

# Intergenerational mobility around the world

**Roy van der Weide**

Empirical research underpinning “Fair Progress?” report, co-led with Ambar Narayan

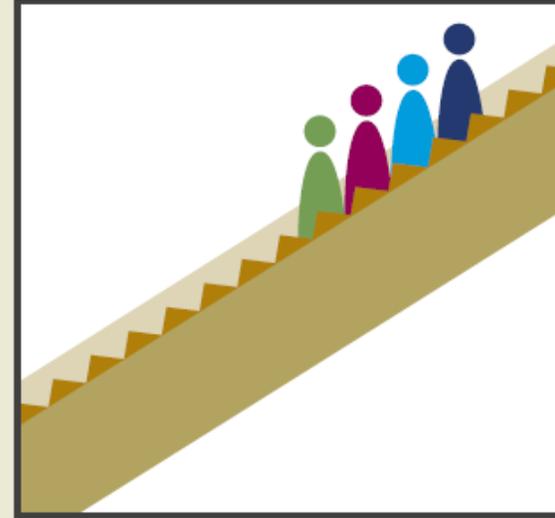
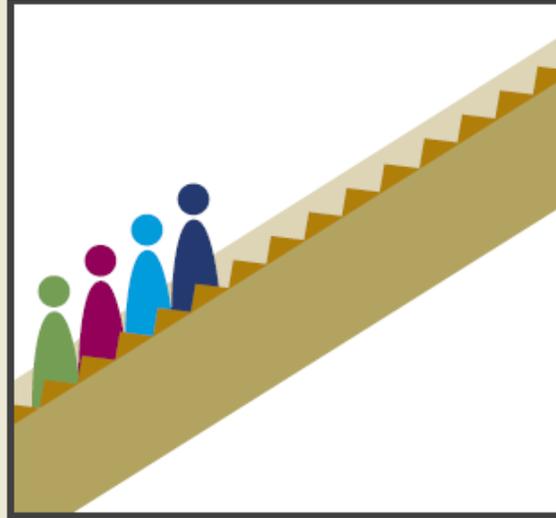
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Rakesh G. N. Ramasubbaiah, Stefan Thewissen

Policy Research Talk, May 22, 2018

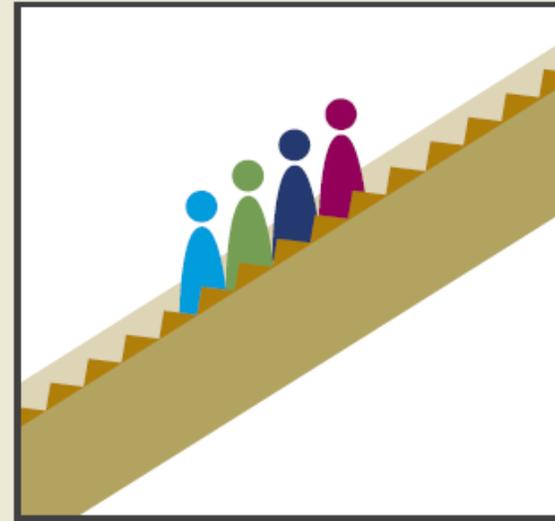
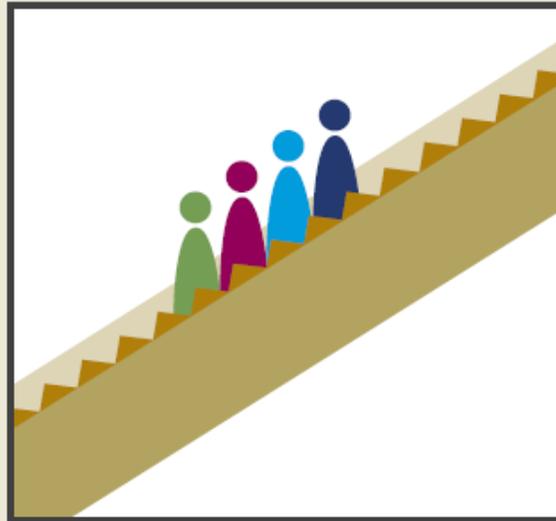
Parents

Offspring

**Absolute upward  
intergenerational mobility**  
Offspring are  
better off than their parents



**Relative intergenerational  
mobility**  
Offspring of parents  
who are relatively poor  
can become middle class  
or upper class  
among their generation



# Motivation & objectives

- **Fairness argument:** When (relative) mobility is low, individuals are not operating on a level playing field
- **Economic argument:** Low mobility yields a waste of human capital, as talented individuals may not be given the opportunity to reach their full potential
- **Objectives:** Provide estimates of mobility on a global scale and identify factors associated with higher mobility to draw implications for policy

# Measures of mobility used

## Absolute mobility:

The share of adults with more education than (max) parental education

## Relative mobility:

*Intergenerational persistence (regression coefficient):* Impact of one more year of parental education on offspring's expected years of education

*Correlation:* Correlation b/w adult's years of schooling and (max) parental years of schooling

## Transition matrix based measures:

	Child: Lower half	Child : Top quarter
Parent: Lower half	Intergenerational "poverty"	"Poverty to privilege"
Parent: Top quarter	"Privilege to poverty"	Intergenerational "privilege"

# Global Database of Intergenerational Mobility

- **148 countries** representative of **96 percent** of the world's population
  - Largest study of intergenerational mobility previously covered 42 countries
- For 111 countries, estimates of mobility span a period of 5 decades: from those born in 1940s to those born in 1980s

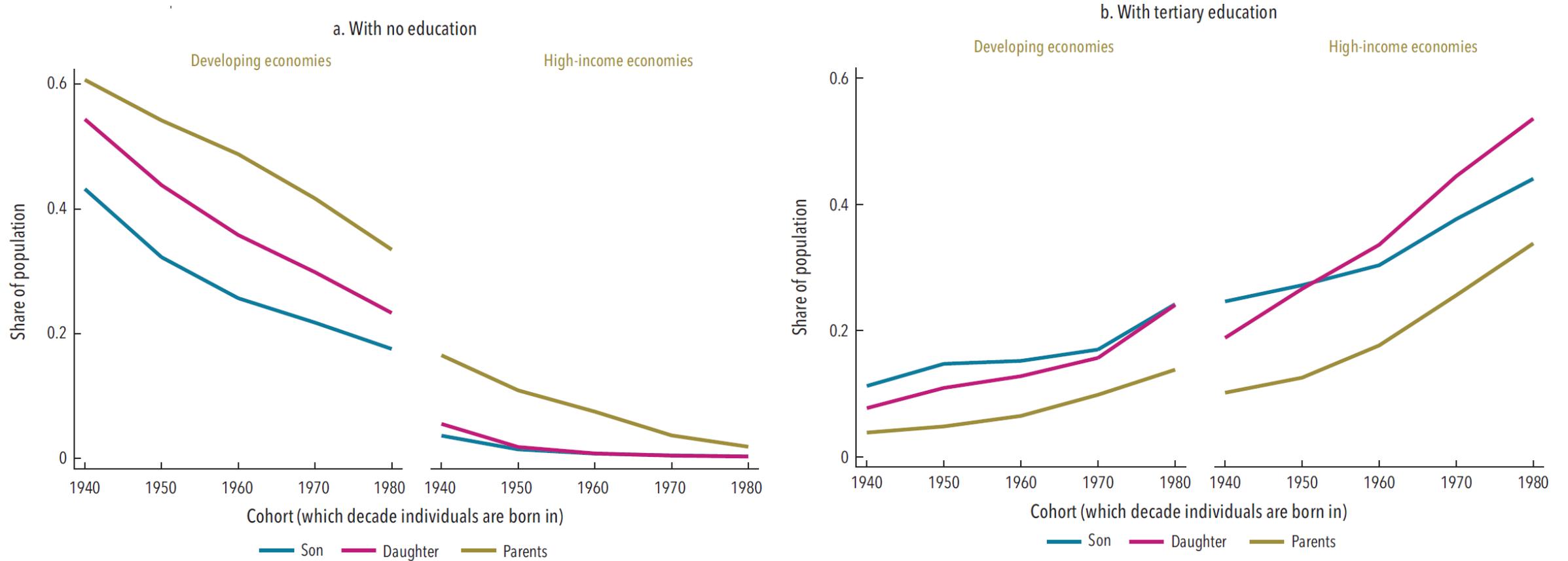
Income group, region	Number of economies covered		% of population covered	
	With retrospective data	Total	With retrospective data	Total
High-income economies	37	37	94	94
Developing economies	74	111	86	96
East Asia and the Pacific	8	16	92	96
Eastern Europe and Central Asia	20	20	99	99
Latin America and the Caribbean	16	16	96	96
Middle East and North Africa	5	10	49	81
South Asia	5	8	89	100
Sub-Saharan Africa	20	41	72	95
Total	111	148	87	96

# Key findings

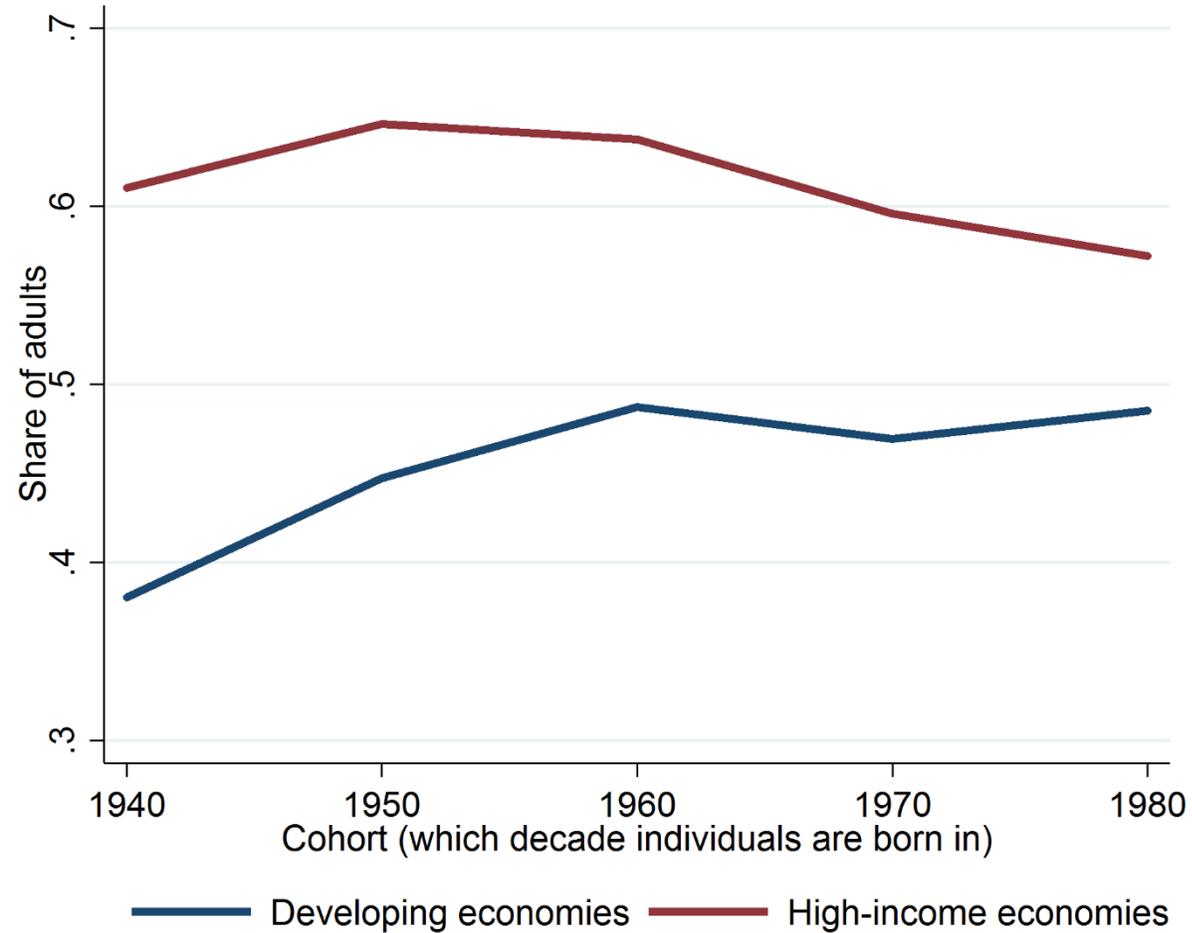
- Mobility, both absolute and relative, is on the average lower in developing countries than in high-income countries
- Girls, while historically disadvantaged, are becoming more upwardly mobile than boys
- Public investments are associated with enhanced mobility

# Clear signs of progress, but is it fair...?

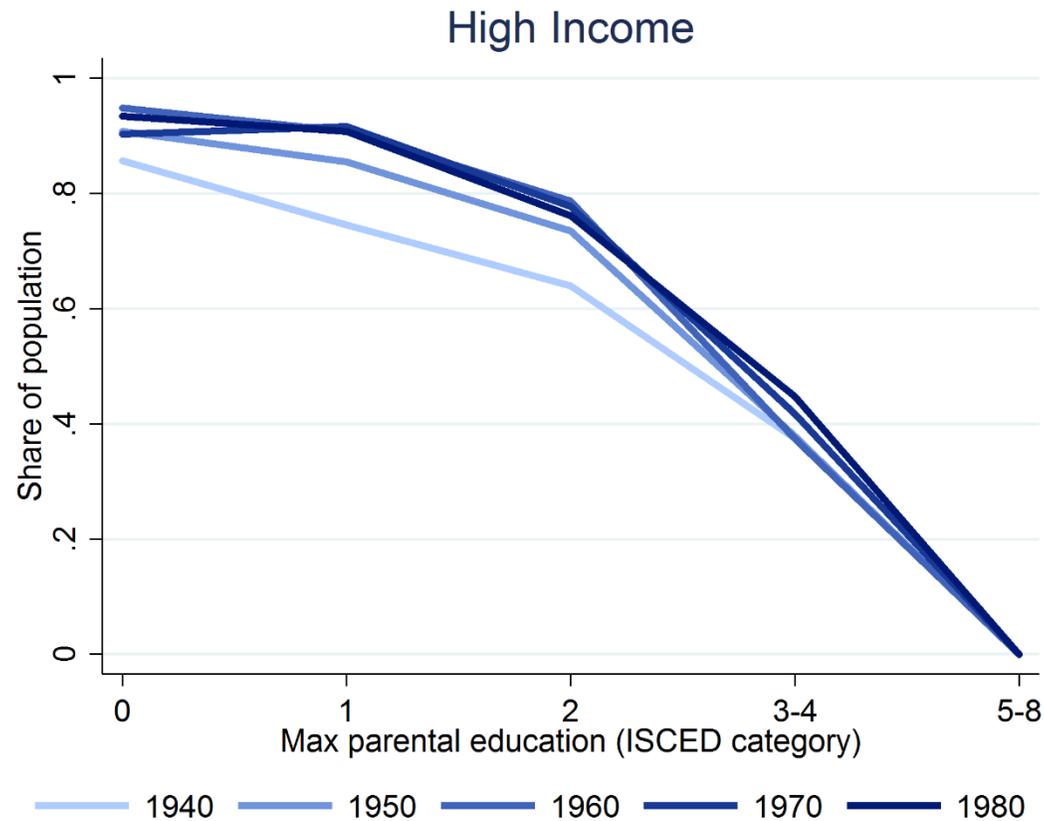
## Share of population with different educational attainment



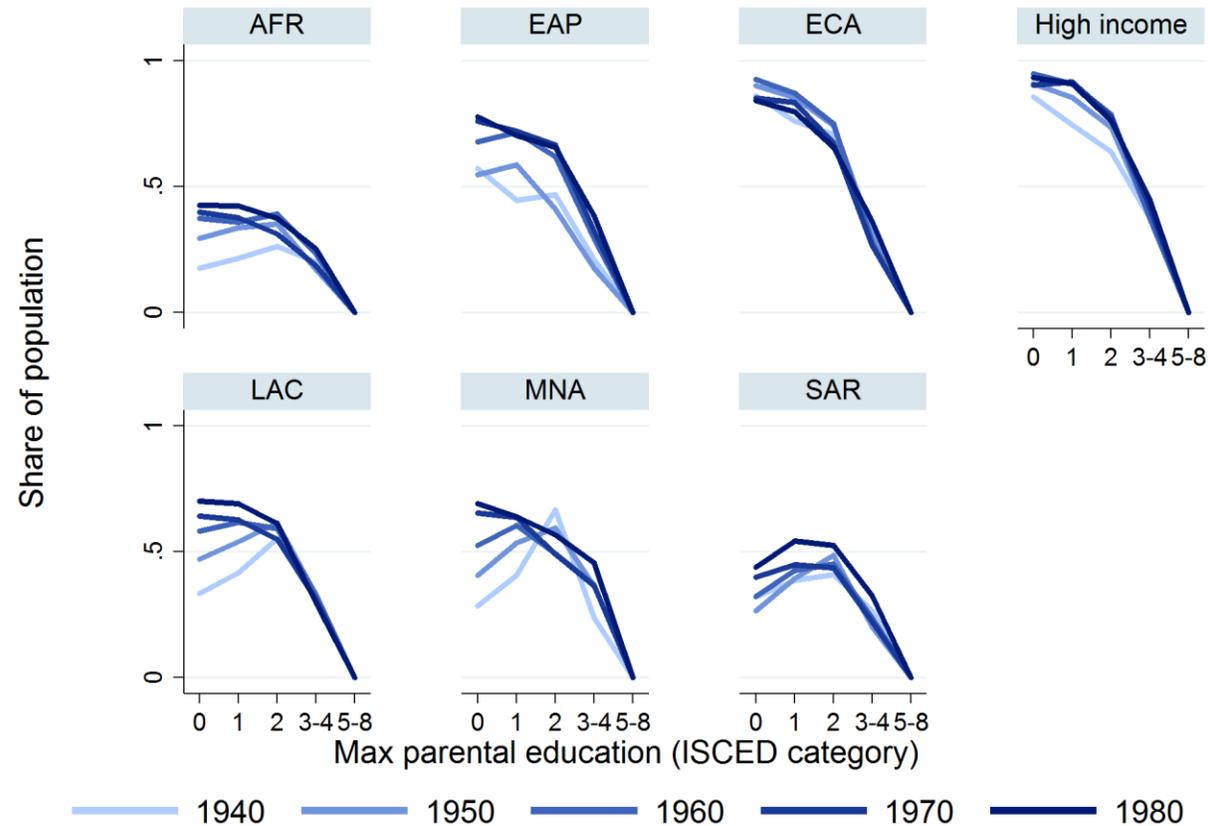
# Absolute mobility is lower in developing countries



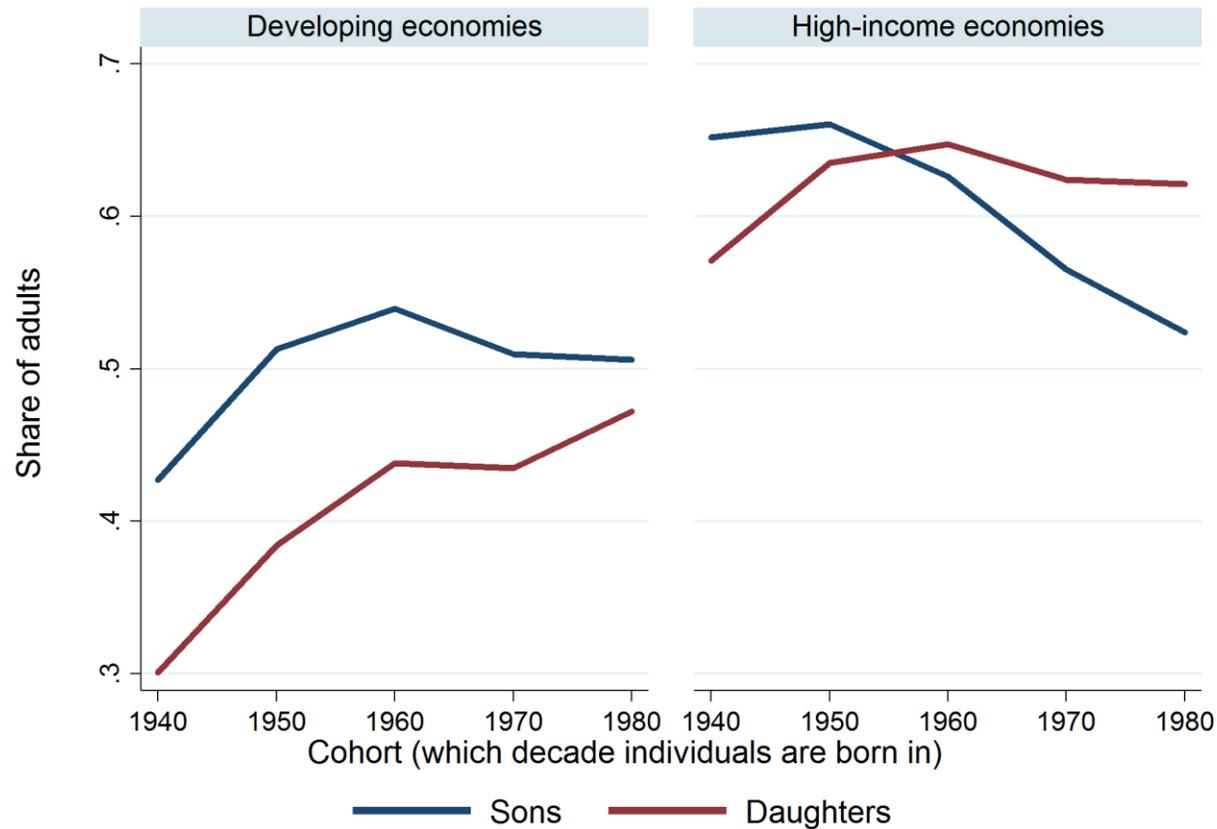
# Harder to surpass more educated parents...



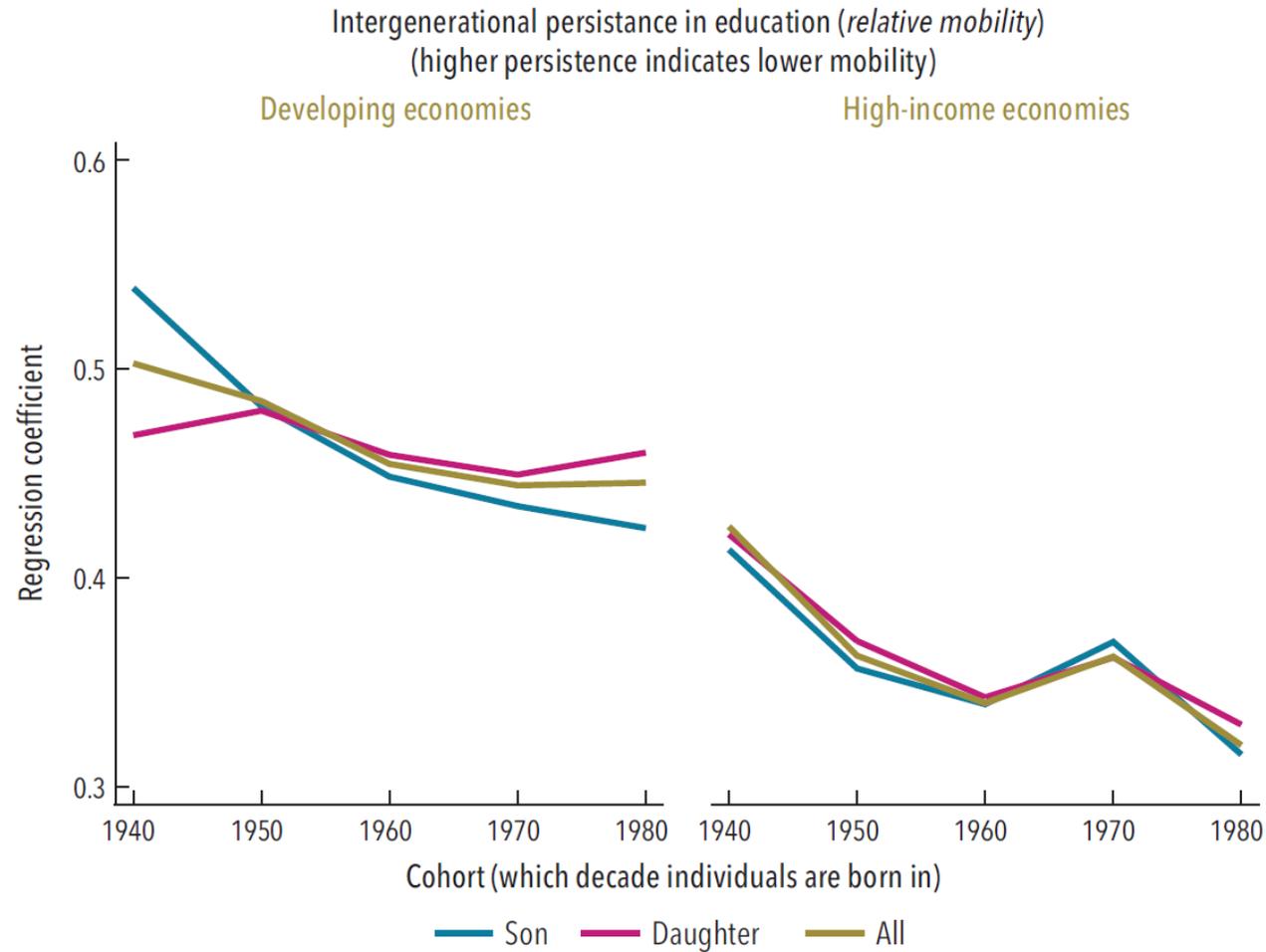
# Also hard to get an education when poor...



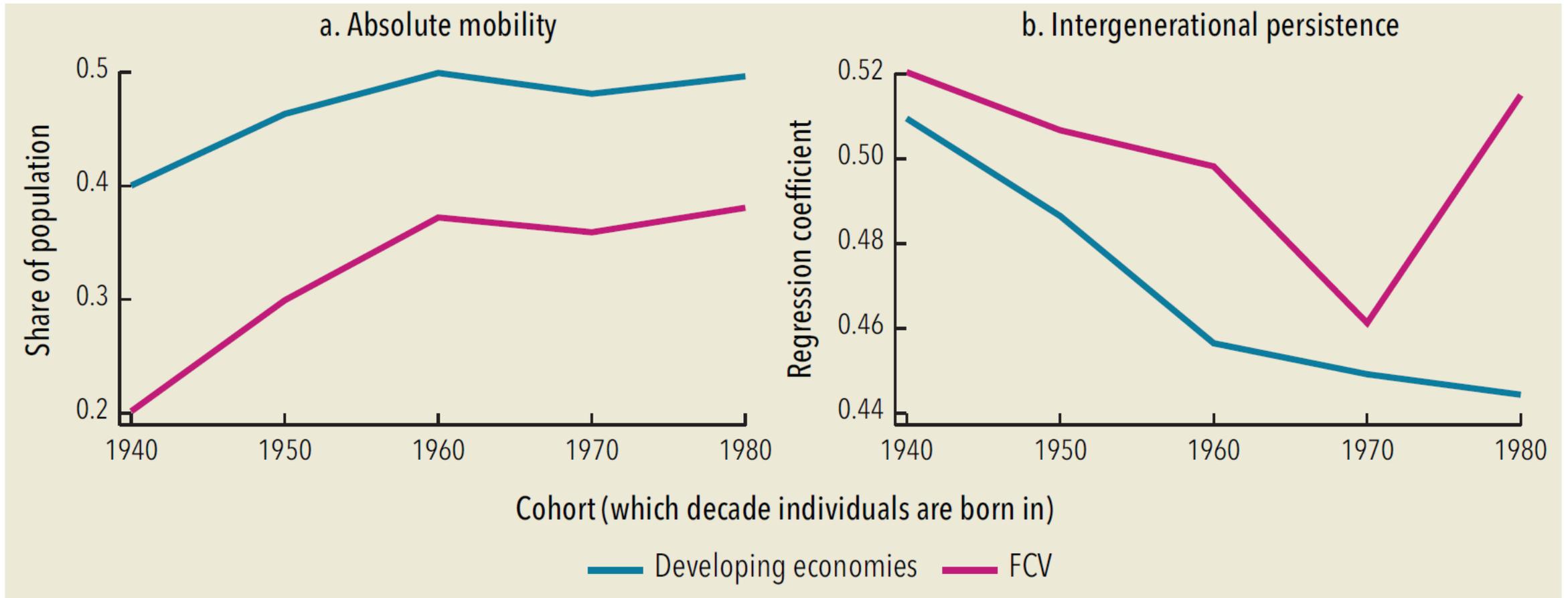
# Daughters are becoming more upwardly mobile than sons



# Relative mobility is lower in developing countries

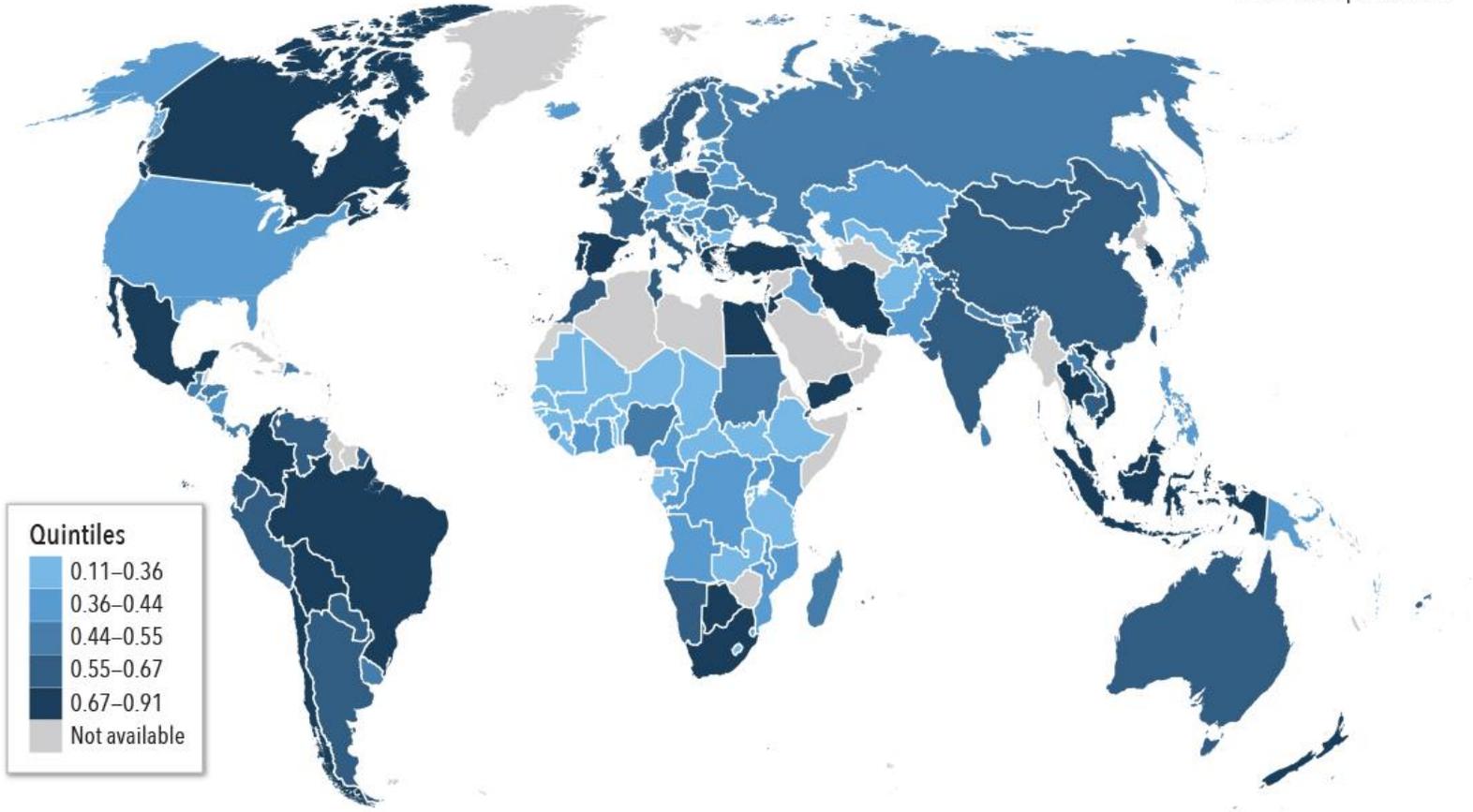


# Mobility in FCV countries is lower still



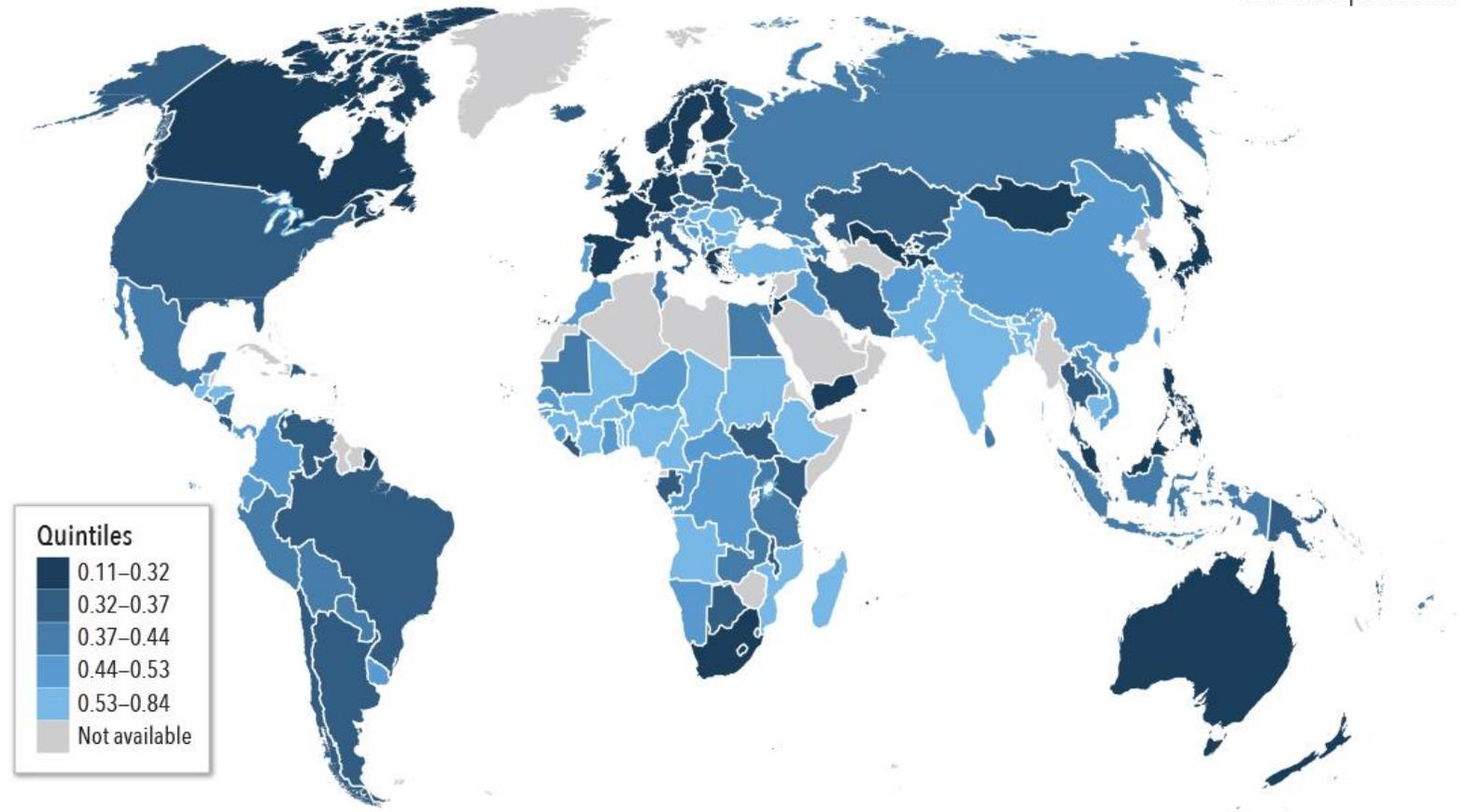
# Absolute mobility around the world

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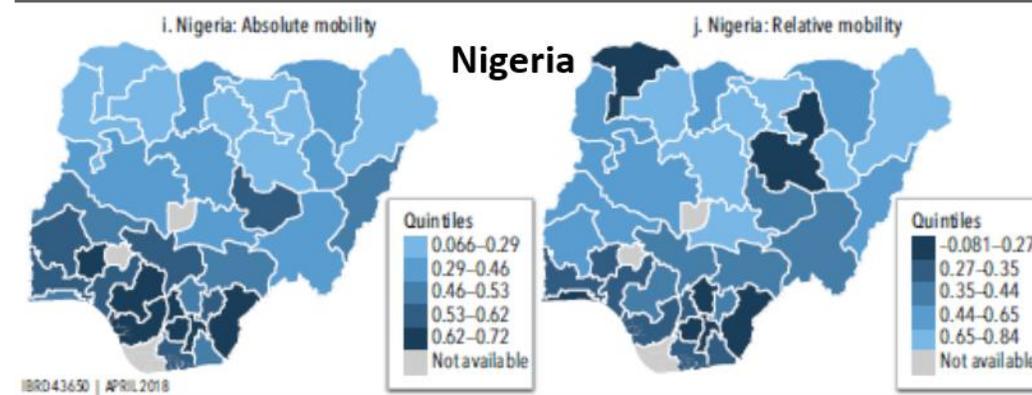
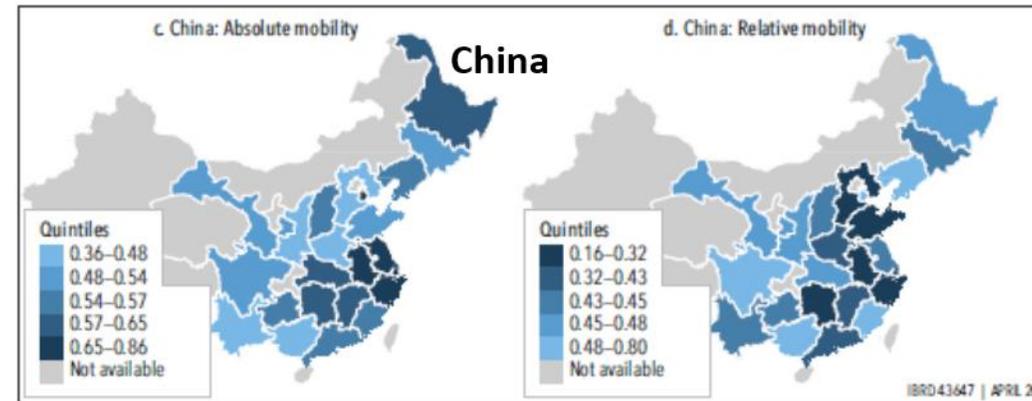
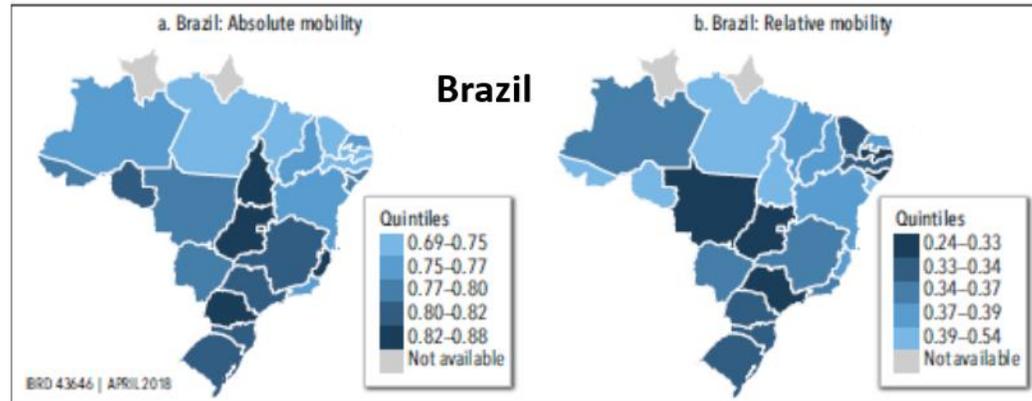
# Relative mobility around the world

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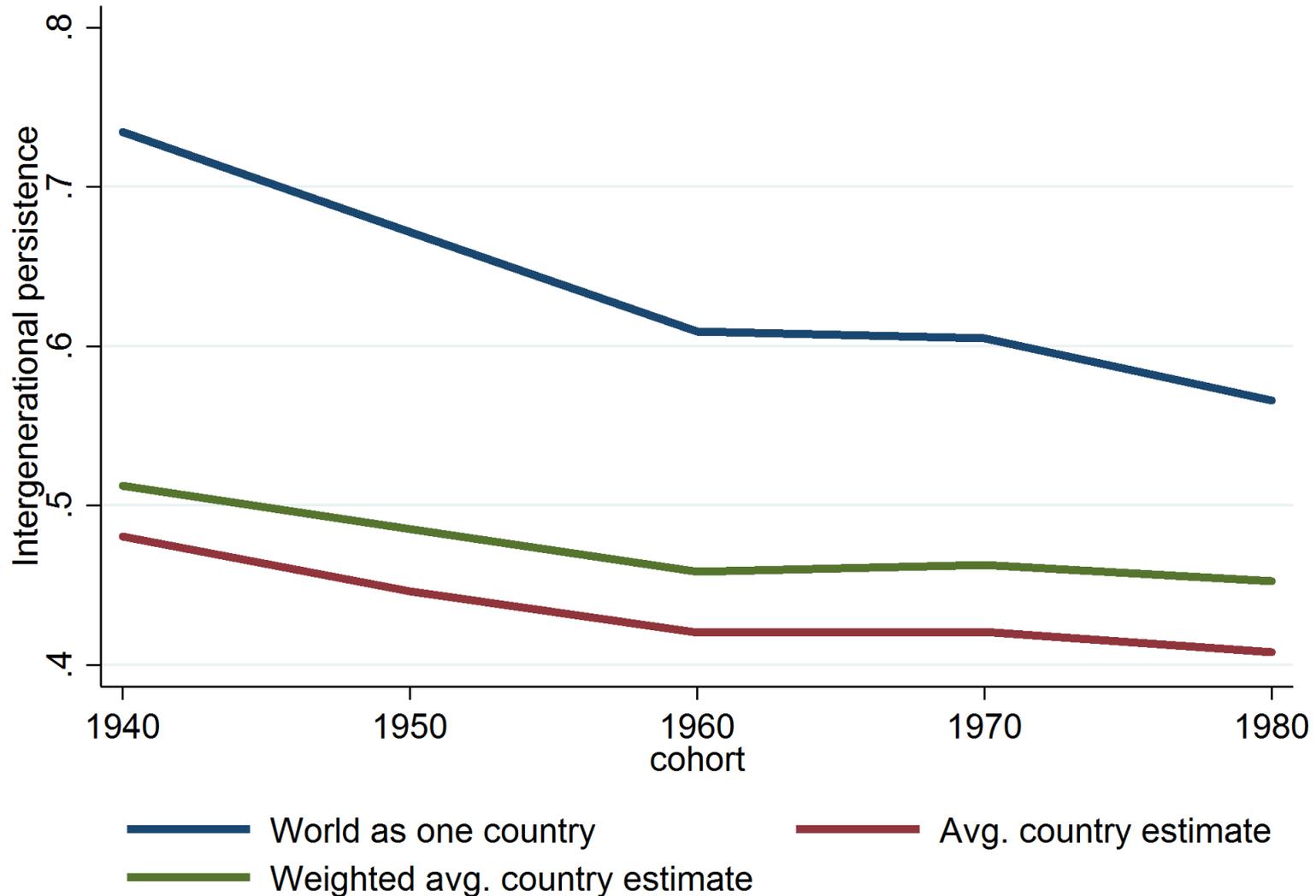
## Absolute IGM

## Relative IGM

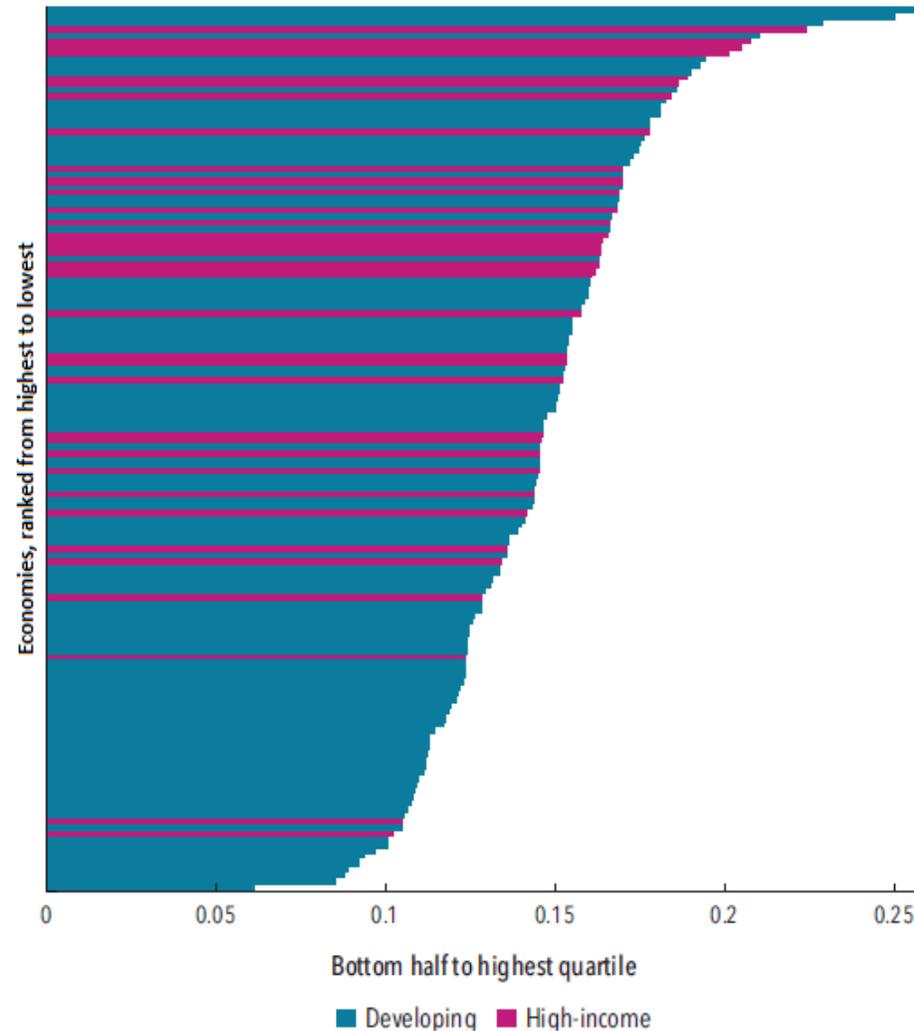


Darker colors → higher mobility

# The world as a whole is very immobile



Relative upward mobility is low everywhere...  
...particularly in developing countries



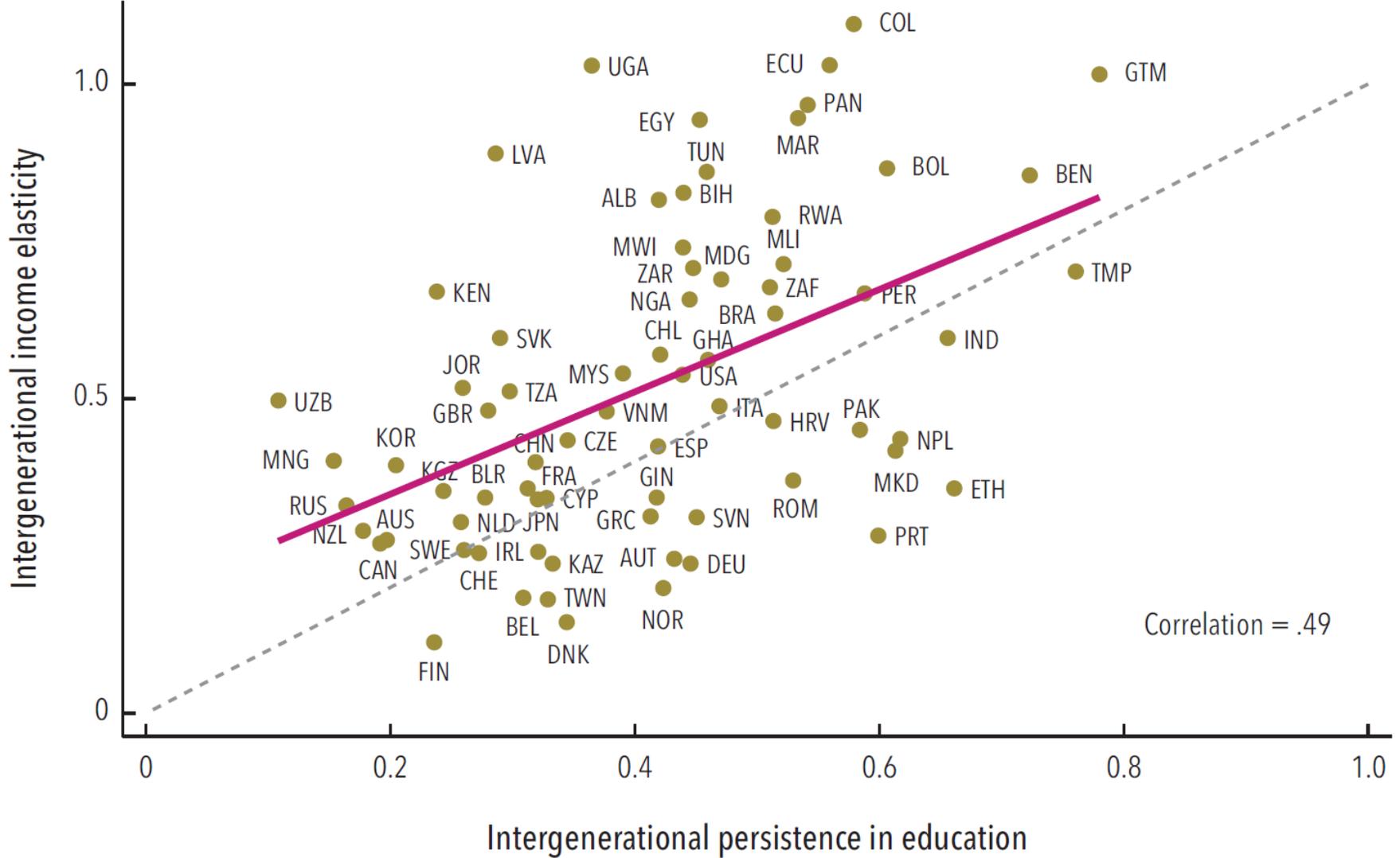
# Daughters' upward mobility is on the rise



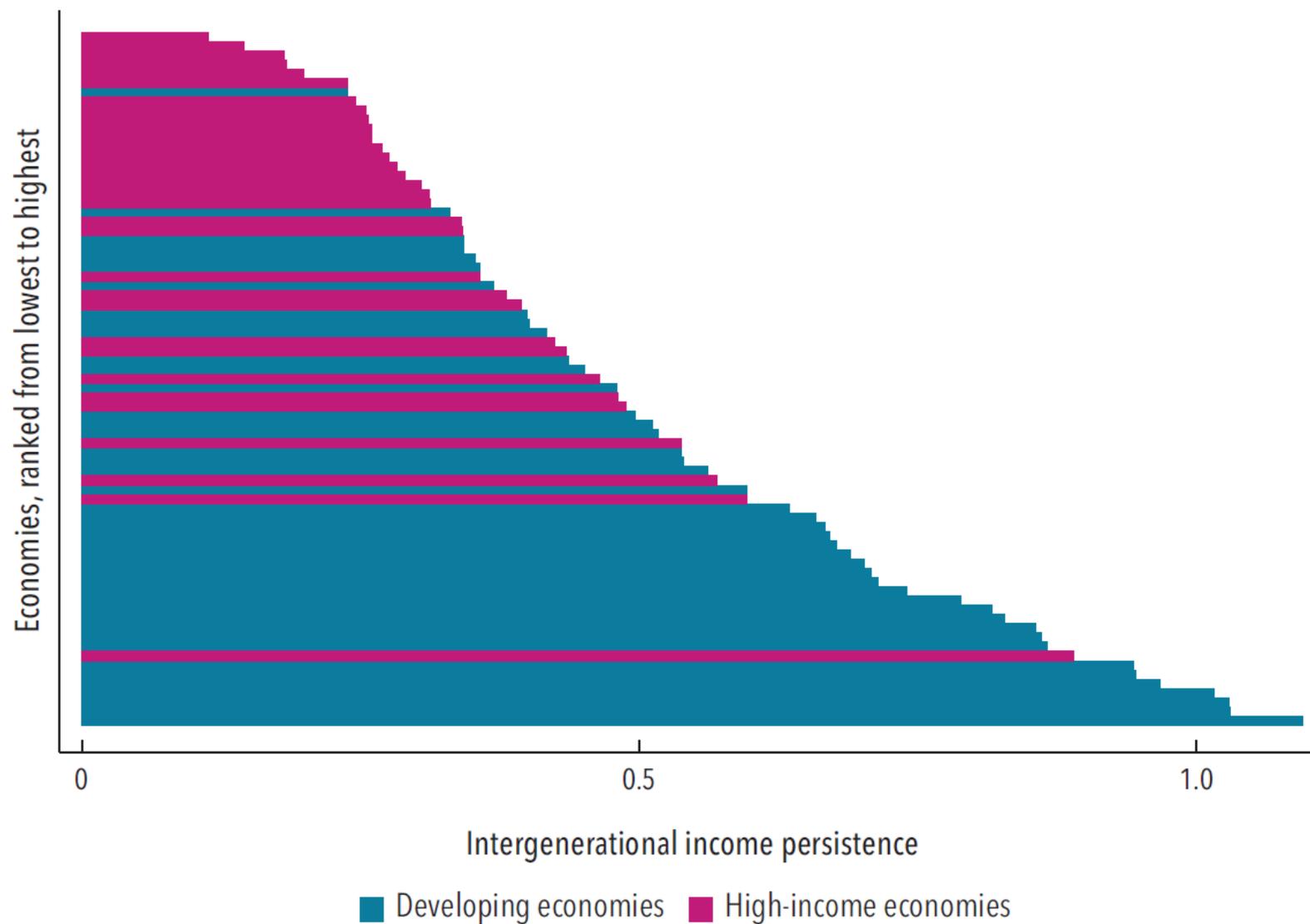
# Estimates of income mobility for 75 countries

- GDIM includes estimates of income mobility for 75 countries
- Estimates for 42 countries are borrowed from existing literature
- Estimates for remaining 33 countries are obtained by authors
- Using Two-Sample Two-Stage Least-Squares (TSTSLS) estimation

# Income mobility versus education mobility

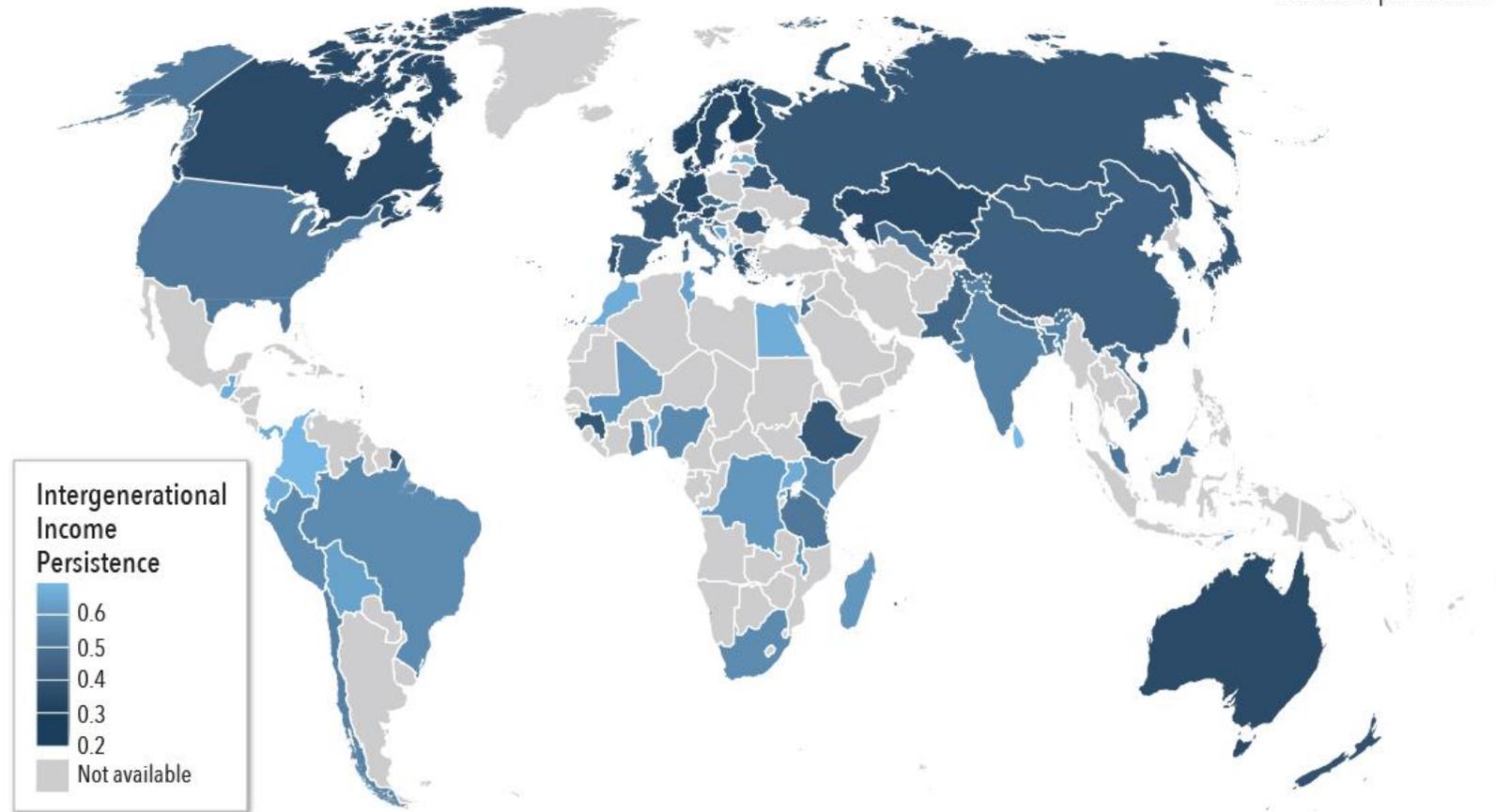


# Income mobility too is low in developing world



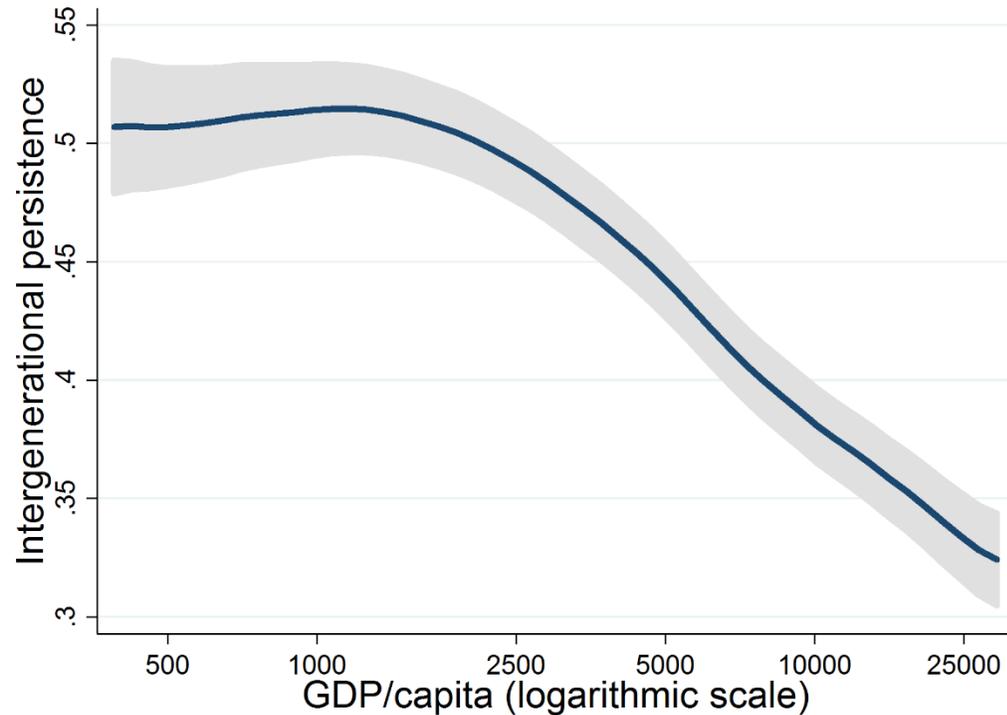
# Relative income mobility around the world

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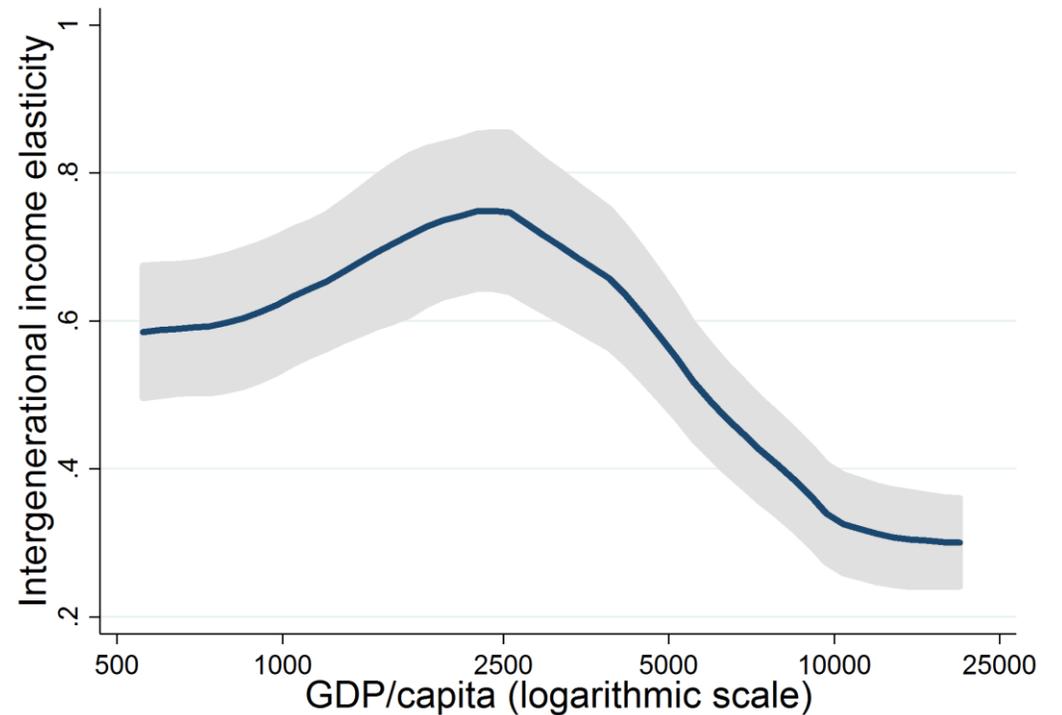


# Mobility increases with national income

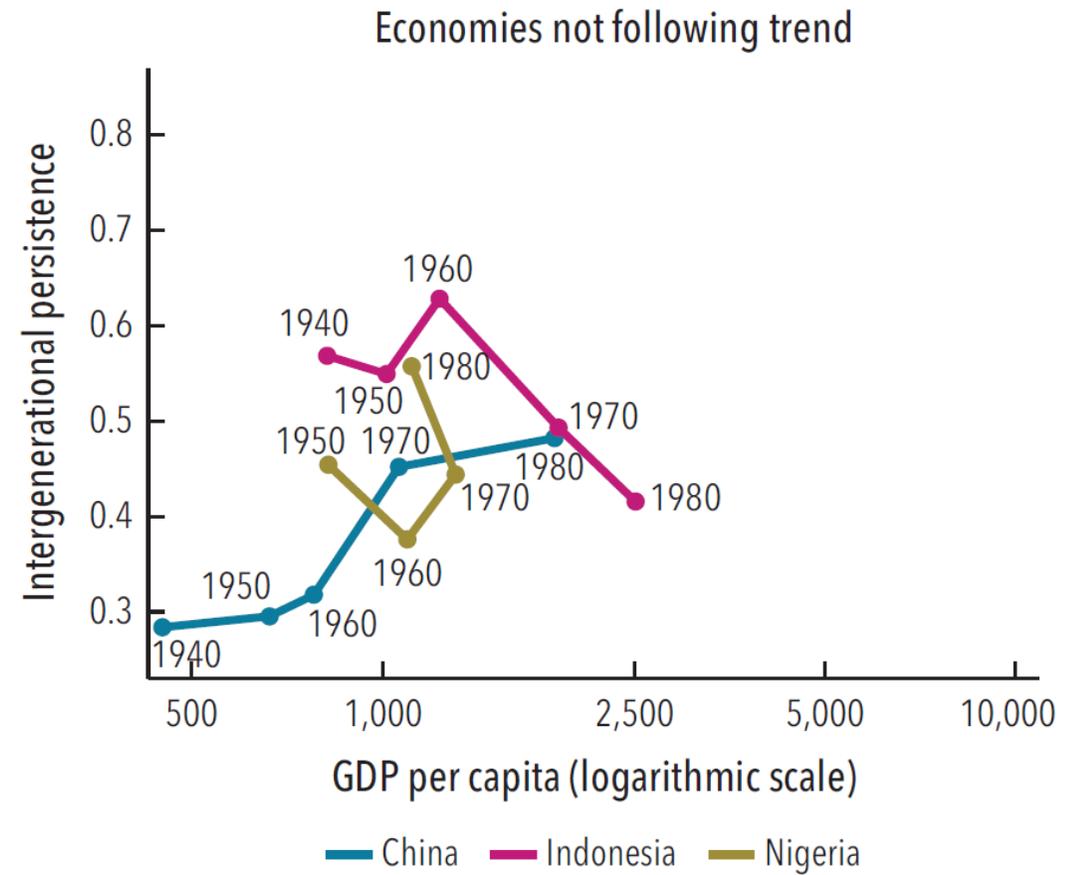
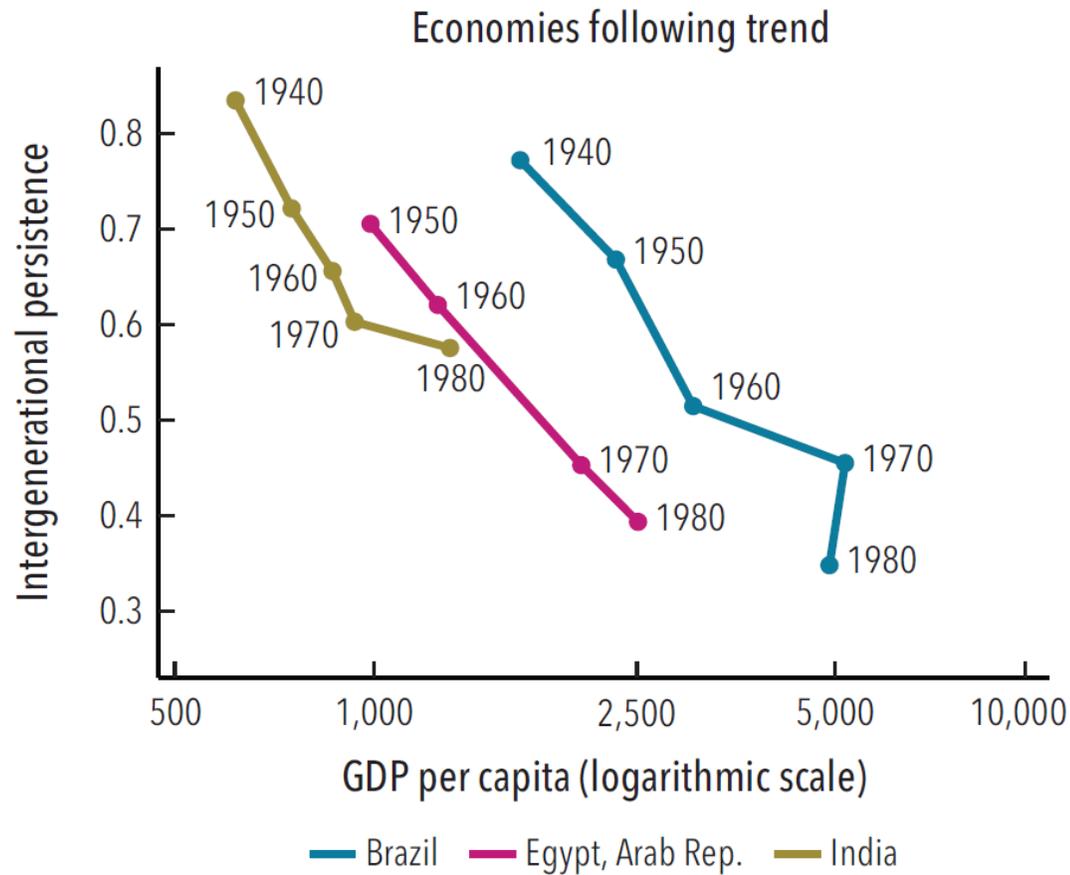
## Intergen. persistence in education



## Intergen. persistence in income

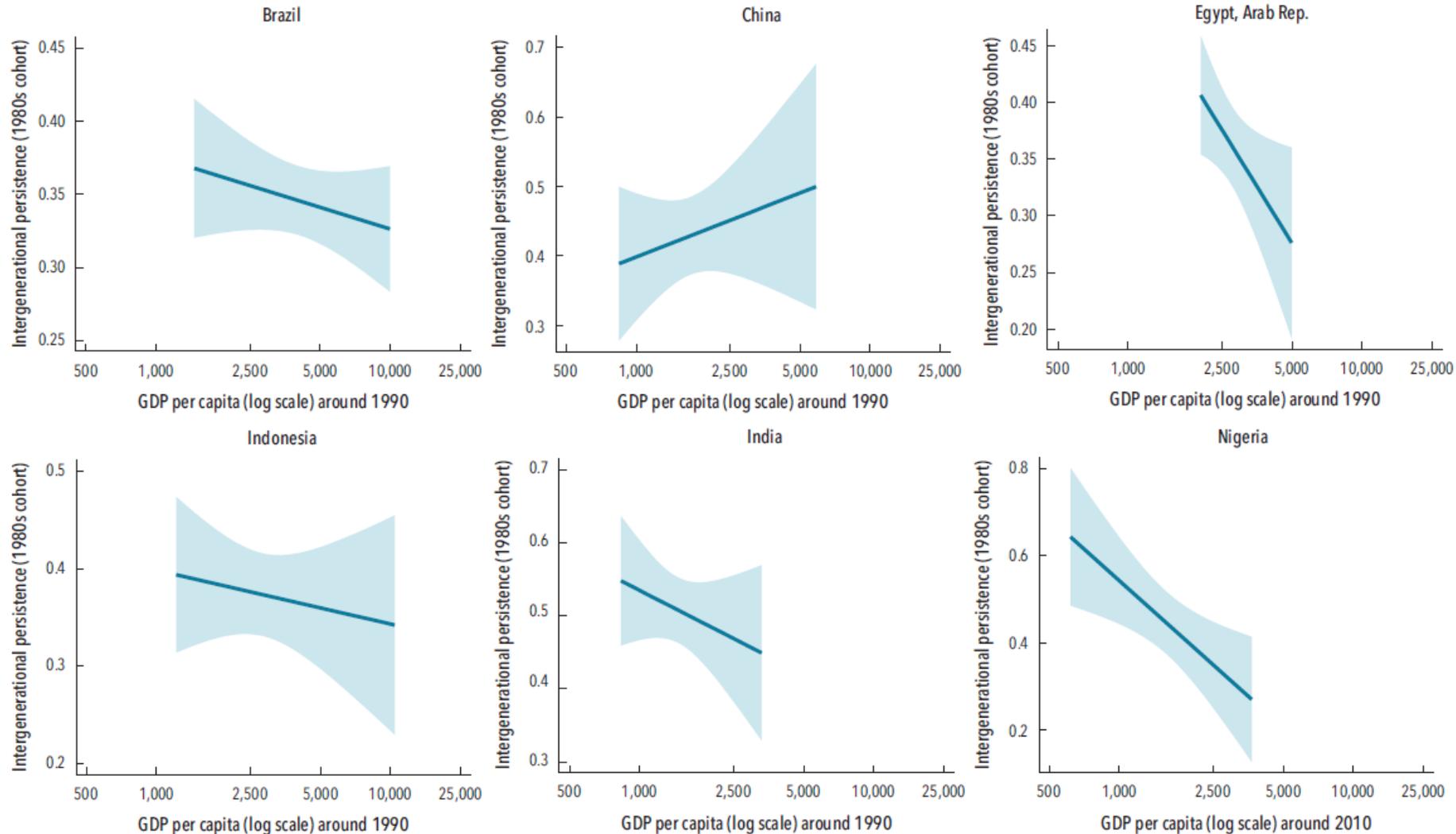


# In most countries, but not all...



# Also within countries, across provinces

Intergenerational persistence and province-level gross domestic product per capita



# Should mobility be expected to increase as national income increases?

- In models a la Becker et al., where **parents optimize** utility ft. child future income & own consumption, **private investment** into child human capital is an increasing function of parent human capital and parent income
- Children born to educated parents are twice fortunate, they benefit:
  - From higher private investment into their development
  - And from exposure to parents' higher human capital
- This is particularly true when parental education and private investment complement each other
- Higher incomes (all else equal) are then predicted to yield higher intergenerational persistence (i.e. lower mobility)...

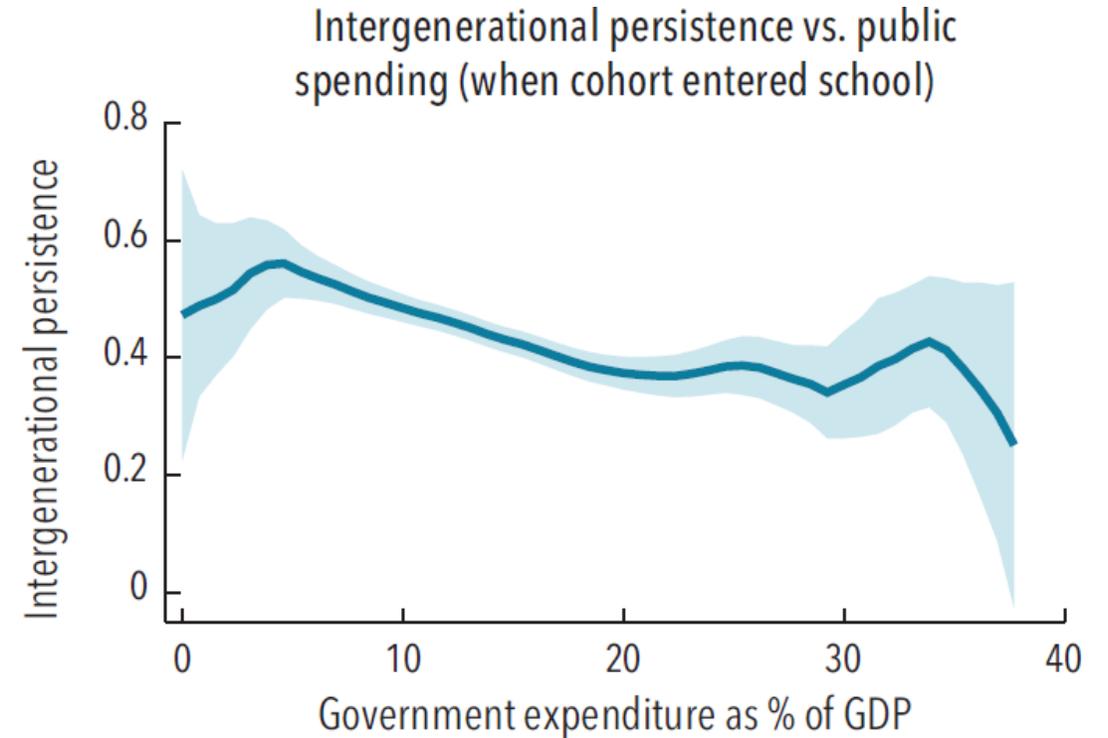
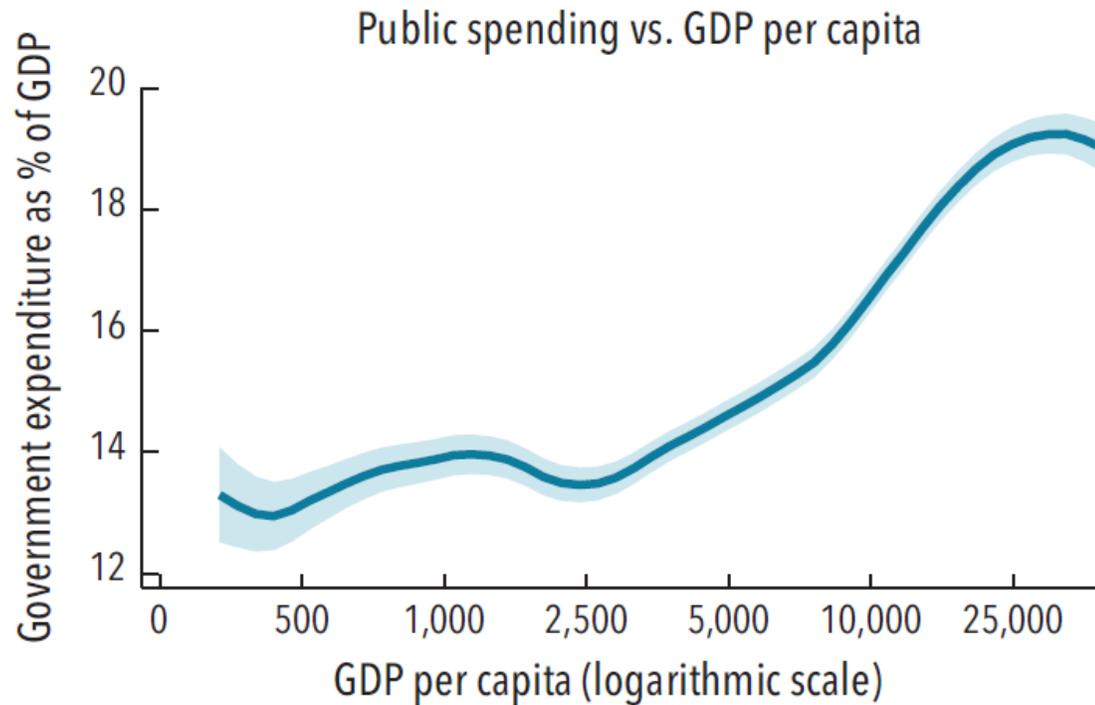
# Should mobility be expected to increase as national income increases?

- **Credit market imperfections** further strengthen the intergenerational transmission of human capital, most notably among the poor
- If rising national income is accompanied by reductions in credit constraints, then this predicts an increase in mobility...
- When incomes rise further, former channel will eventually dominate, predicting an inverse-U relationship between mobility and income
- This is **not** what we see in the data...

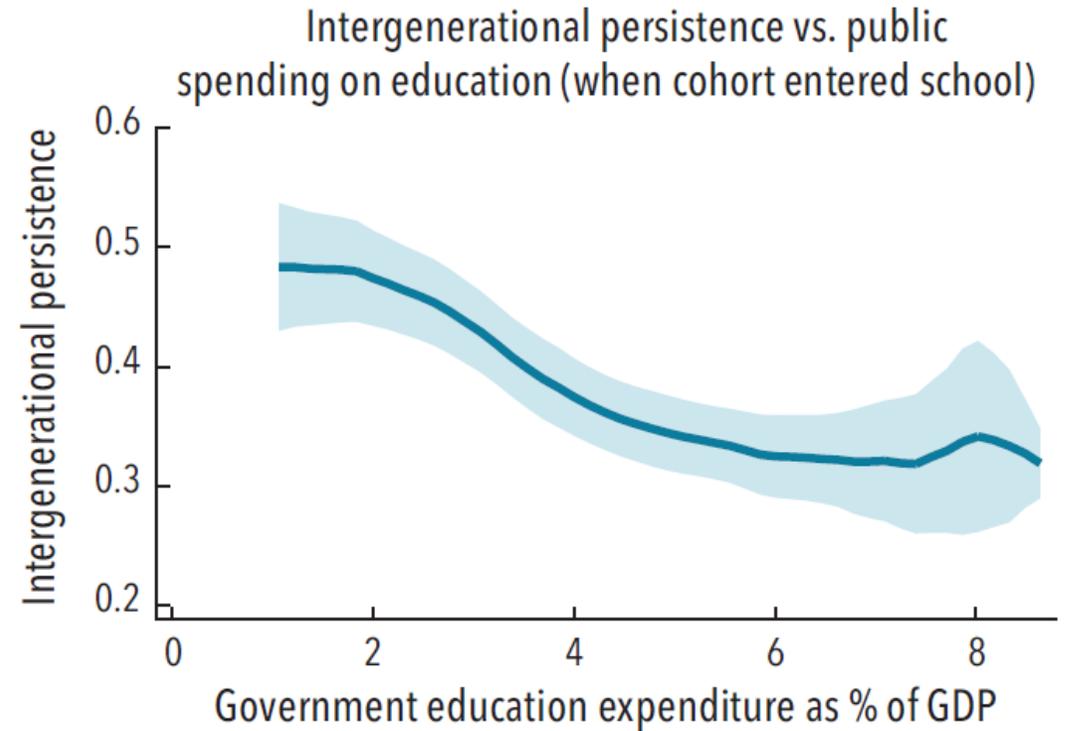
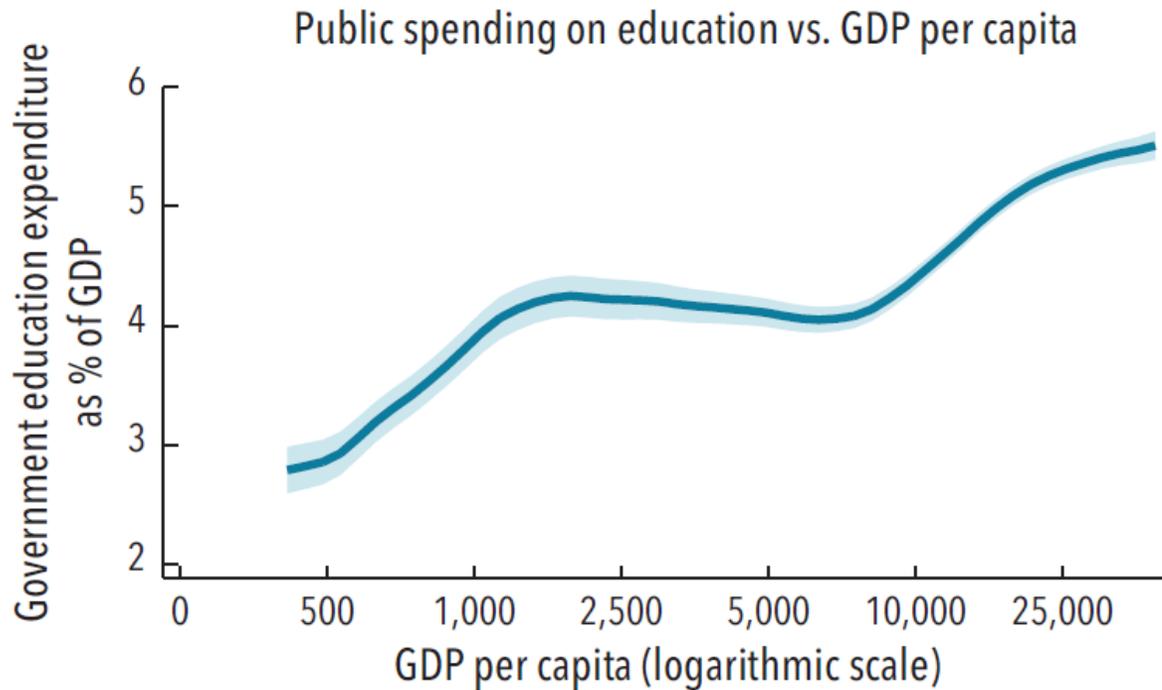
# Should mobility be expected to increase as national income increases?

- **Public interventions** that aim to **equalize opportunities** denote a plausible channel via which mobility increases as countries develop
- As countries become richer they have more fiscal space to finance and implement policies that level the playing field
- Effect of public spending may only “kick in” above certain level of national income, which would predict an increasing or U pattern
- Policies more likely to improve mobility when:
  - Investments are sufficiently large
  - Targeted to benefit disadvantaged families and/or neighborhoods
  - Focus on early childhood

# Total public expenditure and mobility



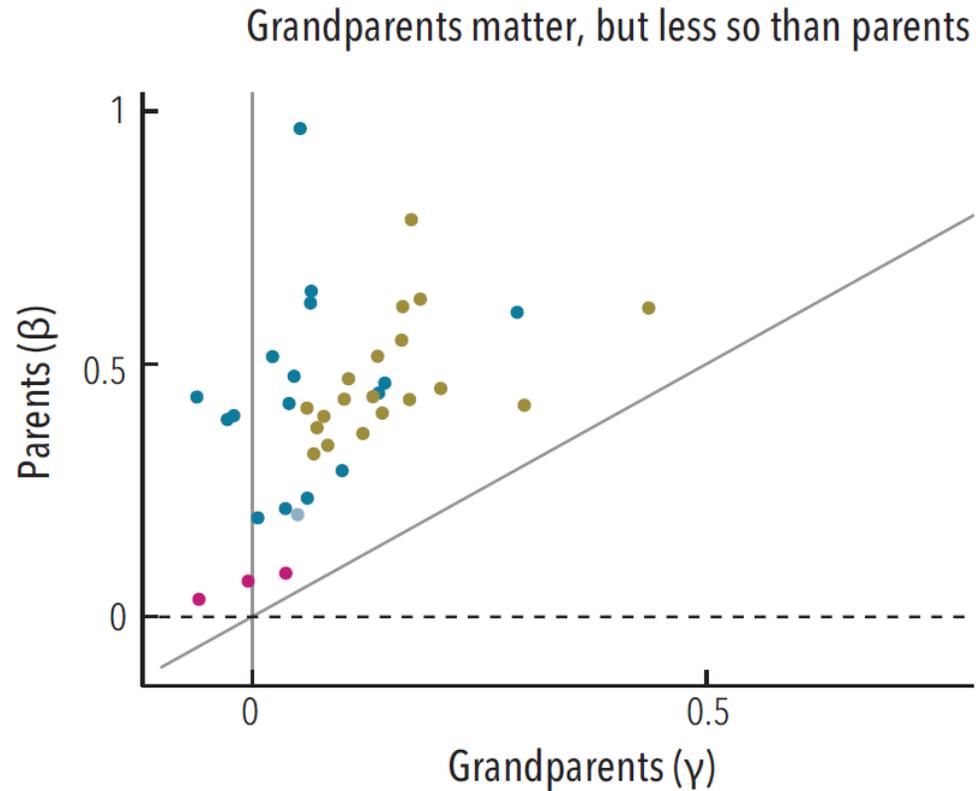
# Public education expenditure and mobility



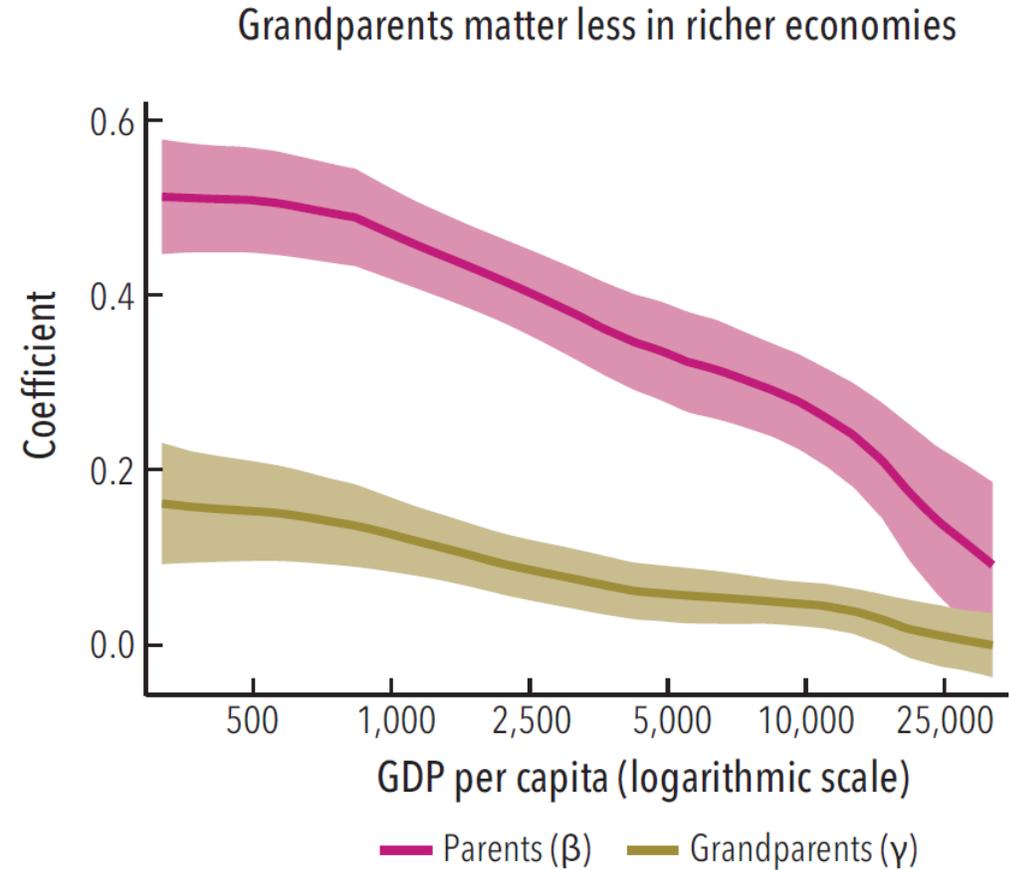
# Equalize opportunities at different stages of life

- Early in life:
  - Invest in maternal health
  - Nutrition
  - Access to clean drinking water and sanitation
  - Health care
- School age:
  - Address credit constraints (also helps earlier in life)
  - Equalize access to good quality schooling
  - Expose children and parents to information that influences their aspirations
  - Resolve segregation
- Later in life:
  - Tackle discrimination
  - “Second chance” interventions

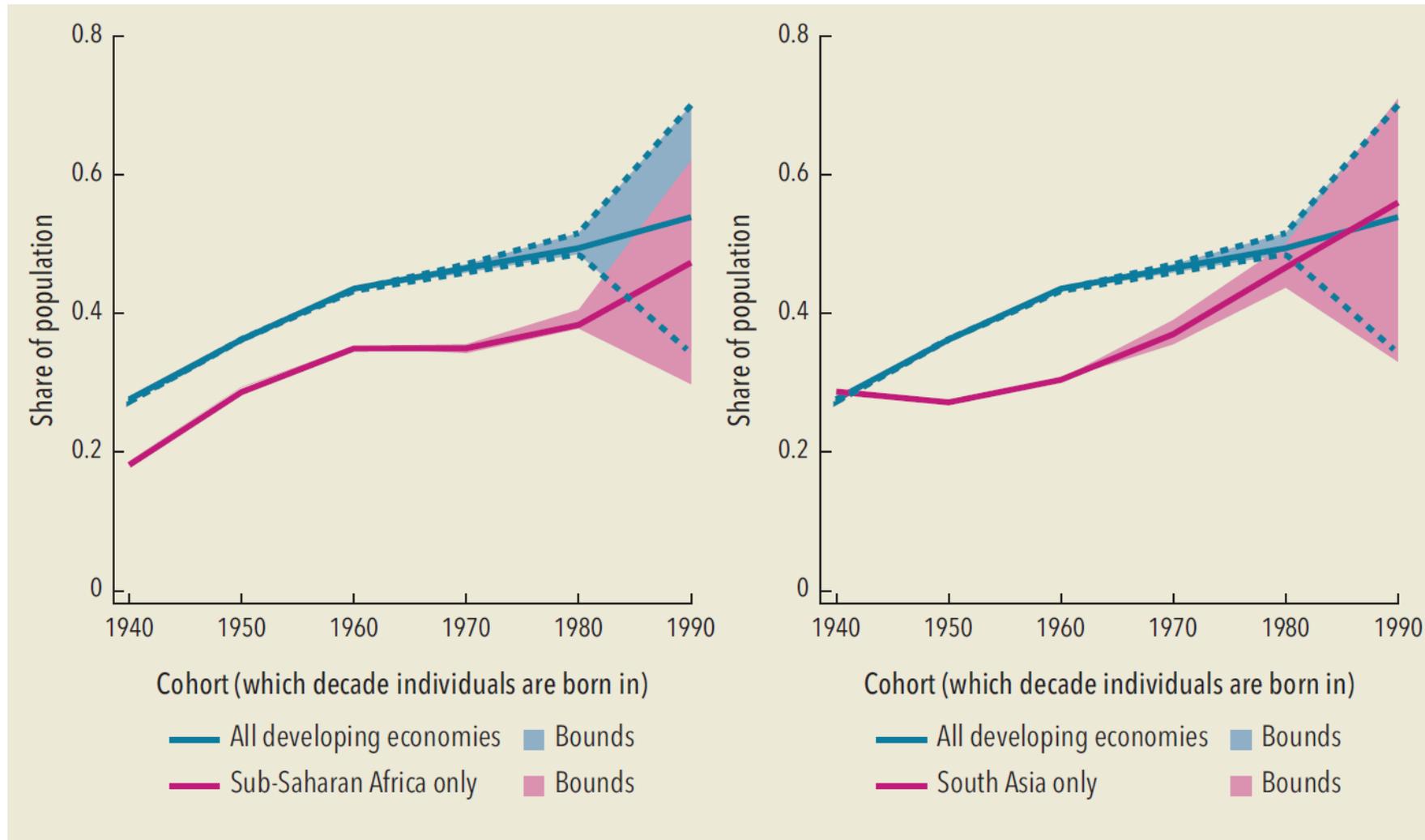
# Annex: Grandparents also matter



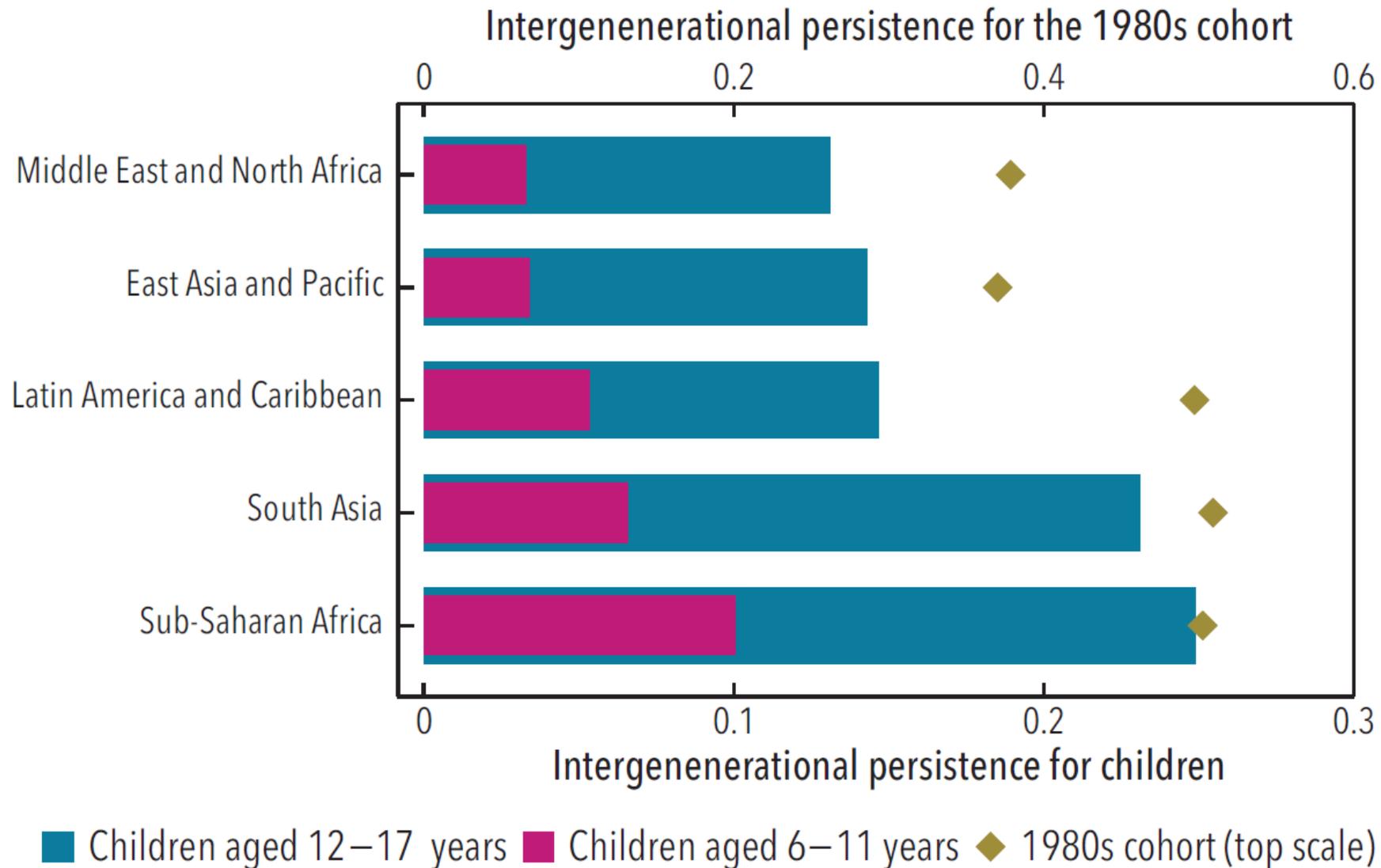
- Developing economies:  $\gamma$  not significant at 5% level
- High-income economies:  $\gamma$  not significant at 5% level
- Developing economies:  $\gamma$  significant at 5% level
- High-income economies:  $\gamma$  significant at 5% level



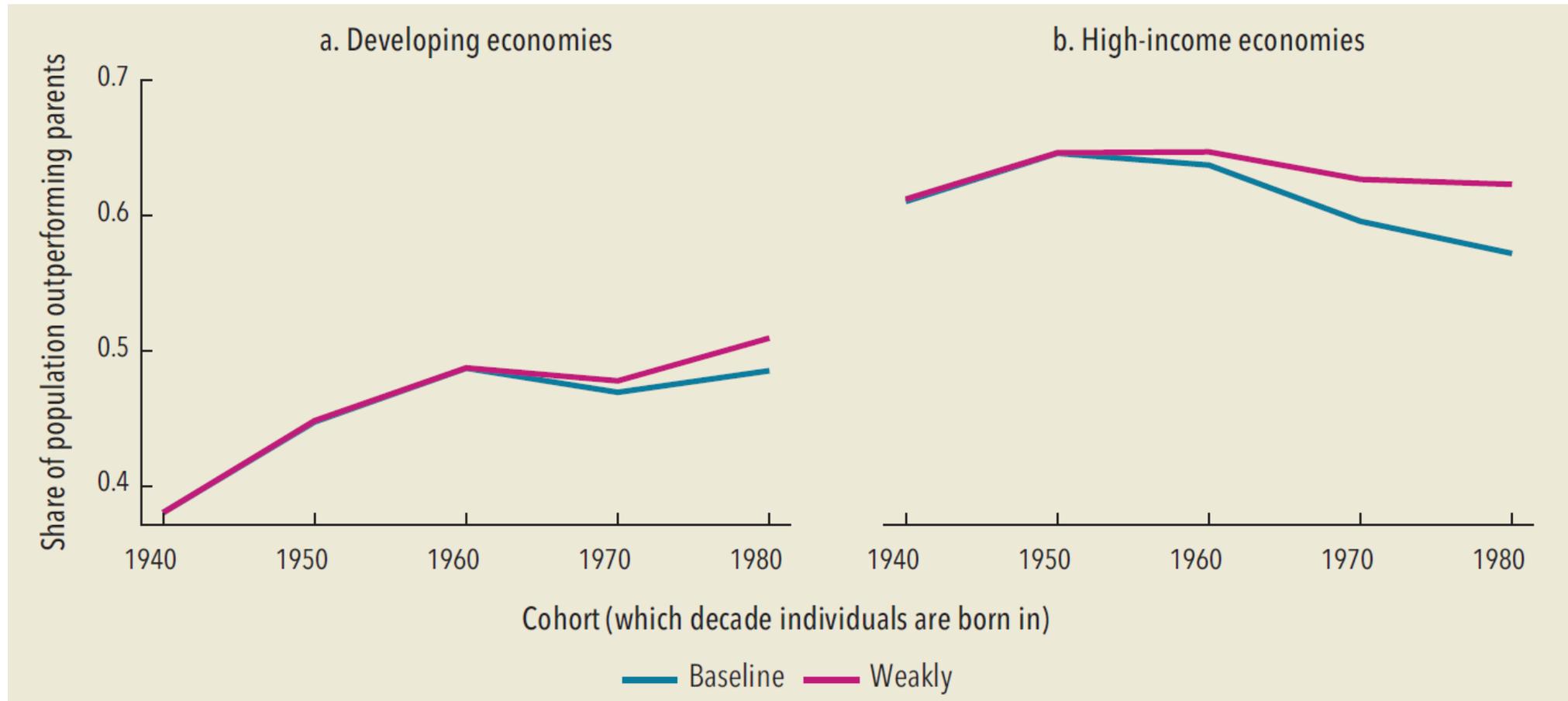
# Annex: Absolute mobility for next generations



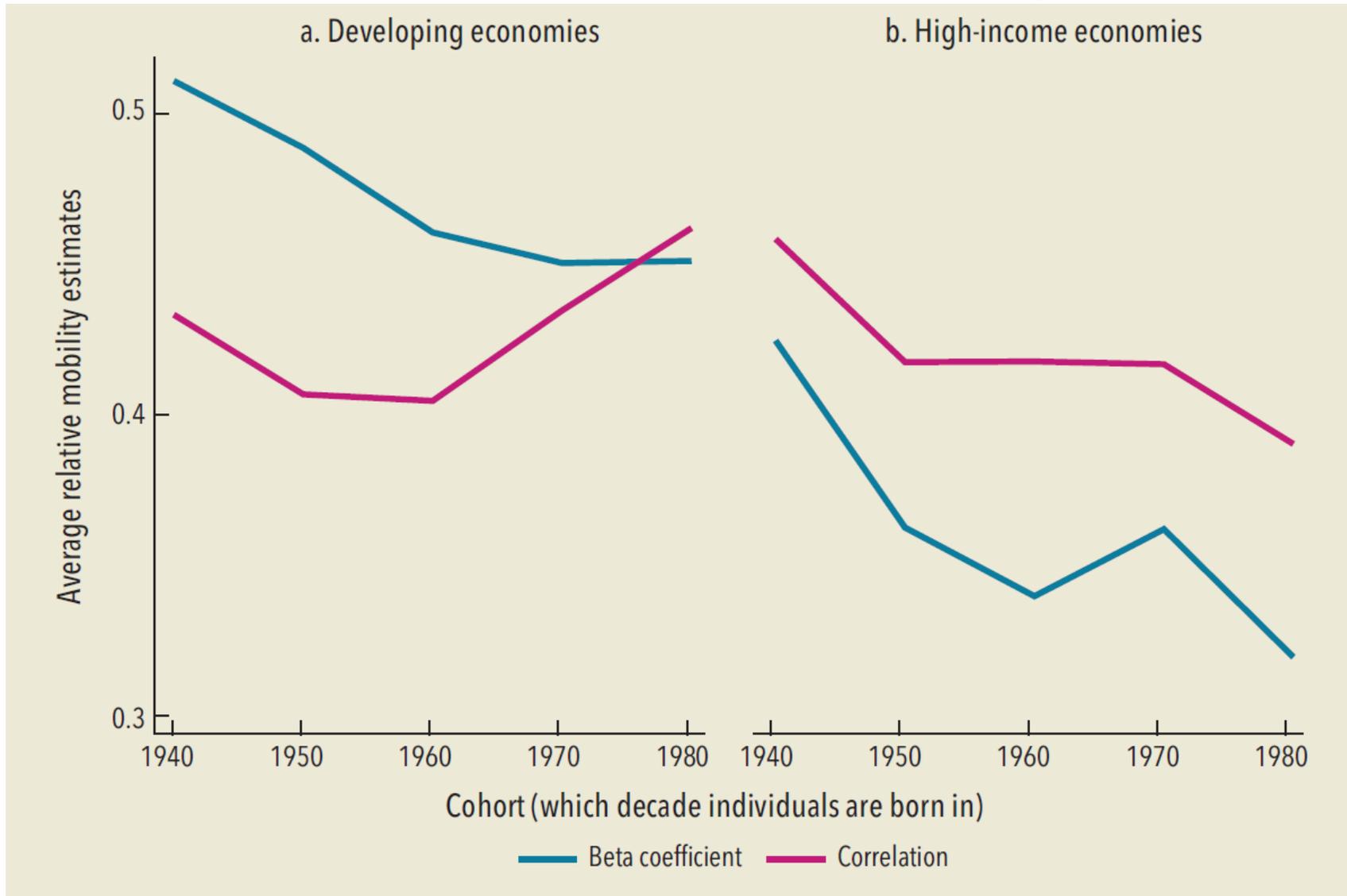
# Annex: Relative mobility for next generations



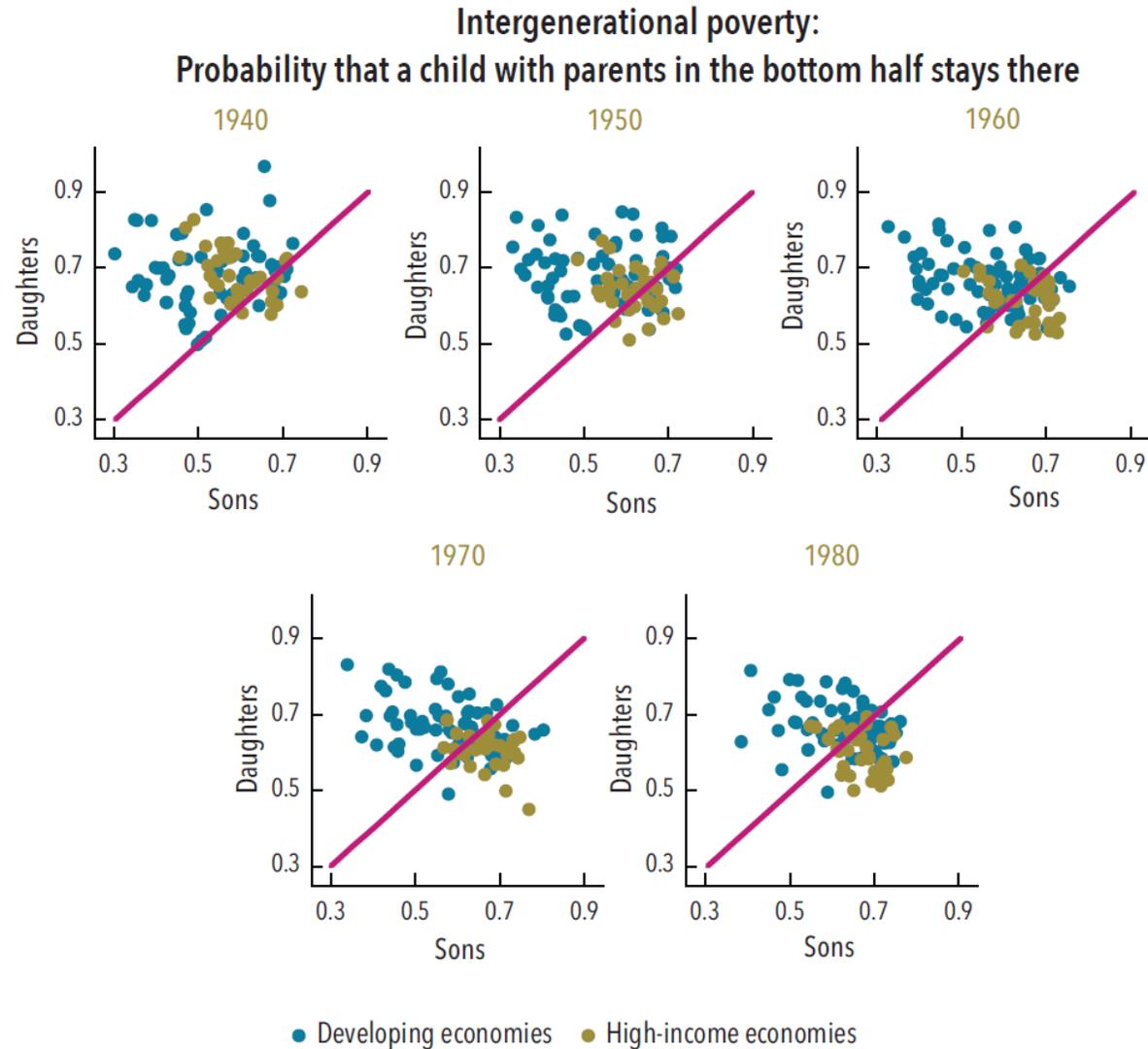
# Annex: Other measures of absolute mobility



# Annex: Trend in relative mobility: beta vs. cor

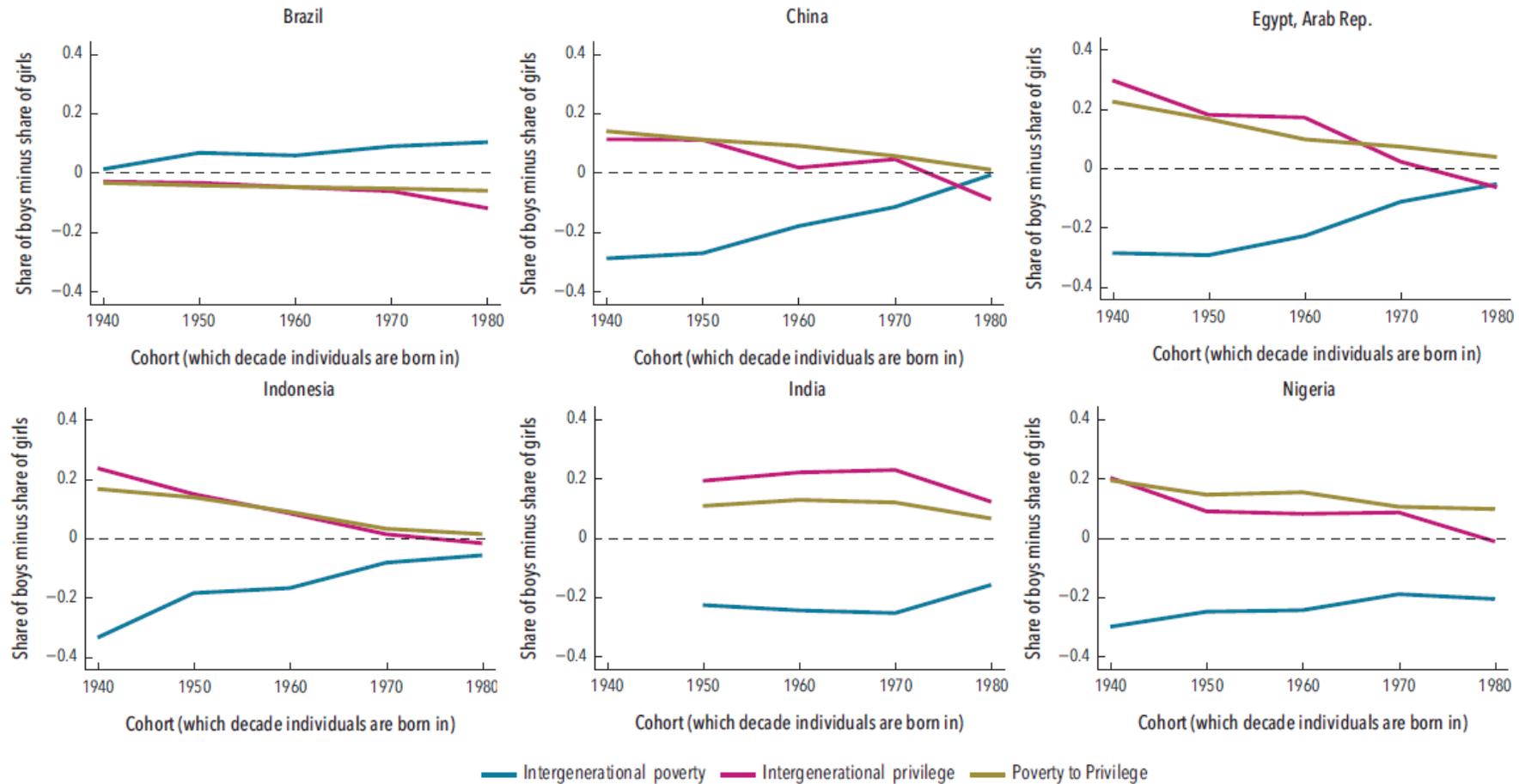


# Annex: Girls breaking through the diagonal...



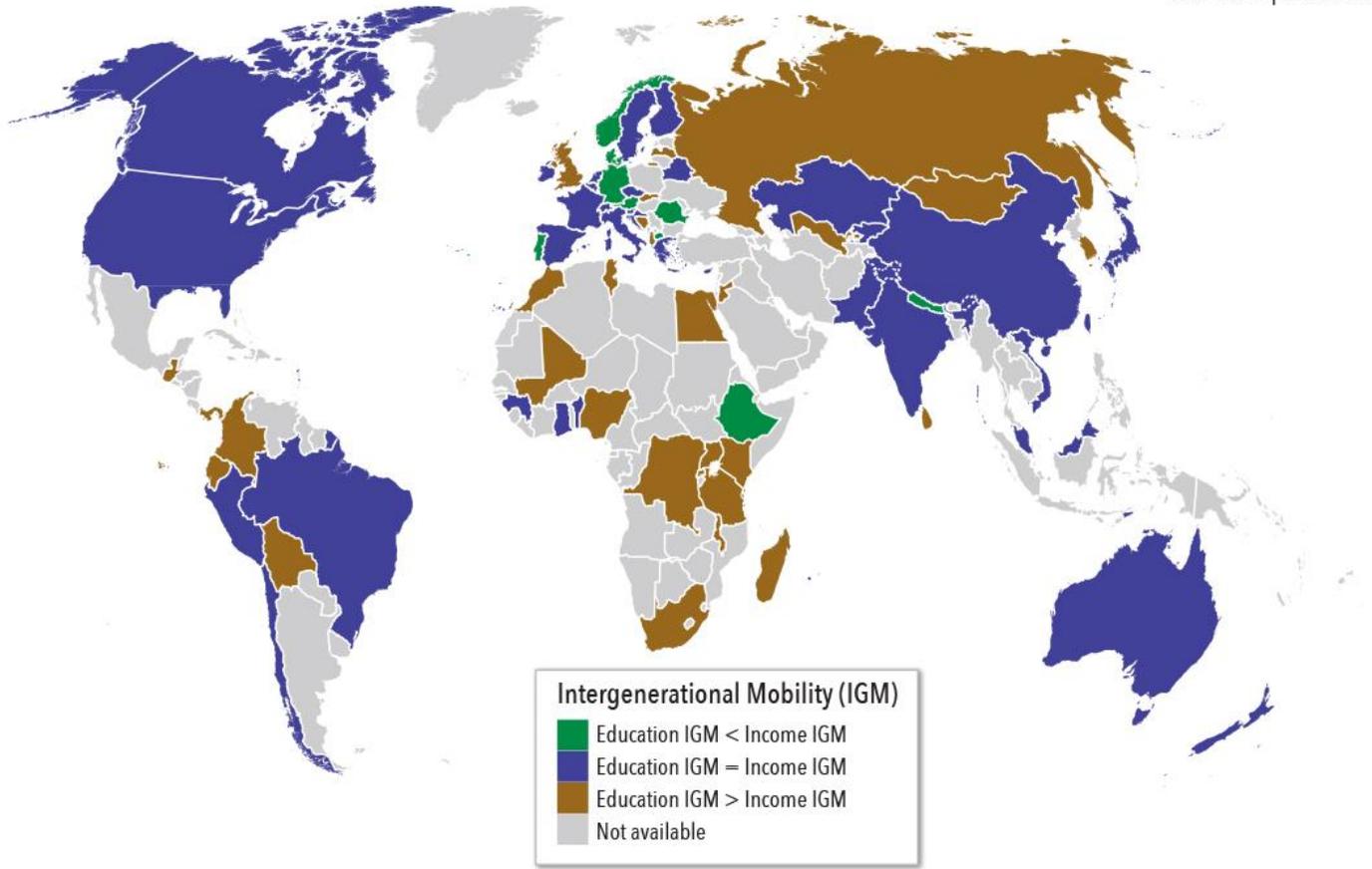
# Annex: Gender gap not closing everywhere...

Gender differences in intergenerational poverty, intergenerational privilege, and poverty to privilege



# Annex: Income IGM < education IGM in ...

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# Annex: Adding countries relying on co-residence

