

## PCAT Score Interpretation Reference Guide

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The PCAT is a norm-referenced standardized test intended to measure content knowledge and cognitive abilities that pharmacy schools consider to be essential for success in their programs. Detailed information about the PCAT is available in documents on the PCAT website: PCAT Basics, Interpreting PCAT Scores, and PCAT Reliability and Validity. A printed 2020 edition of the PCAT Technical Manual is also available to qualified professionals. For any questions or comments related to the PCAT, please contact PCAT Customer Relations: [Scoring.Services@Pearson.com](mailto:Scoring.Services@Pearson.com).

### PCAT Scores Reported on the Official Transcript

- The PCAT scaled scores are standardized scores that represent equal units on a continuous scale, ranging from 200–600, with a designated mean and standard deviation (originally established in 2004 as 400 and 25, respectively). These scaled scores are derived from candidates' raw scores, the number of items answered correctly for a given subtest.
- PCAT percentile ranks range from 1–99 and represent the percent of candidates who received a scaled score lower than a given score in the current norm group—the 52,882 candidates taking the PCAT for the first time from July 2015 through April 2019. Composite percentile ranks earned prior to July 2016 (when the Verbal Ability subtest was still part of the PCAT) are based on recalculated scales scores that include only the current multiple-choice subtests: Biological Processes, Chemical Processes, Critical Reading, and Quantitative Reasoning.
- PCAT candidates earn a single Writing score reported on a scale of 1.0–6.0. The Writing score represents an average of two assigned scores reported to one decimal place (e.g., assigned scores 3 and 4 average to 3.5). A mean score is also reported for comparison purposes that represents the average of all Writing scores earned by candidates taking the PCAT during the 12 months prior to a given test administration window.

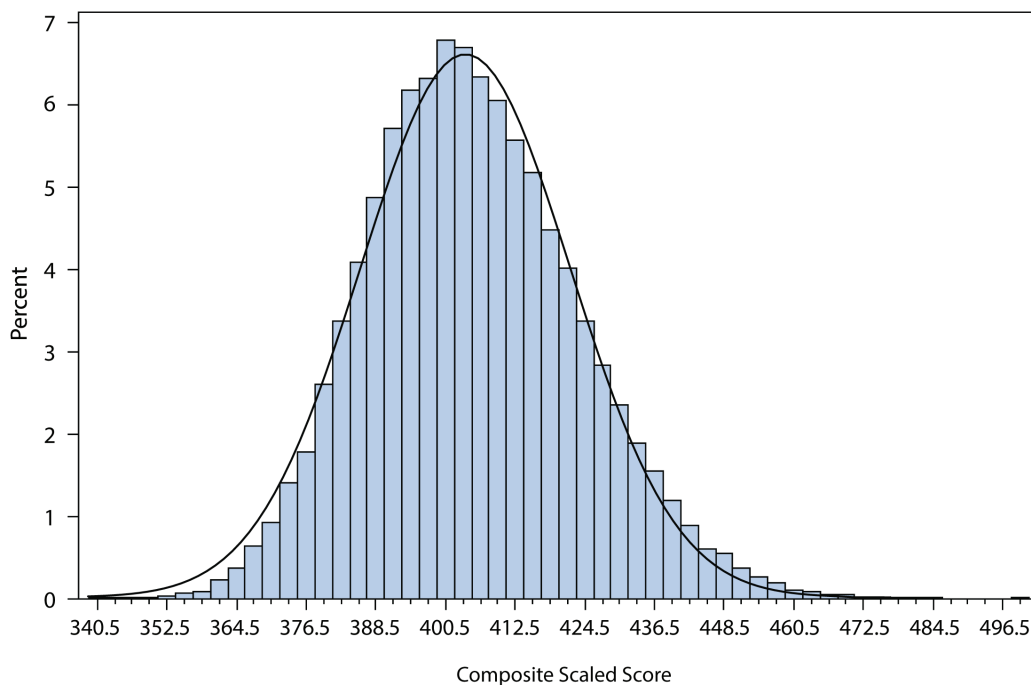
### Understanding Scaled Scores and Percentile Ranks

- The number of operational items answered correctly on a given test form subtest (a raw score) corresponds to a unique scaled score that in turn corresponds to a percentile rank. Because each PCAT multiple-choice subtest includes 40 items that are used to determine candidates' scores, and there are 401 possible scaled score points (200–600), a change of one raw score point necessarily results in a change of more than one scaled score point.
- A scaled score represents an estimate of the ability needed to answer a given number of scored items correctly for a given subtest, and the corresponding percentile rank represents the proportion of individuals from a normative sample who earned lower than a given score.
- Table 1 shows some average raw-score-to-scaled-score-to-percentile-rank correspondences for all test form subtests administered during the 2015–19 PCAT normative sample period. The average correspondences shown in Table 1 illustrate patterns observed across multiple test forms administered over several years, rather than exact score correspondences for a specific test administration. Each row in Table 1 shows how each successive raw score point increase corresponds to a given average change in scaled score and percentile rank at the middle and upper end of the score point range. For example, a change in the Biological Processes raw score of 23 to 24 results in an average 3-point scaled score change and a 6-point change in percentile rank (shown on the row for a raw score of 23–24).

**Table 1** Average PCAT Subtest Scaled Score (SS) and Percentile Rank (PR) Increases for Selected Raw Score (RS) Increases for the 2015–19 PCAT Normative Sample (RS lower than 22–23 not shown)

RS increase	Biological Processes		Chemical Processes		Critical Reading		Quantitative Reasoning	
	SS increase	PR increase	SS increase	PR increase	SS increase	PR increase	SS increase	PR increase
22–23	3	5	3	6	3	5	3	5
23–24	3	6	3	6	3	6	3	5
24–25	3	6	4	6	4	8	3	5
25–26	3	5	3	5	3	5	3	5
26–27	3	6	4	6	4	8	3	4
27–28	3	6	3	4	4	7	4	4
28–29	3	5	4	6	3	4	3	3
29–30	4	6	4	4	5	6	4	4
30–31	4	6	4	3	4	4	4	2
31–32	4	6	5	3	4	3	4	2
32–33	4	4	5	2	6	3	4	1
33–34	5	5	5	2	5	1	5	1
34–35	5	4	7	2	7	2	6	1
35–36	7	2	7	1	7	0	7	0
36–37	8	2	9	0	9	0	8	0
37–38	11	1	13	0	13	0	11	0
38–39	18	0	21	0	21	0	19	0
39–40	18	0	20	0	21	0	19	0

- Table 1 shows that for test forms administered during the normative sample period, one-point raw score changes near the upper end (34–35 to 39–40) result in greater scaled score changes than in the 23–24 to 33–34 range (the middle of the distribution), where corresponding scaled scores differences are smaller.
- Table 1 also shows that slight changes in scaled score around the mean result in greater differences in percentile rank. This is because scaled scores are derived from item difficulties, with fewer extremely easy or difficult items in a subtest and more in the middle of the difficulty range. The percentages of candidates earning scaled scores is similarly distributed, with fewer at the extremities and more around the mean, as shown in Figure 1.



**Figure 1** Distribution of Candidates Earning Composite Scaled Score Points for the 2015–19 Normative Sample