Measuring the Value of GRE for PhD Admissions

**Purpose**: ETS is administering the GRE remotely during the COVID crisis which is likely to lead to increase inequity owing to difference in access to the internet for exam takers. Additionally, the UNC Graduate School will pilot a new GRE policy starting in 2021 in which the GRE will be optional for applicants and programs can “opt in” to require the GRE. For 2020 admissions, we propose making the GRE optional and seek support for this policy. To inform the decision, a short review of the literature is provided.

**Summary of recent literature:**

Over the last several years, there have been several reports examining the predictive power of the GRE with respect to PhD outcomes.

In 2007, Kuncel and Hezlett ([*doi*](https://en.wikipedia.org/wiki/Doi_(identifier)):[*10.1126/science.1136618*](https://doi.org/10.1126%2Fscience.1136618)) conducted a meta-analysis of several standardized tests and graduate outcomes concluding that “Standardized admission tests provide useful information for predicting subsequent student performance across many disciplines.” The strongest correlations were with between GRE and graduate course GPA and qualifying exams (r ~ 0.4). Weak/unimportant correlation with research productivity, degree completion, and citation of work (r between 0.1 and 0.22).

In 2019, Miller et al. (DOI: 10.1126/sciadv.aat7550) concluded after a “Multivariate statistical analysis of roughly one in eight physics Ph.D. students from 2000 to 2010” that “Significant associations with completion were found for undergraduate GPA in all models and for GRE Quantitative in two of four studied models; GRE Physics and GRE Verbal were not significant in any model. It is notable that completion changed by less than 10% for U.S. physics major test takers scoring in the 10th versus 90th percentile on the Quantitative test.” But the GRE does limit access to UR applicants.

In a study at UNC, Hall et al. (DOI:10.1371/journal.pone.0169121) showed that for students entering through the UNC BBSP program from 2008-2010, there was no correlation between GRE scores and research productivity based on first author publications.

Peterson et al. (doi.org/10.1371/journal.pone.0206570) in 2019 reported that there no correlation, and even a negative correlation for high GRE scoring white males, with degree completion across STEM fields in a multi-campus analysis.

A study of 638 biomedical students at Vanderbilt (DOI:10.1371/journal.pone.0166742) showed that GRE scores only with GPA in first semester grades, but not publication rate, degree completion, or qualifying exams.