Abstract for “Equality of educational opportunity employing PISA data: Taking both achievement and access into account”

Márcia de Carvalho (Universidade Federal Fluminense, Brazil)
Luis Fernando Gamboa (Universidad del Rosario, Colombia)
Fábio D. Waltenberg (Universidade Federal Fluminense, Brazil)

While PISA datasets have been used for measuring inequality of educational opportunity they have important limitations: (i) samples only cover a relatively limited fraction of developing countries’ cohorts of 15-year-olds, and (ii) such fractions are not uniform across countries and waves. This casts doubts on the reliability of such measures when used for international and intertemporal comparisons: a milder calculated inequality of opportunity in a given country at a given moment might simply be the artifact of a more restricted and homogeneous sample. Previous attempts of addressing this problem have focused on explicitly reconstructing full samples. Here an alternative path is followed, relying on bidimensional indices, in which equality of opportunity in achievement is the first dimension and equality of opportunity for access to the exam is the second one. We compute the two dimensions and aggregate them using alternative techniques. Employing PISA 2006/2009 data for six Latin-American countries we observe rank reversals when comparing results based upon our indices and those based upon conventional indices of equality of opportunity for achievement. We then generalize our approach allowing for more dimensions and parameterizing the dimensions’ weights.