Variability in AS results for schools and colleges 2015-2017

August 2017

Ofqual/17/6258

Key points

- In general, the level of variation in individual school and college results at grade A is similar to last year.
- Differences between the average (mean) percentage of students achieving a grade A in 2016/2017 and in 2015/2016 were generally small, indicating that year-on-year results in the subjects analysed have remained relatively stable.
- Even when there are no changes to qualifications, individual schools and colleges will see variation in their year-on-year results: this is normal.

AS results in England have been relatively stable in recent years, with only small changes in the overall percentages of students achieving grade A. However, we know that individual schools and colleges may see variation in the proportion of students achieving particular grades from one year to the next. This can be due to many different factors, including differences in the mix of the students entered for particular subjects, different teaching approaches, changes in teaching staff or teaching time, and changes to qualifications.

Last summer, new AS qualifications in 13 subjects[1] were awarded in England for the first time. This summer new AS qualifications in 11 subjects[2] are being awarded. These new AS qualifications do not count towards students' A level grades. We have analysed the year-on-year variation in the percentage of students achieving grade A in AS in 13 of the reformed subjects with a high number of entries[3], as well as in mathematics as it is the subject with the largest number of AS level certifications.[4] We have looked only at schools and colleges in England with 20 or more students in a subject in both years: smaller cohorts are likely to be less stable and to show more variation. Since entries to the new AS qualifications have dropped by about 40% compared to 2016[5], the number of schools and colleges included in the 2016/2017 analysis is much lower than the number of schools and colleges included in the 2015/2016 analysis.

We have plotted the variation seen in each of several hundred schools and colleges. Each bar in the graphs represents the number of schools and colleges with a particular level of variation, measured in intervals of 2.5 percentage points. For example, the bar to the left

[1] Art & design, biology, business, chemistry, computing, economics, English language, English language and literature, English literature, history, physics, psychology, sociology
[2] Classical Greek, dance, drama and theatre, French, geography, German, Latin, music, physical education, religious studies, Spanish
[3] https://www.gov.uk/government/statistics/summer-2017-exam-entries-gcses-level-1-2-certificates-as-and-a-levels-in-england
[4] See http://www.jcq.org.uk/examination-results/a-levels
[5] See https://www.gov.uk/government/statistics/summer-2017-exam-entries-gcses-level-1-2-certificates-as-and-a-levels-in-england

of the zero represents schools that had a drop of up to 2.5 percentage points and the bar to the right of the zero represents schools that had an increase of up to 2.5 percentage points. The higher the peaks in the middle, the greater the stability from one year to the next.[6] We have also looked at the variation for students in year 12 only (17-year-old students).[7] Since year 12 students make up most of the AS entry, it is not surprising that the pattern of variation is similar. The graphs presented below show the year-on-year variation for all students on the left and for year 12 on the right.

The graphs also show the year-on-year difference in the average (mean) percentage of students achieving a grade A across all schools and colleges, the associated standard deviation (SD), and the number of schools and colleges (number of centres) included in the analyses. If, for example, a 2016/2017 graph shows a mean difference of 1%, this means that the average percentage of all candidates achieving an A across the schools and colleges included in the analyses has increased by 1% in 2017 compared to 2016.

Overall, the level of variation in individual school and college results at grade A is similar to last year in the subjects analysed. This is despite around a 40% drop in the entry for AS reformed subjects this summer. More centre variability graphs can be seen using our online application http://analytics.ofqual.gov.uk. Here the graphs are 'interactive' such that users can explore centre variability:

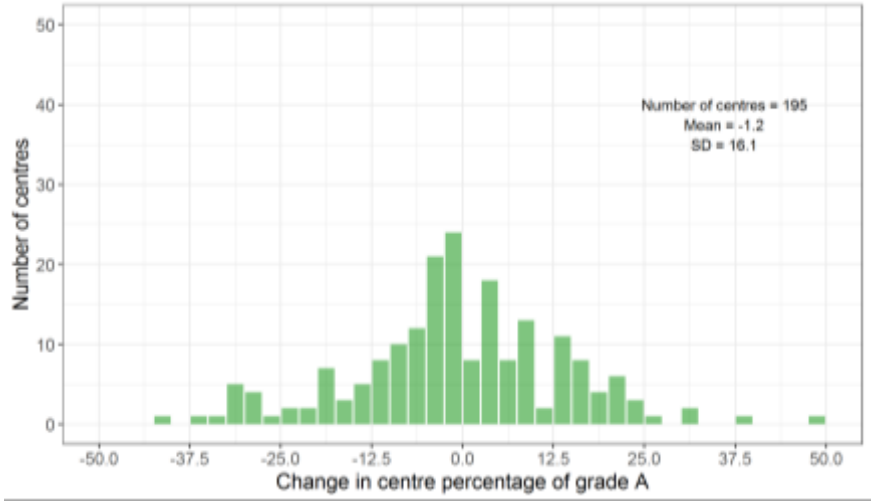
- within different subjects;
- for various sizes of centres; and
- for stable and unstable cohorts.

[6] Note that, although the same scales are used for the y axis on each of the graphs within a subject, the scales do vary between subjects

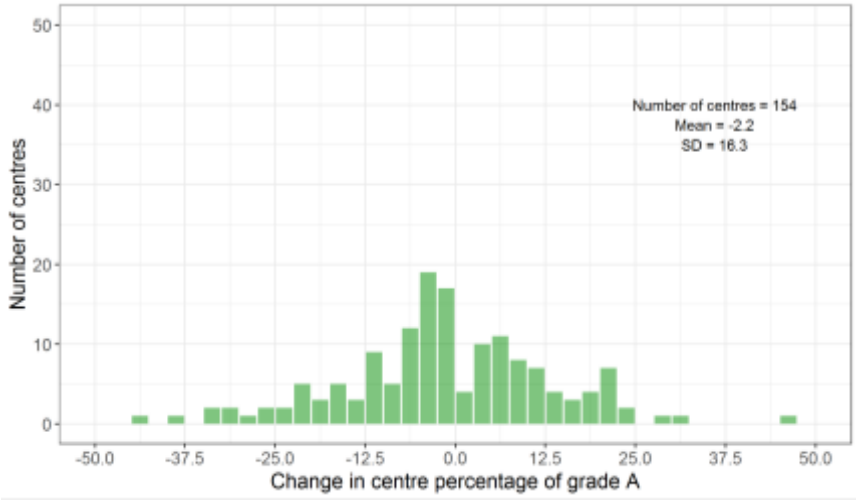
[7] Note that the number of schools/colleges is slightly lower in the year 12 only graphs, because we have only included schools and colleges with 20 or more year 12 students

AS art and design

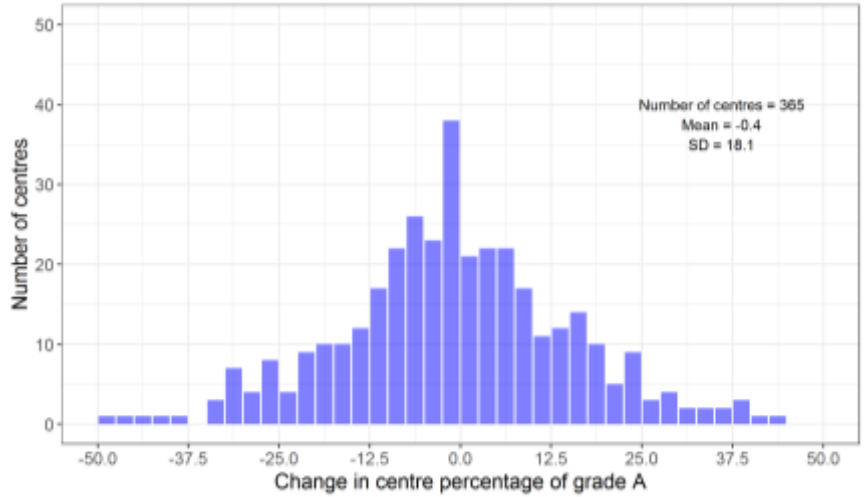
Art and design summer 2016 vs summer 2017: all students



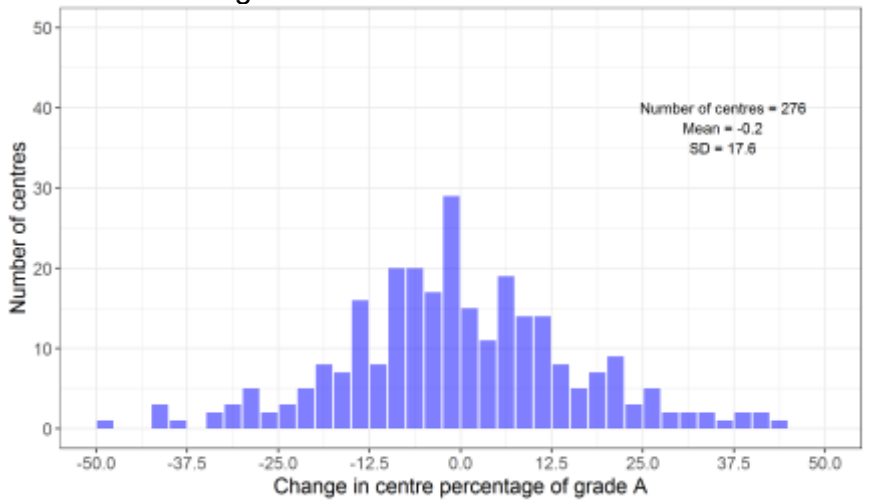
Art and design summer 2016 vs summer 2017: Yr 12 students



Art and design summer 2015 vs summer 2016: all students

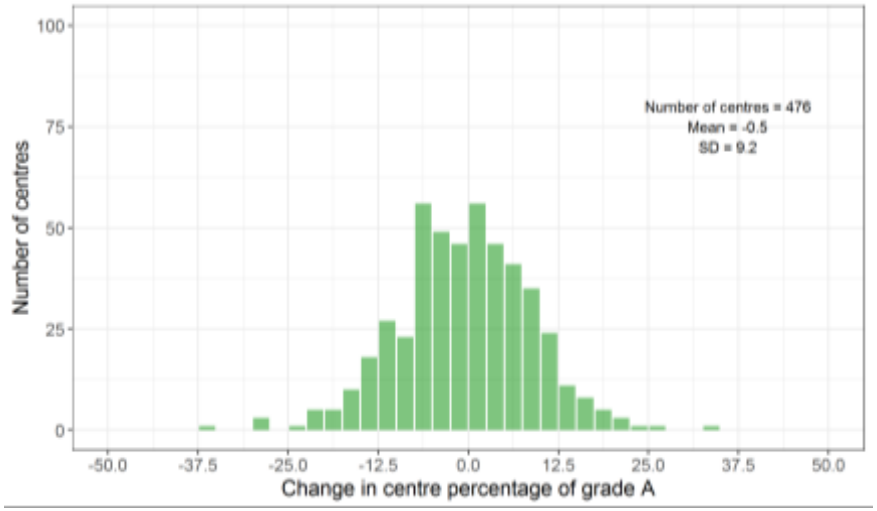


Art and design summer 2015 vs summer 2016: Yr 12 students

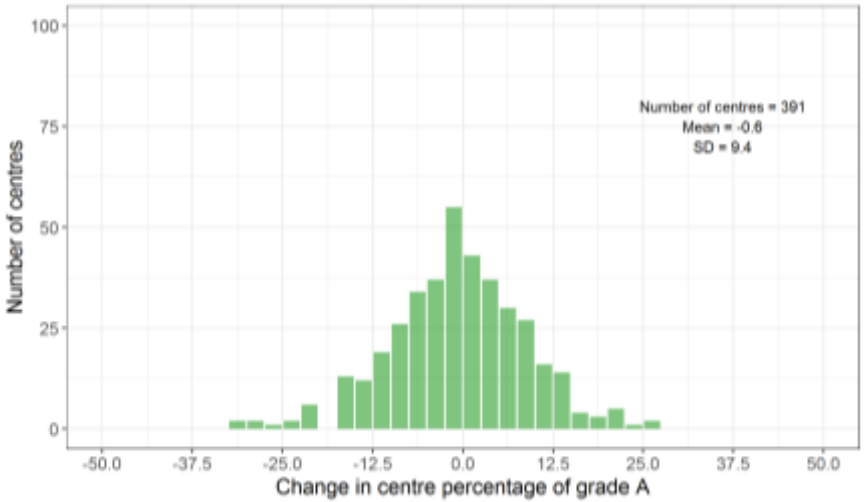


AS biology

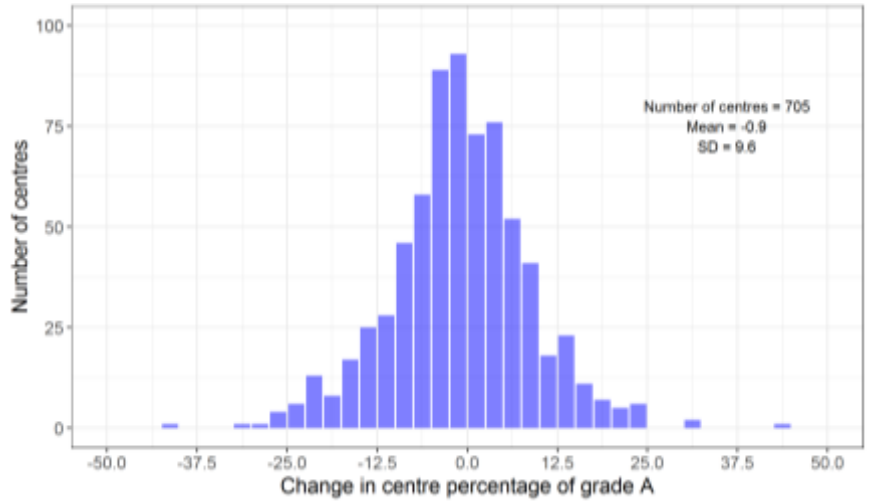
Biology summer 2016 vs summer 2017: all students



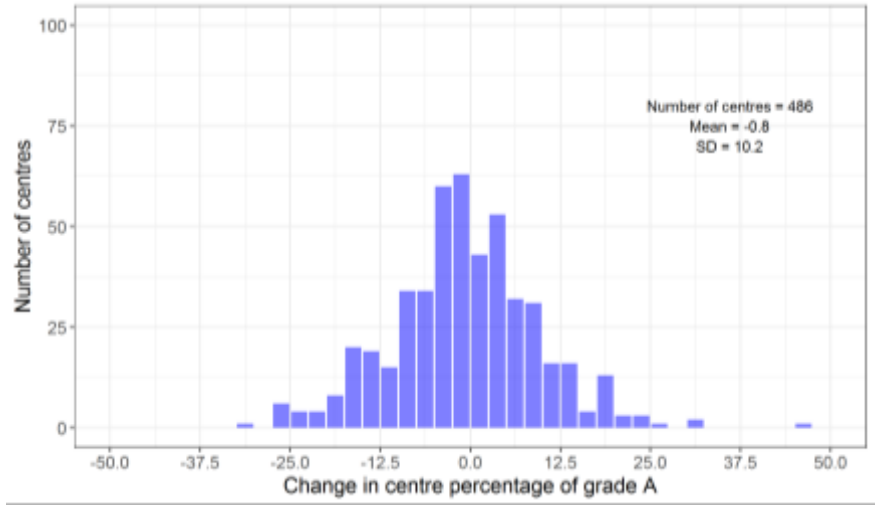
Biology summer 2016 vs summer 2017: Yr 12 students



Biology summer 2015 vs summer 2016: all students

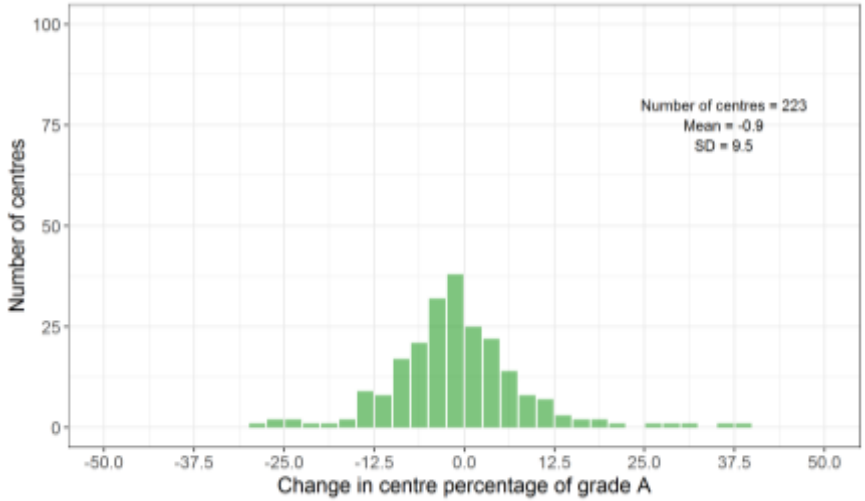


Biology summer 2015 vs summer 2016: Yr 12 students

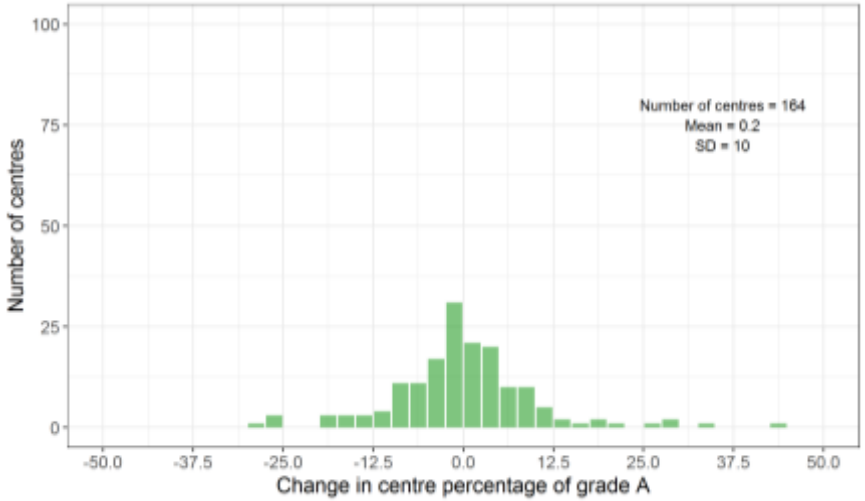


AS business studies

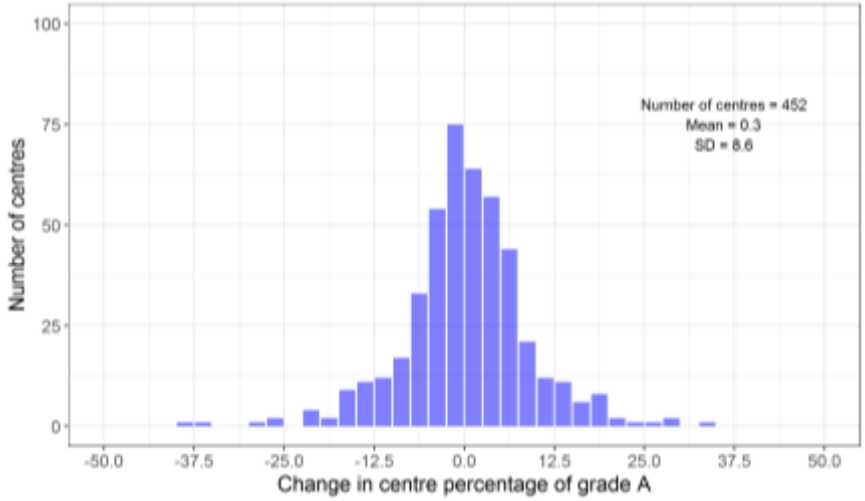
Business studies summer 2016 vs summer 2017: all students



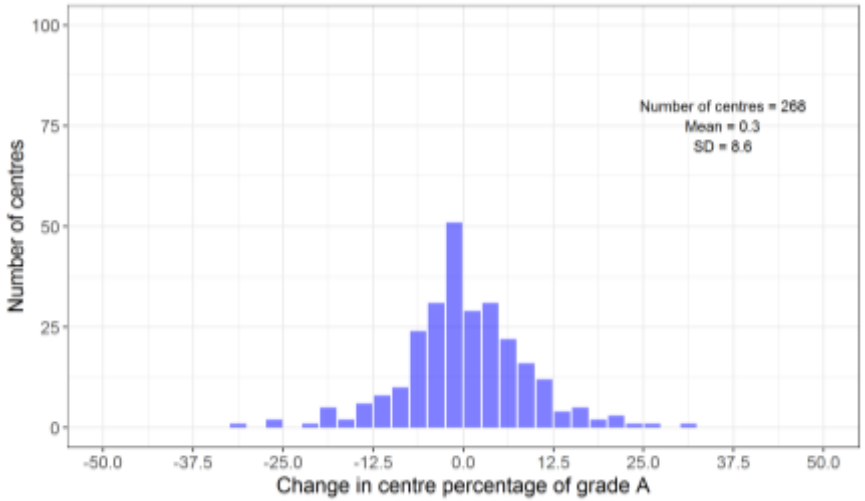
Business studies summer 2016 vs summer 2017: Yr 12 students



Business studies summer 2015 vs summer 2016: all students

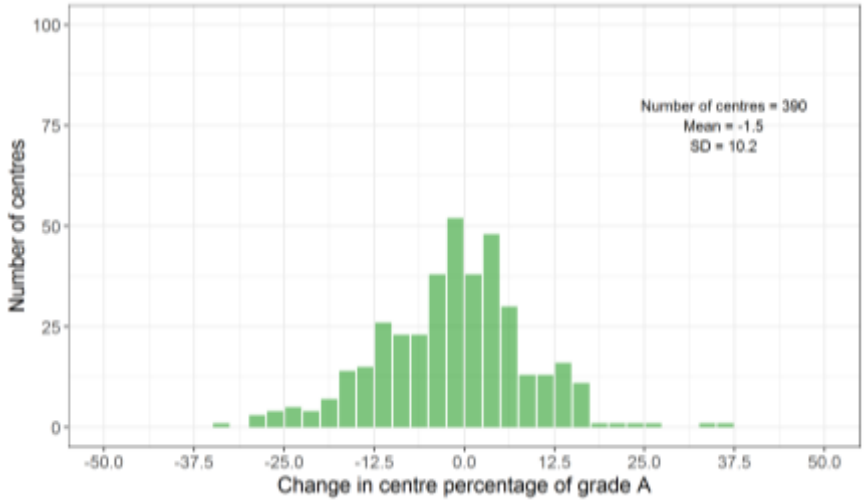


Business studies summer 2015 vs summer 2016: Yr 12 students

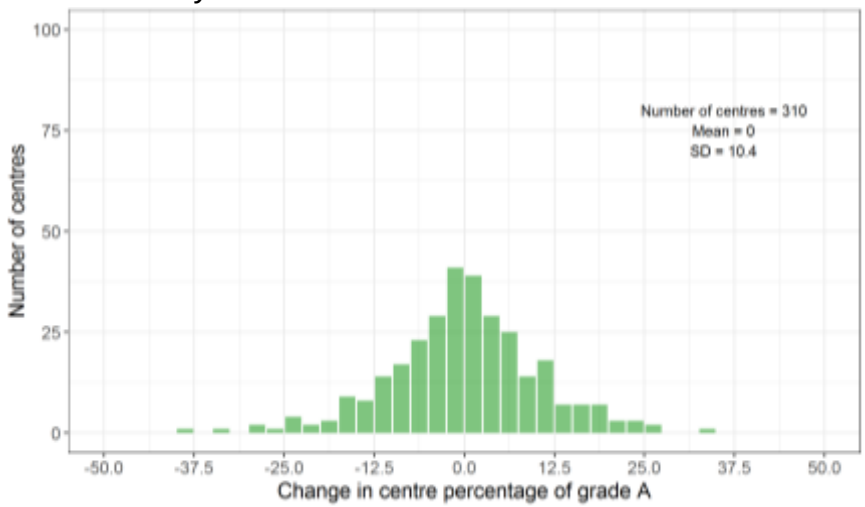


AS chemistry

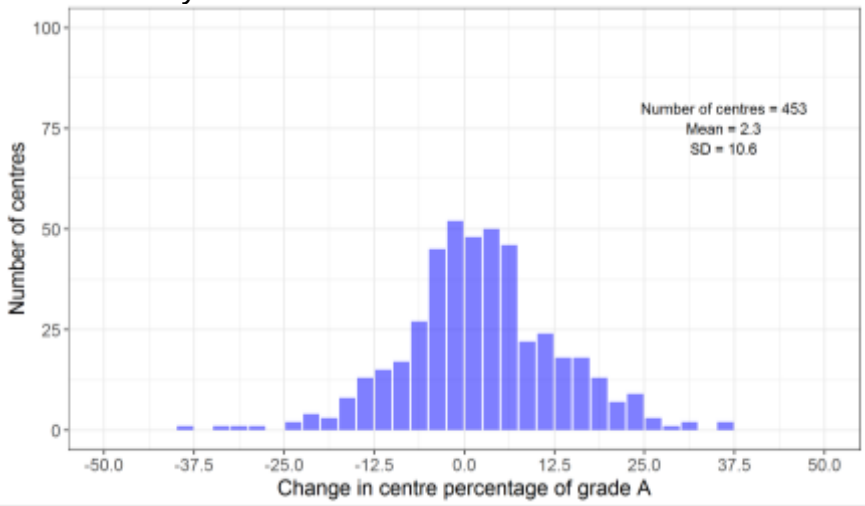
Chemistry summer 2016 vs summer 2017: all students



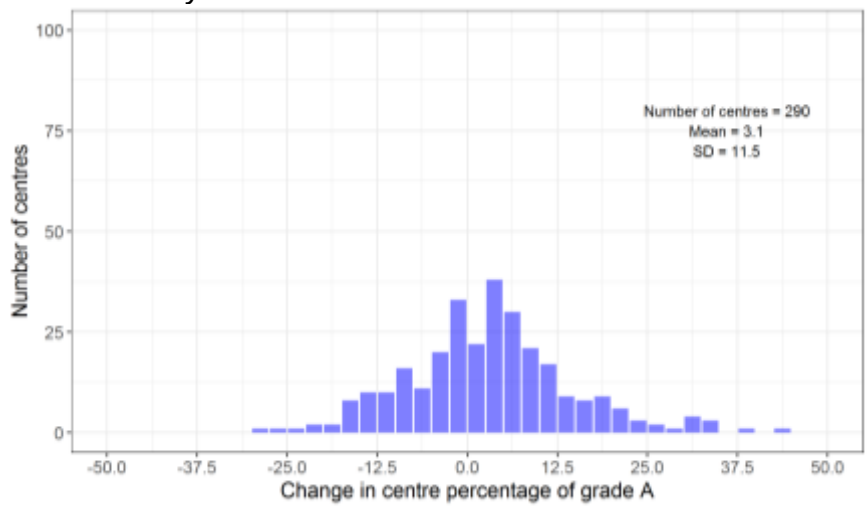
Chemistry summer 2016 vs summer 2017: Yr 12 students



Chemistry summer 2015 vs summer 2016: all students

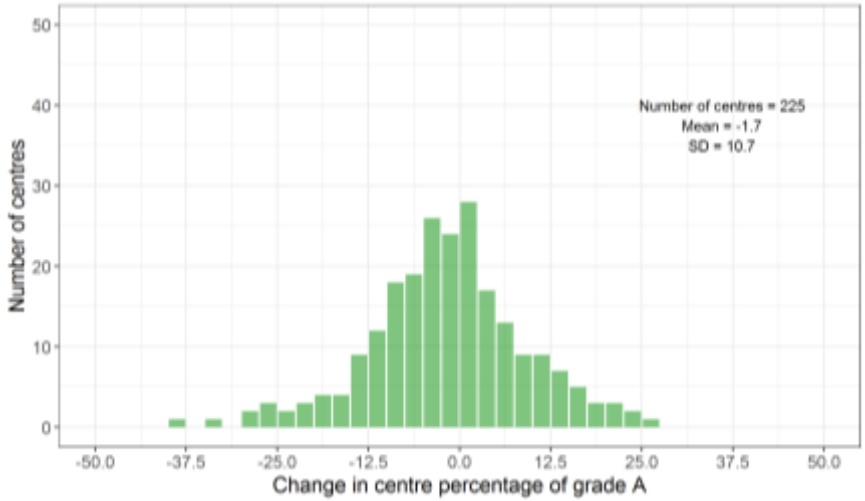


Chemistry summer 2015 vs summer 2016: Yr 12 students

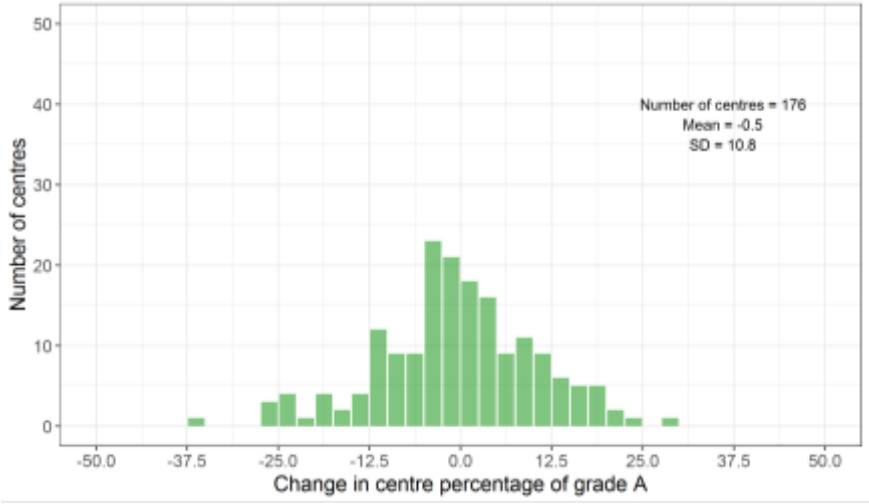


AS economics

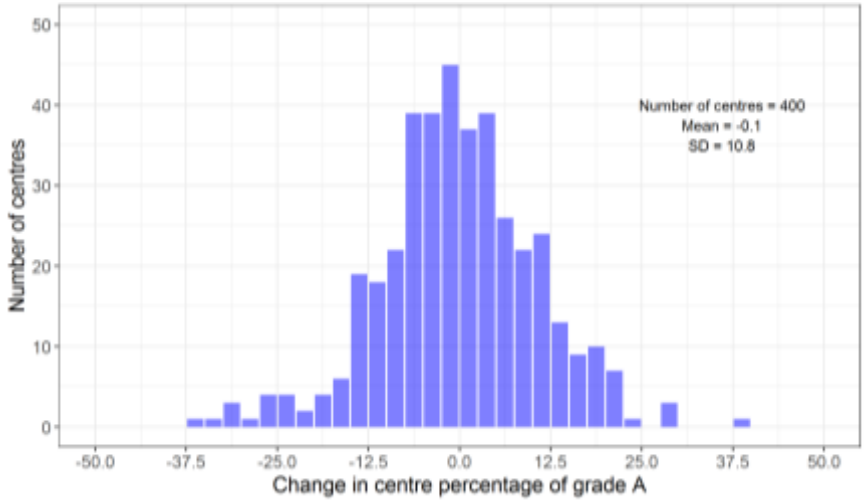
Economics summer 2016 vs summer 2017: all students



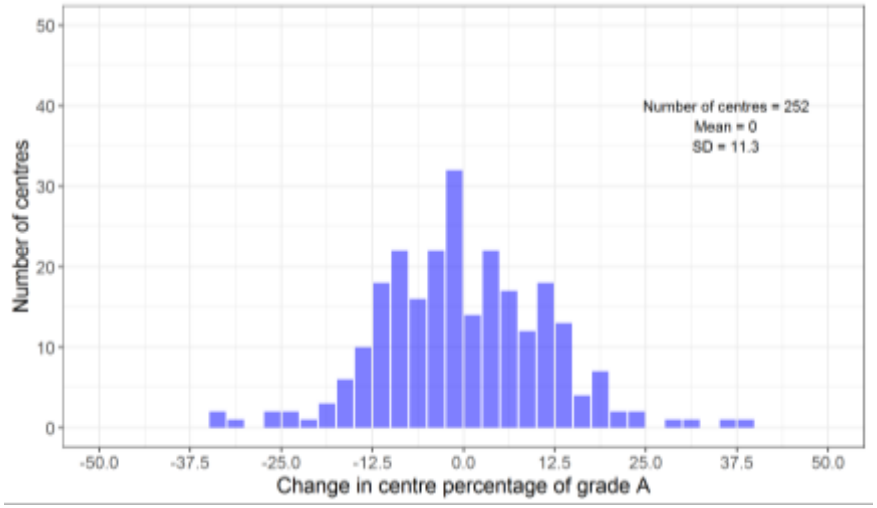
Economics summer 2016 vs summer 2017: Yr 12 students



Economics summer 2015 vs summer 2016: all students

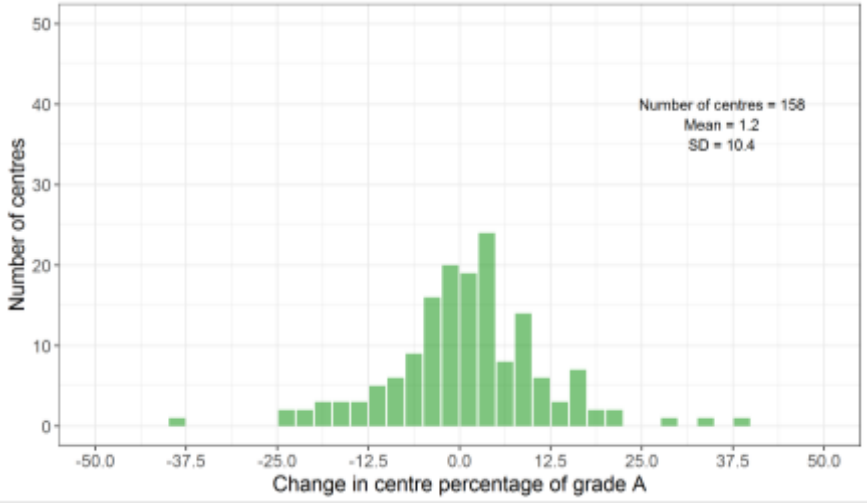


Economics summer 2015 vs summer 2016: Yr 12 students

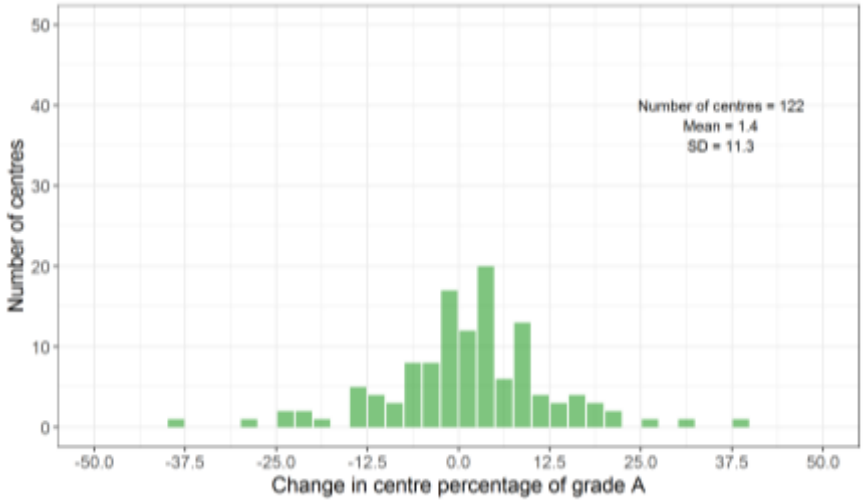


AS English language

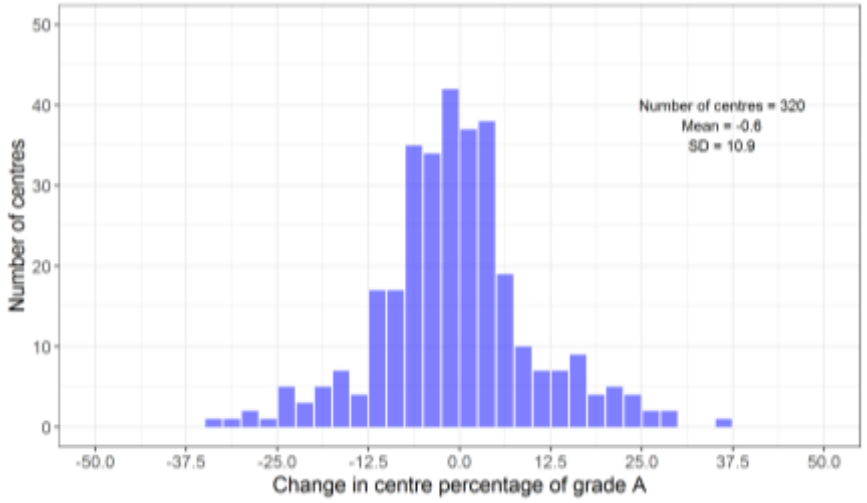
English language summer 2016 vs summer 2017: all students



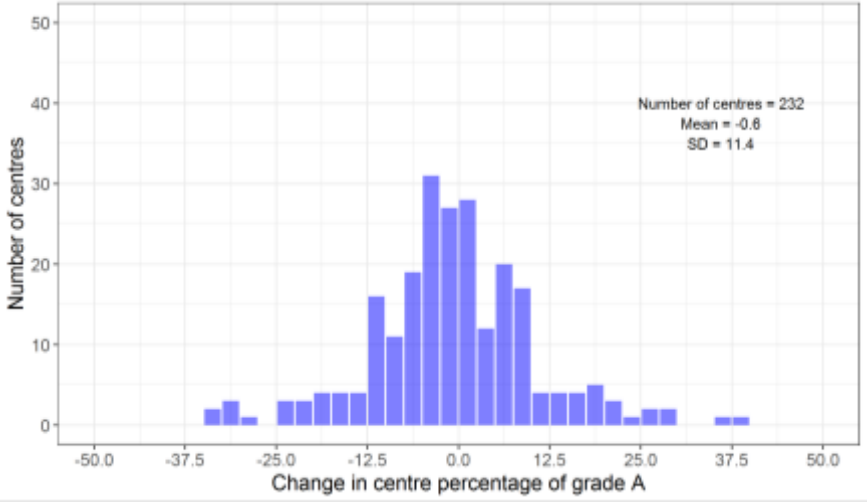
English language summer 2016 vs summer 2017: Yr 12 students



English language summer 2015 vs summer 2016: all students

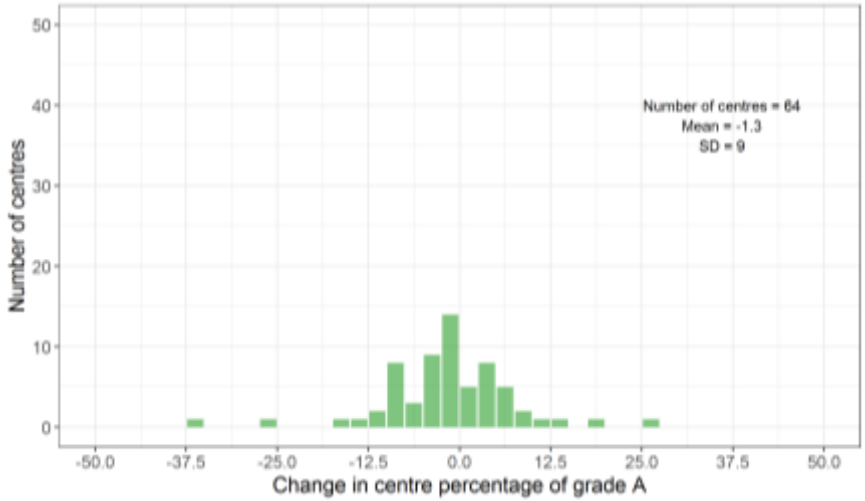


English language summer 2015 vs summer 2016: Yr 12 students

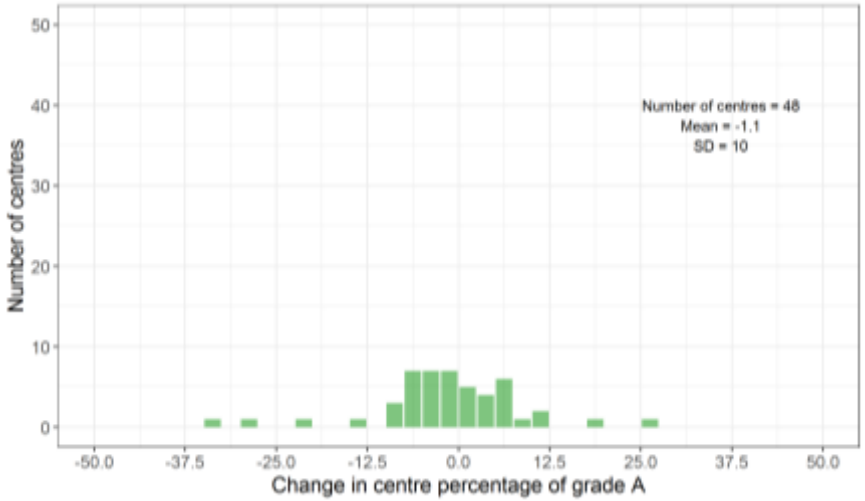


AS English language & literature

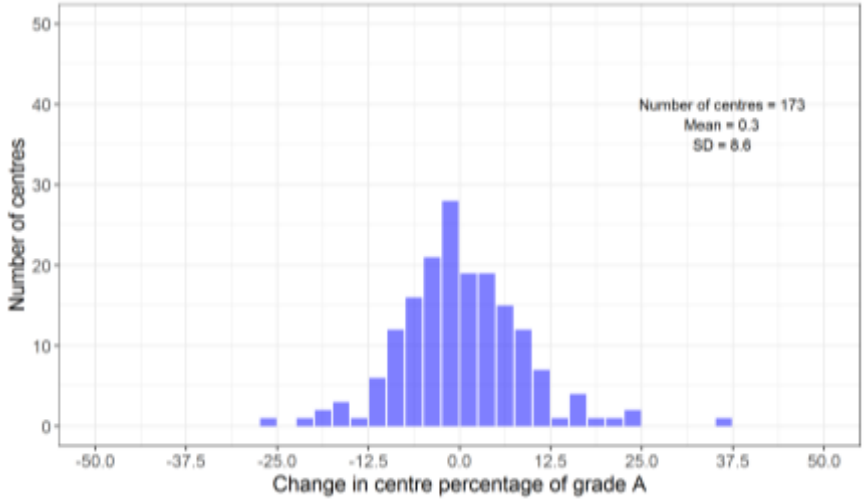
English lang & lit 2016 vs summer 2017: all students



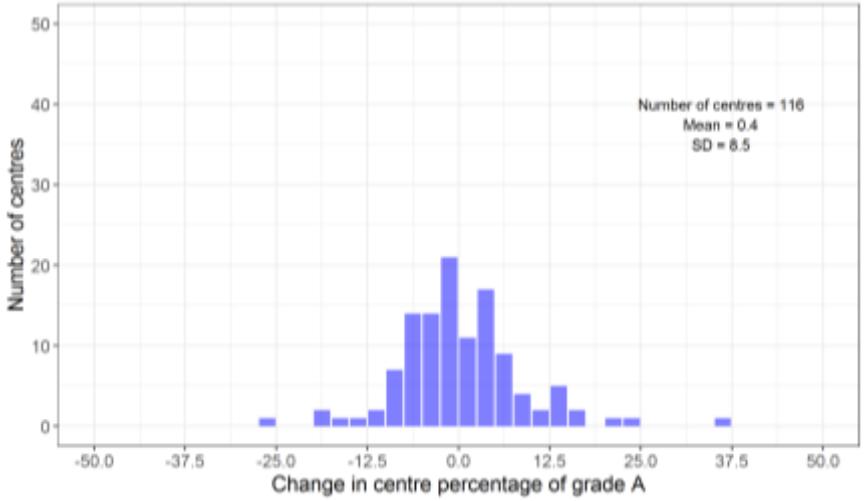
English lang & lit summer 2016 vs summer 2017: Yr 12 students



English lang & lit summer 2015 vs summer 2016: all students

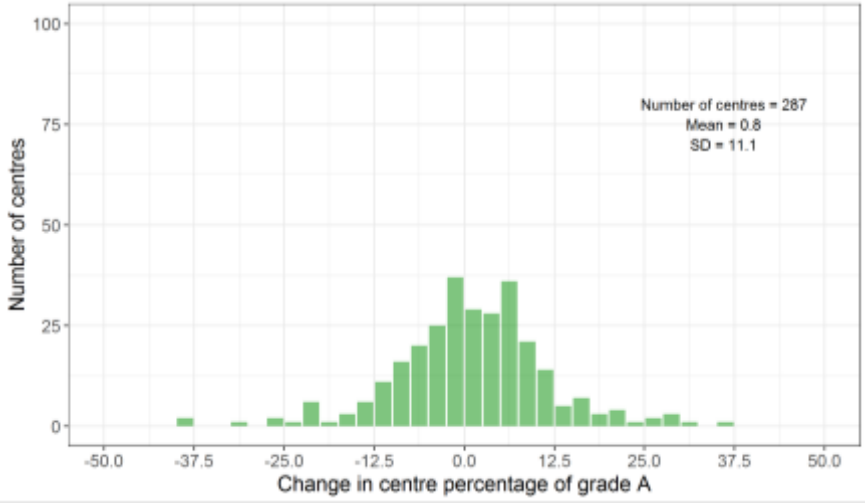


English lang & lit summer 2015 vs summer 2016: Yr 12 students

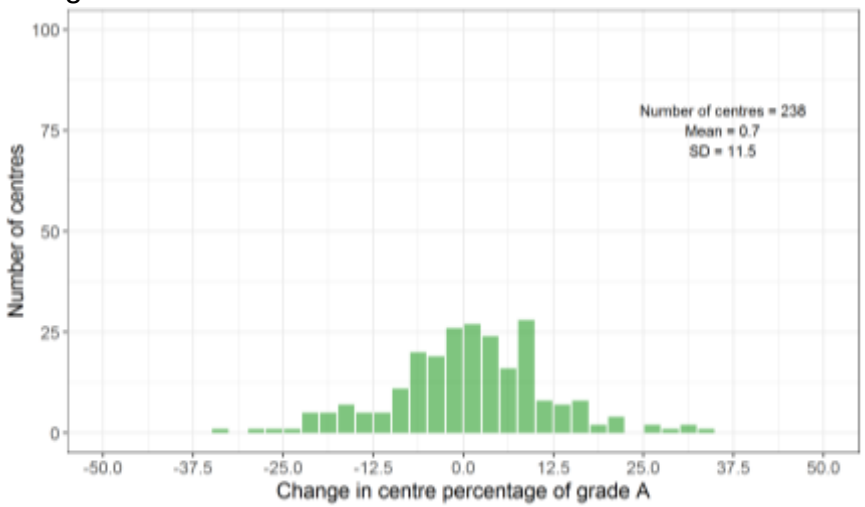


AS English literature

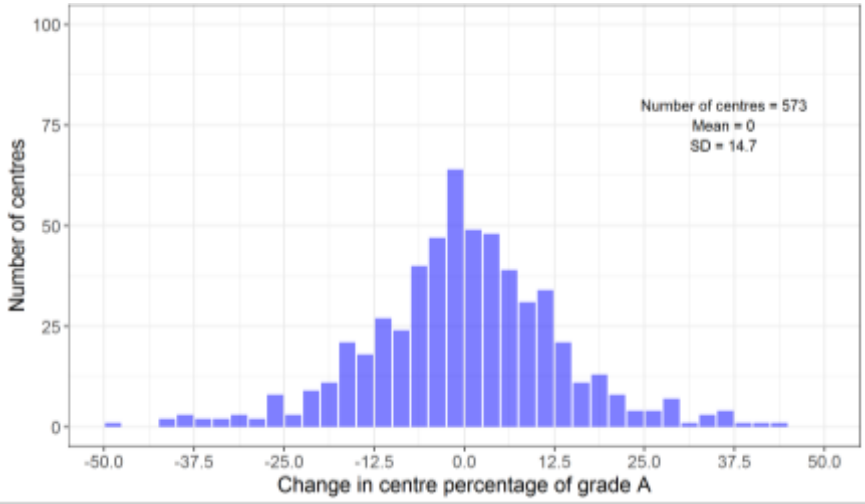
English literature summer 2016 vs summer 2017: all students



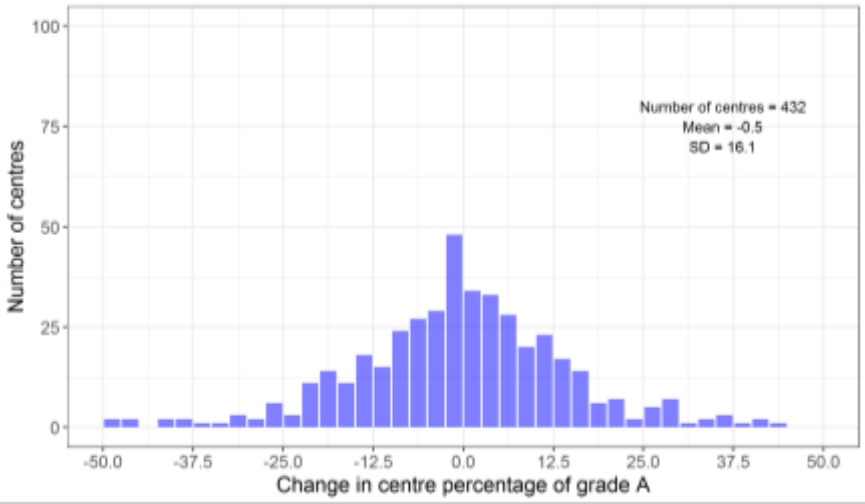
English literature summer 2016 vs summer 2017: Yr 12 students



English literature summer 2015 vs summer 2016: all students

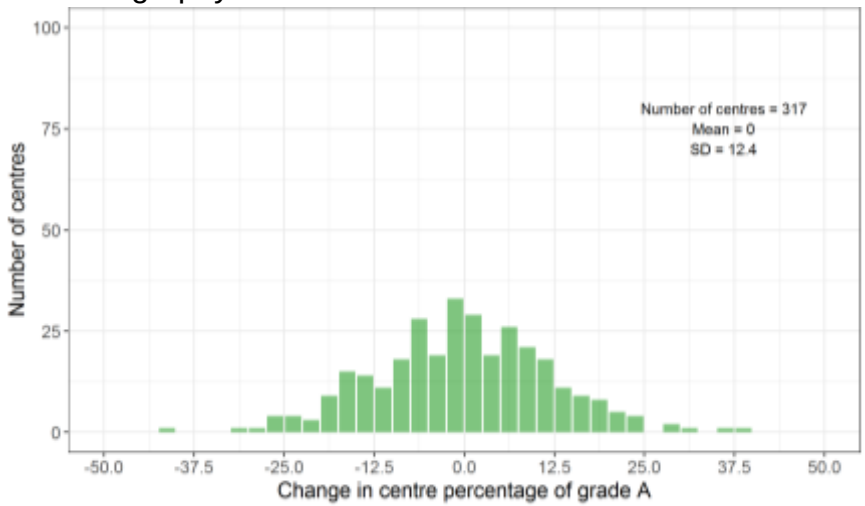


English literature summer 2015 vs summer 2016: Yr 12 students

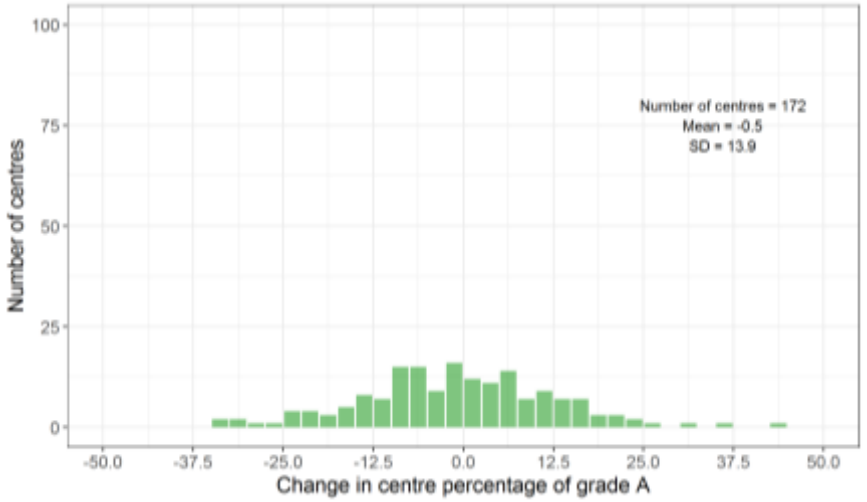


AS geography

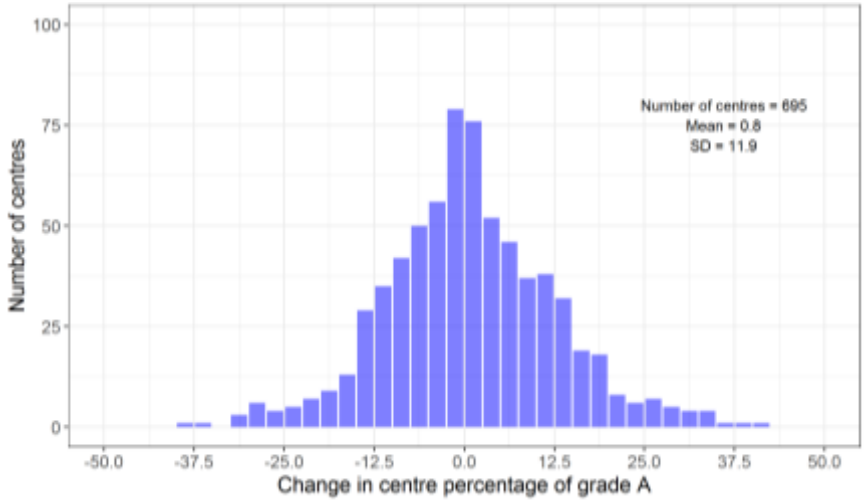
Geography summer 2016 vs summer 2017: all students



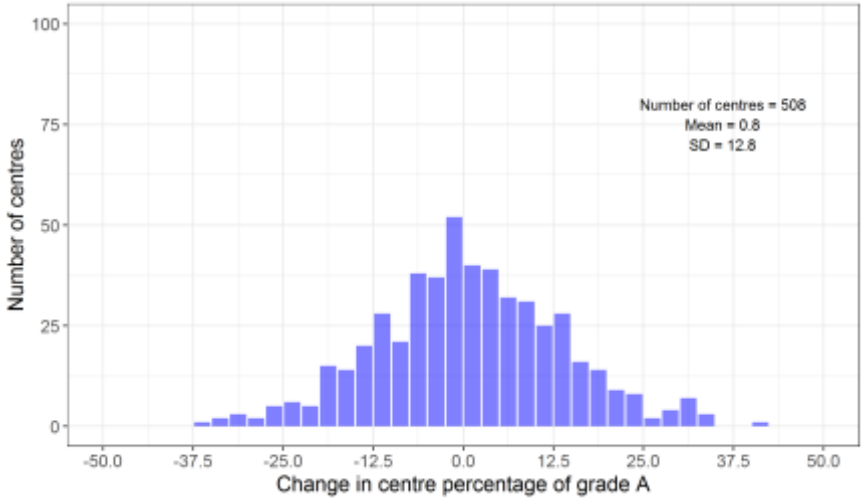
Geography summer 2016 vs summer 2017: Yr 12 students



Geography summer 2015 vs summer 2016: all students

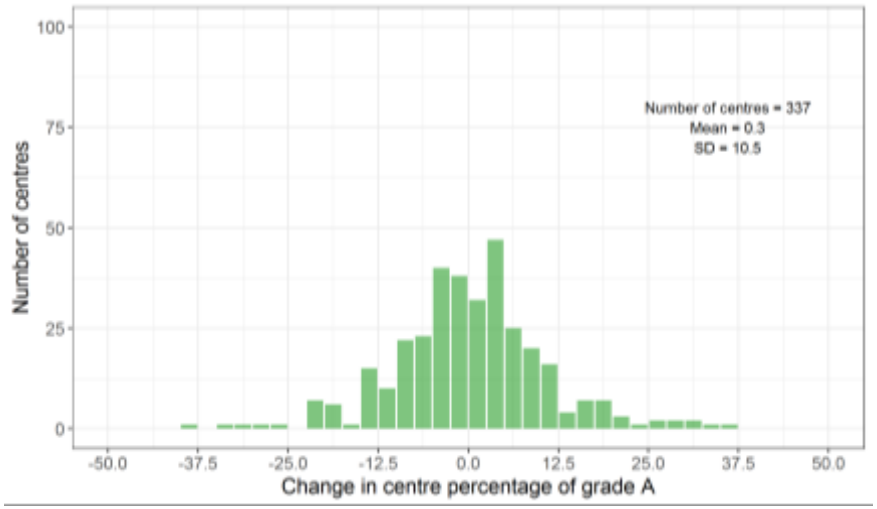


Geography summer 2015 vs summer 2016: Yr 12 students

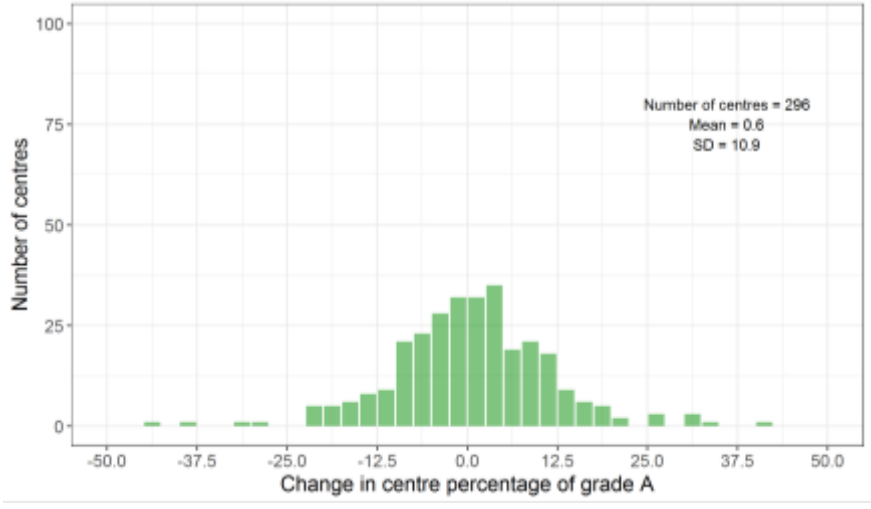


AS history

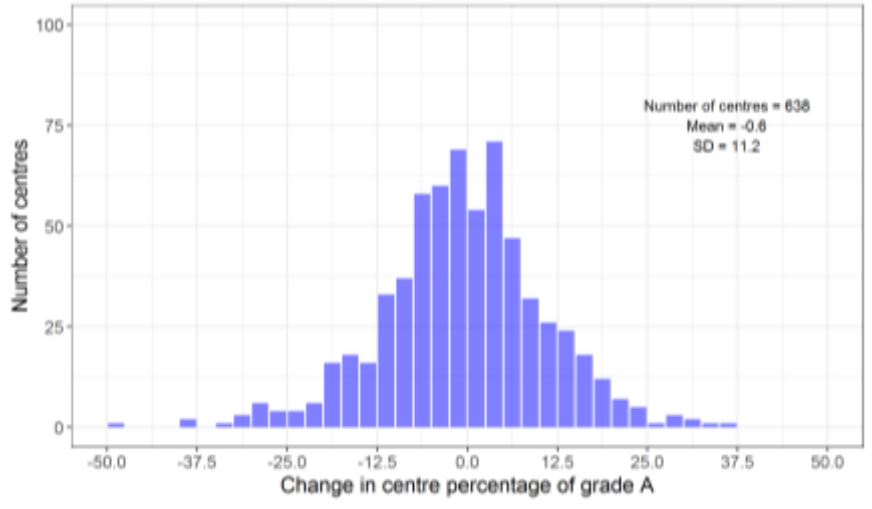
History summer 2016 vs summer 2017: all students



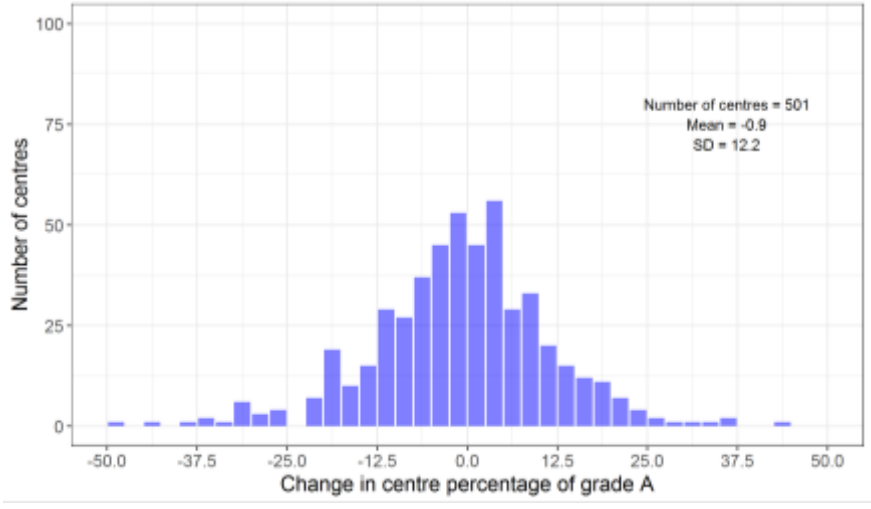
History summer 2016 vs summer 2017: Yr 12 students



History summer 2015 vs summer 2016: all students

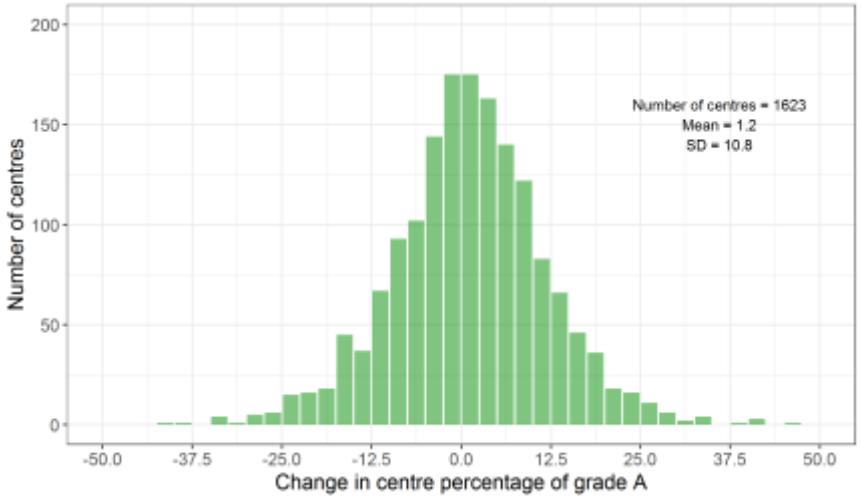


History summer 2015 vs summer 2016: Yr 12 students

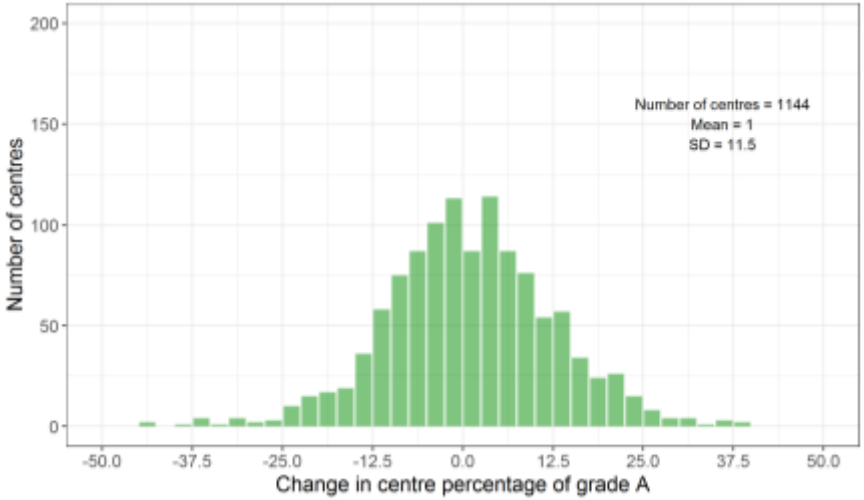


AS mathematics

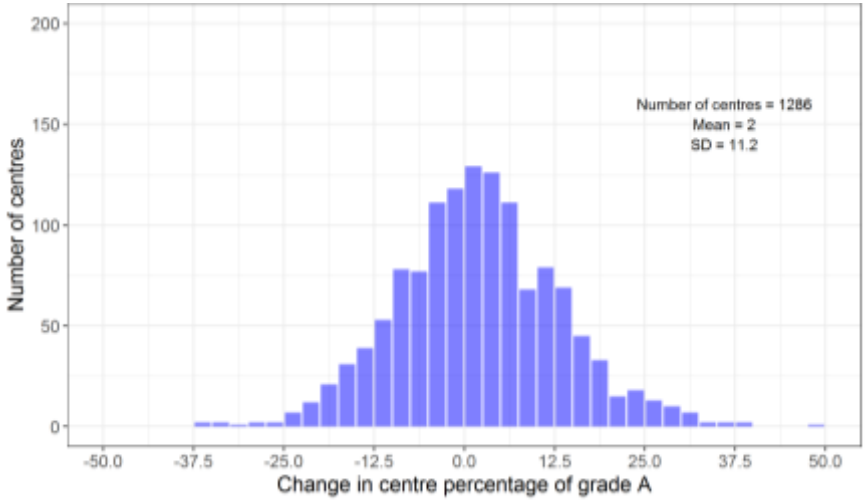
Mathematics summer 2016 vs summer 2017: all students



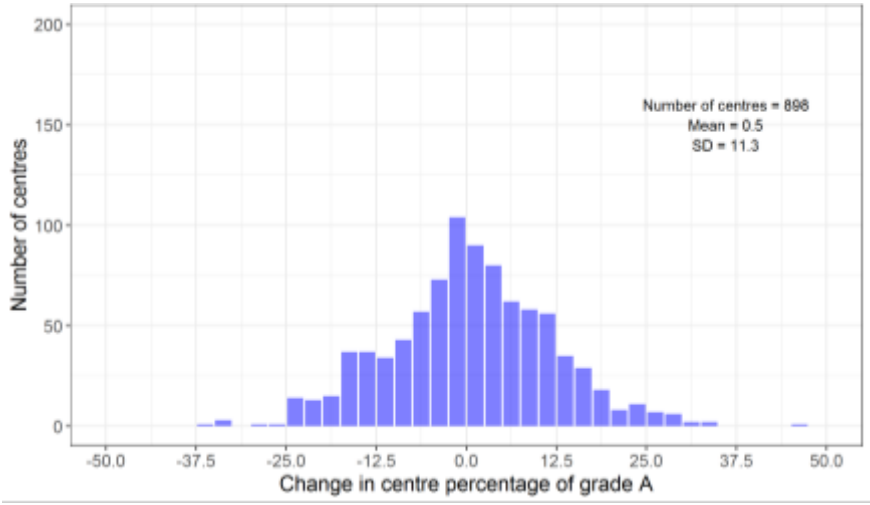
Mathematics summer 2016 vs summer 2017: Yr 12 students



Mathematics summer 2015 vs summer 2016: all students

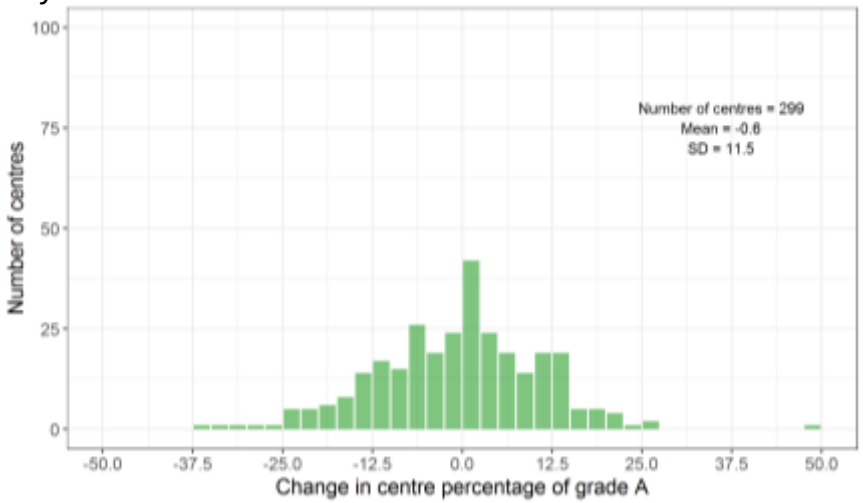


Mathematics summer 2015 vs summer 2016: Yr 12 students

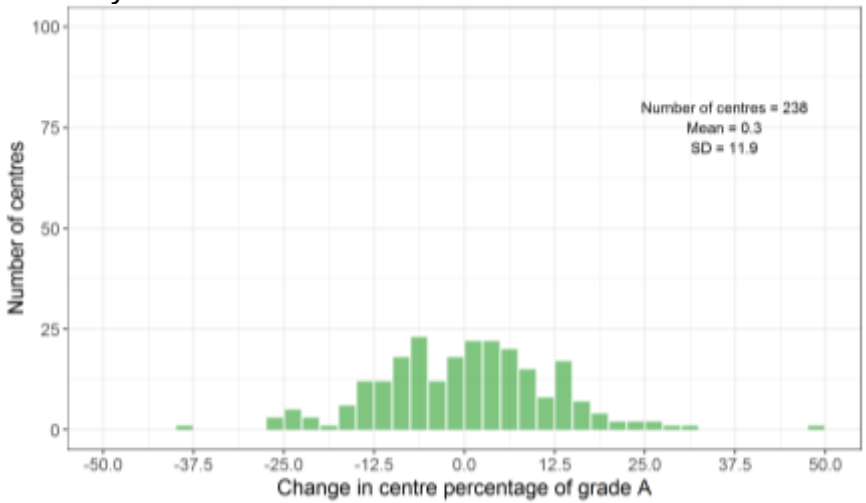


AS physics

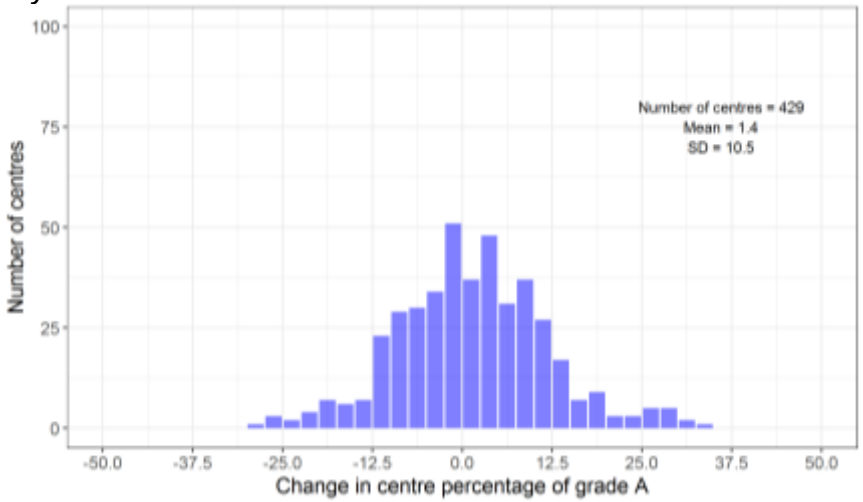
Physics summer 2016 vs summer 2017: all students



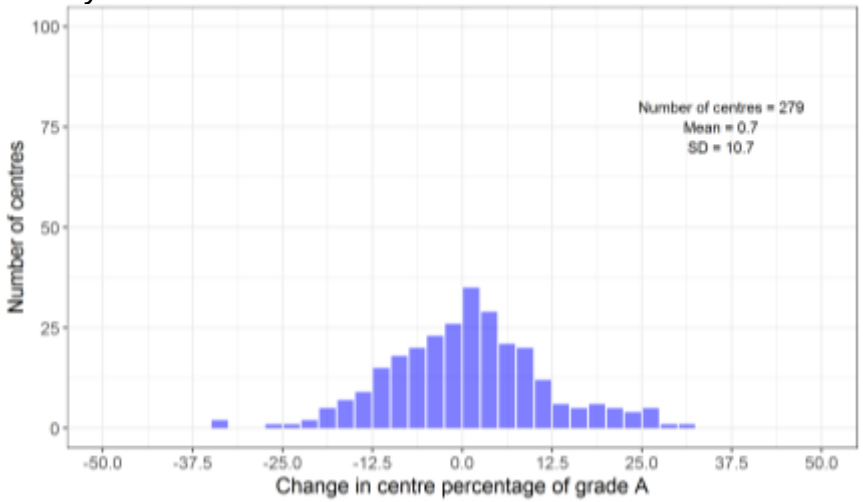
Physics summer 2016 vs summer 2017: Yr 12 students



Physics summer 2015 vs summer 2016: all students



Physics summer 2015 vs summer 2016: Yr 12 students



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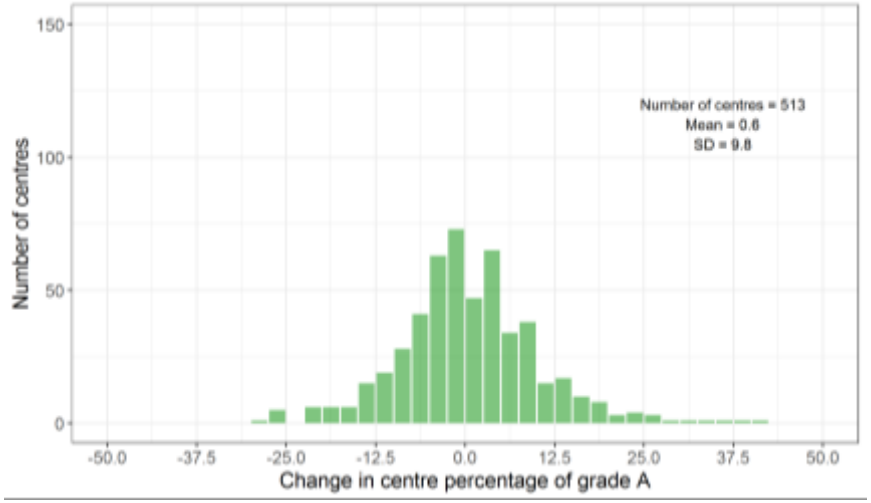
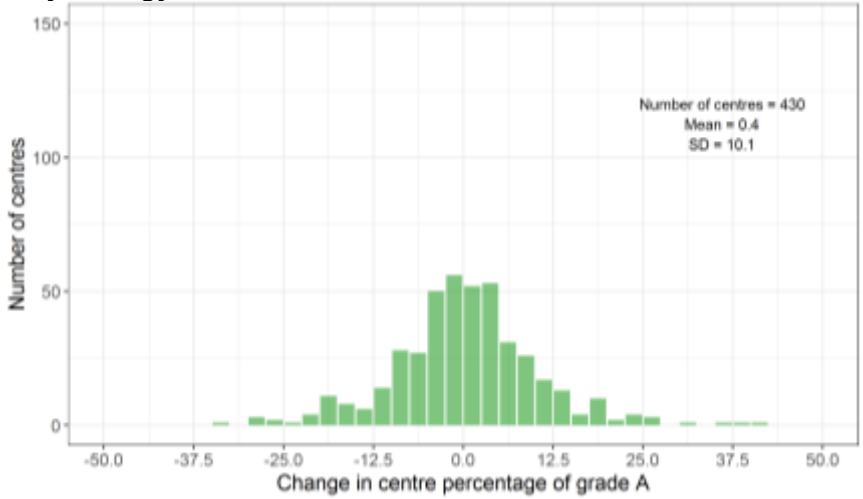
AS psychology

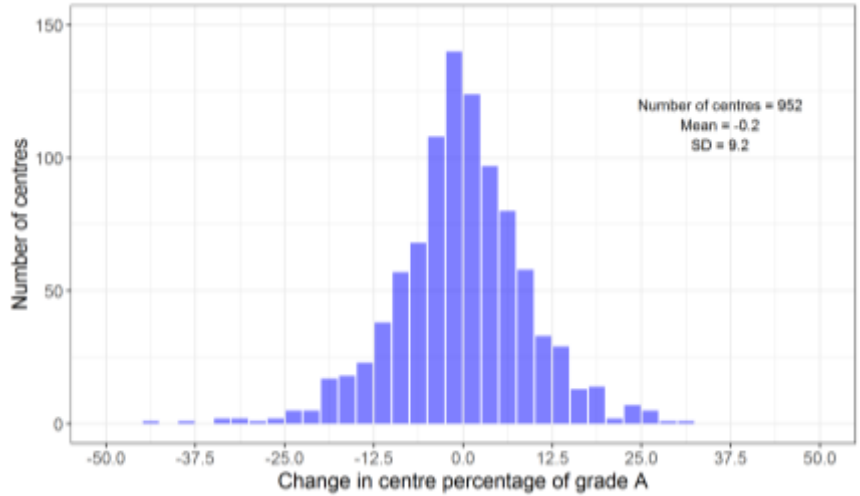
Psychology summer 2016 vs summer 2017: all students



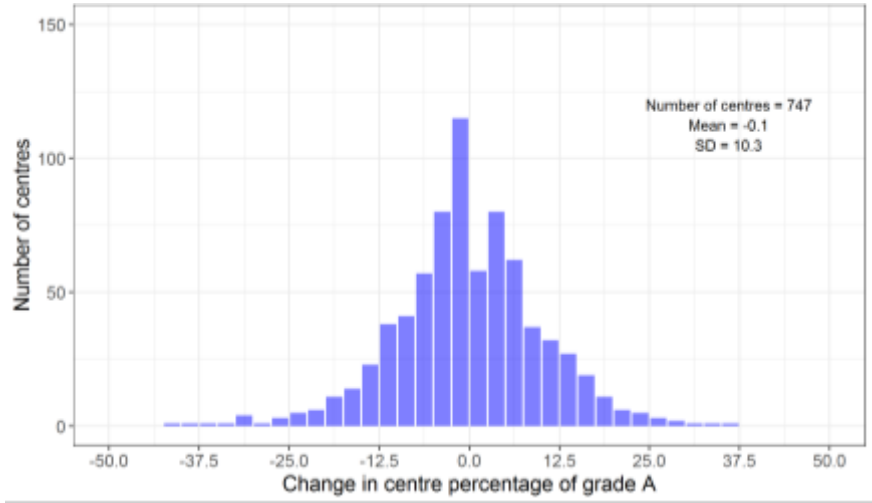
Psychology summer 2016 vs summer 2017: Yr 12 students



Psychology summer 2015 vs summer 2016: all students



Psychology summer 2015 vs summer 2016: Yr 12 students



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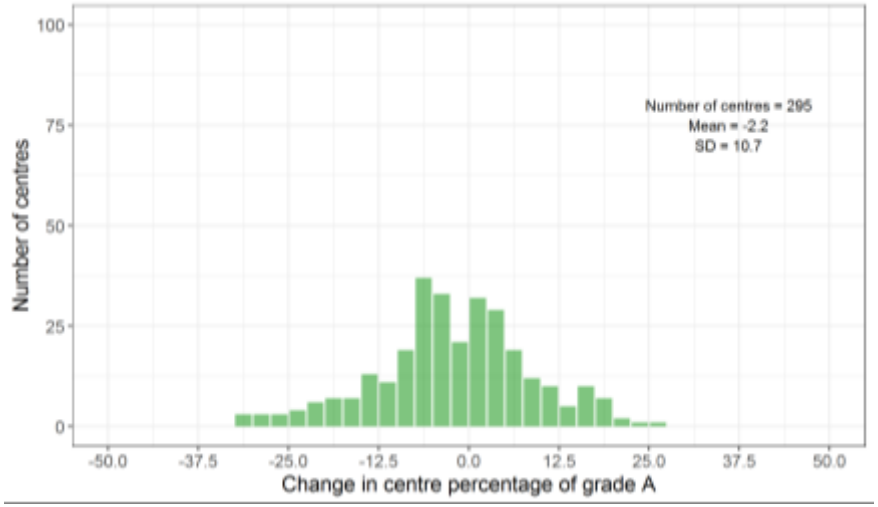
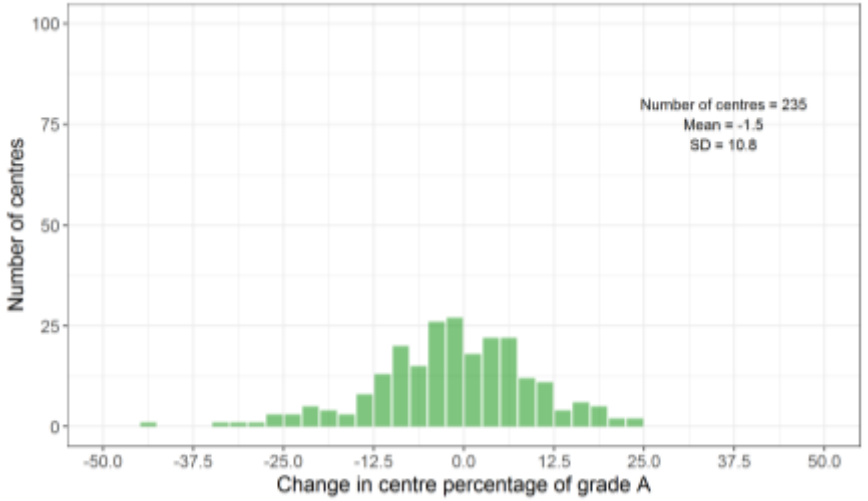
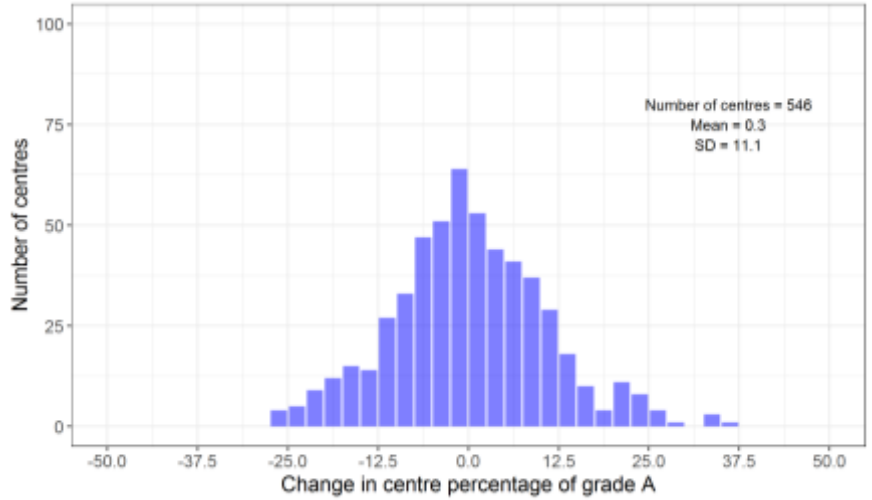
Sociology summer 2016 vs summer 2017: all students



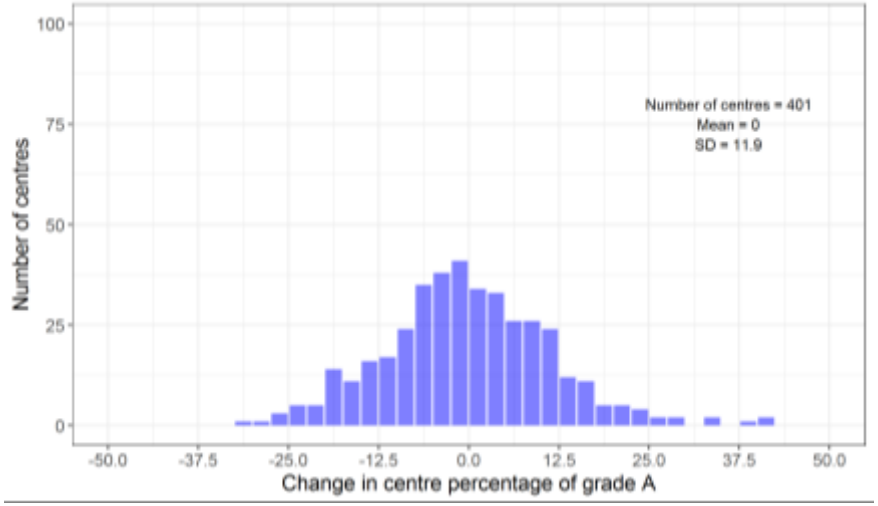
Sociology summer 2016 vs summer 2017: Yr 12 students



Sociology summer 2015 vs summer 2016: all students



Sociology summer 2015 vs summer 2016: Yr 12 students



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