



# **GRE**

*Graduate Record Examinations®*

# **Guide** to the **Use of Scores**

**Inside, find all the facts you need about:**

- the value of using *GRE*® scores
- skills measured, test administration and scoring
- using and interpreting GRE scores
- statistical information regarding the GRE test-taker population and GRE tests

**2022–23**

[www.ets.org/gre/institutions](http://www.ets.org/gre/institutions)

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## Communicating with the *GRE*<sup>®</sup> Program

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	Inquiries from Educators	Inquiries from Test Takers
<i>By Email</i>	<a href="mailto:gretests@ets.org">gretests@ets.org</a>	<a href="mailto:gre-info@ets.org">gre-info@ets.org</a>
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To communicate by mail, both educators and test takers can send inquiries to this address:

GRE Program  
Educational Testing Service  
PO Box 6000  
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**Attention GRE Score Users:** Make sure that you have access to the *ETS*<sup>®</sup> Data Manager, which helps GRE and *TOEFL*<sup>®</sup> score users access score reports online.

The ETS Data Manager is available through a secure online portal exclusively for official GRE and TOEFL score users. Institutions and organizations that have a GRE or TOEFL score reporting code can use the ETS Data Manager to access score information, test-taker data and more, free of charge. To learn more and request access to the ETS Data Manager for your institution, visit [www.ets.org/portal](http://www.ets.org/portal).

This publication can be downloaded at [www.ets.org/gre/guide](http://www.ets.org/gre/guide).

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## Introduction

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Thousands of graduate and professional school programs around the world, including business and law, use *GRE*<sup>®</sup> test scores to successfully identify applicants who are academically prepared for graduate-level work and to help them enroll a diverse student body. That success is due, in part, to understanding what the GRE tests measure, how the tests are scored, the benefits and limitations of the tests, and how to use the tests within the context of a holistic admissions process.

The GRE Program is committed to providing information and guidance to help graduate programs achieve their goals, including enhancing diversity and inclusion. GRE tests and services help programs advise prospective students, create smart recruitment strategies, and evaluate and compare applicants.

### Rooted in the ETS Mission

The GRE tests were created over 70 years ago to have an objective lens through which all applicants could be compared, regardless of their background. Our dedication to fairness exemplifies nonprofit ETS's mission to help advance quality and equity in education for all people.

Today *GRE*<sup>®</sup> General Test and/or a *GRE*<sup>®</sup> Subject Test scores are used by admissions and fellowship panels to supplement undergraduate records, including grades and recommendations, and other qualifications for graduate-level study.

### Benefits of Using *GRE*<sup>®</sup> Scores in Admissions Decision Making

The GRE General Test and GRE Subject Tests were designed to achieve a specific intended purpose that adds value to the admissions decision-making process. Understanding what the tests were designed to measure and predict can help administrators and faculty assign an appropriate role for the use of test scores, without over-relying upon them to accomplish more than they can.

### Value of Using GRE Scores

- **The scores support institutions' efforts to identify which applicants are academically prepared for graduate-level study.**

The GRE General Test measures skills that graduate and professional schools, including business and law, have identified as necessary for academic success: verbal reasoning, quantitative reasoning, critical thinking and analytical writing. Institutions receive separate scores for each of the test's three sections, which allows graduate programs to place greater weight on some skills than others, if desired. Scores identify which potential students are likely to struggle academically in a particular skill, which can help programs prepare to offer extra support to help those students be successful. Some GRE Subject Tests also yield subscores that provide additional information about strengths and weaknesses, which can be useful for guidance and placement purposes.

- **The scores provide a common, objective measure to help programs compare students from different backgrounds.**

Of all of the pieces of evidence institutions collect from applicants, only GRE scores are standardized and objective, giving faculty committees a way to directly compare applicants with different backgrounds and experiences. The GRE tests are also the only measures that are research based — developed in accordance with standards set by reputable institutions such as the American Educational Research Association (AERA), the National Council on Measurement in Education (NCME), and the American Psychological Association (APA) — and subject to extensive fairness guidelines, processes and reviews.

Other components submitted as part of an application package can be useful for the unique information they provide about a person's skills, experiences and attributes, but they are not standardized or objective, do not undergo a rigorous fairness review process and do not yield

comparative data. Used alone, these measures can heighten the role that implicit bias plays in the review and selection processes and result in other unintended consequences that are potentially harmful to applicants and institutions. The clearest picture of an applicant — and the fairest admissions program — may be achieved by considering both standardized and non-standardized measures.

## Important Considerations

- **The scores do not and cannot offer insight about all of the qualities that are important in predicting academic success or in confirming undergraduate achievement.**

The GRE tests are an important measure of academic readiness but cannot measure everything that an admissions committee would like to know about an applicant. Logically, it makes sense that a test designed to measure verbal reasoning, quantitative reasoning, critical thinking and analytical writing skills would not be the best indicator of how long it will take a student to graduate or how often that student will publish new research. A better place to find indicators of those types of outcomes might be in personal statements and letters of recommendation, which give applicants a platform for showing attributes like creativity, conscientiousness and perseverance, and to discuss their academic and work experiences.

- **The scores need to be interpreted carefully because, like all tests, they are not exact measures.**

All assessments have limitations that affect their ability to exactly measure a person's knowledge, skills and abilities. See guideline #3, on page 10, for more information.

## Using GRE Scores as Part of Holistic Admissions

### Getting a Clearer Picture of Potential

The graduate community has become increasingly interested in making changes to their admissions processes so that applicants are viewed more holistically. The holistic admissions method looks

at multiple sources of information to get the fullest picture of each applicant's potential. By combining quantitative data like test scores and undergraduate GPA with more qualitative indicators such as letters of recommendation and work experience, you can be confident you have a more complete view of each applicant to fairly assess fit within your program.

The practice of using cut scores, especially one that uses GRE scores as the sole criteria, is contradictory to a holistic admissions process because it puts too much weight on one measure and does not allow applicants the opportunity to show other evidence of their potential value to the program.

### What Role Do GRE Scores Play?

GRE scores are essential in the holistic admissions process since only GRE tests provide a research-based, objective, directly comparable measure that institutions can use to fairly evaluate applicants from different backgrounds. A holistic admissions practice ensures that GRE scores have an appropriate role in the process, rather than an inflated role.

### Resources to Help

Although many people agree that applicants should be viewed holistically, challenges and constraints that admissions teams and faculty committees face — such as application volume, time, and financial and staff resources — make it difficult to initiate changes to long-standing processes and systems. To help, ETS is sharing a number of resources on its site, [www.holisticadmissions.org](http://www.holisticadmissions.org), including a Holistic Admissions Digital Guide, diversity resources and fairness resources. Some of the resources were developed from in-person conversations with faculty and staff involved in admissions at 58 graduate programs across the United States in 2017, as well as an extensive review of related literature.

By revisiting program goals and aligning practices and processes with those goals, faculty committees can design an admissions process that fairly considers the multiple pieces of evidence that applicants submit to demonstrate their knowledge, skills and attributes and enrolls applicants with the best chances to be successful.

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## About the GRE® Tests

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### GRE® General Test

#### Test Content

The GRE General Test consists of three measures: Verbal Reasoning, Quantitative Reasoning, and Analytical Writing.

The **Verbal Reasoning** measure assesses the ability to analyze and draw conclusions from discourse and reason from incomplete data, understand multiple levels of meaning, such as literal, figurative and author's intent, summarize text and distinguish major from minor points, understand the meanings of words, sentences and entire texts, and understand relationships among words and among concepts. In each test edition, there is a balance among the passages across three different subject matter areas: humanities, social sciences (including business) and natural sciences. There is an emphasis on complex reasoning skills.

The **Quantitative Reasoning** measure assesses the ability to understand, interpret and analyze quantitative information, solve problems using mathematical models, and apply the basic concepts of arithmetic, algebra, geometry and data analysis. There is an emphasis on quantitative reasoning skills.

The **Analytical Writing** measure assesses critical thinking and analytical writing skills, including the ability to articulate and support complex ideas with relevant reasons and examples, and examine claims and accompanying evidence. The measure does not assess specific content knowledge and there is no single best way to respond.

Individuals who are interested in reviewing the content of the General Test can download a *POWERPREP*® Online practice test free-of-charge (see [www.ets.org/gre/tpresources](http://www.ets.org/gre/tpresources)).

#### Test Administration

The GRE General Test is administered on computer at more than 1,000 ETS-authorized test centers in more than 160 countries. The test is given in a secure testing environment and, in most regions of the world, is available on a continuous basis. In Mainland China; Hong Kong, China; Taiwan, China; and Korea, the test is offered one to three times per month.

The GRE General Test can also be taken at home. It is taken on the test taker's own computer at home in most locations around the world, with the exception of Iran. The at home test is the same valid and reliable GRE General Test you know and trust, and is identical in content, format and on-screen experience to the GRE General Test taken at a test center. Students can prepare for the test using the same prep materials. Only the delivery method has changed.

The GRE General Test contains one Analytical Writing section with two separately timed tasks, two Verbal Reasoning sections and two Quantitative Reasoning sections. In addition, some questions on the General Test are being pretested for possible use in the future. These questions are included in an unidentified unscored section of the test. In other instances, other questions may appear in identified research sections. Answers to pretest and research questions are not used in the calculation of scores for the test. Total testing time is approximately 3 hours and 45 minutes.

The Verbal Reasoning and Quantitative Reasoning measures of the GRE General Test are section-level adaptive. Overall, the first operational section of each measure is of average difficulty. The second operational section is administered based on a test taker's overall performance on the first section of that measure.

The test design provides a flexible test-taking experience that allows test takers to move freely within any timed section, skipping questions, changing answers, and using their own personal test-taking strategies.

An on-screen calculator is provided in the Quantitative Reasoning sections to reduce the emphasis on computation.

In the Analytical Writing section an elementary word processor developed by ETS is used so that individuals familiar with specific commercial word-processing software do not have an advantage or disadvantage. This software contains the following functionalities: inserting text, deleting text, cut and paste and undoing the previous action. Tools such as a spelling checker and grammar checker are not available in the ETS software.



## How the Sections of the GRE General Test are Scored

### Verbal Reasoning and Quantitative Reasoning Sections

Scores on the Verbal Reasoning and Quantitative Reasoning measures depend on performance on the questions given and on the number of questions answered in the time allotted. The Verbal Reasoning and Quantitative Reasoning measures of the GRE General Test are section-level adaptive. This means the computer selects the second section of a measure based on the performance on the first section. Within each section, all questions contribute equally to the final score.

A raw score is computed for each of the two measures. The raw score is the number of questions answered correctly.

The raw score for each measure is converted to a scaled score through a process known as equating. The equating process accounts for minor variations in difficulty among the different test editions as well as differences in difficulty among individuals' tests introduced by the section-level adaption. Thus, a given scaled score for a particular measure reflects the same level of performance regardless of which second section was selected and when the test was taken.

Verbal Reasoning and Quantitative Reasoning scores are reported on 130 to 170 score scales, in one-point increments. If no answers are given for a measure, an NS (No Score) is reported for that measure.

The scales for the General Test Verbal Reasoning and Quantitative Reasoning measures were developed in fall 2011. When the scales were set, the scale means were adjusted so that the full year mean for both measures would be equal to 150 and the standard deviation equal to 8.75.

### Analytical Writing Section

For the Analytical Writing section of the GRE General Test, each essay receives a score from a trained reader using a six-point holistic scale. In holistic scoring, readers are trained to assign scores on the basis of the overall quality of an essay in response to the assigned task. The essay is then scored by the *e-rater*<sup>®</sup> scoring engine, a computerized program developed by ETS that is capable of identifying essay features related to writing proficiency. If the human score and the *e-rater* score closely agree, the average of the two

scores is used as the final score. If they disagree, a second human score is obtained and the final score is the average of the two human scores. The resulting scores on the two essays are then averaged and rounded to produce an Analytical Writing score that is reported on a 0-6 score scale in half-point increments.

If an essay response is provided for only one of the two writing tasks, the task for which no essay response is provided will receive a score of zero. If no responses are given for either of the two writing tasks, an NS (No Score) is reported for the measure.

The primary emphasis in scoring the Analytical Writing section is on critical thinking and analytical writing skills rather than on grammar and mechanics. Scoring guides for each essay task are available at [www.ets.org/gre/institutions/about/general/scoring](http://www.ets.org/gre/institutions/about/general/scoring). Score Level Descriptions that describe, for each score level, the overall quality of analytical writing demonstrated across both of the Analytical Writing tasks are presented in Appendix A, on page 36.

Test takers' essay responses on the Analytical Writing section are reviewed by ETS essay-similarity-detection software and by experienced essay readers during the scoring process.

## GRE<sup>®</sup> Subject Tests

### Test Content

The GRE Subject Tests are paper-delivered tests in four subject areas that are administered at ETS-authorized test centers worldwide. Subject Tests measure achievement in specific subject areas and assume undergraduate majors or extensive background in those disciplines. Brief descriptions of the Subject Tests follow.

Each Subject Test is developed and updated regularly by a committee of examiners who are actively teaching in the field. Departments are encouraged to periodically review the test content description in order to verify the appropriateness of the content for their programs. Individuals who are interested in reviewing the content of a particular Subject Test can download a copy of the corresponding Subject Test practice book free-of-charge at [www.ets.org/gre/subject/prepare](http://www.ets.org/gre/subject/prepare).

## Chemistry

The test consists of approximately 130 questions that are classified approximately as follows: analytical chemistry (15%), inorganic chemistry (25%), organic chemistry (30%) and physical chemistry (30%).

## Mathematics

The test consists of approximately 66 questions, drawn from courses commonly offered at the undergraduate level. Approximately 50 percent of the questions involve calculus and its applications—subject matter that can be assumed to be common to the backgrounds of almost all mathematics majors. About 25 percent of the questions in the test are in elementary algebra, linear algebra, abstract algebra, and number theory. The remaining 25% of the questions deal with other areas of mathematics currently studied by undergraduates at many institutions, including discrete mathematics and algorithmic processes, differential equations, topology and modern geometry, complex analysis, probability and statistics, logic and foundations and numerical analysis.

## Physics

The test consists of approximately 100 questions, some of which are grouped in sets and based on such materials as diagrams, graphs, experimental data, and descriptions of physical situations. There is increased emphasis on the understanding of fundamental theoretical principles of physics. Topics include classical mechanics (20%), electromagnetism (18%), optics and wave phenomena (9%), thermodynamics and statistical mechanics (10%), quantum mechanics (12%), atomic physics (10%), special relativity (6%) and laboratory methods (6%). The remaining 9% of the test covers specialized topics such as nuclear and particle physics, condensed matter physics and astrophysics.

For test editions administered beginning in April 2021, three subscores are reported: (1) Classical Mechanics, (2) Electromagnetism, and (3) Quantum Mechanics and Atomic Physics.

## Psychology

The test consists of approximately 205 questions covering Experimental, Social and General Psychology topics. Questions are distributed between six subscore areas: Biological (17-21%),

Cognitive (17-24%), Social (12-14%), Developmental (12-14%), Clinical (15-19%), and Measurement/ Methodology/Other (15-19%). For test editions administered prior to September 2017, questions are distributed between two subscore areas: Experimental (40%) and Social (43%). The remaining 17% of the test covers general topics and measurement/methodology.

## Test Administration

The Subject Tests are offered at paper-delivered administrations up to three times a year (in September, October, and April), at test centers throughout the world.

## How the GRE Subject Tests are Scored

Each score on a Subject Test depends on the number of questions answered correctly in the time allotted. The number of questions answered correctly is converted to a scaled score through a process known as equating. The equating process accounts for minor variations in difficulty among the different test editions.

Every Subject Test yields a total score on a 200 to 990 score scale, in 10-point increments. Note that each of the individual test scales occupies only a portion of the 200 to 990 score range.

The Physics and Psychology Tests also yield subscores. For each test, the number of questions answered correctly that belong to each content area and the number of questions answered correctly on the whole test both contribute to each subscore. In most cases, questions that belong to a content area also require some ability in other content areas. By using the number of correct answers on the whole test in the computations of each subscore, the responses to the questions that belong to other content areas are allowed to contribute and the quality of the subscore is enhanced.

Subscores are also scaled through a process known as equating, which accounts for minor variations in difficulty among the different test editions.

The Physics and Psychology Tests yield subscores on a 20-99 score scale, in one-point increments. Note that the subscore scales for each of the individual Subject Tests occupy only a portion of the 20 to 99 score range. Subscores enable the assessment of strengths and weaknesses and can be used for guidance and placement purposes.



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## Using GRE Scores

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### Validity

Validity research is essential to verify that the GRE General Test and GRE Subject Test scores are valid for any intended use. ETS and numerous external parties<sup>1</sup> have conducted validity research to verify that it is appropriate to use GRE scores for graduate and professional school admissions, including business and law; fellowship selection and guidance; and counseling for graduate study.

Departments and programs using GRE scores for these purposes may wish to conduct their own studies to collect validity information. ETS researchers will provide advice on the design of appropriate validation studies without charge. For additional assistance, contact [gretests@ets.org](mailto:gretests@ets.org).

GRE scores may be appropriate for purposes other than those described above, but it is important for the user to validate the use of scores for those purposes.

### Guidelines for Using GRE Scores

GRE scores are typically used to make decisions that affect people's educational and career paths, so all score users have an obligation to adhere to published GRE Program guidelines. Departments and programs have a responsibility to ensure that all score users are aware of the GRE guidelines, monitor the use of scores, and correct any instances of misuse. The GRE Program staff are available to assist institutions in resolving score-misuse issues.

The following guidelines provide information about the appropriate use of GRE test scores for those who use the scores in graduate and professional school admissions, including business and law, for fellowship selection processes and for guidance and counseling for graduate-level study. Adhering to these guidelines can help protect applicants and programs from unfair decisions that may result from inappropriate uses of scores.

#### 1. Use Multiple Sources of Information When Making Decisions

GRE scores have an important role in the admissions process because they serve as a common, objective measure to compare students from different backgrounds. However, no single test or source of information can provide all the information that a decision-maker would like to know about an applicant. Therefore, it is important to use multiple sources of information during the decision-making process to ensure fairness and to balance the limitations of any single measure of knowledge, skills or abilities.

Undergraduate grade point average, letters of recommendation, personal statement, samples of academic work and professional experience can also have an important role in the admissions process because they can be sources to learn about other desired experiences and applicant attributes, such as perseverance, integrity and work ethic.

Using a minimum GRE score as the only criterion for denial or acceptance for admission or a fellowship award is not good practice because it overinflates the role of one measure of an applicant's value over others.

To ensure that all applicants have the opportunity to show evidence of the value they would bring to a program, ETS supports institutions' efforts to move toward a holistic admissions approach, in which every component of an applicant's application package is evaluated for evidence that the applicant is a good fit for a program.

#### 2. Consider Verbal Reasoning, Quantitative Reasoning and Analytical Writing Scores as Three Separate and Independent Measures

Although all students in graduate and professional programs, including business and law, would benefit from having ability in verbal reasoning, quantitative reasoning and analytical writing, the skill level required for success in each of these three areas is unique to each program. Some

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<sup>1</sup> Kuncel, N. R., Hezlett, S. A. and Ones, D. S. (2001). A comprehensive meta-analysis of the predictive validity of the

*Graduate Record Examinations: Implications for graduate student selection and performance. Psychological Bulletin*, 127 (1), 162-181.

programs may require a higher level of skills in one area but place less emphasis on skills in another area. For this reason, ETS encourages programs to consider Verbal Reasoning, Quantitative Reasoning and Analytical Writing scores as three separate and independent measures.

**3. Interpret GRE Scores Carefully Because, Like All Assessments, They Are Not Exact Measures**

Errors of measurement occur when a test taker performs differently on one occasion or test edition than on another for reasons that may or may not be related to the purpose of the test. A test taker may try harder, be more (or less) tired or anxious compared to some other occasion, have greater familiarity with the content of questions on one test edition than on another test edition, or simply guess more questions correctly on one occasion than on another. These reasons for inconsistency are generally referred to as errors of measurement.

For both the GRE General Test and Subject Tests, the Standard Error of Measurement (SEM) for individual scores reported in Tables 5A-5D provide an easy way to account for measurement error. For example, consider a test taker who obtained a GRE Quantitative test score of 153. According to Table 5A, the SEM for individual scores for the GRE Quantitative Reasoning measure is 2.2, which means that we can be 68% confident that the test taker's true score would be between 151 and 155. For 95% confidence, we can double the SEM of individual scores; that is we can be 95% confident that the test taker's true score would be between 149 and 157.

**4. Understand What Score Differences are Meaningful When Evaluating Applicants**

Different scores among test takers may not reflect significant differences in abilities. As described in guideline #3 above, every test has measurement error. It is important for a decision-maker to know whether the differences between two scores is meaningful.

The SEM for score differences provides an easy way to account for measurement error and can serve as a reliable indication of real differences in applicants' academic knowledge and developed abilities. For example, in Table 5A,

the SEM of score differences for the Quantitative Reasoning measure is 3.1, which means that if there is a score difference of 3.1 points or more between two test takers' Quantitative Reasoning scores, we can be 68% confident that the score differences are meaningful. For 95% confidence, we can double the SEM of score differences; that is, if there were a score difference of 6.2 points or more points between two test takers' Quantitative Reasoning scores, we can be 95% confident that the score differences are meaningful.

**5. Use the Appropriate Percentile Ranks when Comparing Candidates**

Percentile ranks can provide more information about an individual's performance relative to the performance of other people who took a test in a given time period (called the reference group). Percentile ranks indicate the percent of test takers in the reference group who obtained scores below a specified score. For example, a percentile rank of 70% indicates that the test taker performed better than 70% of the test takers within the reference group.

Percentile ranks for GRE tests may change over time because they are always based on the population of test takers who took the test within a given three-year period. Thus, when two or more applicants are being compared, the comparison should always be made on the basis of the most recent percentile rank tables available at [www.ets.org/gre/scorerresources](http://www.ets.org/gre/scorerresources).

**6. Subject Test Scores and Percentile Ranks Should Only Be Compared with Other Scores and Percentile Ranks on the Same Subject Test**

Subject Test scores should only be compared with other scores on the same Subject Test because each Subject Test is scaled separately. For example, a 680 on the Physics Test is not equivalent to a 680 on the Chemistry Test.

In addition, Subject Test percentile ranks should only be compared with other percentile ranks on the same Subject Test because the percentile ranks for each Subject Test are based on a different reference population. For example, a 79<sup>th</sup> percentile rank on the Physics Test is not equivalent to a 79<sup>th</sup> percentile on the Chemistry Test.

## Appropriate and Inappropriate Uses of GRE Scores and Uses Without Supporting Validity Evidence

ETS supports the use of GRE scores for purposes supported by validity evidence and advises against using GRE scores for purposes that have not been supported by validity evidence.

### Appropriate Uses

Provided that the aforementioned guidelines are adhered to — particularly Guideline #1, using multiple sources of information in the decision-making process — General Test and Subject Test scores are suitable for the following uses:

1. Selection of applicants for admission to graduate-level programs
2. Selection of graduate fellowship applicants for awards
3. Guidance and counseling for graduate study

Departments and programs using GRE scores for these purposes may wish to conduct their own studies to collect validity information. ETS researchers will provide advice on the design of appropriate validation studies without charge. For additional assistance, contact [gretests@ets.org](mailto:gretests@ets.org).

Programs interested in using Subject Test scores as a factor in awarding undergraduate credit may do so in the field of the test. However, such programs need to develop a rationale that clearly describes the relationship between GRE Subject Test scores and the amount of credit awarded, and make this rationale available to users of transcripts that contain credit awarded in this manner.

### Inappropriate Uses

Uses and interpretations of General Test and Subject Test scores without supporting validity evidence are inappropriate, including the following:

1. Requirement of a minimum score on the General Test for conferral of a degree, credit-by-examination, advancement to candidacy or any non-educational purpose
2. Requirement of scores on the General Test or Subject Tests for employment decisions, including hiring, salary, promotion, tenure or retention

3. Use of the Verbal Reasoning, Quantitative Reasoning or Analytical Writing measures as an outcomes assessment

### Uses without Supporting Validity Evidence

Should an institution wish to use GRE scores for purposes other than the “Appropriate Uses” listed above, please consult with GRE Program staff regarding the goals and how GRE scores are envisioned to help achieve those goals. If it is determined that there is no validity evidence to support the intended use, ETS researchers can offer advice on the design of a validity study or they may be able to suggest alternate ways for the institution to achieve its goals. ETS’s objective is always to protect test takers and programs from unintended consequences and unnecessary risks due to score misuse. Please contact [gretests@ets.org](mailto:gretests@ets.org) with any questions about the appropriate use of scores.

### Confidentiality and Authenticity of GRE Scores

GRE scores are confidential and should not be released by an institutional recipient without the explicit permission of the test taker. **GRE scores should not be included in academic transcripts or other documents sent outside the institution.** Dissemination of score records should be kept at a minimum, and all staff who have access to them should be advised of the confidential nature of the scores.

**To ensure the authenticity of scores, the GRE Program urges that institutions accept only official reports of GRE scores received directly from ETS.** The only official reports of GRE scores are those issued by ETS and sent directly to approved institutions and organizations designated by the test takers and to vendors the score recipients might designate to process the scores they receive. Scores obtained from other sources should not be accepted. If there is a question about the authenticity of a score report, the question should be referred to ETS. ETS will verify whether an official report was issued and the accuracy of the scores.

### Encouragement to Report Score Ranges Rather than Average Scores

Test takers may want to know what test scores they need to achieve to be considered for a particular program and will likely look for signs of a score requirement or average on a school website or rankings list. Reporting an average test score may

cause an applicant to self-select out of applying for a program or scholarship for which the applicant may have been considered. For this reason, the GRE Program strongly urges that departments and programs report GRE scores in ranges, such as the highest and lowest scores of the middle 50 percent of the admitted applicants and avoid reporting a precise mean, median, or minimum score. Presenting score ranges emphasizes the diversity of individual scores for any one graduate department or program.

## Score Interpretation Resources

The GRE Program provides GRE interpretive data and resources to assist graduate and professional schools, including business and law, in using scores for admissions purposes. Resources include GRE interpretive data and information, the ETS Data Manager, the GRE Comparison Tool for Business Schools and the GRE Comparison Tool for Law Schools. For more information about these resources, visit [www.ets.org/gre/scoreresources](http://www.ets.org/gre/scoreresources).

## Considerations in Score Interpretation

Officials responsible for admissions at each institution must determine the significance of GRE scores in relation to other components of an applicant's file. Considering students holistically ensures a fairer admissions process for everyone and is important to ensure that all applicants have the opportunity to present multiple aspects of their potential value to the program. Programs that are not able to do a full holistic file review for all applicants should pay special attention to applicants who may have had experiences somewhat different from those of the traditional majority as discussed below.

### Test Takers from Underrepresented Groups

On average, members of different racial, ethnic and economic backgrounds perform differently on standardized tests. These differences do not necessarily mean that tests are biased. Extensive research by ETS and other organizations has shown that these performance differences can be the result of a number of factors, such as variation in course-taking patterns, interests, knowledge and skills, or differential educational, economic and social systems in which everyone does not receive equal

opportunity. These score differences are seen in all standardized tests.

Despite the extensive work that ETS does to ensure that the GRE tests are as free from bias as possible, disparities in performance among underrepresented groups still exist. A review of all components of an applicant's file, in which GRE scores are considered as one piece of information among many, enables each applicant to be evaluated as fairly as possible.

For additional information about scores of test takers from underrepresented groups, visit [www.ets.org/gre/institutions/admissions/using\\_scores](http://www.ets.org/gre/institutions/admissions/using_scores). Performance information for underrepresented groups can be found in the publication entitled *A Snapshot of the Individuals Who Took the GRE General Test* at [www.ets.org/gre/snapshot](http://www.ets.org/gre/snapshot). For more information about ETS's extensive efforts to ensure that the GRE tests are as free from bias as possible, visit [www.ets.org/gre/institutions/about/fairness](http://www.ets.org/gre/institutions/about/fairness). For more information of ETS's policy work to reduce achievement gaps, visit [www.ets.org/s/achievement\\_gap](http://www.ets.org/s/achievement_gap).

### Test Takers Who are Nonnative English Speakers

Although the GRE tests are not designed to assess English-language proficiency (ELP), they measure skills important for graduate and professional education at institutions where the language of instruction is English. Considering GRE and ELP test scores (such as *TOEFL*® scores) together will enable score users to determine if English proficiency may have affected an applicant's performance on the GRE tests.

Test takers whose native language is not English often find the Analytical Writing section more challenging than native speakers of English. ETS takes steps to ensure that these performance differences are not due to differences on the cross-cultural accessibility of the prompts.

- Fairness reviews occur for all prompts to ensure that the content and tasks are clear and accessible for all groups of test takers, including students whose native language is not English.
- Scorers are trained to focus on the analytical logic of the essays more than on spelling, grammar or syntax.
- The mechanics of writing are weighed in their ratings only to the extent that these errors impede clarity of meaning.



Since the Analytical Writing measure is tapping into different skills than the Verbal Reasoning measure, it may not be surprising that the strength of performance of individuals whose native language is not English differs between the Analytical Writing measure and the Verbal Reasoning measure. Given that graduate faculty have indicated that analytical writing is an important component of work in most graduate schools, including the Analytical Writing measure should increase the validity of the General Test.

Score users should be aware that the GRE Analytical Writing measure and the TOEFL Writing measure assess different skills and scores on the two tests are not comparable. The GRE Analytical Writing measure is designed to measure critical thinking and analytical writing skills. The TOEFL Writing measure emphasizes fundamental writing skills as well as the ability to organize and convey, in writing, information that has been understood from spoken and written text. Because the TOEFL test emphasizes fundamental writing and comprehension skills, the TOEFL score can supplement an Analytical Writing score by helping faculty determine whether a low score on the GRE Analytical Writing measure is due to lack of familiarity with English or lack of ability to produce and analyze logical arguments.

For additional information about scores of test takers who are nonnative English speakers, visit [www.ets.org/gre/institutions/admissions/using\\_scores](http://www.ets.org/gre/institutions/admissions/using_scores). Learn more about the TOEFL test at [www.ets.org/toefl](http://www.ets.org/toefl).

## Test Takers with Disabilities

ETS provides accommodations for individuals with disabilities or health-related needs and works continuously to ensure that as new technologies become available, ETS's offerings evolve. Individuals who have currently documented visual, physical, hearing or learning disabilities and are unable to take the tests under standard conditions can apply for accommodations, which include extended testing time, extra breaks, screen magnification, screen readers and more.

The accommodations offered are intended to minimize any adverse effect that the individual's disability might have upon test performance and to help ensure that, insofar as possible, the resulting scores represent his or her educational achievement. Reviewing an applicant's entire file will provide more information about the

individual's ability to succeed in a graduate program than any one test can provide.

Learn more about accommodations available for test takers with disabilities or health-related needs at [www.ets.org/gre/disabilities](http://www.ets.org/gre/disabilities).

## Test Takers Who Retest

Test takers may take a GRE test more than once. There are several ways in which graduate departments and programs can judge multiple scores for an applicant (e.g., use most recent score, use highest score, use average score). Whatever approach is adopted, it is best to use it consistently with all applicants.

## Essay Responses on the Analytical Writing Section

While all GRE General Test score reports contain an Analytical Writing score, score users who have access to the ETS Data Manager can also view test takers' actual essay responses.

A GRE Analytical Writing essay response can be considered a rough first draft since test takers do not have time to fully revise their essays during the test. Individuals taking the computer-delivered test do not have spell-checking or grammar-checking software available to them.

Essay responses at computer-delivered administrations are typed, while essay responses at paper-delivered administrations are handwritten. Typed essays often appear shorter than handwritten essays; handwritten essays can appear to be more heavily revised than typed essays. GRE readers are trained to evaluate the content of essays and to give the same score to a handwritten essay as they would to its typed version of the same quality.

To learn more and request access to the ETS Data Manager for your institution, visit [www.ets.org/portal](http://www.ets.org/portal).

## Policies and Other Information

### Score Reporting Policies

With the *ScoreSelect*® option, test takers who retake a GRE test can decide which GRE scores to send to designated institutions. This option is available for both the GRE General Test and the GRE Subject Tests and can be used by anyone with reportable scores from the last five years. Scores for a test administration must be reported in

their entirety. Institutions receive score reports that show the scores that test takers selected to send to them. There are no special notations to indicate whether or not other GRE tests have been taken.

For more information, visit [www.ets.org/gre/institutions/scoresselect](http://www.ets.org/gre/institutions/scoresselect).

GRE score reporting policies have been developed to encourage the appropriate use of GRE scores and to protect the right of individuals to control the distribution of their own score reports. Scores are reportable for five years following the individual's test date. Departments and programs are advised not to use scores that are older than five years due to changes in ability that may occur over extended periods of time.

Score reports are sent to test takers and to institutions of higher education granting baccalaureate or higher degrees, to approved graduate fellowship-granting sponsors designated by the test takers and to vendors the score recipients might designate to process the scores they receive. Score reports are also available to approved GRE score recipients in the ETS Data Manager. For more information, visit [www.ets.org/portal](http://www.ets.org/portal).

Score reports for the GRE General Test are sent to institutions and available in the ETS Data Manager approximately 10–15 days after the test date. Score reports for the GRE Subject Tests are sent to institutions and available in the ETS Data Manager approximately five weeks after the test date.

## Revising Reported Scores

ETS routinely follows extensive review and quality control procedures to detect and avoid flawed questions and consequent errors in scoring. Nonetheless, occasionally an error is discovered after scores have been reported. Whenever this happens, the specific circumstances are reviewed carefully, and a decision is made about how best to take corrective action that is fairest to all concerned. Revised scores reported during the current year are reported directly to graduate, business and law schools and graduate fellowship sponsors as well as to students because such scores are likely to be part of current applications for admission. Revisions to scores reported in the previous five years are sent to the affected students, who may request that ETS send the revised scores to any graduate and professional

schools or fellowship sponsors still considering their applications.

## Confidentiality of Information

The GRE Program recognizes the right of institutions as well as individuals to privacy with regard to information supplied by and about them. ETS therefore safeguards from unauthorized disclosure all information stored in its data or research files. Information about an institution (identified by name) will be released only in a manner consistent with a prior agreement, or with the consent of the institution.

## Protecting the Integrity of GRE Tests

ETS has developed and continues to refine its three-pronged approach of prevention, detection and communication over its 75-year history as the world's largest nonprofit educational measurement and research organization. Many of the test security practices pioneered by ETS have become the industry standard and have been adopted by other companies and organizations around the world.

The ETS Office of Testing Integrity constantly monitors testing, investigates security issues, conducts unannounced audits and works to ensure score validity worldwide. ETS spends over \$50 million annually on security for at home testing, test center operations, test-taker identification and monitoring, internet security, proctor and supervisor training, final score reporting, and post-testing analytics.

ETS has procedures in place to prevent testing and scoring fraud. These can be seen from the test design right through to the score reporting process, including using the highest standards to create and deliver test content, establishing secure test locations, ensuring the training of test center administrators, instituting and enforcing test-taker rules and requirements, and maintaining the quality of scoring and score reporting through extensive training of GRE raters, as well as security measures implemented for the paper score reports.

In the GRE General Test at home option, ETS employs multiple best-in-class security measures that use both real-time human monitoring and artificial intelligence technology to see and respond to even the hardest-to-detect incidents:

- Live proctors will ensure constant vigilance, including confirming the test taker's identity and scanning their home environment before testing begins,

flagging any suspicious activity, and intervening if necessary.

- Artificial Intelligence (AI) technology — such as facial recognition, gaze tracking and video recording of the entire session — will guard against malicious activity. Examples of test taker activities that AI will flag as possible cheating incidents include attempts to impersonate another test taker, attempts to open a new browser, run unpermitted software and use unpermitted objects, such as a cell phone during the test administration and breaks.

In addition, ETS is vigilant in identifying and taking action against fraudulent activity. All reported incidents of fraud are taken seriously and investigated thoroughly by the ETS Office of Testing Integrity. Statistical analysis methods are also used to help ensure that valid scores are reported. The ETS Psychometric Analysis and Research team monitors score trends by test center, country and region and reports any suspicious anomalies to the Office of Testing Integrity for review. In terms of communication, ETS will continue to inform institutions that are designated score recipients when scores have been cancelled. In addition, any concerns regarding test results can be reported to ETS and will be investigated.

### **Cancellation of Scores by ETS**

ETS strives to report scores that accurately reflect the performance of every test taker. Accordingly, ETS's standards and procedures for administering tests have two primary goals:

- giving test takers equivalent opportunities to demonstrate their abilities
- preventing any test takers from gaining an unfair advantage over others

To promote these objectives, ETS reserves the right to cancel any test score, whether or not it has already been reported, and to take such other actions as ETS deems appropriate, including

banning the test taker from taking any future ETS test and referring the matter to law enforcement authorities, when in ETS's judgment:

- a testing irregularity occurs
- there is an apparent discrepancy in a test taker's identification
- the test taker may have engaged in misconduct, including without limitation having someone else take the test for him/her, obtaining improper access to test questions or answers, disclosing test questions or answers to third parties, plagiarism, or copying or communication
- the score is invalid for another reason

ETS reserves the right to share any and all information in its possession about a test taker and the terms and conditions of test taking with (a) any entity which ETS recognizes as an authorized user of test scores, including without limitation any entity to which ETS reports test scores at the test taker's request, and (b) any government agency with responsibility for administration or enforcement of U.S. criminal and/or immigration laws. When ETS cancels a test score that has already been reported, it notifies score recipients that the score has been canceled and may also explain why the score has been canceled. We will provide a copy of the cancellation letter the test taker received to recipients of the test taker's scores.

For additional security questions, or concerns, please contact the ETS Office of Testing Integrity by email at [CommunicateTestSecurity@ets.org](mailto:CommunicateTestSecurity@ets.org), or by phone at 1-800-750-6991 (United States, U.S. Territories, and Canada) or 1-609-406-5430 (all other locations).

For additional information about cancellation of scores by ETS, visit [www.ets.org/gre/institutions/admissions/policies/cancellation](http://www.ets.org/gre/institutions/admissions/policies/cancellation).



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## Statistical Tables

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### GRE General Test Interpretive Data

To help interpret scaled scores, the GRE Program describes scores in terms of their standing in appropriate reference groups. Table 1A provides summary statistics for this reference group for each of the three GRE General Test measures: means and standard deviations of scaled scores, and number of test takers. The table is based on all individuals who tested between July 1, 2018, and June 30, 2021. Test takers who received a No Score (NS) on a specific measure are excluded from the data reported in that specific measure's accompanying tables.

Although each GRE General Test measure assesses different developed abilities, scores on the measures are moderately related. The correlation between Verbal Reasoning and Quantitative Reasoning scores is .35, the correlation between Verbal Reasoning and Analytical Writing scores is .63, and the correlation between Quantitative Reasoning and Analytical Writing scores is .10.

**Table 1A: Performance Statistics on the GRE General Test**

(Based on the performance of all individuals who tested between July 1, 2018, and June 30, 2021)

Test	Number of Test Takers	Mean	Standard Deviation
Verbal Reasoning Measure	1,373,468	150.61	8.57
Quantitative Reasoning Measure	1,376,158	154.34	9.58
Analytical Writing Measure	1,369,829	3.60	0.86

Note: A total of 55 percent of test takers indicated they were female, 45 percent indicated they were male, and less than 1 percent did not provide any classification with regard to gender.

Tables 1B and 1C provide percentile ranks (i.e., the percentages of test takers in a group who obtained scores lower than a specified score) for the GRE General Test measures. The tables are based on all individuals who tested between July 1, 2018, and June 30, 2021.

**Table 1B: GRE Verbal Reasoning and Quantitative Reasoning Interpretative Data Used on Score Reports**

(Percent of test takers scoring lower than selected scaled scores.

Based on the performance of all individuals who tested between July 1, 2018, and June 30, 2021<sup>a</sup>)

Scaled Score	Verbal Reasoning	Quantitative Reasoning
170	99	96
169	99	93
168	98	90
167	98	87
166	97	84
165	95	81
164	94	78
163	92	76
162	90	73
161	87	70
160	85	67
159	81	64
158	78	61
157	74	57
156	71	54
155	66	51
154	62	47
153	58	43
152	52	40
151	48	37
150	43	33
149	38	30
148	34	27
147	30	23
146	27	20
145	24	17
144	21	14
143	18	12
142	16	10
141	13	8
140	11	7
139	9	5
138	8	4
137	6	3
136	5	2
135	4	2
134	3	1
133	2	1
132	2	1
131	1	
130		

**Table 1C: GRE Analytical Writing Interpretative Data Used on Score Reports**

(Percent of test takers scoring lower than selected score.

Based on the performance of all individuals who tested between July 1, 2018, and June 30, 2021<sup>a</sup>)

Score Levels	Analytical Writing
6.0	99
5.5	97
5.0	91
4.5	79
4.0	54
3.5	37
3.0	13
2.5	6
2.0	2
1.5	1
1.0	
0.5	
0.0	

**Note for Tables 1B and 1C:** Blank cells imply that percentile information was not reported because there were no test takers above or below specified scale score range.

<sup>a</sup> A total of 1,373,468 test takers took the Verbal Reasoning measure, 1,376,158 took the Quantitative Reasoning measure, and 1,369,829 took the Analytical Writing measure between July 1, 2018, and June 30, 2021.

# GRE Subject Test Interpretive Data

## Subject Test Total Score Information

To help interpret scaled scores, the GRE Program describes scores in terms of their standing in appropriate reference groups. Table 2A provides summary statistics for each of the GRE Subject Tests, including number of test takers, mean and standard deviation of scaled scores, and percent of the group by gender. The table is based on all individuals who tested between July 1, 2017, and June 30, 2021. (Note that this four-year period was used to obtain three years of test-taker data due to the fact that the Subject Tests were not administered in the 2020-21 testing year because of the pandemic.) Test takers who received a No Score (NS) are excluded from the data reported in the accompanying tables.

**Table 2A: Performance Statistics on the GRE Subject Tests**  
(Based on the performance of all individuals who tested between July 1, 2017, and June 30, 2021)

Test	Number of Test Takers	Mean	Standard Deviation	Percent Women	Percent Men
Chemistry Test	7,850	692	125	42	57
Mathematics Test	14,827	668	153	28	72
Physics Test	20,119	717	165	23	76
Psychology Test	11,584	622	109	79	20

Table 2B on the following page provides percentile ranks for the Subject Test total scores. The percentile ranks are based on the percent of test takers scoring below a particular scale score. The data are based on all individuals who tested between July 1, 2017, and June 30, 2021.

**Table 2B: GRE Subject Test Total Score Interpretive Data Used on Score Reports**

(Percent of test takers scoring lower than selected scaled scores. Based on the performance of all individuals who tested between July 1, 2017, and June 30, 2021)

Blank cells imply that percentile information was not reported because there were no test takers above or below the specified scale score range.

Scaled Score	Chemistry	Mathematics	Physics <sup>a,b</sup>	Psychology <sup>a</sup>
980			95	
960	99	97	92	
940	99	96	88	
920	98	95	85	
900	96	94	81	
880	94	91	78	
860	90	87	74	
840	86	83	70	
820	81	79	67	99
800	77	75	64	97
780	71	72	61	95
760	66	67	58	91
740	61	64	54	86
720	56	60	51	79
700	50	56	47	72
680	44	52	43	64
660	39	49	39	56
640	34	44	36	49
620	28	40	32	43
600	24	36	28	36
580	19	32	24	31
560	15	27	20	26
540	12	23	16	22
520	9	19	12	18
500	6	15	9	14
480	5	11	7	11
460	3	8	4	9
440	2	6	3	6
420	1	3	2	5
400		2	1	3
380		1	1	2
360		1		1
340				1
320				
300				
280				
260				
240				
220				
200				

Note: Percentile ranks for each Subject Test are based on the test volumes provided in Table 2A.

<sup>a</sup> See Tables 3A, 3B, 3C, and 3D for subscore performance statistics and interpretive information for these tests.<sup>b</sup> For the Physics Test, the percent of test takers scoring lower than 990 is 97.

## Subject Test Subscore Information

Tables 3A and 3B provide subscore means and standard deviations on the GRE Physics Test and the GRE Psychology Test, respectively, and are based on all individuals who tested between July 1, 2017, and June 30, 2021.

**Table 3A: Performance Statistics on the GRE Physics Test Subscores**

(Based on the performance of 22,717 individuals who tested between July 1, 2017, and June 30, 2021)

Subscore	Mean	Standard Deviation
Classical Mechanics	71	16
Electromagnetism	71	16
Quantum Mechanics & Atomic Physics	71	16

**Table 3B: Performance Statistics on the GRE Psychology Test Subscores**

(Based on the performance of 11,584 individuals who tested between July 1, 2017, and June 30, 2021)

Subscore	Mean	Standard Deviation
Biological	62	11
Cognitive	62	11
Social	62	11
Developmental	62	11
Clinical	62	11
Measurement/Methodology/Other	62	11

On the following pages, Tables 3C and 3D present the percentile ranks for the Physics Test subscores and Psychology Test subscores, respectively, and are based on all individuals who tested between July 1, 2017, and June 30, 2021. The percentile ranks are based on the percent of test takers scoring below a particular subscore.

The percentile ranks given in Table 3C for the Physics Test subscores and in Table 3D for the Psychology Test subscores may be used for diagnostic interpretation of the total score. For example, a test taker who obtains a score of 680 on the GRE Psychology Test is likely to have subscores of 68, assuming he or she is similarly able in the content areas measured by each subscore. For that test taker, scores much above or below 68 on a subscore would indicate strength or weakness in the content area associated with that subscore. Note that the strength or weakness could possibly reflect training that was targeted toward specific content areas.

**Table 3C: GRE Physics Test Interpretive Data for Subscores**

(Percent of test takers scoring lower than selected scaled scores. Based on the performance of 22,717 individuals who took the GRE Physics Test between July 1, 2017, and June 30, 2021)

Blank cells imply that percentile information was not reported because there were no test takers above or below the specified scale score range.

<b>Subscore</b>	<b>Classical Mechanics</b>	<b>Electromagnetism</b>	<b>Quantum Mechanics &amp; Atomic Physics</b>
98	95	96	96
96	93	92	93
94	90	90	90
92	85	86	87
90	83	82	83
88	79	79	79
86	76	75	76
84	72	73	73
82	66	69	70
80	66	65	67
78	63	63	62
76	58	58	60
74	55	54	56
72	52	52	52
70	49	48	49
68	46	46	44
66	41	40	42
64	37	37	36
62	33	33	33
60	29	28	29
58	23	25	23
56	19	20	18
54	16	16	16
52	12	12	11
50	10	10	9
48	6	7	7
46	5	4	4
44	3	2	3
42	2	2	2
40	1	1	1
38	1	1	
36			
34			
32			
30			
28			
26			
24			
22			
20			

**Table 3D: GRE Psychology Test Interpretive Data for Subscores**

(Percent of test takers scoring lower than selected scaled scores. Based on the performance of 11,584 individuals who took the GRE Psychology Test between July 1, 2017, and June 30, 2021)

Blank cells imply that percentile information were not reported because there were no test takers above or below specified scale score range.

Subscore	Biological	Cognitive	Social	Developmental	Clinical	Measurement/ Methodology/ Other
98						
96						
94						
92						
90						
88						
86						
84				99		99
82	99	99	99	99	99	99
80	97	98	98	97	98	97
78	94	95	96	95	96	95
76	91	91	92	92	92	91
74	87	86	87	84	87	86
72	79	79	80	79	79	81
70	74	73	73	72	72	73
68	64	63	64	64	64	65
66	57	56	58	57	55	57
64	51	49	49	49	48	50
62	45	42	43	42	42	43
60	38	37	37	36	36	38
58	32	31	31	31	31	31
56	27	26	27	26	25	26
54	22	22	21	21	22	22
52	18	17	18	17	17	19
50	14	14	15	14	14	14
48	11	11	11	11	11	11
46	8	8	9	8	9	9
44	6	6	6	6	6	6
42	4	5	5	5	5	4
40	3	3	3	3	4	3
38	1	2	2	2	2	2
36	1	1	1	1	2	1
34		1	1	1	1	1
32					1	
30						
28						
26						
24						
22						
20						



## Major Field Code List

The following Major Field Code List contains the fields of study from which test takers select their intended graduate major. These fields are grouped into broad graduate major fields (Life Sciences, Physical Sciences, Engineering, Social and Behavioral Sciences, Humanities & Arts, Education, Business, Law and Other Fields).

Table 4a (on pages 29–32) contains score data by intended graduate major field and broad graduate major field (e.g., aggregation of the fields of study that constitute Agriculture) and also for the following aggregated groups of broad graduate major fields: Life Sciences, Physical Sciences, Engineering, Social Sciences, Arts and Humanities, Education, Business, and Other Fields. Score data presented includes number of test takers (N), means (M), standard deviations (SD), and the percentage of students in each of seven score ranges for verbal and quantitative scaled scores. However, only the number of test takers is reported for the broad major field “Other” or the “Other Fields” grouping (e.g., the aggregation of Fire Protection, Homeland Security, Interdisciplinary Studies, Legal Research and Professional Studies, Military Technologies, Multidisciplinary Studies).

### **LIFE SCIENCES**

#### **Agriculture, Natural Resources and Conservation**

Agricultural and Domestic Animal Services .....	0116
Agricultural and Food Products Processing.....	0117
Agricultural Business and Management.....	0118
Agricultural Economics.....	0101
Agricultural Mechanization.....	0119
Agricultural Production.....	0102
Agricultural Public Services .....	0103
Agriculture, General.....	0120
Agronomy .....	0104
Animal Sciences .....	0105
Applied Horticulture.....	0121
Fishing and Fisheries Sciences and Management .....	0106
Food Science and Technology .....	0107
Forestry .....	0108
Horticulture Business Services .....	0109
International Agriculture.....	0122
Parks, Recreation, and Leisure Facilities Mgmt. ....	0111
Parks, Recreation, and Leisure Studies.....	0123
Plant Sciences (Except Agronomy, see 0104).....	0112
Natural Resources and Conservation .....	0113
Natural Resources Management and Policy.....	0110
Soil Sciences .....	0114
Wildlife and Wildlands Science and Management.....	0115
Agriculture, Nat Resources, and Conservation—Other .....	0199

#### **Biological and Biomedical Sciences**

Anatomical Sciences .....	0201
Animal Biology .....	0223
Bacteriology.....	0221
Biochemistry.....	0202
Bioinformatics.....	0224
Biology, General.....	0203
Biomathematics .....	0225
Biometry .....	0204
Biophysics.....	0222
Biotechnology.....	0226
Botany/Plant Biology.....	0205
Cell/Cellular Biology .....	0206
Computational Biology.....	0227
Developmental Biology.....	0208

Ecology .....	0207
Entomology.....	0209
Evolution.....	0228
Genetics.....	0210
Marine Biology .....	0211
Microbiological Sciences .....	0212
Molecular Biology .....	0229
Molecular Medicine.....	0230
Neurosciences .....	0213
Nutrition .....	0214
Parasitology .....	0231
Pathology .....	0215
Pharmacology .....	0216
Physiology .....	0217
Radiobiology.....	0218
Population Biology .....	0232
Systematics .....	0233
Toxicology .....	0219
Zoology .....	0220
Biological and Biomedical Sciences—Other.....	0299

#### **Health and Medical Sciences**

Allied Health.....	0601
Alternative and Complementary Medicine.....	0624
Athletic Training .....	0636
Audiology .....	0602
Bioethics/Medical Ethics .....	0625
Chiropractic .....	0603
Clinical/Medical Laboratory Science/Research.....	0626
Communication Disorders Sciences and Services .....	0627
Dentistry and Oral Sciences .....	0604
Dietetics and Clinical Nutrition Services .....	0628
Environmental Health .....	0605
Epidemiology.....	0606
Exercise Science .....	0629
Health and Medical Administrative Services.....	0607
Immunology.....	0608
Health Sciences.....	0630
Health/Medical Preparatory Programs.....	0631
Kinesiology.....	0623
Medical Sciences.....	0609
Medicinal Chemistry .....	0621
Mental and Social Health Services .....	0632
Nursing.....	0610

Occupational Therapy .....	0618
Optometry .....	0611
Osteopathic Medicine .....	0612
Pharmaceutical Sciences .....	0613
Physical Therapy .....	0619
Physician Assistant.....	0634
Podiatry .....	0614
Pre-Medicine.....	0615
Public Health .....	0616
Rehabilitation and Therapy.....	0635
Speech-Language Pathology .....	0620
Veterinary Medicine.....	0617
Veterinary Science .....	0622
Health and Medical Sciences—Other.....	0699

## **PHYSICAL SCIENCES**

### **Chemistry**

Analytical Chemistry .....	0302
Chemical Plastics .....	0307
Chemistry, General.....	0301
Environmental Chemistry.....	0308
Forensic Chemistry .....	0309
Inorganic Chemistry.....	0303
Organic Chemistry .....	0304
Medicinal and Pharmaceutical Chemistry.....	0305
Physical Chemistry .....	0306
Polymer Chemistry .....	0310
Theoretical Chemistry.....	0311
Chemistry—Other .....	0399

### **Computer and Information Sciences**

Computer and Information Sciences, General .....	0407
Computer Programming.....	0401
Computer Science.....	0402
Computer Software and Media Applications.....	0408
Computer Systems Analysis.....	0409
Computer Systems Networking and Telecommunications .....	0410
Computer/Information Technology Admin and Mgmt.....	0411
Data Processing .....	0403
Information Sciences/Studies .....	0404
Microcomputer Applications.....	0405
Systems Analysis.....	0406
Computer and Information Sciences—Other .....	0499

### **Earth, Atmospheric, and Marine Sciences**

Aquatic Biology/Limnology .....	0509
Atmospheric Sciences .....	0501
Biological Oceanography .....	0510
Environmental Sciences.....	0502
Geochemistry.....	0503
Geological Sciences .....	0504
Geophysics and Seismology .....	0505
Geosciences .....	0511
Hydrology .....	0512
Marine Sciences.....	0513
Meteorology.....	0507
Oceanography .....	0508
Paleontology .....	0506
Earth, Atmospheric, and Marine Sciences—Other.....	0599

## **Mathematical Sciences**

Actuarial Science .....	0701
Applied Mathematics .....	0702
Mathematics.....	0703
Probability.....	0704
Statistics .....	0705
Mathematical Sciences—Other .....	0799

## **Physics and Astronomy**

Acoustics.....	0809
Astronomy.....	0801
Astrophysics .....	0802
Atomic/Molecular Physics.....	0803
Condensed Matter and Materials Physics.....	0810
Elementary Particle Physic.....	0811
Nuclear Physics .....	0804
Optics/Optical Sciences .....	0805
Physics .....	0808
Planetary Astronomy and Science .....	0806
Plasma and High-Temperature Physics .....	0812
Solid State Physics .....	0807
Theoretical and Mathematical Physics .....	0813
Physics and Astronomy—Other .....	0899

## **Natural Sciences—Other**

Natural Sciences, General .....	0901
Physical Sciences, General.....	0902
Science Technologies .....	0903
Natural Sciences—Other .....	0999

## **ENGINEERING**

### **Engineering—Chemical**

Chemical and Biomolecular Engineering.....	1004
Chemical Engineering.....	1001
Pulp and Paper Production .....	1002
Wood Science .....	1003
Chemical Engineering—Other .....	1099

### **Engineering—Civil**

Architectural Engineering.....	1101
Civil Engineering .....	1102
Construction Engineering .....	1104
Environmental/Environmental Health Engineering.....	1103
Geotechnical and Geoenvironmental Engineering.....	1105
Structural Engineering .....	1106
Surveying Engineering.....	1107
Transportation and Highway Engineering.....	1108
Water Resources Engineering.....	1109
Civil Engineering—Other.....	1199

### **Engineering—Electrical and Electronics**

Communications Engineering .....	1202
Computer Engineering .....	1201
Computer Hardware Engineering.....	1205
Computer Software Engineering.....	1206
Electrical Engineering.....	1203
Electronics Engineering .....	1204
Laser and Optical Engineering.....	1207
Telecommunications Engineering.....	1208
Electrical & Electronics Engineering—Other.....	1299

**Engineering—Industrial**

Industrial Engineering.....	1301
Manufacturing Engineering.....	1303
Operations Research.....	1302
Industrial Engineering—Other.....	1399

**Engineering—Materials**

Ceramic Sciences and Engineering.....	1401
Materials Engineering.....	1402
Materials Science.....	1403
Metallurgical Engineering.....	1404
Polymer/Plastics Engineering.....	1405
Materials Engineering—Other.....	1499

**Engineering—Mechanical**

Engineering Mechanics.....	1501
Mechanical Engineering.....	1502
Mechanical Engineering—Other.....	1599

**Engineering—Other**

Aeronautical Engineering.....	1614
Aerospace Engineering.....	1601
Agricultural Engineering.....	1602
Biochemical Engineering.....	1615
Biomedical/Medical Engineering.....	1603
Electromechanical Engineering.....	1616
Engineering Chemistry.....	1617
Engineering Physics.....	1604
Engineering Science.....	1605

**SOCIAL AND BEHAVIORAL SCIENCES****Anthropology & Archaeology**

Anthropology.....	1701
Archaeology.....	1702
Anthropology and Archaeology, Other.....	1799

**Economics**

Applied Economics.....	1803
Econometrics.....	1802
Economics.....	1801
International Economics.....	1804
Economics, Other.....	1899

**Political Science**

International Relations.....	1901
Political Science and Government.....	1902
Public Policy Analysis.....	1903
Political Science—Other.....	1999

**Psychology**

Applied Psychology.....	2017
Clinical Psychology.....	2001
Cognitive Psychology.....	2002
Community Psychology.....	2003
Comparative Psychology.....	2004
Counseling Psychology.....	2005
Developmental and Child Psychology.....	2006
Experimental Psychology.....	2007
Forensic Psychology.....	2018
Industrial and Organizational Psychology.....	2008
Personality Psychology.....	2009

Physiological Psychology.....	2010
Psycholinguistics.....	2011
Psychology, General.....	2016
Psychometrics.....	2012
Psychopharmacology.....	2013
Quantitative Psychology.....	2014
Research and Experimental Psychology.....	2019
Social Psychology.....	2015
Psychology—Other.....	2099

**Sociology**

Demography.....	2101
Rural Sociology.....	2103
Sociology.....	2102

**Social and Behavioral Sciences—Other**

American Studies.....	2206
Adult Development and Aging.....	2208
Area, Ethnic, Cultural, Gender, and Group Studies.....	2201
Criminal Justice/Criminology.....	2202
Geography and Cartography.....	2203
Gerontology.....	2207
Public Affairs.....	2204
Social Sciences, General.....	2209
Urban Studies/Affairs.....	2205
Social and Behavioral Sciences—Other.....	2299

**HUMANITIES & ARTS****Arts—History, Theory, and Criticism**

Art History, Criticism, and Conservation.....	2301
Music History, Literature, and Theory.....	2302
Musicology.....	2303
Theatre Literature, History and Criticism.....	2304
Arts—History, Theory, and Criticism—Other.....	2399

**Arts—Performance and Studio**

Arts, Entertainment, and Media Management.....	2401
Crafts/Craft Design.....	2408
Dance.....	2402
Design and Applied Arts.....	2405
Drama/Theatre Arts.....	2403
Film/Video and Photographic Arts.....	2409
Fine and Studio Arts.....	2406
Industrial Design.....	2407
Music.....	2404
Arts—Performance and Studio—Other.....	2499

**English Language and Literature**

American Literature.....	2502
Creative Writing.....	2503
English Language and Literature.....	2501
English Literature.....	2504
Rhetoric and Composition/Writing Studies.....	2505
English Language and Literatures—Other.....	2599

**Foreign Languages and Literatures**

African Languages and Literatures.....	2610
American Sign Language.....	2611
Asiatic Languages and Literatures.....	2601
Celtic Languages and Literatures.....	2612
Classics and Classical Languages and Literatures.....	2609

Foreign Literature .....	2602
French.....	2603
Germanic Languages and Literatures.....	2604
Italian.....	2605
Russian .....	2606
Semitic Languages.....	2607
Spanish .....	2608
Iranian/Persian Languages and Literatures.....	2613
Modern Greek Language and Literature .....	2614
Romance Languages and Literatures .....	2615
Slavic, Baltic, and Albanian Languages and Lit .....	2616
Foreign Languages and Literatures—Other .....	2699

## **History**

American History.....	2701
European History .....	2702
History and Philosophy of Science and Technology ..	2703
History, General .....	2704
History—Other.....	2799

## **Philosophy**

Ethics.....	2802
Logic .....	2803
Philosophy .....	2804
All Philosophy Fields .....	2801
Philosophy—Other.....	2899

## **Arts and Humanities—Other**

Classics .....	2901
Linguistic, Comparative and Related Lang Studies .....	2902
Linguistics.....	2903
Religious Studies.....	2904
Humanities/Humanistic Studies.....	2905
Liberal Arts and Sciences/Liberal Arts .....	2906
Arts and Humanities—Other .....	2999

## **EDUCATION**

### **Education—Administration**

Educational Administration.....	3001
Educational Leadership.....	3003
Educational Supervision.....	3002

### **Education—Curriculum and Instruction**

Curriculum and Instruction.....	3101
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### **Education—Early Childhood**

Early Childhood Education and Teaching .....	3201
Kindergarten/Preschool Education and Teaching.....	3203

### **Education—Elementary**

Elementary Education and Teaching.....	3301
Elementary Level Teaching Fields.....	3302

### **Education—Evaluation and Research**

Educational Evaluation and Research .....	3407
Educational Psychology.....	3403
Educational Statistics and Research Methods .....	3401
Educational Assessment, Testing, and Measurement .....	3402
Elementary and Secondary Research .....	3404
Higher Education Research .....	3405

Learning Sciences.....	3408
School Psychology.....	3406

### **Education—Higher**

Educational Policy .....	3501
Higher Education.....	3502
Higher Education Administration .....	3503

### **Education—Secondary**

Secondary Education and Teaching .....	3601
Secondary Level Teaching Fields.....	3602

### **Education—Special**

Education of the Gifted and Talented .....	3701
Education of Students with Specific Disabilities .....	3702
Educ. of Students with Specific Learn Disabilities ....	3703
Remedial Education.....	3704
Special Education and Teaching .....	3705
Special Education—Other .....	3799

### **Education—Student Counseling and Personnel Services**

College Student Counseling and Personnel Services ...	3801
Counselor Education.....	3802
School Counseling and Guidance Services .....	3803
Student Counseling and Personnel Services—Other ....	3899

### **Education—Other**

Adult and Continuing Education .....	3901
Agricultural Education.....	3908
Bilingual, Multilingual, and Multicultural Educ. ....	3902
Educational Media.....	3903
Education, General .....	3911
Junior High/Middle School Education and Teaching .....	3904
Outdoor Education .....	3912
Physical Education .....	3909
Pre-Elementary Education .....	3905
Social and Philosophical Foundations of Education ....	3906
Teaching English as a Second or Foreign Language ....	3907
Vocational/Technical Education .....	3910
Education—Other.....	3999

## **BUSINESS**

### **Accounting**

Accounting .....	4001
Taxation.....	4002
Auditing .....	4003

### **Banking and Finance**

Banking and Financial Support Services .....	4101
Credit Management .....	4104
Finance .....	4102
Financial Planning and Services .....	4105
International Finance .....	4106
Investments and Securities .....	4103

### **Business Administration and Management**

Business Administration and Management.....	4201
Business Operations.....	4214
Construction Management.....	4215

E-Commerce .....	4209
Entrepreneurship.....	4210
Health Care Administration.....	4211
Hospitality Administration/Management.....	4208
Human Resource Development.....	4202
Human Resources Management .....	4203
Labor and Industrial Relations .....	4204
Logistics and Supply Chain Management.....	4205
Manufacturing and Technology Management .....	4212
Operations Management.....	4213
Organizational Leadership .....	4206
Organizational Management.....	4207
Project Management .....	4216
Small Business Operations.....	4217
Sport and Fitness Administration/Management.....	4218
Telecommunications Management.....	4219
Business Administration and Management—Other.....	4299

#### **Business—Other**

Actuarial Science—Business .....	4306
Business/Corporate Communications .....	4318
Business/Managerial Economics.....	4301
Business Statistics.....	4319
Consulting.....	4307
Data Analytics .....	4323
Insurance .....	4308
International Business.....	4302
Leadership.....	4309
Management Information Systems.....	4303
Management Science .....	4320
Marketing.....	4304
Marketing Management and Research.....	4305
Public Policy—Business .....	4310
Merchandizing .....	4321
Real Estate.....	4311
Risk Management .....	4312
Sales .....	4322
Sports Management .....	4314
Statistics and Operational Research .....	4316
Strategy .....	4315
Supply Chain Management .....	4313
Transportation.....	4317
Business—Other.....	4399

#### **OTHER FIELDS**

##### **Architecture and Environmental Design**

Architectural History and Criticism.....	4407
Architectural Sciences and Technology .....	4408
Architecture .....	4401
City, Urban, Community, and Regional Planning.....	4402
Environmental Design .....	4403
Interior Architecture .....	4404
Landscape Architecture .....	4405
Real Estate Development .....	4409
Urban Design.....	4406
Architecture and Environmental Design—Other .....	4499

##### **Communications and Journalism**

Advertising .....	4501
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Communications and Media Studies .....	4507
Communications Technologies .....	4502
Journalism.....	4503
Mass Communications.....	4508
Public Relations .....	4504
Publishing .....	4509
Radio, Television, and Digital Communication.....	4505
Speech Communication .....	4506
Communications and Journalism—Other .....	4599

##### **Family and Consumer Sciences**

Apparel and Textiles .....	4604
Family and Consumer Economics .....	4601
Family and Consumer Sciences .....	4603
Family Studies.....	4602
Foods, Nutrition, and Wellness Studies .....	4605
Housing and Human Environments .....	4606
Human Development .....	4607
Human Sciences .....	4608
Work and Family Studies .....	4609
Family and Consumer Sciences—Other.....	4699

##### **Library and Archival Studies**

Archives/Archival Administration.....	4702
Library and Information Science.....	4701
Library and Archival Studies—Other .....	4799

##### **Public Administration**

Community Organization and Advocacy .....	4802
Public Administration .....	4801

##### **Religion and Theology**

Ordained Ministry/Rabbinate .....	4903
Philosophy and Religious Studies, General .....	4904
Religion/Religious Studies.....	4901
Theology and Religious Vocations .....	4902
Religion and Theology—Other.....	4999

##### **Social Work**

Social Work.....	5001
Youth Services/Administration .....	5002
Social Work—Other .....	5099

##### **Law**

Law.....	5201
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##### **Other Fields**

Fire Protection .....	5103
Historical Preservation .....	5108
Homeland Security .....	5104
Interdisciplinary Studies.....	5101
Law.....	5102
Legal Research and Professional Studies.....	5105
Military Technologies.....	5106
Multidisciplinary Studies .....	5107
Any Department Not Listed .....	5199

<b>Undecided .....</b>	<b>0000</b>
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## GRE General Test Interpretive Data by Broad Graduate Major Field

Table 4A presents Verbal Reasoning, Quantitative Reasoning and Analytical Writing data for seniors and nonenrolled college graduates who stated that they intended to do graduate work in one of approximately 300 major fields. The score data are summarized by 51 broad graduate major field categories so that applicants can be compared to others likely to be most similar to them in educational goals. To view score data summarized by the 300 major fields (Table 4B), see [www.ets.org/s/gre/pdf/gre\\_table4B.pdf](http://www.ets.org/s/gre/pdf/gre_table4B.pdf).

**Table 4A: GRE General Test Percentage Distribution of Scores Within Intended Broad Graduate Major Field  
Based on Seniors and Nonenrolled College Graduates Who Tested Between July 1, 2018, and June 30, 2021**

(VR = Verbal Reasoning, QR = Quantitative Reasoning, AW = Analytical Writing, N = Number of Test Takers, M = Mean, and SD = Standard Deviation)

Intended Graduate Major	VR 130-134	VR 135-139	VR 140-144	VR 145-149	VR 150-154	VR 155-159	VR 160-164	VR 165-169	VR 170	VR N	VR M	VR SD	QR 130-134	QR 135-139	QR 140-144	QR 145-149	QR 150-154	QR 155-159	QR 160-164	QR 165-169	QR 170	QR N	QR M	QR SD	AW 0	AW 0.5 & 1	AW 1.5 & 2	AW 2.5 & 3	AW 3.5 & 4	AW 4.5 & 5	AW 5.5 & 6	AW N	AW M	AW SD
<b>LIFE SCIENCES</b>	<b>1.1</b>	<b>4.1</b>	<b>12.0</b>	<b>25.4</b>	<b>26.9</b>	<b>19.5</b>	<b>8.3</b>	<b>2.4</b>	<b>0.3</b>	<b>228,528</b>	<b>151</b>	<b>7</b>	<b>0.8</b>	<b>4.6</b>	<b>13.9</b>	<b>26.8</b>	<b>27.8</b>	<b>15.9</b>	<b>6.5</b>	<b>3.1</b>	<b>0.5</b>	<b>228,602</b>	<b>150</b>	<b>7</b>	<b>0.0</b>	<b>0.1</b>	<b>2.0</b>	<b>20.9</b>	<b>52.2</b>	<b>22.7</b>	<b>2.0</b>	<b>228,211</b>	<b>3.8</b>	<b>0.7</b>
Agriculture, Natural Res. & Conservation	1.7	5.0	12.2	23.3	25.9	20.1	9.0	2.6	0.2	10,118	151	7	0.7	3.3	11.5	24.4	27.9	17.2	8.8	5.3	1.0	10,122	152	7	0.0	0.2	3.5	29.1	47.8	18.0	1.5	10,089	3.6	0.8
Biological & Biomedical Sciences	1.0	2.9	7.8	18.2	25.1	24.8	14.4	5.1	0.6	57,423	153	7	0.4	2.3	8.0	19.2	27.0	21.6	12.4	7.6	1.5	57,442	154	7	0.0	0.1	1.8	19.5	48.7	26.6	3.2	57,371	3.9	0.8
Health & Medical Sciences	1.1	4.4	13.5	28.1	27.5	17.5	6.1	1.5	0.1	160,987	150	7	1.0	5.6	16.2	29.6	28.0	13.8	4.3	1.3	0.2	161,038	149	6	0.0	0.1	2.0	20.9	53.7	21.7	1.7	160,751	3.8	0.7
<b>PHYSICAL SCIENCES</b>	<b>4.2</b>	<b>7.1</b>	<b>10.6</b>	<b>15.5</b>	<b>22.6</b>	<b>20.4</b>	<b>13.3</b>	<b>5.6</b>	<b>0.8</b>	<b>139,311</b>	<b>152</b>	<b>9</b>	<b>0.3</b>	<b>1.0</b>	<b>2.5</b>	<b>6.2</b>	<b>11.8</b>	<b>17.4</b>	<b>22.4</b>	<b>28.9</b>	<b>9.4</b>	<b>139,427</b>	<b>160</b>	<b>8</b>	<b>0.0</b>	<b>0.4</b>	<b>5.3</b>	<b>35.0</b>	<b>40.8</b>	<b>16.2</b>	<b>2.3</b>	<b>139,251</b>	<b>3.5</b>	<b>0.8</b>
Chemistry	2.1	4.6	8.8	15.9	23.7	24.4	14.7	5.3	0.6	10,742	153	8	0.1	0.9	3.2	10.0	21.2	24.2	19.6	16.9	4.0	10,752	157	7	0.0	0.2	3.0	25.5	44.2	24.0	3.1	10,733	3.8	0.8
Computer & Information Sciences	5.8	9.2	12.6	16.8	22.8	17.4	10.6	4.3	0.6	82,648	150	9	0.4	1.2	2.7	5.7	10.1	17.0	23.7	30.1	9.1	82,723	161	8	0.0	0.5	7.1	40.6	38.6	11.5	1.6	82,642	3.4	0.8
Earth, Atmospheric, & Marine Sciences	0.8	2.4	5.9	15.3	24.6	26.9	17.0	6.3	0.8	10,781	154	7	0.2	1.5	6.3	17.5	27.6	22.5	13.4	9.0	2.1	10,787	154	7	0.0	0.1	1.6	19.9	47.9	27.1	3.4	10,779	3.9	0.8
Mathematical Sciences	2.4	5.1	9.1	13.1	21.8	22.7	16.4	8.1	1.3	23,594	153	9	0.0	0.2	0.7	2.2	6.2	12.8	22.4	39.5	16.0	23,608	164	6	0.0	0.2	3.0	32.5	42.1	19.0	3.2	23,555	3.7	0.8
Physics & Astronomy	1.3	2.8	5.2	10.7	19.9	26.9	22.0	9.9	1.4	11,330	156	8	0.1	0.2	0.9	3.8	11.3	19.4	24.9	29.4	10.0	11,341	161	7	0.0	0.2	2.3	22.9	44.4	26.3	3.9	11,325	3.9	0.8
Natural Sciences — Other	3.7	9.7	14.4	22.7	24.5	13.0	9.7	1.9	0.5	216	149	8	1.4	8.3	11.1	24.1	23.6	13.0	6.9	8.3	3.2	216	151	9	0.0	0.9	6.9	29.0	46.1	14.7	2.3	217	3.5	0.9
<b>ENGINEERING</b>	<b>4.8</b>	<b>8.1</b>	<b>11.9</b>	<b>16.8</b>	<b>22.3</b>	<b>20.1</b>	<b>11.7</b>	<b>3.8</b>	<b>0.4</b>	<b>107,849</b>	<b>151</b>	<b>9</b>	<b>0.2</b>	<b>0.9</b>	<b>2.3</b>	<b>5.8</b>	<b>12.5</b>	<b>20.0</b>	<b>25.2</b>	<b>26.5</b>	<b>6.6</b>	<b>108,165</b>	<b>160</b>	<b>7</b>	<b>0.0</b>	<b>0.5</b>	<b>5.6</b>	<b>36.0</b>	<b>40.3</b>	<b>15.7</b>	<b>1.9</b>	<b>107,624</b>	<b>3.5</b>	<b>0.8</b>
Chemical	3.0	4.8	9.5	15.4	21.9	23.6	15.5	5.8	0.5	7,005	153	8	0.1	0.5	1.4	4.9	11.9	20.8	26.9	27.4	6.2	7,028	161	7	0.0	0.3	3.0	27.8	42.0	23.4	3.5	6,979	3.8	0.8
Civil	6.9	9.7	12.7	17.3	21.9	19.0	9.5	2.8	0.2	11,202	149	9	0.4	1.3	3.4	8.2	15.9	23.2	24.1	19.4	4.0	11,275	158	8	0.0	0.9	8.4	36.1	38.1	15.0	1.5	11,151	3.4	0.9
Electrical & Electronics	6.0	10.1	14.0	17.9	23.1	17.1	8.8	2.7	0.3	36,681	149	9	0.3	1.0	2.4	5.4	10.4	16.8	23.7	30.9	9.1	36,767	161	8	0.0	0.5	6.9	43.7	38.2	9.6	1.0	36,641	3.3	0.8
Industrial	4.2	8.6	14.4	20.9	22.8	17.2	9.1	2.5	0.3	5,184	150	8	0.2	0.8	2.4	6.8	13.9	21.0	24.4	24.1	6.4	5,199	160	7	0.0	0.2	4.0	39.8	42.5	12.3	1.2	5,164	3.5	0.8
Materials	1.9	4.7	9.4	14.3	23.9	23.3	15.4	6.3	0.9	4,319	153	8	0.0	0.2	0.6	3.0	9.7	16.4	25.2	34.7	10.3	4,323	162	6	0.0	0.1	2.5	33.3	40.5	20.5	3.1	4,311	3.7	0.8
Mechanical	5.2	8.9	12.3	17.3	21.7	19.4	11.4	3.4	0.3	25,519	150	9	0.3	1.0	2.4	6.0	12.6	20.7	25.9	25.5	5.5	25,588	160	7	0.0	0.6	6.1	36.6	40.1	15.0	1.6	25,469	3.5	0.8
Engineering — Other	1.8	4.0	7.2	13.9	21.6	26.6	18.0	6.4	0.6	17,939	154	8	0.2	0.6	1.8	5.5	14.7	23.6	27.5	22.0	4.0	17,985	159	7	0.0	0.2	2.4	22.3	44.9	26.5	3.7	17,909	3.9	0.8

Note: This table does not include summary information on the approximately 10 test takers whose response to the department code question was invalid (misgrids, blanks, etc.) or the approximately 55,000 test takers whose response was "Undecided".

**Table 4A: GRE General Test Percentage Distribution of Scores Within Intended Broad Graduate Major Field  
Based on Seniors and Nonenrolled College Graduates Who Tested Between July 1, 2018, and June 30, 2021**

(VR = Verbal Reasoning, QR = Quantitative Reasoning, AW = Analytical Writing, N = Number of Test Takers, M = Mean, and SD = Standard Deviation.)

Intended Graduate Major	VR 130-134	VR 135-139	VR 140-144	VR 145-149	VR 150-154	VR 155-159	VR 160-164	VR 165-169	VR 170	VR N	VR M	VR SD	QR 130-134	QR 135-139	QR 140-144	QR 145-149	QR 150-154	QR 155-159	QR 160-164	QR 165-169	QR 170	QR N	QR M	QR SD	AW 0	AW 0.5 & 1	AW 1.5 & 2	AW 2.5 & 3	AW 3.5 & 4	AW 4.5 & 5	AW 5.5 & 6	AW N	AW M	AW SD
<b>SOC. &amp; BEHAVIORAL SCI.</b>	<b>1.3</b>	<b>3.5</b>	<b>8.4</b>	<b>17.0</b>	<b>22.8</b>	<b>23.8</b>	<b>15.6</b>	<b>6.5</b>	<b>0.9</b>	<b>109,205</b>	<b>153</b>	<b>8</b>	<b>1.4</b>	<b>5.8</b>	<b>13.3</b>	<b>20.7</b>	<b>20.6</b>	<b>15.8</b>	<b>10.9</b>	<b>9.1</b>	<b>2.3</b>	<b>109,326</b>	<b>152</b>	<b>9</b>	<b>0.0</b>	<b>0.2</b>	<b>2.0</b>	<b>19.1</b>	<b>44.6</b>	<b>28.7</b>	<b>5.3</b>	<b>109,060</b>	<b>4.0</b>	<b>0.8</b>
Anthropology & Archaeology	0.5	1.3	4.7	15.0	21.1	29.1	19.8	7.2	1.2	4,173	155	7	1.9	7.3	17.0	28.4	24.4	13.0	5.4	2.3	0.3	4,173	149	7	0.0	0.0	1.2	15.5	46.5	31.4	5.3	4,174	4.0	0.8
Economics	2.5	4.3	7.9	12.0	20.5	23.6	18.7	9.2	1.4	20,759	154	9	0.1	0.4	1.6	5.0	10.4	17.5	24.1	31.6	9.2	20,856	161	7	0.1	0.3	2.6	27.6	41.8	22.5	5.1	20,678	3.8	0.9
Political Science	0.7	1.5	4.1	9.4	17.3	26.0	24.7	13.9	2.4	16,809	157	7	1.0	3.7	9.6	17.9	22.9	21.7	14.5	7.4	1.2	16,832	153	8	0.0	0.1	0.9	10.8	37.5	39.5	11.2	16,793	4.3	0.8
Psychology	1.0	3.7	9.8	20.9	25.7	23.4	11.7	3.5	0.3	58,262	152	7	1.8	7.7	17.8	26.4	23.5	14.0	5.9	2.6	0.4	58,266	149	7	0.0	0.1	2.1	18.4	47.8	27.8	3.8	58,214	3.9	0.8
Sociology	1.9	4.0	8.5	16.8	21.3	22.8	17.3	6.6	0.9	3,996	153	8	2.9	8.3	15.5	22.6	19.6	14.1	9.5	6.4	1.2	3,996	150	9	0.0	0.3	2.6	18.5	43.6	29.4	5.7	3,993	4.0	0.9
Soc. & Behavioral Sci., Other	2.2	5.6	11.9	19.6	20.6	19.7	13.4	6.1	0.8	5,206	152	8	2.4	10.4	17.7	22.2	19.8	13.5	7.8	5.2	1.2	5,203	150	9	0.0	0.5	3.3	23.0	42.8	26.0	4.3	5,208	3.8	0.9
<b>HUMANITIES &amp; ARTS</b>	<b>1.0</b>	<b>2.0</b>	<b>4.9</b>	<b>10.3</b>	<b>18.2</b>	<b>25.2</b>	<b>23.0</b>	<b>12.8</b>	<b>2.7</b>	<b>26,573</b>	<b>156</b>	<b>8</b>	<b>2.1</b>	<b>7.0</b>	<b>14.6</b>	<b>22.6</b>	<b>22.1</b>	<b>15.7</b>	<b>9.0</b>	<b>5.8</b>	<b>1.1</b>	<b>26,538</b>	<b>151</b>	<b>8</b>	<b>0.0</b>	<b>0.2</b>	<b>1.7</b>	<b>14.1</b>	<b>39.6</b>	<b>35.5</b>	<b>8.9</b>	<b>26,555</b>	<b>4.1</b>	<b>0.9</b>
Arts — History, Theory, & Criticism	1.0	0.6	3.1	8.9	17.8	26.8	26.0	13.9	2.0	1,571	157	7	1.5	4.7	12.1	22.9	26.0	18.8	8.7	4.9	0.5	1,566	151	8	0.0	0.0	0.8	10.7	41.2	39.0	8.3	1,571	4.2	0.8
Arts — Performance & Studio	2.6	4.6	9.7	15.6	22.3	22.4	15.0	6.8	0.9	3,535	153	8	2.0	5.6	12.1	18.7	20.7	17.0	12.9	9.0	2.0	3,538	152	9	0.1	0.4	3.6	27.0	42.4	22.7	3.9	3,530	3.7	0.9
English Language & Literature	0.7	1.5	4.1	9.4	18.2	26.6	24.5	12.6	2.4	8,278	157	7	2.9	8.9	16.7	25.6	22.3	13.1	6.6	3.5	0.5	8,255	149	8	0.0	0.1	1.4	11.0	38.2	39.0	10.2	8,274	4.2	0.8
Foreign Languages & Literatures	1.7	3.5	4.4	11.1	17.8	22.2	22.0	14.6	2.8	1,690	156	9	2.0	5.6	12.6	19.1	23.1	17.0	10.9	8.2	1.4	1,691	152	9	0.0	0.2	2.7	15.4	39.4	33.9	8.5	1,689	4.1	0.9
History	0.5	1.4	4.5	10.9	19.6	27.1	22.1	11.4	2.4	6,123	156	7	2.5	8.9	18.8	25.3	21.6	13.5	5.9	3.0	0.5	6,114	149	8	0.0	0.1	1.5	13.2	40.6	35.6	8.9	6,121	4.2	0.8
Philosophy	0.3	0.8	2.4	5.8	11.7	22.3	28.7	21.7	6.2	2,650	160	7	0.6	3.2	8.5	17.1	21.9	19.8	14.6	11.8	2.5	2,648	154	8	0.0	0.1	1.0	9.6	35.9	40.4	12.9	2,646	4.3	0.8
Humanities & Arts, Other	1.2	2.1	5.5	9.7	16.4	23.9	23.8	14.1	3.4	2,726	157	8	1.4	4.8	10.6	19.4	22.3	20.0	11.7	8.3	1.7	2,726	153	8	0.0	0.2	1.6	13.8	40.5	35.8	8.1	2,724	4.1	0.8

Note: This table does not include summary information on the approximately 10 test takers whose response to the department code question was invalid (misgrids, blanks, etc.) or the approximately 55,000 test takers whose response was "Undecided".



**Table 4A: GRE General Test Percentage Distribution of Scores Within Intended Broad Graduate Major Field  
Based on Seniors and Nonenrolled College Graduates Who Tested Between July 1, 2018, and June 30, 2021**

(VR = Verbal Reasoning, QR = Quantitative Reasoning, AW = Analytical Writing, N = Number of Test Takers, M = Mean, and SD = Standard Deviation.)

Intended Graduate Major	VR 130-134	V 135-139	VR 140-144	VR 145-149	VR 150-154	VR 155-159	VR 160-164	VR 165-169	VR 170	VR N	VR M	VR SD	QR 130-134	QR 135-139	QR 140-144	QR 145-149	QR 150-154	QR 155-159	QR 160-164	QR 165-169	QR 170	QR N	QR M	QR SD	AW 0	AW 0.5 & 1	AW 1.5 & 2	AW 2.5 & 3	AW 3.5 & 4	AW 4.5 & 5	AW 5.5 & 6	AW N	AW M	AW SD
<b>EDUCATION</b>	<b>2.4</b>	<b>6.2</b>	<b>13.7</b>	<b>23.3</b>	<b>22.7</b>	<b>18.7</b>	<b>9.3</b>	<b>3.3</b>	<b>0.4</b>	<b>28,928</b>	<b>150</b>	<b>8</b>	<b>3.2</b>	<b>10.6</b>	<b>20.5</b>	<b>26.1</b>	<b>19.7</b>	<b>10.9</b>	<b>5.4</b>	<b>3.1</b>	<b>0.5</b>	<b>28,925</b>	<b>148</b>	<b>8</b>	<b>0.0</b>	<b>0.4</b>	<b>3.9</b>	<b>24.2</b>	<b>45.6</b>	<b>22.9</b>	<b>3.0</b>	<b>28,850</b>	<b>3.8</b>	<b>0.8</b>
Administration	2.6	5.9	14.6	23.0	22.8	18.6	8.4	3.7	0.4	1,740	150	8	3.2	11.1	19.3	25.8	19.4	11.2	5.7	3.9	0.5	1,740	148	8	0.0	0.4	3.9	28.6	43.6	21.0	2.5	1,736	3.7	0.8
Curriculum & Instruction	0.8	7.1	13.7	21.4	23.3	21.6	9.0	3.0	0.0	365	151	8	3.0	9.3	16.2	29.0	21.4	12.1	6.0	2.7	0.3	365	148	8	0.0	0.3	3.6	19.5	48.8	23.6	4.4	365	3.9	0.8
Early Childhood	7.8	16.3	25.6	21.7	16.3	5.4	4.7	1.6	0.8	129	146	8	10.9	15.5	22.5	19.4	13.2	6.2	6.2	5.4	0.8	129	146	10	0.0	0.8	12.3	36.9	38.5	10.8	0.8	130	3.3	0.8
Elementary	3.5	8.3	16.9	26.3	21.8	13.8	6.9	2.2	0.2	3,484	149	8	3.9	13.1	22.7	27.3	19.8	8.8	3.3	1.1	0.1	3,482	147	7	0.1	0.6	6.1	27.7	44.5	19.1	2.0	3,441	3.6	0.9
Evaluation & Research	1.3	4.0	13.0	26.0	25.8	19.9	7.8	2.0	0.2	6,518	151	7	1.7	9.0	21.6	29.8	21.0	10.5	4.1	2.0	0.4	6,520	148	7	0.0	0.2	2.0	20.3	51.3	23.8	2.4	6,513	3.8	0.8
Higher	1.3	4.4	10.8	20.3	23.2	23.8	11.7	4.0	0.4	2,947	152	8	1.9	7.8	17.0	24.6	23.5	14.8	6.6	3.4	0.3	2,947	149	8	0.0	0.2	1.8	17.7	42.7	32.9	4.7	2,946	4.0	0.8
Secondary	0.9	3.2	7.8	16.0	23.6	24.2	17.6	5.9	0.8	894	154	8	2.5	5.7	12.5	22.8	20.6	17.9	12.4	5.2	0.3	893	151	8	0.0	0.2	2.8	16.3	45.9	29.3	5.5	894	4.0	0.8
Special	5.1	11.1	18.5	26.4	19.4	12.8	5.2	1.4	0.2	3,294	148	8	6.4	16.9	27.7	25.4	15.7	5.4	1.7	0.6	0.1	3,293	145	7	0.0	1.1	8.3	34.3	40.4	14.4	1.6	3,276	3.4	0.9
Student Counseling & Personnel Svcs	2.2	6.9	16.1	28.2	24.1	15.4	5.6	1.3	0.1	3,190	149	7	4.1	13.4	26.8	29.8	17.0	6.4	1.8	0.6	0.1	3,191	146	7	0.0	0.3	3.6	27.5	49.2	17.5	1.8	3,182	3.7	0.8
Education, Other	2.3	5.6	10.5	17.4	20.9	21.8	14.2	6.2	1.0	6,367	152	9	2.6	7.8	14.7	21.3	19.9	14.9	10.1	7.4	1.3	6,365	151	9	0.0	0.3	3.6	22.3	43.2	26.2	4.3	6,367	3.8	0.9
<b>BUSINESS</b>	<b>2.7</b>	<b>5.9</b>	<b>11.3</b>	<b>18.2</b>	<b>23.4</b>	<b>20.4</b>	<b>12.6</b>	<b>4.9</b>	<b>0.5</b>	<b>75,949</b>	<b>152</b>	<b>8</b>	<b>0.6</b>	<b>2.6</b>	<b>6.5</b>	<b>12.6</b>	<b>16.8</b>	<b>17.9</b>	<b>17.6</b>	<b>19.3</b>	<b>5.9</b>	<b>76,078</b>	<b>157</b>	<b>9</b>	<b>0.1</b>	<b>0.3</b>	<b>3.3</b>	<b>31.0</b>	<b>43.6</b>	<b>18.7</b>	<b>3.1</b>	<b>75,570</b>	<b>3.7</b>	<b>0.8</b>
Accounting	5.0	8.2	14.8	20.8	24.3	16.1	7.9	2.5	0.4	3,015	149	8	0.7	3.2	6.8	14.5	16.4	14.5	15.9	21.3	6.7	3,019	157	9	0.0	0.5	6.2	43.4	39.3	10.0	0.6	3,006	3.3	0.8
Banking & Finance	3.2	6.2	11.2	16.8	25.5	20.5	12.3	4.0	0.3	15,026	151	8	0.1	0.9	2.3	5.5	10.0	13.4	18.6	34.7	14.5	15,074	162	8	0.1	0.3	3.6	39.2	45.8	9.9	1.2	14,958	3.4	0.7
Business Admin & Management	1.8	4.1	9.1	16.8	21.5	22.8	15.9	7.1	0.9	28,191	153	8	0.9	3.3	8.8	16.7	21.1	20.9	16.1	10.4	1.9	28,231	154	8	0.1	0.2	2.8	21.1	42.4	28.0	5.4	28,028	3.9	0.9
Business, Other	3.0	7.3	13.0	20.1	24.1	18.6	10.0	3.6	0.3	29,717	151	8	0.6	2.8	6.5	12.0	16.3	17.8	18.8	19.8	5.3	29,754	157	9	0.0	0.3	3.3	35.0	44.1	15.2	2.1	29,578	3.6	0.8
<b>LAW</b>	<b>1.3</b>	<b>2.5</b>	<b>7.4</b>	<b>13.4</b>	<b>17.8</b>	<b>21.0</b>	<b>20.2</b>	<b>14.0</b>	<b>2.3</b>	<b>2,576</b>	<b>156</b>	<b>9</b>	<b>1.9</b>	<b>5.3</b>	<b>11.2</b>	<b>17.8</b>	<b>20.1</b>	<b>19.5</b>	<b>12.8</b>	<b>9.6</b>	<b>1.9</b>	<b>2,577</b>	<b>153</b>	<b>9</b>	<b>0.0</b>	<b>0.4</b>	<b>1.8</b>	<b>15.6</b>	<b>36.5</b>	<b>33.7</b>	<b>11.8</b>	<b>2,576</b>	<b>4.2</b>	<b>0.9</b>

Note: This table does not include summary information on the approximately 10 test takers whose response to the department code question was invalid (misgrids, blanks, etc.) or the approximately 55,000 test takers whose response was "Undecided".

**Table 4A: GRE General Test Percentage Distribution of Scores Within Intended Broad Graduate Major Field  
Based on Seniors and Nonenrolled College Graduates Who Tested Between July 1, 2018, and June 30, 2021**

(VR = Verbal Reasoning, QR = Quantitative Reasoning, AW = Analytical Writing, N = Number of Test Takers, M = Mean, and SD = Standard Deviation.)

Intended Graduate Major	VR 130-134	VR 135-139	VR 140-144	VR 145-149	VR 150-154	VR 155-159	VR 160-164	VR 165-169	VR 170	VR N	VR M	VR SD	QR 130-134	QR 135-139	QR 140-144	QR 145-149	QR 150-154	QR 155-159	QR 160-164	QR 165-169	QR 170	QR N	QR M	QR SD	AW 0	AW 0.5 & 1	AW 1.5 & 2	AW 2.5 & 3	AW 3.5 & 4	AW 4.5 & 5	AW 5.5 & 6	AW N	AW M	AW SD
<b>OTHER FIELDS</b>										<b>131,642</b>													<b>131,761</b>									<b>131,595</b>		
Architecture & Environmental Design	3.0	6.5	12.6	19.5	23.1	19.6	11.0	4.2	0.4	11,780	151	8	0.6	2.6	8.0	16.3	21.4	19.8	15.8	12.8	2.7	11,803	155	8	0.0	0.3	3.9	34.0	42.7	17.2	1.9	11,766	3.6	0.8
Communications & Journalism	2.7	5.8	12.4	21.1	23.5	20.3	10.3	3.3	0.5	8,537	151	8	2.7	7.9	15.7	21.7	17.1	13.1	10.4	9.6	1.7	8,531	151	9	0.0	0.3	2.5	26.3	47.1	20.7	3.0	8,524	3.7	0.8
Family & Consumer Sciences	1.5	7.7	14.7	27.5	23.9	16.5	6.9	1.2	0.1	1,168	149	7	2.6	9.8	20.1	29.8	20.5	10.4	4.4	2.0	0.3	1,168	148	7	0.0	0.3	3.0	21.9	52.6	20.4	1.8	1,169	3.8	0.8
Library & Archival Sciences	0.4	1.3	3.1	10.8	19.5	27.4	23.2	11.7	2.7	1,166	157	7	1.8	6.3	16.6	27.7	25.6	12.8	6.2	2.8	0.2	1,166	149	7	0.0	0.1	1.4	15.5	49.0	29.7	4.4	1,166	4.0	0.8
Public Administration	1.6	3.4	8.4	15.6	22.8	24.7	16.1	6.4	0.8	3,914	154	8	2.0	7.5	14.6	21.7	23.8	14.5	8.5	6.3	1.2	3,913	151	8	0.0	0.3	2.3	19.6	44.9	27.9	5.1	3,905	3.9	0.8
Religion & Theology	0.8	1.9	4.5	8.9	16.0	25.8	24.7	13.8	3.5	1,299	157	8	2.1	6.3	12.4	20.7	26.8	17.9	8.8	4.6	0.4	1,295	151	8	0.0	0.2	1.3	11.1	38.1	39.6	9.7	1,299	4.2	0.8
Social Work	4.4	9.0	15.1	22.0	20.8	18.0	7.7	2.7	0.3	4,199	149	8	7.5	17.3	24.1	24.3	15.5	7.2	2.9	1.1	0.1	4,178	145	8	0.0	0.4	5.8	27.5	44.7	19.6	2.1	4,384	3.6	0.8
Other Fields, Other*										99,579													99,707									99,382		

Note: This table does not include summary information on the approximately 10 test takers whose response to the department code question was invalid (misgrids, blanks, etc.) or the approximately 55,000 test takers whose response was "Undecided".

\*Performance information is not reported for "Other Fields, Other" as this group represents a number of diverse majors.

## Reliability and Standard Error of Measurement

Tables 5A, 5B, 5C and 5D provide reliability estimates for GRE General Test, GRE Subject Tests, GRE Physics Test subscores, and GRE Psychology Test subscores, respectively. Reliability indicates the degree to which individual test takers would keep the same relative standing if the test were administered more than once to each test taker. The reliability index ranges from zero to one; a reliability index of one indicates that there is no measurement error in the test and therefore the test is perfectly reliable.

The Verbal Reasoning and Quantitative Reasoning measures of GRE General Test are intended to have reliabilities of at least .90. The reliability of the Analytical Writing measure is similar to the reliability for other writing measures where the reported score is based on a test taker's performance on two tasks. Reliability is influenced by the consistency of the ratings assigned to each essay. Overall, the two ratings used in each essay score are in agreement about 93 percent of the time; they differ by one score point about 6 percent of the time; and they differ by two or more score points about one percent of the time.

The Subject Tests are intended to have reliabilities of at least .90 for the total test scores. For each of the Subject Tests, the reliability coefficient of the total scores is at least .89, and the reliability coefficient of the subscores is at least .80.

Tables 5A, 5B, 5C and 5D also provide data on the standard errors of measurement (SEM) and SEM of score differences. SEM is an index of the variation in scores to be expected due to errors in measurement. For a group of test takers, it is an estimate of the average difference between observed scores and "true" scores (i.e., what test takers' scores on a test would hypothetically be if there was no measurement error). Approximately 95 percent of test takers will have obtained scores that are within a range extending from two standard errors below to two standard errors above their true scores.

The SEM of score differences is an index used to determine whether the difference between two scores is meaningful. Small differences in scores may be due to measurement error and not to real differences in the abilities of the test takers. This index incorporates the error of measurement in each score being compared. To use the SEM of score differences, multiply the value by 2. Score differences exceeding this value are likely to reflect real differences in ability at approximately a 95 percent confidence level.

**Table 5A: Reliability Estimates and Standard Errors of Measurement (SEM)<sup>a</sup>  
for Individual Scores and Score Differences for the GRE General Test**

Score	Reliability Estimate	SEM of Individual Scores	SEM of Score Differences
Verbal Reasoning	0.93	2.4	3.4
Quantitative Reasoning	0.95	2.2	3.1
Analytical Writing	0.87	0.30	0.43

<sup>a</sup>The reliability estimates and SEMs for the Verbal Reasoning and Quantitative Reasoning measures of the General Test are based on item response theory (IRT). The reported values are an average of all the estimates obtained for all the multi-stage tests delivered between July 1, 2018, and June 30, 2021. The reliability estimates and SEMs for the Analytical Writing measure are computed based on split-half analyses using the performance of all individuals who tested between July 1, 2018, and June 30, 2021.

**Table 5B: Reliability Estimates and Standard Errors of Measurement (SEM)<sup>a</sup>  
for Individual Scores and Score Differences for GRE Subject Tests**

Score	Reliability Estimate	SEM of Individual Scores	SEM of Score Differences	Sample Size
Chemistry Test	0.94	25	35	1,156
Mathematics Test	0.89	44	63	1,869
Physics Test	0.93	41	57	2,781
Psychology Test	0.95	25	35	1,641

<sup>a</sup> The reliability for all the Subject Tests scores are estimated using the Kuder-Richardson formula (KR-20). The reported reliability, SEM, and sample size values are based on a test edition that is representative of recent test editions between July 1, 2017, and June 30, 2021.

**Table 5C: Reliability Estimates and Standard Errors of Measurement (SEM)<sup>a</sup>  
for Individual Scores and Score Differences for GRE Physics Test Subscores**

Subscore	Reliability Estimate	SEM of Individual Scores	SEM of Score Differences	Sample Size
Classical Mechanics	0.89	5.3	7.5	2,781
Electromagnetism	0.89	5.2	7.3	2,781
Quantum Mechanics and Atomic Physics	0.88	5.5	7.8	2,781

<sup>a</sup> The reliability of the Physics subscores are estimated as the proportional reduction in mean square error (a subscore reliability statistic that provides estimates comparable to Cronbach's alpha). The reported reliability, SEM, and sample size values are based on a test edition that is representative of recent test editions between July 1, 2017, and June 30, 2021.

**Table 5D: Reliability Estimates and Standard Errors of Measurement (SEM)<sup>a</sup>  
for Individual Scores and Score Differences for GRE Psychology Test Subscores**

Subscore	Reliability Estimate	SEM of Individual Scores	SEM of Score Differences	Sample Size
Biological	0.90	3.6	5.0	1,641
Cognitive	0.93	3.0	4.2	1,641
Social	0.92	3.2	4.5	1,641
Developmental	0.91	3.4	4.8	1,641
Clinical	0.90	3.5	4.9	1,641
Measurement/Methodology/Other	0.88	3.9	5.6	1,641

<sup>a</sup> The reliability of the Psychology subscores are estimated as the proportional reduction in mean square error (a subscore reliability statistic that provides estimates comparable to Cronbach's alpha). The reported reliability, SEM, and sample size values are based on a test edition that is representative of recent test editions between July 1, 2017, and June 30, 2021.

## Conditional Standard Errors of Measurement

Tables 5E and 5F contain estimates of the conditional standard errors of measurement (CSEM) at selected reported scores for the GRE Verbal Reasoning and Quantitative Reasoning measures. While the SEMs presented in Table 5A address the average measurement precision of the test, the measurement precision actually varies across the score scale. The CSEM reflects this variation by indicating the amount of error in a reported score at a given point on the scale. Like the SEM, the CSEM can be used to compute a confidence band around a test taker's score. Such a band would help to determine the score range in which the test taker's "true" score probably lies. Unlike the SEM, the CSEM takes the variation in measurement precision across the score scale into account.

The CSEM of individual scores incorporates the measurement error in each score. The CSEM of score differences should be used when comparing the scores of two individuals because small differences in scores may not represent real differences in the abilities of the two individuals. To use the CSEM of score differences, take the larger of the two values and multiply by 2. Score differences exceeding this value are likely to reflect real differences in ability at approximately a 95 percent confidence level.

**Table 5E: Conditional Standard Errors of Measurement (CSEM) of Individual Scores at Selected Scores for the GRE Verbal Reasoning and Quantitative Reasoning Measures<sup>a</sup>**

Measure	130	135	140	145	150	155	160	165	170
Verbal Reasoning	3.5	3.2	2.9	2.6	2.3	2.2	2.1	2.0	1.4
Quantitative Reasoning	3.5	3.0	2.6	2.4	2.3	2.2	2.1	2.0	0.9

<sup>a</sup> The CSEM of individual scores and CSEM of score differences for the Verbal Reasoning and Quantitative Reasoning measures of the GRE General Test are based on item response theory (IRT). The reported values are an average of all the estimates obtained for all the multi-stage tests delivered between July 1, 2018, and June 30, 2021. The CSEM of individual scores and CSEM of score differences are not available for the Analytical Writing measure.

**Table 5F: Conditional Standard Errors of Measurement (CSEM) of Score Differences at Selected Scores for the GRE Verbal Reasoning and Quantitative Reasoning Measures<sup>a</sup>**

Measure	130	135	140	145	150	155	160	165	170
Verbal Reasoning	4.9	4.5	4.1	3.7	3.3	3.0	2.9	2.9	2.0
Quantitative Reasoning	4.9	4.2	3.6	3.4	3.3	3.1	3.0	2.9	1.3

<sup>a</sup> The CSEM of individual scores and CSEM of score differences for the Verbal Reasoning and Quantitative Reasoning measures of the GRE General Test are based on item response theory (IRT). The reported values are an average of all the estimates obtained for all the multi-stage tests delivered between July 1, 2018, and June 30, 2021. The CSEM of individual scores and CSEM of score differences are not available for the Analytical Writing measure.

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## Appendix A

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### GRE Analytical Writing Section Score Level Descriptions

Although the GRE Analytical Writing measure contains two discrete analytical writing tasks, a single combined score is reported because it is more reliable than is a score for either task alone. The reported score ranges from 0 to 6, in half-point increments.

The statements below describe, for each score level, the overall quality of analytical writing demonstrated across both the Issue and Argument tasks. The test assesses "analytical writing," so critical thinking skills (the ability to reason, assemble evidence to develop a position and communicate complex ideas) are assessed along with the writer's control of grammar and the mechanics of writing.

#### Scores 6 and 5.5

Sustains insightful, in-depth analysis of complex ideas; develops and supports main points with logically compelling reasons and/or highly persuasive examples; is well focused and well organized; skillfully uses sentence variety and precise vocabulary to convey meaning effectively; demonstrates superior facility with sentence structure and usage but may have minor errors that do not interfere with meaning.

#### Scores 5 and 4.5

Provides generally thoughtful analysis of complex ideas; develops and supports main points with logically sound reasons and/or well-chosen examples; is generally focused and well organized; uses sentence variety and vocabulary to convey meaning clearly; demonstrates good control of sentence structure and usage but may have minor errors that do not interfere with meaning.

#### Scores 4 and 3.5

Provides competent analysis of ideas in addressing specific task directions; develops and supports main points with relevant reasons and/or examples; is adequately organized; conveys meaning with acceptable clarity; demonstrates satisfactory control of sentence structure and usage but may have some errors that affect clarity.

#### Scores 3 and 2.5

Displays some competence in analytical writing and addressing specific task directions, although the writing is flawed in at least one of the following ways: limited analysis or development; weak organization; weak control of sentence structure or usage, with errors that often result in vagueness or a lack of clarity.

#### Scores 2 and 1.5

Displays serious weaknesses in analytical writing. The writing is seriously flawed in at least one of the following ways: serious lack of analysis or development; unclear in addressing specific task directions; lack of organization; frequent problems in sentence structure or usage, with errors that obscure meaning.

#### Scores 1 and 0.5

Displays fundamental deficiencies in analytical writing. The writing is fundamentally flawed in at least one of the following ways: content that is extremely confusing or mostly irrelevant to the assigned tasks; little or no development; severe and pervasive errors that result in incoherence.

#### Score Level 0

The examinee's analytical writing skills cannot be evaluated because the responses do not address any part of the assigned tasks, are merely attempts to copy the assignments, are in a foreign language or display only indecipherable text.

#### Score NS

The test taker produced no text whatsoever.

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