

REVIEW | Policies for reducing income inequality and poverty in South Africa

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Introduction

When viewed from a political perspective, the post-apartheid South African landscape looks markedly different from its apartheid predecessor. From a developmental vantage point, however, the legacy of apartheid is still there for everybody to see. Poverty and inequality continue to detract from what many have referred to as a 'miracle transition'. Highly skewed and entrenched patterns of distribution persist, reinforcing poverty and inequality.

Undoing them remains the major preoccupation of policy-makers in democratic South Africa. As such, proper data and analysis are critical, both to understand the scope of the challenge and to devise appropriate policy responses. Thus far, research into the phenomenon of inequality has focused largely on its measurement and proximate causes on the basis of inequality decompositions. Generally, the findings have shown that inequality levels have increased, but that their strongly racial character has diminished since the end of apartheid. Poverty, on the other hand, has decreased but still bears the enduring racial markers of apartheid.

Another strand of research has concentrated on fiscal redistribution, or the extent to which state revenues have been channelled successfully towards appropriate areas of need. Most findings suggest that the majority of social policies have been well targeted towards the poor. Social grants, in particular, have been instrumental in lifting millions out of poverty. What they have not succeed in, however, is to reverse inequality trends through the provision of equal opportunities to all South Africans.

This is an overview of major inequality and redistribution trends since South Africa's democratic transition in the 1990s. A comparative perspective is provided, and education policy is singled out as an area that has specific relevance to the question of income inequality.

At the outset, a summary is provided of key poverty and inequality trends in South Africa since the transition. The second section discusses redistributive policies since the end of apartheid, and a fiscal incidence analysis for 1993 and 2008 is performed. Education policy is then examined in more detail, beginning with a study of the relationship between education and income in 1993 and 2008, and ending with a

discussion of a number of constraints behind the education policy choices of the post-apartheid government.

Post-apartheid inequality and poverty trends¹

Inequality: a gap that is still growing

An analysis of census data that dates back as far as 1917 shows that the average real incomes of South Africans have been increasing steadily for all population groups (Leibbrandt, Van der Berg & Borat 2001). National household surveys from the past 15 years confirm that this trend has also been visible since the country's democratic transition.² However, income growth has not resulted in a decline in South Africa's historically high levels of inequality. On the contrary, levels of inequality have widened during the post-apartheid years. A comparison of aggregate Gini coefficients (the most widely used measure of inequality) for 1993, 2000, 2005 and 2008 illustrate this point (see Table 4.1.1). The trend stays the same, even when alternate datasets for different years are used (Leibbrandt, Woolard & Woolard 2009). Analyses of income deciles show that income has become increasingly concentrated in the top income deciles at the expense of all other deciles.

The make-up of our labour market keeps this skewed picture intact. Key statistics in this sector show that labour force participation rates are highest in the top income deciles, which also have the highest labour absorption rates. This means that employment rates in the top income deciles are higher than those in lower income groups. In fact, rates of unemployment have fallen in the upper categories since 1993, and especially after 2000. Yet, the reverse is true for those in the lower deciles, where the number of those without employment showed a sharp incline. As a result, overall unemployment rates have also increased by a significant margin. Without solving the labour market question, South Africa will not solve the inequality question. Labour market income was 'responsible for' 83 per cent of income inequality in 1993 and 85 per cent in 2008 (see Leibbrandt, Finn & Woolard 2010). There is no way around it.

These decompositions point to rising unemployment as a key driver of inequality, but they also emphasise the problem of rising inequality of earnings amongst the employed. In real terms, those who find themselves in lower income categories



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have not seen an increase in their earnings in the post-apartheid years. Relative to those in higher income categories, earnings have actually dropped. Sadly, therefore, employment does not necessarily provide a ticket out of poverty. This is especially so for unskilled workers, who are unlikely to move out of the lower income distribution deciles.

Given South Africa's history of racial discrimination, it is to be expected that these large and increasing income disparities bear a strong racial footprint. While it is true that inequality between the country's historically defined racial groups remains high, the importance of race as a factor that explains overall inequality has decreased quite significantly. As can be seen from the Gini coefficients for each racial group presented in Table 4.1.1, within-group inequality has increased markedly for all racial groups. By 2008, the most populous racial group, the African group, made up 80 per cent of the population and had the highest inequality of the four major racial groups.³ The Gini coefficient for Africans was 0.12 points higher than the same measure for the white group. Thus, dynamics within racial groups have become more important, and those within the African group have become especially important, in driving aggregate changes in inequality.

Spatial dynamics must also feature prominently in our understanding of what shapes inequality in South Africa. Apartheid not only prioritised development in certain geographical areas at the expense of others, it also forcibly displaced and resettled millions to live in so-called rural 'homelands'. As such, the rural/urban dimensions of poverty cannot be ignored. 'Homelands' remained predominantly underdeveloped and poor. Those able to leave for urban areas did so; those who stayed behind continue to live in conditions of underdevelopment, low employment and limited infrastructure. Our research shows that such migration to cities and towns, in pursuit of better lives, has increased urban inequality since 1993, but has contributed to lower rural inequality over the same period (Leibbrandt, Finn & Woolard 2010). Of course, the latter is not as much the result of improved rural conditions as it is the consequence of the large influx of poorer people into areas where higher incomes are being earned.

The question of to what extent access to endowments, such as social services and education, can change current patterns of distribution is relevant to these geographic distinctions.⁴ The South African data at our disposal suggest that increased access does indeed bring positive change, but it is not enough to alter the distribution of per capita income (Leibbrandt &

Levinsohn 2011). This sobering outcome seems to be the effect of two countervailing trends. On the plus side, there is increased support to children, which is driven by the implementation of a new child support grant. Counterbalancing this, however, is the low level of return on these endowments or deliverables. Nowhere is this more evident than in the returns to education in the labour market (Lam, Leibbrandt & Garlick 2010). It is this strangulation of skills that continues to underpin both unemployment and the inequality of labour market earnings, which drive household inequality.

Poverty: some gains, but are they sustainable?

Overall poverty levels declined between 1993 and 2008. In Table 4.1.2, findings are presented for two alternative poverty-line benchmarks, namely US\$1.25 per day and a more conservative US\$2.00 per day. The downward movement on both measurements is visible and corresponds with the findings of several others in this regard (see, for example, Borat & Van der Westhuizen 2009; Van der Berg et al. 2008). This decline in poverty is even more pronounced if other measures of poverty, such as the poverty gap ratio, which is sensitive to the depth of poverty, are used (see Leibbrandt, Woolard, McEwen & Koep 2010; Leibbrandt, Woolard, Finn & Argent 2010). Not everybody agrees about when poverty levels started to drop – some believe that it has only been a post-2000 phenomenon (Hoogeveen & Özler (2006) – but there is little disagreement about the longer-term trend. There is also little contention about the positive trajectory of poverty dimensions that are not measured purely in terms of income (non-money-metric well-being) (Bhorat, Naidoo & Van der Westhuizen 2006; Borat, Van der Westhuizen & Cassim 2009). In all analyses, access to services, formal dwellings and private assets are shown to improve in the period from 1996 to 2001, and then on through to 2008.

Because of the country's segregated past, poverty trends – as is the case with inequality trends – show development patterns that are distinct for the country's historically defined racial groups. Its incidence amongst black Africans remains the highest, followed by the coloured, Indian and white groups. Given the relative size of the black African section of the population, this group makes up more than 90 per cent of the country's poverty share. Coloured people make up the remaining share, with some nuances. In line with declining national poverty rates, black African poverty has decreased over time, but the incidence of poverty amongst coloured



Despite their impact in terms of reduced poverty rates, state transfers have not managed to push down inequality levels.

South Africans has increased. In terms of the geographic distribution of poverty, and in line with the changes in urban/rural Gini coefficients, rural poverty has barely changed over the last 15 years, while urban poverty has shown an increase. Unemployment, particularly amongst young South Africans, serves to sustain these unacceptably high levels of poverty. Even in instances where people are employed, they are not fully protected from the scourge of poverty. This is especially true for one-worker households in the lower-income categories.

As is to be expected, poverty is most prevalent amongst people who have no post-school education. This underscores the lack of demand for low-skilled workers. Yet, despite the increased risk of unemployment for households in this category, they have not become poorer over time (see Leibbrandt, Woolard, Finn & Argent 2010). This points to an alternative source of income, namely social grants, of which there are now close to 15 million recipients. Unlike wealthy households, where employment accounts for the bulk of household income, poor South Africans derive most of the income that they need to sustain themselves from the government. This reliance on state assistance becomes increasingly evident the lower one moves down the income deciles, with the proportion of multiple-worker households decreasing and the number of no-worker households rising.

The effectiveness of such government assistance is particularly visible in the substantial decline in the incidence of poverty amongst the oldest age cohorts, who are no longer considered a part of the labour market. State old-age pensions have proven to be particularly effective in terms of poverty alleviation. The same can be said of the government's child grant programme. Proof of this, ironically, can be found in the higher incidence of poverty amongst childless households, as opposed to households with children that receive this grant. The poorest households are typically those that have no access to income, through either the labour market or government grants.

Despite their impact in terms of reduced poverty rates, state transfers have not managed to push down inequality levels. While they have been sufficient to move households out of the bottom two deciles, clustering transfer recipients nearer the middle of the income distribution, disproportionate growth at the higher end of the scale has neutralised any real move towards greater equality.

Redistributive policies

The trends highlighted thus far suggest that much still needs to be done to realise the promise of greater material dignity

Table 4.1.1: Gini coefficients of per capita income, aggregate and by race

Year	Aggregate	African	Coloured	Indian	White
1993	0.67	0.55	0.43	0.46	0.42
2000	0.67	0.61	0.53	0.50	0.47
2005	0.72	0.62	0.60	0.58	0.51
2008	0.70	0.62	0.54	0.61	0.50
1993–2008, % change	4.50	12.70	25.60	32.60	19.10

Source: Project for Statistics on Living Standards and Development (PSLSD) (1993); Income and Expenditure of Households (IES) (2000, 2005); National Income Dynamics Study (NIDS) (2008)

Table 4.1.2: Poverty headcount ratios

Year	Total population	\$1.25 per day	\$2 per day
1993	40 002 316	20.70	33.90
2000	45 134 247	18.20	30.80
2005	46 971 312	16.70	31.20
2008	48 687 036	17.70	30.00
1993–2008, % change	21.70	-14.50	-11.50

Source: PSLSD (1993); IES (2000, 2005); NIDS (2008)

Table 4.1.3: Gini coefficients for market and disposable income, 1993 and 2008

Year	Market Gini	Disposable Gini	Difference
1993	0.75	0.69	-8.65%
2008	0.77	0.70	-10.24%

Source: PSLSD (1993); NIDS (2008). Authors' calculations.

for the majority of South Africans. In our evaluation of the government's performance in this regard, it is worthwhile to keep in mind that 18 years of democratic government is a short time in comparison to centuries of colonial and apartheid marginalisation, during which skewed patterns of distribution were entrenched. We should not have unrealistic expectations. Nevertheless, almost two decades into this new dispensation, it is necessary to critically evaluate the efficiency of policies that have been introduced with the aim of altering historic patterns of distribution.

This article concentrates specifically on levels and trends in fiscal redistribution in South Africa since the end of apartheid. In other words, how have state revenues been employed to promote a more equitable society? South Africa has a progressive income tax system, a number of direct transfers, of which the old-age pension and the child support grant are the most notable, as well as public healthcare and education. These represent significant developmental achievements but, in the interests of resource efficiency, we constantly need to ask about the extent to which they are being productively leveraged.

In the sections below, the article will look first at South African fiscal redistribution in a comparative perspective. As the available cross-national data are on taxes and direct transfers, the analysis is initially restricted to these items. Subsequently, the trends and nature of different types of social policy since the 1990s, including healthcare and education, are interrogated.

Fiscal redistribution in comparative perspective

Redistribution through taxes and transfers is less common in developing countries than in so-called developed states. In Latin American countries, for example, the redistributive impact of taxes and transfers on the market income Gini coefficient is negligible (Goñi, Lopez & Servén 2008). In South Africa, Van der Berg (2005, 2009) has carried out several fiscal incidence analyses that consider the complete set of social policies, including healthcare and education. For the purpose of comparative analysis of international data here, however, we exclude the latter and examine only the redistributive effects of direct taxes and social grants.

In order to gain a clearer understanding of how the state's redistributive effectiveness has changed over the years, we compare the measured level of household per capita income inequality for market income and disposable income (see Goñi et al. 2008).⁵ The former consists of household income, before taxes are deducted and government grants are added, while the latter simply represents household income, after direct taxes have been deducted and government grants received. Comparison of the difference in the level of inequality between the two measures allows us to gauge how effective the redistributive regime is in reducing inequality. As mentioned above, we are measuring the redistributive effects of direct taxation and government grants, and not the redistributive consequences of indirect taxation, such as value added tax,

which is generally regressive in nature. We also do not take into account broader welfare measures, such as the extent to which poor households gain increasing access to state-supplied healthcare facilities and schools over time.

The data for this study come from the 1993 PSLSD and the first wave of the NIDS from 2008. Given that the scale of government spending on social assistance and the level of efficient tax collection increased significantly over the period in question (Ajam & Aron 2009), we are able to assess the changing impact of these factors on inequality reduction over time.

Table 4.1.3 summarises the findings for market versus disposable income for the years 1993 and 2008, and shows that market income inequality and disposable income inequality increased in the period under study. The difference between the two increased from 8.65 percentage points in 1993 to 10.24 percentage points in 2008. This indicates increased effectiveness of state redistributive actions, despite the continued rise in overall inequality. It is also significantly higher than in Latin America, where the average was a decrease of 2 percentage points for Argentina, Brazil, Chile, Columbia and Mexico (Goñi et al. 2008). In Europe, where state redistribution has traditionally been high, the difference between the two Gini measures is close to 20 per cent (Goñi et al. 2008).

Progressivity of social policies

Besides taxation, redistributive policies consist of, on the one hand, direct social transfers (such as pensions) and, on the other, social services provision (such as education). Direct transfers include both social insurance and social assistance. The South African social insurance pillar (essentially unemployment insurance), is restricted in both its reach and duration. In 2009, it covered only around 10 per cent of the unemployed.⁶ The maximum claim period is 238 days. The social assistance pillar is far more developed, providing basic resources to those who are unable to work either because of their age (old-age pension and child-support grant) or because of disabilities (disability grant). Between 1997 and 2009, the number of beneficiaries increased for all grants, most dramatically for those receiving the child-support grant (see Table 4.1.4). In this period, the number of beneficiaries for the most important social grants rose from fewer than 3 million to more than 12.5 million – almost a quarter of South Africans. At the same time, while government spending on social assistance increased, it remained stable as a percentage of GDP. This figure stood at 3.2 per cent in 1995, and the comparative figure for 2009 was 3.1 per cent (Van der Berg & Siebrits 2010). Not only have these grants played an important role in lifting people out of poverty, they also have affected other outcomes such as school enrolment (Leibbrandt, Woolard, Finn & Argent 2010).

Table 4.1.5 presents the concentration ratios for different types of social spending in 1995, 2000 and 2006. A concentration ratio is a measure of how a given income stream is distributed across the income spectrum. A value of 1 is fully regressive, of -1 fully progressive. This analysis shows that government

grants have concentration ratios that are closest to -1 and, therefore, are seen to be the most progressive social policies in South Africa. This is to be expected, as these grants are means tested. Concerning trends, it is noteworthy that the degree of progressivity for social grants has not increased since 1995.

The second type of social policy that has an impact on redistribution concerns the provision of social services, of which healthcare and education are the most notable. In view of the highly unequal access to healthcare and education at the end of apartheid, these two policies have been considered critical for post-transition transformation. As a percentage of GDP, spending on healthcare has remained stable since 1995 at slightly above 3.0 per cent; spending on education decreased from 7.0 per cent to around 5.5 per cent of GDP between 1995 and 2007 (Van der Berg & Siebrits 2010). With the exception of tertiary education and housing, spending on social services has been progressive in the 2000s. The real decline in tertiary education spending is to be expected as higher income groups typically attend universities at higher rates than the poor. Health spending appears generally more progressive than education spending, most importantly in the category of public hospitals. This finding is probably not unrelated to the fact that more affluent groups have opted out of public healthcare into private health insurance.

In summary, direct taxation and social policies in post-apartheid South Africa have contributed to a decrease in inequality levels. For taxes and direct social transfers, progressivity has been on the increase since 1993. Similarly, overall social spending has become more progressive since 1995. However, the contribution of taxes and transfers to a decrease of the market Gini coefficient is only slightly above Latin American levels and substantially below European levels. Moreover, for some items of social spending progressivity has stagnated or decreased.

Education provision in post-apartheid South Africa: policy and policy constraints

This section considers education policy in post-apartheid South Africa. Needless to say, education plays a critical role in determining an individual's position on the income distribution scale and, therefore, represents one of the most important policy tools that can potentially address inequality. Here, we examine the changing relationship between education levels and inequality between 1993 and 2008. We describe the patterns of education spending since the end of apartheid, as well as the educational attainment of South African students, and then conclude with a discussion of several factors that have guided the choices in education policy since 1994.

Education and inequality

Education is the key variable in determining, firstly, whether an individual finds employment and, secondly, the nature of that

Table 4.1.4: Numbers of beneficiaries of social grants in 1997 and 2009

	1997	2009
Old-age grant	1 737 682	2 414 183
Disability grant	737 322	1 281 556
Child-support grant	362 631	8 825 824
Total	2 837 635	12 521 563

Source: Based on Van der Berg and Siebrits (2010)

Table 4.1.5: Concentration ratios for social spending

Spending category	1995*	2000*	2000**	2006**
Social grants	-0.434	-0.431	-0.371	-0.359
Child support			-0.247	-0.318
Disability			-0.291	-0.288
Old age pension			-0.412	-0.436
Education				
School	-0.016	-0.104	-0.121	-0.128
Tertiary	0.235	0.497	0.528	0.641
Health	-0.045	-0.082	-0.118	-0.137
Public clinics	-0.103	-0.132	-0.177	-0.257
Public hospitals	-0.014	-0.057	-0.105	-0.103
Housing	-0.018	0.007	0.16	0.07
Total across services	-0.057	-0.12	-0.112	-0.152

Source: * Based on Van der Berg (2005); ** Based on Van der Berg (2009)

employment and its remuneration. The section above focused on changing measures of inequality at the household per capita income level. We now move on to a deeper analysis in order to explore the changing relationship between educational attainment and inequality.

The data for this undertaking come, once again, from the PSLSD (1993) and the first wave of the NIDS (2008), with household income per capita serving as the unit of comparison, and with 8 663 and 7 168 households forming the respective comparison groups. Three different types of analysis are used: a) a comparison of the unconditional income distributions by education between 1993 and 2008; b) a comparison of the conditional distributions of income by education between 1993 and 2008; and c) unconditional versus conditional distributions within each year.

The unconditional distributions are constructed by dividing up household per capita income into quintiles and then assessing the probability that an individual with education level *x* falls into income quintile *y*. Because we are investigating inequality as measured by household income per capita, we use the household head's level of education as the unit of analysis.⁷

The conditional distributions are the end product of an ordered probit model that was run with the five income quintiles as the dependent variable. The right-hand side of the regression equation included controls for household size, province, geo type (urban, rural), a dummy for whether at least one household member was employed, and the household head's age, race, gender and level of education. All ordered probit regressions are weighted using census-raised weights (1993) and post-stratification weights (2008), and all standard errors are robust.

Since the initial results of the ordered probit model are somewhat cumbersome to interpret, we move on to an analysis of the probability of a household being in a particular income quintile, given the level of education of the household head and the full range of controls. For this, we have constructed a measure of the probability of being in each income quintile by the head of a household's education.

Let us start with a comparison of the unconditional 1993 situation versus the unconditional 2008 situation as reflected in Table 4.1.6 and Table 4.1.7. A feature of this comparison in both benchmark years is the high level of predictability when a household is headed by someone with tertiary education. The same cannot be said for matric-headed households. Between 1993 and 2008 there was a marked decline in the probability of a matric-headed household being in the top quintile. Correspondingly, there was a significant increase in the likelihood that people in this category would fall into income quintiles 1 or 2. Not surprisingly, households headed

Table 4.1.6: Unconditional probabilities, 1993

	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Percentage
No education	37.49	30.76	18.46	9.08	4.21	22.01
Primary	26.05	26.53	22.50	18.35	6.58	29.99
Incomplete secondary	12.20	15.59	25.63	29.45	17.13	28.23
Matric	3.60	4.63	13.11	26.28	52.39	10.21
Tertiary	2.10	0.79	4.89	16.54	75.67	9.56

Source: PSLSD (1993). Number of households = 8 663. Authors' calculations.

Table 4.1.7: Unconditional probabilities, 2008

	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	Percentage
No education	31.58	34.75	24.19	7.81	1.67	13.82
Primary	28.53	29.95	24.08	13.24	4.20	23.44
Incomplete secondary	21.07	17.69	23.91	24.77	12.57	31.65
Matric	9.02	11.34	14.67	29.73	35.24	20.60
Tertiary	2.50	1.61	4.71	17.31	73.86	10.50

Source: NIDS (2008). Number of households = 7 168. Authors' calculations.

Education is the key variable in determining, firstly, whether an individual finds employment and, secondly, the nature of that employment and its remuneration.





While greater access in terms of available infrastructure has contributed to an increase in enrolment figures in primary and secondary education, the quality of education has remained an obstacle to providing the economy with the skills it requires.

by an individual with incomplete secondary education have become increasingly concentrated in the lower quintiles.

With this unconditional comparison as the benchmark, we now compare the conditional situation in 1993 with that of 2008 (see Tables 4.1.8 and 4.1.9). By far the most striking feature of this comparison is the change in probabilities for households headed by an individual with tertiary education. There was huge 'probability migration' from quintiles 1 to 4 into 5 between 1993 and 2008 for this group. People with a tertiary education in 2008 were far more likely to come from high-income households than they were in 1993. In fact, the probability of a tertiary-headed household being in the richest quintile jumped from 17.51 per cent to 40.59 per cent. Conversely, the chances of people with little or no schooling finding themselves in this category declined considerably. The general trend was towards greater concentration in the lower quintiles. For matric-headed households, the middle and the top quintiles were stable, while the probability of being in quintile 1 or 2 increased.

With Table 4.1.6 and Table 4.1.8 we compare the unconditional and conditional situations in 1993. For no education and primary education-headed households, there is a greater concentration in the middle of the income distribution, once other factors are controlled for. The same goes for households headed by somebody with an incomplete secondary education, where those at the top of the unconditional distribution have shifted downwards in the conditional distribution. For tertiary-headed households, there was a very large movement out of the highest quintile from the unconditional distribution (76 per cent) to the conditional distribution (18 per cent).

Finally, Table 4.1.7 and Table 4.1.9 report on the same unconditional versus conditional comparison for 2008. Here, less movement occurred between unconditional and conditional distributions in 1993 and 2008. In 2008, there was much less movement within no education and primary education-headed households than in 1993, and the distributions are relatively stable. There have been significant shifts in both directions for households headed by an individual with an incomplete secondary education. Matric households saw shifts out of the top quintile and into the 3rd and 4th quintiles. Tertiary-headed households, once again, saw a drop in the conditional likelihood of being in the top quintile, but the drop was much less than in the 1993 data (33 per cent versus 58 per cent).

The most significant trend to emerge from these analyses is that it has become far more likely for households headed by tertiary graduates to fall into the top income quintile. There-

Table 4.1.8: Conditional probabilities from ordered probit, 1993

	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
No education	14.51	34.65	34.36	14.95	1.53
Primary	10.39	30.79	36.84	19.48	2.5
Incomplete secondary	6.22	24.63	38.14	26.39	4.62
Matric	1.86	12.91	33.21	39.23	12.79
Tertiary	1.11	9.47	29.43	42.48	17.51

Source: PSLSD (1993). Authors' calculations.

Table 4.1.9: Conditional probabilities from ordered probit, 2008

	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
No education	21.46	32.53	29.38	14.41	2.22
Primary	20.59	32.20	29.82	15.01	2.38
Incomplete secondary	14.84	29.10	32.37	19.75	3.93
Matric	5.27	18.04	32.27	32.57	11.86
Tertiary	0.52	4.20	16.36	38.34	40.59

Source: NIDS (2008). Authors' calculations.

fore, higher education was even more likely to 'pay off' in 2008 than in 1993. The situation of all other education groups looks less promising. For them, the likelihood of being in one of the lower income quintiles increased in the period between 1993 and 2008, with matric-headed households experiencing a particularly sharp decline in terms of their position on the income continuum. Even after controlling for a wide range of individual and household characteristics, the same strong patterns emerge.

Education spending and outcomes⁸

Education spending has increased greatly since 1995, from R31.1 billion to R165 billion in 2010/11. Real growth in this sector from 1994 to 2005 totalled 49 per cent, and with an annual average of 5.5 per cent of GDP, South Africa's education expenditure can be described as respectable for a middle-income country.

Despite this, there is wide recognition, also by the South African government, that the quality of education outputs does not render the expected returns on the budgetary investment (DBE 2010). Students perform dismally in international tests, such as the Trends in International Mathematics and Science Study (TIMSS) and the Progress in International Reading Literacy Study (PIRLS) (DE 2008). While greater access in terms of available infrastructure has contributed to an increase in enrolment figures in primary and secondary education, the quality of education has remained an obstacle to providing the economy with the skills it requires.

The progressivity of public spending on schooling can be examined in three ways. It can be measured, as indicated earlier, through the use of concentration ratios. According to Van der Berg (2009), the concentration ratio for school education was -0.016 in 1995, -0.121 in 2000 and -0.128 in 2006, suggesting that not only is spending on school education progressive, but also that it has become more so over time. However, this measure does not reflect the quality of the school attended, which is likely to be worse for the poor. Indeed, much larger proportions of African students experience very basic problems of education provision, such as lack of text books and low quality school facilities (DE 2006).⁹

A second yardstick that has been used for progressivity is the extent to which spending has become more equitable across provinces. This has definitely been the case over the past 15 years. Whereas rich provinces (Gauteng, Western Cape, Northern Cape) were spending per capita almost 50 per cent more on education than the national average in 1995, the figure decreased to less than 20 per cent by 2003. Poor provinces (Eastern Cape, KwaZulu-Natal, Mpumalanga and Limpopo) have almost caught up with the national average in the same time period (Wildeman 2008).

A third means of assessment is to look at funding for different types of schools within the same province. Fiske and Ladd (2005) analyse public education spending in the Western Cape by grouping schools in terms of the former education

department under which they fell during apartheid, because they generally capture the formula of allocation that occurred in this era. These departments included the African (DET), coloured (HOR), Indian (HOD) and white (HOA), with most resources being allocated to the HOA and least to the DET schools.¹⁰ The authors find that in 2001, former HOA schools (both primary and secondary) received not only the largest amount of publicly provided resources per learner, but generally also received larger amounts of public funds than former DET schools. Only one programme, titled 'Norms and Standards', which directly targeted poor schools, could be described as progressive. A similar analysis of education spending in Gauteng shows a slightly more complicated picture, with 'winners' and 'losers' in all school categories. Yet, overall, state per capita expenditure was still higher in former HOA schools in 2002. A key difference, however, was that in Gauteng this was followed by DET schools, while former HOD and HOR schools were worst off (see Motala 2006).

Inequality in educational achievement is remarkably high in South Africa. Learners' performance in maths and science, as reflected in the TIMSS, conveys a very unequal and highly skewed picture. A comparison of DET and HOA TIMSS data for the years 1999 and 2003 shows not only a pronounced difference in maths and science command, but also that this gap in performance has widened. Out of a maximum of 800 points, students from former DET schools achieved an average score of 227 in mathematics in 2003, compared to 468 for students of former HOA schools.¹¹ For former DET schools, this represented a decline from the 238 average in 1999, while the result for former HOA schools marked an increase from the 442 it achieved in that year. HOA schools almost reached the international average of 488 in 2003 (see Reddy 2006). In a similar vein, Servaas van der Berg (2007) observes important differences in the senior certificate pass rates of 'racially homogenous' schools, with an average of 97.3 per cent for white schools and 43.3 per cent for black schools.¹² Evaluations performed by the DE (now the DBE) also show large differences in the performance of the respective provinces, with the Eastern Cape and Limpopo consistently below the national average (DE 2005). The same applies to senior certificate pass rates.

In summary, the evidence at our disposal suggests that the objective of broadened access to quality education has not been achieved, despite high levels of resource mobilisation. In some instances, the performance of formerly disadvantaged schools has declined, and the gap between their performance and that of HOA schools has actually increased. Despite the stated intent, spending across provinces has also not been equalised. Moreover, within relatively well-resourced provinces, such as the Western Cape and Gauteng, formerly privileged schools continue to receive more state funding than their historically marginalised counterparts. Not surprisingly, therefore, education outcomes, as measured in the performance of students, are still highly unequal.



There has been some success with reducing poverty levels since 1993, but none with decreasing inequality, which has increased since South Africa's transition to democracy.

Discussion

This section asks why the government's education spending has not favoured schools in disadvantaged communities more explicitly.¹³ We consider a number of factors that have worked as constraints on education spending and its transformation into education quality.

Firstly, the apartheid legacy has been especially hard to address within the education sector. In the previous political dispensation, policy prioritised the education of white learners over that of learners from other groups. Education infrastructure for learners in the latter groups was generally inferior and teachers, on average, were less qualified. The extreme differences in educational infrastructure and human resource allocation constituted a huge burden on a new government that committed itself to equalising conditions in education provision. Education, of course, was not the only sector that needed redress and other social transfers and policies have weighed heavily in the budget.

Secondly, the context and nature of South Africa's negotiated transition to democracy constrained the ways in which education policy could be designed and implemented. One key limitation that the transition settlement imposed was a considerable degree of institutional decentralisation, which allowed significant room for discretionary spending and implementation in provinces. Lack of control over provincial spending implies, among other things, that provincial governments can decide which share of their budget to allocate for education. Indeed, the National Treasury has expressed its 'concern' regarding the decline in share of education expenditure in provincial budgets, from 44.7 per cent in 2005/06 to 40.8 per cent in 2008/09 (National Treasury 2009).

The implementation of education policy has also been mismanaged in some provinces, because of corruption or maladministration, due to a lack of qualified personnel to implement the sophisticated education policies that have been designed at the national level. The scope for more control over spending and implementation is limited: the constitution prohibits centralisation and it would be a politically very sensitive step, bound to be interpreted as the ANC's renegeing on the transition agreements.

Another constraint arising from the context of South Africa's transition has been the ANC's aim to keep the white population inside the public school system so that they would support education spending. In practice, this meant that extensive autonomy was given to so-called Section 21 schools regarding the raising of school fees and the remuneration of teachers (Fiske & Ladd 2005; OECD 2008; Rensburg 2001). Consensus-

oriented policies towards the white population also implied that targets had to be set for the upgrading of African schooling, rather than to take funding away from schools serving the white population. Arguably, the net result has been the entrenchment of inequality in educational outcomes.

Finally, the salary component of the education budget has become a contentious issue. Teachers were an important part of the anti-apartheid struggle and, hence, an important component of the ANC's potential constituency. The equalisation of salaries took on a distinctly political character: consequently, teacher salaries accounted for more than 90 per cent of education expenditure during the early years of transition (declining to below 80 per cent in 2006/07), leaving little space for policies targeted at the poor (Fiske & Ladd 2005; OECD 2008).

Thus, the constraints on education spending have been considerable. That said, a critical inspection of the figures and spending choices raises two questions. The first is to what extent education has, in fact, been a top priority. As several reports point out, although education spending is considerable, it is below the United Nations Educational, Scientific and Cultural Organisation (UNESCO) target of 6 per cent of GDP and, given the backlog due to apartheid policies, it could be considered insufficient (OECD 2008; Fiske & Ladd 2005). Moreover, while expenditure on education has increased considerably, it has declined as a share of government expenditure, from 19.2 per cent in 1996 to 18 per cent in 2007, and as a share of GDP from 5.7 per cent to 5.4 per cent in the same period (OECD 2008). Education also has the slowest growth rate compared to other social expenditures (OECD 2008).

The second question is whether redistribution – to the extent that it would bridge the gap between schools serving poor students and those serving richer ones – has received the attention that it deserves. Indeed, 'affirmative action' has been largely absent in education spending. Equity of spending across provinces has yet to be reached, but it seems attainable even if it is not clear to what extent this is actually a policy goal.¹⁴ The degree of inequality in education provision at the end of apartheid, however, would require disproportionate amounts of funding for poorer schools in order to provide their students with opportunities similar to those of the better-equipped schools. There are some components of current education policy that promote equality, such as the no-fee schools and the 'Norms and Standards' programme, but funding for these appears too small to bridge the gap. Additionally, the pattern of education spending within provinces, observed by Fiske and Ladd (2005) in the Western Cape, and Motala

(2006) in Gauteng, where disproportionate amounts of education funding go to privileged schools, shows that spending equity across provinces will not necessarily improve schools serving disadvantaged students.

Conclusion

Reducing inequality and poverty levels inherited from apartheid was always going to be a formidable challenge for post-transition governments. There has been some success with reducing poverty levels since 1993, but none with decreasing inequality, which has increased since South Africa's transition to democracy.

A possible reason for this is that tackling inequality is more complicated and politically contentious than tackling poverty, as the former implies a 'rearrangement' of the positions of the poor *and* the rich in the income distribution, whereas the latter involves only the socio-economic conditions of the poor. Redistribution levels are a highly political issue in any country, and are even more so in the context of a negotiated transition to democracy where former elites need to be accommodated. Indeed, as discussed above, while fiscal redistribution is progressive in South Africa, its levels are relatively low. Similarly, while present, the progressive impact of social policies (i.e. the extent to which policies address entrenched inequality) has increased only slightly since 1995.

Education policy is a good area for a focus on reducing 'poverty' rather than 'inequality'. Education spending has concentrated on improving the situation of poor provinces, and to some extent poor schools, while keeping relatively high levels of funding for the formerly privileged schools. Given the high inequality between these schools at the moment of the transition, such policies that are directed only at the poor will take a long time to bridge the gap between schools. The same might be true for inequality in general.

Notes

1. In the main, this section is drawn from: Leibbrandt, Woolard, McEwen and Koep (2010); Leibbrandt, Woolard, Finn and Argent (2010); and Leibbrandt, Finn and Woolard (2010).
2. See Leibbrandt, Woolard, Finn and Argent (2010), as well as Bhorat and van der Westhuizen (2009). Van der Berg, Louw and Yu (2008) provide further backing with work carried out on national accounts data and an annual marketing survey.
3. Leibbrandt et al. (2009) provide standard errors and inequality dominance analysis to show that the increases in inequality in aggregate and within all racial groups are robust and are not sensitive to choice of the Gini coefficient as the index of inequality.
4. Endowments include: public assets, in the form of basic government deliverables; private assets, such as houses, cars and appliances; and also individual assets, such as health and education.
5. Goñi et al. (2008) compare the redistributive effects of taxes and government grants for a set of Latin American countries versus a set of European countries. They find that the effectiveness of fiscal redistribution on overall inequality is far stronger in Europe than in Latin America. Their study uses total household income as the basis of inequality measurement, while in this paper we use total household income per capita in order to take household size effects into account.
6. This summary of social policies draws on Leibbrandt, Woolard, McEwen and Koep (2010).
7. As a robustness check of our findings we ran both the unconditional and conditional analyses using 'highest level of educational attainment for anyone in the household' and compared this to the case when 'household head's level of education' is used. The patterns that emerge using both measures are very similar (particularly for 1993), and are especially stable for matric and tertiary levels of education.
8. This section focuses mainly on school education, which accounts for around 65 per cent of the education budget; higher education absorbs around 12.5 per cent (National Treasury 2009).
9. In the Western Cape, schools serving poorer students also have less-qualified teachers (Fiske & Ladd 2005).
10. This is still correlated with the level of affluence of the enrolled students (Fiske & Ladd 2005).
11. The scores for former HOR (coloured) and HOD (Indian) schools lie in-between these two, with HOR closer to DET, and HOD closer to the performance of DET.
12. Van der Berg (2007) classifies a school as belonging to a certain 'race-type' if more than 70 per cent of its students are of that race.
13. Whether the observed differences in educational outcomes are directly attributable to differences in spending patterns is a debated question, which we do not seek to address here.
14. There is no official policy document that defines such convergence as a goal (Wildeman 2008).