

## **Group 15 - Assignment 2**

Members: Hannah Knight, Samantha Foong, Sena Kutluay, Esther Del Portillo

**Question:** What choices should you make to obtain the best GCSE results?

**Our dataset:** <https://www.gov.uk/government/statistics/key-stage-4-performance-2019-revised>

Our dataset summarises exam entry and achievements of pupils at the end of Key Stage 4 (KS4) in England in 2019 as well as pupil characteristics such as gender, ethnicity, disadvantaged background, Special Educational Needs (SEN), and first language.

Our study aims to evaluate if pupil characteristics and subject choice significantly affect GCSE results, by asking the question, *"What choices should you make to obtain the best GCSE results?"*.

In order to approach this question, we chose a dataset from the official data website from the U.K. government, a reliable and good quality source, whose most recent update was done on the 6<sup>th</sup> February 2020.

The table covers revised statistics on the achievements of pupils at the end of key stage 4 in England schools. Our independent variable is the average attainment 8 score. The table consists of 343 instances and 15 features. Some of those attributes are gender, number of pupils at the school, religious denomination of the school, different elective subjects, the longevity of the school and the requirements to get into the school.

All the variables from the dataset will be used to paint a picture of the "ideal" school which is a school that attains the highest grades at GCSE.

Several factors will be considered such as religion, gender, size of school, type of school and the average results for a few different subjects. This data is useful as it can be used to see what types of schools are getting the best grades now. Although schools that score highly this year may not be the same as those that score highly next year, it is the best method of forecasting in this context. Only major governmental reform and population change may affect these predictions.

The findings of this report will be useful to prospective parents looking to choose the best type of school for their child, to teachers to see which demographic may require extra help in the classroom and finally to governments to decide which schools or demographics may need extra educational funding.