Intergenerational Educational Mobility in the Developing World

Florencia Torche

Stanford University

Why study educational mobility?

- Intergenerational educational mobility captures the association between parents' and adult children's educational attainment.

- Most analyses of mobility focus on economic and occupational outcomes.

- Education is main determinant of earnings – and earnings returns to schooling are greater in developing countries than high-income ones.

- Educational attainment predicts non-pecuniary outcomes, including health, longevity, fertility, marriage and parenting, crime, political participation and attitudes –and it appears to be more predictive in developing world.

- Education is key mechanism in economic and occupational mobility: Main channel for persistence and main avenue for mobility.

Studying educational mobility in developing countries: Practical advantages.

- Sources of mobility data: Administrative data, long-run panel surveys, cross-sectional surveys. Developing countries mostly lack former two.

- Collecting survey information about own education and retrospective information on parents' education is simple, with good recall, refusal, validity, and reliability properties (implicit comparison: earnings, occupation).

- Most people complete their education in late adolescence/early adulthood with minimal upgrading over life course, reducing issues of measurement error and life-course variability.

Educational mobility: Concepts.

- Absolute mobility: Proportion of population with different (more/less) education that their parents.

- Relative educational mobility: Intergenerational association, net of educational upgrading across generations.

- Researchers focus on relative mobility, interpreted as indicator of equality of opportunity.

- However, absolute mobility is extremely important in developing world due to substantial educational expansion.

Educational mobility: Measures

- Education is measured as continuous variable (years of schooling) and as set of educational attainment categories (no education, some primary, primary complete, etc.).

- If continuous variable: Relative mobility measured by regression or correlation coefficient linking parents' and children's schooling. If categorical variable: Models for mobility table cross-classifying parents' and children's education (e.g. log-linear models).

- Regression and correlation coefficient provide different measures. The latter is a standardized measure, adjusting for dispersion of education in both generations.

- In practice, correlation can be obtained by multiplying the regression coefficient by the ratio of the standard deviations of parents' and children's schooling. If dispersion increases across generations, correlation<regression (ceteris paribus).

Developing world: Trends in dispersion in parents' and adult children's education.
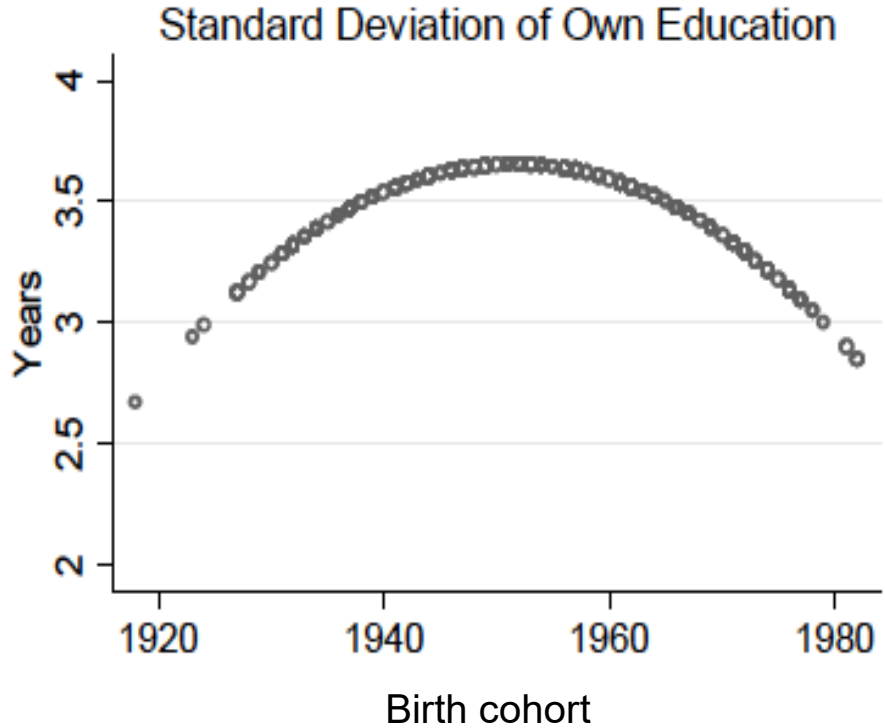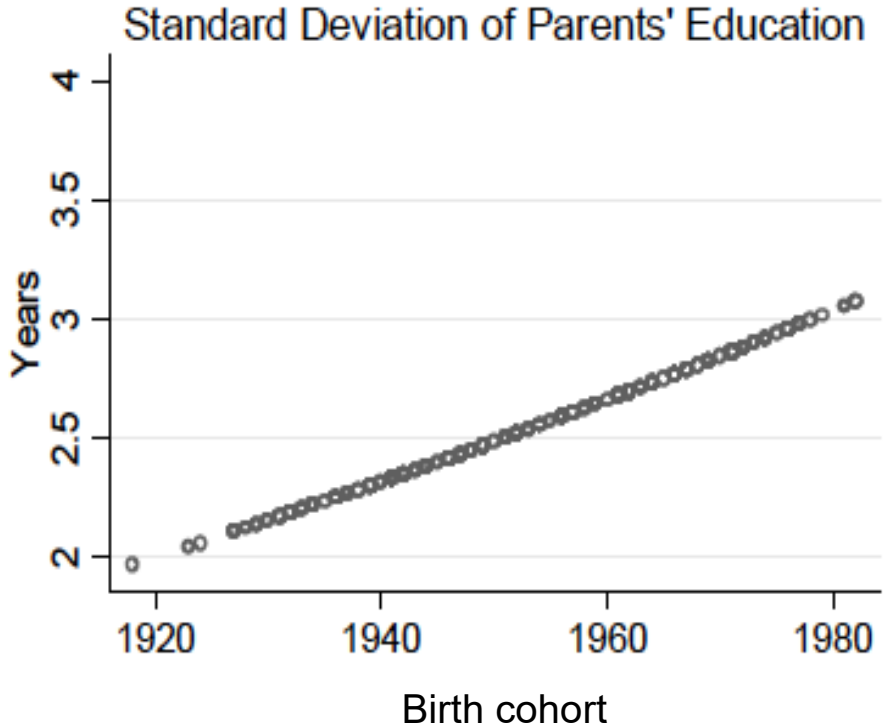
Developing world: Measures of parents' education.

- How to measure parents' education when analyzing mobility?
- Dominance approach: selects parent with highest educational attainment
- Joint approach: combines both parents (most often via simple average)
- Parent with lowest educational attainment ("lowest common denominator")
- Select same-sex parent ("role modeling")

- Differences between approaches may be relevant in some developing countries where gender inequality is high and parents' educational homogamy is low.

- What to do?
    - Try different strategies and evaluate results.
   - Include father's and mother's education separately as predictors.

When to measure children's education.

- Most mobility analyses consider children's outcomes when they are adults. For educational mobility, outcomes when children are still in school and co-residing with parents are informative.
  - Mobility as association between parents' schooling and children's timely grade progression.

- Provides information about younger cohorts. Particularly useful in developing countries if retrospective information about parents' education not available in surveys.

- Use of coresidential parent-children dyads needs to be restricted to children younger than the normative age of parental household leaving, to avoid bias emerging from selectivity of children who continue living with parents.

- Coresidential bias emerges even if children are young adults, and regression estimates are particularly sensitive to it.

Empirical findings: Developing countries

- Research consistently shows that developing countries feature lower levels of educational mobility than advanced industrial ones.

- Two main analyses comparing large and diverse number of countries: Hertz et al. (2008) compared 42 countries and considered cohorts born 1930s-1980; World Bank (2018) included 148 economies and considered cohorts born 1940-1980s.
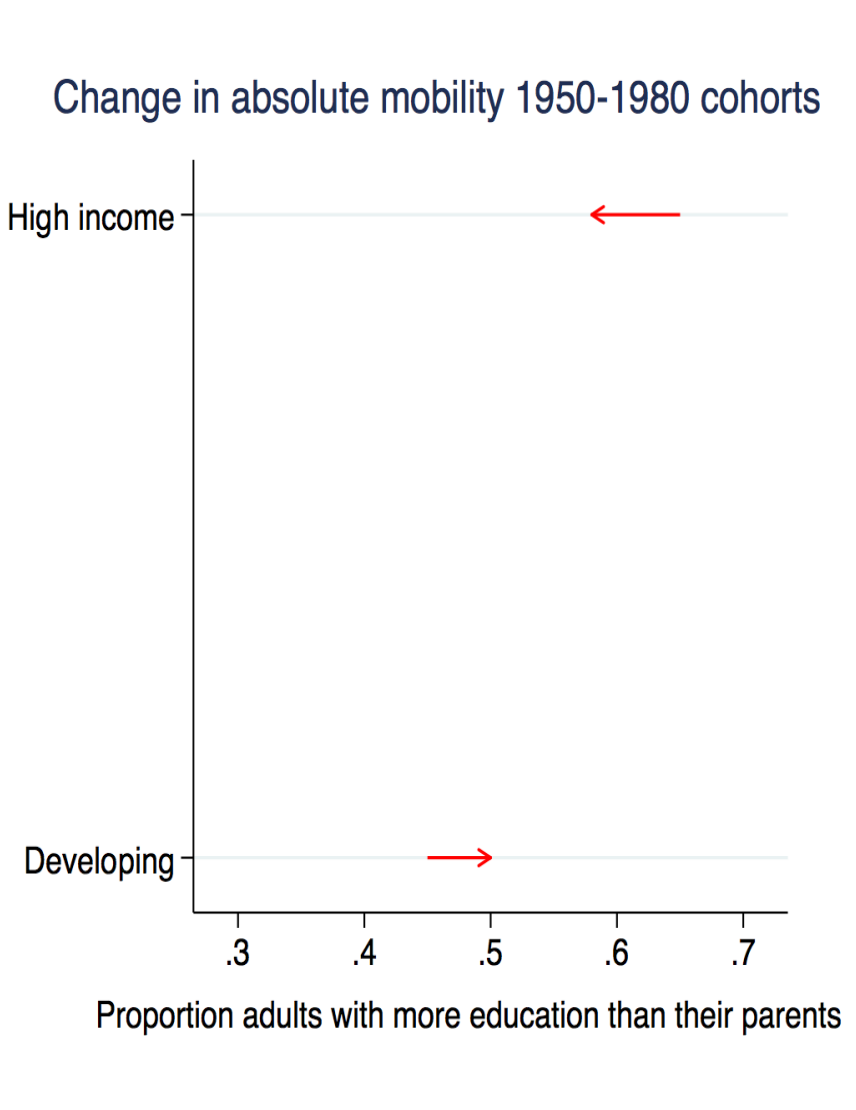
Relative educational mobility around the world circa 2000 (Hertz & al 2008).
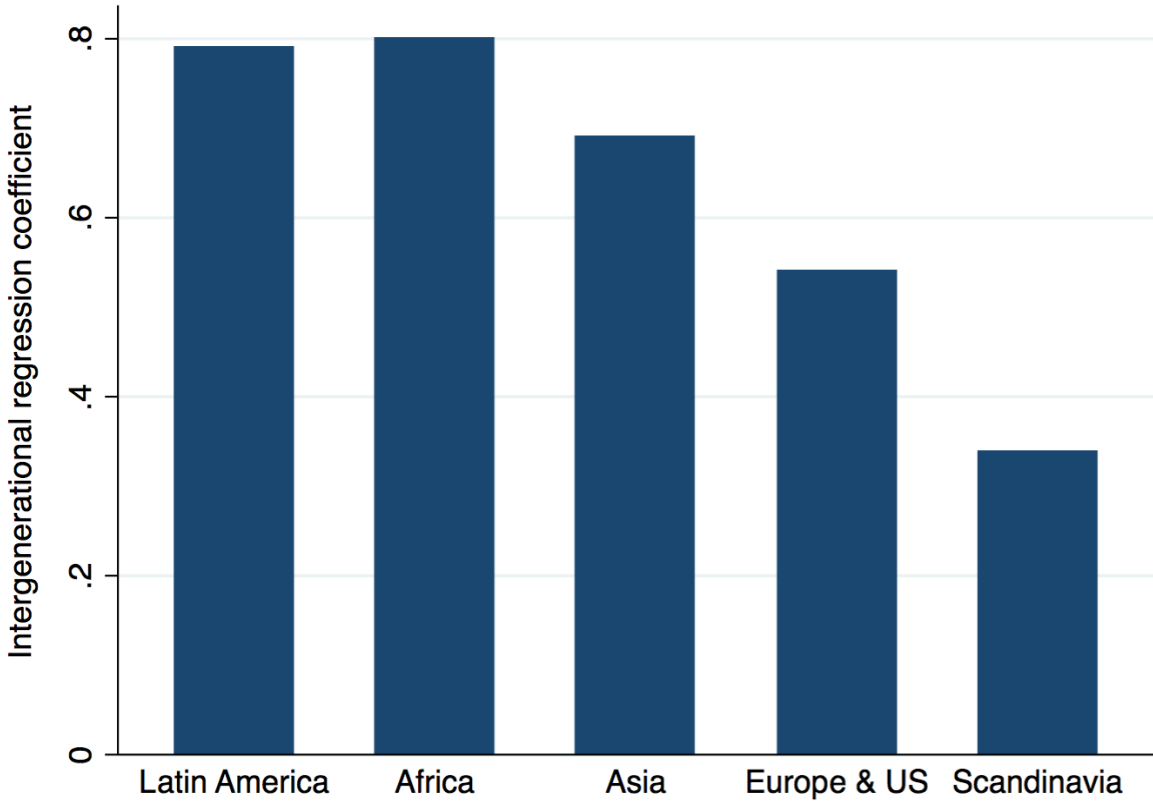
Source: Hertz et al. (2008)

- Hertz et al. (2008) also found a decline in the intergenerational regression coefficient across cohorts, but persistence in correlation coefficient.
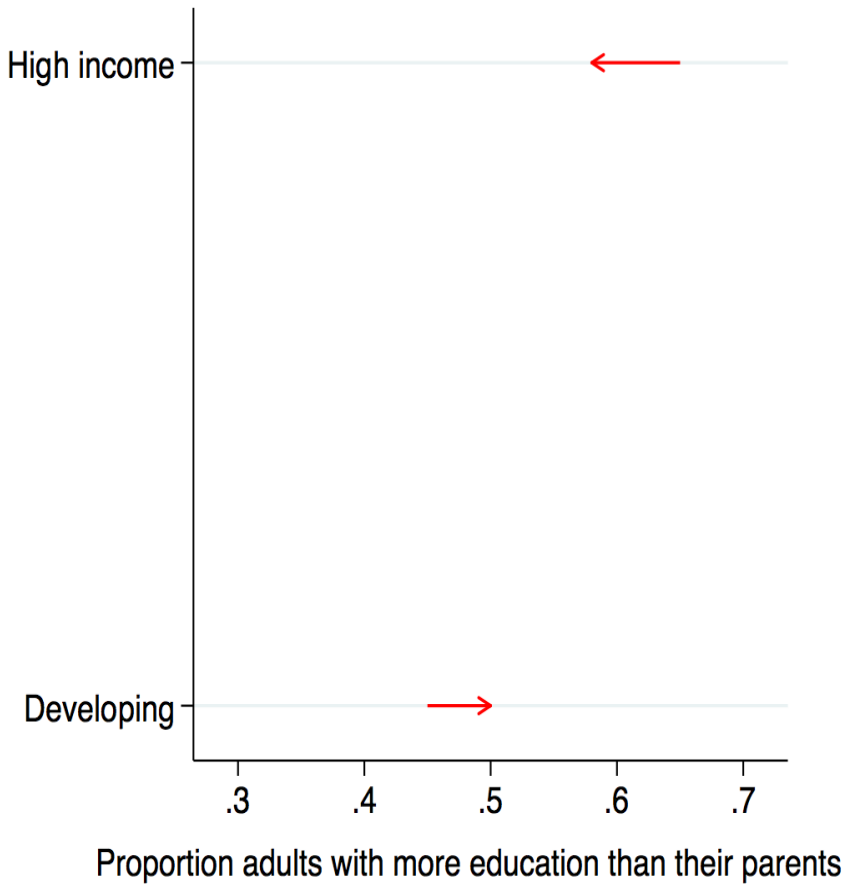
Change in absolute and relative mobility around the world (World Bank 2018).
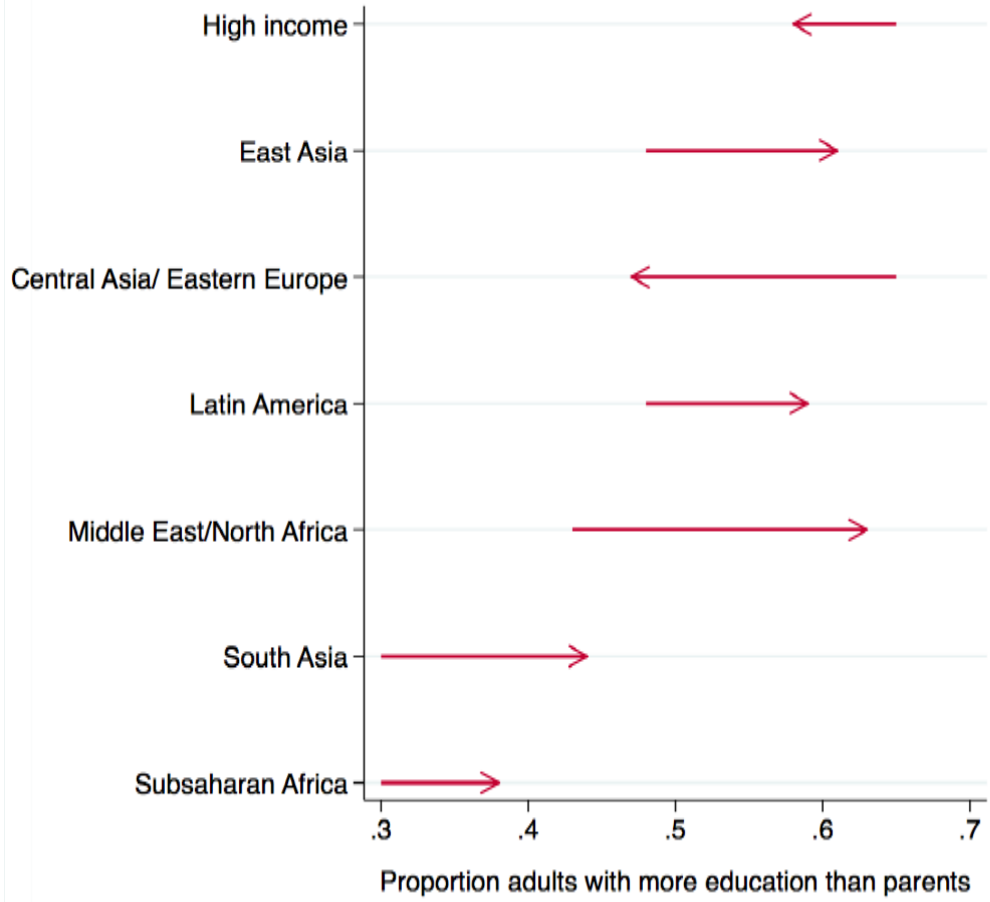

Change in absolute mobility 1950-1980 cohorts

High income

Developing

.3 .4 .5 .6 .7

Proportion adults with more education than their parents

Change in absolute and relative mobility around the world.

Change in absolute mobility 1950-1980 cohorts

High income ←

Developing →

Proportion adults with more education than their parents

Change in absolute mobility 1950-1980 cohorts

High income ←
East Asia →
Central Asia/ Eastern Europe ←
Latin America →
Middle East/North Africa →
South Asia →
Subsaharan Africa →

Proportion adults with more education than parents

Source: World Bank (2018)

Change in absolute and relative mobility around the world.
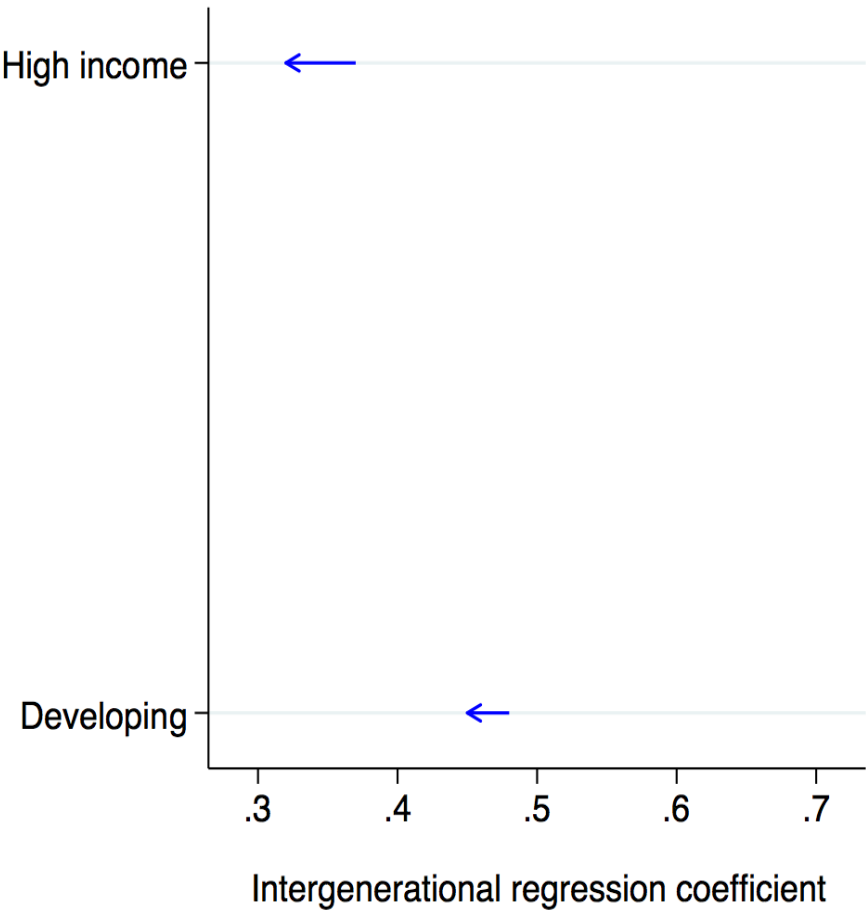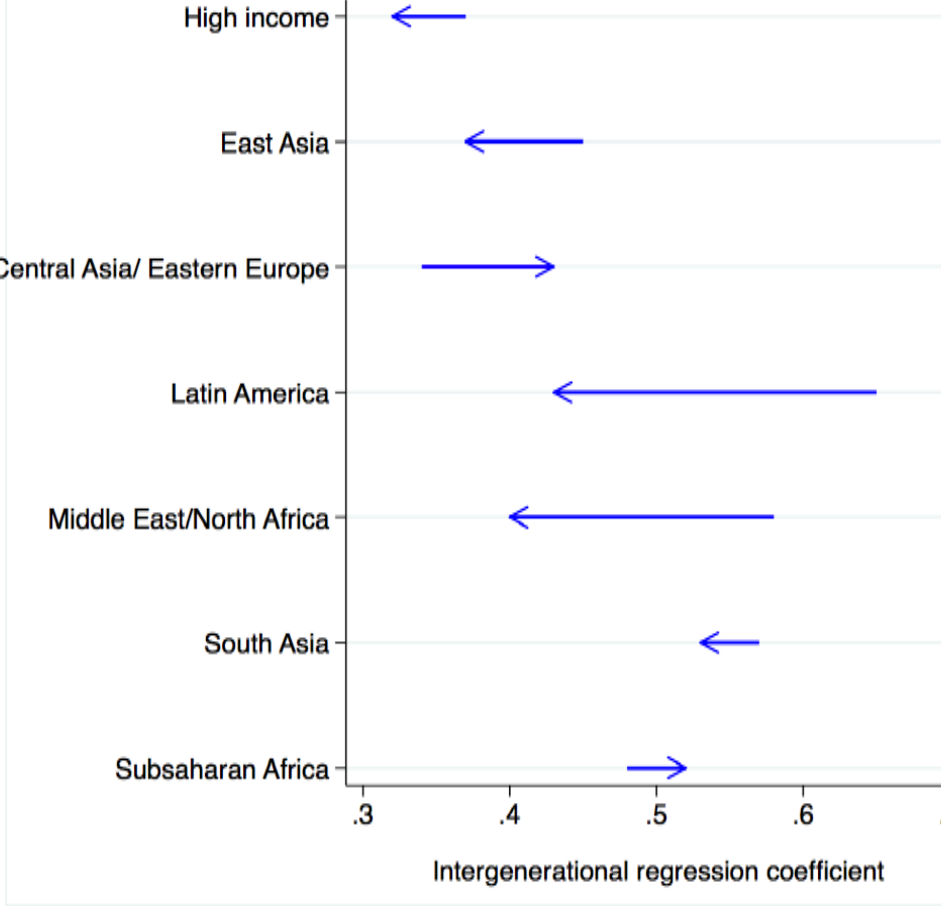

Change in relative mobility 1950-1980 cohorts

Intergenerational regression coefficient

Change in absolute and relative mobility around the world.

Change in relative mobility 1950-1980 cohorts

High income

Developing

.3 .4 .5 .6 .7

Intergenerational regression coefficient

Change in relative mobility 1950-1980 cohorts

High income

East Asia

Central Asia/ Eastern Europe

Latin America

Middle East/North Africa

South Asia

Subsaharan Africa

.3 .4 .5 .6 .7

Intergenerational regression coefficient

Relative mobility: Trends in regression and correlation coefficients.
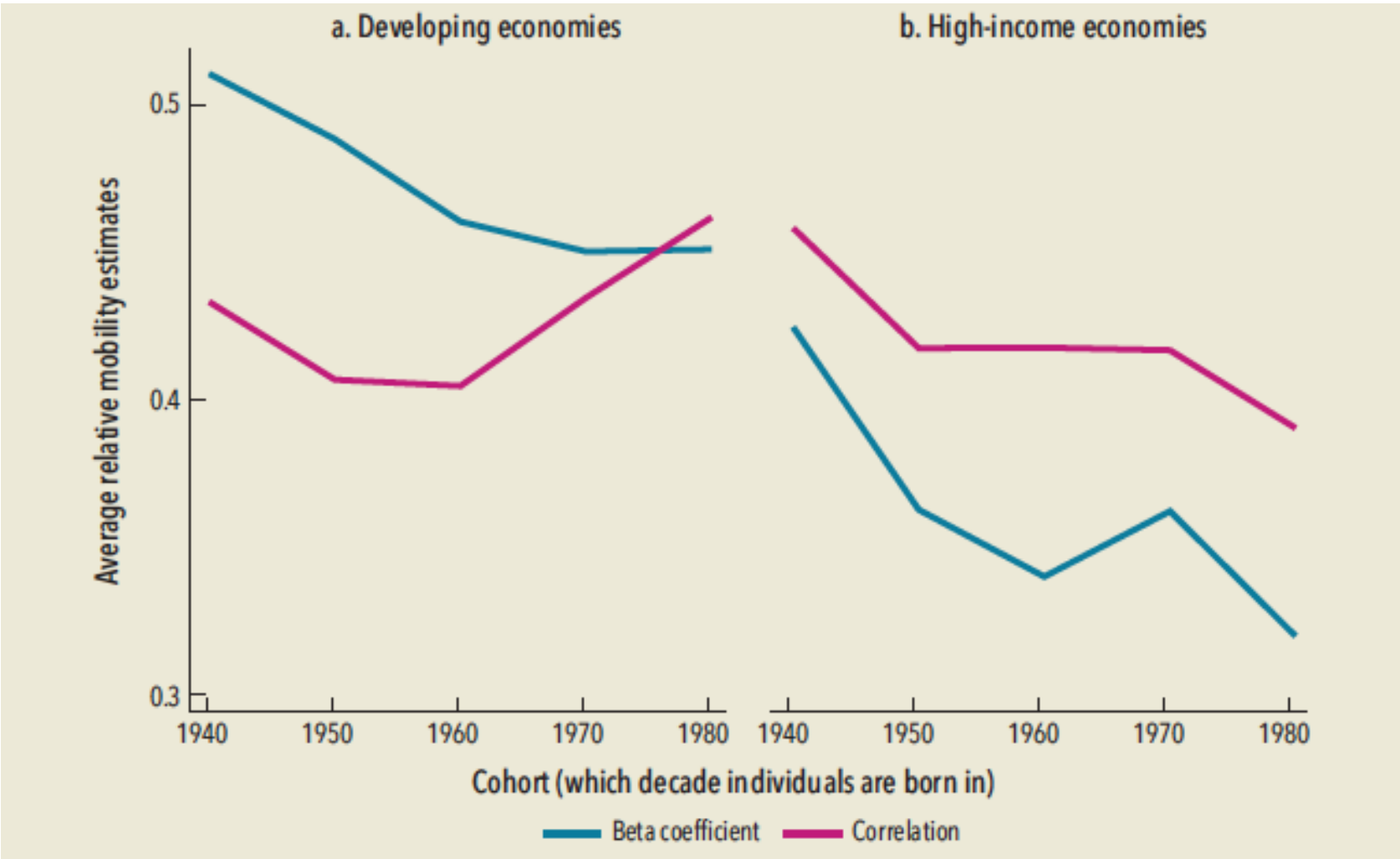

Source: World Bank 2018.

Educational mobility in developing countries: Taking stock

- Absolute upward mobility is converging between developing and high-income countries, driven by substantial educational expansion in the developing world.

- There is a growing gap in relative educational mobility between high-income and developing countries, regardless of measure used.

- Relative mobility has increased in the developing world, particularly in Latin America and the Middle East and North Africa (the regions that used to be the least mobile in the past). Increase appears to be largely driven by changes in the distribution of education across cohorts, rather than by the "net" association between parents and children.

- Among younger cohorts born in the 1980s, both absolute and relative mobility is lowest in Sub-Saharan Africa and South Asia, the regions that also have the lowest levels of educational attainment in the world.

Macro-level factors and educational mobility in developing countries

- Small literature examines relationship between economic and institutional factors and educational mobility (mostly Latin America and Africa).

- Positive association between educational mobility and mean level of schooling in the country, income equality, level of economic development, and the depth of financial markets.

- But there is a weak association between educational mobility and public expenditures in education in developing countries, likely because governments allocate a large portion to higher education, particularly undergraduate training, providing a hefty subsidy to the upper class.

- Economic crisis consistently negatively associated with educational mobility (positive substitution effect among upper class, negative income effect among the poor).

Role of education in intergenerational economic mobility
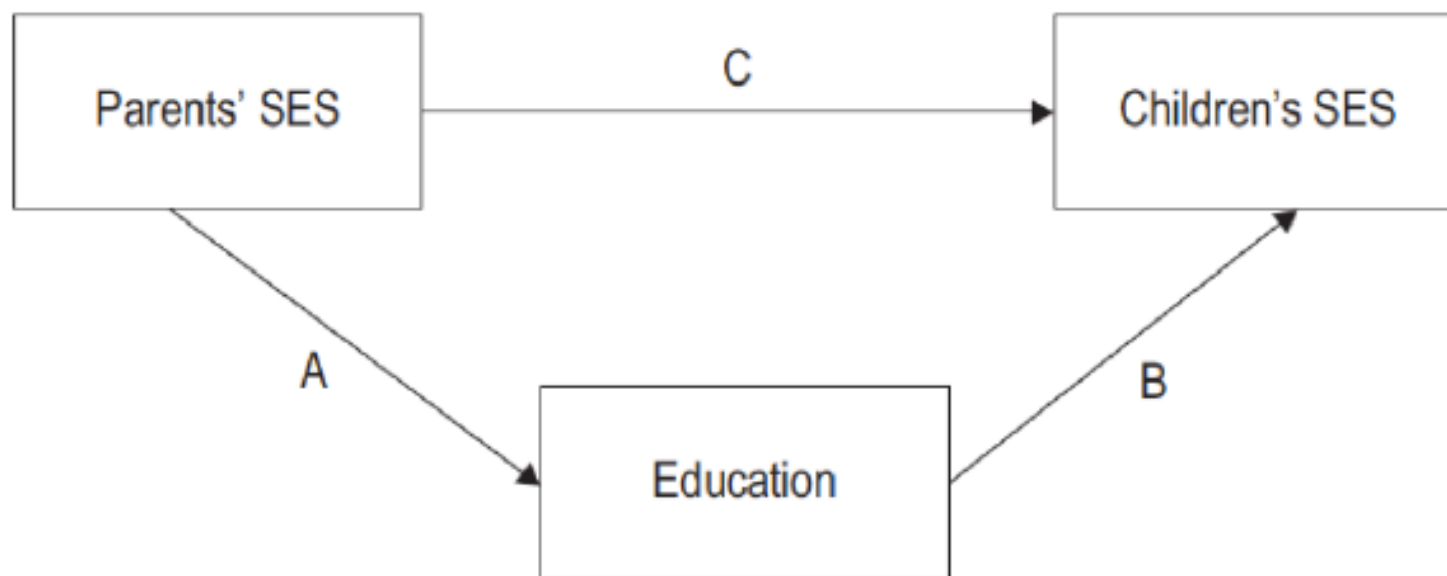
- Education is the main vehicle for intergenerational persistence and the main avenue for mobility.

- Role of education as vehicle for persistence appears to be stronger in developing than high-income countries, leading to "inherited meritocracy".

Mobility and the "qualitative" dimension of education.

- Most research focuses on the "quantitative" dimension of schooling. However, much variation exists in quality within level, organized in terms of tracks, type of institution (private/public), etc.

- "Horizontal heterogeneity" provides an avenue of educational persistence. This is particularly important in developing countries where quality is is usually formulated as tradeoff with quantity (increasing available slots).

- The public-private divide is a critical vehicle for reproduction in developing countries, by sorting advantaged students into better-performing private schools (although it is not clear if there is any value added).

- Analysis of universal school voucher system in Chile (and voucher experiments in Colombia and India) suggests privatization may have slightly increased mean schooling but exacerbated inequality based on social origins.

Conclusions

- Absolute upward educational mobility is higher in developing than high-income countries but this is likely to change.

- Relative educational mobility is much more limited in developing countries. Some regions such as MENA and LA have made much progress, but progress seems to be driven by the changing distribution of education rather than by "net" association (regression vs. correlation).

- Disadvantaged countries –particularly in Sub-Saharan Africa and South Asia-lag behind both in terms of absolute and relative educational mobility.

- Role of education in the persistence of economic (dis)advantage across generations might be greater in developing than high-income countries.

- Type/quality of schooling may become important avenue for intergenerational reproduction as educational attainment expands.

Theoretical approaches

- Standard economic model

- Sociocultural determinants of academic performance (Bourdieu)

- Distinction between primary and secondary effects (Boudon). MMI (Raftery and Hout)

- EMI (Lucas)