

Income inequality in South Africa: Evidence from individual-level administrative data

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EXTENDED ABSTRACT

While income inequality has been extensively studied in South Africa (see the summary in SA-TIED, 2022 for an overview), the opportunities provided by individual-level tax data for all formal sector workers, available as the individual panel,¹ have not been fully seized previously. Related work by Bassier and Woolard (2020) examine combined individual-level survey data and tax data at the aggregated level, whereas Hundenborn et al. (2019) investigate administrative data for two years. Kerr (2021), in turn, focuses on earnings inequality based on related, but not the same, microdata. His emphasis is on comparing survey data and tax administrative data as well as in examining the role of firms in earnings dispersion.

The purpose of this paper is to offer an overview of income inequality in South Africa for the formal sector income earners covered by the tax administrative data, available from 2011 onward. The analysis is divided into three main parts. In the first part, we provide a comprehensive picture of annual income changes across the distribution. We go on, in the second part, to dig into the mechanisms behind these trends. In the third part, we turn to a panel analysis to examine income mobility across the years and the relationship between this mobility and longer-term inequality.

In the first and the second part the research questions we examine include the following:

1. What have been the overall developments in before-tax and after-tax income inequality over the recent decade measured using a variety of indices including the Gini, Atkinson measures and income shares?
2. How high have been the top income shares for the top 10, 1, and 0.1 per cent of income earners and how have these shares changed over time?
3. What have been the contributions to the overall inequality of earned income versus different types of capital incomes (including dividends and capital gains), especially at the top of the distribution?
4. How large have been the relative contributions to inequality of between groups, defined on the basis of age, gender, and locality? These questions are, of course, closely linked to the notion of equality of opportunity, for which one measure is the share of the between-groups component among overall inequality.

Turning to the longitudinal analysis of part three, the objectives are:

5. To examine how much lower is the overall income inequality over the period in comparison to annual distributions. In the presence of substantial income mobility across the years, the longer run inequality could be of smaller extent than an annual analysis might suggest.
6. How stable has the income distribution been? For this aim, we will calculate transition matrices between the years to examine whether there have been trends in income mobility during the latest decade.

¹ For a description of the data, see Ebrahim and Axelson (2019).

7. To what extent do these mobility trends differ for different sections of the base income distribution and, in particular, to what extent do the top income groups experience the same mobility and churn as elsewhere?

Finally, the results are compared with the survey-based estimates both for individual years and the survey-based panel data from the NIDS (National Income Dynamics Study) for the longitudinal part.

Our paper contributes to the literature by providing a very detailed analysis of income inequality for a middle-income country, including an examination of longer run income inequality and income mobility. The work is conducted in a high inequality context, but in a country where the country's substantial tax capacity implies that the formal-sector population-wide tax data at our disposal will provide an extremely good coverage of top income earners. The results may be used to assess the sources of longer run income differences, the adequacy of redistribution via taxation in South Africa, and to inform about the extent of equality of opportunity in, especially, reaching the top income groups.

References

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