

## COVID-19 and its Effect on Graduate Admissions Requirements for Engineering Programs<sup>1</sup>

The ASEE conducted a survey of the Engineering Deans Council on October 21, 2020 to see what modifications institutions had made or were considering for graduate admission requirements and, specifically about the GRE. There were 68 institutions who responded to the survey. Many institutions have temporarily waived the GRE (if required) during COVID-19 with some indicating they were considering removing the GRE entirely from their admissions requirements. Several responses from deans, graduate program directors and department chairs suggested unease with the GRE test and there are indications, as one respondent said, of a tidal change in the use of GRE moving forward. Those respondents who expressed unease with the continued use of the GRE in graduate admissions specifically mentioned three reasons: Perceived bias in the construction of the test, use of standardized scores in different sections of the test diminishing ability to rank applicants, and conflict between central campus policy and college needs (e.g. Central campus requirements placing lower emphasis on quantitative scores and higher emphasis on verbal scores than engineering programs). As institutions adapt to the pandemic, many have begun to reassess what is needed to identify applicants most likely to be successful in their graduate programs.

### DOCTORAL PROGRAMS

The most common response was that an institution had temporarily removed the GRE requirement for their doctoral program and was considering removal more permanently.

#### GRE Admissions Requirement

The largest difference between private and public institutions is the number not considering any modification to the GRE requirement going forward (18% versus 29% for doctoral programs at public versus private institutions respectively). In contrast, public institutions were also less likely than private institutions to indicate the requirement had been removed for the foreseeable future.

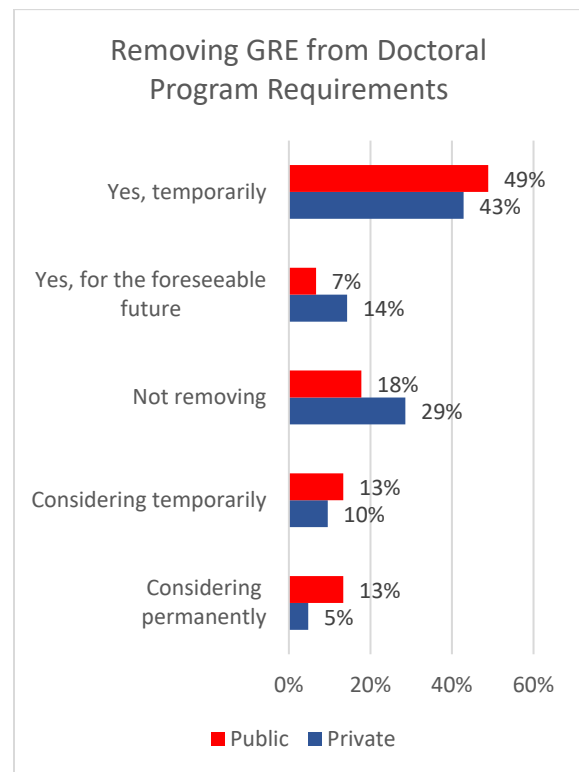


Figure 1: Response by Institution Control

<sup>1</sup> This work is part of an on-going project on the effects of COVID-19 on Engineering Education funded by NSF-EEC Award # 1748840. Any views expressed are those of the individual author and do not necessarily represent the views of the National Science Foundation.

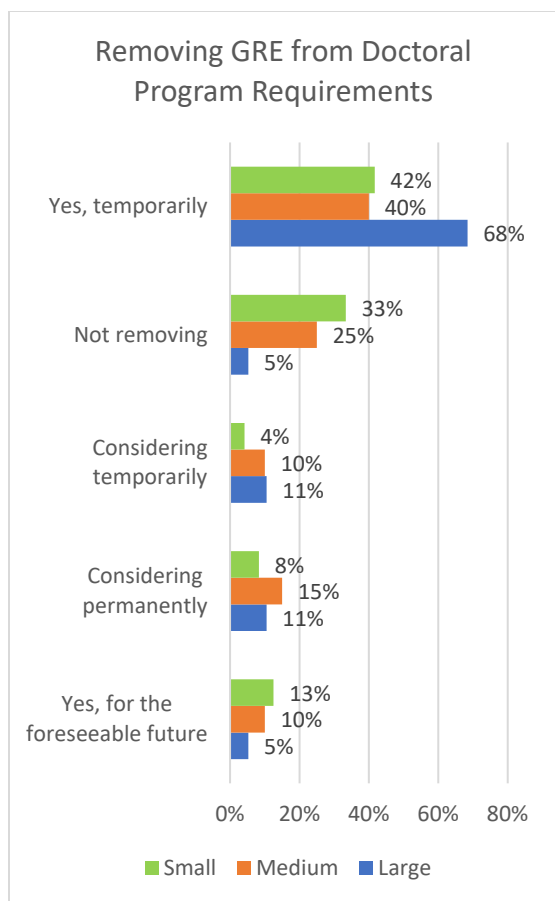


Figure 2: Response by Doctoral Program Size

When looking at the difference in response by program size, the largest doctoral institutions have made a temporary suspension of the GRE requirement, but have not made a long-term decision to remove the requirement in its entirety at the same percent as medium and smaller programs.

Many institutions indicated in the comments that while they have temporarily suspended the requirement for the GRE, they are considering permanently removing it.

### Other Doctoral Program Requirements

Institutions mentioned several different admissions changes outlined below. Most changes besides GRE requirements focused on English language proficiency testing, but there were some other changes made as well.

### English Language Requirement

Doctoral programs report a variety of accommodations for required English language proficiency testing for international students:

- Allowing Duo Lingo to substitute for IELTS/TOEFL
- Flexibility in requirement of IELTS/TOEFL on a case-by-case basis
- Eliminating IELTS/TOEFL requirement
- Experience based assessment (e.g. number of year education in English medium, online interviews).

### Other Requirements

- Fee waivers (A few departments reported covering all fees for applicants and other institutions reported establishing a need-based fee waiver program).
- Targeted fee waivers for program participants especially targeting members of underrepresented groups including Louis Stokes Alliances for Minority Participants, McNair Scholars, and MARC U-STAR Participants.
- Deadline extension for applications
- Flexibility on number of recommenders or recommendation letters
- Allowing unofficial transcripts to substitute for official ones
- Carefully examining all materials and measures currently required.
- Removal residency requirement for international students due to visa issues/embassy closures.
- Waiving the GRE requirement, if the applicant holds a current P.E.

license, or has an M.S. degree in a discipline related to engineering (e.g. civil, computer, chemical, electrical, industrial, mechanical).

## MASTER'S PROGRAMS

The data for master's programs requirements mirrors the results for doctoral programs.

### GRE Admissions Requirement

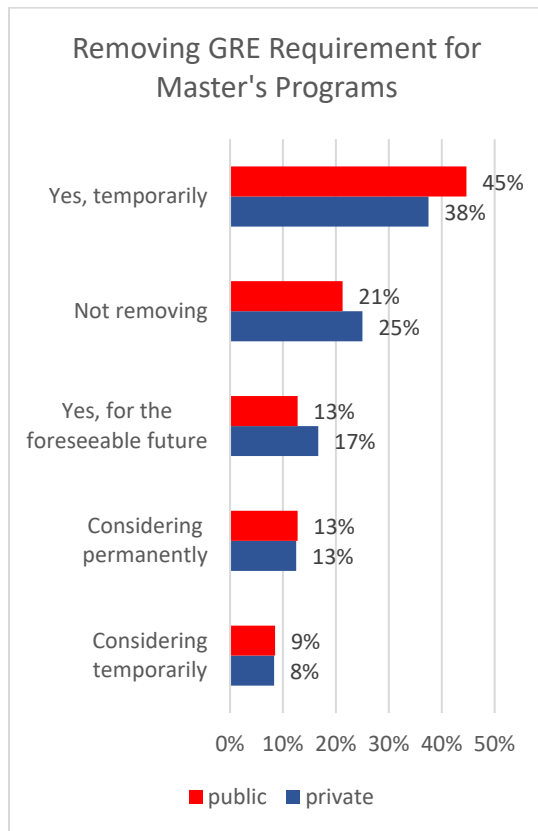


Figure 3: Response by Institution Control

Both private and public institutions were more likely to remove the GRE requirement for the foreseeable future for master's programs than for doctoral programs and conversely had a higher number of responses indicate that they would not remove the requirement for master's programs.

Institutions with large master's programs largely favored a temporary removal of the GRE requirement, while institutions with small master's programs seemed evenly split in their approach.

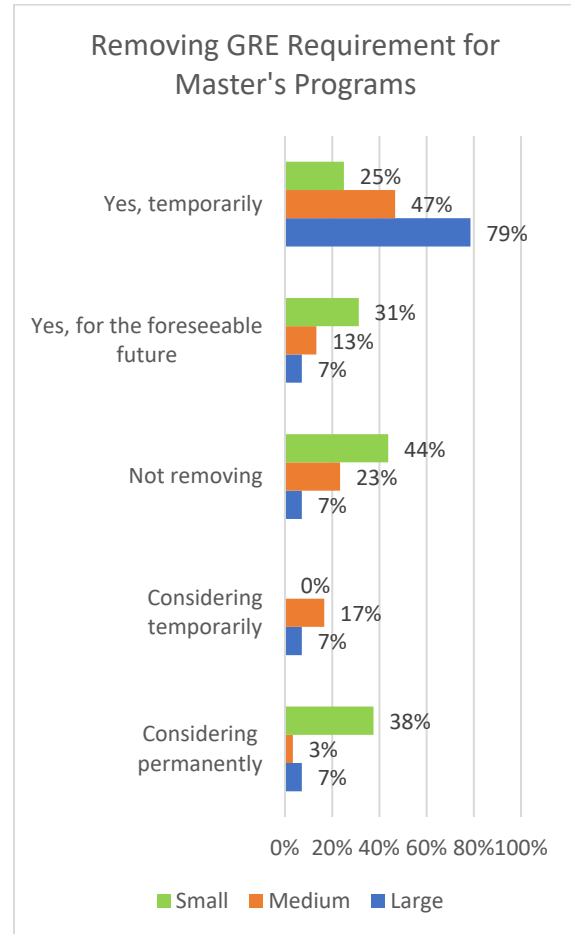


Figure 4: Response by Master's Program Size

## Other Master's Program Requirements

### English Proficiency Testing Changes

The same adaptation identified for doctoral programs were reported for master's programs to accommodate English language proficiency testing for international students:

- Allowing Duo Lingo to substitute for IELTS/TOEFL

- Flexibility in requirement of IELTS/TOEFL on a case-by-case basis
- Eliminating IELTS/TOEFL requirement
- Replacing tests with a based assessment (e.g. number of year education in English medium, online interviews).

### Other Requirement Changes

Institutions mentioned a similar set of changes for admissions requirements as doctoral programs, but several institutions uniquely mentioned reconsidering grades for the spring 2020 to spring 2021 for admissions requirements for master’s programs.

- Fee waivers (A few departments reported covering all fees for applicants and other institutions reported establishing a need-based fee waiver program).
- Deadline extension for applications
- Flexibility on number of recommenders or recommendation letters
- Allowing unofficial transcripts to substitute for official ones
- Reconsidering the weight of grades earned from Spring 20 to Spring 21 based on current pandemic impacts.
- Adapting a better holistic admissions process and carefully examining all materials and measures currently required.

### **Methodology**

There were 68 institutions represented in the data. Responses of non-applicable were not included in the calculation of percentages or responses totals reported. Some institutions responded by department rather than college.

These responses were re-coded to “Yes, temporarily” in the presentation of the data above:

- Yes, for Fall 2021
- Yes, for Spring 2021
- Yes, for Spring 2021 and Fall 2021

Program Size	# of Doctoral Responses	# of Master’s Responses
Large	24	15
Medium	20	31
Small	21	25

For doctoral programs, size was coded based on the number of engineering doctoral graduates reported for 2019. Large doctoral programs had 100-350 graduates. Medium doctoral programs had 35-99 graduates. Small doctoral programs had 1 to 34 graduates.

Similarly, for master’s programs, size was coded based on the number of engineering and engineering technology master’s graduates in 2019. Large master’s programs had 425-1500 graduates. Medium master’s programs had 100-424 graduates. Small master’s programs had 1-99 graduates.

Control	# of Doctoral Responses	# of Master’s Responses
Public	45	47
Private	21	24

Institutions were sent the survey on October 21, 2020 and responses were accepted until October 28, 2020. Please email the report author, Joseph Roy at [j.roy@asee.org](mailto:j.roy@asee.org) with any questions.