

The Role of Inequality in Poverty Measurement

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Abstract

The adjusted headcount ratio, or MPI, is widely used by countries and international organizations to track multidimensional poverty and coordinate policy. Several characteristics have encouraged its rapid diffusion: applicability to ordinal data, ease of communication, a practical identification of the poor based on multiple deprivations, and a dimensional breakdown that informs and coordinates policy. Sen (1976) and others have argued that poverty should also be sensitive to inequality among the poor. This paper provides a new axiom that embodies this perspective in the multidimensional context and defines an Mgamma family containing a range of measures satisfying the axiom. Like the FGT or P-alpha class of monetary measures, it has three main members: the headcount ratio to evaluate the prevalence of poverty, the adjusted headcount ratio to account for its intensity, and the “squared count” measure that reflects severity and inequality among the poor. We note that any inequality sensitive measure must violate the dimensional breakdown axiom and investigate Shapley decomposition methods as an alternative. Unfortunately, these methods can yield counterintuitive result; however, the squared count measure avoids this critique and its Shapley breakdown reduces to an easy to compute formula that supplements the traditional breakdown for the MPI with information relevant to inequality among the poor. An example from Cameroon illustrates our method of using M-gamma measures in tandem to evaluate multidimensional poverty while accounting for inequality and dimensional contributions.

Keywords: poverty measurement, multidimensional poverty, inequality, Shapley decomposition, transfer axiom, dimensional breakdown, FGT measures, decomposability, ordinal variables.

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