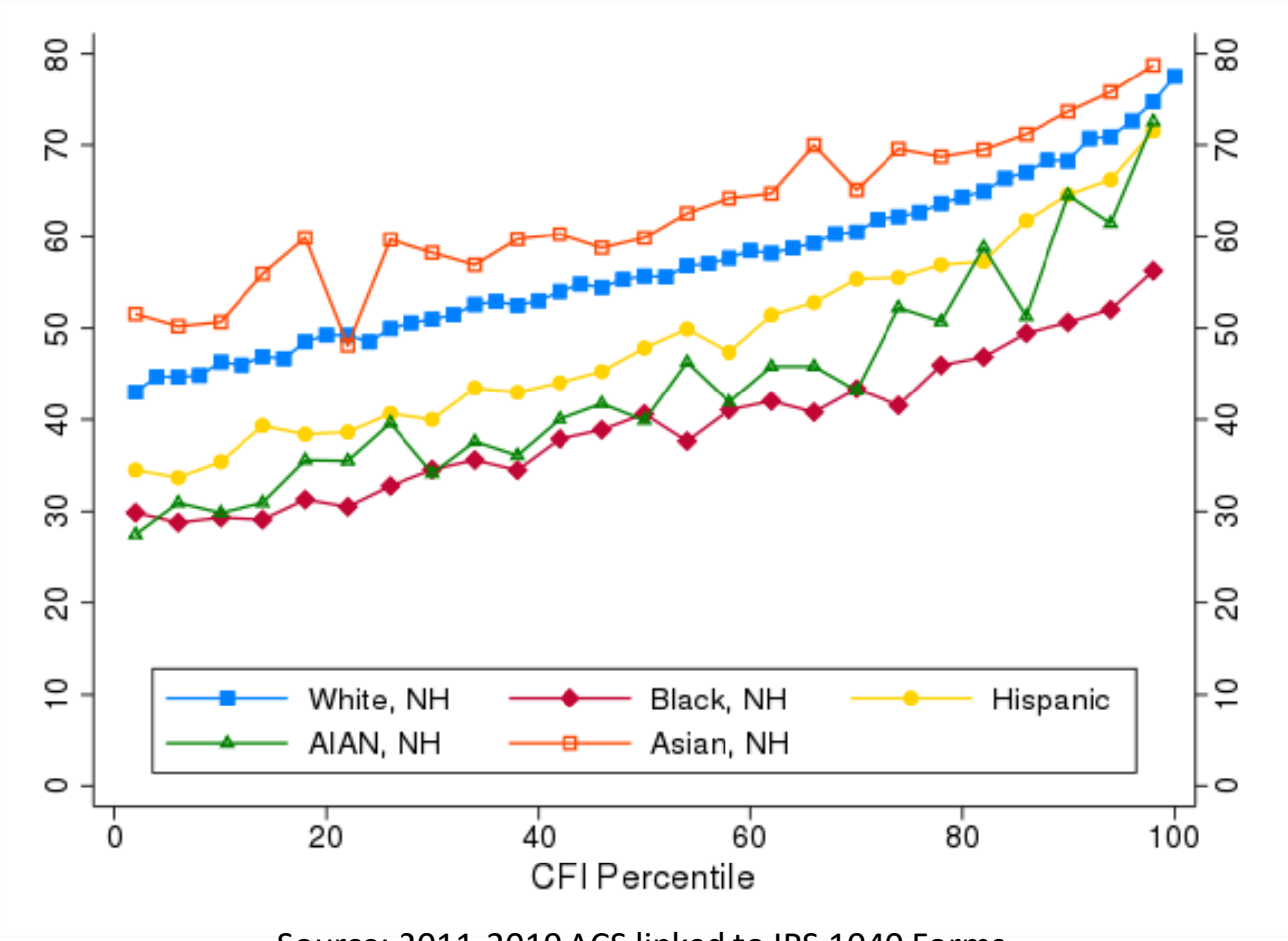
Partner CFI rank – own CFI rank slope (Women)



Source: 2011-2019 ACS linked to IRS 1040 Forms.
Note: CFI stands for childhood family income, NH stands for non-Hispanic, AIAN stands for American Indian / Alaska Native.

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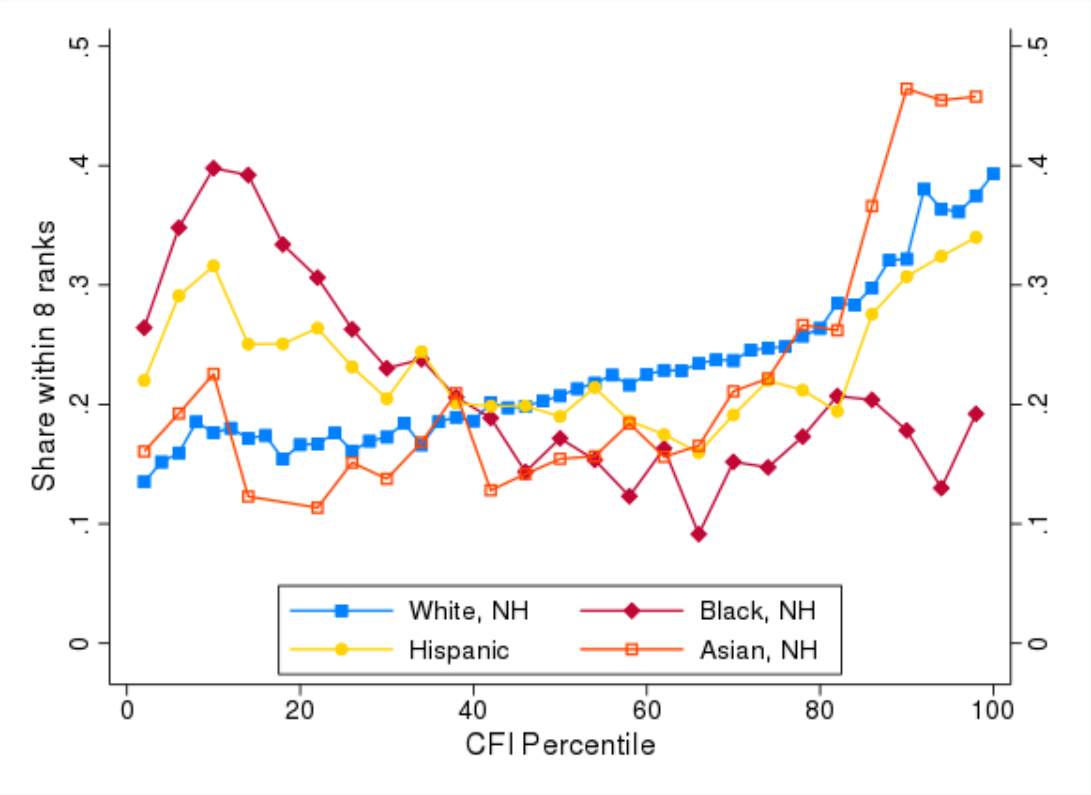
Mechanism: assortative matching on childhood family income

Begin with simple criterion: share of women with a partner within 8 CFI ranks.



Source: 2011-2019 ACS linked to IRS 1040 Forms

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Formal assortative matching index

- Problem with informal measure is the density of people within CFI percentile differs by race/ethnicity.
- Estimate LPM for each CFI percentile *p* and racial-ethnic group *r*:

$$1\{m \in c_1\} = \alpha_{pr} + \beta_{pr} 1\{w \in c_1\} + \varepsilon_{ipr}$$

where c_1 indicates CFI is within a tolerance of 8 percentiles.

β_{pr} = Marginal probability of having a partner within 8 percentiles

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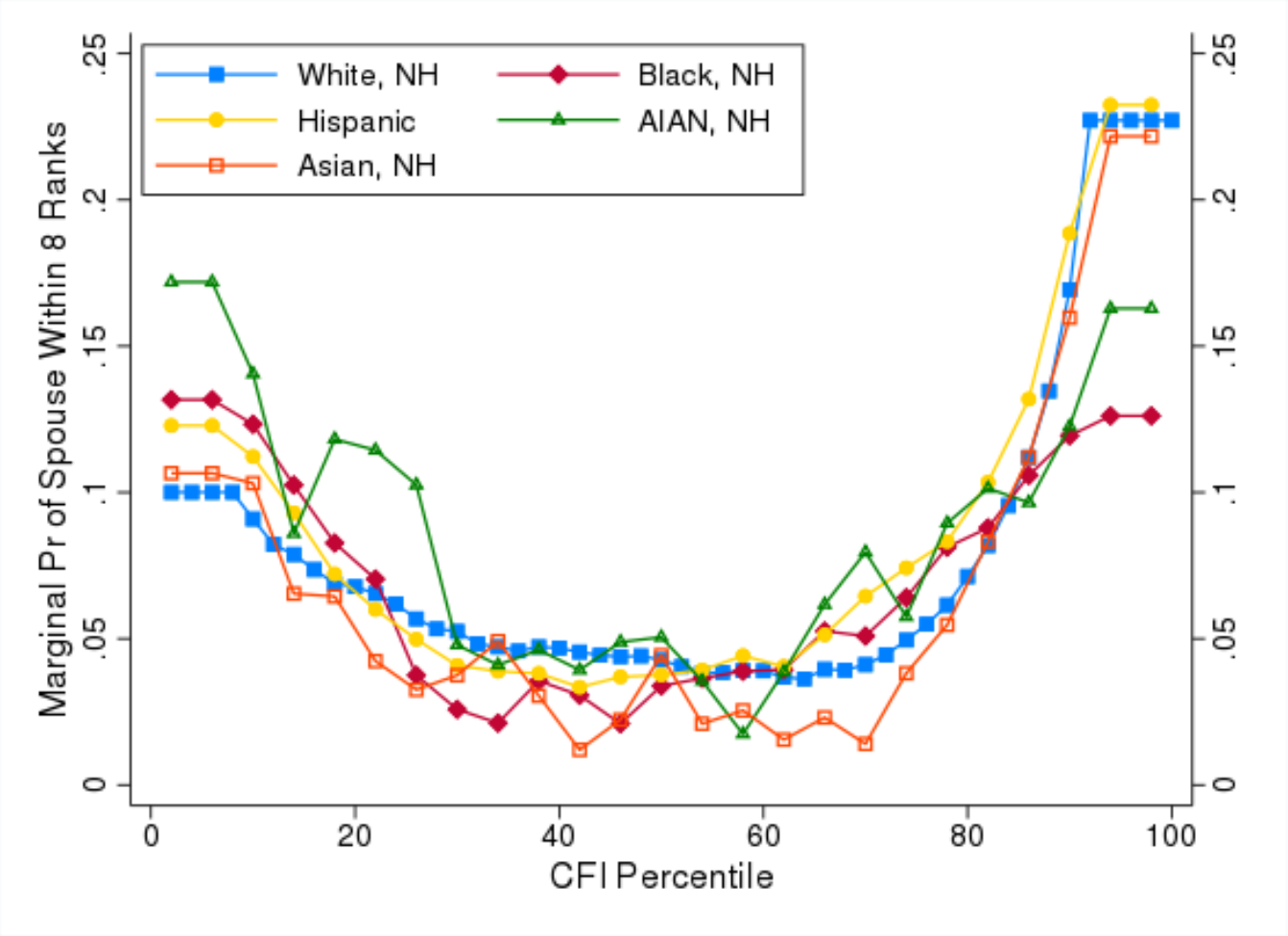
Formal assortative matching index: β_{pr}



Source: 2011-2019 ACS linked to IRS 1040 Forms.
Notes: CFI stands for Childhood Family Income.

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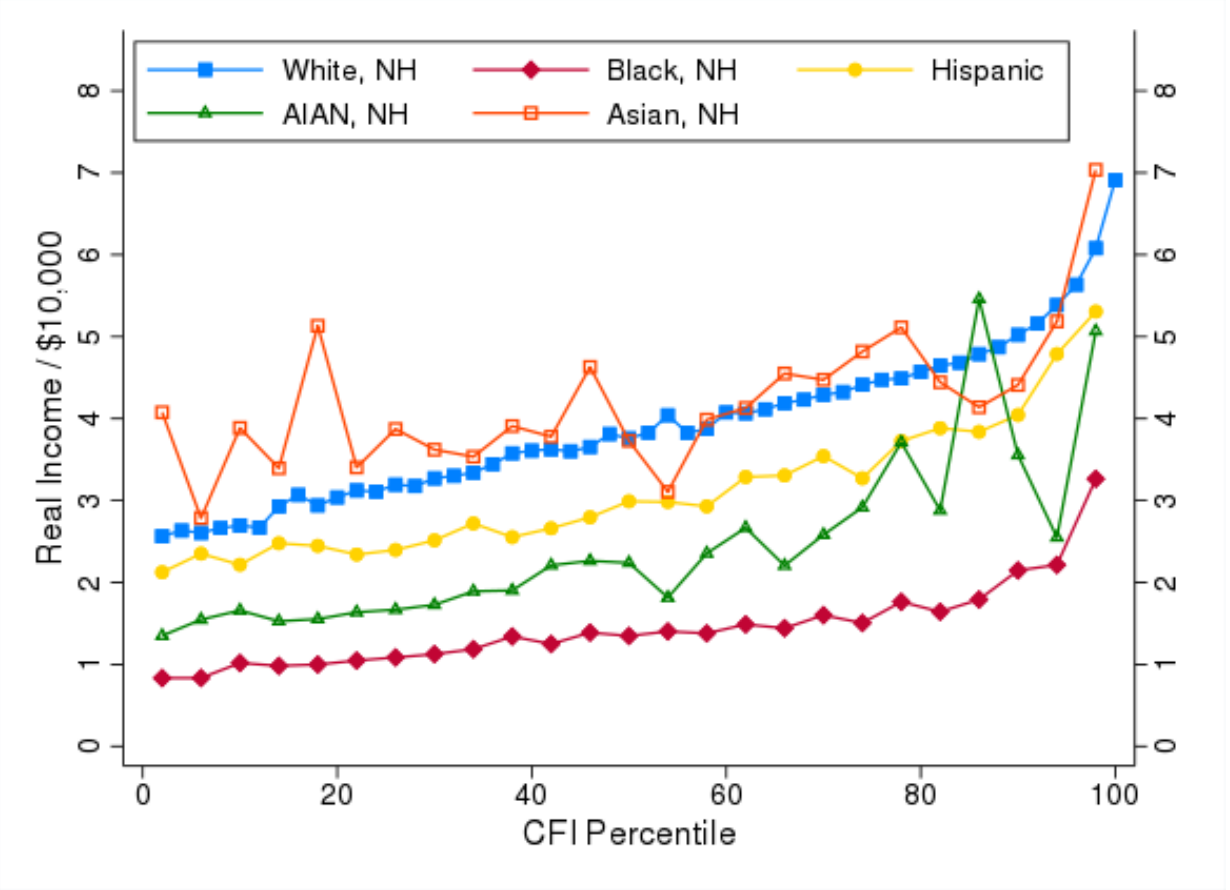
Integrating extensive and intensive margins: EIFP = P(partner) · E(partner income|partner)

Measure of *expected* income obtained from marriage market for women.



Source: 2011-2019 ACS linked to IRS 1040 Forms.
Note: EIFP stands for Expected Income from Partner.

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How do gaps in EIFP translate to gaps in intergenerational mobility?

Mobility statistic	*White NH*	*Black NH*	*Hispanic*	*AIAN NH*
Panel A. Observed Data				
Pr(move out of Q1)	0.73	0.57	0.72	0.54
Pr(remain in Q5)	0.39	0.16	0.29	0.22
Panel B. Counterfactural: All Groups Have White Women's Personal Income				
Pr(move out of Q1)	0.73	0.56	0.69	0.63
Pr(remain in Q5)	0.39	0.18	0.33	0.27
Panel C. Counterfactual: All Groups Have White Women's Partner's Income				
Pr(move out of Q1)	0.67	0.72	0.74	0.66
Pr(remain in Q5)	0.37	0.34	0.35	0.3

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Source: 2011-2019 ACS linked to IRS 1040 Forms.
Notes: EIFP stands for Expected Income from Partner. Childhood family income quintiles come from IRS 1040 AGI, adulthood family income quintiles come from ACS personal income.

Summarizing the descriptives

- Women from poorer racial-ethnic groups obtain (*conditional* on CFI):
  - Lower probability of partnering.
  - Lower CFI partner, lower income partner.
  - Flatter CFI *slope* (i.e. lower expected partner income *returns* to CFI).
- Intensive margin dynamics:
  - Higher propensity to match on CFI at bottom and top of CFI distribution.
  - Mechanically driven by marginal probabilities.
  - But also shows up in formal indices that control for this.
- Equalizing EIFP for women greatly diminishes racial-ethnic disparities in mobility
- **Suggests frictional matching story: IG mobility is constrained through the marriage market, creating wedge between initially-average-poor and initially-average-rich social groups.**

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Regional regression analysis

- Comparing womens outcomes across local marriage markets (birth CBSAs).
  - Higher same-race share in Q5

    → more assortativeness, higher EIFP for both Black and White women.
  - Higher Q5 inequality

    → Higher assortativeness at the top for White women, lower assortativeness at the top for Black women.

    → No effect on White women's EIFP, much lower EIFP for Black women.
  - Higher racial segregation

    → Lower EIFP for Black and White women, but especially for Black women.

    → More assortativeness for White women, less assortativeness for Black women

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Appendix slides

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Primary sample and partners

Oldest ← Birth year → Youngest

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
2008	29	28	27	26	25	24	23	22	21	20	19	18	17
2009	30	29	28	27	26	25	24	23	22	21	20	19	18
2010	31	30	29	28	27	26	25	24	23	22	21	20	19
2011	32	31	30	29	28	27	26	25	24	23	22	21	20
2012	33	32	31	30	29	28	27	26	25	24	23	22	21
2013	34	33	32	31	30	29	28	27	26	25	24	23	22
2014	35	34	33	32	31	30	29	28	27	26	25	24	23
2015	36	35	34	33	32	31	30	29	28	27	26	25	24
2016	37	36	35	34	33	32	31	30	29	28	27	26	25
2017	38	37	36	35	34	33	32	31	30	29	28	27	26
2018	39	38	37	36	35	34	33	32	31	30	29	28	27
2019	40	39	38	37	36	35	34	33	32	31	30	29	28

Age of primary men

Age of Primary women

Age of Partners

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Partnership coverage rate of primary sample

Of people in the primary sample who were linked to a spouse or partner, what percentage are included in the couple sample?

Married couples	79.3
Cohabiting couples	65.4

Source: 2011-2019 ACS linked to IRS 1040 Forms

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Segregation: Dissimilarity index

Racial segregation in a CBSA *c:*

$$D_c = \frac{1}{2}\sum_{t=1}^{N}\left|\frac{w_t}{W} - \frac{b_t}{B}\right|, \text{ where}$$

w_t=white population in tract *t*

W = white population in CBSA *c*

b_t=black population in tract *t*

B = black population in CBSA *c*

Analogous for income segregation, segmenting population into:

- Segregation of wealth: {Top 20 CFI percentile,bottom 80 percentile}
- Segregation of poverty: {Bottom 20 CFI percentile,top 80 percentile}

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