

# WHAT HAPPENED TO MULTIDIMENSIONAL POVERTY IN SOUTH AFRICA BETWEEN 1993 AND 2010?

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Gauging levels of welfare using data on income and expenditure while informative is limited, and can be enhanced by including non-money-metric measures. Using data from the detailed and nationally representative PSLSD (1993) and NIDS Wave 2 (2010) datasets, we are able to calculate a multidimensional poverty index (MPI) for each year. Having data from these two points in time allows us to assess trends in multidimensional poverty in South Africa over the post-apartheid period.

The MPI has three dimensions: education, health and living standards. These dimensions are each made up of the following indicators:

- Education: years of schooling and enrolment
- Health: child mortality and nutrition
- Living standards: source of water, type of toilet, type of cooking fuel, presence of electricity and presence of household assets<sup>1</sup>

A person is identified as poor if he or she is deprived in at least one third of the weighted indicators<sup>2</sup>. The MPI reflects both the proportion of the population that is multi-dimensionally poor, denoted H (headcount ratio), and the average intensity (A) of their poverty. In other words, A is the average proportion of indicators in which poor people are deprived. The MPI is calculated by multiplying the incidence of poverty by the average intensity across the poor ( $H \times A$ ).

Table 1 depicts and compares multidimensional and money-metric poverty in South Africa in 1993 and 2010. The multidimensional headcount ratio shows that 37% of the population was classified as poor according in 1993, falling to 8% by 2010. In other words, only 8% of the population was deprived in more than three of the nine areas of multidimensional poverty in 2010. The average *intensity* of poverty amongst the poor (A) also fell from 47% in 1993 to below 40% in 2010. This means that those 8% who remained multidimensionally poor in 2010 were deprived in fewer dimensions of poverty than in 1993. Taking

**Table 1: Poverty measures for South Africa for 1993 and 2010**

	Multi-dimensional poverty headcount ratio (H)	Multi-dimensional poverty intensity (A)	MPI = H x A	% in severe poverty	Money-metric poverty headcount ratio
1993	<b>0.37</b>	0.47	0.17	16.9	<b>0.37</b>
2010	<b>0.08</b>	0.39	0.03	1.1	<b>0.28</b>

Source: Own calculations using weighted data from the PSLSD (1993) and NIDS Wave 2 (2010-2011).

the changes in H and A together, the number of multidimensionally poor people had fallen by 2010 *and* those who remained in poverty were somewhat better off than in 1993. This is captured in the value of the MPI, which dropped from 0.17 in 1993 to 0.03 in 2010. *Severe poverty*, defined by deprivation in 50% or more of the indicators, also declined from 17% in 1993 to just over 1% in 2010. The decline in the incidence of money-metric poverty over the period was much smaller, from 37% to 28% over the period. This implies that if we take a broader view of poverty, there has been a substantial drop in multidimensional poverty in both absolute terms *and* in comparison to money-metric poverty.

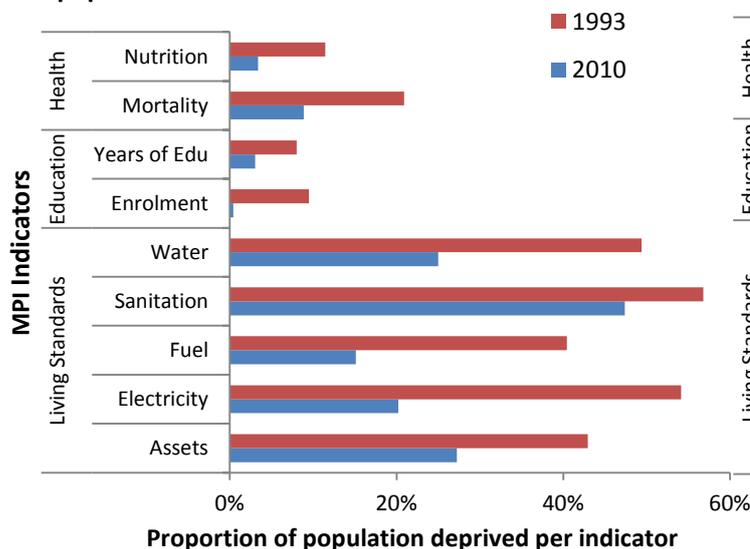
These changes can also be decomposed by race and geographical location<sup>3</sup>. Africans experienced the largest decrease in MPI prevalence over the period. In 1993, almost half of Africans in the population were classified as MPI poor. This fell to 9% in 2010. The poorest province in MPI terms in 1993 was (what is now) Limpopo, with 65% of the population classified as MPI poor and 61% as money-metric poor. These rates fell to 9% and 42% respectively in 2010. Reductions in MPI poverty were significant in the Eastern Cape, North West, Free State, KwaZulu-Natal and Mpumalanga with declines of 39, 37, 35, 32 and 31 percentage points respectively. The direction, if not the size, of the declines was matched in money-metric terms.

<sup>1</sup> See the Working Paper for exactly how these measures are used to define poverty

<sup>2</sup> See the Working Paper for indicator weights

<sup>3</sup> Results not shown; see Table 2, page 12 in the Working Paper.

**Figure 1: Sources of deprivation among the population as a whole**

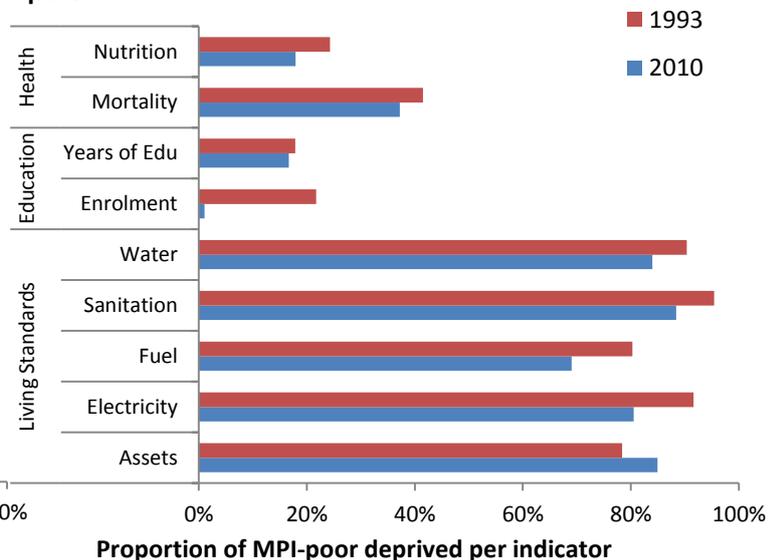


By 2010, the poorest province according to the multidimensional index was KwaZulu-Natal, while Limpopo was the poorest province at the R292 poverty line. In both 1993 and 2010, the Western Cape had the lowest multidimensional and money-metric poverty rates, although there was a slight increase in money-metric poverty over the period. Finally, MPI poverty prevalence in rural areas fell from 61% to 15% while in urban areas the corresponding figures were 10% to 2%. In comparison, money-metric poverty in rural areas fell from 56% to 43% over the period and remained constant at 17% in urban areas. It is clear from these estimates that the two definitions of poverty tell notably different stories.

The main sources of multidimensional poverty in the population as a whole are illustrated in Figure 1. Half the population was classified as water deprived in 1993. By 2010 this had fallen to a quarter. The decline in sanitation deprivation was more modest, falling from 57% to 47%. Electricity deprivation fell substantially from more than a half in 1993 to one fifth 17 years later. The health dimension saw a fall in mortality from 21% to 9% and a fall in nutritional deprivation from 11% to 3%. The area with the biggest improvement was school enrolment, where the deprivation indicator declined to almost zero in 2010. The dramatic improvement in this education indicator was a major factor behind the decline in multidimensional poverty since 1993.

Figure 2 shows where deprivation was most concentrated among those who were MPI poor (i.e. not among the population as a whole). In 1993, water, sanitation and electricity deprivation

**Figure 2: Main areas of deprivation among the MPI-poor**



were the highest, with more than 80% of the MPI poor being deprived in these areas. In 2010, sanitation and water continued to be the top measures of deprivation, with asset deprivation moving into third place, at more than 80%. On the whole, the living standards dimension remains the main source of deprivation amongst the MPI poor. The only indicator to show an increase in deprivation amongst the poor was household assets (for example, a vehicle, TV, cell phone, fridge, etc.), increasing from 78% in 1993 to 85% in 2010. The contribution of each dimension of MPI poverty has remained relatively stable over the period with the exception of enrolment, which fell from 8% in 1993 to 0.4% in 2010.

Between 1993 and 2010, the reduction in multidimensional poverty was significant and notably higher than the concomitant fall in money-metric poverty. Thus, significant increases in public expenditure to attain universal school enrolment, to reduce child mortality and expand access to services such as electricity and sanitation to poor communities have been very effective in reducing multidimensional poverty. However, the labour market has not functioned in a way that has turned this enhanced potential into large-scale increases in productive employment. As confirmed by the relatively small decline in money-metric poverty, the multidimensional improvements have not translated into notably higher real earnings for the poorer segments of South African society.

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