

Micro-Decomposing the Macro Determinants of Human Development

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Neither economic growth nor income redistribution was important in driving enrollment gains in Morocco and Vietnam. The explanations lie elsewhere

What are the proximate determinants of aggregate human development outcomes?

What is the role of economic growth and of such factors as changes in income inequality or public policy reform?

There have been two approaches to examining these questions in the past. Cross-country comparisons have found that attainments in basic health and education tend to be higher in higher-income countries and, less obviously, that economic growth tends to be accompanied by improvements in social indicators. But the implications for development policy remain unclear. Is the explanation that higher average income allows a society to buy goods and services that promote health and schooling? Or is it that there is a correlation between average incomes and other country characteristics, such as better public services?

Another approach has examined the micro determinants of human development attainments. This literature too has pointed to the role of income and its distribution, but it has also emphasized a wide range of nonincome characteristics, including those of households, providers, and geographic location. But this literature has not effectively explored the implications for the aggregate relationship between human development attainments in a country and economic growth, the distribution of income, and nonincome factors.

A new paper by Lambert, Ravallion, and van de Walle aims to help bridge this gap. It develops and implements a micro-based decomposition method for consistently

aggregating the empirical micro relationships and so throwing light on the macroeconomics of human development. The analytical complication over other decompositions (in the Blinder-Oaxaca tradition) is that to convincingly estimate the decomposition the authors must use a flexible, nonparametric representation of the economic gradient in human development outcomes across households.

The paper shows that changes in aggregate human development outcomes can be additively decomposed into four components: a pure growth effect associated with differences in mean income; a redistribution effect attributed to differences in the distribution of income; nonincome factors (such as parental education and distance to school); and a structural component reflecting any differences in the model parameters—the human development returns to income or nonincome characteristics.

The decomposition method is used to study changes over time as well as the intergroup disparities in school enrollments for boys and for girls in Morocco and Vietnam during the 1990s. Enrollments have risen in both countries but are appreciably higher in Vietnam. Real consumption per person rose appreciably over the period in Vietnam (5.8 percent a year) but fell in Morocco. Inequality remained stable in Morocco while it rose in Vietnam.

Taken as a whole, the results for the two countries do not suggest that aggregate economic growth or changes in the distribution of income have been important determinants of improvements in aggregate education attainments. What is probably most surprising in these findings is how little education benefit is attributed to the robust economic growth observed in Vietnam over this period.

Most of the changes over time are attributable to changes in the structure of the model linking incomes

and (observed) nonincome factors to schooling attainments. This holds nationally as well as within urban and rural areas, for majority and minority ethnic groups in Vietnam, and for literate and illiterate groups in Morocco. The decomposition cannot tell us what drives these structural changes, since they are economywide factors. But it suggests that there were substantial public policy efforts to increase enrollments and that these were successful; increases in the overall economic returns to schooling may also have played a part.

The results look very different when the cross-sectional disparities in schooling between socioeconomic or geographic groups are studied. Structure becomes generally secondary to differences in mean incomes and nonincome factors and, though less often, to intergroup differences in the distribution of income.

Differences in secondary-level enrollments between Vietnam's urban and rural areas are due largely to differences in mean consumption. In Morocco, by contrast, nonincome factors are dominant in explaining the urban-rural differences in enrollments at both primary and secondary levels.

Disparity in mean consumption is also a major factor in the education inequality between Vietnam's ethnic minority and majority groups, though the effect of this economic inequality has shifted over time from primary to secondary schooling. Nonincome factors also play a big part here, increasing the gap in primary school enrollments in both 1993 and 1998 but reducing ethnic group differences in secondary enrollments in 1998.

Finally, income differences also explain a sizable share of the enrollment gap between children with and without literate fathers in Morocco, though here too nonincome factors are dominant.

Sylvie Lambert, Martin Ravallion, and Dominique van de Walle. 2007. "A Micro-Decomposition Analysis of the Macroeconomic Determinants of Human Development." Policy Research Working Paper 4358. World Bank, Washington, D.C.