Approaching the Measurement of Multidimensional Poverty in Minas Gerais State

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The analysis of poverty from a multidimensional perspective is relevant in Brazil and Minas Gerais to the extent that, although there have been some relatively successful policies and programmes to fight poverty with political and economic sustainability, new challenges emerged which go beyond the objectives of pragmatic reduction of poverty. What is now crucial is the promotion of the social mobility of the population strata with low socioeconomic levels and the discontinuation of inter-generational poverty. Thus, the uni-dimensional measurement of poverty based solely on income has proved to be insufficient to capture the universe of needs of the poorest, which manifest across several dimensions, including health, education, employment, etc. From this new understanding of the national and state level and its necessity of a new agenda, which includes the analysis and action against multidimensional poverty, this study rests on the proposition of an analytical and methodological contribution to complement the administrative and managerial capacities of the national government and Minas Gerais state and for the application and dissemination of the Multidimensional Poverty Index (MPI), developed by the Oxford Poverty & Human Development Initiative (OPHI). The ultimate aim is to provide subsidy to help maximize the impact of social policies in a way that leads to the sustainable human and social development of the targeted populations. Therefore, the analysis is divided into administrative regions to create a more accurate and calibrated poverty diagnosis.

Marco Teórico

The issue of poverty is a phenomenon widely discussed in the literature, but its recognition as a multidimensional phenomenon is counter-hegemonic and innovative. The multidimensional measurement expands the scope of poverty analysis and constitutes an advanced alternative measurement and explanation of poverty. The MPI, as adopted by the United Nations Development Programme (UNDP) and developed by the OPHI in 2010, aims to institutionalize a new international analytical paradigm of the poverty phenomenon, i.e. overcoming the monetarist-dimensional perspective centered on multi-income-based indicators of health, education and standard of living. This multidimensional approach implies the development of a polysemic diagnostic of poverty, earning a higher reliability analysis and incorporating a plural vision of the phenomenon with a significant impact on the design and implementation of social policies. The concept of multidimensionality is anchored in the theory of poverty and human development developed in the 1980s by the Indian economist Amartya Sen. This concept restores the idea of social justice as a strategy for overcoming the condition of under-development and focuses on the principles of freedom and the capabilities of individuals. Nowadays, there are robust institutional efforts towards the incorporation of the multidimensional analysis of poverty with the objective of implementation of integrated and inter-sectorial social policies. Recently, emerging studies of multidimensional poverty have produced new forms of analysis and established a new basis for an integral intervention, mainly in the area of extreme poverty. In this direction, the federal government launched the Brasil sem Miseria Programme at the end of 2011 and some states, such as Minas Gerais, have adopted this strategy for a longer period with the Programa Travessia. While both programs focus on multidimensional poverty, only the Minas Gerais program uses the Global MPI from OPHI/University of Oxford/UNDP as a strategy to detect the situation of poor populations and to choose the types of social programme to be adopted. The strategy aims at the inclusion and social promotion of the poor, and the MPI has become an important instrument in the development of public policy aimed at reducing poverty in the country and

state. The premise behind the use of an index to diagnose poverty is that it "is related to several other economic and social variables, and that by understanding these relationships and paths may be possible to formulate better policies to reduce the prevalence of poverty" (Foster, 2007, p. 3).

Método de investigação se pertinente

To achieve the proposed goals it is used the know-how already developed and applied by the OPHI in the measurement of MPI in several countries, including Brazil. The methodology used for modelling is based on Alkire and Foster (2011) and analyses the incidence and intensity of poverty, i.e. the percentage of poor individuals and the average distance that these individuals are from the situation of non-poverty. The MPI was originally conceived from three dimensions and ten indicators for sustainability of a comparative analysis between countries, but it is sensitive to adjustments to new dimensions, indicators, runs, weights or cut-offs since it is flexible and adaptable to various contexts. The methodology for the calculation of multidimensional poverty is a means of measuring poverty by adding appropriate amounts of both cardinal and ordinal nature, which is important since many poverty-related variables are of an ordinal nature. This methodology stands out due to a number of desirable properties in a poverty index, such as disaggregation and decomposition, both allowing a better analysis of patterns of poverty. The definition of dimensions, indicators, criteria of deprivation and weights of the components of MPI for the state of Minas Gerais are similar to the methodology adopted by Alkire and Foster (2011). For this study, however, some adjustments in relation to the criteria and indicators of deprivation (e.g. proxies) were carried out due to specific characteristics of the database or the need for adaption to the current pattern of deprivation found in the Minas Gerais population. The data used for MPI modelling are from the FJP's Household Sample Survey for the state of Minas Gerais, collected in 2009 and 2011 in partnership with the World Bank. Therefore, this paper will analyze the MPI disaggregated by the following administrative regions (Northwest, North, Rio Doce, Zona da Mata, Triângulo Mineiro, Alto Paranaíba, Midwest, Jequitinhonha/Mucuri, South, Central and Metropolitan Region of Belo Horizonte).

Resultados e contribuições do trabalho para a área

The main results for 2009 indicate that the proportion of the poor population is 8,33% with a significant intensity of 39,94%. The MPI of Minas Gerais (MG_MPI) observed within the scale of 0 to 1 is 0,032 or 3,2%, which is relatively low (Figure 4). For 2011 , the results are better with the incidence of 6,06% (H), approximately 1,21 million people (440.000 people less than 2009), an intensity of 37,37% (A) and a MG_MPI of 0,023 or 2,3%. Thus, there is an important poverty in Minas Gerais, but the trend moves toward reduction. Nevertheless, the most important change is in the incidence (proportion), which positively interferes in the results of the MPI. The intensity of poverty has also reduced from 2009 to 2011, which leads to an additional improvement of the MPI. For a better calibration of the MPI it is important to understand the contribution of each dimension and indicator in overall poverty. Thus, we observe in Figure 5 that the years of schooling have added around 40% in both years of analysis. The aggregation of the two indicators concerning education (years of schooling and school attendance) contributes to over half (53,39 in 2009 and 56.62% in 2011) of the MPI. Therefore, these specific deprivations emphasize the relevance of actions in the field of education. Between 2009 and 2011 the contribution of the indicators school attendance and access to health care increased while a distinct reduction of participation of the other indicators took place. In the decomposition of the relative contribution to the MPI by administrative regions, is observed a strong contribution for the index of years of schooling, followed by school attendance and access to health. Another relevant point is that the relative

contributions of the indicators have few changes between regions, indicating, that in most cases, the regions face similar social challenges. The results obtained by the MPI approach are similar to the data and results of the Human Development Index of the State of Minas Gerais. The state is divided between multidimensionally rich and poor regions. The results also show a clear systematic reduction of multidimensional between 2009 to 2011, in terms of incidence (H), intensity (A) and index (MG_MPI) corroborating an important trend to overcome extreme poverty in Minas Gerais. The change of MG_MPI is mainly due to reduction in the proportion of poverty (H). In addition poorer regions have had the most significant improvements, leading to a better overall result and less discrepancy between administrative regions in 2011 MPI. Thus, why should the government use multidimensional poverty measurement? In our view, using a multidimensional poverty analysis is beneficial because it contributes to better targeted social policies aimed at the poorest population (not only in financial resources). The identification of each dimension and each indicator of deprivation could assist the government in the design of specific social policies that would better resolve the problems involved. Hence, the multidimensional poverty analysis conducted on the state of Minas Gerais is an important strategy for orientation of the conception and implementation of social policies likely to achieve more effective results. As a result of a better understanding of the multidimensional nature of poverty and the subsequent identification of particularly vulnerable territories, the state could develop targeted social policies that make better use of public resources.

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