

Public Sector Productivity — The Case of Secondary Education

POLICY BRIEF

FINANCIAL AND FISCAL COMMISSION 6/2015



EXECUTIVE SUMMARY

With the economy growing slowly, public sector productivity is in the spotlight, especially the education sector, which accounted for the largest share (23%) of government expenditure in 2013/14. Research by the Financial and Fiscal Commission (the Commission) into the productivity of 210 secondary schools found that just 9% were 'efficient', showing that the productivity of secondary schools in South Africa could be substantially improved. Factors that affect learner outcomes include the school's location and the neighbourhood's socio-economic status. The inadequate availability of teaching materials (e.g. textbooks) has a negative effect on learner outcomes, but inadequate classrooms do not. Teacher qualifications matter, whereas school size and teacher absenteeism (as a proxy for teacher commitment) are not significant factors. The challenge in the schooling system is not the resources and funding in the main but the ethos in schools, which is created by good management and governance. To improve public sector productivity, the Commission recommends developing a framework for measuring productivity, continuing government's socio-economic programmes that lead to improved educational outcomes (e.g. school nutrition programmes), and investigating mechanisms to improve productivity in schools (including appointing appropriate principals, linking performance to overall school outcomes and exploring e-Education as a learning platform).

BACKGROUND

With the economy growing slowly and tax revenues under pressure, public sector productivity is in the spotlight. In government thinking on productivity, two common misconceptions often prevail:

- (i) The belief that productivity should be improved largely by delivering the same level of services but cutting costs (e.g. reducing personnel and other inputs), with little consideration given to expanding services – and the quality of services – with the available resources.
- (ii) A mistaken view that productivity can be achieved by using lower-quality inputs to drive down costs. Such a strategy may reduce costs but often results in poor service delivery. For example, building schools with inferior-quality materials may cost less but can place schoolchildren at risk, especially where adverse weather conditions may cause structural damage to school structures.

In South Africa, public sector productivity is not the responsibility of a single department but is fragmented across government. No coherent productivity plan is in place that synergises interventions at different levels, although various departments, including the Department of Public Service and Administration (DPSA) and National Treasury, are looking at ways to improve productivity in the public sector.

Calls are growing for greater accountability from public sectors that consume a large share of government funds, such as education. In 2013/14, the education sector was the largest component in the government budget,¹ accounting for 23% of government expenditure. Yet dissatisfaction with education outcomes is widespread, considering the resources consumed and the rising per-learner expenditure in recent years. The Financial and Fiscal Commission (the Commission) evaluated the extent to which productivity in secondary education can be improved, identified socio-economic and fiscal factors that may hamper productivity and recommended ways of enhancing productivity in secondary education and in government as a whole.

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¹ Total government expenditure is defined as expenditure prior to interest commitments being added to total government expenditure.

RESEARCH FINDINGS

The productivity of 210 secondary schools² was measured and factors affecting learner outcomes were explored. The study found that 9% of the schools are 'efficient', i.e. produce the highest combination of outputs for any given level of inputs. The average efficiency was 66%, which implies substantial room for improving productivity in secondary schools. Factors that were found to affect learner outcomes include the school's location and the neighbourhood's socio-economic status. Schools in urban areas scored higher than those in rural areas and small towns, while schools in medium and high income areas had higher student scores than schools in low income areas. The inadequate availability of instructional materials, such as textbooks, has a negative effect on learner outcomes, but inadequate social infrastructure, such as learning space/classrooms, does not. Teacher qualifications do matter, as schools with teachers who have at least first degrees in either maths or science reported better learner outcomes than schools without any degree holders. The other factors investigated – school size and teacher absenteeism (as a proxy for teacher commitment) – were found to be insignificant.

Interviews with key stakeholders from provincial and national government revealed the following:

- The term 'productivity' in the public sector is not well understood in South Africa.
- Clearly defined systems and processes are needed, to encourage semi-productive persons to function optimally.
- Sound management, capable teaching staff and available learning and teaching resources all affect productivity in the South African education system.
- Schools that are focused in a particular field (e.g. school for accountants, physicians, etc.) perform better.
- Government's socio-economic programmes contribute to a more conducive environment for learning in quintile 1–3 schools.³
- Teacher performance could be improved by managing the learner-educator ratio, keeping temporary teacher positions to a minimum, strengthening teacher support programmes, addressing time-on-task allocation, and ensuring thorough recruitment process and standards against which teachers are measured.

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² The data used was from the 2011 TIMSS survey, which is nationally representative and covers Grade 9 learners. It was complemented by interviews with key stakeholders.



CONCLUSION

As the economy slows and government finances come under pressure, public sector productivity is in the spotlight, especially the sectors that consume a large share of government funds, such as education. A study of 210 secondary schools found that productivity in the majority of these schools could be substantially improved using existing resources. The three factors that most affect the productivity of secondary schools are: the availability of learning materials, the qualification of mathematics and science teachers, and the socio-economic status of the learners. The dominant challenge in the schooling system is not the resources and funding in the main but the ethos in schools, which is created by good management and governance. In order to improve public sector productivity, the Commission recommends that:

- A framework for measuring public productivity is developed, officials are trained in the concept of public productivity, and productivity measures are piloted before being rolled out.
- The Division of Revenue Act implements the finalised framework for measuring public productivity. This may require implementing agents to report on productivity indicators that track improvements of service over time.
- Government's socio-economic programmes are continued, especially those that lead to improved educational outcomes, e.g. school nutrition programme, no-fee school policy, scholar transport and social security programmes.
- Government investigates funding and non-funding mechanisms to improve productivity in schools, including appointing appropriate school principals, enforcing norms and standards, training teachers, linking performance management system to overall school outcomes and exploring e-Education as a learning platform for teachers and learners.



The inadequate availability of instructional materials, such as textbooks, has a negative effect on learner outcomes

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