



Grade Change Analysis

- Grade Change Overview
- Effect of Grade Change on CAO Points
- Effect of Grade Change per Subject



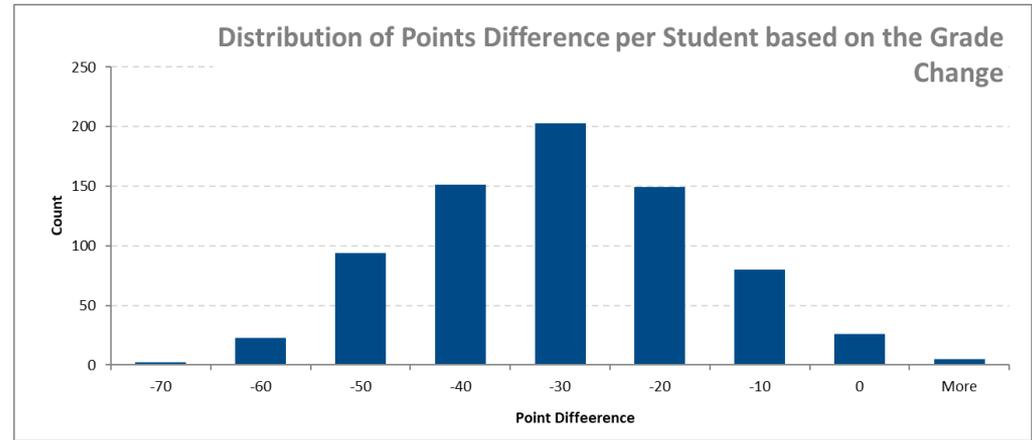
Grade Change Overview – Headline Statistics

Description	Value
Total of Students in 2020	824
Number of Students for Analysis	735
% Number of Grade Changes in the IoE	44%
% Number of Grade Changes Nationally	17%
Total Amount of Students Changed	708
% of Students Changed	96.33%



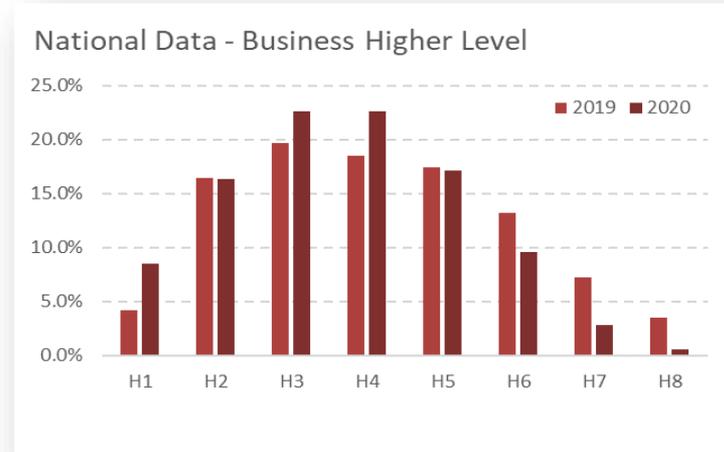
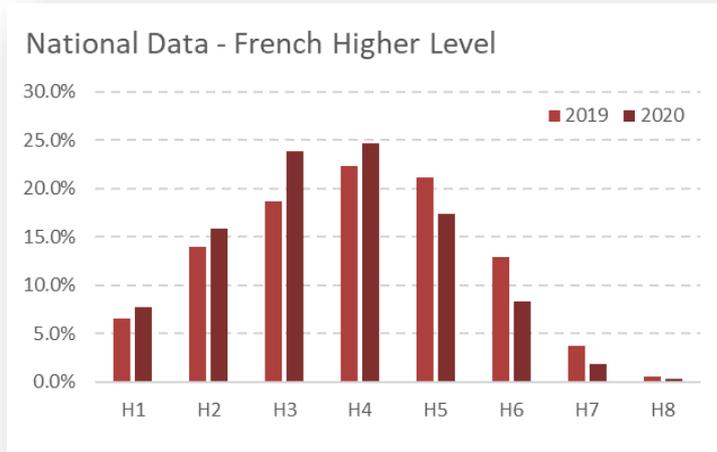
Effect of Grade Changes on Points

Change Value	
Minimum	-77
5% Percentile	-57
25% Percentile	-44
Average Points Change	-33.2
75% Percentile	-22
95% Percentile	-10
Maximum	63



How does Standardisation Work?

- The standardisation model used a number of input factors such as the estimated grades by the teacher, the students junior cert results, the rank order of the class.
- The purpose of this process was to calculate a fair grade for a student for a particular subject.
- The charts below show grade distributions for both French and Business at high level
- These charts illustrate that at a national level the standardisation was worked and that the predicted grades for 2020 are more or less in line with the 2019 data.

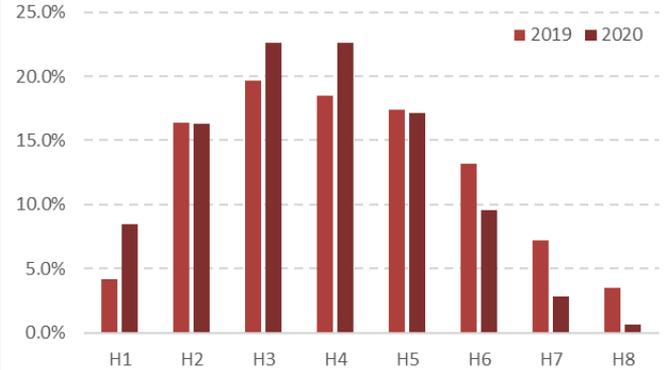


An example

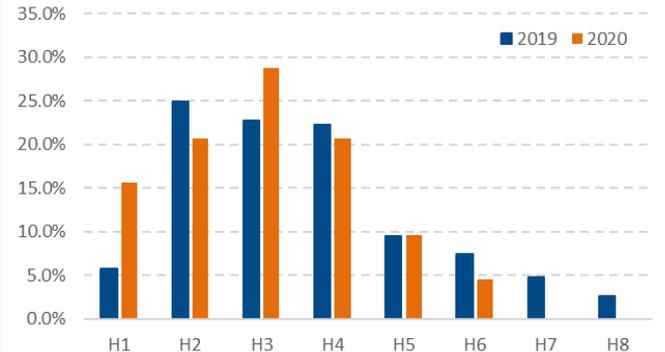
Lets look at Business:

- This example demonstrates the outcome of the model when the learning cohort in 2019 fits closer to the national norm.
- If you look at the 2019 results the curve fits more closely to the national data.
- If you then examine the grades based on the model (orange bars), you can clearly see the effect of trying to standardise the results does not overly impact the results.
- The model clearly works when the learning cohort fits more closely to the data.

National Data - Business Higher Level



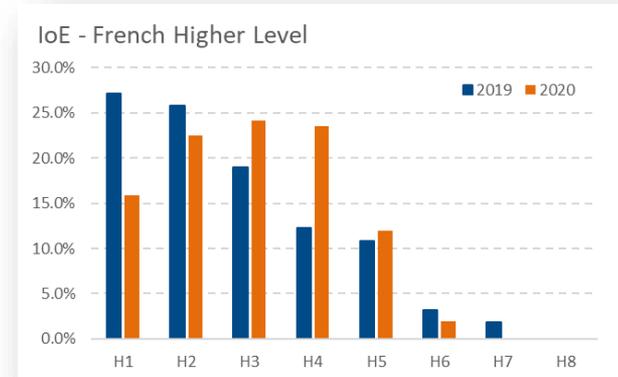
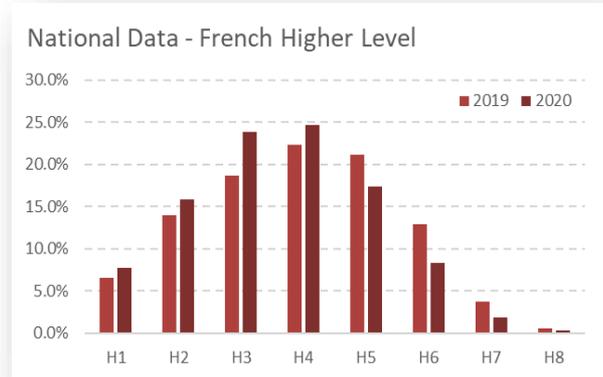
IoE - Business Higher Level



So how can the model fail!

Lets take a look at French again and how the model effects The Institute of Education's (IOE's) Grades.

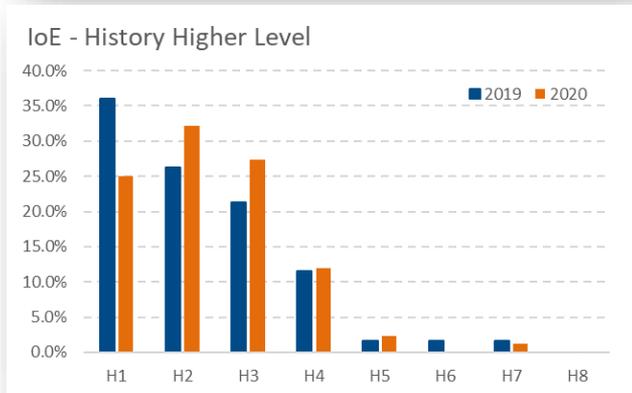
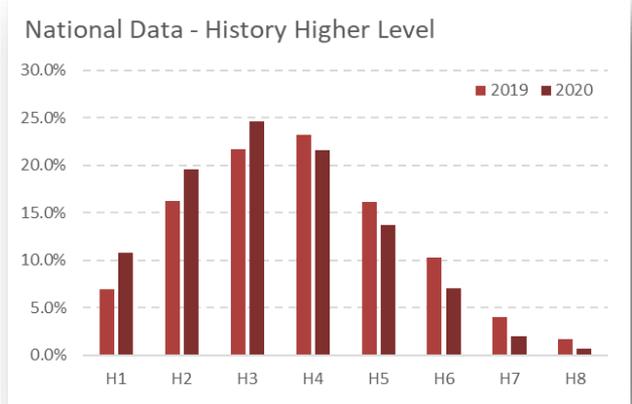
- The 2nd chart below shows that in 2019 (light blue bars) the IoE students significantly overachieved in the higher grades, this causes the distribution to be heavily weighted to the left and more importantly is significantly different to the distribution at a national level.
- If you then examine the 2020 grades based on the model (orange bars), you can clearly see the effect of trying to standardise the results to the national average, the higher grades are disproportionality reduced with the lower grades having a disproportionate increase.
- While the outcome of the model in calculating the 2020 grades does align more closely to the national average, it clearly disproportionately penalises classes of students that deviate significantly from the national norm.
- To be exact in 2019 27% of students achieved a H1 this was reduced to 15% in 2020, while nationally the values went increased from 6% to 7%



So how can the model fail!

Lets look at another example, History:

- Again, The 2nd chart below shows that in 2019 (light blue bars) the IoE students significantly overachieved in the higher grades, this causes the distribution to be heavily weighted to the left and more importantly is significantly different to the distribution at a national level.
- If you then examine the 2020 grades based on the model (orange bars), you can clearly see the effect of the trying to standardise the results to the national average, the H1 grades are disproportionality reduced with the lower grades having a disproportionate increase.



So what about the other subjects?

- This chart shows the cumulative difference between 2019 and 2020 for H1 and H2 grades. The values for loE and National are shown.
- Where the blue bar (loE) is less than the red bar (National) this shows that loE has a lower difference between the two years compared the national difference for the top two grades. In some cases like French the difference is in fact negative.
- This is the case for 15 of the 24 subjects

