How many teachers will retire by 2030?

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Teacher **D**emographic **D**ividend.

Half of South African publicly-employed teachers (49%) are aged 50+ in 2021 leading to an approaching wave of teacher retirements. Figure 1 shows how the age distribution of teachers has shifted over the past decade, with the age peak increasing from 43 years in 2011 to 53 years in 2021. Teachers can retire from age 55, and in most circumstances have to retire by age 60, though in some circumstances a limited number are allowed to remain in teaching until age 65. Altogether, 49% of teachers are 50 years or older, and 25% at least 55 years old. Thus a large retirement wave is inevitable.

Figure 1: *Age distribution of publicly-employed educators in 2011 and 2021*
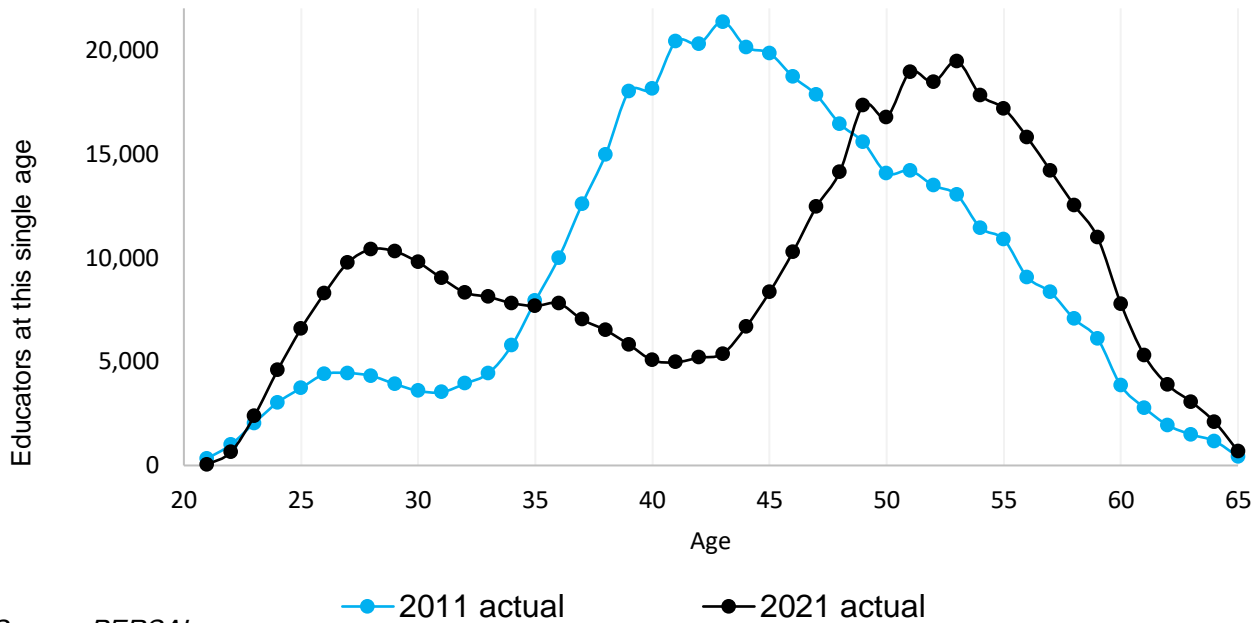

Source: PERSAL

Retirements and other forms of departure from the public teaching sector will rise strongly in the age group 55 and above. In 2013, just over 7,800 public sector educators aged 55+ had left in the previous year, a number that rose to just under 12,500 in 2021. Projections beyond 2021 of these numbers used the 2021 age distribution and past patterns of attrition from whatever cause. These projections indicate that leavers in this age group will peak at around 2029, at almost 17,300, after more than doubling since 2013. After 2030, the number will again decline back to about 8,700 in 2040.

Figure 2: *Actual & projected retirements/ leavers from the public sector teaching corps for the* <u>*age group 55 and older*</u>*, 2013 to 2040*
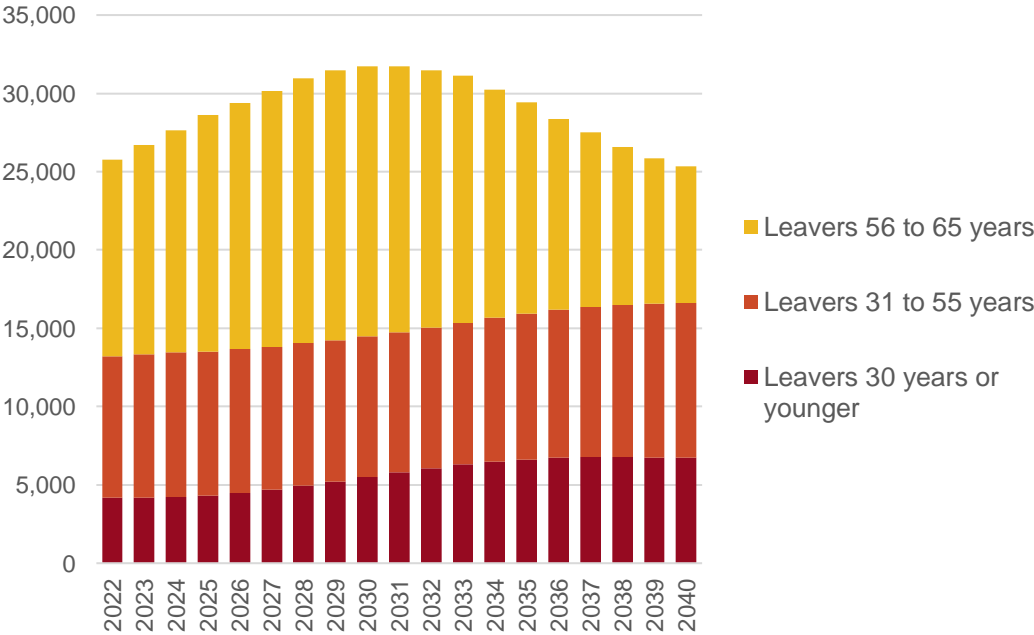
Note: These numbers refer to teachers from the previous year no longer teaching in the public sector.
Source: PERSAL and Resep projections.
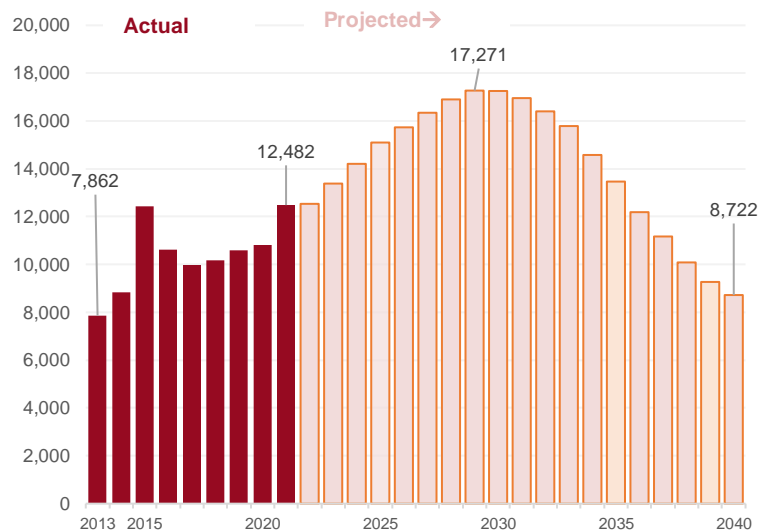
Around half of the teachers leaving public teaching each year are below the initial official retirement age of 55. Attrition before qualifying for retirement is affected by many factors, such as: (a) many women leaving the labour market when starting a family; (b) financially attractive options for teaching abroad; (c) moving to private schools or into School Governing Body (SGB) posts; (d) availability of alternative jobs outside of teaching; and for some (e) frustration with a teaching job. It is difficult to project how such attrition would evolve in future – factors such as the state of the economy and consequent demand for more skilled workers in other fields, or the growth of private schools, are difficult to predict. Alternative projections are based on past attrition rates from the teacher salary database (PERSAL). These projections were then compared and their sensitivity to alternative assumptions was tested for two age groups, younger teachers (30 years or younger), and teachers over 30 but below 55 years, the age at which teachers become eligible for retirement. Figure 3 shows projected numbers of leavers in these two age groups and in the potential retirement age group 55 and above that was shown in the previous figure. Unsurprisingly, attrition numbers are projected to grow less in the younger two age groups than for potential retirees, with the share of leavers 55 and older set to rise slightly from 49% in 2022 to 55% in 2031, before declining sharply thereafter. The increase in younger leavers seen in Figure 3 is due to two factors: attrition rates are relatively high for younger teachers, and projections indicate that younger teachers will account for a growing share of all educators.

Figure 3: *Projected numbers of teachers that will leave the public sector by age group, 2022 to 2040*

Source: PERSAL and Resep projections
Note: These numbers refer to teachers from the previous year no longer teaching in the public sector

Although modelling includes uncertainty, demographic effects on retirement are clear. Modelling of this nature is inherently uncertain and includes assumptions. However, the inexorable demographic effect on retirement means that the broad contours of these projections must be correct. The country has already entered a period in which many more teachers are required than had been the case in the past, simply to fill previous positions. In addition, the number of learners in schools is still growing, in part because of reduced dropout and greater flows to Grade 12. This further expands the need for more teachers. Moreover, to improve the learner-educator ratio at
least back to the levels that applied in 2011 would require even more additional teachers (see Note 2).

The need for more education graduates will thus grow in this decade, even just to maintain current teacher numbers. Increases in two types of leavers will drive this. Firstly, increases in retirements and departures of older educators in general, shown in Figure 2, will mean that by 2030 some 6,000 additional newly graduated teachers will have to be drawn into the system, compared to the current situation. Moreover, having more younger educators in the system results in more young leavers, as historically young teachers display relatively high attrition rates. However, because universities have already increased the output of graduates in recent years, for instance by 70% between 2014 and 2020, there would only be a limited need for additional graduates above recent outputs to maintain current teacher numbers.

Depending on assumptions made regarding the attrition behaviour of younger teachers, teacher graduate output may have to be around 4,000 higher in 2030 than in 2020 to maintain the current stock of publicly paid educators. However, these figures assume no growth in the teacher workforce. Even to maintain current learner-educator ratios in public schools, the stock of teachers would have to increase due to rising enrolment. Taking the ratio back to its more favourable 2011 level would mean a considerable increase in graduate output.

Modelling done so far suggests that by 2030 graduate output would have to be between 6,000 and 13,000 higher than it currently is, depending on the attrition rates of younger educators. The success universities have achieved in increasing graduate output in recent years makes the situation less worrying than if universities had not achieved this. To illustrate, in 2020 universities added around 28,000 teachers to the country's stock of teachers. Over ten years, this would be a total output of 280,000. This should be seen against a current total stock of publicly paid educators of around 400,000. Even if graduates not entering the public service are taken into account, the outputs of universities are on a sound trajectory, and should be able to deal with a demand for a larger teacher workforce to reduce the LE ratio, reduce class sizes somewhat, and put the country back on an improvement trajectory in the international testing programmes. What emerges as the greatest constraint is a lacking commitment to increasing the teacher workforce, in line with a substantial increase in the child population, an increase which was not anticipated even ten years ago, when it was believed that this population would continually decline for the foreseeable future. Growing the existing teacher workforce obviously has serious financial implications, and for this reason much of the modelling focuses on different financial scenarios.