



PA-CAT EXAMINEE PERFORMANCE REPORT

Summary of Candidate Performance from
May 2020 to April 2022

Rajat Chadha, PhD (Psychometrician for PA-CAT)

Date: April 2022

Rajat Chadha, PhD



Dr. Chadha, with a PhD in Education from Indiana University, Bloomington, is an expert psychometrician with more than 14 years of extensive experience working on multiple significant projects. has worked as a psychometrician in high-stakes certification for physicians in the United States. He has also worked on predictive risk modeling for Physician Assistant programs and has published book chapters and peer-reviewed articles in leading journals.

Additional Information

If you would like to ask questions about the research brief, access to the full research study, or express interest in participating in future research studies, reach out to:

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Physician Assistant College Admissions Test (PA-CAT)

Examinee Performance Report

Physician Assistant College Admissions Test (PA-CAT)

The PA-CAT is a specialized discipline-specific assessment consisting of 240 test items designed to measure knowledge and application in nine prerequisite science subjects necessary for success in the demanding Physician Assistant (PA) curriculum. The PA-CAT has been developed specifically for use by PA educators and their admissions departments as part of a holistic admissions process.

As of July 20, 2024, the assessment has been administered to 4,315 examinees since it was first administered on May 1, 2020. One composite scaled score based on all items comprising the assessment and three subject scaled scores (Anatomy & Physiology, Biology, and Chemistry) are reported for each examinee. The reliability of PA-CAT composite scaled scores is very high (0.939), indicating that the PA-CAT composite scaled scores are very dependable. This means that it is highly likely that the PA-CAT examinees with higher scaled scores have higher knowledge and application skills in the prerequisite science subjects.

April 2022 Results Update

Now in its third year, the Physician Assistant College Admissions Test (PA-CAT) has been taken by many hundreds of PA school applicants.¹ The 240-item exam (200 scored questions) assesses candidate knowledge and application in nine pre-requisite subjects often required for admission to PA school.

PA-CAT Subjects and Item Count

Subject	Percentage	Number of Items
Anatomy	16%	39
Physiology	16%	39
Chemistry	16%	38
General Biology	11%	26
Microbiology	11%	26
Genetics	11%	26
Biochemistry	5%	12
Behavioral Sciences	9%	22
Statistics	5%	12
Total	100%	240

To account for variances in test forms and to allow for accurate score comparisons over time, PA-CAT exam scores are scaled using Rasch modeling.² For statistical accuracy, scores are presented as a single composite score and sub-scores covering the domains of Chemistry, Anatomy and Physiology & Biology. Individual results for Genetics, Behavioral Sciences and Statistics with fewer test items are not reported except as part of the composite score.

Candidate Name: Fname Lname

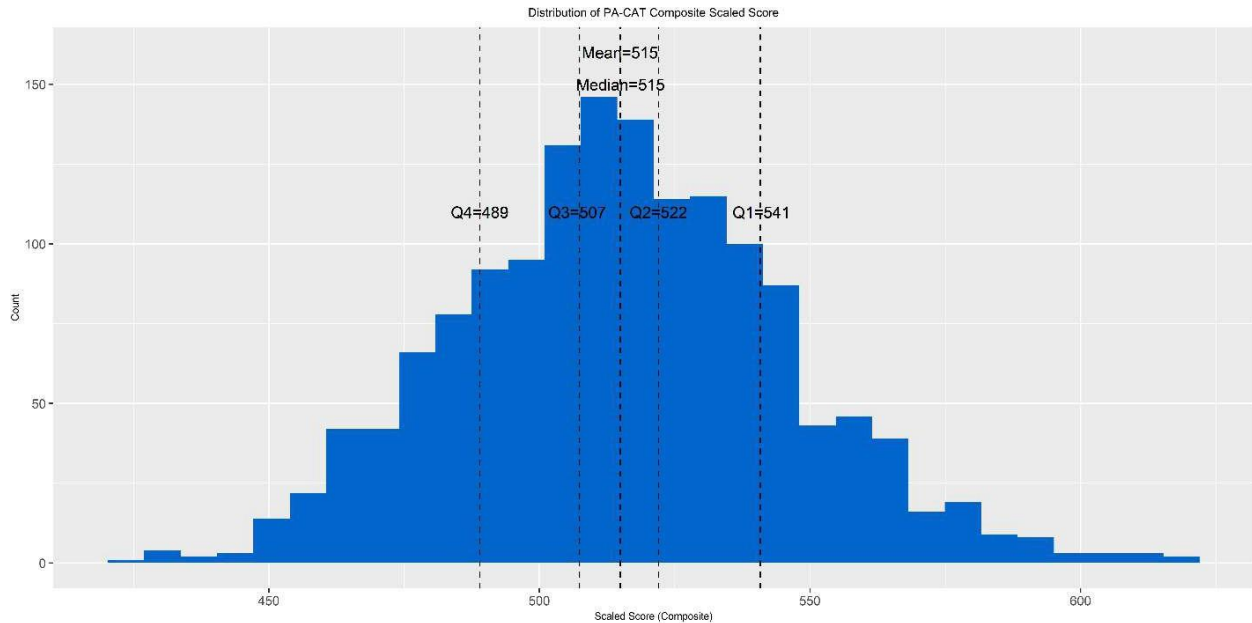
Current Test Date	Score	Anatomy and Physiology	Biology*	Chemistry**	Composite***
August 15, 2020	SS	414	402	410	412
	PR	53	55	55	62

¹ The results presented in this report are from a cohort of just under 1500 candidates.

² Scaled Scores (SS) range from 200 to 800 and are the total number of items answered correctly converted into a standardized scale to account for variances in test form difficulty and allowing for more accurate comparisons over time.

In this report we present recent results covering nearly 1500 candidates, presented both visually and statistically. Recent analysis shows a Chronbach's Alpha reliability score of .91 which is within the acceptable range of a standardized exam such as the PA-CAT.

Composite Scaled Score Distribution

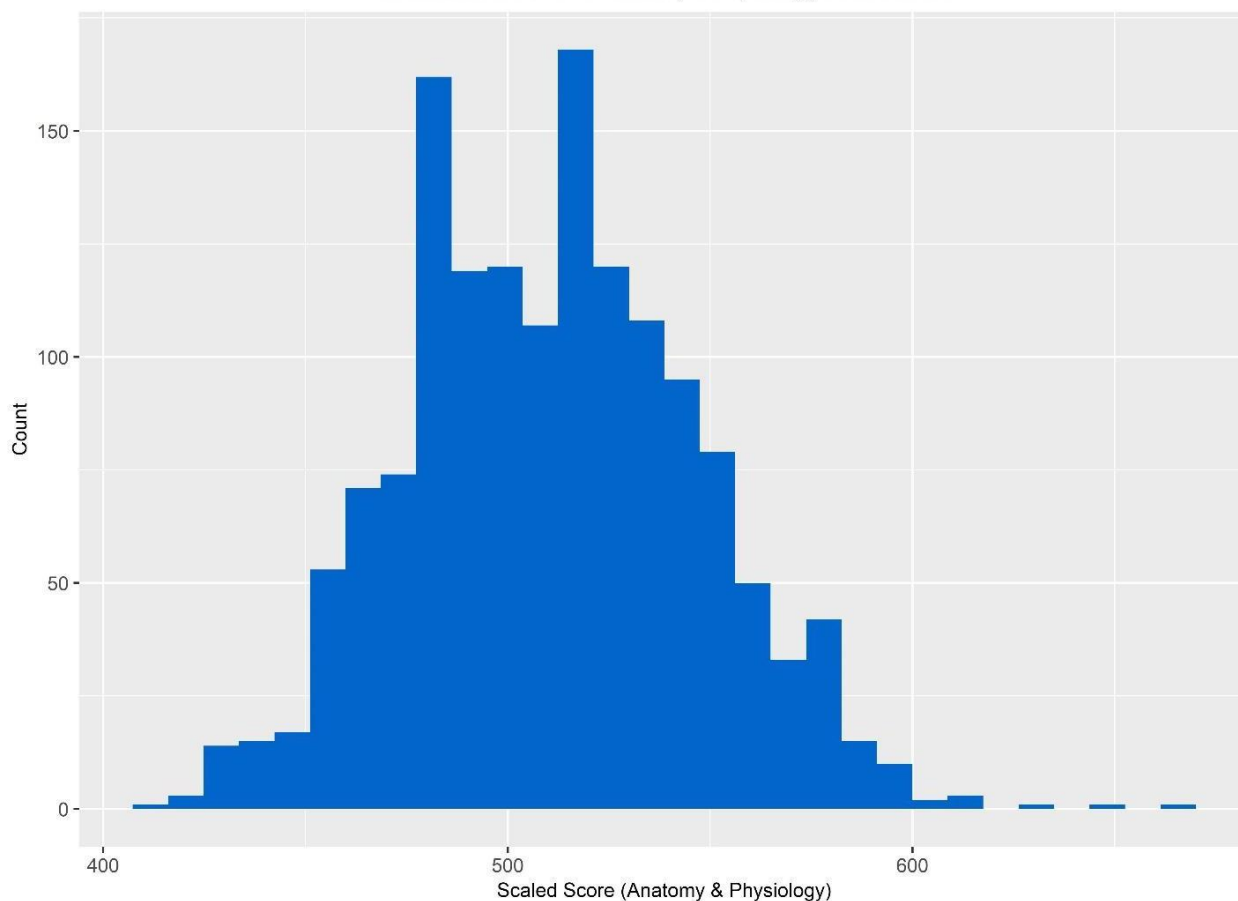


Composite Scaled	
n=	1487
Mean	514.9
Standard Deviation	32.3
Median	515
Minimum Scaled Score	200
Maximum Scaled Score	618
Range	418
Degree of Skewness	-0.66
Degree of Kurtosis	6.77

Composite Quintile Ranking		
Scaled Score	Quintile Rank	Description
540 and above	1	Top 20%
522 - 539	2	
507 - 521	3	
489 - 506	4	
488 and below	5	Bottom 20%

For statistical reliability, candidate rankings are grouped by quintiles rather than individual rankings. Over time, as the total number of test takers increases, more granular rankings such as deciles or individual rankings will be provided.

Distribution of PA-CAT Anatomy & Physiology Scaled Score

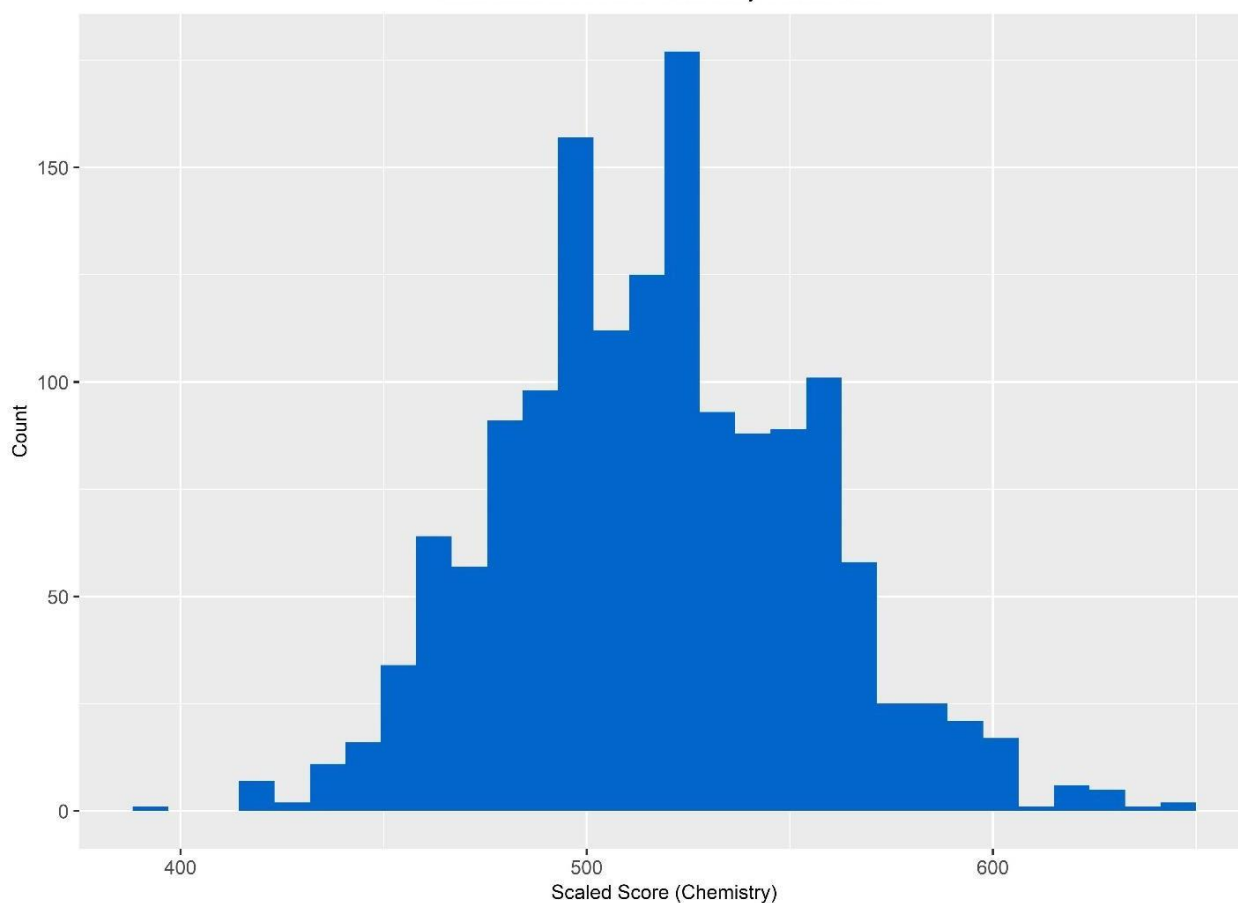


SS Anatomy and Physiology	
n=	1487
Mean	510.8
Standard Deviation	37.3
Median	509
Minimum Scaled Score	216
Maximum Scaled Score	662
Range	446
Degree of Skewness	-0.2
Degree of Kurtosis	2.39

Anatomy and Physiology Quintile Ranking		
Scaled Score	Quintile Rank	Description
541 and above	1	Top 20%
521 - 540	2	
498 - 520	3	
479 - 497	4	
478 and below	5	Bottom 20%

Anatomy and physiology, because of their importance and prominence as PA school pre-requisite, collectively receive the most weighting, comprising a total of 78 test items.

Distribution of PA-CAT Chemistry Scaled Score

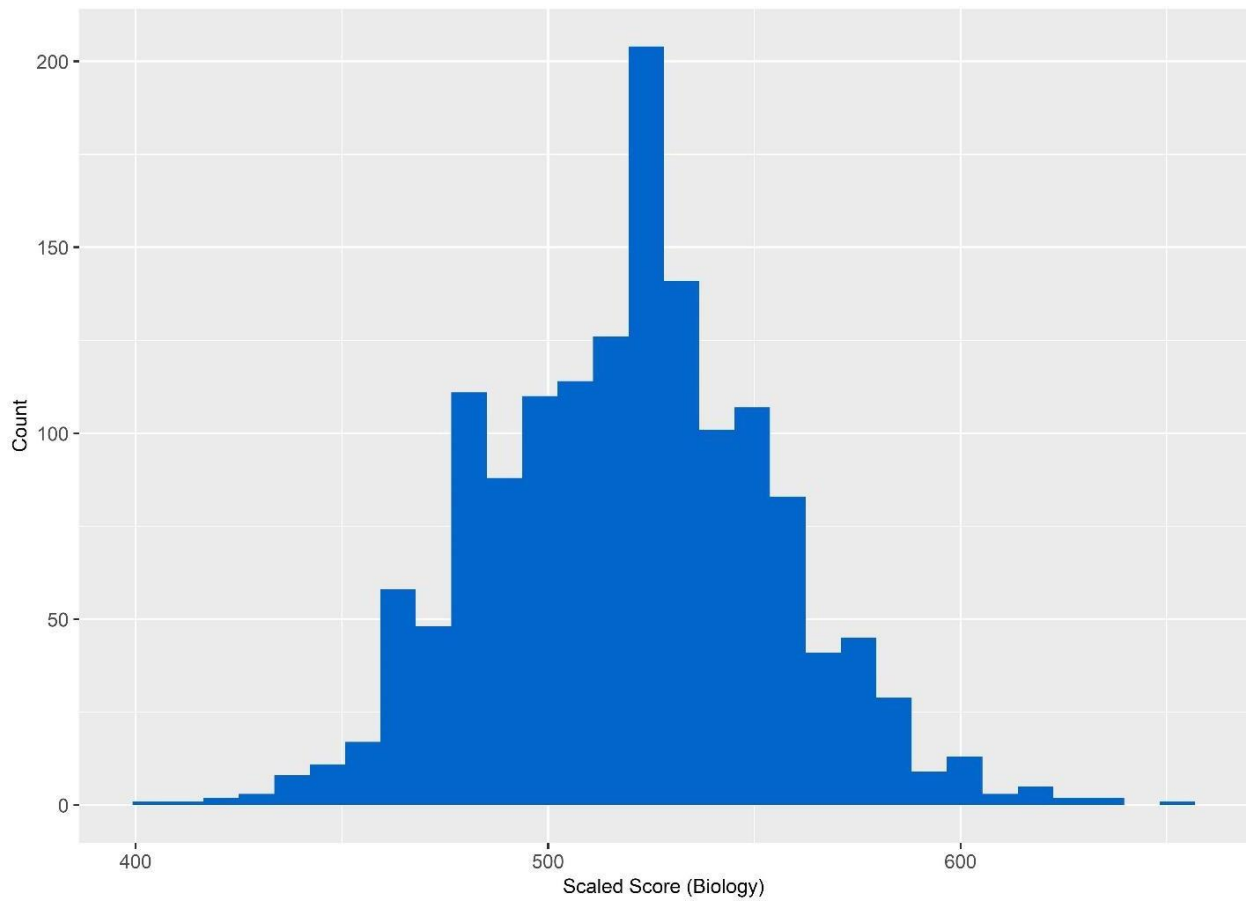


SS Chemistry	
n=	1487
Mean	516.7
Standard Deviation	40.0
Median	513
Minimum Scaled Score	228
Maximum Scaled Score	649
Range	421
Degree of Skewness	-0.51
Degree of Kurtosis	4.98

Chemistry Quintile Ranking		
Scaled Score	Quintile Rank	Description
547 and above	1	Top 20%
526 - 546	2	
507 - 525	3	
485 - 506	4	
484 and below	5	Bottom 20%

The chemistry group consists of general chemistry and biochemistry and, collectively, is the third most heavily weighted subject domain found on the PA-CAT.

Distribution of PA-CAT Biology Scaled Score



SS Biology	
n=	1487
Mean	519.3
Standard Deviation	36.0
Median	520
Minimum Scaled Score	205
Maximum Scaled Score	654
Range	449
Degree of Skewness	-0.47
Degree of Kurtosis	4.29

Biology Quintile Ranking		
Scaled Score	Quintile Rank	Description
547 and above	1	Top 20%
527 - 546	2	
512 - 526	3	
489 - 511	4	
488 and below	5	Bottom 20%

The biology component, the second most heavily weighted subject group, consists of general biology and microbiology.

