TEXAS EDUCATION AGENCY
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Texas Education Agency
Division of Research and Analysis
January 2014

College Admissions Testing
General Information, Class of 2011

College Admissions Testing: The SAT and ACT

The Examinations

SAT. The SAT consists of three sections: critical reading, mathematics, and writing (Table 1 on page 2). The critical reading section is 70 minutes in length and consists of 19 multiple-choice sentence completion questions and 48 multiple-choice passage-based reading questions (see, e.g., College Board, 2012b). The sentence completion questions assess vocabulary and understanding of sentence structure. The passage-based questions assess understanding of vocabulary in context; ability to analyze and synthesize information; and ability to comprehend what is explicitly stated, as well as what is implied, in text passages.

The mathematics section is 70 minutes in length and consists of 44 multiple-choice questions and 10 student-produced response questions. Both types of questions in the mathematics section assess ability to apply mathematical concepts; solve problems; and use data literacy skills to interpret tables, charts, and graphs. Additionally, the questions assess knowledge and ability in the areas of numbers and operations; algebra and functions; geometry and measurement; and data analysis, statistics, and probability.

The writing section is 60 minutes in length and consists of 49 multiple-choice questions and a student-produced essay. The multiple-choice section assesses ability to understand grammatical elements and structures within sentences, recognize and identify sentence-level errors, improve sentences and paragraphs, recognize effective sentences, communicate ideas clearly, improve writing through revision and editing, and improve coherence of ideas within and between paragraphs. The student-produced essay requires students to develop and support a point of view on an issue presented in an excerpt using the conventions of standard written English.

The current version of the SAT was first administered to examinees in March 2005. The following modifications differentiate this version of the examination from the previous version: (a) the name of the examination was changed from SAT I: Reasoning Test to SAT; (b) the writing section was added; (c) the verbal section was renamed the critical reading section, the word analogy questions were removed, and short reading passages were added; and (d) the mathematics section was expanded to cover the third year of high school mathematics (Algebra II), and the quantitative comparison questions were removed. With these modifications, the testing time for the SAT increased from 3 hours to 3 hours, 20 minutes.

Table 1
A Brief Comparison of the SAT and ACT Examinations, 2010-11

Characteristic	ACT	SAT
Type of test	The ACT is a curriculum-based, college readiness test that assesses what students learn in their classes; similar to an achievement test.	The SAT is a curriculum-based, college readiness test that assesses the academic skills and knowledge students acquire in high school and the ability to apply that knowledge.
Test structure	English (1 section) Mathematics (1 section) Reading (1 section) Science (1 section) Includes 1 experimental section on selected testing dates Writing (1 optional section)	Critical Reading (3 sections) Mathematics (3 sections) Writing (3 sections) Includes 1 experimental section

Test content	Mathematics
	Multiple-choice questions covering six content areas:
	• pre-algebra
	• elementary algebra
	• intermediate algebra
	• coordinate geometry
	• plane geometry
	• trigonometry
	
	English
	Passage-based reading with multiple-choice questions measuring understanding of:
	• usage/mechanics:
	  ○ punctuation
	  ○ grammar and usage
	  ○ sentence structure
	• rhetorical skills:
	  ○ strategy
	  ○ organization
	  ○ style
	
	Reading
	Passage-based reading with multiple-choice questions measuring reading comprehension as a function of referring and reasoning skills, including understanding of vocabulary in context
	
	Science
	Presents data representations, research summaries, and conflicting viewpoints with multiple-choice questions measuring ability to understand, analyze, and generalize scientific information
	
	Writing (optional)
	Essay test measuring writing skills emphasized in high school English classes and in entry-level college composition courses
		Mathematics
		Multiple-choice and student-produced responses or grid-in questions covering four content areas:
		• numbers and operations
		• algebra and functions
		• geometry and measurement
		• data analysis, statistics, and probability
		
		Critical Reading
		Passage-based reading with multiple-choice-questions measuring:
		• extended reasoning ability
		• literal comprehension
		• understanding of vocabulary in context
		Multiple choice sentence completion questions measuring:
		• knowledge of the meaning of words
		• ability to understand how sentence parts fit together
		
		Writing
		Multiple-choice questions measuring ability to:
		• improve sentences and paragraphs
		• identify sentence errors
		Essay test measuring ability to:
		• develop a point of view on an issue presented in an excerpt
		• support the point of view using reasoning and examples from reading, studies, experience, or observations
		• follow the conventions of standard written English

Note. Information contained in this table was compiled and summarized from resources available on the ACT, Inc., and College Board websites, including the *ACT Technical Manual* (ACT, 2007) and *Getting Ready for the SAT* (College Board, 2012c).

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Table 1 (continued)
A Brief Comparison of the SAT and ACT Examinations, 2010-11

Characteristic	ACT	SAT
Length	215 items: 2 hours, 55 minutes Optional writing section essay: 30 minutes	170 items: 2 hours, 55 minutes 1 essay: 25 minutes
Penalty for incorrect answers	No penalty	Formula scoring: subtracts 1/4 point for each incorrect answer, except on student-produced response questions in the mathematics section
Scoring	The score on each of the four major sections ranges from 1 to 36. Composite score is the average of the four section scores. The optional writing section has two scores: (1) a combined English/writing scale score ranging from 1 to 36 and (2) a writing subscore ranging from 2 to 12.	The score on each of the three major sections ranges from 200 to 800 (in 10-point increments).
Score reporting	If a student takes the test multiple times, he or she can choose which scores to have sent to colleges.	If a student takes the test multiple times, he or she can choose which scores to have sent to colleges.
Cost of exam	$34 plus an additional $15.50 for the optional writing section	$49

Note. Information contained in this table was compiled and summarized from resources available on the ACT, Inc., and College Board websites, including the *ACT Technical Manual* (ACT, 2007) and *Getting Ready for the SAT* (College Board, 2012c).

ACT. The ACT consists of five sections: English, mathematics, reading, science, and an optional writing section. The English section is 45 minutes in length and consists of 75 multiple-choice questions that assess understanding of the conventions of standard written English and rhetorical skills (ACT, 2012d). Specifically, the six elements assessed by this section are punctuation, grammar and usage, sentence structure, strategy, organization, and style.

The mathematics section is 60 minutes in length and consists of 60 multiple-choice questions that assess knowledge and skill in the areas of pre-algebra, elementary algebra, intermediate algebra, coordinate geometry, plane geometry, and trigonometry. The mathematics items are categorized according to four levels: knowledge and skills, direct application, understanding concepts, and integrating conceptual understanding.

The reading section is 35 minutes in length and consists of 40 multiple-choice questions that assess reading comprehension by requiring examinees to understand what is explicitly stated, as well as what is implied, in text; and to draw conclusions, comparisons, and generalizations based on understanding of the passages presented. Specific skills assessed include the ability to determine main ideas, locate and interpret significant details, understand sequences of events, make comparisons, comprehend cause-effect relationships, use context to determine meaning, draw generalizations, and analyze voice and method.

The science section is 35 minutes in length and consists of 40 multiple-choice questions that assess skills required in the sciences, including interpretation, analysis, evaluation, reasoning, and problem solving. The content includes biology, chemistry, and earth/space sciences. The science items are constructed in three formats: data representation, requiring examinees to interpret information presented in graphs and tables; research summaries, requiring examinees to interpret experimental results; and conflicting viewpoints, requiring examinees to understand and analyze alternative viewpoints or hypotheses.

Designed to complement the English section of the test, the 30-minute writing section is optional and requires each examinee to write an essay, based on prompts, by presenting a position on an issue. The prompts describe an issue relevant to high school students and provide two different perspectives on the issue. Examinees are asked to support one of the two perspectives or develop a response based on their own perspective. The writing section allows students the opportunity to express judgments, develop and organize ideas, and use language clearly and effectively.

The basic structure and format of the ACT has remained the same since its inception in 1959. In 2003, the section formerly known as science reasoning was renamed science, and the optional writing section was added in February 2005 (ACT, 2007). The testing time for the ACT is 2 hours, 55 minutes. The writing test adds 30 minutes to the testing time.

SAT and ACT Scoring

Student performance on the SAT is reported as a scaled score, which is a normative standard score calculated from a raw score. Scaled scores on each section of the SAT range from 200 to 800 in 10-point increments. For the critical reading and mathematics sections of the SAT, the raw score equals the number of questions answered correctly minus a fraction of the number of multiple-choice questions answered incorrectly (see, e.g., College Board, 2012b). No points are deducted for unanswered questions or for wrong answers to student-produced response questions on the mathematics section. The writing scaled score is derived from: (a) a raw score calculated in the same manner as the critical reading and mathematics sections and (b) the essay score, which is the sum of two readers' scores.

Student performance on the ACT is reported as a scaled score that ranges from 1 to 36 in 1-point increments. For the English, mathematics, reading, and science sections of the ACT, the raw score equals the number of questions answered correctly, and no points are deducted for incorrect answers (ACT, Inc., 2012c). Examinees also receive a composite score, calculated as the average of the English, mathematics, reading, and science scores. Students who complete the optional writing section receive a combined English/writing score on a scale of 1 to 36 and a writing subscore on a scale of 2 to 12.

Because the SAT and ACT may vary in difficulty from test form to test form or from year to year, the raw scores are not comparable. To allow for performance comparisons, the raw scores are converted to scaled scores. The statistical equating procedures used in the conversion ensure that any given scaled score indicates the same level of ability across test forms or testing dates.

Use of Individual SAT and ACT Scores in Texas

Gold Performance Acknowledgment. In 1993, the Texas Legislature mandated creation of the Texas public school accountability system to evaluate school districts and campuses (Texas Education Code [TEC] Chapter 35, 1994). Through the state accountability system, base indicators in the Academic Excellence Indicator System (AEIS), such as performance on the state assessment, annual dropout rate for Grades 7-8, and Grade 9 longitudinal completion rate, were used to determine accountability ratings. Additional indicators in the AEIS, such as advanced-course completion and performance on the SAT or

ACT, were used to acknowledge districts and campuses for high levels of performance. Additional Acknowledgments were replaced in 2002 with the Gold Performance Acknowledgment (GPA) system, which was in effect through 2011 (TEC §39.0721, 2001).

The SAT/ACT GPA indicator had two components: the percentage of non-special education graduates tested and the percentage of graduating examinees scoring at or above a criterion score (Texas Education Agency [TEA], 2011). For a district or campus to meet the GPA standard, at least 70 percent of non-special education graduates must have taken the SAT and/or ACT, and at least 40 percent of the graduating examinees must have met a criterion score. The criterion for the SAT was a score of 1110 or higher on the critical reading and mathematics sections combined, and the criterion for the ACT was a composite score of 24 or higher. SAT and ACT criterion scores for GPA recognition of high levels of campus and district performance were established by the commissioner of education. The scores were used for GPA acknowledgment only and were not used by colleges to evaluate students for admission.

Exemption From Texas Success Initiative Testing. In 1987, the Texas Legislature established a system of testing and remediation called the Texas Academic Skills Program, or TASP (TEC §51.306, 1988). In 2003, TASP was replaced by the Texas Success Initiative (TSI) (TEC §51.3062, 2004). Under the TSI, undergraduate students enrolling for the first time in public institutions of higher education are required to take an assessment to evaluate their readiness for freshman-level academic coursework (TEC §51.3062, 2011). The Texas Legislature allows exemptions from TSI assessment requirements based on student performance on the SAT, the ACT, and the state assessment (19 TAC §4.54, 2014; TEC §51.3062, 2011). To qualify for an exemption based on the SAT or ACT, a student must receive a specified minimum score in one of the five years prior to enrollment in a public institution of higher education.

Reporting of SAT and ACT Results by the Texas Education Agency

Data Sources

Texas public schools. The College Board provides TEA with annual examination results and demographic information for Texas public high school SAT examinees. Similarly, ACT, Inc., provides TEA with annual examination results and demographic information for Texas public high school ACT examinees. TEA receives scores from the testing companies based on year of graduation, rather than year of test administration. When registering for SAT or ACT examinations, students are asked to provide an expected year of graduation. The testing companies use information such as the student-reported expected year of graduation to determine whether to include examinees' scores in that reporting year. Students may take the SAT and ACT examinations more than once, but TEA receives and reports only the results of examinees' most recent examinations.

Data on public school student grade level, race/ethnicity, economic status, and gender, as well as other relevant district, campus, and student information, are obtained from the TEA Public Education Information Management System (PEIMS). College Board and ACT, Inc., data on race/ethnicity and gender for examinees are used when the equivalent PEIMS data are not available.

Sums of public school examinees by race/ethnicity, by economic status, or by gender may differ from one another or from the total of all examinees. Whereas counts of all examinees reflect all examinees reported by the testing companies, counts of examinees by race/ethnicity and by gender reflect examinees who could be found in PEIMS plus examinees who could not be found in PEIMS but for whom the specified demographic data were available from the testing companies. Examinees reported by the testing companies may not be found in PEIMS because of data reporting errors. Because data on economic status are not available from the testing companies, counts of examinees by economic status reflect only those examinees who could be found in PEIMS.

Combined public and nonpublic schools in Texas and in the United States. Results for all examinees in public and nonpublic schools combined in Texas and in the United States were obtained from summary reports released annually by the College Board (College Board, 2012a) and by ACT, Inc. (ACT, Inc., 2012a, 2012b). As is the case with testing data reported by TEA, annual reports provided by the testing agencies include only the results of examinees' most recent examinations. Additionally, results in the reports are based only on the scores of examinees identified by the College Board and ACT, Inc., as expecting to graduate in the reporting year.

Interpretation of Results

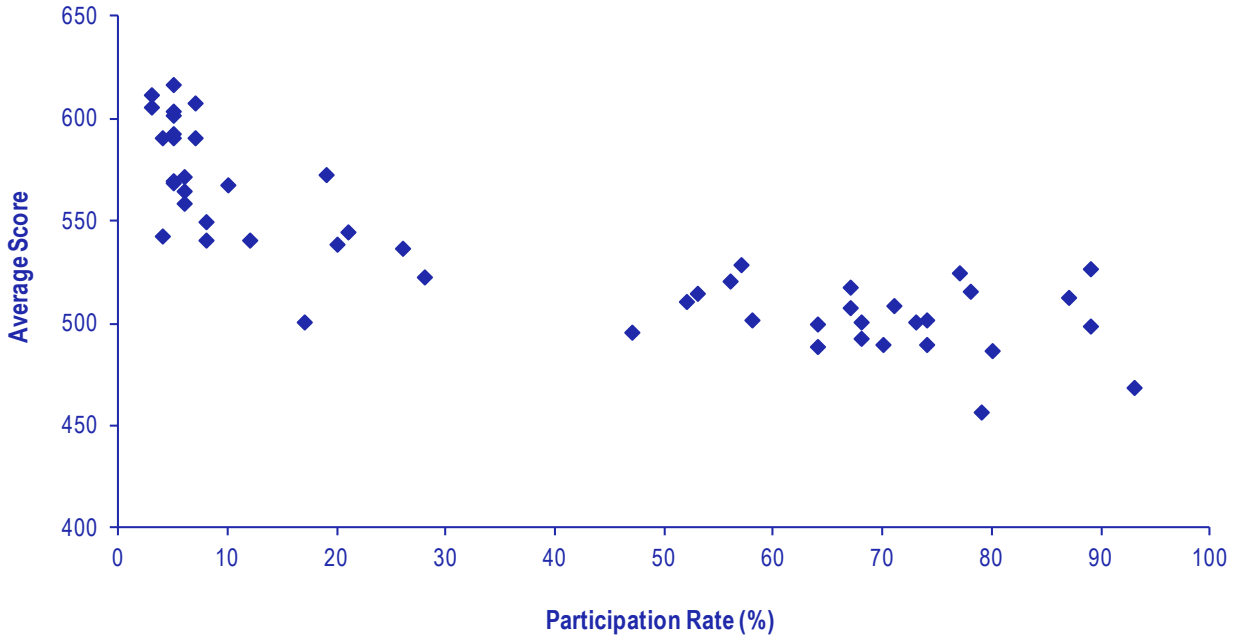
The effect of group size. It may be informative to compare a group's average scores over time, but the reliability of such comparisons is dependent on the size of the group. When the group is small, reliability is reduced and caution should be used when interpreting year-to-year change. In general, changes in the average scores of a large group, such as White SAT examinees in Texas, are less likely to have occurred by chance than changes in the average scores of a small group, such as American Indian or Pacific Islander SAT examinees in Texas. Between-group comparisons are also dependent on the sizes of the groups. When groups differ substantially in size, comparisons of changes in scores between them can be misleading and, generally, are not appropriate. Among non-Hispanic SAT and ACT examinees in Texas, the American Indian, Pacific Islander, and multiracial populations are small in number, compared to other racial/ethnic groups. Therefore, discussions of test performance results for non-Hispanic students, including comparisons across racial/ethnic groups, do not include these populations in reports produced by the Division of Research and Analysis. Among Hispanic SAT and ACT examinees in Texas, the African American, Asian, Pacific Islander, and multiracial populations are small in number, compared to other racial/ethnic groups. Therefore, discussions of test performance results for Hispanic students, including comparisons across racial/ethnic groups, do not include these populations in reports produced by the Division of Research and Analysis.

The effect of participation rate. Because both the SAT and ACT are voluntary, a self-selected portion of the high school population takes the tests. In situations like this, the rate of participation plays an important role in the interpretation of average scores. Specifically, the accuracy of the estimate of the average score for a population on a given examination is dependent on the proportion of that population that takes the examination. For example, a 90 percent participation rate would generally yield an average score that is more representative of the population than a 10 percent participation rate. This effect of participation rate on reported average scores affects the kinds of group comparisons that can be made.

Typically, in groups with low participation rates, the examinees have completed academically rigorous courses and apply to the nation's most selective scholarship programs and colleges (College Board, 2010). Consequently, low participation rates generally result in inflated average score estimates. Assuming the average ability level of each population is in reality the same, the average score estimate for a population with a very low participation rate will usually be higher than the average score estimate for a population with a high participation rate.

The inverse relationship between participation rate and average score estimate is illustrated by SAT mathematics participation and performance data in the 50 states and the District of Columbia in 2011 (Figure 1). As a state's participation rate increases, its average score estimate generally decreases. The relationship between participation and performance begins to stabilize at between 40 and 60 percent participation. Generally, bias in the estimate of a population's average score is reduced when the participation rate is moderate to high. Participation rates directly affect the validity of comparisons among states, districts, campuses, and various student groups. Generally, comparisons of average SAT or ACT scores are most informative between groups with similar participation rates.

Figure 1
Relationship Between SAT Mathematics Participation and Performance for States, Class of 2011



Source. Primary data from College Board (2011).

Participation rates over time. SAT and ACT participation rates can be affected by many factors, including varying graduation rates, availability of test fee waivers, availability of financial aid for higher education, and state mandating of participation in one of the examinations. The number of graduates is the denominator in SAT and ACT participation rate calculations, and the number of examinees is the numerator. In 2005, for the first time in nearly a decade, the number of students graduating from Texas

public schools decreased (TEA, 2006). Because the decrease in graduates did not result from a decrease in enrollment, and because the numbers of SAT and ACT examinees increased, examination participation rates increased for all student groups in 2005. Shifts such as this should be taken into account when comparing participation rates over time.

Under the Texas College Preparation Program, TEA contracted with the College Board and ACT, Inc., to offer free SAT and ACT examinations in the spring and summer of 2010 and 2011 to high school juniors who were enrolled in Texas public school districts and charters (TEC §39.0261, 2013). The standard registration fees for the SAT and ACT were funded by TEA. Results for juniors who took TEA-funded SAT or ACT examinations in 2010 are presented in the reports *College Admissions Testing Performance Results for Graduating Seniors in Texas Public Schools, Class of 2011* (TEA, 2014b) and *College Admissions Testing of Graduating Seniors in Texas and the United States, Class of 2011* (TEA, 2014a).

References

ACT, Inc. (2007). *The ACT technical manual.* Retrieved February 28, 2012, from http://www.act.org/aap/pdf/ACT_Technical_Manual.pdf

ACT, Inc. (2012a). *ACT national and state scores.* Retrieved April 19, 2012, from http://www.act.org/newsroom/data/

ACT, Inc. (2012b). *ACT profile reports.* Retrieved April 19, 2012, from http://www.act.org/newsroom/data/2011/profilereports.html

ACT, Inc. (2012c). *Understand your scores.* Retrieved February 28, 2012, from http://www.actstudent.org/scores/understand/index.html

ACT, Inc. (2012d). *Your guide to the ACT.* Retrieved February 28, 2012, from http://www.act.org/aap/pdf/YourGuidetoACT.pdf

College Board. (2010). *Guidelines on the uses of College Board test scores and related data.* Retrieved March 7, 2012, from http://professionals.collegeboard.com/profdownload/guidelines-on-uses-of-college-board-test-scores-and-data.pdf

College Board. (2011). *SAT trends: Background on the SAT takers in the class of 2011*. Retrieved July 15, 2013, from http://professionals.collegeboard.com/profdownload/SAT_Trends_Report_9_12_2011.pdf

College Board. (2012a). *College-Bound seniors 2011.* Retrieved April 19, 2012, from http://professionals.collegeboard.com/data-reports-research/sat/cb-seniors-2011

College Board. (2012b). *Educators handbook.* Retrieved February 28, 2012, from http://www.collegeboard.com/prod_downloads/sat/sat-educators-handbook.pdf

College Board. (2012c). *Getting ready for the SAT.* Retrieved February 28, 2012, from http://www.collegeboard.com/prod_downloads/sat/getting-ready-for-the-sat.pdf

Texas Administrative Code, Title 19, Education. (2014). Retrieved January 15, 2014 from http://info.sos.state.tx.us/pls/pub/readtac$ext.ViewTAC?tac_view=3&ti=19&pt=1

Texas Education Agency. (2006). *Secondary school completion and dropouts in Texas public schools, 2004-05* (Document No. GE06 601 06). Austin, TX: Author.

Texas Education Agency. (2011). *2011 accountability manual* (Document No. GE10 602 02). Austin, TX: Author.

Texas Education Agency. (2014a). *College admissions testing of graduating seniors in Texas and the United States, class of 2011*. (Document No. GE14 601 03). Available at http://www.tea.state.tx.us/acctres/sat_act_index.html

Texas Education Agency. (2014b). *College admissions testing performance results for graduating seniors in Texas public schools, class of 2011*. (Document No. GE14 601 05). Available at http://www.tea.state.tx.us/acctres/sat_act_index.html

Texas Education Code. (1988). *Texas school law bulletin*. St. Paul, MN: West Publishing.

Texas Education Code. (1994). *Texas school law bulletin.* St. Paul, MN: West Publishing.

Texas Education Code. (2001). *Texas school law bulletin.* Charlottesville, VA: Matthew Bender.

Texas Education Code. (2004). *Texas school law bulletin*. St. Paul, MN: West.

Texas Education Code. (2011). Retrieved January 15, 2014 from http://www.statutes.legis.state.tx.us/Docs/ED/htm/ED.51.htm#51.3062

Texas Education Code. (2013). *Texas school law bulletin.* Charlottesville, VA: Matthew Bender.

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Abstract. This report presents general information about the SAT and ACT, including descriptions of the examinations, uses of individual scores in Texas, data sources, and interpretation of results.

Keywords. *SAT, ACT, college admissions, testing, accountability, high school, scores, graduate.*

The report is available in PDF format on the agency website at http://www.tea.state.tx.us/acctres/sat_act_index.html. Additional information about this report may be obtained by contacting the Texas Education Agency Division of Research and Analysis by phone at (512) 475-3523 or by e-mail at research@tea.state.tx.us.

For additional information about the SAT, contact the College Board Southwestern Regional Office at (512) 721-1800 or http://www.collegeboard.com/. For additional information about the ACT, contact ACT, Inc., Southwest Region, at (512) 345-1949 or http://www.act.org/.

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