A meta-analysis of the association between income inequality and intergenerational mobility

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Main question

- Is there an association between income inequality and intergenerational mobility?

- Income inequality: rising since the 1980s
  - Driven mostly by increased wages for highly educated workers and top earners

- Intergenerational mobility
  - Degree to which conditions at birth and childhood determine situation later in life (Roemer et al. 2003)
  - Indicates whether there is less mobility for children of low-income parents

Great Gatsby curve

- Cross-country correlation between intergenerational mobility and income inequality (Corak 2013, Corak et al. 2014, Krueger 2012, OECD 2011, 2015)

- Measuring intergenerational mobility
  - Refers to how much income of children (when adults) is determined by income of parents

- Intergenerational income elasticity (IGE)
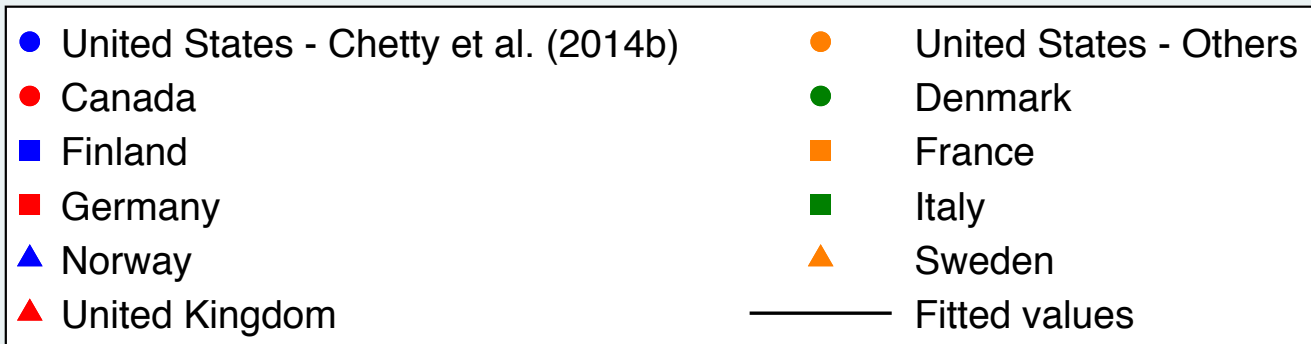 - Estimated from regression of child income to parental income (in logs)
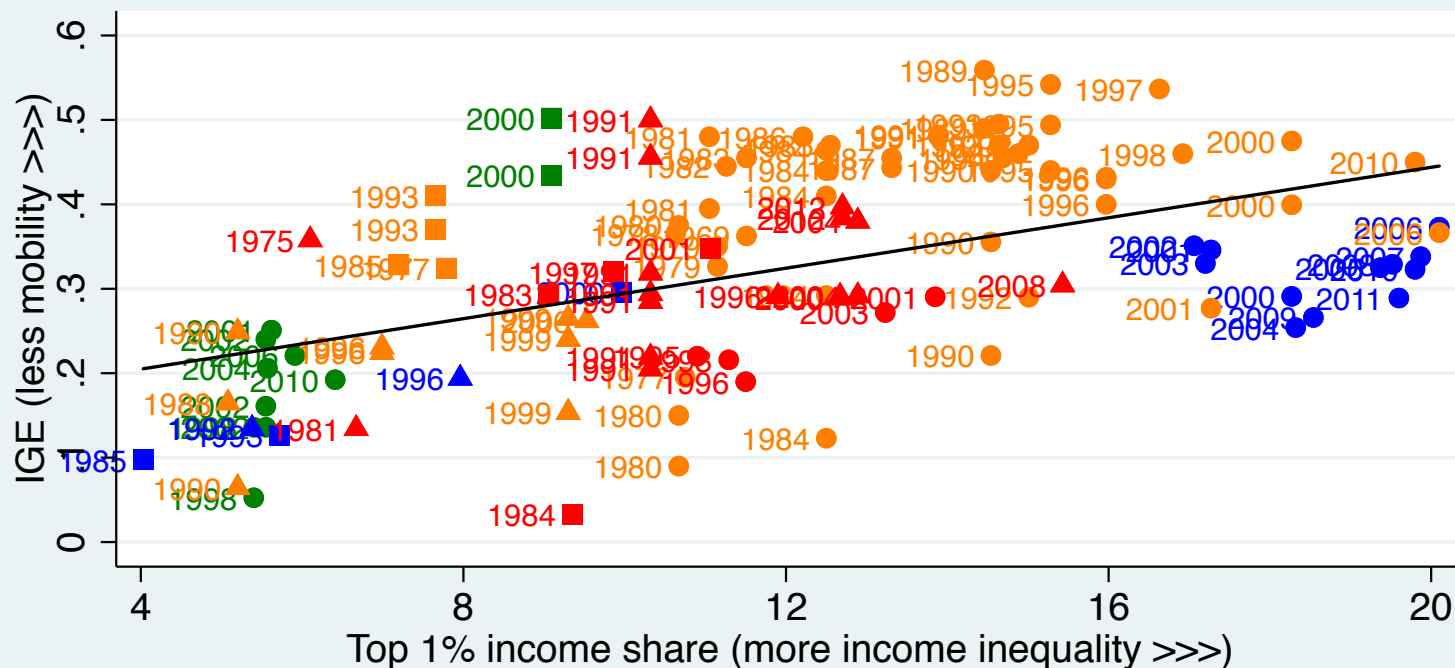
Great Gatsby curve: IGE & Gini
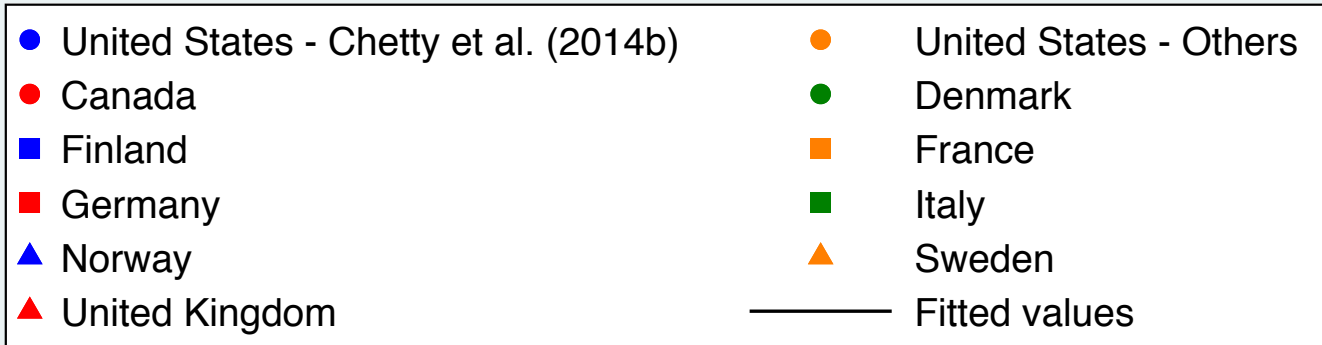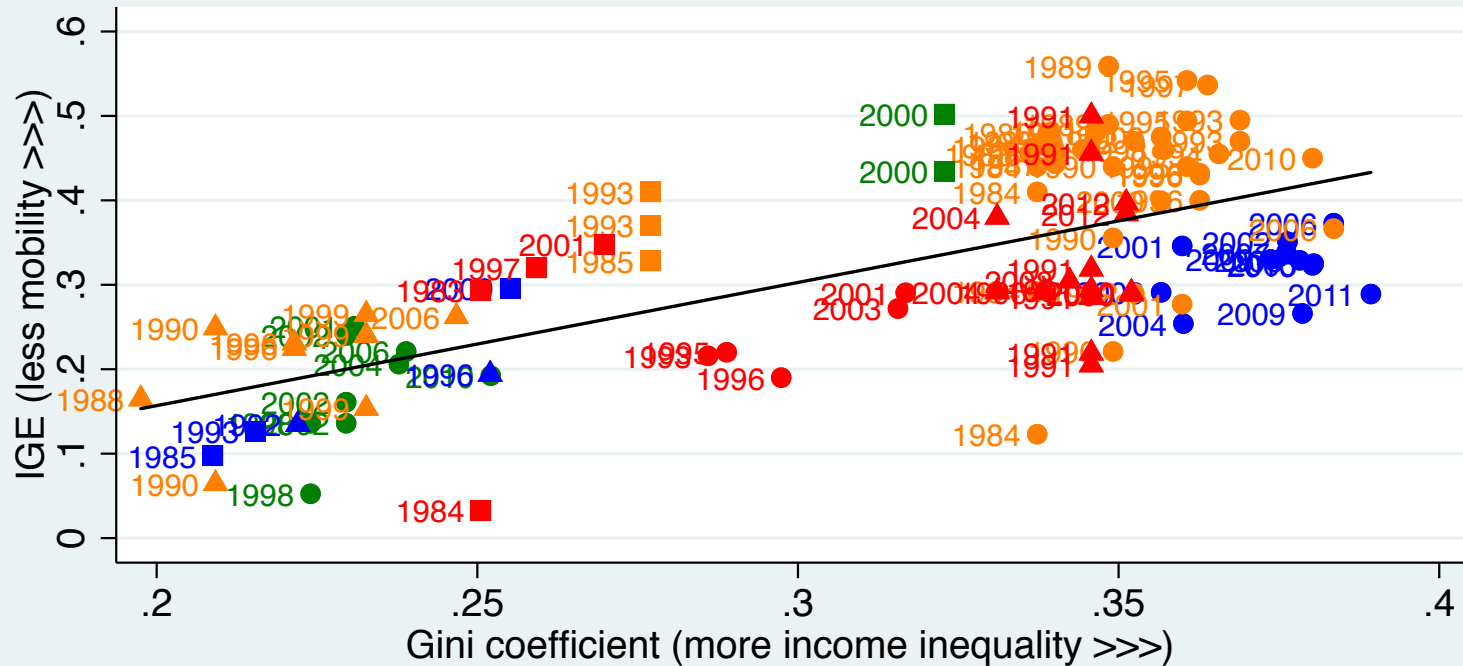
Correlation=0.666 (p=0.000; p=0.001 when clustering standard errors by study)

Great Gatsby curve: IGE & Top 1%

Correlation=0.514 (p=0.000; p=0.006 when clustering standard errors by study)

Further questions

- Do different measures of income inequality yield different results?
  - Gini coefficient
  - Top 1% income share

- Does the methodology used in estimating IGE influence these associations?

- Does within country (across time) changes in inequality also relate to changes in IGE?
  - This can be seen as a panel data version of the Great Gatsby curve (Chetty et al. 2014a, 2014b)

Great Gatsby curve across time
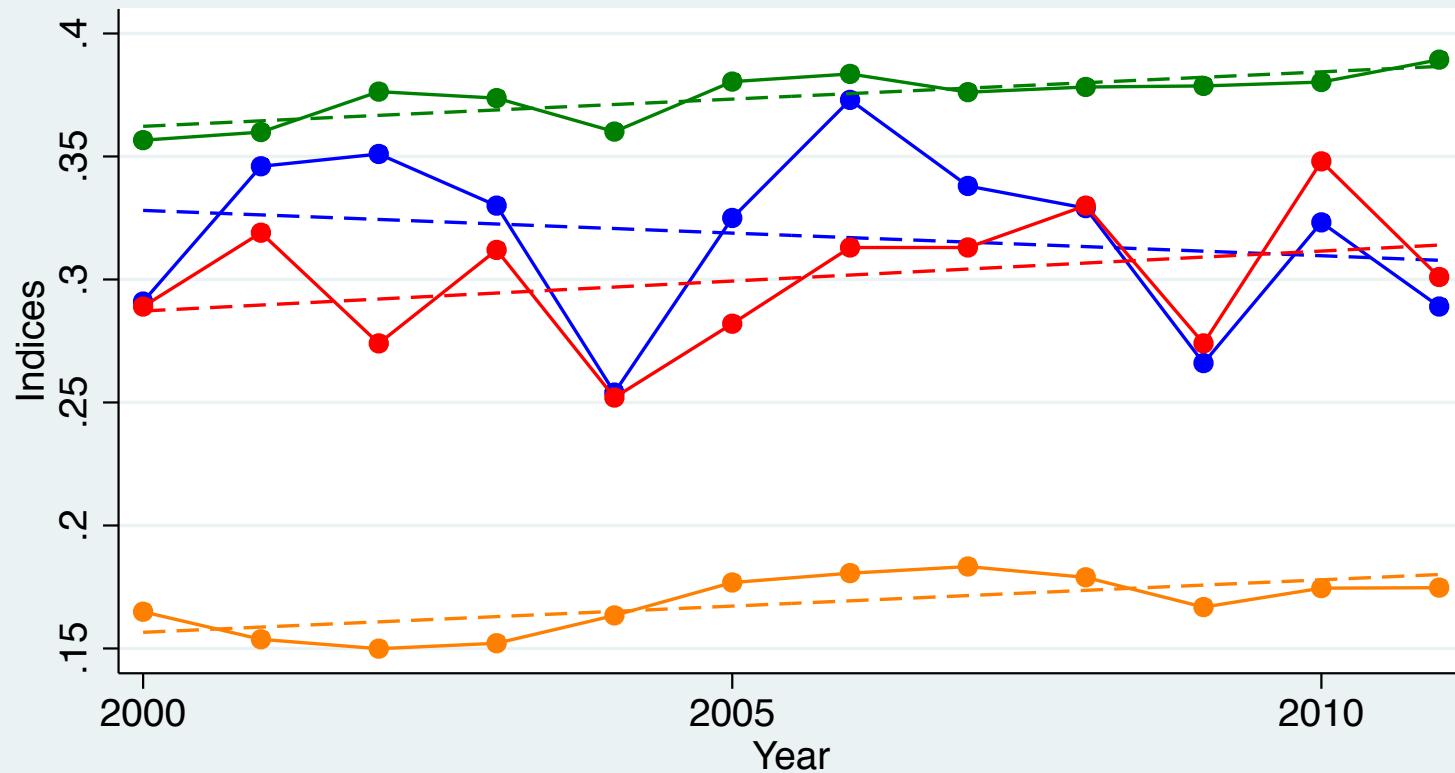
Source: Chetty et al. 2014b.

Meta-analysis

- IGE is derived from research studies
  - No official and comparable statistics

- This approach allows us to control for differences in methodology and context

- Causality is hard to establish
  - Indicators are results of complex social and economic outcomes

- We analyze correlations across countries and time, as well as within countries

Data for OLS models

- Dependent variable: intergenerational mobility (IGE)
  - Studies about Canada, Denmark, Finland, France, Germany, Italy, Norway, Sweden, United Kingdom, United States

- Independent variable: income inequality
  - Gini coefficient (Organisation for Economic Co-operation and Development)
  - Top 1% income share (World Top Income Database)

- Control variables
  - Children's earnings: male, female, both
  - Parents' earnings: father, mother, both
  - Number of years of parental earnings
  - Age of children and parents
  - Type of children's earnings: individual, family
  - Country and paper fixed effects

IGE & Gini coefficient

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gini coefficient	1.434*** (0.099)	1.682*** (0.123)	1.144** (0.456)	1.059* (0.542)	1.439*** (0.178)	0.857 (0.736)
Children's earnings		X		X		X
Parents' earnings		X		X		X
# years of earnings		X		X		X
Age of children		X		X		X
Age of parents		X		X		X
Type of earnings		X		X		X
Country			X	X		X
Paper					X	X
R^2	0.377	0.535	0.533	0.622	0.720	0.760
Adjusted R^2	0.375	0.519	0.519	0.598	0.679	0.708
Observations	347	347	347	347	347	347

*** Significant at $p<0.01$. ** Significant at $p<0.05$. * Significant at $p<0.1$.

Source: OECD and mobility measures from a series of studies.

IGE & Top 1% income share

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Top 1% income share	0.016*** (0.002)	0.017*** (0.002)	0.006** (0.002)	0.004 (0.004)	0.020*** (0.003)	0.023*** (0.006)
Children's earnings		X		X		X
Parents' earnings		X		X		X
# years of earnings		X		X		X
Age of children		X		X		X
Age of parents		X		X		X
Type of earnings		X		X		X
Country			X	X		X
Paper					X	X
R^2	0.115	0.246	0.281	0.339	0.460	0.486
Adjusted R^2	0.114	0.229	0.268	0.313	0.406	0.414
Observations	554	554	554	554	554	554

*** Significant at $p<0.01$. ** Significant at $p<0.05$. * Significant at $p<0.1$.
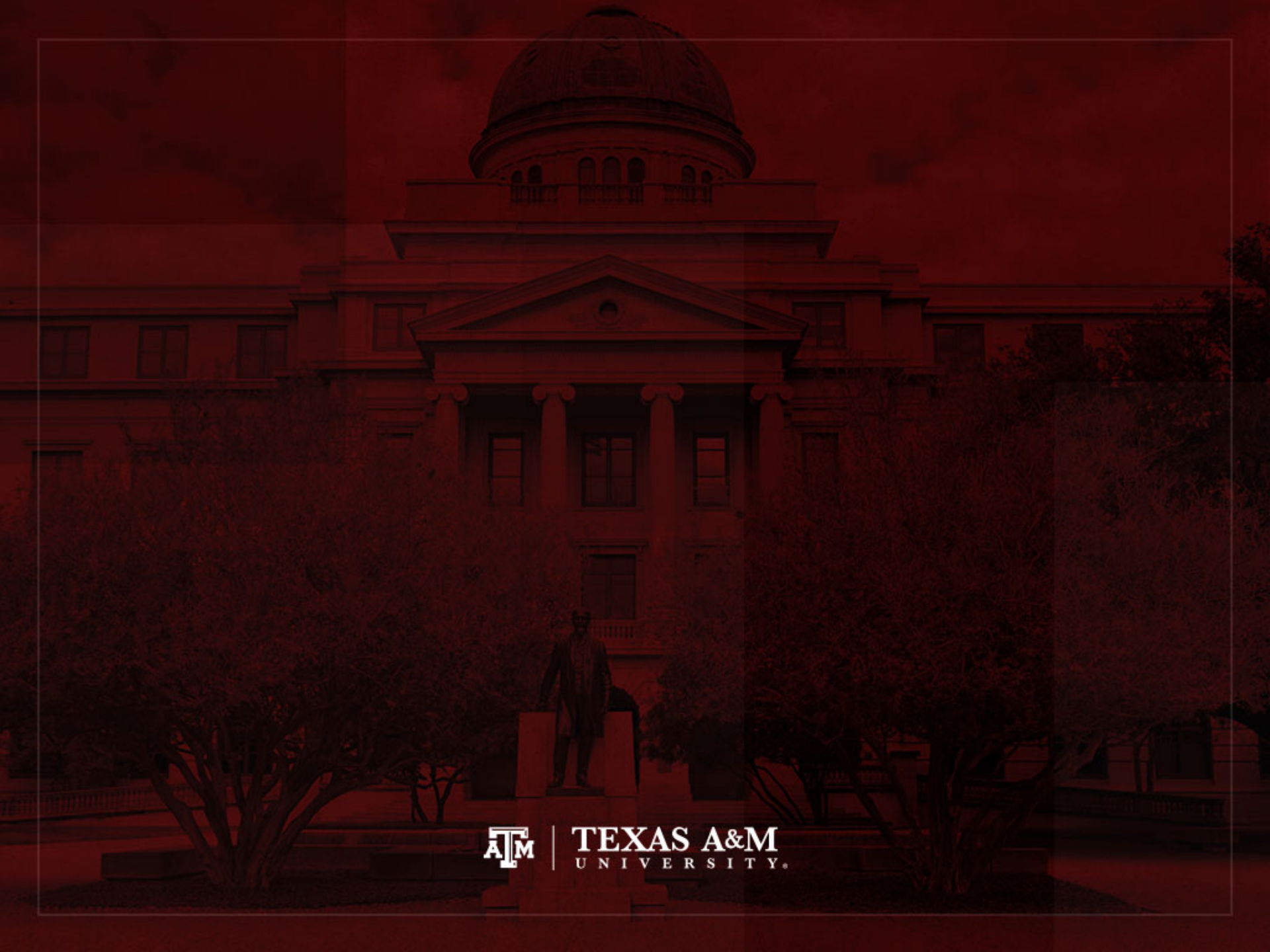
Standardized coefficients

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gini coefficient	0.614***	0.720***	0.490**	0.454*	0.617***	0.367
Top 1% income share	0.340***	0.362***	0.129**	0.082	0.428***	0.489***
Control variables		Methods	Country	Methods Country	Paper	Methods Country Paper

*** Significant at $p<0.01$. ** Significant at $p<0.05$. * Significant at $p<0.1$.

Final considerations

- **<u>Across countries</u>**, there is a correlation between income inequality and intergenerational mobility
  - Stronger bivariate associations with the Gini coefficient

- **<u>Across time and within countries</u>**, inequality does not always have significant correlations with mobility
  - In models controlled for methods, country, and paper, there is no significant correlation with the Gini coefficient

- Drivers of cross-country variations in income inequality may be different than drivers of within-country variations
  - Recent increases in inequality at the top of the distribution (top 1% income share) might be negatively affecting mobility
  - Instead of variations across the income distribution (Gini coefficient)