The Research Excellence Framework (REF) is a system designed to analyse and evaluate the quality of research at various institutions based in the UK and allocate funding based on which institutions display the most outstanding of work. It is the successor to the Research Assessment Exercise (RAE) which was discontinued after 2008, with the REF replacing it for the 2014 assessment [1](Ref.ac.uk, 2014). The REF is conducted on behalf of four higher education funding bodies: the Higher Education Funding Council for England (HEFCE), the Scottish Funding Council (SHEFC), the Higher Education Funding Council for Wales (HEFCW), and the Department for the Economy, Northern Ireland (DfE) [2](Ref.ac.uk, 2017).

To take part in the REF, institutions must submit a dataset containing information on various articles such as information on the staff, what those staff published, information about what degrees were awarded as well as a description of what the research environment was like, with each article in the dataset relating to a specific time period [3](Assessment framework and guidance on submissions, 2011). The datasets the institutions send are then examined by expert panels, the members of which are first nominated by one of the REF’s nominating bodies, which contains organisations such as Age UK, BBC, Cadbury’s and Waitrose [4] (List of nominating bodies, 2017), to name a few. After being nominated the members of the panel will be appointed by the chief executives of the UK higher education funding bodies mentioned earlier [5] (Roles and recruitment of the expert panels, 2017).

The panels will judge the submissions based on three assessment criteria: Output, Impact, and Environment. Output is the basic quality of the submitted work, and is conducted according to international research quality standards. Impact measures how much of a societal, cultural or economical effect the submitted work has had on the world, or if the research could have any potential effect. Environment is a measure of how sustainable the research environment is, and if it contributes to the sustainability of a wider discipline or not. Each criteria has five rankings, 4\*, 3\*, 2\*, 1\* and Unclassified, with 4\* being the highest ranking, and unclassified being the lowest, as it represents a submission that failed to reach the criteria for even a 1\* grade. Once the grades for each assessment criteria are finalised, an Overall score is calculated by making each assessment criteria a percentage of the overall score, these are weighed as 65% for Output, 20% for Impact, and 15% for Environment [3] (Assessment framework and guidance on submissions, 2011). A higher overall score would mean more funding would be allocated by the funding for bodies for the institution.

The goal of this project was to examine what variables may influence the judging of the expert panels, and once identified, how those variables may be manipulated in order to increase the score that the REF would award an institution.