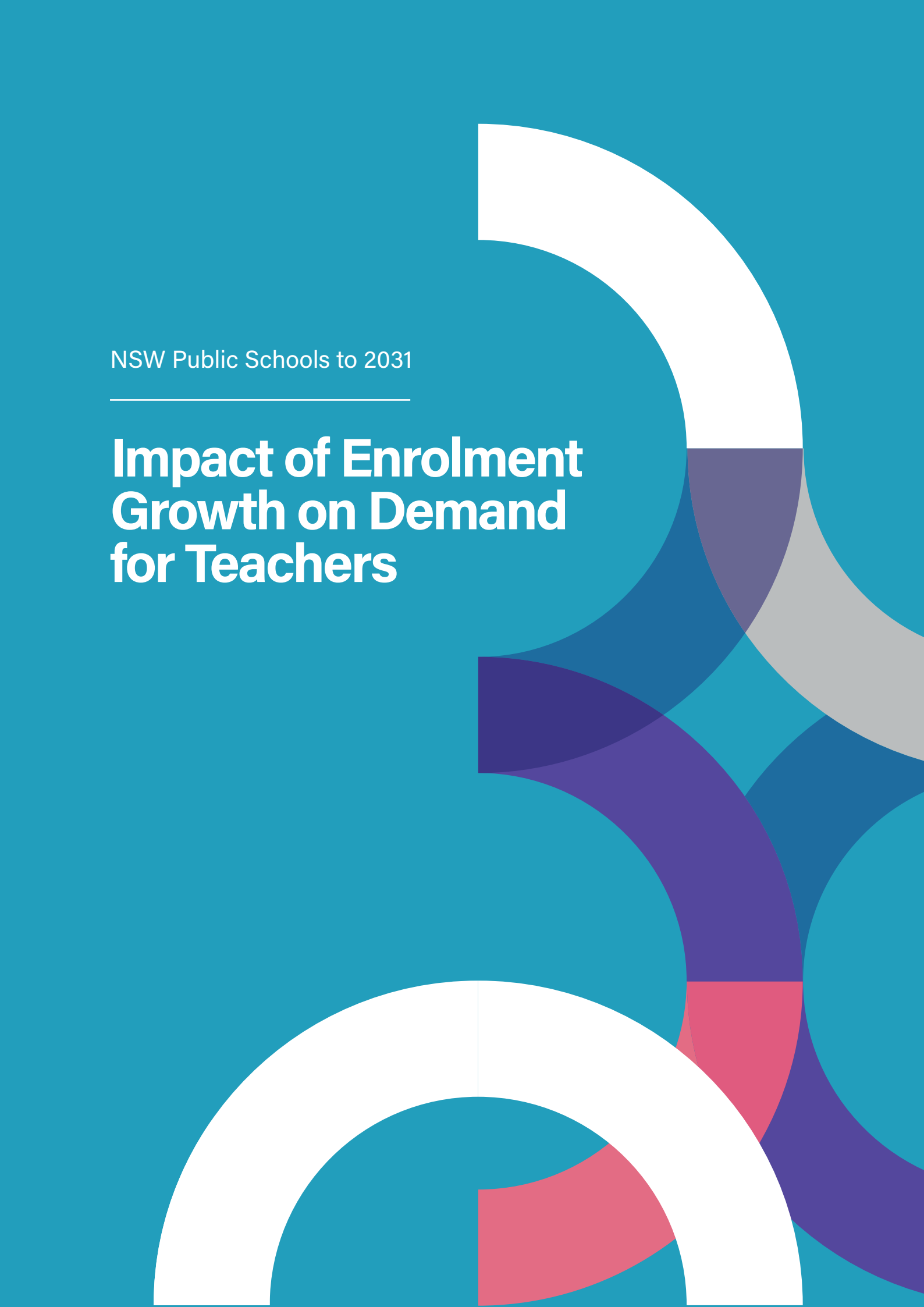


NSW Public Schools to 2031

Impact of Enrolment Growth on Demand for Teachers



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This briefing paper has been commissioned by the NSW Teachers Federation. The purpose of the paper is to examine the impact of enrolment growth on the future demand for teachers in the NSW public school system (Kindergarten to year 12).

1. Purpose and Scope

The projections for teacher demand only model the impact of future enrolment growth to the year 2031. The projections do not include the existing teacher shortages within the NSW public school system. In the background section of this briefing paper, there are citations to reports and statements from senior Department of Education (the Department) officials and NSW Education Minister that make abundantly clear there are incredibly significant existing teacher shortages. The existing shortages relates to difficulty in placing teachers within hard to teach locations, insufficient teachers for certain subjects and specialised teachers for students with disabilities. These current shortages have not been quantified by authorities, and it is outside the remit of this paper to develop estimates of the size of these existing teacher shortages. This paper only calculates the additional teachers that will be required because of enrolment growth.

2. Background – existing teacher shortages

The background section of this paper outlines the existing and significant problems faced by the NSW Department of Education in meeting the demand for teachers up to 2021. These current shortages are to the side of the projected demand for even more teachers during the period 2020 to 2031. They are outlined here because they signal that increasing the number of teachers to cope with rising demand is not as simple as turning on a tap. Suitably qualified teachers need to be recruited for the appropriate subjects, to teach in a variety of locations. They need also to be employed with satisfying work conditions and remuneration that will encourage them to stay in the teaching service for a longer term.

2.1 Current teacher shortages in NSW public system – Not Available (NA)

There is no public data quantifying the current overall total shortage of teachers by subject or location. The problem may not even be one of gaining public access to the data. The NSW Auditor-General warned in 2019 the Department did not know what disciplines teachers teach and was unable to predict supply and demand:

■ *“The NSW Department of Education’s plans and strategies to respond to the demand for secondary teachers in STEM-related disciplines are limited by incomplete data and underperforming scholarship and sponsorship program. The Department does not collect sufficient information to monitor what disciplines teachers actually teach nor does it predict supply and demand for teachers by discipline and location. This restricts the Department’s ability to track and forecast the supply and demand for secondary teachers in STEM-related disciplines.”¹*

¹ Audit Office of NSW, 2019.

In a letter to the chair of the NSW Public Accounts Committee regarding the Auditor-General's report, Department Secretary Mark Scott wrote:

- *“Since the audit recommendation that the workforce planning model be improved to better understand and communicate supply and demand for teachers, the Department of Education has been working diligently to enhance our subject and key learning area forecast capabilities. This model provides the capacity to more clearly observe the demand for teachers as well as the supply of teachers across the state and provides a forecast of these figures out to 2030.”²*

It is not clear how successful the efforts of the Department have been in generating the projections for teacher supply and demand. In a letter to the NSW Teachers Federation, the Department states:

- *“People Group have stated that they do not currently hold records of projections of additional teachers required each year to 2030, broken down by primary/secondary level and subject area. Creating a new record that would fulfil this request would require minimum 200 hours of work.”³*

2.2 Subject-related teacher shortages are significant and growing

The Department itself has stated in a workforce projection report, that while overall there is an adequate supply of secondary teachers, there was an exception:

- *“... in the areas of Mathematics, Science with Physics, some subjects in Technological and Applied Studies, some specialist teachers and some specific subjects in particular geographical locations”⁴*

The insufficient teachers assessment has been reinforced by the NSW Auditor-General:

- *“In recent years, Australian and international education policy has focused on improving outcomes in Science, Technology, Engineering and Mathematics (STEM) subjects. However, research has identified a shortage of qualified secondary teachers in STEM-related disciplines. This is projected to worsen due to a combination of student population increases, an ageing workforce, and fewer people going into teaching. Shortfalls are likely to be more acute in rural and remote areas, and areas of low socio-economic status.”⁵*

² Scott, July 22, 2020.

³ NSW Department of Education, November 30, 2020, personal communication [letter to the NSW Teachers Federation].

⁴ NSW Government, 2015, p. 14.

⁵ Audit Office of NSW, op. cit., p. 1.

2.3 Specialist teachers for students with disabilities

This applies to mainstream schools as well as schools for specific purposes (SSP), as accepted by the Department:

- *“Teachers across New South Wales, in mainstream schools and specialist settings, are working with students with disability to achieve remarkable outcomes. However, rising demand, as well as an increasing shortage of staff with specialist training mean our system is facing unprecedented pressures.”*⁶ *“Currently, only 9% of NSW teachers (6,000) are approved to teach special education, and the number of new special education graduates each year is going down, not up. With 61% of supporting teachers now over the age of 50 (compared to 43% of all teachers), the need to invest more in developing a strong pipeline of teachers with relevant skills is undeniable.”*⁷

2.4 Rural and remote locations

NSW Education Minister Sarah Mitchell said last year the teacher shortage was “one of many things that sometimes keeps me awake at night”, and went on to say:

- *“I recognise there are issues with teacher shortages across the state. It’s pronounced in regional and regional areas, but I hear it from teachers based in the city as well. I am proactively considering ways in which we can better incentivise teachers to take up positions in rural and regional areas. It is an ongoing challenge. I do think money is part of it. But it’s not the only part.”*⁸

Indeed, the Department has been noticeably clear about the shortages of teachers for certain rural and remote schools. These are exacerbated by the difficulty in retaining teachers within those locations:

- *“Filling vacant positions with quality teachers remains a critical issue for principals in rural and remote schools. The ability of rural and remote schools to attract and retain staff remains critical. Financial incentives appear to attract teachers to rural and remote locations, but do not appear to have had an impact on retention.”*⁹

2.5 Unable to fill teacher positions even where they are created and budgeted

An indication of the size of the bigger problem is illustrated by the fact that for the Department the number of vacant permanent positions (FTE) doubled from 705 in 2011 when the Coalition was elected to 1,436 in 2019.¹⁰

This means approximately 3 per cent of all existing FTE staff positions remained unfilled in 2019. Mark Scott explained:

- *“We are facing very, very significant challenges on workforce planning, not just in NSW but every Australian education system all around the country, government and non-government schools. Challenges about getting enough teachers, enough teachers qualified in certain subject areas, teachers in certain geographies. I do actually think there is a limit to the number of 18 year olds, who emerge after 13 years of schooling, who are willing to put up their hands for four more years at university so they can go back to school for another 50 years.”*¹¹

⁶ NSW Department of Education, ca. 2019, p. 1. ⁷ *ibid.*, p. 13.

⁸ Chrysanthos et al., February 21, 2020.

⁹ Centre for Education Statistics and Evaluation (CESE), 2020, p. 12.

¹⁰ Houssos, 2021.

¹¹ Scott, M., February 17, 2021. Sydney Morning Herald Schools Summit, [unpublished, documented via audio recording].

■ *“There are acute shortages for specialist teachers to meet the needs of students with disabilities.”*

The Department is simply unable to recruit sufficient suitable teachers for the required locations (rural and remote, and other hard to staff areas) with its current salaries and broader conditions of employment. This is to the side of any budgeting issue preventing recruitment of additional teachers.

Contributing to the problem are the difficulties associated with retaining teachers within the profession and the school system. NSW Education Standards Authority (NESA) research shows a rising rate of graduate teachers leaving the profession:

■ *“The proportion of NSW graduate teachers who were removed from the accreditation list within six years of being granted initial teacher accreditation peaked at 13.0% in 2013. 2013 represented a significant increase on the previous four year average (10.0%). Both 2014 and 2015 are already above 12.3%, which would indicate there has been an increase in the rate of graduate teachers leaving the profession in more recent years.”¹²*

The difficulties faced by the NSW public school system are not strictly endogenous to that system. The NSW Catholic school system is also experiencing similar problems.

■ *“On average, about 30 percent of secondary schools have a temporary or permanent teacher vacancy, while 20 percent of primary schools are in the same position. Some regions, such as Armidale, are experiencing even more severe shortages. Schools have been managing these shortages by:*

- combining classes, resulting in large class sizes and heightening safety concerns around staff-student ratios and adequate supervision
- foregoing teachers’ scheduled lesson planning time
- asking part-time teachers to reschedule non-work days
- asking support staff to supervise classes¹³

2.6 Teacher recruitment is bigger than NSW

The growth in demand for teachers is a national phenomenon. Even five year projections for teacher numbers show a rapid growth in the number needing to be employed across all states and territories:

■ *“The 2019 employment projections produced by the National Skills Commission showed that employment for school teachers was expected to increase by 10.2 per cent (or 42,600 new jobs) over the five years to May 2024, above the average projected growth rate across all occupations of 8.3 per cent.”¹⁴*

¹² New South Wales Education Standards Authority (NESA), 2020, p.3.

¹³ Independent Education Union of Australia, NSW/ACT Branch, March 24, 2021

¹⁴ Senate Estimates

3. Methodology and Analytical Approach of Briefing Paper

The briefing paper draws on publicly available data from the Australian Bureau of Statistics (ABS) and data that has been retrieved through the Government Information Public Access Act (GIPA). The data sources are referenced in this briefing paper where they are used.

The demand projections are based on the following calculations:

1. Projected growth in enrolments 2020-31
2. Estimated additional teachers required based on historical student-teacher ratios
3. Sensitivity analysis based on different historical student-teacher ratios

3.1 Projected enrolment growth

This benchmark year of 2020 is latest available year for enrolments as reported by NSW government and presented by the ABS 43a.¹⁵

Enrolments for this benchmark year are compared with NSW government official projections for student enrolments in public schools to the year 2031. The enrolment projections were released by the NSW Department of Education under the Government Information (Public Access) Act 2009. Ref GIPA-18-132. The data released by GIPA-18-132 shows NSW public school enrolment for 2017 and enrolment trends for the years 2026 and 2031. These projections report the estimated FTE enrolments at NSW public schools at term 1 each year.

This paper utilises NSW state-wide primary and secondary enrolment data and projections for levels of public schooling. There are significant differences in the student-teacher ratio between these levels of schooling. Separating out their enrolments supports a greater degree of accuracy by accounting for any different rates of enrolment growth between primary and secondary levels.

3.2 Historical student-teacher ratios

The historical student-teacher ratios (FTE) are taken from the ABS collection Table 53a.¹⁶

The student-teacher ratios for primary and secondary levels of schooling are multiplied by the projected additional numbers of students enrolled to calculate the additional teachers (FTE) that will be required to be in the NSW public school system.

¹⁵ Australian Bureau of Statistics, 2020, Graph 1.

¹⁶ *ibid.*, Graph 5.

3.3 Sensitivity analysis

The sensitivity analysis is framed by three different cases for student-teacher ratios:

- a. **PROJECTION 1**—is generated by applying the **NSW public schools** 10-year average (2011-20) student-teacher ratio for primary and secondary levels of schooling to the additional enrolment projections.
- b. **PROJECTION 2**—applies the **NSW All Schools (public and private)** 10 year average (2011-20) student-teacher ratio for primary and secondary levels of schooling to the additional enrolment projections.
- c. **PROJECTION 3**— applies the **NATIONAL All Schools (public and private)** 10-year average (2011-2020) student-teacher ratio for primary and secondary levels of schooling to the additional enrolment projections.

PROJECTION 1 is the status quo and allows for no changes in improved resourcing of classrooms with additional teachers.

PROJECTION 2 assumes a very modest improvement towards the NSW state 10-year historical average resourcing of classrooms by assuming that NSW public schools reach a resourcing level that equals the 10-year average resourcing across public and private schools in NSW.

PROJECTION 3 assumes NSW public schools attain average resourcing levels in classrooms that equal the national average resourcing across public and private schools for Australia.

4. Findings— Projected enrolments and enrolment growth

Based on the most recent actual enrolment data for NSW, there were just over 810,000 students enrolled in public schools in 2020.

Total public school enrolments in NSW by 2031 are projected by the Department of Education to reach nearly 950,000 students. Primary schools will absorb 583,000 and secondary schools 364,000. These estimates show an average growth of 8,000 primary and 4,400 secondary students every year. According to the NSW Department of Education, they are modelled to show the continued rates of school participation and population growth observed retrospectively. They include the observed choice of parents to send their children to (i) schools out of catchment, (ii) coed vs single-sex schooling, and (iii) other specialist education types. Enrolment trend projections are produced using population and housing projections from NSW Department of Planning and Environment and are designed for internal consistency with them.

Table 1. NSW Public Schools – Projected enrolments 2020-2031

Level	2020*	2031**	Growth in students (2020-2031)	Growth %
Primary	494,535	583,130	88,595	18%
Secondary	315,542	364,365	48,823	15%
Total	810,077	947,495	137,418	17%

* Actual enrolment data for 2020 is obtained from ABS¹⁷. 17 Figures as reported by NSW government to ABS

** Enrolment projections as provided under the Government Information (Public Access) Act 2009. Ref GIPA-18-132, by NSW Department of Education. Enrolments classified as being for Schools for Specific Purpose (SSP) have been equally apportioned between primary and secondary schools.

5. Historical student-teacher ratios

In comparing student-teacher ratios across Australia and between public and private school systems it is useful to consider the extent of teacher resourcing in NSW classrooms.

The table below shows that NSW has under-resourced its schools in terms of teacher numbers when compared with the national average for public schools over the past 10 years. Whereas NSW had on average 14.4 students per teacher (across both primary and secondary levels), the Australian average was 14.0 students per teacher.

It is also revealing that NSW had higher student-teacher ratios for primary (15.8) and secondary (12.7) than for states with a comparable level of urbanisation, Victoria and Queensland. Both other large states have had average student-teacher ratios in the past 10 years that have been below that of NSW.

These data reveal that NSW has a starting position in terms of teacher resourcing that is already less intensive (per student) than for the national average or for the other larger comparable states.

¹⁷ *ibid.*, Graph 1.

Table 2. Public School Student:teacher Ratios, 2011-2020

Public Schools	State	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10 Year Average 2011-20
Primary Level	NSW	15.5	15.5	15.5	15.6	15.8	15.6	15.8	15.4	16.8	16	15.8
	Vic.	15.4	15	15.3	15.3	15.3	14.8	14.8	14.6	14.4	14.1	14.9
	Qld	15.3	15.4	15.8	15.3	14.8	14.5	14.4	14.2	14.3	14.3	14.8
	SA	14.9	14.9	14.9	14.9	14.9	14.9	14.6	14.5	14.5	14.5	14.8
	WA	15.6	15.9	15.8	16.2	15.7	15.4	15.6	15.7	15.8	15.6	15.7
	Tas.	14.3	14.5	14.6	14.8	15.4	15	14.8	14.8	14.4	13.9	14.7
	NT	11.8	11.5	12.1	12.2	13	12.6	12.3	12.6	11.8	11.8	12.2
	ACT	13.7	13.8	13.1	13.3	14.6	14.7	15	14.9	14	13.9	14.1
	Aust.	15.3	15.2	15.4	15.4	15.3	15	15	14.8	15.2	14.8	15.1
Secondary Level	NSW	12.5	12.4	12.3	12.4	12.5	12.5	12.4	12.3	13.9	13.4	12.7
	Vic.	11.7	11.9	12.2	12.5	12.6	12.5	12.3	12.1	12.3	12.2	12.2
	Qld	12.5	12.5	12.6	12.5	12.7	12.5	12.4	12.2	12.1	12.1	12.4
	SA	13.4	13.2	13.2	13.1	13.2	13.3	12.9	12.7	12.7	12.5	13.0
	WA	11.4	11.7	12	12.6	13.4	12.6	12.4	12.6	12.8	12.8	12.4
	Tas.	13	13.1	13.2	13.1	13.4	13.2	13.1	12.9	12.7	12.5	13.0
	NT	10.5	10.3	11	11.5	11.9	11.9	12.4	12.1	11.9	11.8	11.5
	ACT	11.8	11.8	11.9	12.1	11.6	11.8	11.9	12.3	12.3	12.4	12.0
	Aust.	12.2	12.3	12.4	12.5	12.7	12.6	12.4	12.3	12.8	12.6	12.5
All Levels	NSW	14.1	14.1	14	14.2	14.3	14.3	14.2	14.1	15.6	14.9	14.4
	Vic.	13.6	13.5	13.9	14	14.1	13.8	13.7	13.5	13.5	13.3	13.7
	Qld	14.2	14.2	14.5	14.2	13.9	13.6	13.6	13.4	13.3	13.4	13.8
	SA	14.3	14.2	14.2	14.2	14.2	14.3	14	13.8	13.8	13.7	14.1
	WA	14	14.3	14.4	14.9	14.8	14.3	14.2	14.4	14.6	14.4	14.4
	Tas.	13.7	13.9	14	14	14.5	14.2	14.1	13.9	13.7	13.3	13.9
	NT	11.3	11	11.7	11.9	12.6	12.3	12.3	12.4	11.8	11.8	11.9
	ACT	12.8	12.9	12.6	12.7	13.1	13.3	13.6	13.7	13.3	13.3	13.1
	Aust.	13.9	13.9	14.1	14.2	14.2	14	13.9	13.8	14.2	13.9	14.0

Source: Data retrieved from ABS, Table¹⁸¹⁸ Ibid., Graph 5.

Table 3. Private School Student:teacher Ratios, 2011-2020

Private Schools	State	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10 Year Average 2011-20
Primary Level	NSW	16.6	16.5	16.4	16.6	16.3	16.1	15.8	15.5	15.3	15.2	16.0
	Vic.	14.9	14.8	14.6	14.6	14.5	14.2	14.1	13.9	13.7	13.5	14.3
	Qld	17.5	17.4	17.4	17.4	16.5	16.4	16	15.9	15.9	15.9	16.6
	SA	16.1	15.9	15.8	16.1	16.2	16	15.9	16.5	14.5	14.9	15.8
	WA	17.1	17.1	16.9	16.8	15.5	15.3	15.1	14.9	14.9	15.2	15.9
	Tas.	16.1	15.6	15.9	16	15.5	15.3	15.1	14.9	14.3	14.3	15.3
	NT	15.5	15.7	15.5	15.3	15.5	14.7	14.6	14.6	13.4	13.3	14.8
	ACT	17.3	17	16.9	16.5	16.1	16	16	16.3	15.8	15.9	16.4
	Aust.	16.4	16.2	16.1	16.2	15.7	15.5	15.3	15.1	14.8	14.8	15.6
Secondary Level	NSW	11.8	11.8	11.8	11.8	11.7	11.5	11.4	11.3	11.2	11.1	11.5
	Vic.	11.1	11.1	11.1	11.1	11.1	11	11	10.9	10.8	10.8	11.0
	Qld	12.2	12.2	12.2	12.2	12.4	12.2	12.1	12	11.9	12.1	12.2
	SA	11.7	11.7	11.6	11.7	11.5	11.3	11.2	10.8	12.3	12.1	11.6
	WA	10.9	10.8	10.7	10.7	12.1	11.9	11.8	11.6	11.6	11.7	11.4
	Tas.	11.5	11.6	11.5	11.5	11.4	11.4	11.2	11	10.9	10.8	11.3
	NT	10.5	10.3	10.9	10.5	10.5	10.3	10.5	10.5	10.5	10.5	10.5
	ACT	12.7	12.5	12.6	12.2	12.1	12.1	12	11.9	11.7	11.9	12.2
	Aust.	11.6	11.5	11.5	11.5	11.7	11.5	11.4	11.3	11.4	11.4	11.5
All Levels	NSW	13.8	13.7	13.7	13.8	13.6	13.4	13.2	13	12.9	12.8	13.4
	Vic.	12.7	12.6	12.6	12.6	12.5	12.3	12.3	12.2	12.1	12	12.4
	Qld	14.7	14.6	14.7	14.6	14.2	14	13.8	13.7	13.6	13.7	14.2
	SA	13.8	13.8	13.7	13.9	13.8	13.6	13.5	13.5	13.3	13.3	13.6
	WA	13.8	13.7	13.6	13.5	13.5	13.3	13.2	13	13	13.1	13.4
	Tas.	13.3	13.2	13.3	13.3	13.1	13	12.8	12.6	12.4	12.3	12.9
	NT	12.5	12.4	12.7	12.4	12.5	12.1	12.2	12.2	11.8	11.7	12.3
	ACT	14.6	14.4	14.4	14.1	13.9	13.8	13.8	13.8	13.5	13.6	14.0
	Aust.	13.6	13.6	13.6	13.6	13.4	13.2	13.1	12.9	12.8	12.8	13.3

Source: Data retrieved from ABS. Table 19

¹⁹ *ibid.*

Another valid comparison is between NSW public schools and private schools across Australia. NSW public schools – with an average of 14.4 students per teacher—are higher than the private school average of 13.4 in NSW and 13.3 across Australia.

NSW is particularly under-resourced relative to other states' private schools at the secondary level (a 10 year average 12.7 in NSW public schools compared with 11.5 in private schools across Australia).

Of concern also, is that the student-teacher ratio in NSW is travelling upwards and therefore in the wrong direction. By 2020, the NSW student-teacher ratio has climbed to 16 per teacher for primary. This compares with a national average in the private sector of 14.8 and a NSW private sector average of 15.2. For the secondary level, NSW public schools had 13.4 students per teacher in 2020 compared with 11.1 for private schools in NSW and 11.4 nationally.

Table 4. All School Sectors Student:teacher Ratios, 2011-2020

School Level	State	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10 Year Average 2011-20
Primary Level	NSW	15.9	15.8	15.7	15.9	15.9	15.8	15.8	15.4	16.3	15.8	15.8
	Vic.	15.2	14.9	15.1	15.1	15.1	14.6	14.6	14.3	14.2	13.9	14.7
	Qld	15.9	16	16.2	15.9	15.2	15	14.9	14.7	14.7	14.8	15.3
	SA	15.3	15.2	15.2	15.3	15.3	15.3	15	15.1	14.5	14.6	15.1
	WA	16	16.2	16.1	16.4	15.7	15.4	15.4	15.5	15.6	15.5	15.8
	Tas.	14.7	14.8	14.9	15.1	15.5	15.1	14.9	14.8	14.4	14.1	14.8
	NT	12.4	12.2	12.7	12.8	13.5	13	12.7	13	12.1	12.1	12.7
	ACT	15	14.9	14.4	14.4	15.1	15.1	15.4	15.3	14.6	14.5	14.9
	Aust.	15.6	15.5	15.6	15.6	15.4	15.2	15.1	14.9	15.1	14.8	15.3
Secondary Level	NSW	12.2	12.2	12.1	12.2	12.1	12.1	11.9	11.9	12.7	12.4	12.2
	Vic.	11.5	11.5	11.7	11.9	11.9	11.8	11.7	11.6	11.6	11.5	11.7
	Qld	12.4	12.4	12.4	12.4	12.6	12.4	12.3	12.1	12.1	12.1	12.3
	SA	12.7	12.6	12.5	12.5	12.5	12.5	12.2	11.9	12.5	12.3	12.4
	WA	11.2	11.3	11.5	11.7	12.8	12.3	12.1	12.2	12.3	12.3	12.0
	Tas.	12.5	12.6	12.6	12.5	12.6	12.5	12.3	12.2	12	11.9	12.4
	NT	10.5	10.3	11	11.1	11.4	11.2	11.6	11.5	11.4	11.4	11.1
	ACT	12.2	12.1	12.2	12.1	11.8	11.9	11.9	12.1	12	12.2	12.1
	Aust.	12	12	12	12.1	12.3	12.1	12	11.9	12.2	12.1	12.1

Source: Data retrieved from ABS. Table ²⁰

²⁰ *ibid.*

Table 4. All School Sectors Student:teacher Ratios, 2011-2020

All Levels	NSW	14	14	13.9	14	14	14	13.9	13.7	14.5	14.1	14.0
	Vic.	13.3	13.2	13.4	13.5	13.5	13.2	13.2	13	13	12.8	13.2
	Qld	14.4	14.4	14.5	14.3	14	13.8	13.6	13.5	13.4	13.5	13.9
	SA	14.1	14.1	14	14.1	14.1	14.1	13.8	13.7	13.6	13.6	13.9
	WA	13.9	14.1	14.1	14.4	14.3	13.9	13.8	13.9	14	14	14.0
	Tas.	13.6	13.7	13.8	13.8	14.1	13.8	13.7	13.5	13.3	13	13.6
	NT	11.6	11.4	12	12.1	12.6	12.2	12.3	12.3	11.8	11.8	12.0
	ACT	13.5	13.5	13.3	13.3	13.4	13.5	13.6	13.7	13.4	13.4	13.5
	Aust.	13.8	13.8	13.9	13.9	13.9	13.7	13.6	13.5	13.7	13.5	13.7

Source: Data retrieved from ABS, Table 53a

Another historical comparison of student-teacher ratios, is between NSW public schools and the all sector average (combined public and private schools) for Australia and NSW.

significantly lower for secondary schools at 12.1. Looking just at NSW, the primary level all-school average is the same as public schools at 15.8 students per teacher.

The national all-schools average student-teacher ratio across primary and secondary schools drops to 13.7. For primary schools it is 15.3 but is

For the secondary level, the all-school average is significantly lower (12.2) compared with NSW public schools (12.7).

6. Projections and sensitivity analysis

Based on the analysis of the tables above, this briefing paper has chosen projections based on policy variables related to teacher recruitment. These projections are presented in the table below.

Table 5. Teacher Projections - Base Case and Sensitivity Analysis

Scenario	Description	Primary	Secondary
PROJECTION 1	NSW 10 Year Average Public school Student:Staff FTE Ratio	15.8	12.7
PROJECTION 2	NSW 10 Year Average (Private&Public) Student:Staff FTE Ratio	15.8	12.2
PROJECTION 3	National 10 Year Average (Private&Public) Student:Staff FTE Ratio	15.3	12.1

Source: Study derived averages utilising data retrieved from ABS

PROJECTION 1 has been chosen on the basis that it reflects the stable student-teacher ratio of the NSW public sector over the past 10 years. The most recent years for NSW public schools have fluctuating student-teacher ratios (up and down) that are explained as being driven by NSW Department of Education changes in calculating FTE numbers for teachers.

PROJECTION 2 is set as the NSW all schools average student-teacher ratio (public and private schools). This is in line with the greater resourcing that is set to flow to NSW public schools from the SRS driven increases in funding.

PROJECTION 3 applies national average student-teacher ratios to NSW public school enrolments. This raises the expectation that NSW public schools have a standard of resourcing that is at least the average of what is enjoyed by schools across Australia.

7. Key Findings

The key findings present the number of additional teachers required in 2031 due to enrolment growth. The calculation is as follows:

Additional Teachers = Teacher Projections for 2031 (PROJECTIONS 1,2,3) – (Actual number of FTE teachers in NSW public schools in 2020 as reported by the NSW Department of Education to the ABS)

Table 6. Teacher Demand Projections, FTE Teachers to 2031

Description	Primary ratio	Secondary ratio	Primary Teachers	Secondary Teachers	Total Teachers	Additional Teachers on 2020 FTE Level
Current Situation	16	13.4	30,942	23,560	54,502	0
PROJECTION 1	15.8	12.7	36,906.96	28,690.16	65,597	11,095.42
PROJECTION 2	15.8	12.2	36,906.96	29,865.98	66,772	12,271.25
PROJECTION 3	15.3	12.1	38,113.07	30,112.81	68,225	13,724.18

By 2031, it is projected that NSW public schools will require between 11,100 and 13,700 additional FTE teachers above 2020 FTE teacher numbers.

PROJECTION 1 is for an additional 11,095 FTE teachers. This is driven by NSW choosing to stay with its current 10-year average student-teacher ratio (poor by national standards).

PROJECTION 2 is for an additional 12,271 FTE

teachers to be required by 2031. This is derived from NSW average student-teacher ratios and the NSW Department of Education projections for enrolment growth in NSW public schools.

PROJECTION 3 is for an additional 13,724 FTE teachers by 2031. This is driven by NSW improving its average student-teacher ratio so that it is equal to the national average for all schools.

Important notes

These projections do not include the additional teachers on 2020 numbers that are required to address current shortages due to (i) subject specialisation, (ii) difficulty in recruiting for remote and rural locations, (iii) hard-to-teach schools, and (iv) for the specific needs of students with disabilities.

All three projections are conservative. They are based on existing student-teacher ratios within Australia. They do not incorporate any aspirational improvements in student-teacher ratios (e.g. to address greater needs of students with disabilities or significantly lower student-teacher ratios to support children at risk of not meeting minimum learning benchmarks). The projections are based on current practice within NSW and Australian school systems.

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NSW Public Schools to 2031

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