



**Exam Report for 2018-2019 Testing Year**  
**Board of Certification (BOC) Certification Exam for Athletic Trainers**

**April 2019 (Updated August 2019)**

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## INTRODUCTION

The Board of Certification, Inc., (BOC) is a non-profit credentialing agency that provides certification for the athletic training profession. The BOC was incorporated in 1989 to govern the certification program, which had then existed for nearly 20 years, for entry-level Athletic Trainers and certification maintenance standards for Athletic Trainers. The entry-level certification program is designed to establish a common benchmark for entry into the athletic training profession. The BOC serves the public interest by developing, administering, and continually reviewing a certification process that reflects current standards of practice in athletic training.

### ***Standard Setting and Equating of Examination Forms***

The modified Angoff process was used to establish the performance standard for the “Practice Analysis, 7<sup>th</sup> Edition” (PA7) test blueprint. In April 2017, a panel of 12 Certified Athletic Trainers reviewed the scored items for “Form PA701” and “Form PA702.” Some minor changes were made to the scored set of items on “Form PA702.” When the forms were introduced in May 2017, the cut score for “Form PA702” was equated to the standard set on “Form PA701.” All new forms assembled under PA7, including “Form PA703” and “Form PA704,” are equated via item response theory (IRT) methods to the passing standard established for “Form PA701.”

### ***Score Reporting***

Because exam forms can vary difficulty, providing raw scores can be misleading. As a result, many programs, including the ACT® and SAT® exams, use scaled scores. Scaled scores are particularly useful at providing the basis for meaningful long-term comparisons of results across different administrations of an exam.

Scaled scores are used because over the life of every testing program, situations arise in which changes in test length occur, a decision is made to assess more or fewer areas, the numbers of items that are scored versus unscored (experimental) changes, or different exam forms of different difficulty are being compared. For scaled scores, the passing standard (number of items answered correctly) on any exam form is always reported as the same scaled score. The equated scores for the BOC Certification Exam are converted via linear transformation so that the passing standard for all test forms is reported to candidates as 500 on a scale of 200 to 800.

The BOC provides scaled scores and pass/fail decisions to candidates approximately two to four weeks after closure of a test window. Candidates pass or fail based on how their test performance compares to a criterion-referenced passing standard.

## ANALYSIS OF THE CERTIFICATION EXAM

### ***Candidates Excluded from This Report***

The report does not include, except where noted, candidates who were administered the BOC Certification Exam via paper and pencil (i.e., ADA candidates) or candidates with incomplete data. As a result, the number of candidates analyzed for this report might not match the number of candidates who sat for the BOC Certification Exam.

There are 5,592 administrations of the BOC Certification Exam included in this report, which represents a 4.1% increase from the 2017-2018 testing year (5,371). The number of first-time examinations decreased from 4,012 in 2017-2018 to 3,970 in 2018-2019, which represents a 1.0% decrease. Retake exams increased from 1,357 in 2017-2018 to 1,622 in 2018-2019, a 19.5% increase.

**Pass Rates**

**Table 1. Historical BOC Exam Counts and Pass Rates**

Year	First-time	Pass	% Pass	Retake	Pass	% Pass	All	Pass	% Pass
<b>RD6</b>									
2011-2012	3,222	2,653	82.3%	1,664	696	41.8%	4,886	3,269	66.9%
2012-2013	3,631	2,935	80.8%	1,319	507	38.4%	4,950	3,442	69.5%
2013-2014	3,679	3,048	82.8%	1,210	497	41.1%	4,889	3,545	72.5%
2014-2015	3,768	3,039	80.7%	1,283	466	36.3%	5,051	3,505	69.4%
2015-2016	4,059	3,357	82.7%	1,308	547	41.8%	5,367	3,904	72.7%
2016-2017	4,119	3,444	83.6%	1,204	465	38.6%	5,323	3,909	73.4%
2017-2018	2,406	2,149	89.3%	185	85	45.9%	2,591	2,234	86.2%
<b>RD7</b>									
2017-2018	1,606	1,091	67.9%	1,172	334	28.5%	2,780	1,426	51.3%
2018-2019*	3,974	3,091	77.8%	1,622	645	39.8%	5,596	3,736	66.8%

\*Note. Total numbers include ADA and paper and pencil administrations.

**Table 2. Historical BOC Exam Scaled Score Summary Statistics**

Cohort	N	Mean	Median	Std Dev	Min	Max
All 2018-19	5,592	539.0	532	66.3	340	729
First-time	3,970	557.6	555	64.8	352	642
Retake	1,622	493.4	488	44.0	340	729
All 2017-18	5,369	536.9	538	71.3	275	743
First-time	4,012	557.8	560	65.1	304	743
Retake	1,357	475.0	478	49.9	275	665
All 2016-17	5,323	551.3	554	72.2	265	751
First-time	4,119	569.6	577	67.2	315	751
Retake	1,204	488.8	489	50.7	265	678
All 2015-16	5,367	543.5	544	67.5	217	729
First-time	4,059	561.2	564	62.8	356	729
Retake	1,308	488.6	489	49.9	217	661
All 2014-15	5,051	543.3	542	71.4	259	733
First-time	3,768	563.0	567	67.1	272	733
Retake	1,283	485.5	484	48.7	259	650
All 2013-14	4,889	529.7	536	57.1	272	680
First-time	3,679	545.1	548	51.9	332	680
Retake	1,210	482.8	488	45.5	272	650
All 2012-13	4,950	524.0	524	54.0	302	674
First-time	3,631	539.0	548	51.0	302	674
Retake	1,319	484.0	488	41.0	314	632
All 2011-12	4,886	525.0	524	54.0	230	692
First-time	3,222	542.0	548	51.0	272	692
Retake	1,664	491.0	494	44.0	230	644
All 2010-11	5,711	490.0	494	67.0	200	672
First-time	2,963	508.0	517	71.0	200	672
Retake	2,748	470.0	476	56.0	220	624
All 2009-10	6,171	476.0	482	58.0	200	638

### ***Examination Form Reliabilities and Other Summary Data***

The performance of the test forms used for the BOC Certification Exam and are consistent with reporting requirements for NCCA accreditation. Reliability is assessed by using Cronbach's alpha (Cronbach, 1951), a measure typically used for estimating overall exam form reliability; Brennan-Kane (Brennan & Kane, 1977), a measure used for estimating the decision consistency (i.e., the reliability of pass/fail decisions based on the test); and the standard error of measurement (SEM) presented in raw score units, a measure of the precision of the exam form.

### **SUMMARY**

Statistics concerning the quality of the BOC Certification Exam as a measurement instrument indicate that the exam complies with psychometric requirements that pertain to certification and licensure tests. Notably, estimates of reliability and equivalence across forms for the various parts of the exam are acceptable. Likewise, candidate performance on all parts of the exam is consistent with the public protection mission of the BOC.

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