



OTTAWA 2023

64TH WORLD STATISTICS CONGRESS



The views represented here are my own and do not reflect the views of NASEM or other NASEM staff, and do not reflect the discussions during the closed meetings of the CNSTAT Panel on an Integrated System of U.S. Household Income, Wealth, and Consumption Data and Statistics to Inform Policy and Research. The authors thank the Russell Sage Foundation for their support of this research.



IPS 422

Intergenerational Mobility using Income, Consumption, and Wealth

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Monday July 17, 2:00PM-3:40PM

Why these three resource measures?

- ❑ Income, consumption, and wealth measure different concepts.
- ❑ Friedman (1957) “Its essential idea is to combine the relation between consumption, wealth, and income suggested by purely theoretical considerations with a way of interpreting observed income data...”
- ❑ Stiglitz, Sen, and Fitoussi (2009) “...the most pertinent measures of the distribution of material living standards are probably based on jointly considering the income, consumption, and wealth position of households or individuals.”
 - ❑ Compare the rise in income inequality to the rise in consumption inequality (Heathcote, Perri, and Violante 2010; Meyer and Sullivan 2013; Fisher, Johnson, and Smeeding 2015)
 - ❑ Examine joint distribution of income, consumption, and wealth (Fisher, Johnson, Smeeding, and Thompson 2022)
 - ❑ Wealth is the accumulation of savings $W_t = \sum r^{t-k}(y_k - c_k)$
- ❑ Eurostat/OECD (2019) “The absence of a perfect correlation between income, consumption and wealth at the household level underscores the necessity of an integrated framework of analysis...studies of economic inequality usually examine the distribution of income, consumption, and wealth separately and, hence, miss the important synergy among the three measures.”

Our Contributions

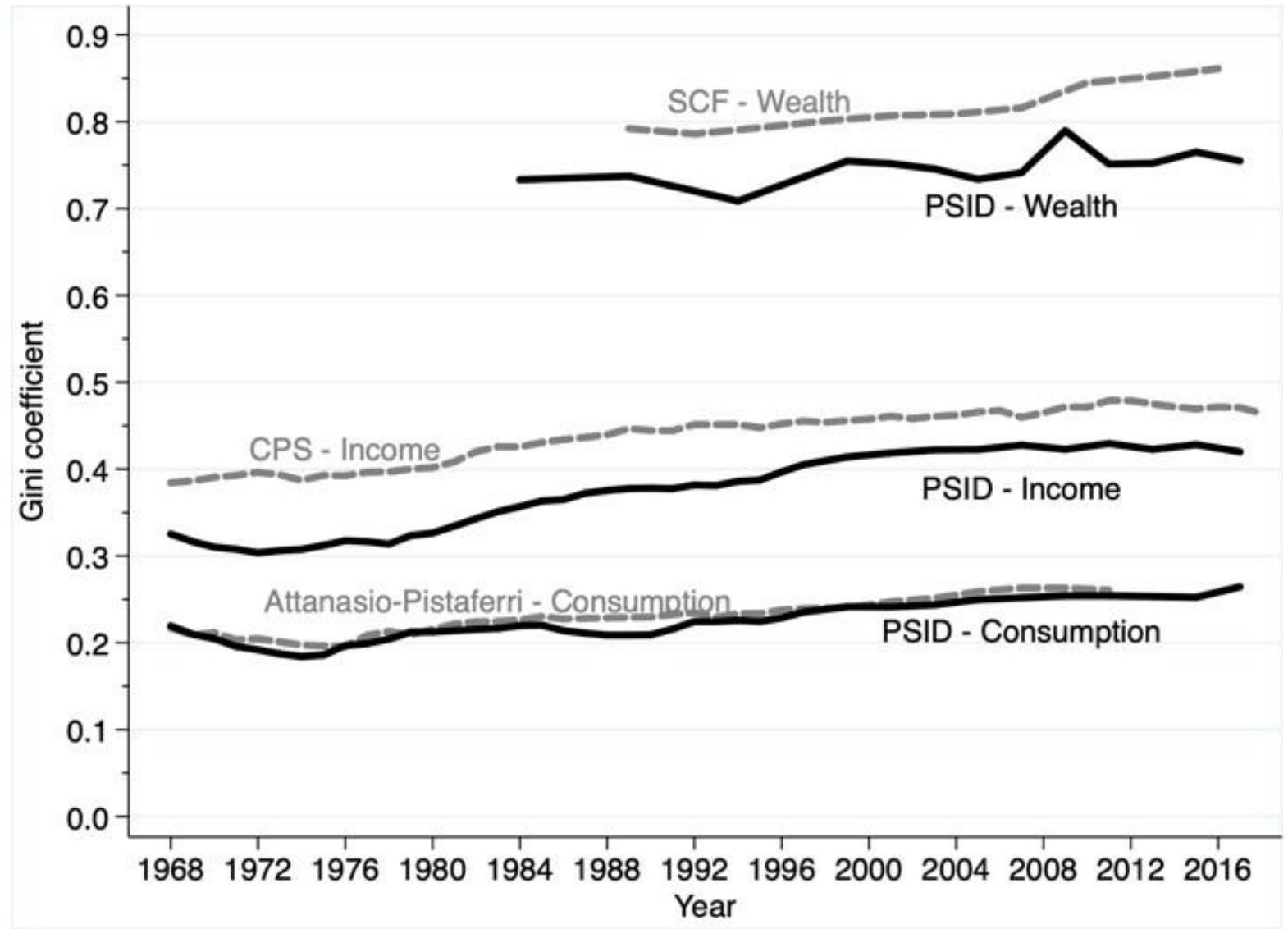


- ❑ Intergenerational mobility using income, consumption, and wealth
 - ❑ for the same parent-offspring pairs
 - ❑ when the offspring are teenagers (14-18-years old)
 - ❑ at the same ages when offspring are adults (31-35-years old)
- ❑ One absolute mobility measure – percent of offspring with resources exceeding their parents
- ❑ Three relative mobility measures: rank-rank slope, intergenerational elasticity, and Gini index of mobility.
- ❑ Mobility is heterogeneous; examine differences by characteristics of the parents and by characteristics of the offspring.

3D Matters



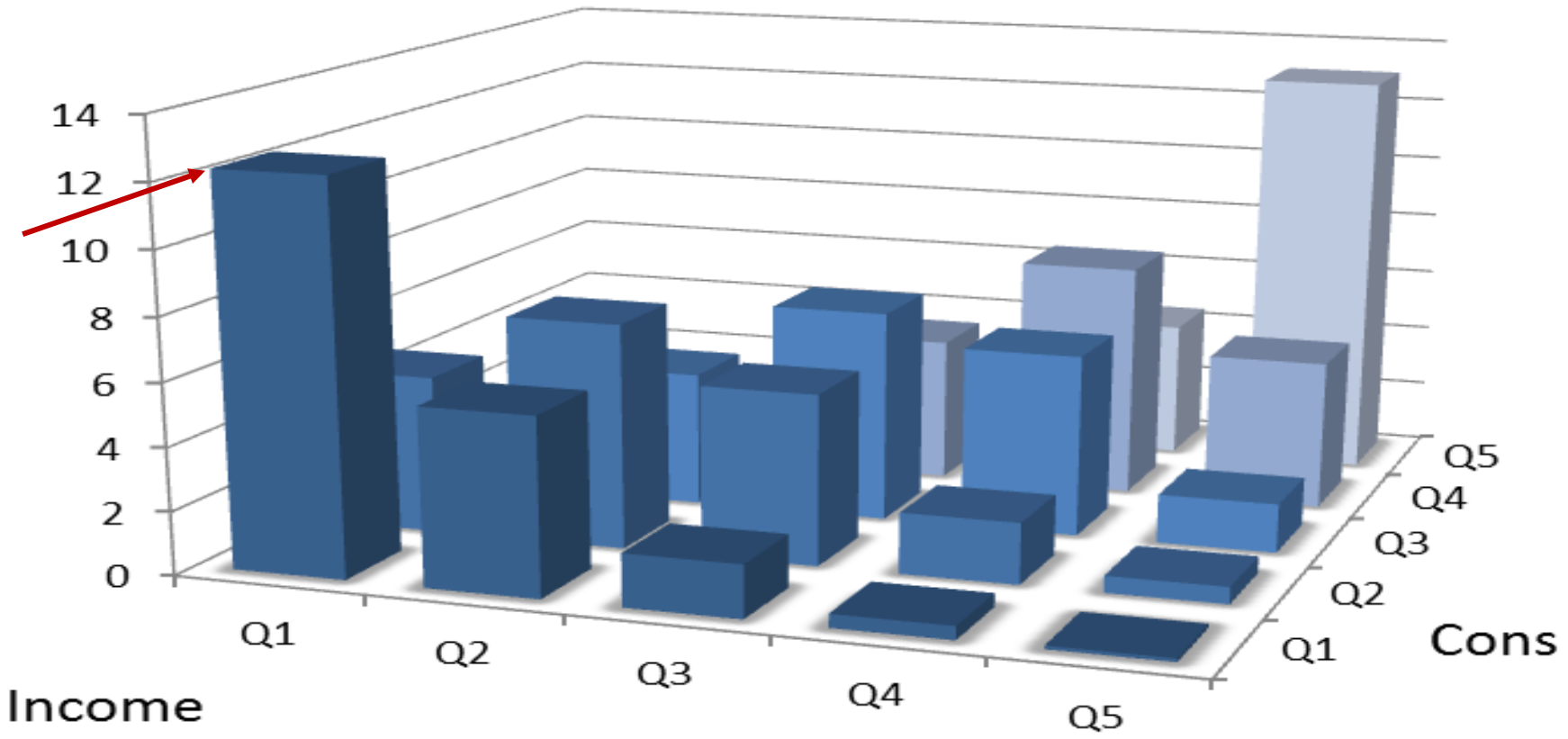
Wealth Inequality is higher than Income, which is higher than Consumption, but all increase over time



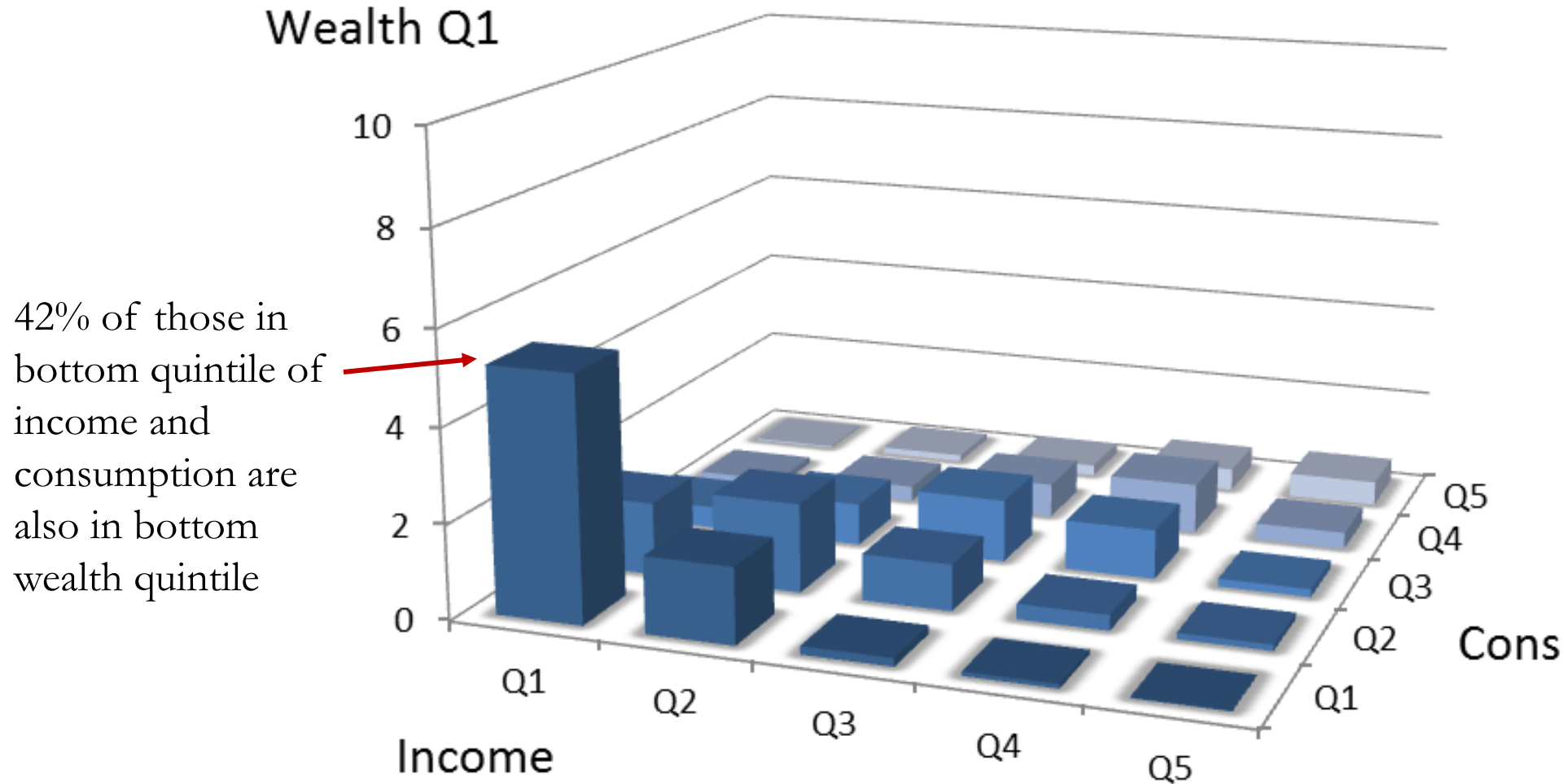
Inequality in 2D: Twin peaks of joint distribution



12% of households in bottom quintiles of both income and consumption



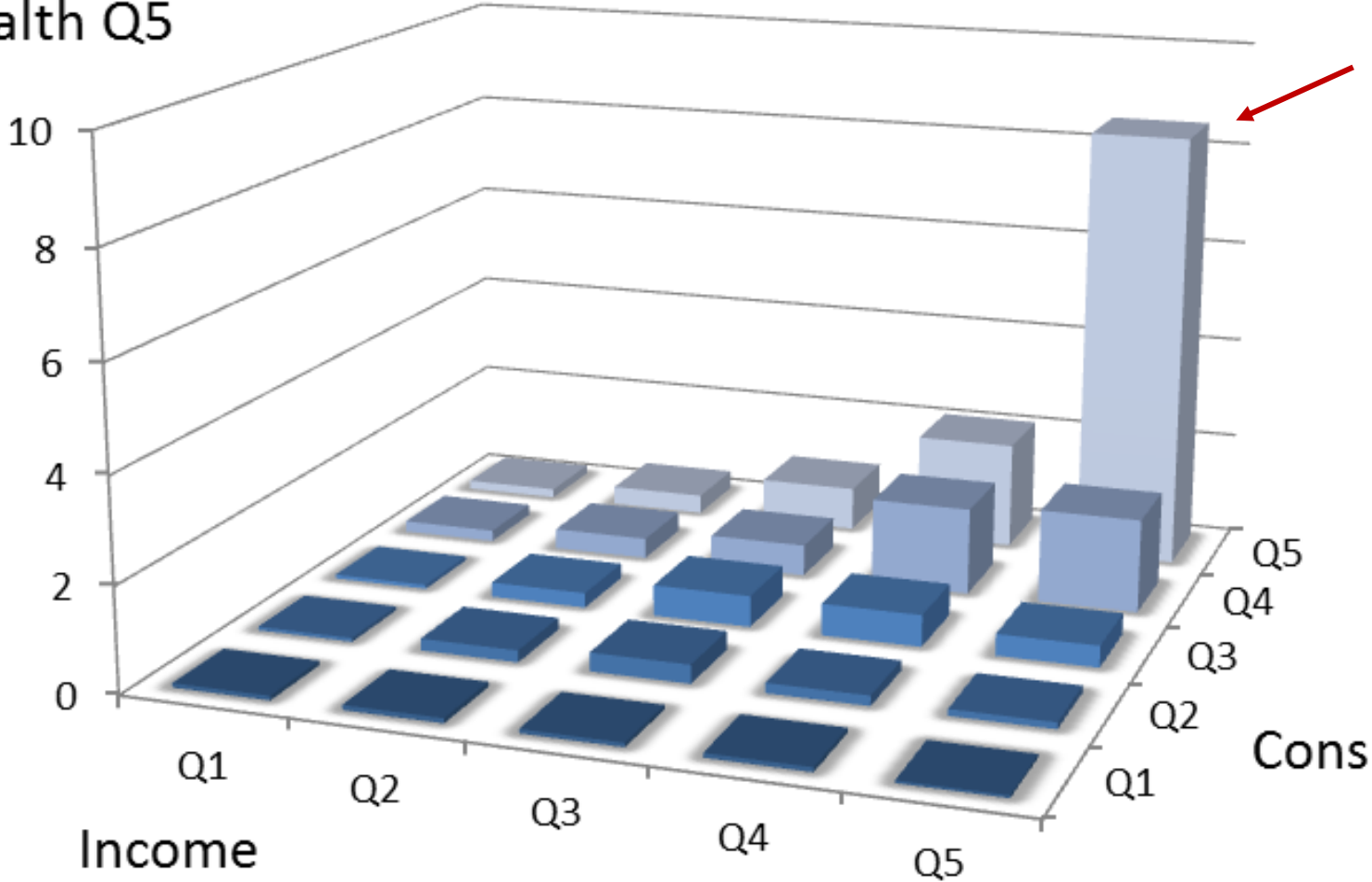
3D Inequality: Income & Consumption, bottom wealth quintile



3D Inequality: Income & Consumption, top wealth quintile



Wealth Q5



67% of those in top quintile of income and consumption are also in top wealth quintile

Panel Study of Income Dynamics (PSID)



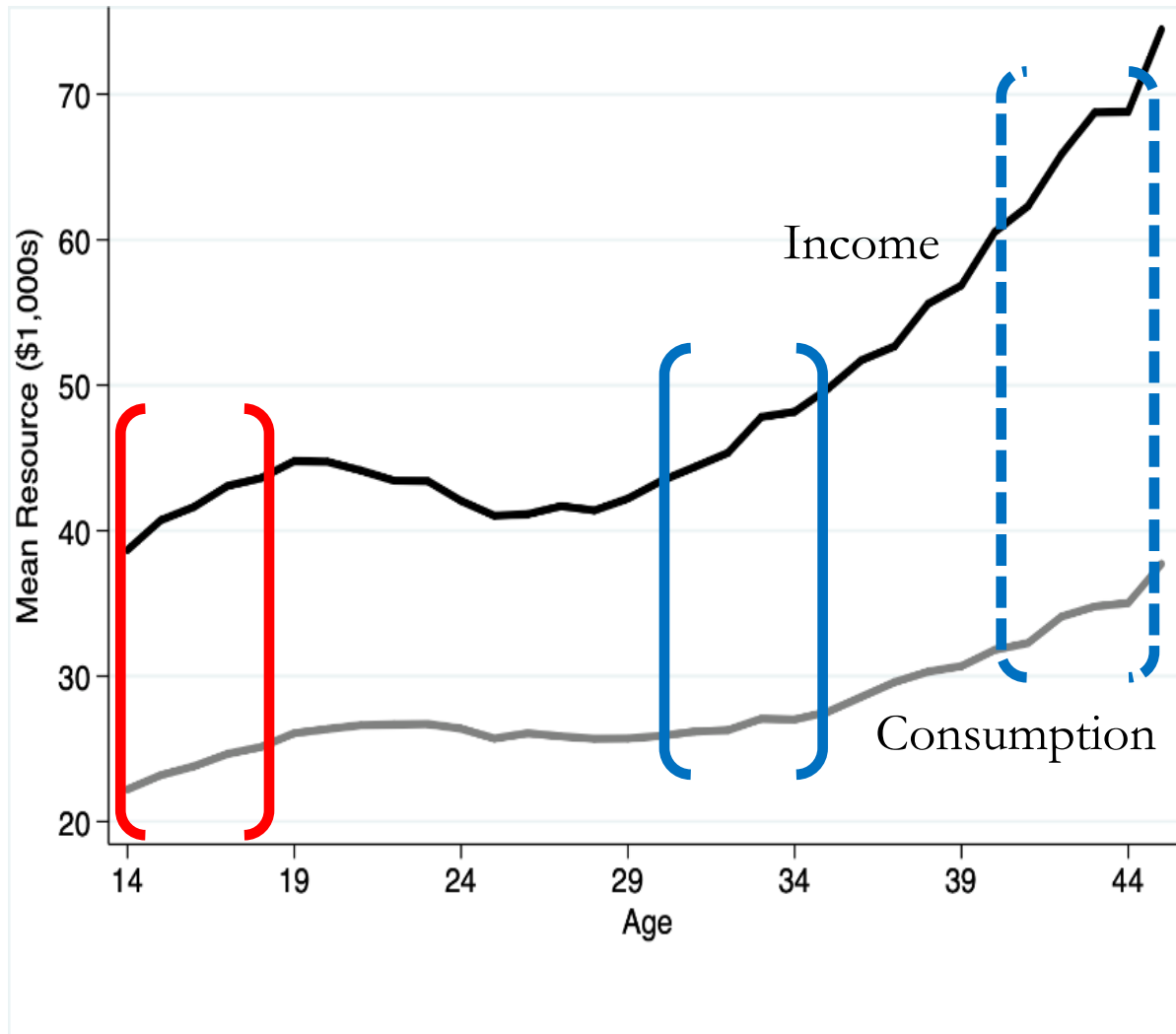
- 1968-2017
 - Follows 1968 respondents and their descendants
 - Annual until 1997; every other year since 1997

- Measures and frequency
 - Before-tax income every wave
 - Consumption every wave since 1999 (food and housing before 1999)
 - Net wealth 1984, 1989, 1994, and every wave since 1999

- We supplement the PSID
 - By imputing total consumption for all waves
 - By imputing net wealth for waves where it is not reported



PSID allows examination of the life-cycle from youth through adulthood, and intergenerational mobility



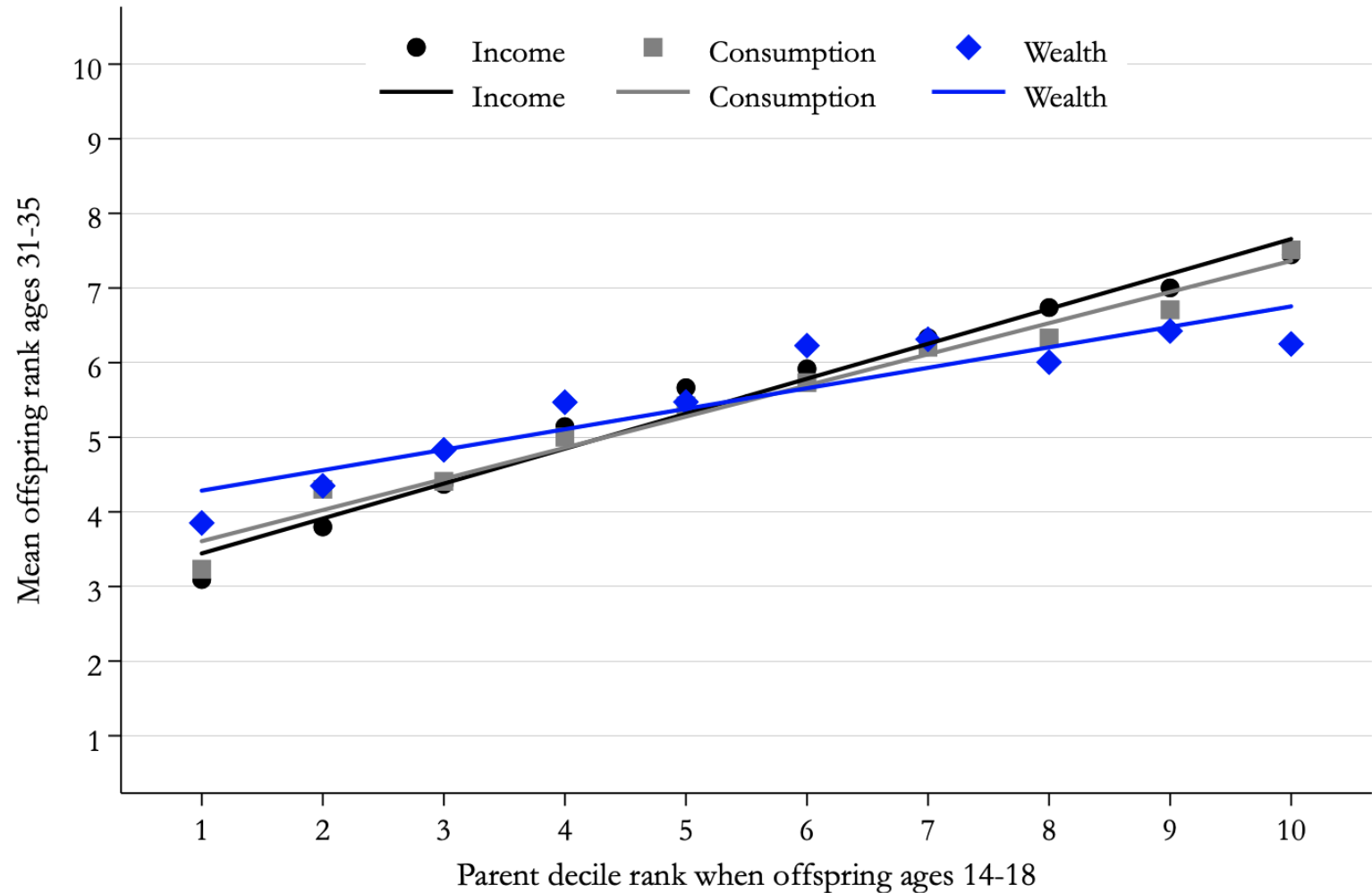
Findings (1) income < consumption < wealth mobility



Intergenerational correlation using the rank-rank slope

Income	= 0.47 (0.020)
Consumption	= 0.45 (0.023)
Wealth	= 0.29 (0.021)

Notes: Parental resources are measured when the children are 14-18-years old. Child resources are measured when the child is 31-35-years old. Standard errors in parentheses. Standard errors are clustered on PSID family line. The resource measure is residualized before creating the rank. Each regression includes year fixed effects.





**However,
Consumption and
Wealth mobility get
closer with older
adult children**

Intergenerational mobility using the rank-rank slope

	Income	Consumption	Wealth
Ages 14-18 & 31-35 (n=4,041)			
Slope	0.47 (0.020)	0.45 (0.023)	0.29 (0.021)
Ages 14-18 & 41-45 (n=2,229)			
Slope	0.40 (0.027)	0.38 (0.028)	0.36 (0.026)
Ages 5-14 & 31-40 (n=2,197)			
Slope	0.39 (0.029)	0.40 (0.029)	0.25 (0.027)

Results not due to imputation



Comparing intergenerational mobility using reported consumption and imputed consumption

	Consumption Reported	Consumption Imputed	Income	Wealth
Rank-rank slope	0.46 (0.052)	0.41 (0.056)	0.48 (0.051)	0.30 (0.062)
Intergenerational elasticity	0.45 (0.045)	0.41 (0.086)	0.49 (0.057)	0.43 (0.061)

Notes: Sample size is 395. The sample is limited to those 14-16-years old in 1999 when consumption was first reported in the PSID. We average the resource measures in 1999 and 2001 to represent parental resources, and we average the resource measures in 2015 and 2017 to represent offspring resources as an adult.

Results not due to those with negative wealth



Comparing intergenerational mobility dropping those with negative wealth

	Income	Consumption	Wealth
Rank-rank slope	0.42 (0.024)	0.40 (0.026)	0.36 (0.025)
Intergenerational elasticity	0.45 (0.030)	0.40 (0.033)	0.35 (0.044)

Notes: Sample size is 3,147. The sample drops any parent or offspring with negative wealth. Otherwise, the sample is the same as Table 3, measuring offspring resources at ages 31-35 and parental resources at ages 14-18.

Results not due to mobility measures

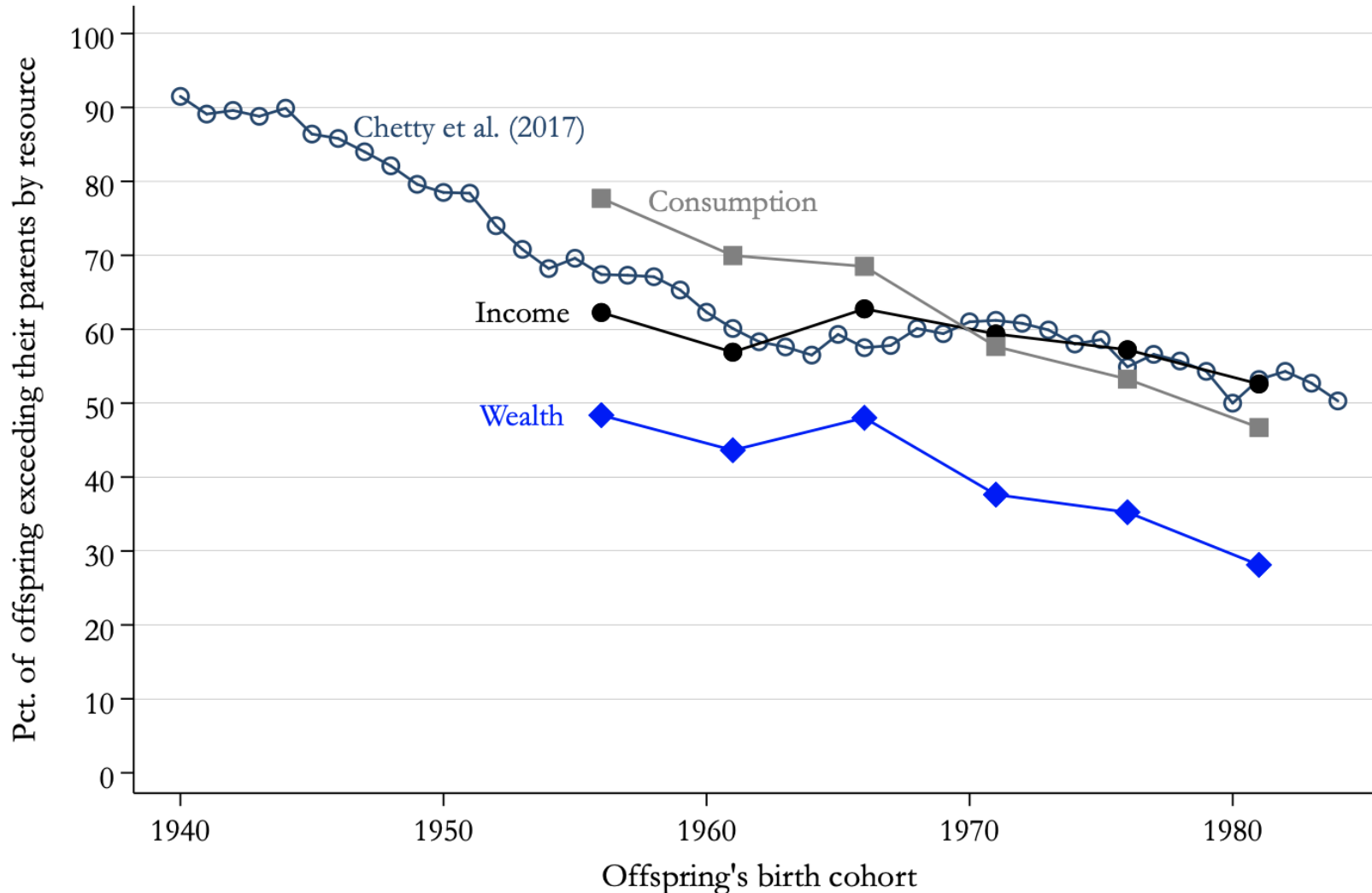


	Income	Consumption	Wealth
Rank-Rank	0.47	0.45	0.29
Intergenerational Elasticity	0.53	0.45	0.26
Gini Index of Mobility	0.56	0.50	0.36

Findings (2) - Large decrease in absolute mobility



(Percent of offspring with resources exceeding their parents)

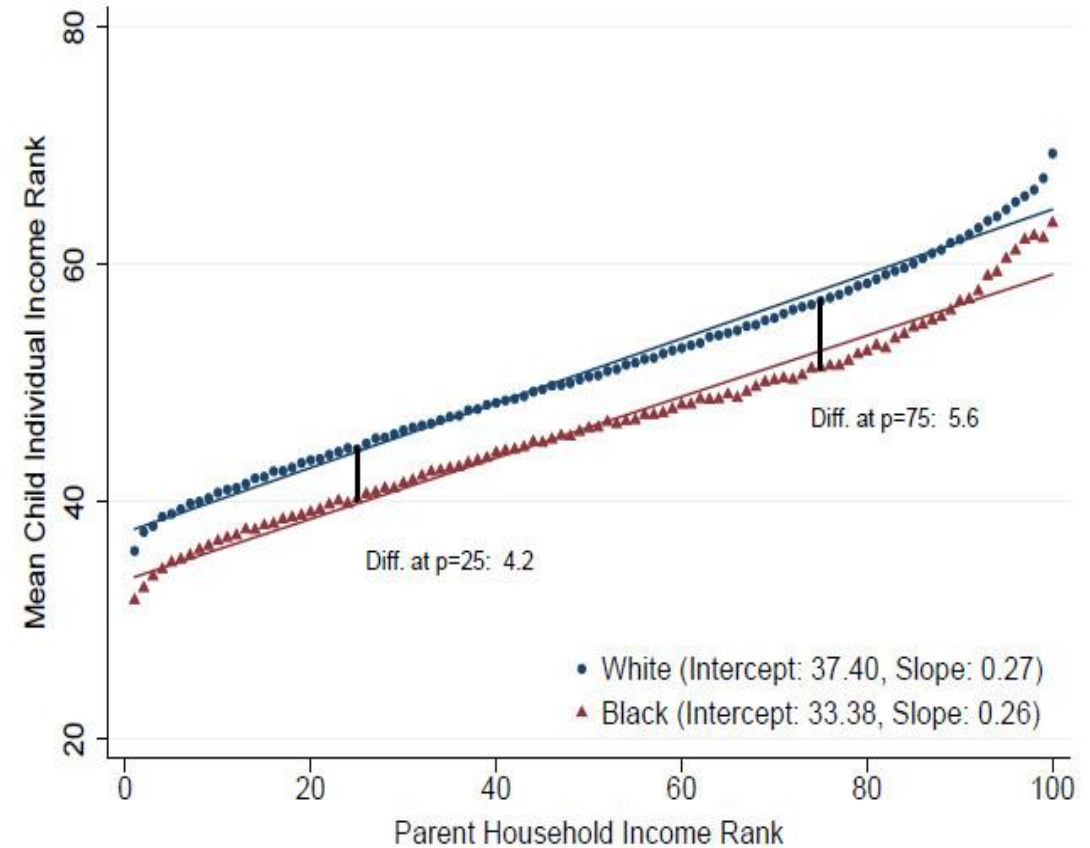
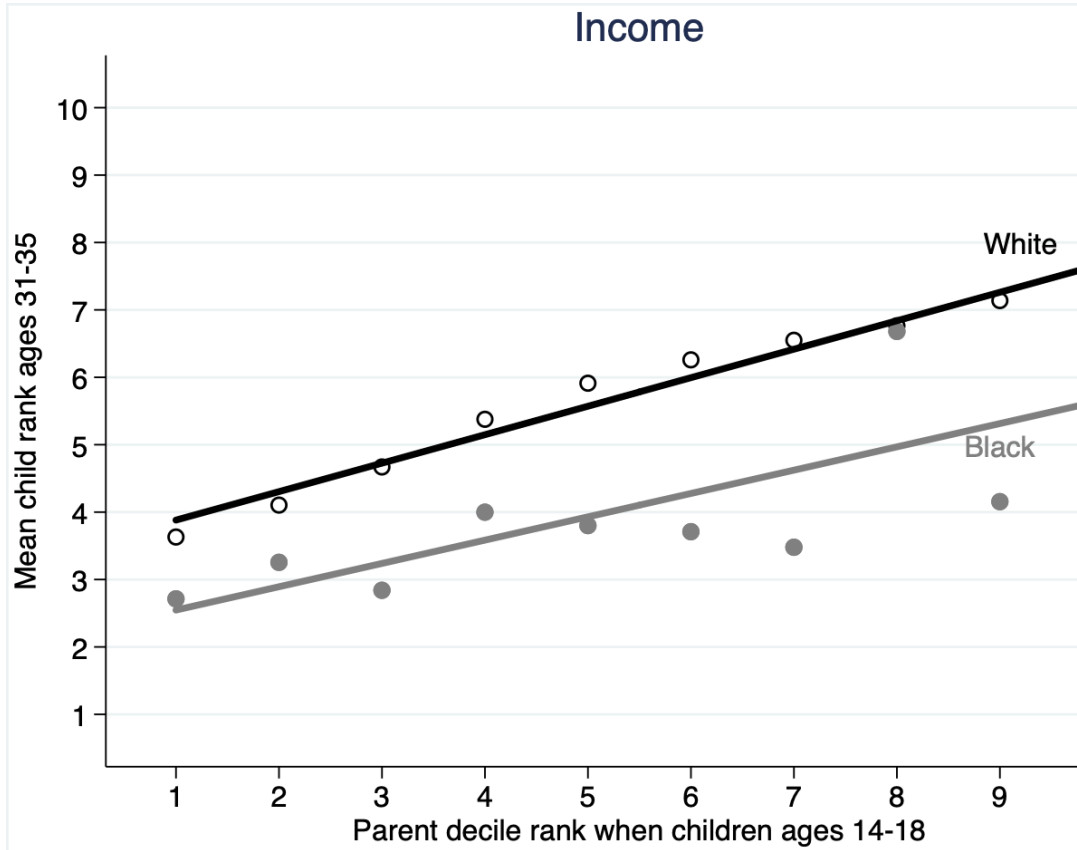


Source: Chetty, Raj, David Grusky, Maximilian Hell, Nathaniel Hendren, Robert Manduca, and Jimmy Narang, "The Fading American Dream: Trends in Absolute Income Mobility Since 1940," Science (2017).

Findings (3) Mobility is heterogeneous: rank-rank mobility similar, but initial mobility lower, for blacks compared to whites



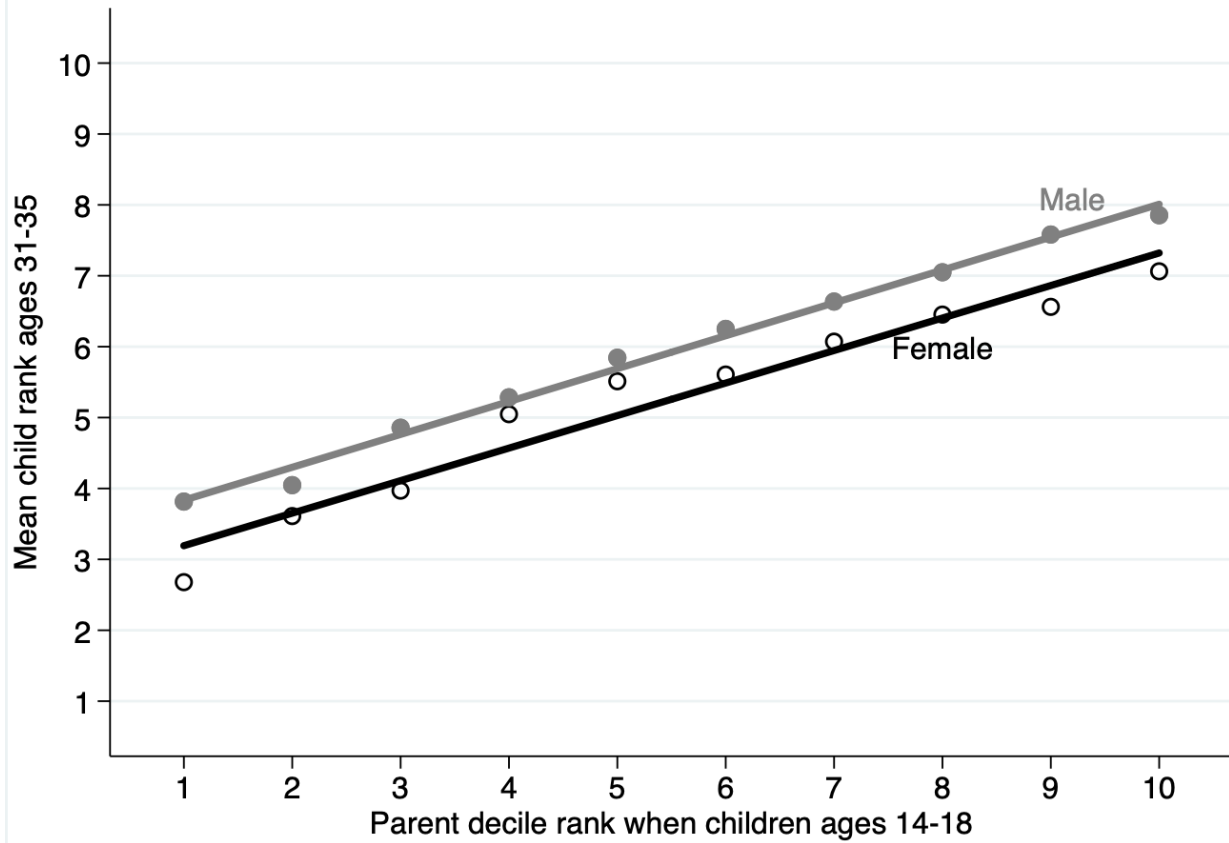
Results similar to Chetty, Hendren, Jones, and Porter (2021).



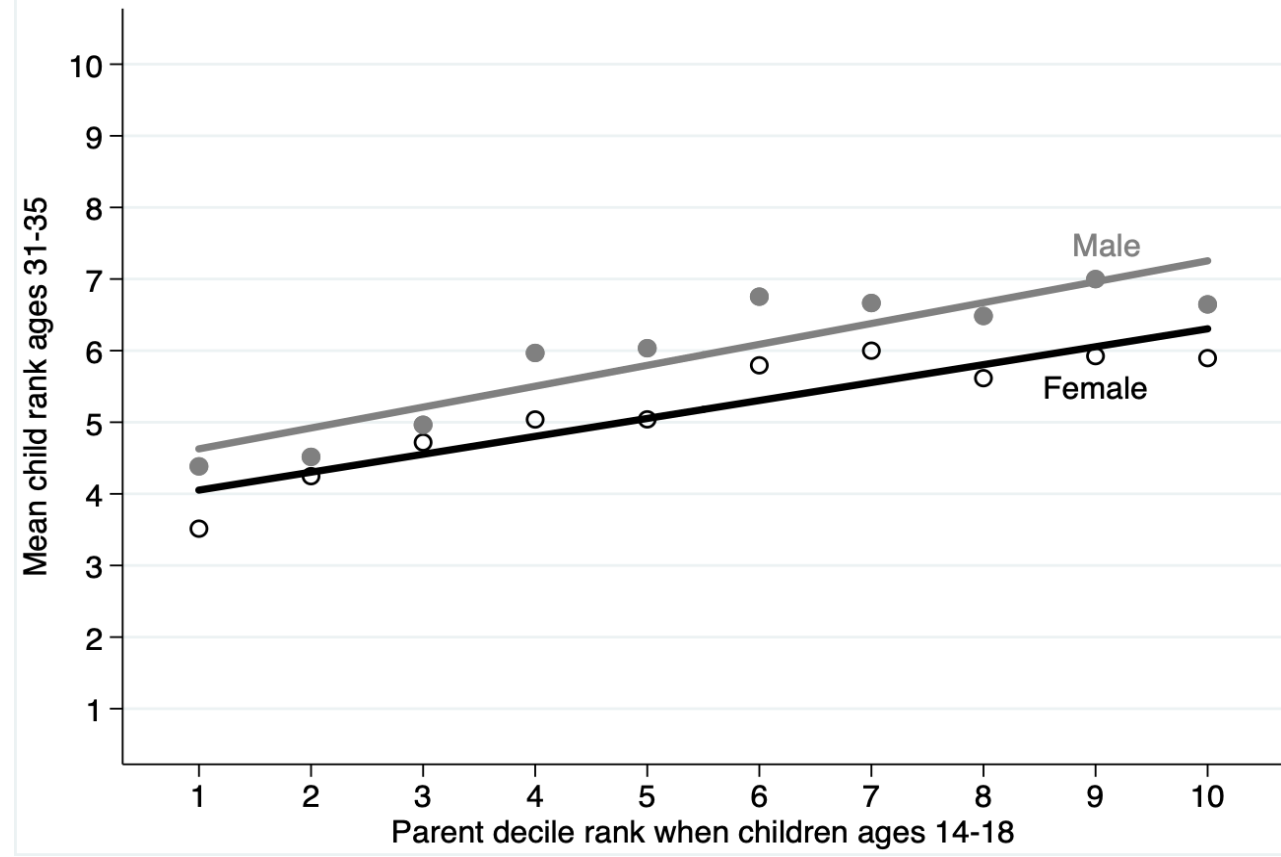
Boys have higher (absolute) mobility than girls



Income



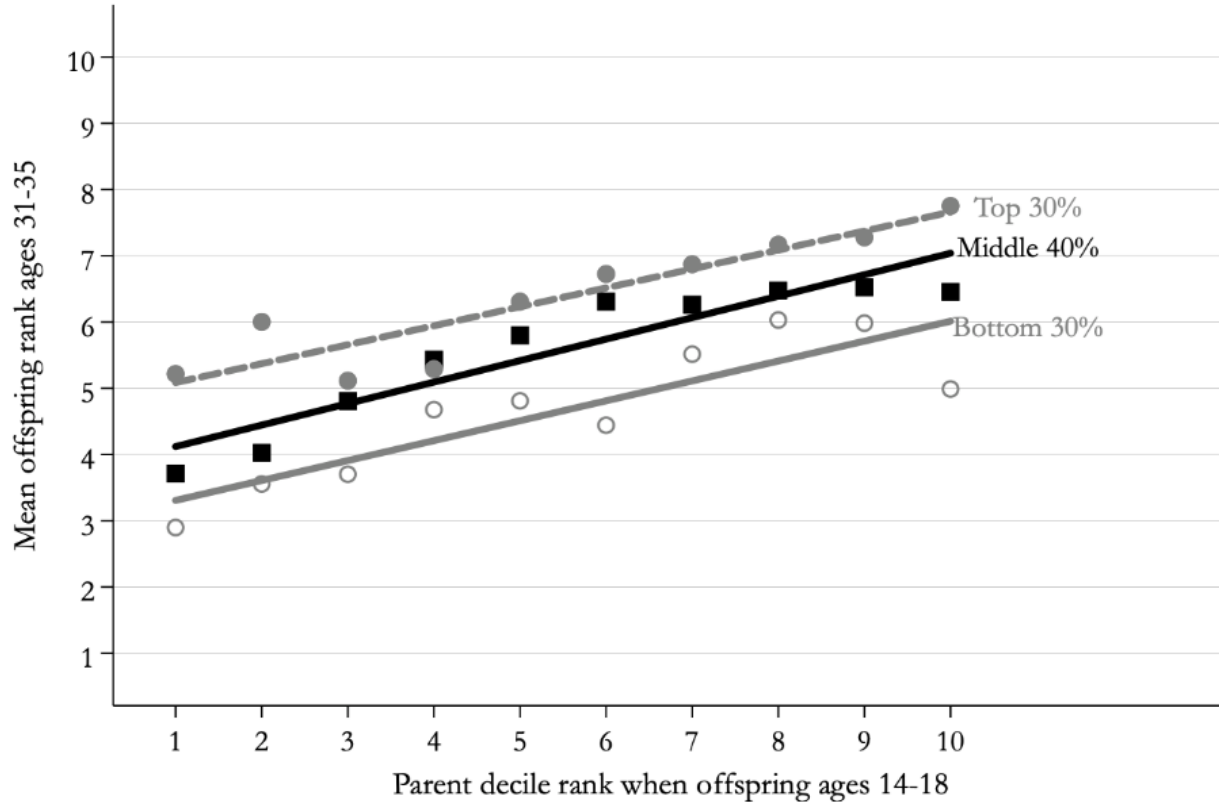
Wealth



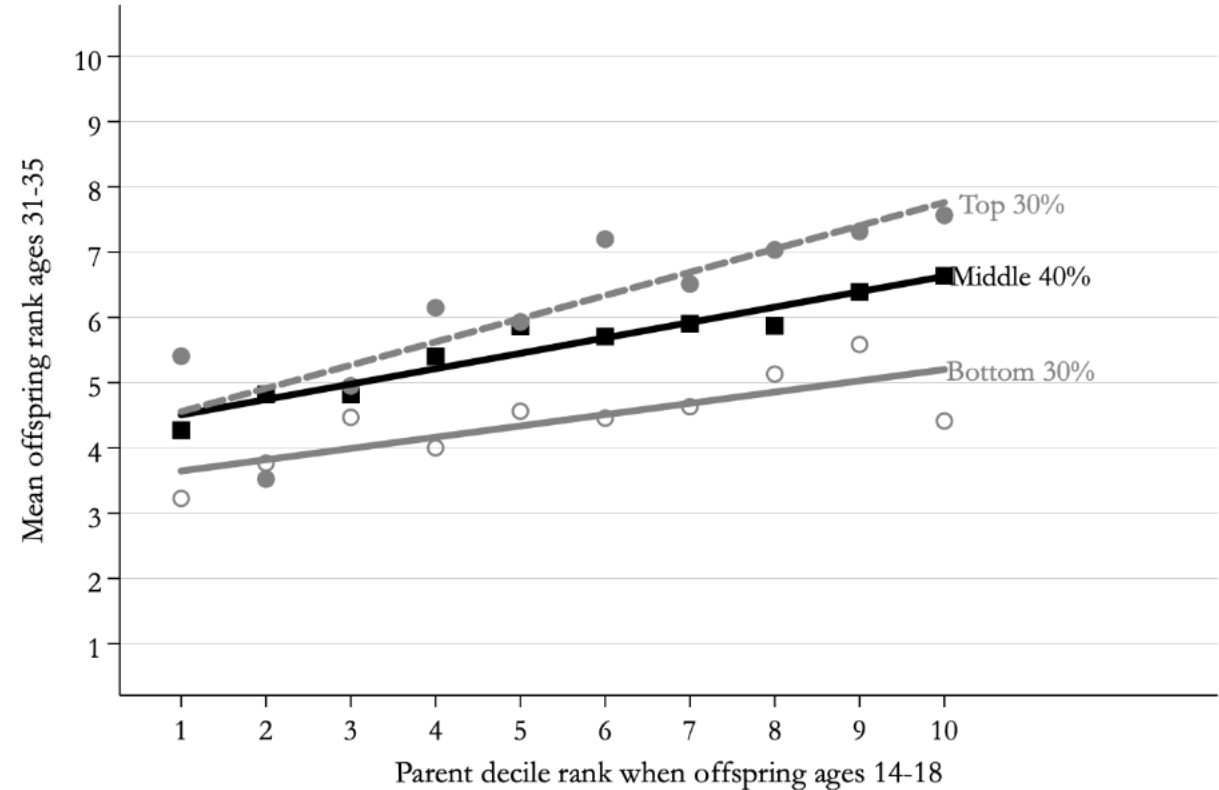
Higher Wealth leads to more (absolute) mobility



Income by Parental Wealth



Consumption by Parental Wealth



- Panel: *An Integrated System of U.S. Household Income, Consumption, and Wealth Data and Statistics to Inform Policy and Research* (Tim Smeeding, chair)
<https://www.nationalacademies.org/our-work/an-integrated-system-of-us-household-income-wealth-and-consumption-statistics-to-inform-policy-and-research>
- Panel will review the major income, consumption, and wealth statistics currently produced by U.S. statistical agencies, and provide guidance for modernizing the information to better inform policy and research (such as understanding trends in inequality and mobility).
 - Comprehensively document similarities and differences among the major series
 - Examine underlying concepts, types of income, consumption, or wealth, household and family definitions, data sources, sampling error (for surveys), non-sampling errors, timeliness of release, and geographic and population specificity.
 - Assess value of a fully integrated system of income, consumption, and wealth statistics to provide consistent macro-level statistics (e.g., total household or family income) and micro-level statistics (e.g., income for households in each quintile of the distribution).
 - Provide Recommendations regarding the relevance, accuracy, timeliness, geographic and population detail, and consistency of statistics on income, consumption and wealth.



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THANK YOU

[HTTPS://EQUITABLEGROWTH.ORG/WORKING-PAPERS/INTERGENERATIONAL-MOBILITY-USING-INCOME-CONSUMPTION-AND-WEALTH/](https://equitablegrowth.org/working-papers/intergenerational-mobility-using-income-consumption-and-wealth/)

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