

# MAKING SENSE OF THE **TEACHER** **DEMOGRAPHIC** **DIVIDEND** PROJECT

**Synthesis Note 1: Can we address the problem of large class sizes through more (and better) teachers?**

September 2024



## Introduction

This brief draws on the research findings from several research reports written as part of the ongoing Teacher Demographic Dividend (2022–2024) project. It provides a synthesis of the findings and starts to make sense of what the research collectively implies for both the Basic Education System and the Higher Education System. As the research project approaches its finalisation, the implications for **teacher shortages**, **teacher supply and training**, and the **status of teaching as a career**, are becoming clearer.

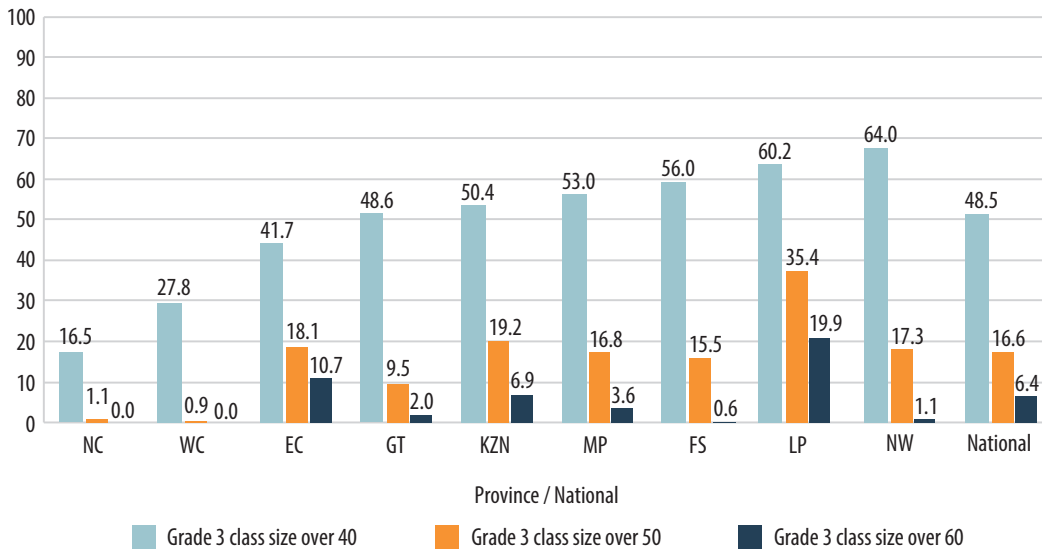
**More details can be found in the following reports, accessible at the Teacher Demographic Dividend project website (<https://tdd.sun.ac.za/>):**

1. Gustafsson, 2023. Projections of Educators by Age and Average Cost to 2070 (Final Report). Working Paper prepared for the Teacher Demographic Dividend (2022–2024) project. Research on Socio–Economic Policy (Resep).
2. Kruger, J., Hompashe, D. and Swelindawo, L. 2024. “An overall pattern of dissatisfaction”? Interviews with primary school teachers on motivation, experience and recruitment. Working Paper prepared for the Teacher Demographic Dividend (2022–2024) project. Research on Socio–Economic Policy (Resep).
3. Wills, G. 2023. South African teacher shortages as revealed through class sizes and learner–educator ratios: An exploratory analysis. Working Paper prepared for the Teacher Demographic Dividend (2022–2024) project. Research on Socio–Economic Policy (Resep).
4. Taylor, N. Forthcoming. School Foundations: The Role of Initial Teacher Education. Working Paper prepared for the Teacher Demographic Dividend (2022–2024) project. Research on Socio–Economic Policy (Resep).

## The apparent problem of too few teachers and large class sizes

**Average class sizes in South African primary schools are large**, as shown by the work of Wills (2023). Class sizes exceed schools’ learner–educator ratios by a large degree. While learner–educator ratios are determined by the number of teachers allocated to a school or education system through funding decisions, class sizes are also the result of teacher allocation decisions made internal to a school.

Class sizes also tend to be higher than the suggested guidelines on ideal class sizes. In 2017, the average Grade 3 class size was 41 learners, compared to an average learner–educator ratio of 33 in the same schools. Nationally, about 7 out of 10 Grade 3 learners were in classes exceeding 35 learners, and about half of Grade 3 learners were in classes with more than 40 learners (Figure 1). Concerningly, almost 2 out of 10 Grade 3 learners were in classes with more than 50 learners. Yet national guidelines state that Grade 3 class sizes should not exceed 35.

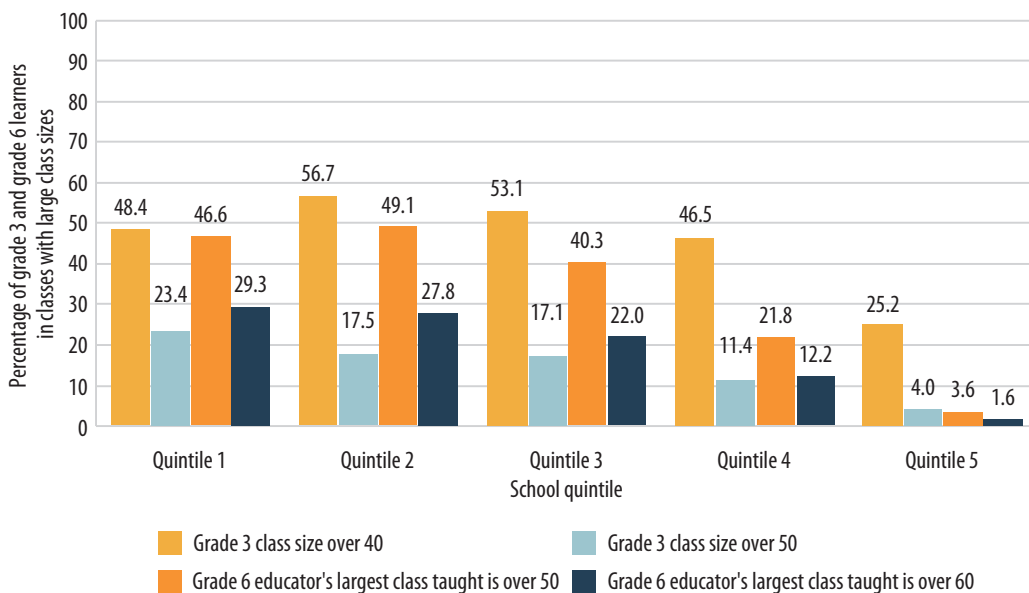


Data source: SMS 2017/18. Learner weights applied. Educator responses averaged at school level. Technically estimates should be interpreted in relation to grade 6 learners.

**FIGURE 1** Percentage of Grade 3 learners in a class with more than 40 learners, more than 50 learners and more than 60 learners, across provinces and nationally (Wills, 2023)

There are also high levels of inequality in class sizes across South African primary schools. In 2017, in a typical Quintile 5 school, about 4% of Grade 3 learners were in classes of over 50 learners. By contrast, almost a quarter (23%) of Grade 3 learners in Quintile 1 schools were in classes exceeding 50 learners (Figure 2). Similar trends are apparent at the Grade 6 level.

**One in four grade 3 learners in Quintile 1 schools in classes with >50 learners.**



Data source: SMS 2017/18. Learner-weighted. Educator responses averaged at school level. Estimates should be interpreted in relation to grade 6 learners.

**FIGURE 2** Percentage of Grade 3 and Grade 6 learners in classes above certain class sizes by school quintile (Wills, 2023)

## Are we training enough and the right type of teachers to solve the large class size problem?

Earlier estimates, using statistics published up to 2018, showed a serious projected teacher shortage by 2030. However, the new modelling (Gustafsson, 2023) undertaken as part of the TDD project finds that **the shortfall will be much smaller than initially anticipated, and not very worrying.**

There are two key reasons the findings shifted so much from our initial expectations:

1. **The new modelling uses more accurate teacher attrition figures.** Overall educator attrition, including retirement, is now expected to reach 8% in 2030, as opposed to 12% in the earlier estimations.
2. More recent figures on **teacher graduate production** at universities point to **steep increases, even exceeding official targets.** The supply of young, qualified teachers has thus improved substantially.

However, even though the total number of available teachers will not be substantially less than the system needs, **there is still likely to be a shortage in particular phases.** The supply of **graduates specialising in primary school grades is only 60% of the projected demand**, while the supply of secondary school teachers is twice what is demanded<sup>1</sup>. Consequently, many primary school learners are being taught by teachers without the highly specialised knowledge to teach African languages, literacy and numeracy to primary school children.

## Can we attract all the teachers that we are training to the teaching profession?

A working paper published by TDD in January 2024 (Kruger, Hompashe and Swelindawo, 2024) reported on the results of structured interviews with 27 teachers and 9 school principals from primary schools in the **Eastern Cape, Gauteng and Limpopo**. The small size of the sample means that the findings must be seen as tentative, but nonetheless the study generates some interesting insights into the motivations, experience and recruitment of primary school teachers.<sup>2</sup>

# 60%

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1 Gustafsson. 2023. Specialisation-specific teacher supply and employment in the 2019 to 2022 period Department of Basic Education. 31 October 2023.

2 Some of these topics are being explored in greater depth in the TDD's nationwide survey of teachers. The results of the survey will be available towards the end of 2024.

## Aspirational career?

The interviews confirmed previous findings from larger studies that teaching is not a popular first choice as a career, with fewer than half of interviewees indicating that teaching was their first-choice career. A substantial number (about 50%) were drawn to teaching by arguments of **job security and access to government bursaries**, while a minority had a special aptitude and passion to teach. The rest reported **altruistic motivations**, such as seeing teaching as a calling.

A more strategic and persistent approach is necessary to draw talented school leavers into teaching and to ensure that they stay by training them well, supporting them and motivating them. The Funza Lushaka bursary scheme, annual teacher awards and limited recruitment efforts are not adequate.

## Motivation

Young teachers face similar frustrations as found in earlier studies. According to an HSRC<sup>3</sup> study, 55% of teachers intended to leave the profession owing to lack of job satisfaction, stress in the workplace and “high workload”. The OECD’s 2018 Teaching and Learning International Survey (TALIS)<sup>4</sup> identifies South Africa as one of six countries where teacher responses on the profession could “reflect an overall pattern of dissatisfaction with the [teaching] profession”. **Negative factors** reported in our interviews included, most commonly, **learner motivation, discipline and knowledge**. This was followed by the **curriculum, curriculum change and school infrastructure** as negative factors. Some participants felt disempowered by a perceived high regard for the rights of children, symbolised to them by the ban on corporal punishment, which they felt leaves teachers powerless. However, it is important to note that even though dissatisfaction with teaching may be particularly high in South Africa, dissatisfaction with teaching as a profession is not unique to South Africa.

# 50%

were drawn to teaching by job security and access to government bursaries

# 1 in 6

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<sup>3</sup> Peltzer, K., Olive Shisana, E. Udjo, D. Wilson, D. Rehle, and K. Zuma. 2005. Educator Supply and Demand in the South African Public Education System: Integrated Report. HSRC Press.

<sup>4</sup> OECD. 2020. TALIS 2018 Results (Volume II): Teachers and School Leaders as Valued Professionals. TALIS. OECD.

## 61

the class sizes experienced by Grade 6 educators in different provinces ranged from 39 learners per class (in the Western Cape) to as high as 61 learners per class (in Limpopo)

## Recruitment

A quality school system requires effective recruitment, appointment, and placement of teachers. Increasingly, as shown by the work of Kruger, Hompashe and Swelindawo (2024), however, appointments are moving away from the process prescribed in policy. The prescribed policy has required provincially advertised, nationally available vacancy bulletins followed by open competition and an important role for school governing bodies. In recent years few vacancy circulars for entry-level teachers have been released. The most common practice seems to be appointments from various priority lists (bursary holders, teachers in excess, contract teachers and unemployed teachers) with limited open competition and more limited SGB choice. Ensuring effective recruitment processes which attract and rapidly appoint strong candidates should receive more attention.

## What can be done about teacher supply to improve class sizes?

There exist strong possibilities for reducing class sizes in South African schools even within existing budget constraints. In 2017, the class sizes experienced by Grade 6 educators in different provinces ranged from 39 learners per class (in the Western Cape) to as high as 61 learners per class (in Limpopo). These large provincial differences in class sizes are not fully explained by school characteristics or resources. There are stark differences in the relationship between class size and learner-educator ratio across provinces and across school quintiles, even after controlling for differences in school resources, school enrolment, and factors affecting how teaching is structured during the day. This suggests that even within the existing constraints, there is room to deploy teachers more efficiently within schools, across classrooms and across subjects.

Better management of the teacher training pipeline is also required if we want to ensure we have the right number and types of teachers. The mechanism for regulating teacher supply already exists, with the Department of Higher Education and Training (DHET) allocating a fundable target of student teacher graduates to each university every 5 years. To better match supply with demand, two elements are necessary:

1. The first is **tighter integration** between the DHET, the Department of Basic Education (DBE), including Funza Lushaka, and the National Student Aid Financial Scheme (NSFAS) in allocating student numbers to universities, and allocating funding to both students and institutions.
2. **Timeous and accurate data** regarding the quantity and types of teachers required.

**In addition, teacher quality remains an issue.** The quality across different universities is highly variable, with many primary school teachers graduating without an adequate grasp of the primary school mathematics curriculum, or of how to teach reading. The consequences of this situation extend well beyond the primary grades, manifesting in poor learning outcomes throughout the school system.

Obtaining reliable information on the quality of graduates from each institution presents a great challenge. The sector audits periodically undertaken by the Council on Higher Education (CHE) may go some way towards providing this kind of information. However, the ultimate key to quality assurance in the sector lies in:

1. the extent to which teacher training institutions cooperate in establishing common standards for their graduates; and
2. the extent to which DHET and the CHE move towards assessing not only the *intended curriculum* of teacher educational qualifications, but also the *achieved curriculum* in terms of graduate knowledge and skills.

More guidance on what should be prioritised in planning the teacher supply will be shared in later synthesis notes.



Requests for additional information on the Teacher Demographic Dividend project can be directed to [info@tdd.sun.ac.za](mailto:info@tdd.sun.ac.za).

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