

Class sizes in NSW government primary schools, 2017

Centre for Education Statistics and Evaluation

Research indicates teaching quality is the most important factor in determining student achievement rather than class composition and numbers. This bulletin summaries the class size audit results conducted for primary level classes in all infants, primary and central/community schools. Class size data is used for state wide monitoring of primary class sizes, especially Kindergarten to Year 2.

2017 average class size

In 2017, the average Kindergarten to Year 6 class size has remained steady at 24.1 students. This is the third consecutive year that the average class size has continued unchanged, and has only changed by 0.1 since 2011. The average Kindergarten to Year 2 class size has also stayed the same as in 2016 at 21.0 students, and has remained relatively unchanged since 2007.

There are 19,781 primary classes in NSW government schools in 2017, up by 398 classes since 2016. This increase was needed to accommodate rising student enrolments.

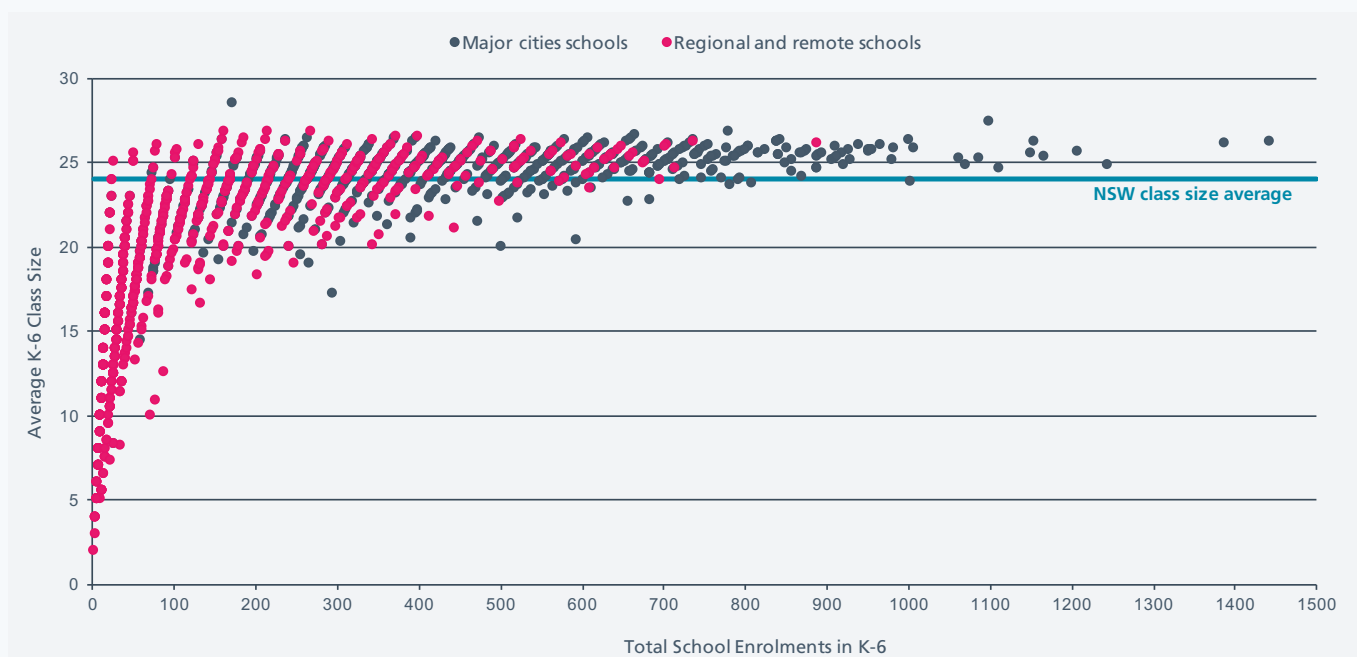
Average class size by school location

Figure 1 graphs the average Kindergarten to Year 6 class size of each school in major cities and regional and remote NSW by their total primary enrolments. Major cities schools are shown as grey dots, while regional and remote schools are red. It shows that schools with small average class sizes are located mostly in regional and remote areas, which also have low school enrolments.

As schools get larger there is less variation in average class size, particularly at schools in major cities. For example, the average class size for schools with around 200 students ranges from 18 to 26, while schools with around 800 students have an average class size between 23 and 26.

Figure 1

Average class size by remoteness and school enrolments, 2017: NSW government schools



Note:

- Total school enrolments represent the total number of K-6 students for each school as reported in the class size audit.
- Major Cities and Regional and Remote classifications are based on the Australian Statistical Geography Standard (ASGS).

Average class size since 1997

Table 1 and Figure 2 show the average class size in NSW government schools in the past two decades.

Table 1

Average class size by scholastic year, 1997, 2003 to 2017: NSW government schools

Year	K	1	2	3	4	5	6	K-2	K-6
1997	24.1	25.5	26.2	26.6	26.8	26.8	26.8	25.3	26.9
2003	22.9	24.5	25.3	26.2	26.5	26.7	26.7	24.2	26.3
2004	22.1	24.6	25.4	26.4	26.6	26.8	26.8	24.1	26.2
2005	19.7	23.6	25.1	26.1	26.4	26.6	26.7	22.7	25.3
2006	19.3	21.3	24.1	25.9	26.4	26.6	26.6	21.5	24.6
2007	19.2	21.1	22.6	25.7	26.2	26.5	26.5	21.0	24.3
2008	19.2	21.2	22.5	25.7	26.1	26.5	26.5	21.0	24.2
2009	19.3	21.3	22.6	25.8	26.2	26.5	26.5	21.0	24.3
2010	19.2	21.2	22.7	25.6	26.2	26.4	26.4	21.0	24.2
2011	19.2	21.2	22.6	25.7	26.1	26.4	26.3	21.0	24.0
2012	19.3	21.2	22.7	25.5	25.9	26.2	26.2	21.0	24.0
2013	19.4	21.3	22.7	25.6	25.9	26.3	26.1	21.1	24.0
2014	19.3	21.4	22.7	25.6	25.9	26.2	26.2	21.1	24.0
2015	19.2	21.3	22.7	25.9	26.2	26.5	26.4	21.1	24.1
2016	19.1	21.3	22.6	25.9	26.2	26.3	26.3	21.0	24.1
2017	19.1	21.3	22.5	25.7	26.1	26.4	26.4	21.0	24.1

Note: The average class size for each scholastic year is calculated from the regular and composite classes that contain a student from that scholastic year.

The average class size for Kindergarten to Year 6 decreased by 2.8 from 26.9 in 1997 to 24.1 students in 2017, with Kindergarten, Year 1 and Year 2 experiencing the largest reductions.

Kindergarten average class size decreased by 5.0 from 24.1 in 1997 to 19.1 in 2017.

Year 1 average class size decreased by 4.2 from 25.5 in 1997 to 21.3 in 2017.

Year 2 average class size decreased by 3.7 from 26.2 in 1997 to 22.5 in 2017.

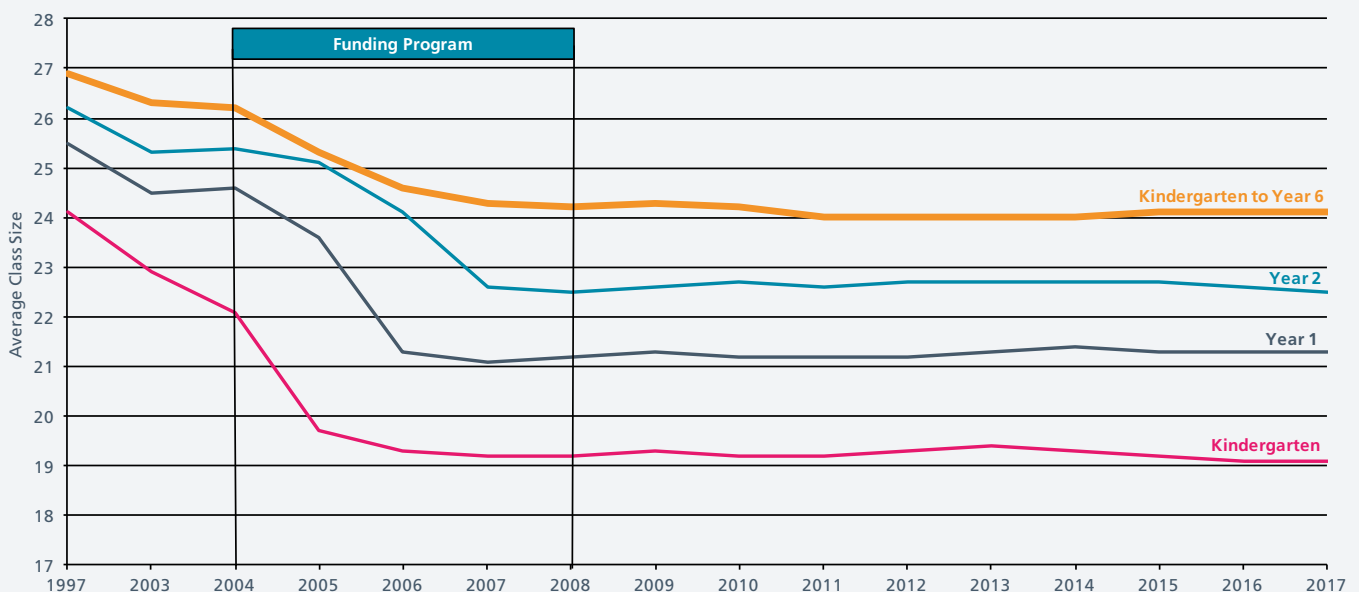
A large reduction in average class sizes occurred during the Class Size Reduction Program which ran from 2004 to 2008. As the

chart shows, Kindergarten class sizes reduced in 2005, then class sizes progressively reduced as these students moved through primary school. During the period of the reduction program the average Kindergarten to Year 6 class size reduced by two students. Since the program ended nine years ago, the average class size for Kindergarten to Year 6 has stayed relatively constant at around 24.1. This has been achieved even though primary enrolments have increased considerably since 2009.

Since 2006 the state-wide average class sizes for Kindergarten to Year 2 have remained below the planned average of 20 for Kindergarten students, 22 for Year 1 students and 24 for Year 2 students.

Figure 2

Average class size, 1997, 2003 to 2017: NSW government schools



Note: The average class size for each scholastic year is calculated from the regular and composite classes that contain a student from that scholastic year.

Figure 3 shows that Kindergarten enrolments increased by 7,949 students or 12.6 per cent from 63,138 students in 2010 to 71,087 students in 2017.

Year 1 enrolments increased by 8,550 students or 13.9 per cent from 61,594 students in 2010 to 70,144 students in 2017.

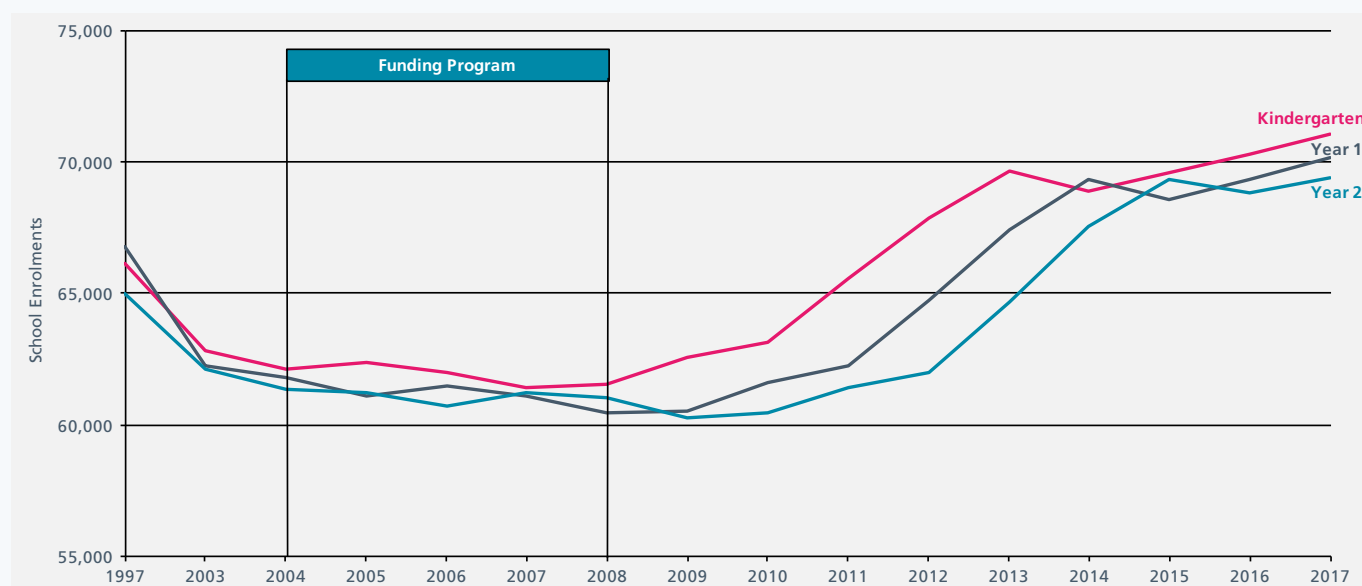
Year 2 enrolments increased by 8,948 students or 14.8 per cent from 60,456 students in 2010 to 69,404 students in 2017.

The number of classes with Kindergarten to Year 2 students has also continued to increase, by 1,247 classes since 2010 to 12,529 classes in 2017.

For Kindergarten to Year 6, student enrolments grew by 12.6 per cent between 2010 and 2017. The number of classes with Kindergarten to Year 6 students has increased by 13.5 per cent from 17,574 in 2010 to 19,781 in 2017.

Figure 3

Primary student enrolments, 1997, 2003 to 2017: NSW government schools



Source: National Schools Statistics Collection, conducted annually on the first Friday of August.

Average class size by ABS Statistic Area Level 4 group

Figure 4 shows average class size by scholastic year and ABS ASGS Statistical Area Level 4 (SA4) group. Map 1 shows the proportion of Kindergarten to Year 6 student enrolments in

NSW government schools and the proportion of those schools in NSW by SA4 group. The number of NSW government primary students per square kilometre in each SA4 group is also shown.

Figure 4

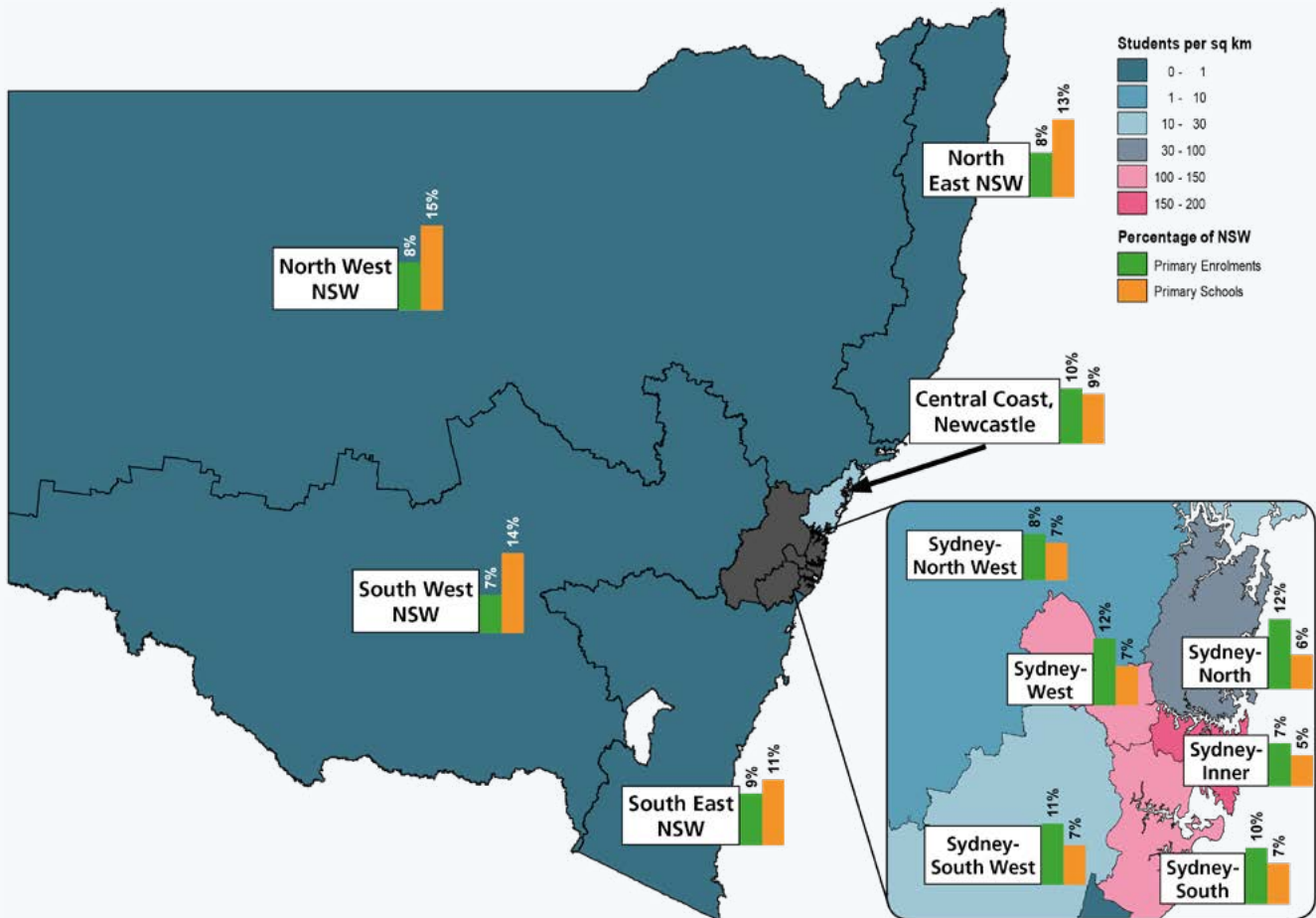
Average class size by ABS Statistical Area Level 4 group and scholastic year, 2017: NSW government schools



Note: The average class size for each scholastic year is calculated from the regular and composite classes that contain a student from that scholastic year.

Map 1

Proportion of primary student enrolments and schools with primary enrolments by ABS Statistical Area Level 4 group, 2017: NSW government schools



Source: National Schools Statistics Collection, conducted annually on the first Friday of August.

Figure 4 indicates that average class sizes in Sydney areas are generally higher than outside Sydney. As the shading in Map 1 shows, the number of students per square kilometre is higher in Sydney than in areas outside Sydney. However, in spite of having around 60 per cent of all primary student enrolments (286,934 students), Sydney areas only have 39 per cent of all schools (642 schools). This indicates the average school size is higher in areas of higher population density, which may in turn affect the average class size.

Across all scholastic year groupings, South West NSW has the lowest average class sizes (17.6 students for Kindergarten, 19.2 for Year 1, 20.2 for Year 2 and 22.1 for Kindergarten to Year 6). This area has the least primary

student enrolments (32,219 enrolments comprising 6.6 per cent of total NSW), but the second highest number of schools with primary students (229 schools or 13.7 per cent).

Sydney-North, on the other hand, has the highest average class sizes for Kindergarten (20.5), Year 2 (24.0) and Kindergarten to Year 6 (24.9). Sydney-North has 99 NSW government schools enrolling over 57,000 primary students. It has the second lowest number of schools (5.9 per cent), but the most primary student enrolments (11.8 per cent) in NSW.

Distribution of Kindergarten to Year 2 class size by ABS Statistical Area Level 4 group

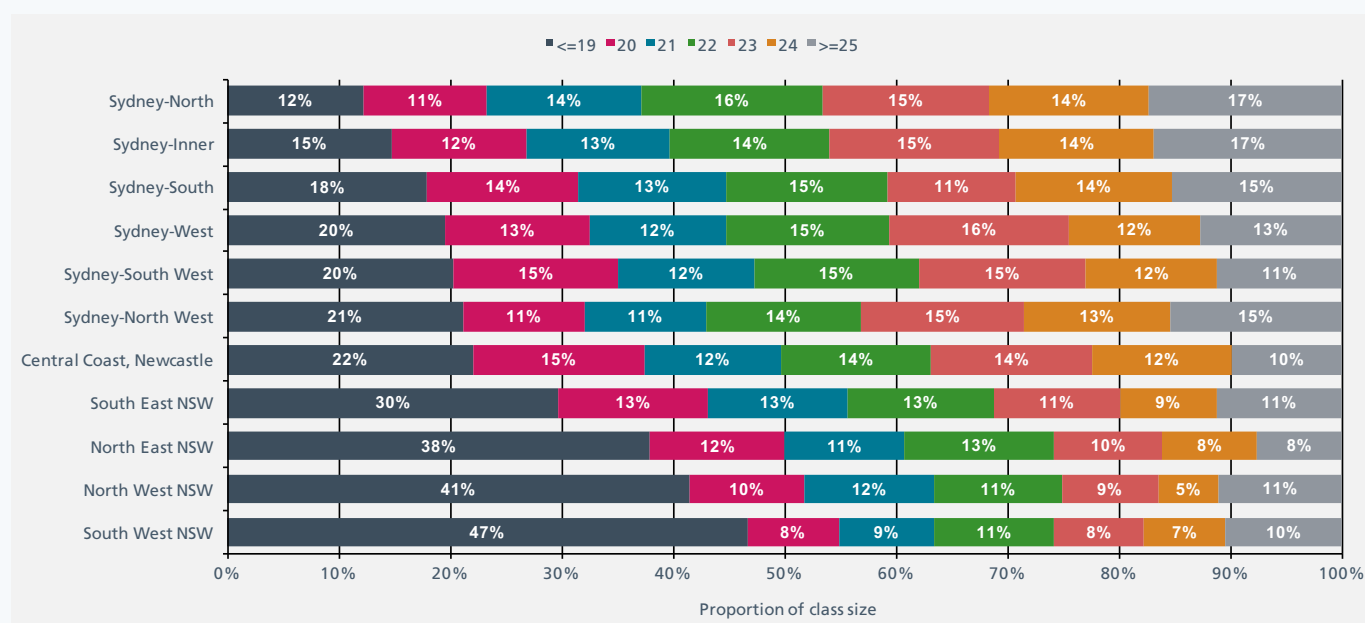
Figure 5 shows the proportion of Kindergarten to Year 2 class sizes in each ABS SA4 group. Areas outside Sydney which are less populated have a higher proportion of small classes of 19 or fewer students.

In South West NSW, almost half of Kindergarten to Year 2 classes have fewer than 20 students. North East NSW and North West NSW have around 40 per cent of classes in this size band.

By contrast in Sydney areas, class sizes are more evenly distributed. Sydney-North and Sydney-Inner have the highest proportion of Kindergarten to Year 2 classes with 25 or more students at 17 per cent of classes, and also the lowest proportion of classes with 19 or fewer students (12 per cent and 15 per cent respectively).

Figure 5

Distribution of Kindergarten to Year 2 classes by class size and ABS Statistical Area Level 4 group, 2017: NSW government schools



Distribution of Kindergarten to Year 2 enrolments by class size and remoteness

While the average class size is a useful measure, it is also helpful to consider the distribution of student enrolments by class sizes as averages can mask the extent of differences at a more granular level.

Figure 6 shows the distribution of Kindergarten, Year 1 and Year 2 students by class size for major cities and regional and remote schools.

Figure 6 shows that in major cities, over 26 per cent of Kindergarten students are in classes with 20 students. A further 38 per cent of students are in classes with either 19 or 21 students, leaving around 36 per cent of Kindergarten students in classes with fewer than 19 or more than 21 students.

This distribution differs noticeably between major cities and regional and remote schools. While major cities schools have most of their Kindergarten to Year 2 students enrolled in classes

with class sizes around the state's planned average, regional and remote schools have a lower proportion of students enrolled in classes with class sizes around the average. The distribution of students in regional and remote schools is negatively skewed, meaning that there are more students in classes below the state-wide planned average than above. This distribution pattern is partly due to schools in regional and remote areas having smaller school size than schools in major cities.

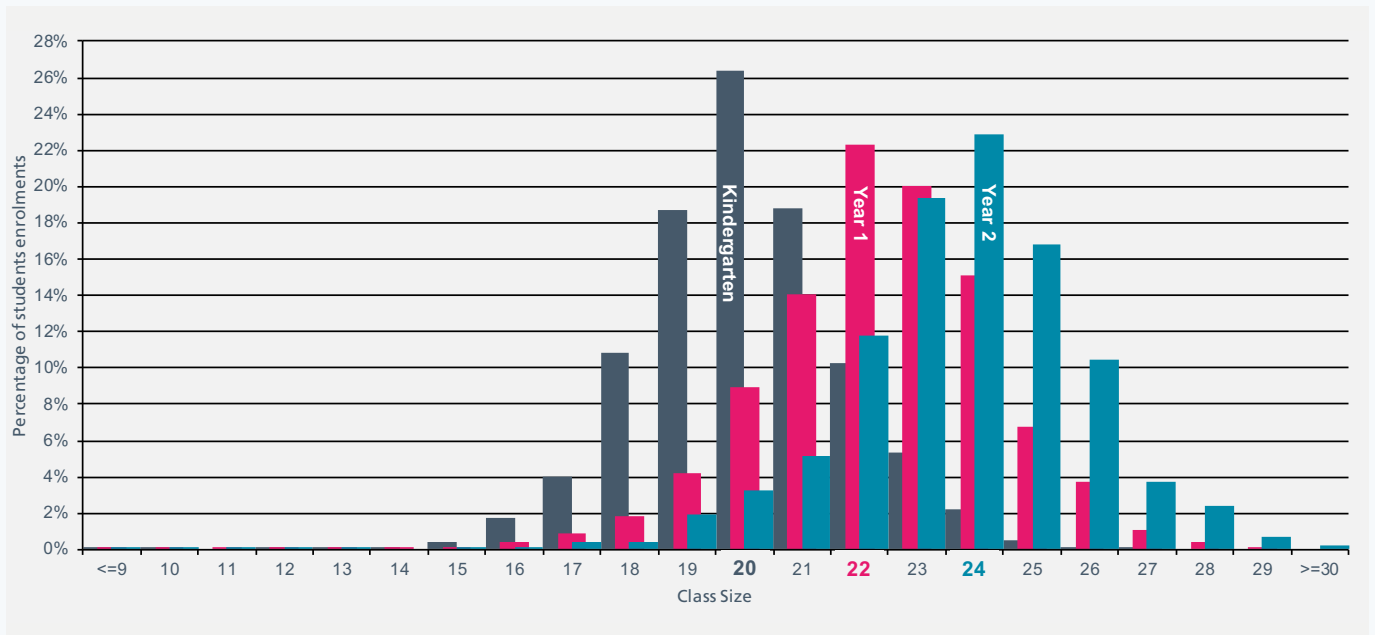
For instance, in schools located in major cities, 64 per cent of Kindergarten students are in classes which have 19, 20 and 21 students. This is compared to only 44 per cent of Kindergarten students in regional and remote schools.

In regional and remote areas, 41 per cent of Kindergarten students are taught in classes which have 18 or fewer students, which is two students per class below the statewide planned average.

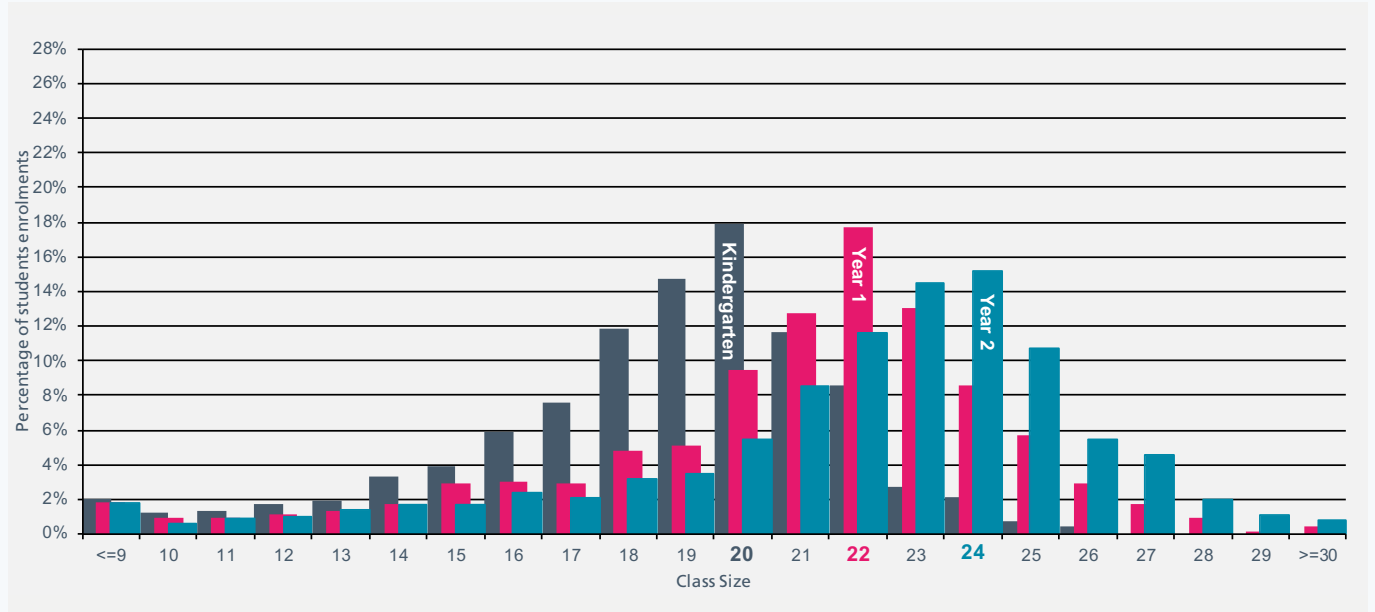
Figure 6

Distribution of enrolments by class size for Kindergarten, Year 1 and Year 2, 2017: NSW government schools

Major Cities



Regional and Remote



20 - Kindergarten statewide planned average
 22 - Year 1 statewide planned average
 24 - Year 2 statewide planned average

Note: The average class size for each scholastic year is calculated from the regular and composite classes that contain a student from that scholastic year.

Average class size by school size

Table 2 shows average class sizes for each scholastic year and the Kindergarten to year 6 average by school size. Average class sizes decline steadily from the largest schools with more than 700 enrolments to schools with 160 to 300 enrolments.

Schools with more than 700 enrolments have a total Kindergarten to Year 6 average class size of 25.4 students compared with 23.6 for schools with 160 to 300 enrolments.

Schools with fewer than 160 enrolments have much smaller average class sizes. The total Kindergarten to Year 6 average class

size for schools with 26 to 159 enrolments is 20.2 and schools with fewer than 26 enrolments have 11.4 students per class on average.

Considering each scholastic year separately, the averages across most school sizes are within the statewide planned averages (20, 22 and 24 for Kindergarten, Year 1 and Year 2 respectively and 30 for Year 3 to Year 6). Kindergarten and Year 1 are the only scholastic years which have class size above the state's planned average in any size grouping, up to 0.5 in schools with more than 700 students and 0.1 higher on average in schools with 301 to 700 students.

Table 2

Average class size by school size (primary enrolments), 2017: NSW government schools

School Size	Scholastic Year							Number of Schools	Total Enrolments	Number of Classes	Average Class Size
	K	1	2	3	4	5	6				
All schools	19.1	21.3	22.5	25.7	26.1	26.4	26.4	1,666	476,455	19,781	24.1
> 700 students	20.3	22.5	24.0	28.1	28.5	28.6	28.8	120	100,821	3,976	25.4
451 to 700 students	19.9	22.1	23.5	27.6	27.9	28.1	28.2	269	149,655	6,021	24.9
301 to 450 students	19.6	22.1	23.5	26.8	27.3	27.4	27.5	308	111,217	4,566	24.4
160 to 300 students	19.1	21.8	23.0	25.8	26.3	26.5	26.6	343	78,487	3,322	23.6
26 to 159 students	16.9	18.3	19.5	21.0	21.8	22.5	22.0	440	33,578	1,660	20.2
< 26 students	12.6	12.2	12.2	12.6	12.6	12.6	12.7	186	2,697	236	11.4

Note:

- School size is based on the number of primary enrolments rather than 'classification' as in previous publications. School classification is no longer applicable.
- The average class size for each scholastic year is calculated from the regular and composite classes that contain a student from that scholastic year.

Average class size by Family Occupation and Education Index band

Table 3 shows the average class sizes for each Family Occupation and Education Index (FOEI) band. FOEI is a school level index of educational disadvantage related to socio-economic background. It is the basis of the equity loading for socio-economic background in the Department's Resource Allocation Model (RAM). For this table, the average of each school's 2016 and 2017 FOEI is used to determine its FOEI band.

Schools in FOEI band of 150 or more have the highest level of educational disadvantage and the smallest average class sizes. These schools have a Kindergarten to Year 6 average class size of 21.6 students, compared with 23.6 for schools with FOEI band of

110 to 150. Schools with FOEI less than 50 have the lowest level of educational disadvantage and the largest average class of 24.9. These schools also have the largest average class sizes for each scholastic year size.

Anecdotal evidence indicates that some disadvantaged schools use RAM equity funding to employ additional classroom teachers. This reduces the average class size, which may partly explain the lower average class sizes at schools with higher FOEI bands or higher level of educational disadvantage.

Table 3

Average class size by the average of 2016 and 2017 Family Occupation and Education Index band: NSW government schools

FOEI band	Scholastic Year							Number of Schools	Total Enrolments	Number of Classes	Average Class Size
	K	1	2	3	4	5	6				
Less than 50	20.1	22.4	23.9	27.4	28.0	27.9	28.0	323	153,277	6,138	24.9
50 to 90	19.3	21.7	23.0	26.5	26.9	27.3	27.3	333	100,491	4,099	24.4
90 to 110	18.8	21.1	22.4	25.9	26.2	26.5	26.6	280	68,885	2,858	24.1
110 to 150	18.8	20.7	21.9	24.8	25.3	25.9	25.8	513	119,139	5,055	23.6
150 or more	17.2	18.7	19.6	21.5	22.0	22.2	22.2	217	34,663	1,631	21.6
All schools	19.1	21.3	22.5	25.7	26.1	26.4	26.4	1,666	476,455	19,781	24.1

Note: The average class size for each scholastic year is calculated from the regular and composite classes that contain a student from that scholastic year.

Multi-age or composite classes since 2007

Multi-age or composite classes are made up of students drawn from different scholastic years. Research has found that multi-age classes may provide social and emotional benefits to students, even though class structure does not determine educational advantage or disadvantage.

Multi-age or composite classes may be established because of the uneven pattern of enrolment in the school, the small size of the school or where it is considered that mixing students of different ages and scholastic years is academically and socially advantageous. These classes are often designed to match the organisation of the syllabus, which is based on 'stages' running over two years.

Figure 7 shows the proportion of composite classes with Kindergarten to Year 6 enrolments out of the total primary class count in NSW government schools from 2007 to 2017. Figure 7 also presents the proportion of Kindergarten to Year 6 students enrolled in composite classes out of the total primary enrolments in NSW government schools, and the number of enrolments.

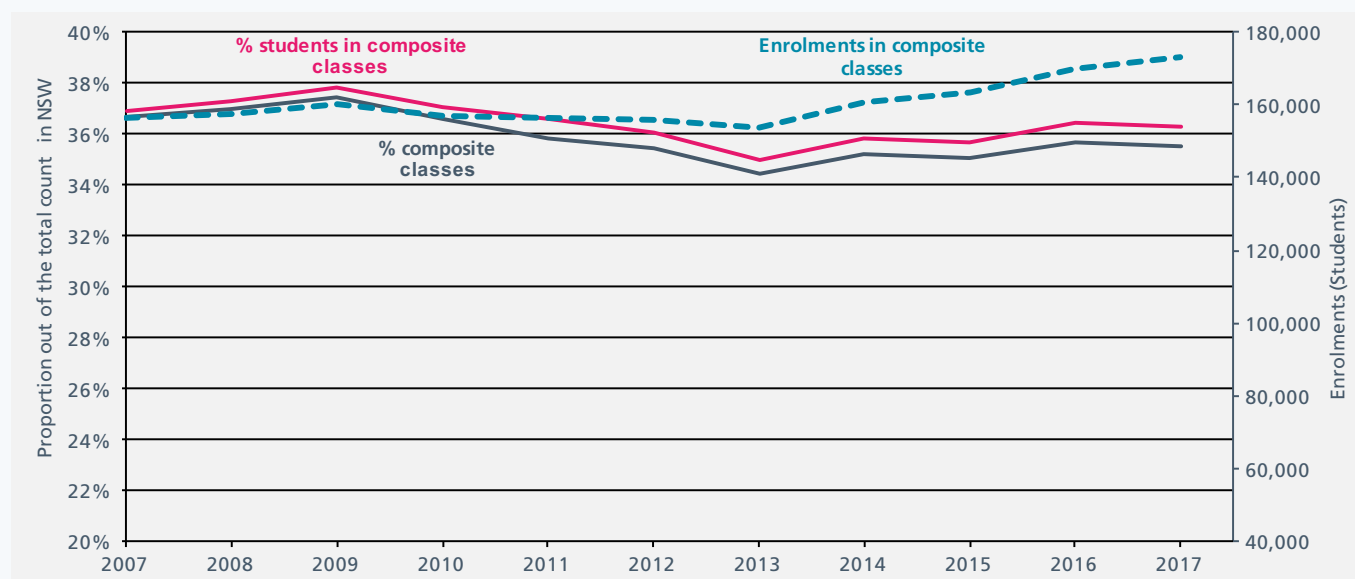
In the last decade, both the proportion of composite classes and students have varied within a relatively small range of 2.9 percentage points. The largest proportion of composite student enrolments in NSW government schools occurred in 2009 when 159,922 students (37.4 per cent) were taught in 6,521 composite classes (37.9 per cent). 2013 saw the lowest proportion of composite student enrolments when 153,836 students (35.0 per cent) were taught in 6,310 composite classes (34.5 per cent).

Compared with 2007, the proportion of students in composite classes has fallen by 0.6 percentage points to 36.3 per cent in 2017. This fall occurred even though the number of students enrolled in composite classes has increased by 10.6 per cent from 156,343 students in 2007 to 172,937 students in 2017.

Similarly, the proportion of composite classes has fallen by 1.1 percentage points from 36.6 in 2007 to 35.5 per cent in 2017. This fall has also occurred despite the number of composite classes increasing by 9.8 per cent from 6,401 classes in 2007 to 7,031 classes in 2017.

Figure 7

Composite primary classes and enrolments, 2007-2017: NSW government schools



Multi-age or composite classes by school size

Table 4 shows the number of Kindergarten to Year 6 students enrolled in composite classes in NSW government schools and the number of composite classes, by school size. Table 4 and Figure 8 also show the proportion of these composite classes and students out of the total count in NSW government schools.

Nearly all classes in schools with fewer than 26 students are composite classes. The proportion of composite classes decreases sharply as the school size increases. In schools with more than 300 students, less than half of classes are composite, and less than half of students are in composite classes. In very large schools with more than 700 students, only around 11 per cent of classes are composite. In total, 36.3 per cent of Kindergarten to Year 6 students in NSW government schools are taught in composite classes.

Table 4

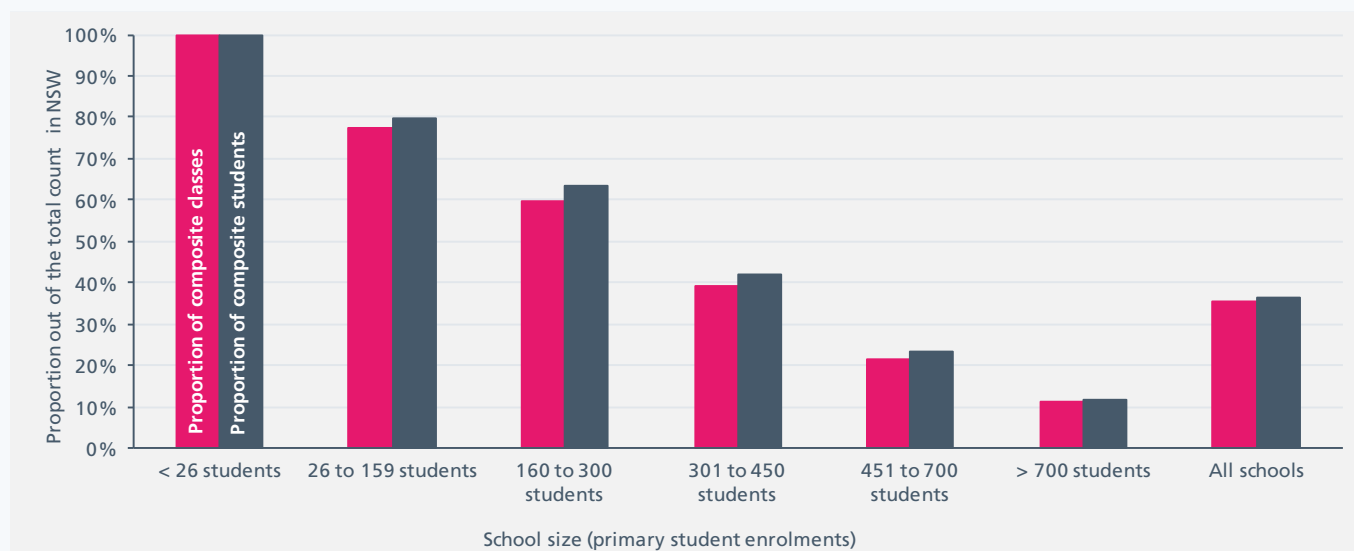
Composite primary classes and enrolments by school size, 2017: NSW government schools

School Size	Number of composite classes	Proportion of composite classes	Number of students in composite classes	Proportion of students in composite classes
< 26 students	235	99.6%	2,690	99.7%
26 to 159 students	1,287	77.5%	26,718	79.6%
160 to 300 students	1,986	59.8%	49,785	63.4%
301 to 450 students	1,785	39.1%	46,910	42.2%
451 to 700 students	1,296	21.5%	34,831	23.3%
> 700 students	442	11.1%	12,003	11.9%
All schools	7,031	35.5%	172,937	36.3%

Note: School size is based on the number of primary enrolments rather than 'classification' as in previous publications. School classification is no longer applicable.

Figure 8

Proportion of composite primary classes and enrolments by school size, 2017: NSW government schools



Note: School size is based on the number of primary enrolments rather than 'classification' as in previous publications. School classification is no longer applicable.

Notes:

The audit of class sizes in NSW government schools with primary enrolments is undertaken in March each year. The audit does not include schools for specific purposes, distance education centres or intensive English centres.

The number of classes, average class sizes and enrolment numbers exclude support classes in primary and central schools.

Enrolments reported in Figures 1, 6, 8 and 9, and Tables 2, 3 and 4 are from the class size audit. They may differ from enrolment figures collected in August each year for the National School Statistics Collection (NSSC) and published by the Australian Bureau of Statistics in Schools Australia. Enrolments reported in Figure 3 and Map 1 on this bulletin are from the NSSC.

The average class size for all primary classes is obtained by dividing the total number of students in each grade by the total number of classes.

The average class size for each scholastic year is calculated from regular and multi-age classes that contain a student from that scholastic year.


The Department of Education uses a formula to determine the number of teachers at each school. This is based on enrolments in each scholastic year.

Schools may have additional teachers through the Resource Allocation Model (RAM) equity funding.

Each school determines the class structure which best suits the students enrolled. This may include multi-age classes or classes larger than the statewide planned average class size if the principal determines this is in students' best interests. Further information on the list of multi-age or composite classes in each NSW government school with primary enrolments can be found at www.cese.nsw.gov.au.

The Family Occupation and Education Index (FOEI) is constructed from parental education and occupation information collected from student enrolment forms and recorded in the Enrolment Registration Number system. FOEI uses a statistical regression model to produce a weighted combination of school-level parental education and occupation variables based on the extent to which each variable uniquely predicts average school performance. Further information on the methodology used to construct FOEI can be found in relevant publications released at www.cese.nsw.gov.au.

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