World Bank Fair Progress - Chapter 4

Pathways to Intergenerational Mobility in Education and Income

Hello from Juliette!



I really enjoyed reading through this chapter. It provides a framework (slide 11) to start organizing the complexity that emerges when you start looking at more than a the relationship between a dependent variable and an independent variable as we have so far, exposes the pros and cons of some existing models (slide 15), and invites us to look at the problem of equality of opportunity as a cross-disciplinary approach (slide 28).

Thank you to Mehlika for modeling a presentation format that I thought worked very effectively. In the next slides, you'll see the key data visualizations from chapter 4. For each, I provided a 1 sentence take-away which, taken together, provide a short narrative through this important chapter.

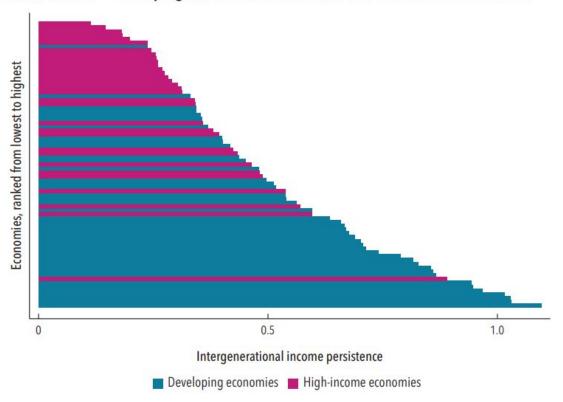
There were 7 sections in the chapter. These slides are divided into those same 7 sections.

For easier scanning, I've also added a star burst to indicate "key slide" on which I would have proposed that we spend more time discussing in class. These could be good ones for the suggested commenting.

- 1. Relative mobility in income around the World
- 2. Relationship between mobility of income and education
- 3. Drivers of Income persistence
- 4. Equality of opportunity and IGM
- 5. Inequality of opportunity at various stages of the life cycle
- 6. The role of public investment
- Equalizing opportunities at different stages

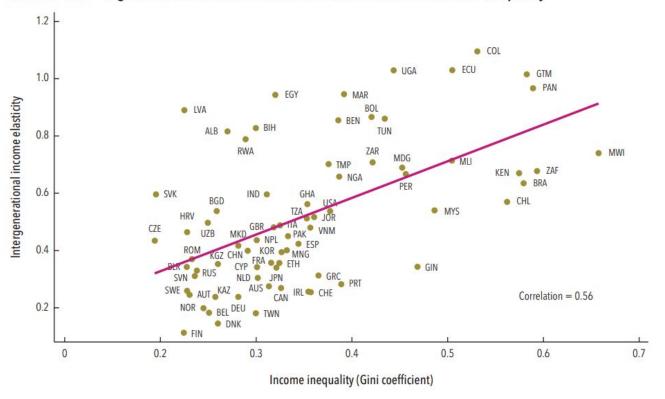
Relative Mobility in Income around the World

FIGURE 4.1 Developing economies tend to have lower relative IGM in income



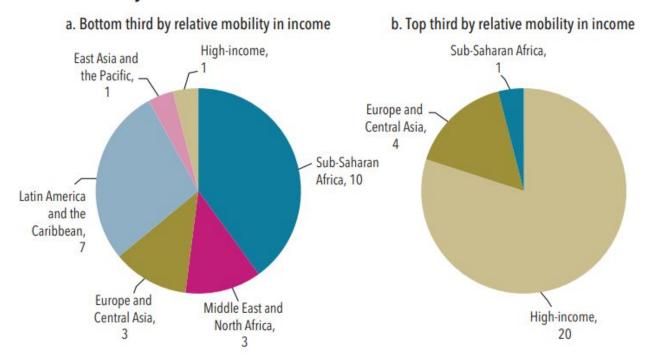
Lower the GDP, higher the beta (less intergenerational mobility)

FIGURE 4.2 Higher relative IGM in income is associated with lower income inequality



Higher the beta, Higher the gini (higher income inequality)

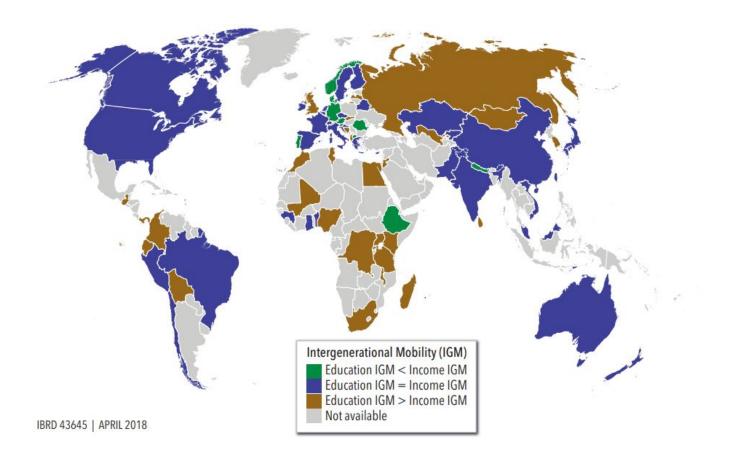
FIGURE 4.3 Economies in the bottom third and in the top third, by relative income mobility



Lower the GDP, higher the beta

- Relative mobility in income around the World
- 2. Relationship between mobility of income and education
- 3. Drivers of Income persistence
- Equality of opportunity and IGM
- Inequality of opportunity at various stages of the life cycle
- 6. The role of public investment
- 7. Equalizing opportunities at different stages

Income Mobility and Educational Mobility: How They Are Related



Cross country differences countries between relative IGM in income and in education

FIGURE 4.4 Relative IGMs for education and income are more strongly associated with each other in developing economies than in high-income economies

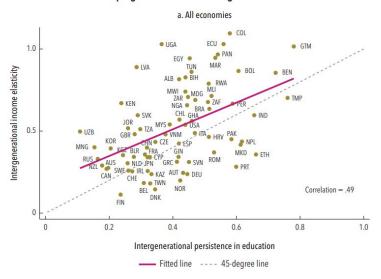
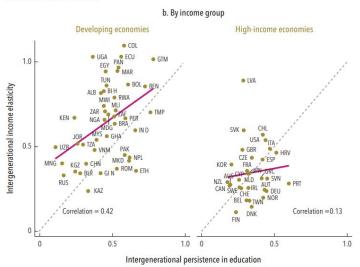


FIGURE 4.4 Relative IGMs for education and income are more strongly associated with each other in developing economies than in high-income economies (continued)



These differences correlate to the type of economy.

- Relative mobility in income around the World
- 2. Relationship between mobility of income and education
- 3. Drivers of Income persistence
- 4. Equality of opportunity and IGM
- Inequality of opportunity at various stages of the life cycle
- 6. The role of public investment
- Equalizing opportunities at different stages

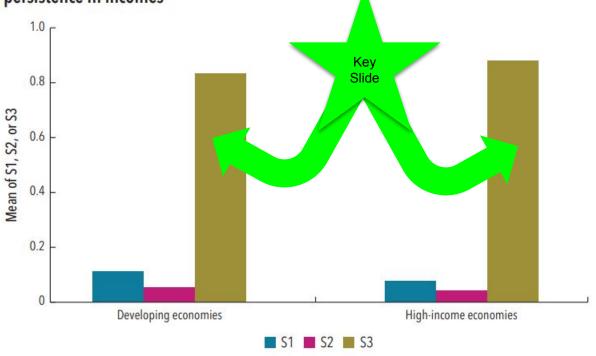
Why Incomes Persist from One Generation to the Next

FIGURE 4.5 Channels of income persistence across generations Parental income: Offspring's income: Three Depends on education and other Depends on education and other channels characteristics of parents characteristics of offspring Key Slide Channel 1 Channel 2 Channel 3 Parental education influences Parental education influences Other parental characteristics (net of the effect of education) offspring's education and thus offspring's characteristics his or her income unrelated to education, which influence offspring's income affect his or her income Stronger when: Stronger when parental Stronger when parental education is more a. Intergenerational mobility education is less important important in explaining in education is lower in explaining differences in differences in parental b. Returns to education parental income income increase more from parents to offspring Example 1: Rich c. Parental education is Example 1: Offspring of parents might live in more important in more-educated parents localities with better might have access to explaining differences in connectivity and parental income more information infrastructure Example 2: More-Example 2: Offspring of Example: Moreeducated parents are educated parents might parents with high social status might access able to invest in better invest more in better economic human capital inputs for noncognitive skills of their children opportunities their children

Note: The figure is a stylized representation of a complex process.

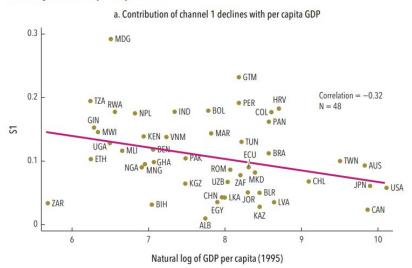
There is more at play that parents' education

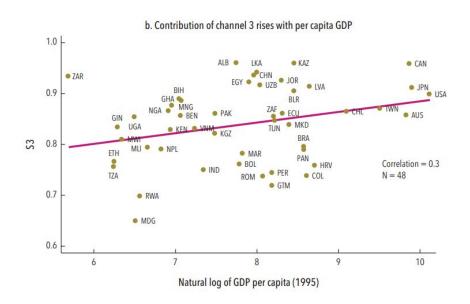
FIGURE 4.6 Parental characteristics other than education contribute strongly to persistence in incomes



In fact, those characteristics that are NOT tied to education seem to contribute the MOST to income elasticity.

FIGURE 4.7 The contribution of parental educational channels to income mobility falls with per capita GDP





When GDP rises, channel 1 effect diminishes, while channel 3 contribution increases

- Relative mobility in income around the World
- Relationship between mobility of income and education
- 3. Drivers of Income persistence
- 4. Equality of opportunity and IGM
- Inequality of opportunity at various stages of the life cycle
- 6. The role of public investment
- Equalizing opportunities at different stages

Equality of Opportunity as a pathway to greater IGM





Both define a set of circumstances, which are attributes individuals cannot be held responsible for, so that any inequality arising from them is considered unfair.

The population is segmented into several types, such that all individuals of the same type share the same set of circumstances

Inequality of economic opportunity

y = income of an individual

y^ = opportunity set assigned to an individual

Absolute IEO: I(y^)

Relative IEO: $I(y^{\hat{}})$,/I(y).

Human Opportunity Index

HOI = (1-D)*C

D=Dissimilarity

C=Coverage

The HOI is the average coverage of an opportunity discounted by a penalty that increases with inequality in coverage between types.

FIGURE 4.8 Greater inequality of opportunity is associated with lower IGM

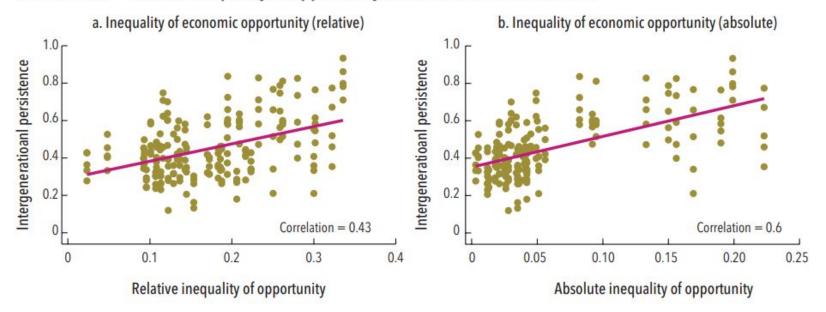
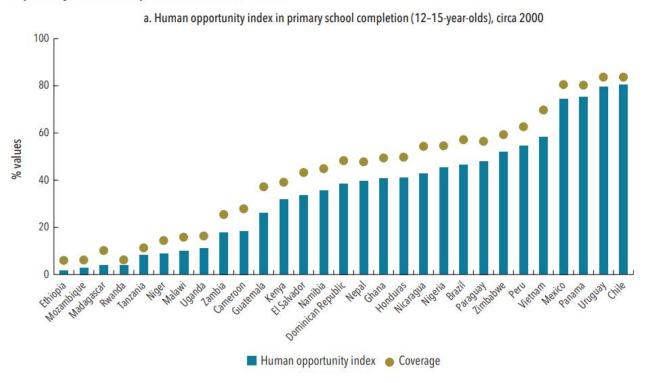
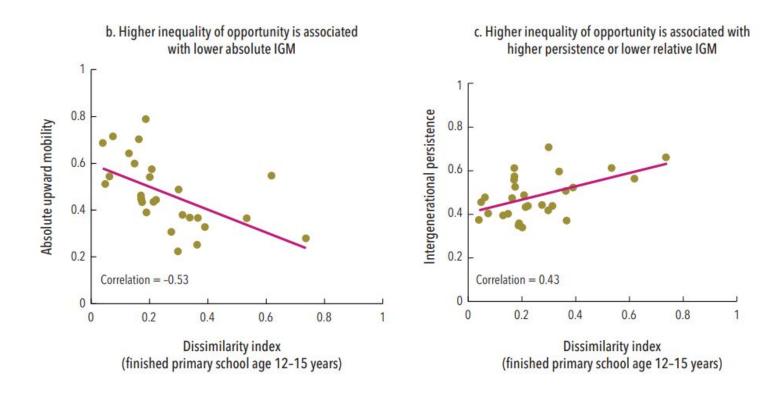


FIGURE 4.9 IGM in education for the 1980s generation is lower in economies with higher inequality in primary school completion in the late 1990s



Improving Mobility Requires Identifying the Drivers of Inequality of Opportunity
As coverage increases, the HOI increases



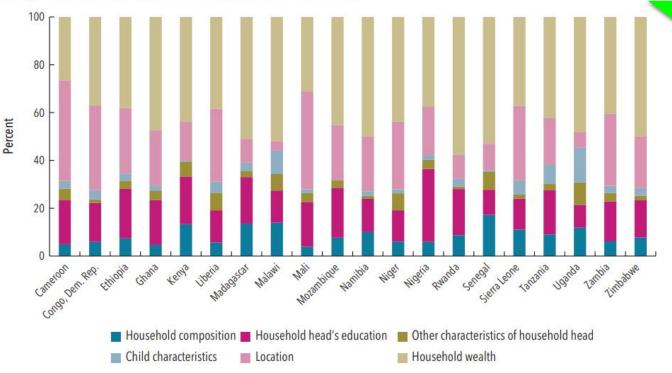
HOI allows us to identify the specific effect of primary school completion on absolute and relative IGM

US vs South Africa: Understanding the contribution of race

Low IGM of earnings is partly attributable to the deep differences between races that persist across generations, net of the effect of the economic status of parents.

Moreover, the persistence of these inequalities, even if there is economic growth for everyone, seems to suggest the existence of inequality traps.

FIGURE 4.10 Contributions of different circumstances to inequality of opportunity among one-year-old children (20 countries in Sub-Saharan Africa)

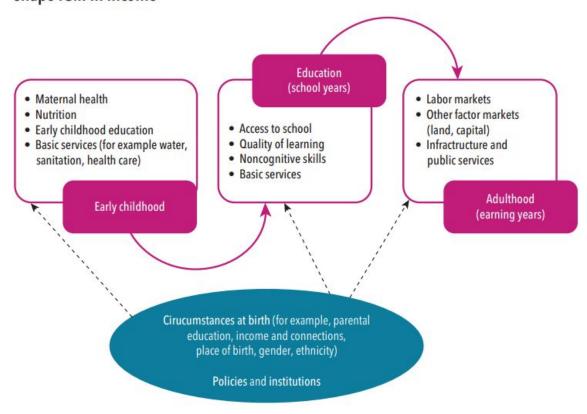


Key Slide

- Relative mobility in income around the World
- Relationship between mobility of income and education
- 3. Drivers of Income persistence
- 4. Equality of opportunity and IGM
- 5. Inequality of opportunity at various stages of the life cycle
- 6. The role of public investment
- 7. Equalizing opportunities at different stages

Inequality of opportunity emerges at various stages of the life cycle

FIGURE 4.11 Circumstances at birth interact with policies and institutions to shape IGM in income



Note: The figure is a stylized representation of a complex process. IGM = intergenerational mobility.

Key Slide

- Relative mobility in income around the World
- Relationship between mobility of income and education
- Drivers of Income persistence
- 4. Equality of opportunity and IGM
- Inequality of opportunity at various stages of the life cycle
- 6. The role of public investment
- Equalizing opportunities at different stages

The role of public investments in raising relative mobility

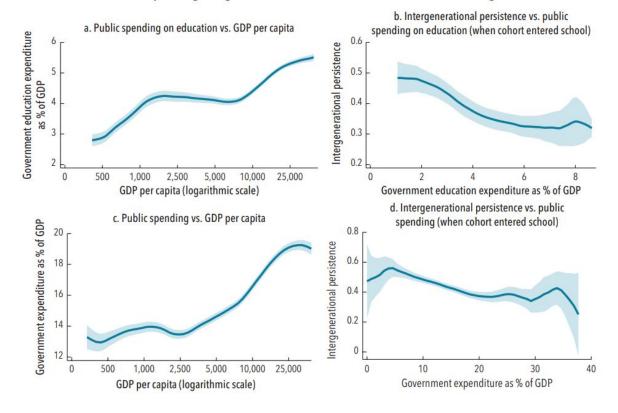
Public investment characteristics

Higher public investments may be an important reason why IGM rises with national income

Economic growth is more likely to lead to a rise in relative mobility in education when it is accompanied by rising public investments to equalize opportunities

To improve relative IGM, public policies need to be "progressive" so that the relatively poor benefit more than those who are more well-off

FIGURE 4.12 Public spending is higher for richer economies, and associated with higher relative IGM



- Relative mobility in income around the World
- 2. Relationship between mobility of income and education
- 3. Drivers of Income persistence
- 4. Equality of opportunity and IGM
- Inequality of opportunity at various stages of the life cycle
- 6. The role of public investment
- 7. Equalizing opportunities at different stages

Equalizing opportunities at different life stages





The distinction between drivers of income mobility at different stages of life can be blurry at times because they can potentially influence mobility in interrelated ways.

Mobility in education by itself is not enough to ensure income mobility in the absence of economic growth and efficient markets (that impact channels 1 and 3).

The drivers of mobility at different stages of the life cycle complement each other, which calls for a **holistic approach toward policies** to improve mobility.

Improving mobility requires a focus on all stages of the life cycle so that the positive effects at different stages strengthen each other.





- Equalize opportunities in childhood, to increase IGM in education;
- Address market distortions that may limit IGM in income over and above the effect of education on earnings;
- Reduce gaps in circumstances among children through taxes and transfers that reduce the inequality of income and of wealth among adults.