



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

2018–19

www.ets.org/gre/institutions

Communicating with the GRE® Program

	Inquiries from Educators	Inquiries from Test Takers
<i>By Email</i>	gretests@ets.org	gre-info@ets.org
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Attention GRE® Score Users: Make sure that you have access to the ETS® Data Manager, which helps GRE and TOEFL® 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.

This publication can be downloaded at www.ets.org/gre/guide.

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Introduction

This admissions season, thousands of graduate and professional school programs will use *GRE*[®] General Test and *GRE*[®] Subject Test scores to successfully identify candidates who are academically prepared for graduate-level work. Understanding what the 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 is critical to ensuring that the tests serve their intended purpose.

Why Use the GRE Tests?

While the GRE tests are best known for their role in helping faculty committees select applicants for admission to graduate programs, including business and law, scores are also used in the selection of graduate fellowship applicants for awards and to provide candidates with guidance and counseling for graduate study.

ETS has conducted extensive research for more than 70 years to design assessments that offer sufficient evidence of a person's knowledge, and that are valid, reliable and fair. ETS's rigorous and exacting processes are carried out in accordance with standards set by the American Educational Research Association (AERA), the National Council on Measurement in Education (NCME) and the American Psychological Association (APA).

To understand the true value of the GRE tests, and plan how GRE scores will be used in a holistic admissions process, it's essential to understand the benefits and limitations of the tests, including what the tests were designed to measure and predict, and what the tests were never designed to predict. Because faculty use scores to make decisions that can have a profound impact on a test taker's future path, the GRE Program has a particular obligation to inform users about this information, so that scores can be used appropriately. This knowledge can help administrators and faculty assign an appropriate role for the use of these tests as part of their admissions process, without over-relying upon them to accomplish more than they were intended.

Most Significant Benefits 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, business and law schools have identified as necessary for academic success, including verbal reasoning, quantitative reasoning, critical thinking and analytical writing. The need for these skills transcends all disciplines, though graduate programs might place greater weight on some skills than others, based upon their goals. To allow for this flexibility, rather than receiving just one cumulative score, institutions receive three separate scores, one for each of the test's three sections: Verbal Reasoning, Quantitative Reasoning and Analytical Writing. GRE test scores are not only useful in identifying which students are academically prepared, but also which students are likely to struggle academically. This may help programs that enroll students with lower GRE scores — but whose overall applications suggests that they would be valuable to their program — to be prepared to perhaps offer extra support to help those students be successful. The GRE Subject Tests enable programs to gather more information about candidates' knowledge about specific subject areas. Some Subject Tests yield sub-scores 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.**

GRE scores serve as one of few quantitative pieces of evidence that faculty committees can use to evaluate candidates, and the evidence that is directly comparable. Many of the other components submitted as part of an application package or that factor into admissions decisions — such as letters of recommendation, personal statements, previous coursework and the reputation of the undergraduate institution — are more

qualitative in nature and are not directly comparable across candidates. Due to grade inflation at many undergraduate institutions, as well as differences in how faculty and institutions award grades, ETS asserts that undergraduate GPA cannot serve as an objective measure either.

The GRE tests are carefully developed so that they are valid, reliable and fair, and ETS makes significant investments in research to maintain those attributes. An extensive body of literature that documents validity evidence for both the GRE General and GRE Subject tests is available on the ETS website. For answers to specific validity questions, speak with your institution's ETS client relations representative or email gretests@ets.org.

The objective, comparative data that GRE scores yield is especially helpful when comparisons are difficult to make, such as when evaluating applicants from unfamiliar undergraduate institutions or from countries with different educational and grading systems. Without the GRE tests, faculty committees could only consider measures that are subjective or not directly comparable — measurements that do not undergo a rigorous fairness review process or yield comparative data. The lack of such 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. Because GRE tests are the only objective measure, and to be fair to all applicants, ETS strongly believes that institutions that require GRE scores should require them of all applicants. See the section, *The Role of GRE Scores in Holistic Admissions*, on page 6, for more information about how faculty can use quantitative and qualitative measures to gather different pieces of evidence that, together, can provide a holistic view of a candidate.

Limitations of Using GRE Scores

- **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.**

GRE test scores are only one measure, and should be considered in the context of a candidate's entire application package. The GRE General Test cannot measure everything that a faculty committee would like to know about that candidate. For example, the test cannot predict the likelihood of desired outcomes such as how well students will perform in specific courses, how much or how often they will publish research, whether they will complete the program and graduate, or how long it will take them to do so. 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 candidates a platform for showing attributes like creativity, conscientiousness and perseverance. Since attributes such as these may be just as important to a student's likelihood of success as the skills measured by the GRE tests, it is important that programs not over-rely on GRE scores, and never use GRE scores as the sole criteria for "cut scores," an effort to quickly reduce the number of applications a faculty committee needs to review. Rather, faculty reviewers might consider adopting practices that put GRE scores into the appropriate context in relation to the other elements an institution might require that candidates submit as part of their application package. More information can be found in the section, *The Role of GRE Scores in Holistic Admissions*, on page 6.

- **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 12 for more information.

The Role of GRE Scores in Holistic Admissions

The graduate community has become increasingly interested in making some changes to their admissions processes so that applicants are viewed more holistically. In general, this means that the entirety of an applicant's application package is explored and evaluated at once for evidence that the applicant is a good fit for the program and is likely to be successful. The idea is that by evaluating all quantitative and qualitative evidence at once, those involved in the admissions process benefit from a clearer picture of the value that an applicant brings to a 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.

Although philosophically, many people would agree that candidates 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. These 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.

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. One way to do this is to engage in conversations about the relative importance of each component in the application package — including how each component will be reviewed and factored into the decision-making process — based on an understanding of what evidence each component can provide. To make the implicit even more explicit, some institutions use a rubric, either

with or without assigning weights to each factor they intend to consider. For an example of how weights can be assigned in a rubric, please see slides 15 and 16 — as well as the accompanying transcript — of the presentation posted to www.holisticadmissions.org.

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.

The GRE Board and Committees

The *Graduate Record Examinations*[®] (*GRE*[®]) Board was formed in 1966 as an independent board and is affiliated with the Association of Graduate Schools (AGS) and the Council of Graduate Schools (CGS). The Board establishes all policies for the GRE Program, which is administered by Educational Testing Service (*ETS*[®]). In addition, ETS provides information, technical advice and professional counsel to the Board and develops proposals to achieve the Board's program, research and service goals.

GRE Program activities include testing, research, publishing and advisory services. These services are designed to assist graduate schools/departments, including business and law, in recruiting, admissions, guidance and placement, program evaluation, and selection of fellowship recipients, and to assist students with their transition to graduate education.

The GRE Board is mindful of the impact of its testing, information, research and services on students, institutions and graduate education, and it recognizes its obligation to ensure that its policies and activities serve the best interests of the entire graduate education community. The GRE Board strives to equalize higher education opportunities for all students; improve the practices, procedures and quality of graduate education; and promote maximum utilization of human talents and financial resources.

Additional information about the GRE Board, Committees and Advisory Councils is available in Appendix A and at www.ets.org/gre/greboard.

About the GRE Tests

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, and summarize text and distinguish major from minor points. 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 basic mathematical concepts of arithmetic, algebra, geometry and data analysis. The measure tests the ability to solve problems using mathematical models, and to understand, interpret and analyze quantitative information. There is an emphasis on quantitative reasoning skills.

The **Analytical Writing** measure assesses the ability to articulate and support complex ideas, support ideas with relevant reasons and examples, and examine claims and accompanying evidence. The measure consists of two tasks which relate to a broad range of subjects — from the fine arts and humanities to the social and physical sciences. 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).

Test Administration

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

per month. In areas where computer-delivered testing is not available, paper-delivered tests are available up to three times per year (October 6, 2018, November 10, 2018 and February 2, 2019).

Computer-delivered Testing

The computer-delivered 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 are adaptive at the section level. This test design provides a flexible test-taking experience that allows test takers to move freely about within any timed section, skipping questions, changing answers, and using their own personal test-taking strategies.

The Verbal Reasoning and Quantitative Reasoning measures each have two operational sections. Overall, the first operational section is of average difficulty. The second operational section of each of the measures is administered based on a test taker's overall performance on the first section of that measure.

An on-screen calculator is provided in the Quantitative Reasoning measure 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, in large part to maintain fairness

with those test takers who handwrite their essays during the paper-delivered General Test.

Paper-delivered Testing

The paper-delivered GRE General Test contains two Analytical Writing sections, two Verbal Reasoning sections and two Quantitative Reasoning sections. Total testing time is approximately 3 hours and 30 minutes. Test takers enter their answers in test books rather than on answer sheets. A calculator is provided at the test center for use on the Quantitative Reasoning measure.

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 computer-delivered 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. For each of the two measures, a raw score is computed. The raw score is the number of questions answered correctly.

The raw score 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 adaptation. 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.

For the Verbal Reasoning and Quantitative Reasoning measures of the paper-delivered GRE General Test, the scoring is a similar process. First a raw score is computed for each measure. The raw score for each measure is the number of questions answered correctly in the two sections for that measure. Then the raw scores are converted to

scaled scores through a process known as equating. The equating process accounts for minor variations in difficulty among the different test editions, paper-delivered as well as computer-delivered. Thus, a given scaled score for a particular measure reflects the same level of performance regardless of which edition of 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 based on the performance of 146,504 individuals who tested between August 1, 2011, and October 2, 2011. While this group was reasonably representative of the GRE population's demographic characteristics, they tended to be slightly more able than the overall population, which is typical with the launch of a new test. Therefore, 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 computer-delivered 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*[®] 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.

For the Analytical Writing section of the paper-delivered GRE General Test, each essay receives a score from two trained readers. If the

two assigned scores differ by more than one point on the scale, the discrepancy is adjudicated by a third reader. 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/institution/awguides. 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 C, on page 39.

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® Subject Tests

Test Content

The GRE Subject Tests are paper-delivered tests in six 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. Note that the Biochemistry, Cell and Molecular Biology Test was discontinued in December 2016. Scores will continue to be reported per the five-year score reporting policy.

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.

Biology

The test consists of approximately 190 questions that are distributed among three subscore areas: Cellular and Molecular Biology (33-34%), Organismal Biology (33-34%) and Ecology and Evolution (33-34%).

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%).

Literature in English

The test consists of approximately 230 multiple-choice questions on poetry, drama, biography, the essay, the short story, the novel, criticism, literary theory, and the history of the language. Some questions are based on short works reprinted in their entirety, some on excerpts from longer works. The questions are classified as follows: literary analysis (40-55%), identification (15-20%), cultural and historical contexts (20-25%), history and theory of literary criticism (10-15%). In addition, the literary-historical scope of the test is as follows: continental, classical and comparative literature through 1925 (5-10%); British literature to 1660, including Milton (25-30%); British literature 1660-1925 (25-35%); American literature through 1925 (15-25%); American, British and World literatures after 1925 (20-30%).

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.

Psychology

The test consists of approximately 205 questions drawn from courses most commonly offered at the undergraduate level. For test editions administered beginning in September 2017, 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 at test

centers throughout the world (September 15, 2018, October 27, 2018, and April 6, 2019).

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 Biology and Psychology Tests also yield subscores.

- For the Biology Test, the number of questions answered correctly that belong to each content area contribute to each subscore.
- For the Psychology 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 Biology 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 assessment of strengths and weaknesses and can be used for guidance and placement purposes.

Using and Interpreting GRE Scores

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 parties¹ have conducted validity research to verify that it is appropriate to use GRE scores for graduate 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.

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

These Guidelines were revised and approved by the GRE Board Executive Committee in June 2018, for implementation in July 2018.

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 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 candidate 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 a candidate's application package is evaluated for evidence that the candidate 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 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

¹ 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.

unique to each program. Some programs may require a higher level of skills in one area but place lower 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 Tests, They Are Not Exact Measures

Errors of measurement occur when a test taker performs differently on one occasion or test form 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 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 2.1, 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 3.0, which means that if there is a score difference of 3

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 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/percentile.

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 79th percentile rank on the Physics Test is not equivalent to a 79th percentile on the Chemistry Test.

Appropriate and Inappropriate Uses 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.

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 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.

Considerations in Score Interpretation

Since no single test or source of information can provide all the information that a decision maker would like to know about an applicant, 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. GRE test scores measure skills that are important to graduate school success, but they are not the only indicators of an applicant's potential for success. Educational and work experiences and personal attributes might also play a role in a person's ability to be successful in a program. Evidence of these indicators of success cannot be found in GRE scores. Therefore, GRE scores should be used along with the information provided through other components of a person's application.

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 more fair 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 particular 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 are a reflection of disparate access to educational opportunities and social supports that typically start in an individual's early childhood and may persist through adulthood.

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.

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. 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/. For more information of ETS's policy work to reduce achievement gaps, visit www.ets.org/s/achievement_gap.

Test Takers Who are Nonnative English Speakers

Although the GRE tests are not tests of English language proficiency (ELP), they measure skills important for graduate 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 has affected an applicant's performance on the GRE tests. For example, a test taker's ELP test scores can help score users 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.

Score users should be aware that the GRE Analytical Writing measure and the TOEFL Writing measure are very different. 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. Therefore the scores on the two tests are not comparable.

Learn more about the TOEFL test at www.ets.org/toefl.

Test Takers with Disabilities

ETS provides accommodations for individuals with disabilities and 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.

Repeat Test Takers

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 individual (e.g., use most recent score, use highest score). Whatever approach is adopted, it should be used consistently with all applicants.

Essay Responses on the Analytical Writing Section

Criteria for evaluating Analytical Writing essay responses emphasize critical thinking skills, including the ability to reason, assemble evidence to develop a position, and communicate complex ideas. A test taker's control of the fine points of grammar

or the mechanics of writing are weighted only to the extent that these impede clarity of meaning.

An Analytical Writing essay response should be considered a rough first draft since test takers do not have sufficient time to revise their essays during the test. To ensure fairness with test takers who must hand write their essay responses at paper-delivered test administrations, individuals taking the computer-delivered test do not have spell-checking or grammar-checking software available to them.

Essay responses at paper-delivered administrations are handwritten; essay responses at computer-delivered administrations are typed. 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.

Essay topics are administered under standardized conditions; essay scores can provide important information above and beyond any academic writing samples that may be required (e.g., papers from a course). Validity research has shown that the Analytical Writing score is correlated with academic writing more highly than is the personal statement.

Test takers whose native language is not English often find the Analytical Writing section more challenging, on average, than native speakers of English. Steps are taken to ensure that these performance differences are not due to differences on the cross-cultural accessibility of the prompts. Special 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. In addition, 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 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.

The ability of students whose native language is not English to write in English may be affected not only by their language capability but also by their prior experience with the kinds of critical writing tasks in the test. Where educational systems do not stress these skills, performance may not reflect the applicant's ability to learn these skills in a graduate setting.

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/scoreselect.

GRE score reporting policies have been adopted by the GRE Board to encourage the appropriate use of GRE scores and to protect the right of individuals to control the distribution of their own score reports. Current GRE Board policy states that for tests taken on or after July 1, 2016, scores are reportable for five years following the individual's test date. For tests taken prior to July 1, 2016, scores are reportable for five years following the testing year in which the individual tested. Departments and programs should not 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 the 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.

Score reports for the computer-delivered 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 paper-delivered GRE General Test and Subject Tests are sent to institutions and available in the ETS Data Manager approximately five weeks after the test date.

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 employs a three-pronged approach of prevention, detection, and communication to ensure the validity of test scores.

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 centers, 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 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 and 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 future tests 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; or 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.

For additional security questions, or concerns, please contact the ETS Office of Testing Integrity by email at 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).

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, business and law schools or fellowship sponsors still considering their applications.

Statistical Tables

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, 2014, and June 30, 2017. 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 .68, and the correlation between Quantitative Reasoning and Analytical Writing scores is .16.

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

(Based on the performance of all individuals who tested between July 1, 2014, and June 30, 2017)

Test	Number of Test Takers	Mean	Standard Deviation
Verbal Reasoning Measure	1,727,225	150.05	8.43
Quantitative Reasoning Measure	1,730,288	152.80	9.13
Analytical Writing Measure	1,722,231	3.50	0.87

Note: A total of 52 percent of test takers indicated they were female, 46 percent indicated they were male, and 2 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, 2014, and June 30, 2017.

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, 2014, and June 30, 2017^a)

Scaled Score	Verbal Reasoning	Quantitative Reasoning
170	99	96
169	99	96
168	98	94
167	98	91
166	97	90
165	96	88
164	94	86
163	93	83
162	91	80
161	88	77
160	86	74
159	83	72
158	80	68
157	76	65
156	73	61
155	69	58
154	65	54
153	61	50
152	56	46
151	52	42
150	47	38
149	42	34
148	38	30
147	34	26
146	31	23
145	27	20
144	23	16
143	20	14
142	17	12
141	14	10
140	11	8
139	9	6
138	8	4
137	6	3
136	4	2
135	3	2
134	2	1
133	2	1
132	1	1
131	1	1
130	1	1

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, 2014, and June 30, 2017^a)

Score Levels	Analytical Writing
6.0	99
5.5	98
5.0	92
4.5	82
4.0	59
3.5	41
3.0	17
2.5	7
2.0	2
1.5	1
1.0	1
0.5	1
0.0	1

^aA total of 1,727,225 test takers took the Verbal Reasoning measure, 1,730,288 took the Quantitative Reasoning measure, and 1,722,231 took the Analytical Writing measure between July 1, 2014, and June 30, 2017.

Subject Test Interpretative 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, 2014, and June 30, 2017. 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, 2014, and June 30, 2017)

Test	Number of Test Takers	Mean	Standard Deviation	Percent Women	Percent Men
Biology Test	3,141	667	120	56	41
Chemistry Test	9,079	687	114	40	58
Literature in English Test	4,164	543	100	63	33
Mathematics Test	14,883	661	141	27	71
Physics Test	20,045	712	158	21	77
Psychology Test	12,750	617	104	76	21

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, 2014, and June 30, 2017.

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, 2014, and June 30, 2017)

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	Biology ^a	Chemistry	Literature in English	Mathematics	Physics ^b	Psychology ^a
980	99				93	
960	99	99			91	
940	99	99		99	89	
920	99	99		99	86	
900	97	98		94	83	
880	96	96		91	81	
860	94	93		88	78	99
840	91	89		85	75	99
820	89	85	99	82	71	99
800	85	80	99	79	68	98
780	81	75	99	76	64	96
760	76	70	99	72	61	92
740	71	64	98	68	57	87
720	65	58	96	63	53	81
700	59	52	93	59	49	75
680	52	46	90	55	45	68
660	45	40	86	50	41	60
640	39	35	81	46	36	53
620	33	29	75	41	32	45
600	28	23	69	37	27	39
580	22	18	62	31	23	33
560	19	14	54	27	19	27
540	15	10	47	22	15	22
520	11	7	40	17	11	18
500	8	5	33	13	8	14
480	6	3	27	9	5	11
460	4	2	20	7	3	8
440	3	1	15	4	2	5
420	2	1	10	2	1	4
400	1	1	7	1	1	3
380	1		5	1	1	2
360	1		3	1	1	1
340	1		2			1
320			1			1
300			1			1
280			1			1
260			1			1
240			1			1
220						1
200						

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

^aSee Tables 3A, 3B, 3C, and 3D for subscore performance statistics and interpretive information for these tests.^bFor the Physics Test, the percent of test takers scoring lower than 990 is 94.

Subject Test Subscore Information

Tables 3A and 3B provide subscore means and standard deviations on the GRE Biology Test and GRE Psychology Test, respectively. The tables for Biology are based on all individuals who tested between July 1, 2014, and June 30, 2017 and the tables for Psychology are based on all individuals who tested between July 1, 2015, and June 30, 2017.

Table 3A: Performance Statistics on the GRE® Biology Test Subscores

(Based on the performance of 3,141 individuals who tested between July 1, 2014, and June 30, 2017)

Subscore	Mean	Standard Deviation
Cellular and Molecular Biology	68	12
Organismal Biology	67	12
Ecology and Evolution	66	12

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

(Based on the performance of 8,401 individuals who tested between July 1, 2015, and June 30, 2017)

Subscore	Mean	Standard Deviation
Biological	62	10
Cognitive	62	10
Social	62	10
Developmental	62	10
Clinical	61	10
Measurement/Methodology/ Other	62	10

On the following pages, Table 3C and 3D present the percentile ranks for the Biology Test subscores and Psychology Test subscores, respectively. The percentile ranks are based on the percent of test takers scoring below a particular subscore. The data in Table 3C are based on all individuals who tested between July 1, 2014, and June 30, 2017. The data in Table 3D are based on all individuals who tested between July 1, 2015, and June 30, 2017.

The percentile ranks given in Table 3C for the Biology 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 650 on the GRE Biology Test is likely to have subscores of 65, assuming he or she is similarly able in the content areas measured by each subscore. For that test taker, scores much above or below 65 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® Biology Test Interpretive Data for Subscores

(Percent of test takers scoring lower than selected scaled scores. Based on the performance of 3,141 individuals who took the GRE Biology Test between July 1, 2014, and June 30, 2017)

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

Subscore	Cellular and Molecular Biology	Organismal Biology	Ecology and Evolution
98	99	99	99
96	99	99	99
94	99	99	99
92	98	98	99
90	97	97	99
88	95	96	98
86	93	94	96
84	90	91	94
82	87	88	91
80	83	85	87
78	79	80	83
76	73	76	77
74	67	70	72
72	61	65	65
70	55	58	59
68	50	52	52
66	44	47	46
64	38	41	40
62	31	34	34
60	26	28	29
58	21	23	24
56	16	19	21
54	12	14	17
52	9	11	13
50	6	8	11
48	4	5	9
46	2	3	6
44	1	2	4
42	1	1	3
40	1	1	2
38		1	1
36		1	1
34			1
32			1
30			1
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 8,401 individuals who took the GRE Psychology Test between July 1, 2015, and June 30, 2017)

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	99	99	99	99	99	99
84	99	99	99	99	99	99
82	99	99	99	99	99	99
80	97	98	99	98	99	98
78	95	96	96	96	97	95
76	91	93	93	92	94	92
74	86	88	89	88	89	87
72	81	82	82	82	83	82
70	75	74	75	75	75	75
68	68	67	68	68	69	70
66	62	60	60	59	59	61
64	53	53	53	54	53	55
62	47	46	46	46	44	46
60	40	39	38	39	39	41
58	34	33	33	33	32	33
56	29	26	27	27	26	28
54	22	23	22	22	22	22
52	19	17	17	18	18	19
50	14	14	14	14	14	14
48	11	11	11	10	11	11
46	7	8	8	8	8	8
44	5	6	6	6	6	6
42	3	4	4	4	4	4
40	2	3	3	2	3	2
38	1	2	2	2	2	1
36	1	1	1	1	1	1
34	1	1	1	1	1	1
32	1	1	1	1	1	1
30	1	1	1	1	1	1
28	1	1	1	1	1	1
26		1	1	1	1	1
24			1		1	1
22					1	
20						

Reliability and Standard Error of Measurement

Tables 5A, 5B, 5C, and 5D provide reliability estimates for GRE General Test, GRE Subject Tests, GRE Biology 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 85 percent of the time; they differ by one score point about 14 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 .90, 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)^a for Individual Scores and Score Differences for the GRE[®] General Test

Score	Reliability Estimate	SEM of Individual Scores	SEM of Score Differences
Verbal Reasoning	0.92	2.4	3.4
Quantitative Reasoning	0.95	2.1	3.0
Analytical Writing	0.85	0.33	0.46

^aThe reliability estimates and SEMs for the computer-delivered 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, 2014, and June 30, 2017. The reliability estimates and SEMs for the computer-delivered Analytical Writing measure are computed based on split-half analyses using the performance of all individuals who tested between July 1, 2014, and June 30, 2017. The reliability estimates for the paper-delivered version of the measures are very close to those reported for the computer-delivered version.

Table 5B: Reliability Estimates and Standard Errors of Measurement (SEM)^a for Individual Scores and Score Differences for GRE[®] Subject Tests

Score	Reliability Estimate	SEM of Individual Scores	SEM of Score Differences	Sample Size
Biology Test	0.95	27	38	319
Chemistry Test	0.94	25	35	1,156
Literature in English Test	0.95	21	30	612
Mathematics Test	0.91	41	58	1,059
Physics Test	0.94	36	51	1,535
Psychology Test	0.96	22	32	917

^aThe 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.

Table 5C: Reliability Estimates and Standard Errors of Measurement (SEM)^a for Individual Scores and Score Differences for GRE[®] Biology Test Subscores

Subscore	Reliability Estimate	SEM of Individual Scores	SEM of Score Differences	Sample Size
Cellular and Molecular Biology	0.89	3.9	5.4	319
Organismal Biology	0.86	4.3	6.1	319
Ecology and Evolution	0.84	4.6	6.5	319

^aThe reliability for the Biology Test subscores 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.

Table 5D: Reliability Estimates and Standard Errors of Measurement (SEM)^a 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	0.89	3.6	5.1	917
Cognitive	0.94	2.5	3.6	917
Social	0.91	3.3	4.6	917
Developmental	0.87	3.9	5.5	917
Clinical	0.92	3.1	4.4	917
Measurement/Methodology/Other	0.92	3.1	4.4	917

^aThe 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.

Conditional Standard Errors of Measurement for the *GRE*[®] Verbal Reasoning and Quantitative Reasoning Measures

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 score differences 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^a

Measure	130	135	140	145	150	155	160	165	170
Verbal Reasoning	4.1	3.6	2.9	2.5	2.2	2.1	2.1	2.0	1.4
Quantitative Reasoning	3.6	2.8	2.3	2.2	2.1	2.0	2.0	2.1	1.0

Table 5F: Conditional Standard Errors of Measurement (CSEM) of Score Differences at Selected Scores for the *GRE*[®] Verbal Reasoning and Quantitative Reasoning Measures^a

Measure	130	135	140	145	150	155	160	165	170
Verbal Reasoning	5.9	5.1	4.1	3.5	3.1	3.0	2.9	2.9	2.0
Quantitative Reasoning	5.0	4.0	3.3	3.0	2.9	2.8	2.9	3.0	1.5

^aThe CSEM of individual scores and CSEM of score differences for the Verbal Reasoning and Quantitative Reasoning measures of the computer-delivered 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, 2014, and June 30, 2017. The CSEM of individual scores and CSEM of score differences are not available for the Analytical Writing measure.

Appendix A

GRE Board and Committees, and Business School Advisory Council

GRE Board and Committees

The GRE Board consists of 18 appointed members: four AGS appointees, four CGS appointees and 10 at-large appointees of the Board. In addition, the president of CGS is an ex-officio member of the Board. There are five standing committees of the GRE Board:

- (1) The Executive Committee, which is empowered to make interim decisions and set the agenda for board meetings.
- (2) The Research Committee, which establishes long-range planning strategies related to research, considers proposals for new research, monitors the progress of all research projects and allocates designated GRE Board funds for research projects.
- (3) The Services Committee, which monitors all GRE operating services, maintains a close relationship with graduate students and faculty, and identifies long-range planning strategies involving the development of new services.
- (4) The Diversity, Equity, and Inclusion Committee, which monitors ongoing services for fairness and access issues, monitors new and ongoing services and monitors long-range planning strategies for students from underrepresented groups.
- (5) The Finance Committee, which considers and makes recommendations for action on all GRE budget and finance issues. A list of GRE Board and Committee members is available at www.ets.org/gre/greboard.

In addition, the GRE Technical Advisory Committee reviews and discusses technical and measurement issues related to the GRE Program, advises ETS and the GRE Research Committee on the issues, reviews the technical quality of GRE research proposals and reports, and reviews the long-range research plans for the GRE Program.

Business School Advisory Council

The GRE Program also obtains input from the Business School Advisory Council. The Council is comprised of 12-15 appointed members from leading business schools worldwide, and provides insight, perspective, and information regarding the graduate business school market.

Appendix B

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, and Other Fields).

Table 4a (on pages 25-28) 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, standard deviations (S.D.), 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, Law, 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
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
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
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/Rabbinite.....	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

Other Fields

Fire Protection.....	5103
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

Undecided.....	0000
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Appendix C

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.

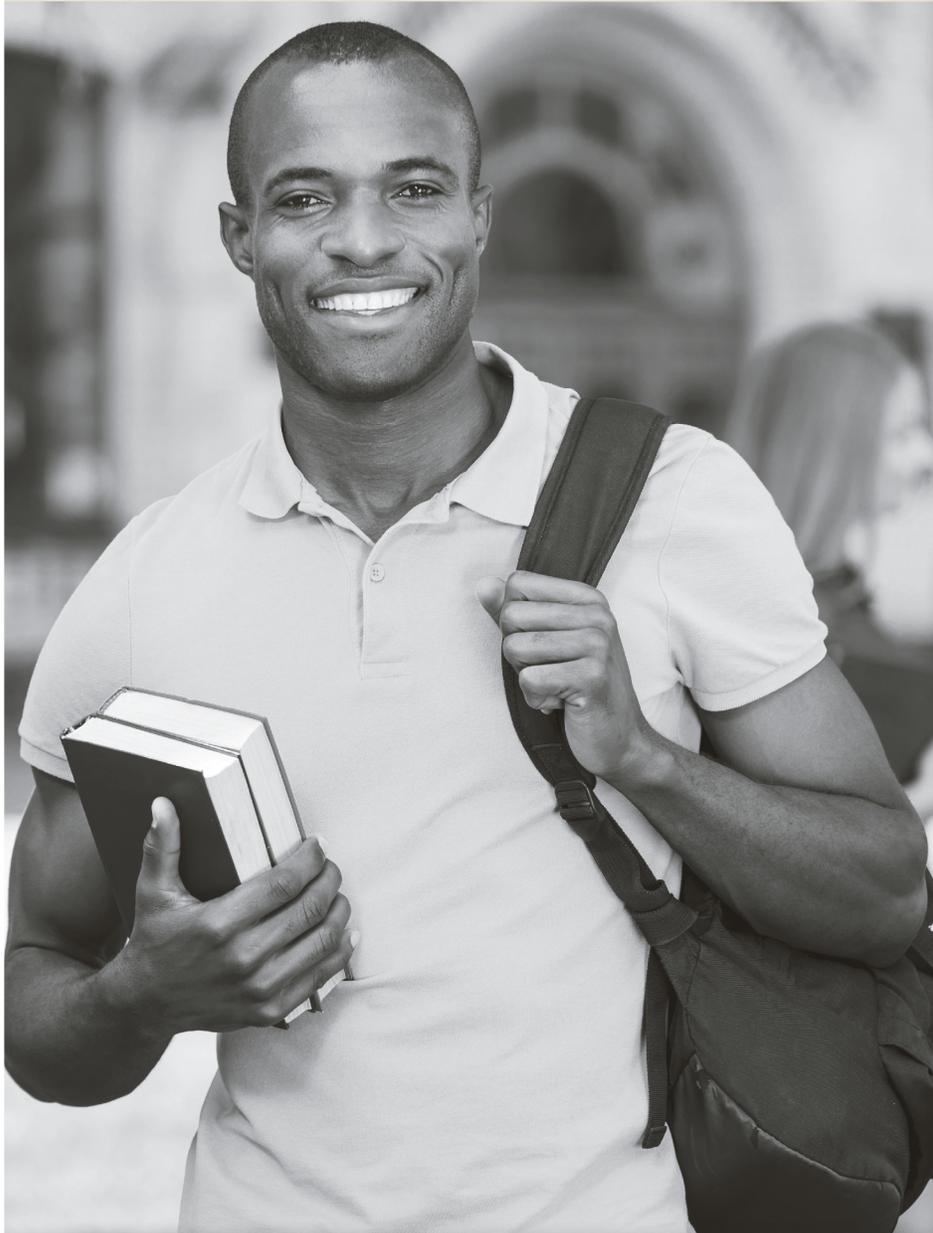
Score NS

The examinee produced no text whatsoever.

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