# Guide to the 2018 ACT<sup>®</sup>/SAT<sup>®</sup> Concordance





#### What Is Concordance?

The term "concordance" refers to establishing a relationship between scores on assessments that measure similar (but not identical) constructs. A technically sound concordance allows students and professionals to compare scores from similar assessments to inform decisions. A concorded score is not a perfect prediction of how a student would perform on the other test.

#### **How Were the ACT/SAT Concordance Tables Developed?**

ACT and the College Board periodically produce ACT\*/SAT\* concordance tables to show how scores on each test compare. With the redesign of the SAT in 2016, researchers from the College Board and ACT, in collaboration with the NCAA Technical Advisory Board, developed updated, technically sound concordance tables that will serve the needs of students and institutions going forward. The 2018 ACT/SAT concordance tables in this document are now the only official concordance tables and should be the single source of reference moving forward when comparing SAT scores to ACT scores for students applying for terms after fall 2018. These tables replace the concordance tables released in 2016.

The concordance tables show ACT and SAT scores with the same percentile rank for a group of students who took both tests. The sample of students used to develop the concordance tables took the ACT test and the new SAT test. For students who took the ACT and/or the SAT more than once, their ACT and SAT scores with the closest test dates were used. The tables were produced using data from 589,753 students who were graduating seniors in 2017 and who took both the ACT and the new SAT tests between February 2016 (for the ACT) or March 2016 (for the SAT) and June 2017. The sample was statistically weighted to reflect the demographics, school attributes, and high school grade point average (GPA) of all students who are likely to take the ACT, SAT, or both tests.

#### Which Concordance Tables Are Provided?

The concordance tables are based on ACT and SAT tests that cover similar content and show a strong statistical relationship between scores. A description of the content measured by the new SAT and the ACT is provided in the Appendix. The table below lists the three sets of concordances.

		Tables	
ACT score	SAT score	SAT-to-ACT	ACT-to-SAT
ACT Composite	SAT Total	Table A1	Table A2
ACT Mathematics	SAT Math	Table B1	Table B2
ACT English + Reading	SAT ERW	Table C1	Table C2

Note: Concordance tables for the ACT Composite were derived from concordances of the ACT sum score.

Note: ERW = Evidence-Based Reading and Writing.

Tables are provided in both directions (ACT-to-SAT and SAT-to-ACT). Each ACT score is related to a range of SAT scores (or vice versa). For users who want to concord an ACT score to a single SAT score point (or vice versa), the most appropriate score point within the range is also provided.

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#### **2018 Concordance Tables**

Table A1: SAT Total to ACT Composite

SAT ACT **ACT** SAT **ACT** \*1590 \*1240 \*890 \*1210 \*1540 \*850 \*1180 \*1500 \*1140 \*800 \*1460 \*1110 \*760 \*1430 \*1080 \*1400 \*710 \*1040 \*1370 \*1010 \*670 \*1340 \*970 \*630 \*1310 \*930 \*1280 \*590 

**Table A2:** ACT Composite to SAT Total

ACT	SAT	SAT Range
36	1590	1570–1600
35	1540	1530–1560
34	1500	1490–1520
33	1460	1450–1480
32	1430	1420–1440
31	1400	1390–1410
30	1370	1360–1380
29	1340	1330–1350
28	1310	1300–1320
27	1280	1260–1290
26	1240	1230–1250
25	1210	1200–1220
24	1180	1160–1190
23	1140	1130–1150
22	1110	1100–1120
21	1080	1060–1090
20	1040	1030–1050
19	1010	990–1020
18	970	960–980
17	930	920–950
16	890	880–910
15	850	830–870
14	800	780–820
13	760	730–770
12	710	690–720
11	670	650–680
10	630	620-640
9	590	590–610

Note: Concordance tables for the ACT Composite were derived from concordances of the ACT sum score.

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<sup>\*</sup>Use this SAT score when a single score point comparison is needed.

Table B1: SAT Math to ACT Math

SAT	ACT	SAT	ACT
800	36	*500	18
790	35	490	18
*780	35	480	17
770	35	*470	17
760	34	460	17
750	33	450	16
*740	33	440	16
730	32	*430	16
*720	32	420	16
710	31	410	15
*700	30	*400	15
690	30	390	15
680	29	380	15
670	28	370	14
*660	28	*360	14
650	27	350	14
*640	27	340	13
630	27	*330	13
620	26	320	13
*610	26	*310	12
600	25	300	12
*590	25	290	11
*580	24	*280	11
570	24	270	10
*560	23	*260	10
550	23		
540	22		
530	21		
520	20		
510	19		

<sup>\*</sup>Use this SAT score when a single score point comparison is needed.

Table B2: ACT Math to SAT Math

ACT	SAT
36	800
35	780
34	760
33	740
32	720
31	710
30	700
29	680
28	660
27	640
26	610
25	590
24	580
23	560
22	540
21	530
20	520
19	510
18	500
17	470
16	430
15	400
14	360
13	330
12	310
11	280
10	260

**Table C1:** SAT ERW to ACT English+Reading

SAT	ACT	SAT	ACT
800	72	500	37
*790	72	490	35
780	71	480	34
*770	71	470	33
760	70	460	32
*750	70	450	31
740	69	440	30
730	68	430	29
720	67	420	28
710	66	410	27
700	64	400	26
690	63	390	25
680	61	380	24
670	60	370	23
660	58	360	22
650	57	350	21
640	55	340	20
630	54	330	19
620	52	320	18
610	51	310	17
600	49	300	16
590	48	290	15
580	46	280	14
570	45		
560	44		
550	43		
540	42		
530	40		
520	39		
510	38		

**Note:** ERW = Evidence-Based Reading and Writing. ACT English + Reading scores range from 2 to 72.

\*Use this SAT score when a single score point comparison is needed.

**Table C2:** ACT English+Reading to SAT ERW

ACT	SAT		ACT	SAT
72	790	•	*42	540
71	770		41	540
70	750		40	530
69	740		39	520
68	730		38	510
67	720		*37	500
66	710		36	500
65	700		35	490
*64	700		34	480
63	690		33	470
62	680		32	460
*61	680		31	450
60	670		30	440
59	660		29	430
*58	660		28	420
57	650		27	410
56	640		26	400
*55	640		25	390
*54	630		24	380
53	630		23	370
52	620		22	360
*51	610		21	350
50	610		20	340
49	600		19	330
48	590		18	320
47	580		17	310
*46	580		16	300
45	570		15	290
44	560		14	280
43	550			

**Note:** ERW = Evidence-Based Reading and Writing. ACT English + Reading scores range from 2 to 72.

\*Use this ACT score when a single score point comparison is needed.

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#### What Are the Potential Uses of Concordance Tables?

A variety of stakeholders use concordance tables to compare scores across the ACT and the SAT to inform policies, processes, and decisions. College counselors, students, and their families use concordance tables to inform college searches and explorations. Policymakers, researchers, and K–12 educators use concordance tables to aggregate scores across tests to measure college readiness for groups of students. Colleges, universities, scholarship organizations, and athletic conferences also use concordances in a variety of ways, including determining eligibility for a program or scholarship.

- Comparing SAT and ACT scores across different students. When scores from either test are accepted, concordance tables can help institutions or other stakeholders who need to compare scores.
- Establishing a policy using comparable scores from both tests. An institution, scholarship, or
  program may use a specific test score as one factor to establish eligibility.
- Converting scores for use in a predictive model or index. Many colleges and universities have
  built indices or models to predict the likelihood that individual students will apply, enroll, or succeed
  academically. These models typically include a variety of factors, including test scores, high school GPA,
  and course rigor. Institutions can apply the concordance tables in these prediction models.

### What Are the Key Considerations and Limitations When Using the Concordance Tables?

Using SAT and ACT scores in a consistent, psychometrically appropriate way as one component of a holistic admission process will help ensure all students are treated fairly in the admission process. While the concordance tables can be used for a variety of purposes, higher education professionals should keep the following considerations and limitations in mind:

- The ACT and the SAT are different tests. The ACT and the SAT measure similar, but not identical, content and skills. A concorded score is not a perfect prediction of how a student would perform on the other test. Concorded scores should be interpreted as the scores with the same rank within a group of students who take the tests at approximately the same time.
- Concordances are used to compare individual scores, not aggregate scores. Users should avoid
  converting aggregate scores (e.g., mean, median, ranges) using concordance tables, as this could
  introduce additional sources of error.
- Users should avoid making decisions based solely on a concorded score. Admission and enrollment
  professionals should use multiple reliable and valid measures when making decisions to account for the
  many factors that impact academic performance in college.
- Note the prediction error (more details below). Users should consider this when using the
  concordance tables to predict how a student would have performed on the ACT or the SAT.
- Concordances are sample-dependent. While concordance results can vary by sample, the ACT/SAT
  concordance sample was statistically weighted to more closely reflect the demographics, school attributes,
  and high school GPA of the population of students who take the ACT, SAT, or both tests.
- Institutions should not superscore across the SAT and ACT tests. Superscoring across 2 different
  tests is an imprecise way of understanding whether a student meets a certain academic threshold.
   Combining scores from the ACT and the SAT in a single superscore is strongly discouraged.

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#### **Additional Notes and Technical Specifications**

Like all concordance tables, the ACT/SAT concordance tables are somewhat dependent on the sample of students who took both tests. The concordance tables reported here were produced using data from 589,753 students who were graduating seniors in 2017 and who took the ACT and the new SAT test between February 2016 (for the ACT) or March 2016 (for the SAT) and June 2017. International students, students with disabilities who tested with special accommodations, and students who took the ACT or SAT under state or district testing programs were included. For students who took the ACT and/or the SAT more than once, their ACT and SAT scores from the closest test dates were used.

To produce the concordance, statistical weighting procedures were used to accomplish two goals. The first goal was to reflect the demographics, school attributes (size, locale, geographic region, public/private affiliation, and percentage eligible for free or reduced-price lunch), and high school GPA of the students taking the ACT only, the SAT only, or both tests (i.e., the entire population of test takers). The second goal was to minimize the time between students' ACT and SAT testing and also ensure the students who took the ACT before the SAT and the students who took the SAT before the ACT were counterbalanced. The ACT and SAT scores were linked using equipercentile methods on the weighted ACT and SAT score distributions. To the extent that the goals for the statistical weighting were accomplished, the concordance tables are representative of graduating seniors who took either test or both tests.

As mentioned above, concordance tables should not be expected to provide perfect predictions of a student's SAT score from their ACT score, or their ACT score from their SAT score. To convey the uncertainties associated with use of the table for predicting SAT or ACT scores that are close in time, we provide error intervals for the SAT and ACT scales. These error intervals reflect the variability of students' ACT scores from the SAT-to-ACT concordance, and the variability of students' SAT scores from the ACT-to-SAT concordance. The size of these error intervals depends on the correlation of the ACT and SAT scores and the reporting scale ranges of the ACT and the SAT.

- When using the SAT Total and ACT Composite concordance table to estimate a student's proximal ACT Composite score from their SAT Total score, the estimates in the table have a standard error of approximately ± 2.26 (2) ACT Composite score points on its 1–36 point scale. When using this table to estimate a student's proximal SAT Total score from their ACT Composite score, the estimates have a standard error of approximately ± 79.57 (80) SAT Total score points on its 400–1600 point scale.
- When using the SAT Math and ACT Mathematics concordance table to estimate a student's proximal ACT Mathematics score from their SAT Math score, the estimates in the table have a standard error of approximately ± 2.65 (3) ACT Mathematics score points on its 1–36 point scale. When using this table to estimate a student's proximal SAT Math score from their ACT Mathematics score, the estimates have a standard error of approximately ± 50.33 (50) SAT Math score points on its 200–800 point scale.
- When using the SAT ERW and ACT English+Reading concordance table to estimate a student's proximal ACT English+Reading score from their SAT ERW score, the estimates in the table have a standard error of approximately ± 5.93 (6) ACT English+Reading score points on its 2–72 point scale. When using this table to estimate a student's proximal SAT ERW score from their ACT English+Reading score, the estimates have a standard error of approximately ± 46.66 (50) SAT ERW score points on its 200–800 point scale.





## SAT and ACT Item Counts and Test Content Descriptions

Content experts at ACT and the College Board jointly agreed that the SAT Math Test and the ACT Mathematics Test are sufficiently similar in what they are measuring to justify a concordance. An additional criterion for concordance is the strength of the relationship between two such measures: our research demonstrates that the correlation between ACT and SAT math scores for the concordance sample was 0.885, which met this criterion (i.e., a correlation of 0.866 or higher). The content similarity and score correlations provide sufficient evidence to support a concordance between the math tests.

The experts at the two organizations also jointly agreed that the SAT Reading Test and SAT Writing and Language Test are sufficiently similar to the ACT Reading Test and the ACT English Test to justify a concordance. The correlations between the combined tests, SAT Evidence-Based Reading and Writing and ACT Reading and English, was 0.884.

The table below provides the item counts for each of the concorded tests. Additional descriptions of the test content for the SAT can be found at **collegeboard.org/SATtestcontent**. Additional descriptions of test content for the ACT can be found at **act.org/theACTcontent**.

	Item Counts		
Concorded Components	ACT	SAT	
Total/Composite*	ACT Composite Score is the average of the four ACT test scores (215 items total):	SAT Total Score is based on the three SAT test scores (154 items total):	
	<ul><li>English Test</li></ul>	<ul><li>Reading Test</li></ul>	
	<ul><li>Reading Test</li></ul>	<ul><li>Writing and Language Test</li></ul>	
	<ul> <li>Mathematics Test</li> </ul>	<ul><li>Math Test</li></ul>	
	<ul><li>Science Test</li></ul>		
Reading and Writing**	ACT English Test (75 items) ACT Reading Test (40 items)	SAT Evidence-Based Reading and Writing	
		<ul><li>Reading Test (52 items)</li></ul>	
		<ul> <li>Writing and Language Test (44 items)</li> </ul>	
Math	ACT Mathematics Test (60 items)	SAT Math Test (58 items)	

<sup>\*</sup>Concordance tables for the ACT Composite were derived from concordances of the ACT sum score (i.e., the sum of the English, Reading, Mathematics and Science Tests).



<sup>\*\*</sup>Does not include the optional ACT Writing Test or the optional SAT Essay