

Suggestions for making graduate admissions more equitable

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Data provided and compiled by Casey Miller, Julie Posselt, the Inclusive Graduate Education Network, Kirsten Tollefson, Remco Zegers, and Tabitha Hudson.



Graphic on [APS Meetings & Events page](#)

20%

6%

20%

6%

50%

33%

[US Census estimate 2019](#)

Faculty

Post-doc

Graduate

Undergraduate

K-12

Faculty

Post-doc

Graduate

Undergraduate

K-12

The typical admissions package

GRE scores

GPA

Personal statement

Research statement

Letters of

recommendation

The typical admissions package

GRE scores

GPA

Personal statement

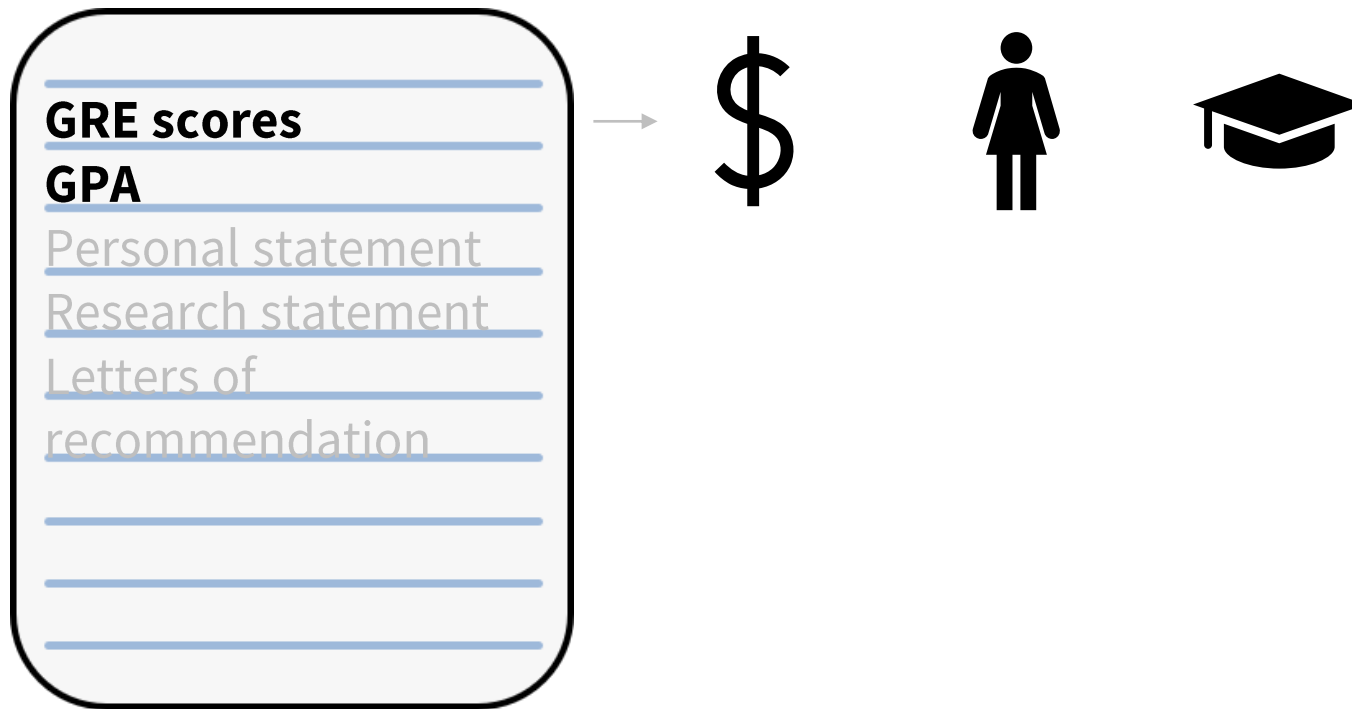
Research statement

Letters of

recommendation



The typical admissions package



[Posselt \(2016\)](#), [Potvin et al \(2017\)](#), [Young & Caballero \(2019\)](#)

The typical admissions package

GRE scores

GPA

Personal statement

Research statement

Letters of
recommendation

"He is a brilliant researcher."

"She is a hard-working student."

[Whitcomb & Singh \(2020\)](#), [Trix & Psenka \(2003\)](#)

How might we make graduate admissions in physics more equitable?

1) Implement a rubric



[Flickr](#), [CC-BY-2.0](#)

[Miller \(2015\)](#)

Academic Preparation (25%)	Physics Coursework
	Math Coursework
	Other Coursework
	Academic honors and/or recognitions

Non-Cognitive Competencies (25%)	Achievement Orientation
	Conscientiousness
	Initiative
	Perserverence

Research (25%)	variety/duration
	quality of work
	technical skills
	dispositions

Fit with program (15%)	research
	faculty
	community
	diversity

GRE Scores (10%)	General GRE
	Physics GRE

<https://igenetwork.org/>

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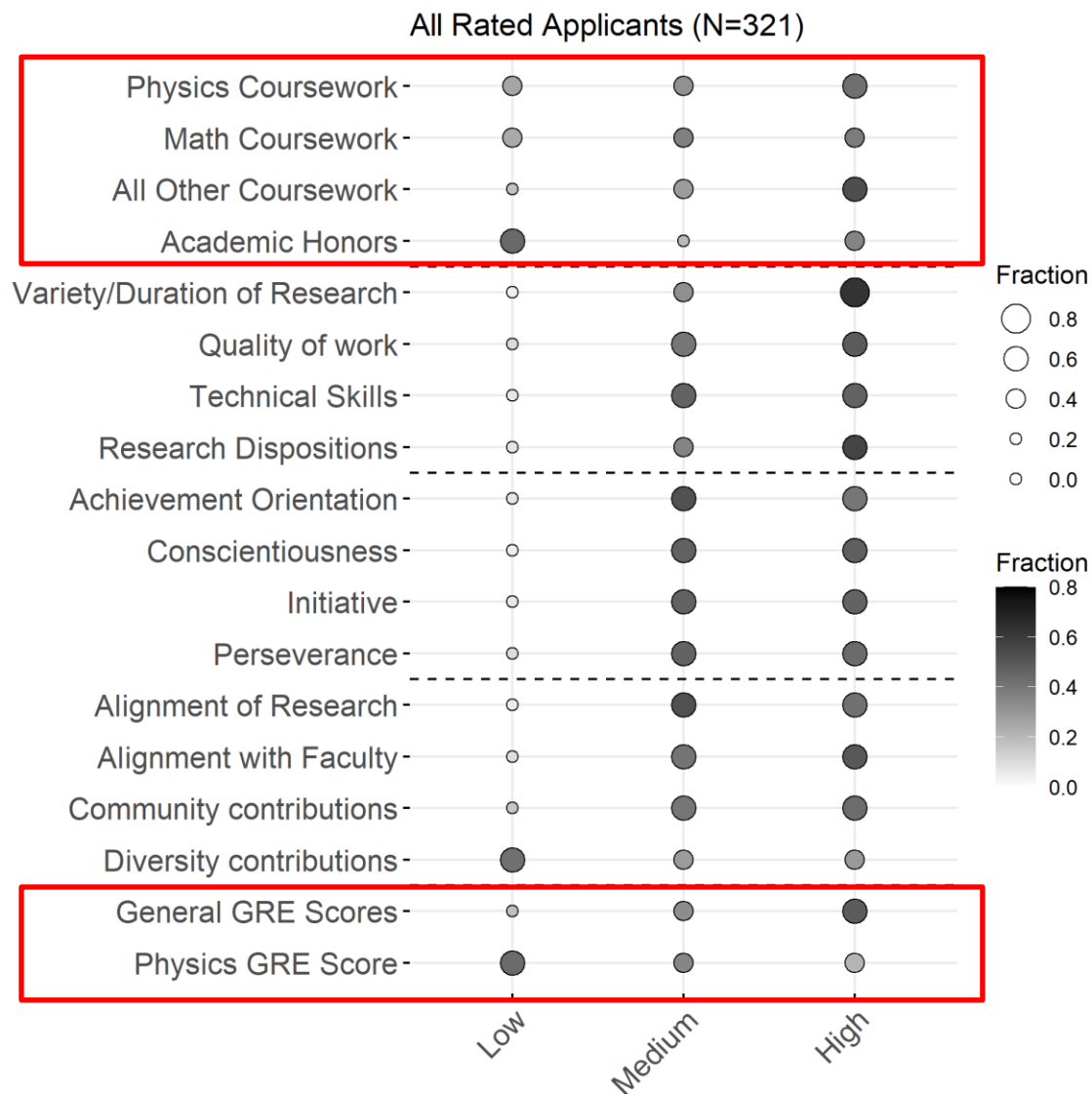
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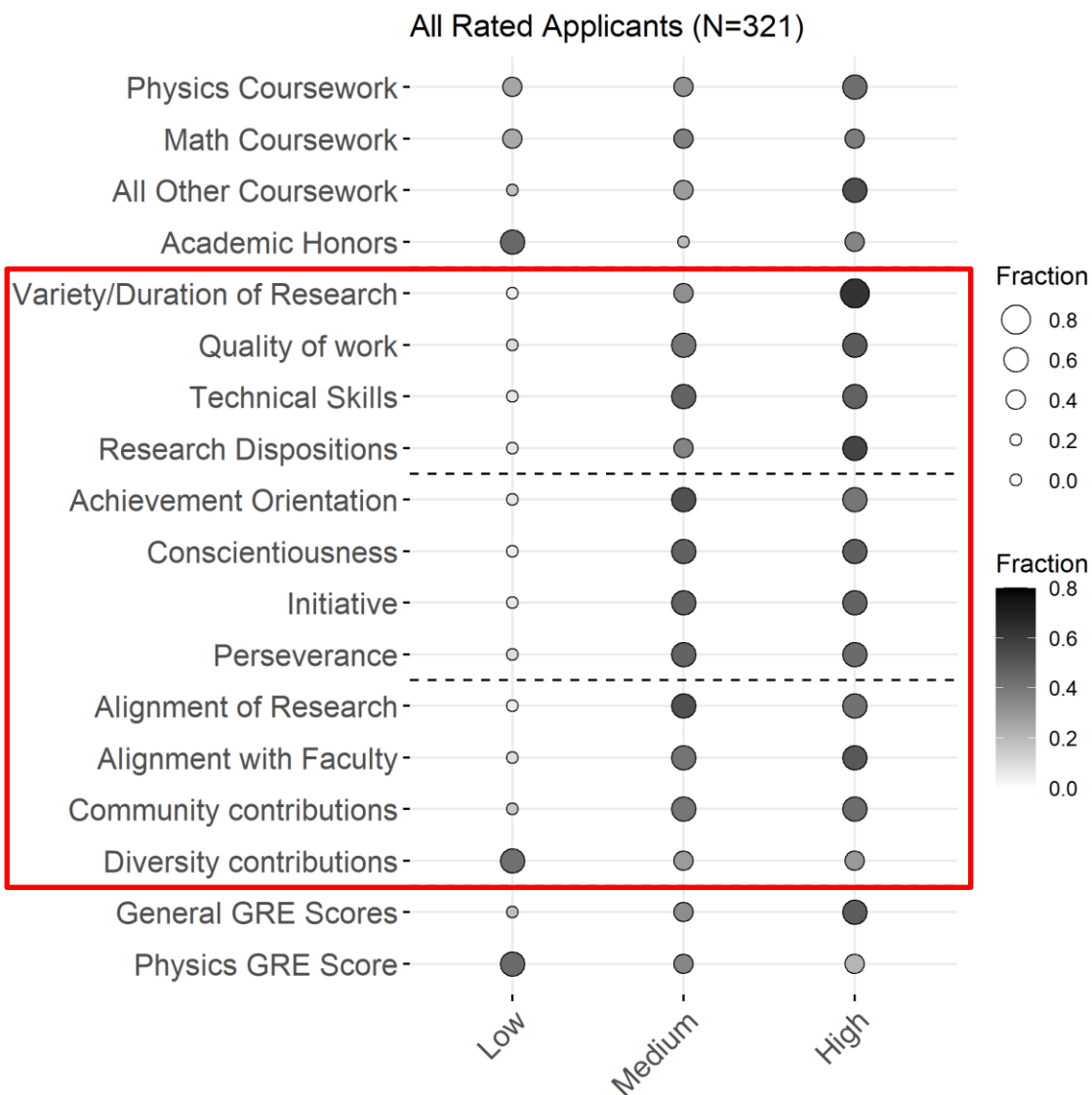
GRE Scores (10%)	General GRE
	Physics GRE

3 years
321 Rated Domestic Applicants

<https://igenetwork.org/>



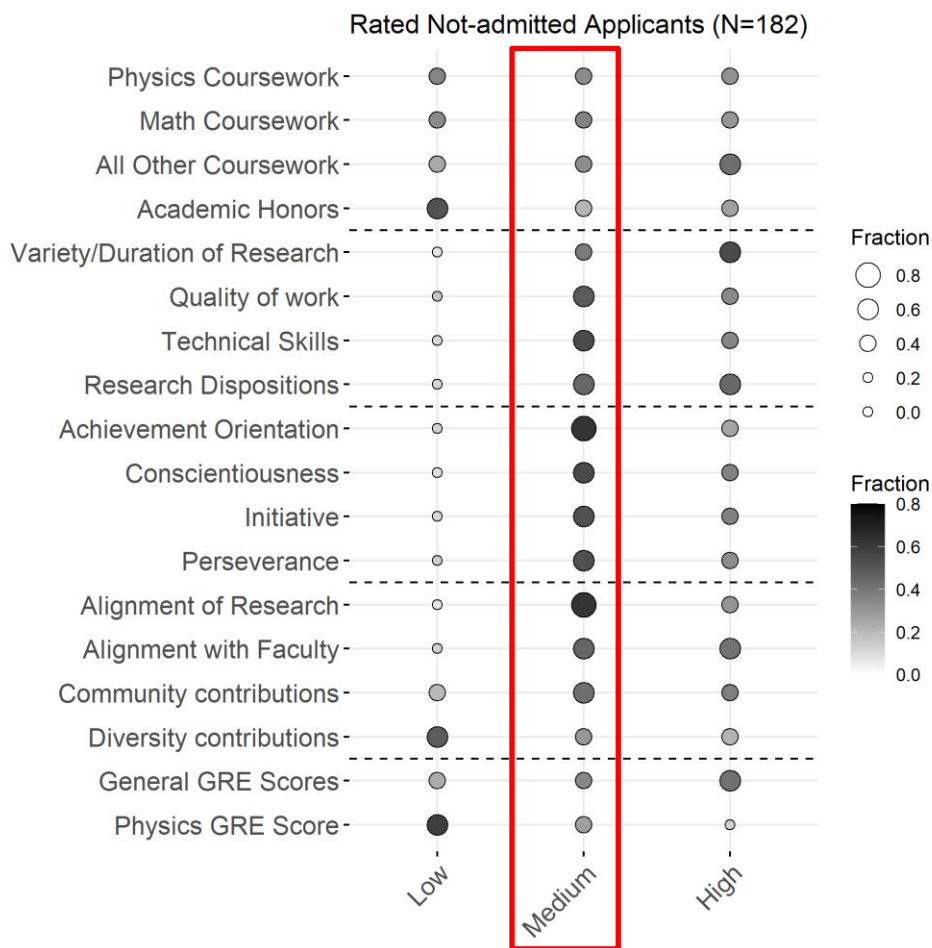
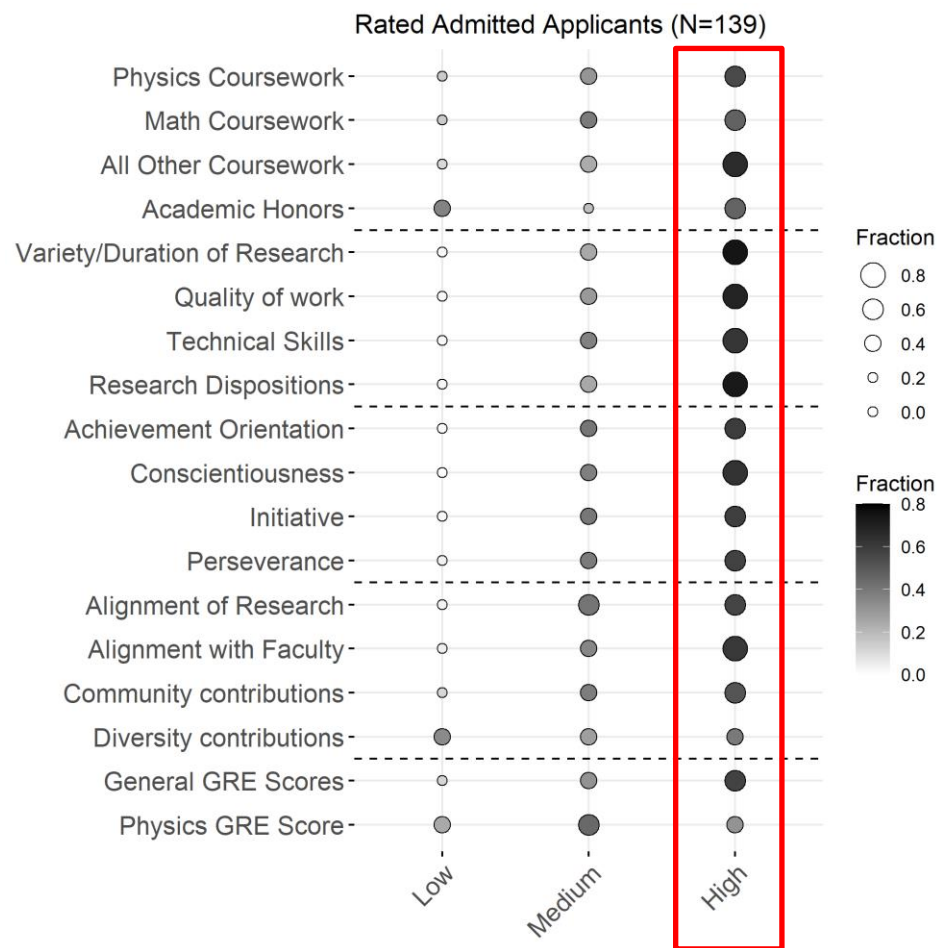
Applicants spread
between the rubric
levels



Applicants concentrated in the “medium” and “high” categories

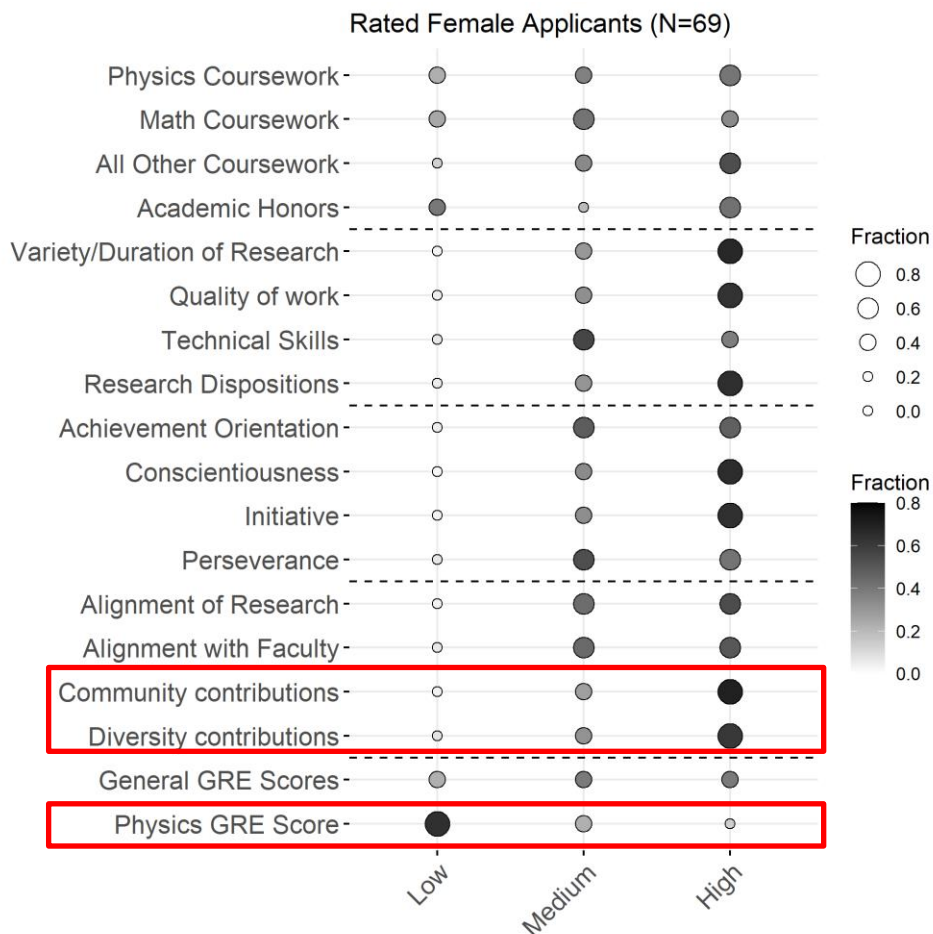
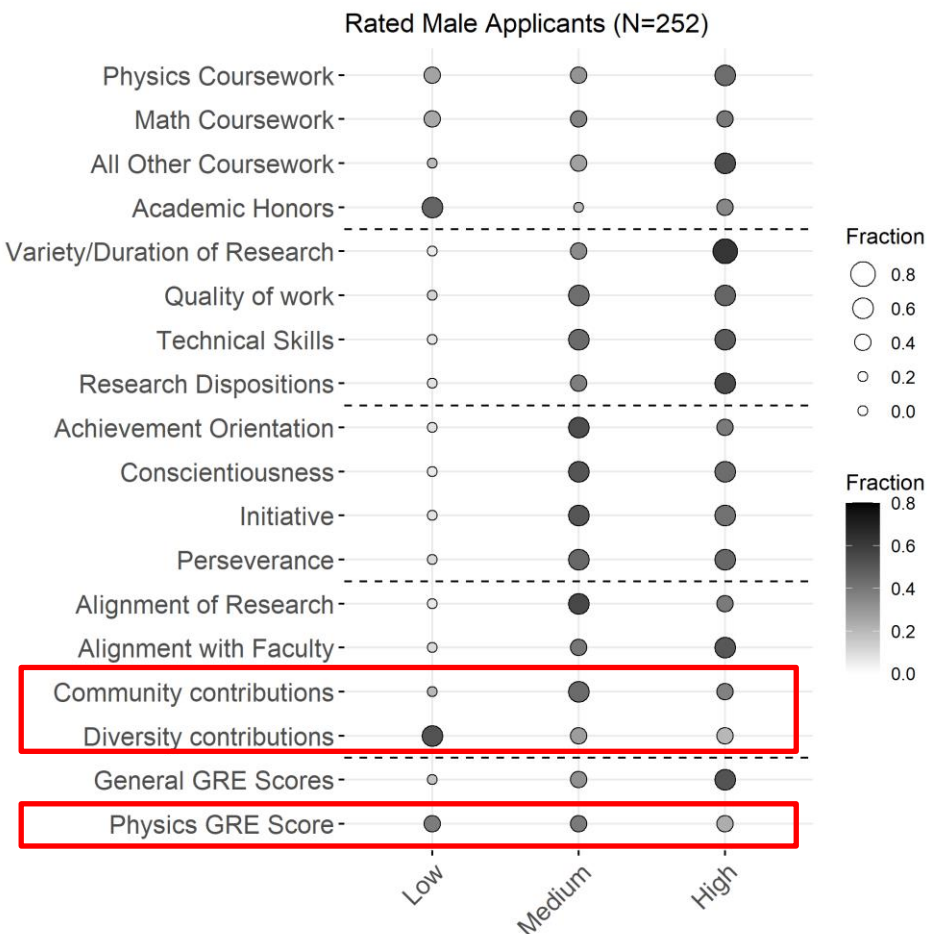
Admitted applicants tend to score “high”...

Rejected applicants tend to score “medium”

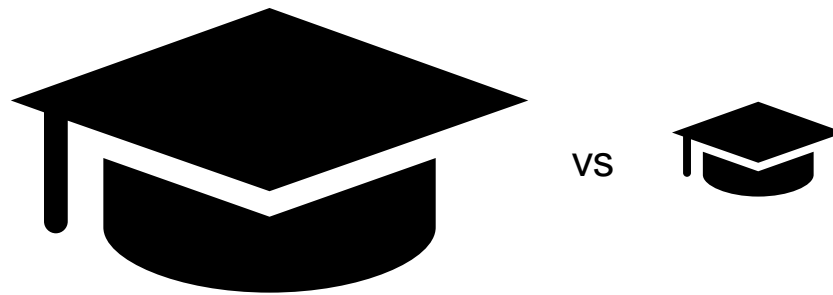


What about equity???

The only differences in ratings between men and women were on physics GRE scores and service/diversity work.



[Miller et al \(2019\)](#), [Guarino & Borden \(2017\)](#)



Test scores are the only consistent difference

2) Don't bring the physics GRE back


GRE® Subject Test Administrations Canceled for September 12 and October 17

The *GRE*® Subject Test administrations scheduled for September 12 and October 17, 2020, have been canceled due to impacts from the pandemic. Health concerns and local COVID-19 restrictions are preventing many institutions that have hosted GRE Subject Test administrations in the past from being able to provide a safe testing space. The Subject Tests cannot be offered online at this time, so the next opportunity to take a Subject Test — assuming health conditions improve — will be April 2021. If you were scheduled to test on a canceled test administration date, your test fee will be refunded automatically. The *GRE*® Program has begun sharing this news with graduate schools, and we suggest that you contact the programs to which you are applying for updates on their application requirements.

Posted: August 20, 2020

https://www.ets.org/gre/important_update/test_cancel

[AAS \(2016\)](#) [AAPT \(2019\)](#)



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About the GRE® Subject Tests

What Are the Subject Tests?

The GRE® Subject Tests are achievement tests that measure your knowledge of a particular field of study.

Show what you know about a specific subject and graduate schools will take notice. The Subject Tests can help you stand out from other applicants by emphasizing your knowledge and skill level in a specific area.

Each Subject Test is intended for students who have an undergraduate major or extensive background in one of these six disciplines:



The GRE® Biology Test and the GRE® Literature in English Test will be discontinued after the April 2021 administration. Scores on both tests will continue to be reportable for five years per [GRE® score reporting policy](#).


- [Biology](#)
- [Chemistry](#)
- [Literature in English](#)
- [Mathematics](#)
- [Physics](#)
- [Psychology](#)

Note: The GRE Biochemistry, Cell and Molecular Biology Test was discontinued in December 2016. Scores will continue to be reportable per [GRE score reporting policy](#).

Who Takes Them?

Prospective graduate school applicants take the Subject Tests. Applicants come from varying educational and cultural backgrounds and the GRE Subject Tests provide a common measure for comparing candidates' qualifications.

GRE Subject Test scores are used by admissions or fellowship panels to supplement your undergraduate records, recommendation letters and other qualifications for graduate-level study. Some Subject Tests yield subscores that can indicate the strengths



Ready to take a GRE® Subject Test?

[Register Now](#)

[Send Only Your Best Scores](#)

Approach test day with more confidence, knowing you can send the scores that show your personal best — only with the *ScoreSelect*® option.

[Official Test Prep from ETS](#)

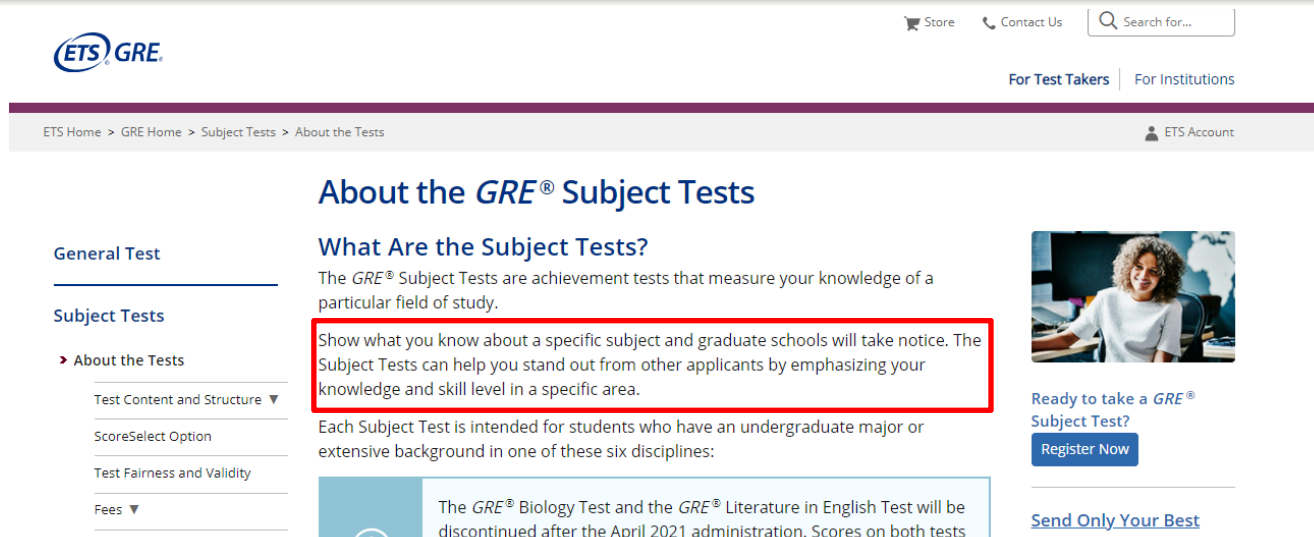
Nobody knows our tests better than we do. We offer free practice tests and tips to help you prepare for your GRE Subject Test. Check them out today.

[General Test](#)
[Subject Tests](#)

- About the Tests
 - Test Content and Structure ▼
 - ScoreSelect Option
 - Test Fairness and Validity
 - Fees ▼
 - Bulletin and Forms
 - Tools for Success ▼
- Registration, Test Centers and Dates
- Prepare for a Test
- On Test Day
- Scores
- Frequently Asked Questions

<https://www.ets.org/gre/subject/about>

[Langin \(2019\)](#)



The screenshot shows the ETS GRE Subject Tests page. The header includes the ETS GRE logo, navigation links for 'Store', 'Contact Us', and a search bar. Below the header, there are links for 'For Test Takers' and 'For Institutions'. The main content area is titled 'About the GRE® Subject Tests' and includes a section 'What Are the Subject Tests?'. This section contains a red-bordered box with the text: 'Show what you know about a specific subject and graduate schools will take notice. The Subject Tests can help you stand out from other applicants by emphasizing your knowledge and skill level in a specific area.' Below this, it states that each Subject Test is intended for students with an undergraduate major or extensive background in one of six disciplines. A blue box at the bottom of the main content area states: 'The GRE® Biology Test and the GRE® Literature in English Test will be discontinued after the April 2021 administration. Scores on both tests'. On the right side, there is a photo of a woman and a 'Register Now' button. The left sidebar contains links for 'General Test', 'Subject Tests', 'About the Tests', 'Test Content and Structure', 'ScoreSelect Option', 'Test Fairness and Validity', and 'Fees'.

This doesn't seem to be the case

Prepare for a Test

On Test Day

Scores

Frequently Asked Questions

- [Literature in English](#)
- [Mathematics](#)
- [Physics](#)
- [Psychology](#)

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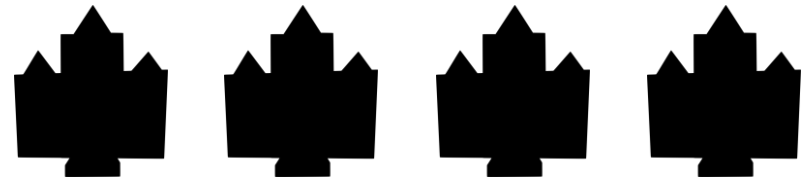
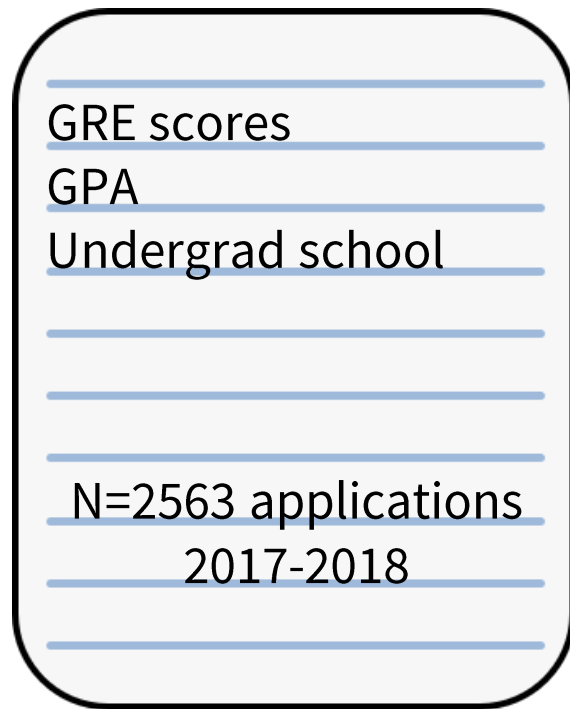
Official Test Prep from ETS

Nobody knows our tests better than we do. We offer free practice tests and tips to help you prepare for your GRE Subject Test. Check them out today.

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[Langin \(2019\)](#)

Data

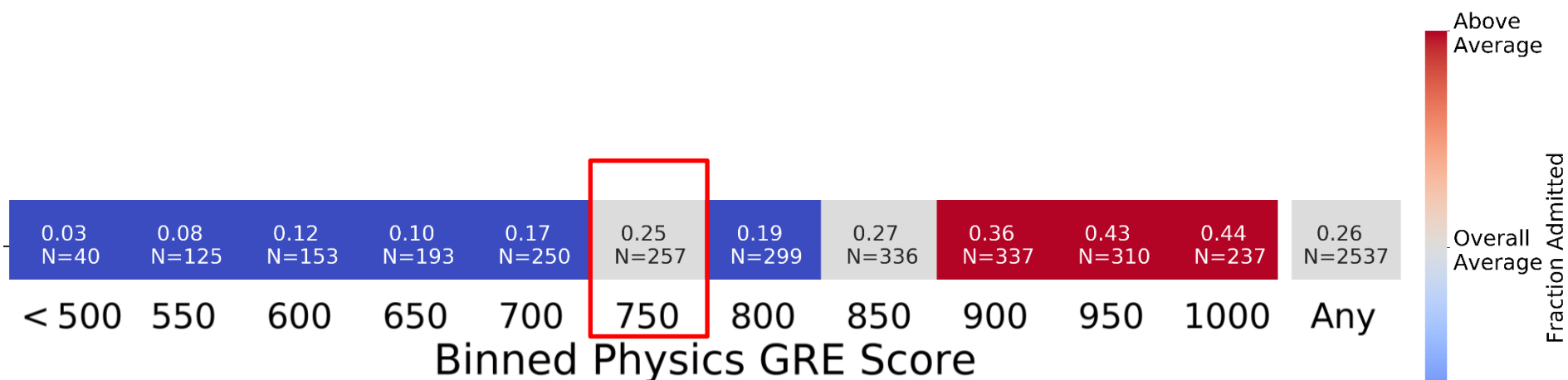


4 Big Ten Universities

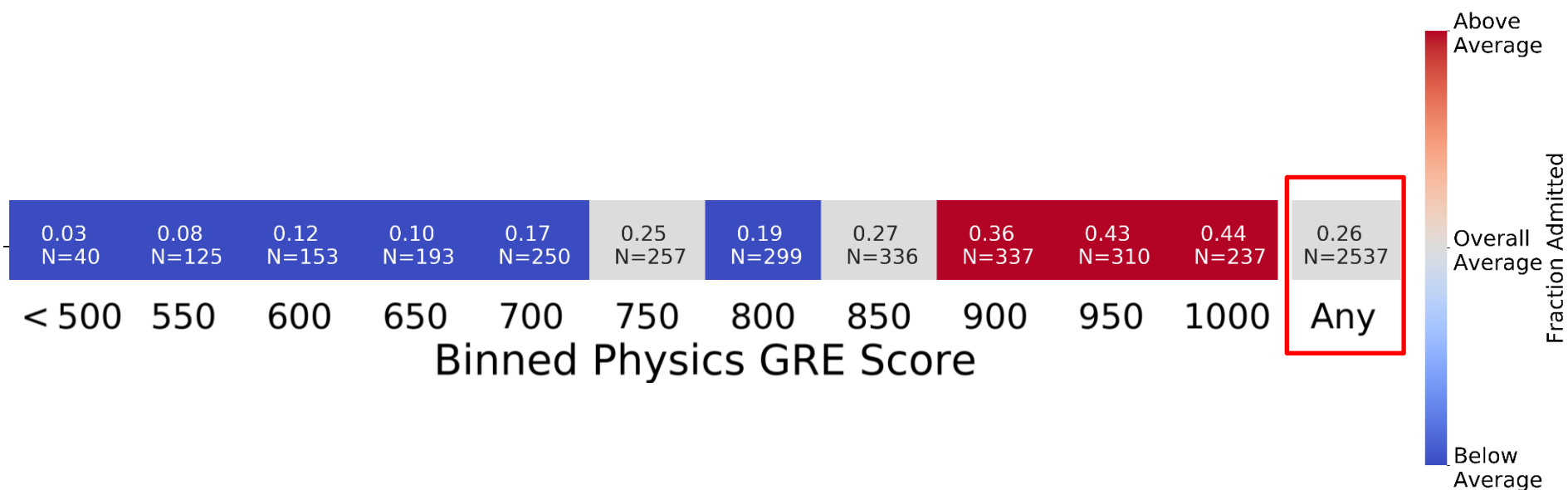


1 private Midwest University

Having a higher pGRE score helps...



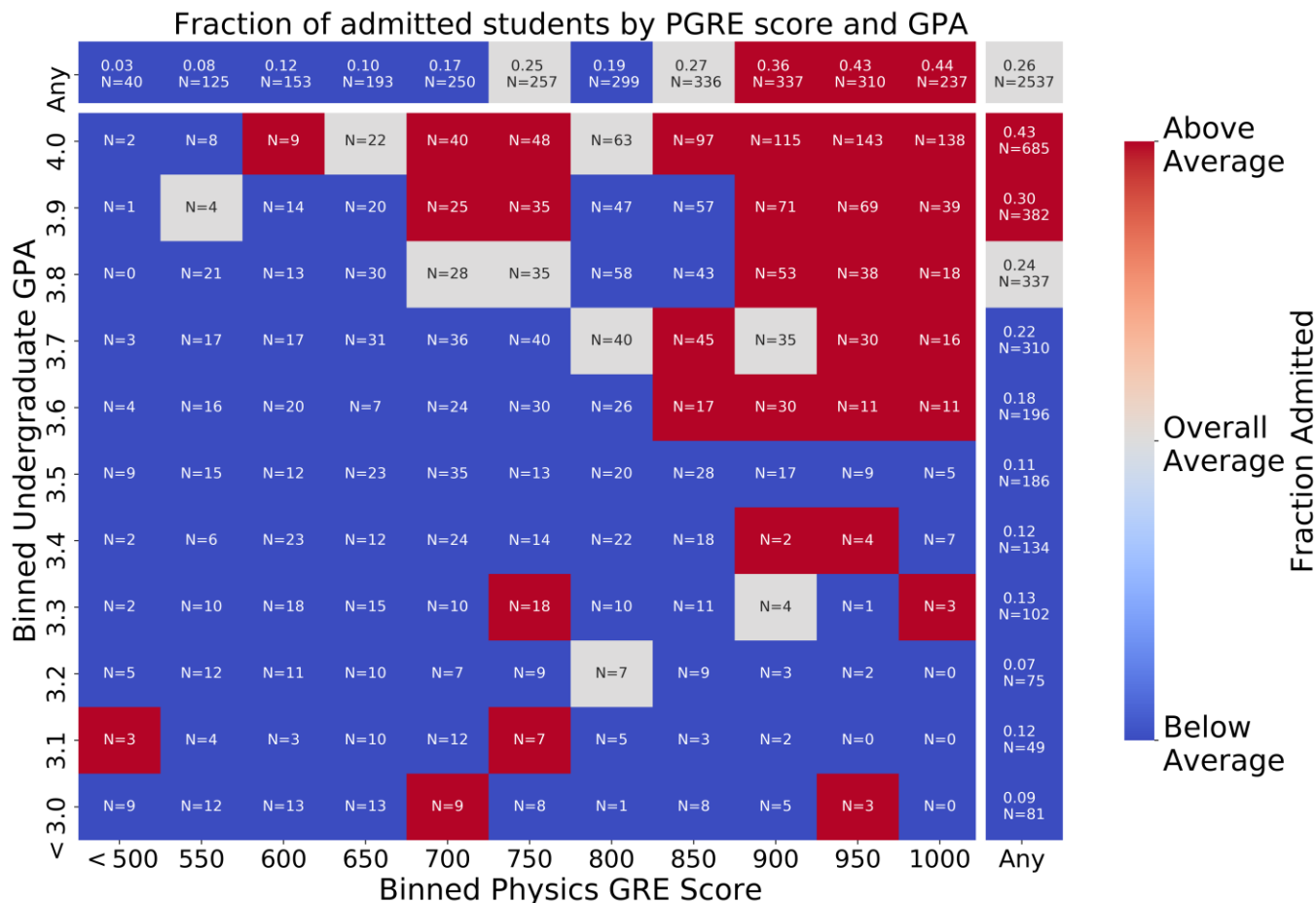
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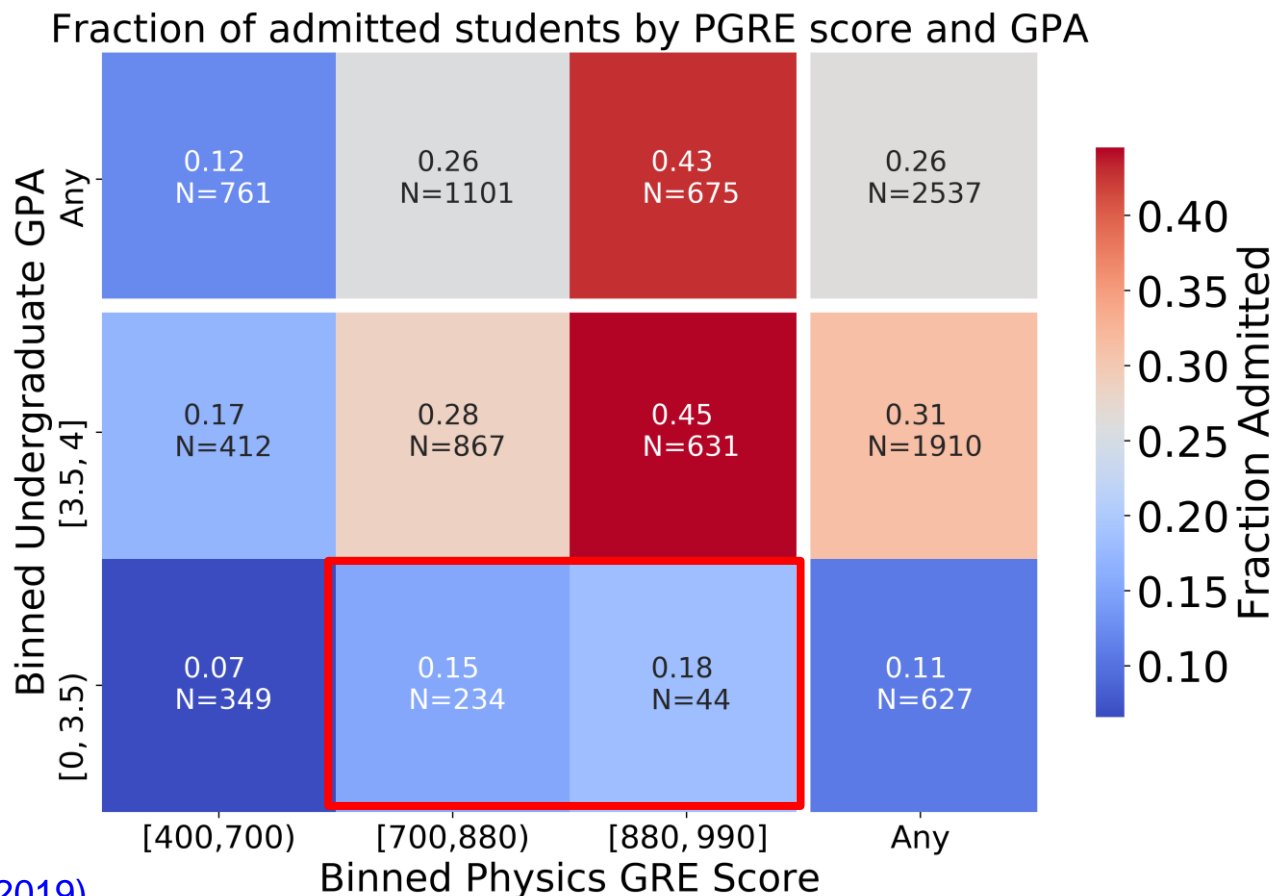
Q: Who needs to stand out?

A: Applicants with a low GPA.

but doesn't help an applicant with a low GPA
“stand out.”

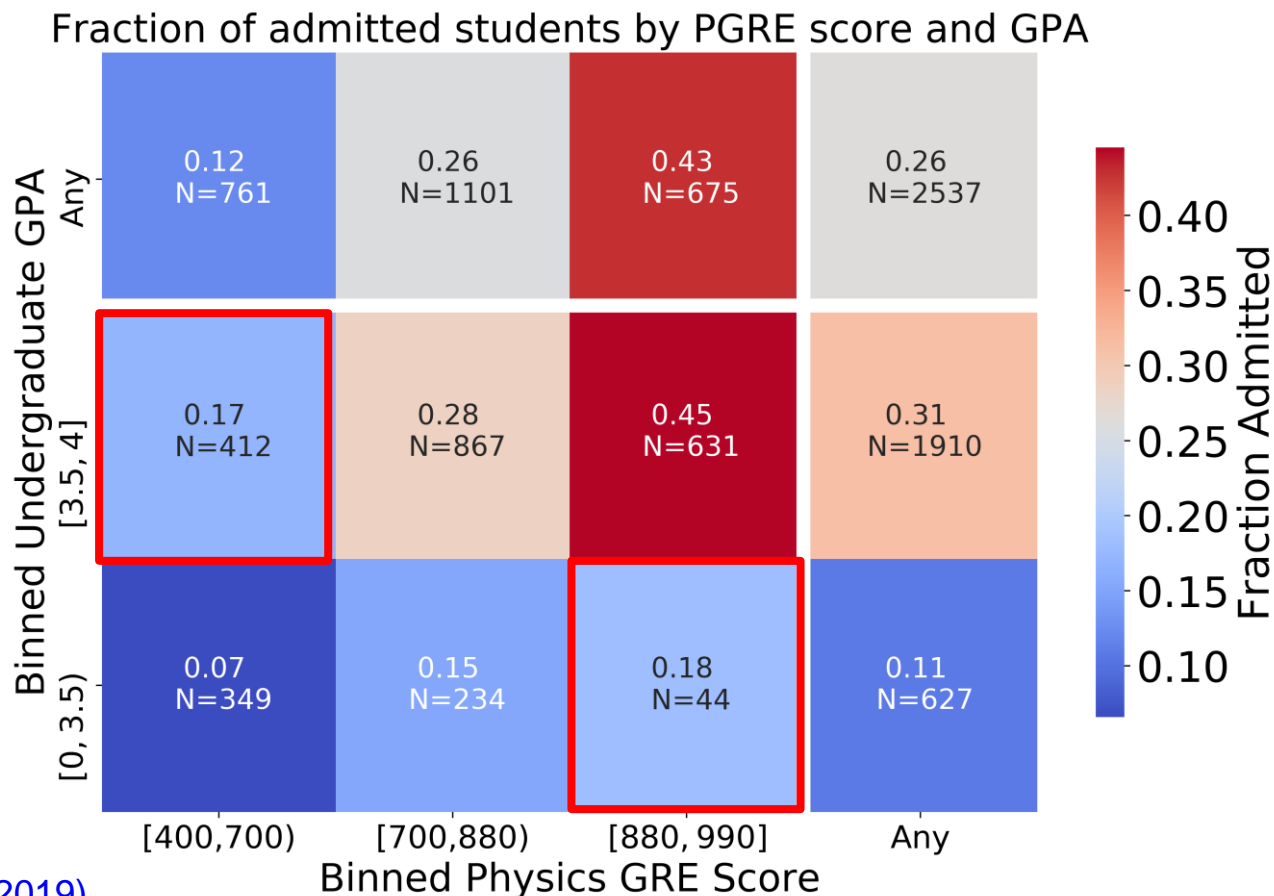


Having a high GPA is just as good as a high physics GRE score.



[Miller et al \(2019\)](#)

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[Miller et al \(2019\)](#)

Who else might need to stand out?

Limited evidence of the physics GRE helping those applicants stand out either

Takeaways

1. Consider using a rubric to evaluate graduate students
2. Our department's rubric does not appear to show inequities

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Contact info: youngn18@msu.edu

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