

Percent of Items Correct and Rigor

The fact that Texas students could pass last year’s STAAR Algebra I assessment with 37% of the items correct has raised questions about rigor, test design, and how STAAR compares to the SAT and ACT. Here is some background information.

Why is 70% correct not the passing standard?

The belief that 70% of the questions correct should be the passing standard assumes that no matter how hard (or rigorous) the set of questions on a particular test is, being able to answer at least 70% of the questions correctly demonstrates proficiency.

Item difficulty—STAAR tests are designed using the same validated statistical method as the NAEP, GRE, GMAT, and LSAT. This method allows scores to be assigned fairly by factoring in the difficulty of the set of questions on a test or test form. Answering 4 out of 10 questions correctly on a more rigorous test could indicate greater mastery than answering 7 out of 10 questions correctly on an easier test. Scale scores take into account the difficulty of the set of test questions based on empirical data for each question. Raw scores don’t do this.

Appropriate cut—The Commissioner of Education set STAAR performance standards based on over 70 validity studies and input from over 600 Texas educators from K–12 and higher education. The standards are anchored to indicators of college and career readiness. The Level II: Satisfactory standard indicates sufficient mastery of course content and preparation for the next course or grade level.

As Texas has done with its last two assessment programs, STAAR performance standards are being phased in. This allows educators the time to adjust instruction to meet the more rigorous standards Texas has put in place.

The percent correct ‘cuts’ to pass (achieve Level II: Satisfactory) for the STAAR EOCs during the spring 2014 administration ranged from 37% (Algebra I and biology) to 54% (English II). The final recommended standard will require students to correctly answer over 60% of the questions correctly.

How does STAAR compare to SAT and ACT in terms of percent of items correct?

To meet the SAT college readiness benchmark, a student must achieve a combined scale score of 1550. The ACT college readiness benchmarks are scale scores of 18, 22, and 22 for the English, mathematics, and reading tests respectively. The table below shows the percent correct ‘cuts’ to achieve 520 on each of the three sections (for an SAT total score that meets the standard) or to meet the college readiness benchmark on each ACT subject-area test. The ACT English test does not include performance on the essay.

Percent of Items Correct to meet SAT and ACT College Readiness Benchmark¹

Assessment	Items correct / Total items	Percent Correct	Assessment	Items correct / Total items	Percent Correct
SAT Mathematics	30/54	56%	ACT Mathematics	34/60	57%
SAT Critical Reading	35/67	52%	ACT Reading	25/40	63%
SAT Writing	30/49	61%	ACT English	39-41/75	52-55%

¹ SAT Raw Score to Scaled Score Ranges <http://media.collegeboard.com/digitalServices/pdf/research/SAT-RAW-Score-to-Scaled-Score-Ranges-2013.pdf>
 ACT Raw Score to Scaled Score Ranges <http://mtmorrischools.eaj.schoolfusion.us/modules/groups/homepagefiles/cms/666390/File/Raw%20Scores.pdf>