

Art. #2048, 12 pages, <https://doi.org/10.15700/saje.v40n4a2048>

Narrowing the achievement gap of Grade 12 in no-fee schools in Gauteng using pro-poor funding

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Since the advent of democracy in 1994, access to quality and equitable education still remains a challenge in the Gauteng province. As an intervention to improve access and quality of learning in all schools, especially township schools, the Gauteng Department of Education (GDE) declared schools across Quintiles 1 to 3 throughout the province to be no-fee schools. In this article we examine various GDE pro-poor intervention programmes, the effects of a progressive school funding policy, and efforts to achieving equity through improved resource allocations. It is essential to assess the progress of the GDE's explicit pro-poor education policies towards promoting equity and equality in education, with particular focus on the performance of Grade 12 learners in no-fee schools. One of the findings of the study reported on here reveals that, although the GDE faced challenges in implementing the no-fee policy at school level, there has been progressive improvements in the standard of education as reflected in the Grade 12 results of no-fee schools.

Keywords: achievement gap; equity, funding; Grade 12; no-fee schools; norms and standards; quintiles

Introduction

Since 1994, the GDE has sought to address poverty and inequality with a wide range of educational and social interventions, including the application of fiscal and funding policies to support the improvement of educational quality across schools, with particular emphasis on poorer communities. According to the National Development Plan (NDP) 2030 (National Planning Commission, Republic of South Africa [RSA], 2012), government seeks to eliminate the critical challenges of poverty, inequality and unemployment. The NDP 2030 identified that education strongly influences the employability and labour market participation of the youth. There is evidence to confirm a mismatch between labour demand and labour supply for unskilled and skilled workers (National Planning Commission, RSA, 2012).

Poverty in communities is probably the key planning inquiry that government faces, and it is clear that enormous inter-provincial migration to the Gauteng province, the hub of the South African economy, ironically results in increased poverty. Inevitably, the GDE has the responsibility of ensuring the integration of migrant children into schools. Cross, Kok, Wentzel, Tlabela, Weir-Smith and Mafukidze (2005:1) argue that “there is an implicit anti-poverty model in this planning effort: it is assumed that if new and poor households are to be provided with education, housing and social services, they will be able to accumulate an asset base for themselves that will make city life sustainable.”

To address the need for improved educational quality, access is the first step to equalise opportunities among children, and an important success indicator for the education system to build on. The second step in equalising education is the equitable and pro-poor funding mechanisms for schools serving poor communities to be funded in a way that will redress persisting inequalities in educational resources.

Problem Statement

Globally, the demand for quality education that gives the youth the best chance of a socially and economically productive adult life, is considered a critical and essential factor in achieving sustainable economic growth and achieving social justice nationally. Gauteng, in its plan, *Growing Gauteng Together 2030*, confirms that both government and citizens agree that the problem of poverty, inequality, high youth unemployment and serious skills shortages could be solved by achieving better outcomes in education (Gauteng Provincial Government, RSA, 2020). Improving quality across the education system is not an easy task for any government, especially if the system is faced with historical backlogs, both quantitative and qualitative in nature. The achievement of improved learner performance and education standards become even more elusive.

In a 20-year review of the GDE's education delivery (Maringe & Prew, 2014), it is acknowledged that the GDE has made great strides in universalising quality education for all. This review confirms that the number of learners who progressed to higher levels of schooling has increased significantly since 1994, and the Grade 12 pass rates has progressively improved. The review further noted that the GDE has reduced class sizes and learner-educator ratios to more manageable levels, and increased the per capita expenditure in a pro-poor and progressive approach. In fact, the move to make no-fee education accessible to almost 60% of learners is an immense accomplishment (Maringe & Prew, 2014). However, the review also noted that the province is faced with high repetition rates and drop-outs in the Further Education and Training band across public schools.

Barbara Creecy, former Member of the Executive Council (MEC) for education in Gauteng, highlighted that

a systemic approach is premised on the assumption that urgent relief to the education system from a debilitating learner performance can be addressed by tackling the macro systemic aspects first, before focussing on the micro aspects. This makes sense, particularly in the context where the majority of schools in the broader education system were dysfunctional. It becomes urgent that where the majority of institutions are underperforming to a point of dysfunctionality, a system-wide approach is required to address this dismal state of affairs in education. (Creecy, 2011:202)

The focus of the GDE's education strategies is to ensure that learners attain quality learning for effective and lifelong growth, development and well-being. This goal has clearly guided the GDE to prioritise actions that are critical to creating enabling conditions and an environment for effective teaching and learning that will ensure that all learners fully develop to effectively participate in society and the economy. This approach also applies to addressing equity in funding education through the provision of more resources to poorer schools that were disadvantaged during the apartheid era.

Rationale for this Study

Since the advent of democracy in South Africa, the GDE has worked vigorously to improve budgeting and funding to redress past imbalances and achieve quality education (Hindle, 2007). In this study we investigated how the GDE has increased and equalised education spending, and how it made substantial progress in addressing funding equity in public schools. The pro-funding policies implemented by the GDE has made a significant improvement in learner performance as reflected in the Grade 12 results. While it is difficult to draw direct casual relationships between school funding and learner performance, in this paper we provide a portrait of the implementation of no-fee schools and the Grade 12 performance of no-fee schools in Gauteng. It explores the relationship between funding education and the quality of education in fee-paying schools and no-fee schools in the Gauteng province and establishes how successful the quintile ranking system is in closing the achievement gap in no-fee schools.

This study has significance for government policymakers of developing countries that have a historical past of decolonisation and racial segregation. With severe financial constraints, the GDE has made tremendous efforts to achieving funding equity in public schools and significantly improving learner performance in historically disadvantaged schools.

Research Methodology

To determine whether there is a relationship between pro-poor funding of schools and Grade 12 exit examinations, also referred to as Matric examinations in this paper, quantitative and qualitative research was conducted. In practice, many researchers promote the combination of quantitative and qualitative methods as it produces a deeper and more comprehensive understanding of the specific research focus area (Creswell & Plano Clark, 2011).

The approach in this research was threefold; firstly, a review and evaluation of documents and reports on interventions and quality improvements including the funding policy and trends in Gauteng in relation to pro-poor funding interventions; secondly, an analysis of Grade 12 examination data from 1996 to 2019 and the poverty index of schools; and thirdly, open-ended interviews with senior managers on their observations and views on the trends identified in the data.

Document analysis is best described as a systematic procedure for reviewing or evaluating documents to gain better insight and depth of understanding. Merriam and Associates (2002) aver that documents of various types can help the researcher uncover meaning, develop understanding, and discover insights relevant to the research problem. The review of documents included the GDE Annual and Budget Reports, analysis of Grade 12 results and other pertinent information posted on the GDE website. These sources were analysed to extract meaning of provincial and national government policies and regulations and to gain insights into how the GDE addressed equity in financing public schools. Document analysis is usually used in combination with other quantitative and qualitative research methods as a means of triangulation.

The GDE allowed the researcher access to school level data sets of examination results in Microsoft Excel. The analysis of the quantitative data was to gain an understanding of participation rates, performance and the differences in performance between fee and no-fee schools. The data sets from 1996 to 2019 were merged to identify and analyse trends in participation rates, pass rates and bachelor passes. This analysis was in the form of tables and graphs. The examination data were also linked to the dataset with school poverty indices and quintile rankings of all public schools. To analyse the relationship between pass rates and the poverty index of schools, the data were plotted using scatterplots. This approach was also applied to analysing bachelor rates.

In this study, interviews were conducted with two senior GDE officials to acquire insight into budgetary trends, the allocation of funds to various

programmes and Grade 12 performance. The interviews were open-ended and were guided by the emerging trends in the analysis of Matric and poverty data. The graphs and tables were used to open the discussion and the interviewees' inputs were noted. The interviewees were advised of the purposes of the research, of their rights and need of their consent before interviews were conducted. They were also informed that their responses and views would be confidential. The officials clarified and confirmed the authenticity of some aspects included in the annual and budget reports. The officials also confirmed that the data analytics were credible and confirmed that the interpretation of the trends was observable in their own review of school performance. The interviews encompassed the trustworthiness of this study.

Findings

Addressing Equity in Public School Education

According to Levin (2003:5), equity in education is important and asserts that it is "a human right imperative for all people to have reasonable opportunities to develop their capacities and to participate fully in society"; and if opportunities are "not distributed fairly, there will be an underutilisation of talent." The people that do not develop their skills and abilities, suffer a consequent loss, not only to themselves, but to society in general. I concur with Arnaud's (2001:4733) assertion that "a concern for equity is not tantamount to an insistence on equality." Equity demands deliberate efforts to, not only reduce gross inequalities, but also to deal with factors that cause or perpetuate them, and to ensure a fairer distribution of resources (Motala, 2006).

The GDE's educational reforms since 1994 has focused on access, equity, quality, efficiency and redress. The main goal of education funding was to redress imbalances inherited from the differentiated funding models in the ex-departments of education, which was biased towards race (Sayed & Motala, 2012). The subsidies were calculated on a per capita distribution based on ex-departments and had an equalisation factor built-in. A range of pro-poor policies and interventions were introduced primarily aimed to redress the inheritance of race-based inequality and to build a new and unified national system based on equity. These included progressive resourcing policies such as post-provisioning norms; the equalisation of teacher distribution which resulted in the rationalisation and redeployment of teachers and non-teaching staff, management of school fees and the funding model as advocated in the National Norms and Standards for School Funding (NNSFF) policy (Department of Education, 1998). In addition, other pragmatic interventions were introduced to improve quality, including curriculum redress

policies, learner support programmes and teacher development programmes (Mestry & Ndhlovu, 2014).

The following are policy imperatives and mechanisms that were put in place by the GDE to address equity in education.

National Norms and Standards for School Funding (NNSFF)

The implementation of the NNSFF policy (Department of Education, 1998) came into effect in 2000 in all provinces. The NNSFF introduced the concept "school allocation" for all public ordinary schools in South Africa. This required each provincial education department to allocate a budget for "non-personnel recurrent" expenditure in public ordinary schools. The schools would have to use this allocation for electricity, stationery for learners, textbooks, equipment, and minor and emergency repairs to buildings. In compliance with the NNSFF policy, the province used a simple survey to determine the poverty index of a school, defined by conditions within the school, as well as the conditions in the surrounding community. Based on a poverty score, calculated from the survey, the GDE determined quintiles to subsidise schools. In the initial implementation of the NNSFF policy, "bureaucratic information systems and human capacity hindrances" seriously diminished or subverted the policy's impact (Department of Education, 2003:61). One of the key limitations of this model was its dependency on provincial budget availability. How much a school received as a subsidy was dependent on how much was allocated for education by the Gauteng Legislature and how much of that was set aside for recurrent expenditure in schools. Schools shared this budget in proportion as set out in the NNSFF policy. While 60% of the funds set aside for subsidy payment was directed to the poorest 40% of learners, there were interprovincial variations. The GDE subsidies were substantially lower than other provinces due to provincial financial constraints related to personnel spending (Department of Education, 2003).

Policy amendments to introduce national quintiles

The government's review of school funding in 2003 identified disparate application of the 1998 NNSFF policy. There were large differences in school subsidies both between provinces and within provinces. The report concluded that there was a need to determine a single national budget that will ensure equitable school funding across provinces. The amendments to the South African Schools Act (SASA) (section 35) (RSA, 1996) was substituted to make provision for the Minister to determine national quintiles for public schools and NNSFF. In addition, it required the Minister to amend the norms and standards for school funding by setting

out “criteria for the distribution of state funding to all public schools in a fair and equitable manner; and provide for a system in terms of which all public schools can be placed into quintiles referred to as national quintiles” for public schools. These amendments to the SASA were accompanied by amendments to the NNSF in August 2006, detailing how the quintile determination process would be applied (Department of Education, RSA, 2006).

The 2006 amendments to the NNSF replaced the provincial quintile system with a national quintile system based on poverty distribution across the provinces. This determination of national

quintiles and provincial distribution of poor learners was undertaken jointly by the Minister of Education and the Minister of Finance, using data from Statistics SA. The system of national quintiles determined the proportion of the poorest learners in each quintile for each province. Each quintile contains 20% of all learners, but not 20% from each province – rather the proportion of the national 20% of learners in each province. In the NNSF policy published in 2000, it was determined that 7% of Gauteng learners were among the poorest 20% of learners in the country. By 2006, this was adjusted to 10.5%.

Table 1 Poverty index – changes to the provincial distribution of poverty

Year of review	Percentage of provincial learners				
	Q1	Q2	Q3	Q4	Q5
2000	7.0	11.0	18.0	28.0	35.0
2006	10.5	11.4	27.4	27.2	23.6
2014	12.7	15.4	19.3	23.0	29.6
2017	14.1	14.7	17.9	21.9	31.4

Note. Q = Quintile.

Since the amendments of the NNSF policy in 2000, the national quintiles were reviewed three times. Table 1 clearly illustrates the increasing poverty across Gauteng – in particular, the number of learners in national Quintile 1 has doubled from 2000 to 2017. The varying trends in the three revisions may also suggest some data limitations at a national level in that there were dramatic changes in Quintile 5 figures for Gauteng that cannot be easily explained. It is important to note that in 2005 and 2006, due to the boundary adjustments between Gauteng and North West and Gauteng and Mpumalanga, a large number of learners from poor communities were reassigned to Gauteng. Over 214 institutions with a total of 101,000 learners were reassigned to Gauteng from North West, while 16 institutions with a total of 13,000 learners moved from Mpumalanga to Gauteng. This also contributed to the increased percentage in Quintile 1 in 2006 (Department of Education, RSA, 2006).

Determining quintiles in Gauteng schools

In defining which categories of schools would no longer be allowed to charge school fees, the Minister determined a no-fee school guided by a school’s poverty ranking. The NNSF policy also stipulated the use of data from Statistics SA as a basis for objective determination of poverty (Department of Education, RSA, 2006). The GDE used an alternate but a more progressive approach to determine the poverty ranking of schools. This included the report of the Gauteng Intersectoral Development Unit (GIDU) that drives the anti-poverty agenda and the Statistics SA census data. A set of indicators were used to determine the quintile rankings of each school and these included dwelling type, availability of electricity, female-

headed households, household income, illiteracy levels, refuse removal, sanitation availability, unemployed population, crowding and water supply. Each school was then assumed the poverty index and ranked in order of poverty and the cumulative sum of learners.

Introduction of no fee schools

The introduction of no-fee schools is an integral part of government’s strategy to alleviate the effects of poverty and redress the imbalances of the past. Once a school is declared a no-fee school, compulsory school fees may not be charged if the following criteria apply:

- The school has been placed in a national quintile, or in a part of a quintile, that has been identified by the Minister, as being in need of a total prohibition on compulsory school fees; and
- The school receives a per-learner school allocation that is greater than or equal to the no-fee threshold for the year in question.

In terms of Section 39(7) of SASA, the Minister shall, “annually determine those quintiles or parts of quintiles where schools may not implement compulsory school fees in the following school year. This information should be made public by 1 August of each year, concurrently with the school allocation information.” Similarly, the provincial MEC must “identify which schools qualify as no-fee schools, and must determine the details, if any, regarding no-fee grades.”

Key changes in adequacy amounts to introduce Quintile 1 to Quintile 3 no-fee schools

No-fee schools were introduced in 2007 with Quintile 1 and 2 schools declared as no-fee schools. Nationally Quintile 1 and 2 schools had different

adequacy amounts. This continued until 2013 (see Table 2 below).

In Gauteng, Quintile 1 and 2 schools were funded equally in 2007 when they were declared no-fee school. In addition, the GDE extended an offer to Quintile 3 schools to apply for voluntary no-fee status at the Quintile 3 adequacy level. Effectively, all Quintile 3 schools operated as

no-fee schools despite no formal proclamation. In 2008, Gauteng equalised the adequacy amount for Quintile 1 to 3 schools and extended the no-fee status to all Quintile 1 to 3 schools (see Table 3). Gauteng schools in Quintiles 4 and 5 received a per-learner allocation which was 20% more than the national allocation.

Table 2 National equalisation of adequacy amounts, in rand, to support no-fee schools

	2006	2007	2008	2009	2010	2011	2012	2013	2014
NQ1	703	738	775	807	855	905	960	1,010	1,059
NQ2	645	677	711	740	784	829	880	1,010	1,059
NQ3	527	554	581	605	641	678	880	1,010	1,059
NQ4	352	369	388	404	428	453	480	505	530
NQ5	117	123	129	134	147	156	165	174	183

Note. NQ = National quintile.

Table 3 GDE equalisation of adequacy amounts, in rand, to support no-fee schools

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NQ1	703	738	775	807	855	905	960	1,010	1,059
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NQ3	527	554	775	807	855	678	880	1,010	1,059
NQ4	352	369	388	404	428	453	480	505	530
NQ5	117	123	129	134	428	453	480	505	530

In 2010, the no-fee policy was extended by the GDE to schools who could apply to change their status from a fee-paying to a no-fee school. This required a school to consult the parent community to have the school declared a no-fee school and abdicate any right to collect compulsory school fees. The school governing body of the school then had to take a formal resolution to apply for no-fee status.

Further, in 2010, Gauteng decided to equalise funding between fee-paying schools in Quintile 4 and 5 schools (see Table 3 above). In effect, the GDE declared two tiers of subsidy payment which were prompted by the rising number of fee-exemption applications and fee-defaulters in

Quintile 4 and 5 schools, as well as an increase of children from African low middle-income households. As a result, no-fee schools received the same adequacy per learner, regardless of their quintile ranking, and fee-paying schools received the same adequacy at Quintile 4 adequacy levels, regardless of their Quintile ranking (Department of Basic Education, RSA, 2017).

Schools in Quintiles 4 and 5 that opted to remain fee-paying schools were paid an adequacy amount of Quintile 4. This meant that the GDE had only two categories of schools, namely, no-fee and fee-paying schools. This was also done to reduce the number of applications for no-fee school status.

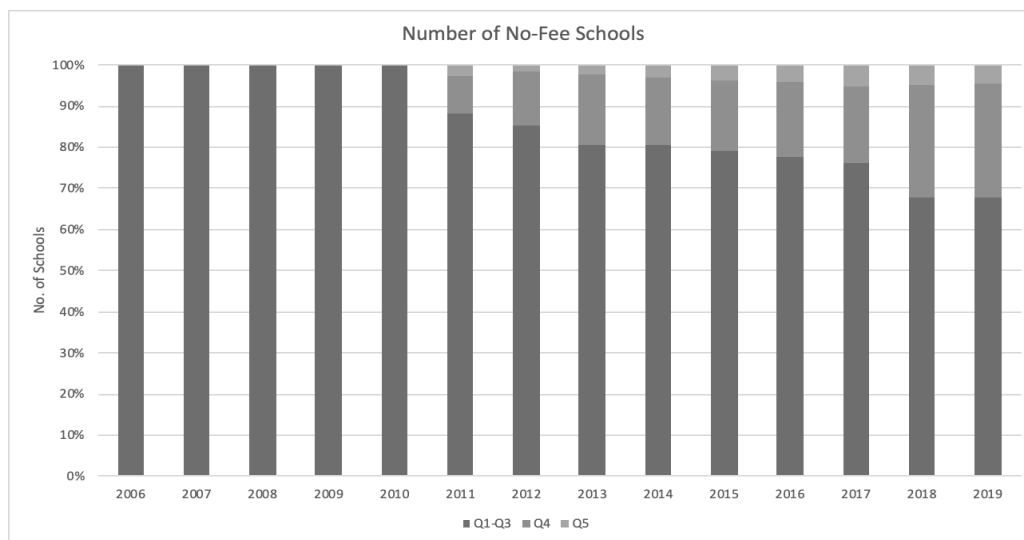


Figure 1 Number of no-fee schools

The increase in the number of fee charging schools in Quintile 4 and 5 converting to no-fee school is well illustrated in the Figure 1 above. In 2011, 111 Quintile 4 schools and 34 Quintile 5 schools were granted no-fee status. The graph in Figure 1 shows how the number of Quintile 4 and 5 schools gradually opted to convert to no-fee status. By 2019, 393 Quintile 4 schools and 64 Quintile 5 schools benefitted from no-fee status. These schools received the same adequacy amounts as Quintiles 1 to 3 no-fee schools. While a school can be declared a no-fee school, the funding legislation does not allow for the re-categorisation of the schools to Quintile 3 or lower; they retain their current quintile ranking. It should also be noted that some no-fee schools opted to become fee-paying schools, as they considered it more advantageous to raise income from fees.

The application of the fee and no-fee policy has been more progressive in Gauteng and more rapid than in other provinces. More and more Quintile 4 and 5 schools in townships apply to be declared no-fee schools. During the interviews with GDE officials, the increased number of no-fee schools was attributed to the downturn in the economy as high levels of parents were not paying school fees due to unemployment, or those who did not qualify for fee exemptions, but who could still not afford fees. The officials also highlighted that these schools were defaulting on the payment of municipal services and the GDE was required to bail them out to prevent disruption of educational programmes. This is also evident in the additional allocations to pay for the municipal debt received from the Treasury (GDE, RSA, 2019).

Other pro-poor interventions in Gauteng

In Gauteng, the focus of pro-poor funding was not limited to school subsidies. The Gauteng Provincial Government declared education a priority for regional development and secured funding for a range of pro-poor interventions. In trying to ensure greater allocative efficiency in the education budget, the NNSF policy set a macro target of at least an 80:20 split between personnel and non-personnel in the education allocation. The GDE progressively spends 25% of the budget on non-personnel inputs into the system.

The additional funding in the budget was used to ensure adequate class sizes, introduce policy targeted educator-learner ratios and introduce quality interventions. The national policy targets of 1:40 in primary schools and 1:35 in secondary schools have guided provincial personnel spending. The post provisioning policy also requires that a maximum of 5% of all posts is earmarked for distribution to schools in disadvantaged communities for curriculum redress purposes. This redress is based on the poverty ranking of schools used by the GDE. In addition, the provincial

treasury is now earmarking funding to reduce class sizes in the foundational grades.

On classification of a school as a no-fee school, the school saw a range of support interventions being introduced to create the right enabling conditions for learning. This included the introduction of a school nutrition programme, priority school rehabilitation programmes, scholar transport, school patrollers for safety, homework assistants and sport coordinators.

No-fee primary schools also benefited from literacy and numeracy quality improvement programmes while secondary school learners were provided with supplementary programmes on weekends to support subject content backlogs created in classrooms due to poor teaching in some subjects during the week.

Equity funding and closing the achievement gap of Grade 12 learners

South Africa's school funding model is an attempt at redressing an unequal education system. Education financing prior to 1994 has been characterised by severe racial and regional inequalities. The unequal and separate funding of public education under the apartheid regime created huge disparities between White and Black schools. The consequences of this policy had serious implications for the provision of quality education and saw large differences in participation rates, learner performance and educational outcomes, especially in historically disadvantaged schools (Gustafsson & Patel, 2006; Mestry, 2014; Spaull, 2013). The analysis of the application of school funding and other funding interventions in Gauteng show that schools in poorer communities receive substantially more funding per learner than affluent schools.

The education policies since 1994, and emphasised in the NDP 2030, are primarily aimed at redressing the inheritance of race-based inequality and to build a unified national system based on equity that will ensure quality outcomes for all.

Weyss, Ally and McLaren (2016) contend that South Africa has one of the largest gaps in learning achievements between poor and less poor learners (in Africa and globally), and that inequality in school funding contributed to skewed learning outcomes. The concept "achievement gap" in education is commonly used to refer to the "disparity in academic performance between groups of learners" (Kiat, Heng & Ratnam-Lim, 2017:28). The achievement gap shows up in grades, standardised-test scores, subject participation rates, drop-out rates, and school completion rates, among other success measures. In South Africa, it is most often used to describe the troubling performance gaps between learners in no-fee schools, at the lower end of the performance

scale, and their peers at fee-paying schools, and the similar academic disparity between learners from low-income families and those who are better off (Leithwood, Louis, Anderson & Wahlstrom, 2004).

In analysing the learner performance scores and results, Reardon (2019:slide 4), aptly cautions that:

- Average test score differences are not solely the result of differences in schools; they are the total result of children's home, neighbourhood, pre-school, after school, and schooling experiences; and
- These are not measures of intelligence, but of performance (so are affected by what learners have been taught and have learned and how motivated they are to perform on standardised tests and examinations).

Since 1994, the single most important thrust of government has been to improve the quality of education of Black African learners, especially those in poor communities. With the introduction of preferential and pro-poor funding policies, interventions were directed to closing achievement gaps between learners across race and income groups and thus became a focus of educational change and accountability. This focus also created greater awareness of racial disparities and the rising concern of other kinds of achievement gaps including drop-out rates at secondary school level. While comparative learner performance data are not available at lower grades, we look at Grade 12 performance since the introduction of no-fee schools to determine whether the achievement gaps have been closed to an appreciable degree over the past 25 years.

Interventions to improved learner performance

Annual reports and plans of the GDE over the years show a sustained quality thrust to improve the quality of education across the system. While in the early years, post 1994, the focus was only on improving Grade 12 examination results with learner supplementary programmes. This gradually expanded to cover both, learner and teacher interventions in Grade 12 and then expanded to learners in Grades 10 and 11, and also included the training of teachers. This became known as the Secondary School Intervention Programme (SSIP).

In 2007, after the GDE conducted a universal systemic evaluation of Grades 3 and 6, the province began a process of shifting the focus to other grades. The approach was a system-wide improvement strategy that included programmes targeting all four phases at the same time. In 2009, the Gauteng Primary Language and Mathematics Strategy (GPLMS) was introduced and was aimed at turning around the literacy performance in the 792 underperforming primary schools, based on the 2007 systemic evaluation results. This programme focused on getting literacy and numeracy right in the foundation years using scripted lesson plans,

graded readers and introducing coaching by a group of trained coaches.

This programme has since been integrated into the work of districts and the GDE launched the Literacy and Numeracy (LITNUM) Strategy in 2014. The LITNUM Strategy is the current Grade 1 to 9 language and numeracy strategy, which is aimed at strengthening the teaching of home languages in the Foundation and Intermediate Phases and a focus on languages, mathematics and science in the senior phase. In 2014, SSIP was refocused on improving Grade 12 performance through Saturday and holiday programmes targeted mainly at progressed learners in no-fee schools.

Prior to 2014, the SSIP intervention taught the entire curriculum for the Grade 12 examination due to inadequate curriculum coverage and depth of complexity in classrooms. The change in approach, while not well documented, took into consideration that the quality of teaching in Grade 12 classes has improved in coverage but not in terms of complexity. SSIP is now a support programme for Grade 12 learners rather than a catch-up programme.

Learner performances in Grade 12 examinations

To look at the possible impact of pro-poor funding, the Grade 12 examination results were analysed. This was due to availability of longitudinal data and the fact that these examinations are quality assured by an external regulator, Umalusi, the quality assurance body for public and private school examinations. The analyses of Grade 12 performance of learners in fee-paying and no-fee schools began with the simple analysis of trends in key Grade 12 indicators. This analysis included quantitative data of secondary schools in Gauteng with regard to Grade 12 pass rates, poverty indices and quintile rankings. The poverty-related data cover all schools. Data sets, including the senior examination data for 1996 to 2019, were supplied by the GDE.

This analysis included trends in Gauteng in the Grade 12 examinations, and included all 2019 fee-paying and no-fee schools and for the purposes of this analysis, bachelor passes included passes with university endorsement.

Participation rate in Grade 12

Since 1996, the number of learners who wrote the Matric examinations has increased steadily in public schools. The total number of full-time Grade 12 learners in public schools who wrote the senior certificate examination grew from 60,086 in 1996 to 97,135 in 2015 and declined to 87,032 in 2019. The decline of full-time learners was mainly as a result of the introduction of multiple examinations opportunities (MEO) allowing learners to write the Grade 12 examinations at two examination sittings,

namely, December and May examinations. The decline of full-time learners was mainly in no-fee schools. The number of full-time learners in Grade

12 no-fee schools increased from 35,185 in 1996 to 52,736 learners in 2019, peaking at 61,006 learners in 2015 (see Figure 2).

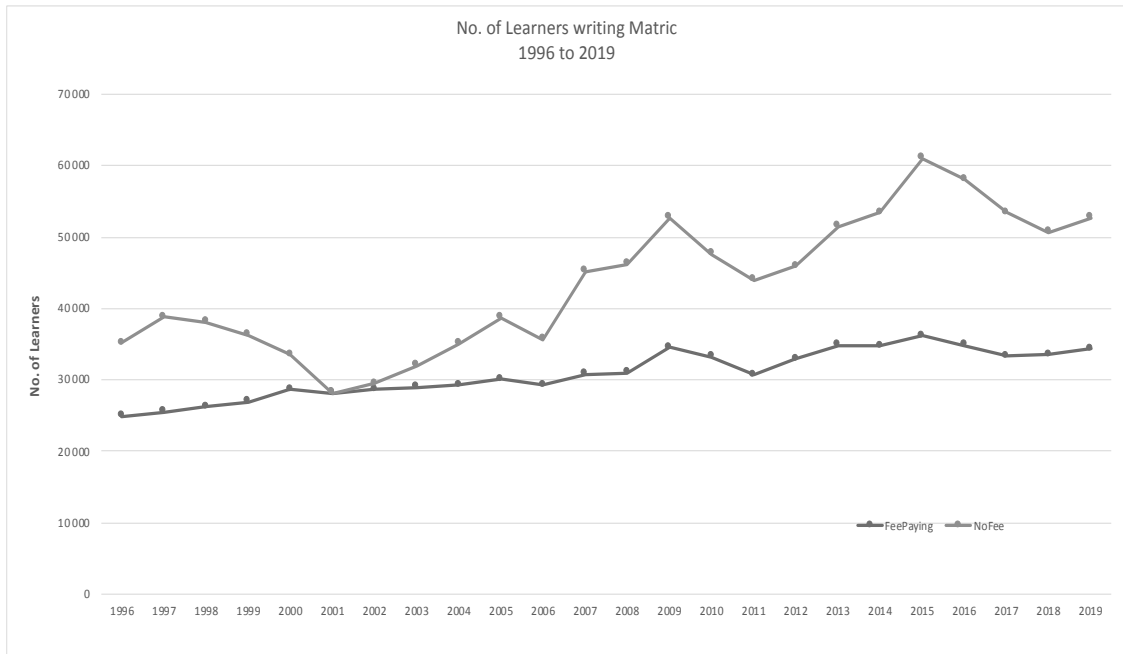


Figure 2 Number of fee-paying and no-fee paying learners writing Grade 12 examinations, 1996 to 2019

From the GDE’s own analysis, it was also observed that the throughput of Grade 1 learners who reach Grade 12 was improving across no-fee schools.

Since 1996, the overall Matric pass rates in no-fee schools in Gauteng has increased consistently over time (see Figure 3).

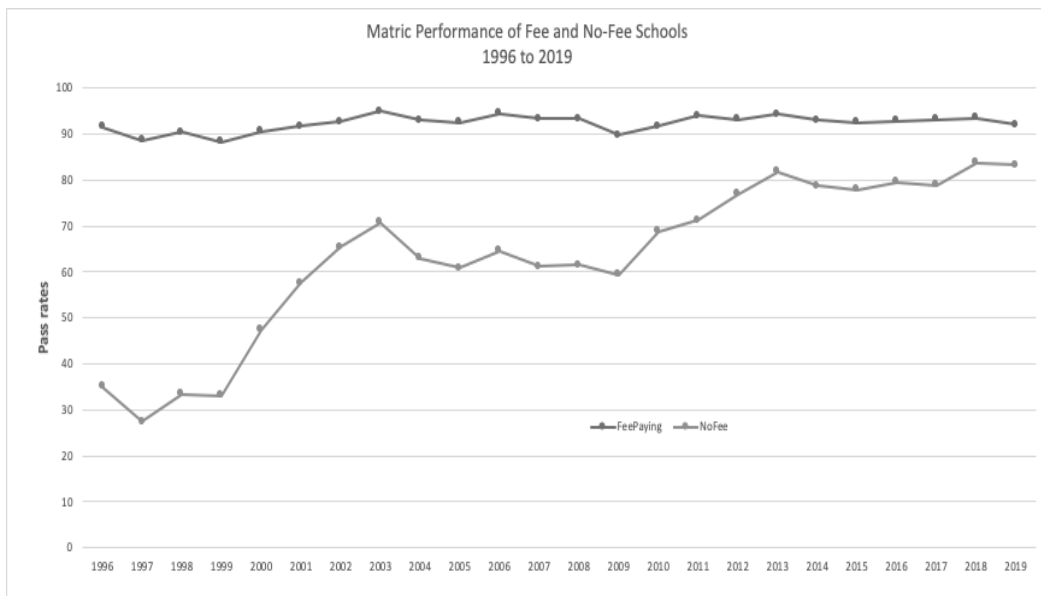


Figure 3 Matric performance of fee and no-fee schools, 1996 to 2019

The achievement gap in 1996 between fee and no-fee schools was over 56%. During these years, the pass rates of learners in no-fee schools in Gauteng increased more than their counterparts across the province. By 2019, the difference in

performance was down to 8.86% between fee-paying and no-fee schools. Figure 4 below shows the reduction in the achievement gap between fee and no-fee schools since 1996.

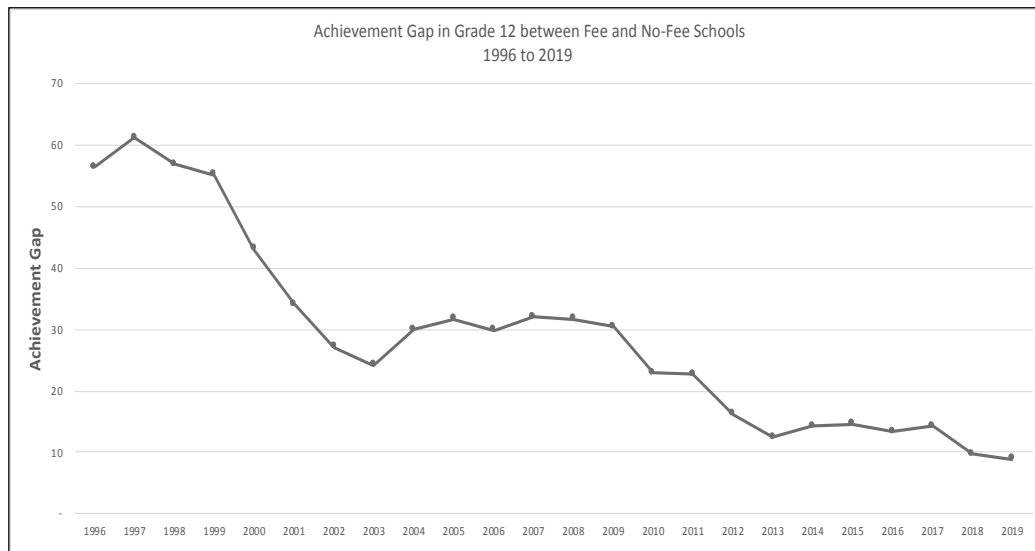


Figure 4 Achievement gap in Grade 12 between fee and no-fee schools, 1996 to 2019

Comparison of the pass rates and achievement gap between 2006 and 2019

A comparison of Matric performance between 2006 and 2019 is used to show changes in performance between fee-paying and no-fee school. The year 2006 was used as a baseline as this was the year

before the implementation of no-fee schools in 2007.

After the introduction of no-fee schools, the improvement trends in no-fee schools continued and the achievement gap at Grade 12 exit level improved. A summary of key Matric indicators is presented in Table 4 below.

Table 4 Number of learners who wrote

	2006		2019		Changes	
	Fee	No-fee	Fee	No-fee	Fee	No-fee
No. wrote	29,256	35,695	34,296	52,736	5,040	17,041
No. of passes	27,655	23,086	31,578	43,882	3,923	20,796
Pass rate	94.53%	64.68%	92.07%	83.21%	-2.45%	18.53%
Bachelor passes	14,156	8,379	18,225	19,360	4,069	10,981
Bachelor passes %	48.39%	23.47%	53.14%	36.71%	4.75%	13.24%
No. of distinctions	16,262	2,375	20,554	10,183	4,292	7,808

Table 4 clearly highlights the increase in the number of learners who wrote the examination from 35,695 learners in 2006, the year before the introduction of no-fee school, to 52,736 learners – an increase of 17,041 learners. This was compared to 29,256 learners in fee-paying schools in 2006 and 34,296 learners in 2019, an increase of 5,040. These enrolment patterns are influenced by increased retention of learners in schools and the number of new schools opened over the same period. The number of full-time candidates who wrote in no-fee schools increased by over 47% since 2006 compared to over 17% in fee-paying schools.

At the same time, the number of passes in no-fee schools increased from 23,086 to 43,832 learners. This was a 90% improvement from 2006. The pass rate improved from 64.68% in 2006 to 83.21% in 2019. The achievement gap at Grade 12 exit level between fee-paying and no-fee schools improved and was reduced to 8.86% in the 2019 Matric examination compared to 29.85% in the

2006 Matric examination. As a proxy for quality of passes the Bachelor passes and number of distinctions showed great improvements, but the differences in performance remained wide. No-fee schools produced only 37% of all bachelor passes in 2006 compared to over 51% of all bachelor passes in 2019. However, only 36.71% of learners in no-fee schools achieved a bachelor pass in 2019.

While the number of distinctions in no-fee schools increased fourfold between 2006 and 2019, no-fee schools was only responsible for just over 33% of all distinctions in Gauteng.

Trends using poverty index scores

Looking at trends in Matric pass and bachelor pass rate using the poverty index scores used by Gauteng for the determination of quintiles and no-fee status, it can be observed that there are notable shifts in the performance of no-fee schools. The smaller the poverty index score the less poor the school.

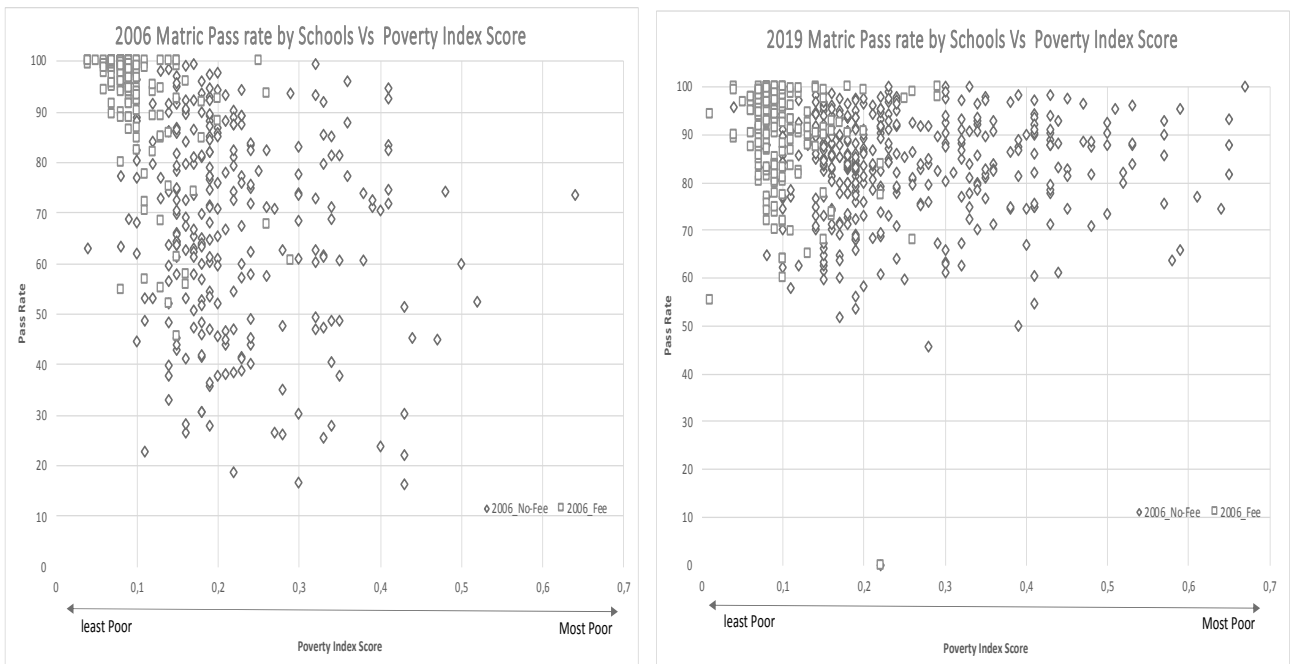


Figure 5 Grade 12 (Matric) pass rates for 2006 and 2019 versus (vs) poverty index scores

Looking at pass rates by the poverty index score allocated to all public schools adds to the understanding of shifts in the performance of no-fee schools. From the scatterplot in Figure 5, the concentration of fee-paying schools for 2006 was distributed in the 40% to 100% ranges of performance, while the performance for no-fee schools ranged from just over 0% to under 100%. It

should also be noted that voluntary no-fee schools in Quintiles 4 and 5 account for some of the better performing schools.

The scatterplot for 2019, in Figure 5, shows a marked improvement, most no-fee schools were performing between the 60% and 100% mark and the concentration of fee-paying schools also improved at higher levels of performance.

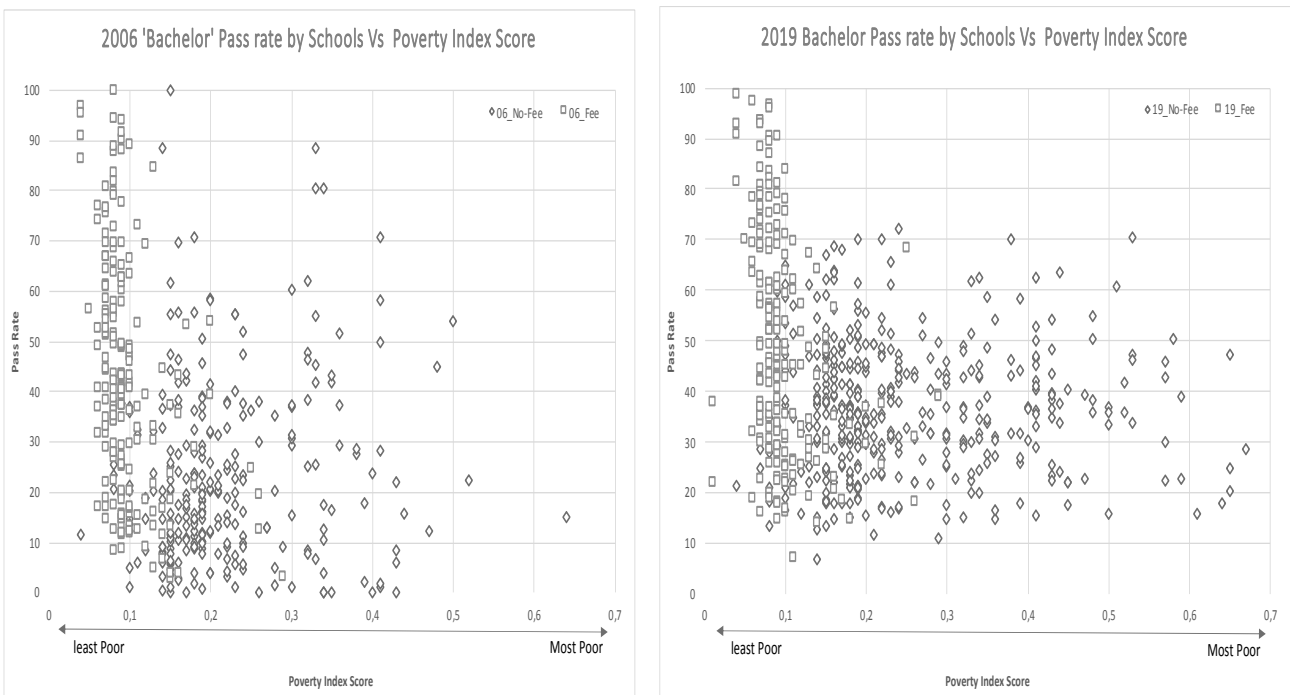


Figure 6 Bachelor pass rate 2006 and 2019 vs poverty index scores

The distribution of bachelor passes in 2006, for both no-fee and fee-paying schools, ranged from just above 0% to 100%, with no-fee schools concentrated closer to the 10% mark. While in 2019, the performance improvement in no-fee schools was notable and was concentrated around the 30 to 40% range (see Figure 6).

The NNSF continues to positively skew the allocation of funds for recurrent expenditure towards schools in disadvantaged communities. The introduction of the no-fee policy to eliminate school fees for the poorest 60% of learners nationally has allowed schools to prioritise quality improvement efforts in schools, stabilise teaching and learning, and improve the quality of learning. But schools are still not being funded at an “adequate” level, as the adequacy amount determined nationally does not address the real needs at school level. The adequacy amount only deals with the recurrent cost of operating a school and has not been keeping pace with real inflation.

Although performance of no-fee schools has improved greatly, certain challenges still remain that prevent these schools from achieving high quality passes. It was also noted that the retention of learners in township schools was higher, thus improving the through-put rate across the system.

Recommendations

Clearly, the current system of school funding isn't working optimally. We need a new system that will, permanently, stop annual funding and resourcing challenges experienced by provinces, by providing a reliable and sustainable funding model for public education. In a country like South Africa, with extreme income inequality and poverty, poverty distribution is a sufficient social means test as it does not follow the perfect 20% quintiles used to determine school funding quintiles. School funding quintiles should instead follow the same pattern as income distribution, as a better social means test, to ensure that schools serving equally poor communities receive an equal amount of funds per learner.

For schools to succeed in the long run, provinces, policymakers, and the public need to re-examine how public education is funded at all levels. The adequacy amount is lagging behind inflation and there is no real growth. There is a need to review the adequacy amount by understanding the operating model of a no-fee school (free schooling). While poverty ranking assists in understanding the distribution of poverty across schools and how to target support, conditional grants and other provincial funding arrangements must be adjusted to cover all no-fee schools and not only Quintile 1 to Quintile 3 schools. The key assumptions for a new school funding system would have to include improvements in Government revenues and/or an

increase of the share of education in the budget to help reduce budget pressures. The key principles to drive the funding model should be:

- Equitable quality outcomes;
- Equity in education expenditure is not always the same as distributing funds and resources equally, however, what it should mean is ensuring that all provinces have the capacity to deliver the same levels of education services across the nation;
- The authentic economic idea of efficiency – the ratio between what is invested into the system and the results coming from the system. In education, an efficient system is what it attains – the maximum level of results for a minimum level of investment.

Conclusion

After 1994, the Gauteng Department of Education has made strides in reducing the achievement gap among learners in poor and less poor communities. The GDE, despite the challenge of limited financial resources, has increased spending in poor communities in its commitment to providing quality education in the province. The department has worked tirelessly to improve enabling conditions for quality education in Gauteng.

In the past 25 years it has achieved near universal access to education, managed to reduce drop-out rates across all grades in the secondary school phase, increased learner performance across grades, increased equitable education spending, and has made substantial progress in eliminating infrastructure backlogs.

The analysis of Grade 12 examination performance of fee-paying and no-fee schools suggests that the Gauteng government's pro-poor policy interventions in the basic education sector have been successful in helping to reduce achievement gaps among children from socially deprived schools. However, the analysis also shows that the more important aspect of quality performance is lacking in no-fee schools and still needs to be addressed if social justice is to be achieved over time.

Note

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