Module 3 Limitations

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Our assignment for Module 3 involves analyzing anonymously submitted applicant data from the users of The Grad Cafe. The fact that all submissions are anonymous gives rise to several inherent limitations that affect the validity of any conclusions we may wish to draw from the data analysis.

Comparing the output data to expected values helps narrow down a few of these inherent limitations. For example, the average GPA returned by the data analysis is about 3.75 (across 30,000 collected data points); however, according to 2020 data from the National Center for Education Statistics, the average GPA for college students (i.e., potential applicants to graduate school) is 3.15 (Emeagwali, 2025). Meanwhile, the average verbal GRE score returned by the data analysis is about 158, whereas ETS reports that the mean verbal GRE score for all test takers between 2021-2024 was about 151. Therefore, the anonymously submitted data appears to contain higher GPA and GRE scores, on average, than what we would expect.

These results indicate that self-selection bias is a major factor to consider when interpreting the anonymously submitted data. It can be reasoned that users who have a positive view of their own GPA and GRE scores are more willing to post data to The Grad Cafe (even though the responses are anonymous, there may still be a psychological barrier to post self-perceived “inadequate” scores online), and therefore the submitted data is higher than the average data of all applicants everywhere. In this regard, the data from The Grad Cafe is not a true random sampling of all graduate school applicants; rather, the data reflects only submissions from users willing to post their data online. Another factor to consider is impression management, or the inclination of some responders to portray themselves in a better light. Because The Grad Cafe responses are anonymous, there is nothing stopping a user from posting a score that is higher than their actual score in an attempt to exaggerate their own credentials. These inherent limitations must be carefully considered when drawing conclusions drawn from the results of the data analysis.

Emeagwali, N. S. (2025, August 29). *Average college GPA: Full statistics: Bestcolleges*. Bestcolleges.com. https://www.bestcolleges.com/research/average-college-gpa-statistics/

Interpreting Your GRE® Scores: 2025–26 ETS.org
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