



Q & A on Follow-Up Questions Submitted to the NCCAOM Based on the Audit, and How the NCCAOM Can Provide Exam Development and Administrative Services to the CAB for Purposes of Licensure: *A Presentation to the CAB*

**Provided by Dr. Kory Ward-Cook, Ph.D., CEO NCCAOM®
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Q1. How do pre-graduation candidates perform on the NCCAOM exams compared to those candidates who have already graduated?

A1. Candidates for licensure by the CAB are required to have graduated from an approved program before they sit for the CALE. The NCCAOM allows both pre-grads and grads to sit for the NCCAOM exams if they meet the “minimal accepted competency criteria”. A question has arisen as to the difference in the pass rates for first time test takers (FTTTs) and repeat test takers (RTTs) who are pre-grads or grads, who have taken the NCCAOM exams. The NCCAOM researched the comparison of the pass rates of those candidates who have graduated prior to testing vs. those who were still pre-graduation during the time interval of January 1, 2013 through December 31, 2015 (the last 3 years). The data in **Attachment #1** of this Q&A shows that the pre-grads, who are first time test takers actually perform better as a group than those who have graduated; there is no difference between the pass-rates of repeat test takers who were pre-grads or were grads during the time of the exam administration.

Q2. What is the “Minimum Acceptable Competency Criteria” used for pass score setting for the NCCAOM Examination.

A2. The “**Minimum Acceptable Competency Criteria**” is a concept that subject matter expert (SME) committees are led to explore and establish while working with a Psychometrician during standard setting. As part of the initial training at the most recent NCCAOM Cut Score Study, performed on the Acupuncture and Point Location (ACPL) examination, a Psychometrician from NCCAOM’s testing contractor led the SMEs through a discussion of the ACPL program eligibility requirements. This helped the group to conceptualize the minimum set of education and experience requirements a candidate must have to be eligible to begin the certification process.

Then the committee was led in a discussion of the concepts of entry-level and minimal competency. The discussion began by focusing on the fact that minimal competence does not mean low or poor levels of competence, but instead a high level of professionalism and skills representing the point of demarcation between the competent practitioner and those who are not. Likewise the committee discussed that the term entry-level that does not mean an entry-level job, but the minimum level of training that represents the competent professional. The committee was led in discussion of the relationship among skills that are common among



practice settings. The Committee also discussed the fact that the ACPL credential represents a comprehensive body of skills that are expected to represent transferable competency among practice settings and locations throughout the world. With those concepts in mind, the content outline of the examination was reviewed (as a reflection of what practitioners do on the job), allowing the SMEs to formulate a conception of the minimally-competent entry-level candidate and what this candidate would do on-the-job to practice in a safe and competent manner. For the ACPL program, the committee agreed that the typical entry-level minimally-competent practitioner works in a private practice, has a minimum of 250 patient visits, and has completed a minimum of 1,600 hours of education (didactic and clinical), from which he/she would achieve competence with the tasks on the ACPL content outline.

Q3. The NCCAOM completed its last Job Analysis (JA) (i.e. occupational analysis (OA)) in 2013; the CAB just completed its OA in 2015. a) When will the new JA, i.e. OA be conducted by the NCCAOM and how will?

A3. The next NCCAOM JA will begin in 2017.

Q4. Considering that CA has the highest number of licensed acupuncturists compared to the other U.S. states, how will the NCCAOM ensure wider participation by both national and CA practitioners throughout all areas of the exam development process, to include - the JA (OA) content validation study for the NCCAOM exams; linkage to the NCCAOM exam content outlines, standard setting process (cut score studies), ongoing exam item writing, reviewing and selecting of the pre-calibrated items for the exam, as well as the development of the examination forms (i.e. serve as SMES on an Exam Development Committees)?

A4. Licensed CA practitioners will be welcomed to join the OA Panel as part of the recruitment of subject matter experts (SMEs) in good standing, who represent the demographic diversity of the profession, nationwide. The NCCAOM will also invite additional qualified CA SMEs to participate in item development, i.e. to serve on an NCCAOM Exam Development Committees (EDCs). NCCAOM currently has at least one licensed CA practitioner on each examination committee. In fact we have two licensed CA SMEs on the ACPL EDC. We would welcome adding CA SMEs to the exam committees in the future to best represent California practice.

The NCCAOM currently offers a mentoring program that allows training virtually first, followed by an invitation to an item writing event where they partner with a seasoned item writer. NCCAOM has at least one item writing event (IWE) annually. Item writing events are given in different regions of the country. For example, during 2013, we had an item writing event in Los Angeles for area Diplomates; 2014 in Portland and 2015 in Chicago. We are willing to open the invitation to licensed CA SMEs and to offer additional IWEs in California.

NCCAOM currently identifies SMEs and other Diplomates to participate in standard setting (i.e., cut score) workshops. The goal is to have diversity in geographic regions, years in practice, and practice setting. We usually will have at minimum one SME from CA participating. We could invite licensed CA practitioners in the future.



Q5. In 2008 the NCCAOM validated both task and knowledge/skills statements on its JA (i.e. OA); however, only task and competency statements were validated on the 2013 JA. Will the NCCAOM be validating both task and knowledge/skills statements on its 2017 JA?

A5. In addition to the tasks performed that will be rated for criticality to entry-level practice, the elements that survey respondents will be asked to consider will include knowledge, skills and abilities, and will run the range of cognitive thinking with the professionally-appropriate range of Blooms taxonomy. The Biomedicine (BIO), Acupuncture with Point Location (ACPL) and the Chinese Herbology (CH) exams all currently have reference lists that are also validated through the JA. These are: Pharmaceuticals, Nutrients & Supplements, and Clinical Conditions for the Bio exam; Extra Points List for the ACPL exam and Chinese Herbal Formulas for the CH exam. The NCCAOM also plans to validate a list of raw herbs on the 2017 JA.

Q6. How will the NCCAOM assure that it will have a representative sampling of licensed acupuncturists for the next JA (OA) survey?

A6. The NCCAOM plans to conduct its next JA (OA) using a *scatter-shot method*, where all potential practitioners are identified and welcomed to participate. NCCAOM anticipates that the California Licensing Board (CAB) will assist the NCCAOM exam development staff and psychometric consultant in identifying all practitioners who are actively licensed acupuncturists in CA and encourage them to participate in the survey. Rather than trying to drive the results by sampling, a comprehensive battery of subgroup analyses will be conducted on the survey results to ensure that all respondents have a voice, and that no practitioners have an undue influence on the final content outline and content area weighting. We anticipate with a targeted invitation to all licensed CA practitioners, that the respondent group will warrant consideration as a separate demographic subgroup with which the rest of the respondents can be compared. Analyses will be conducted to ensure that licensed CA practitioner opinions are appropriately reflected in the survey results and resulting content outline and test specifications.

Q7. Will there be an additional/increase in cost for applicants to take the Chinese or Korean exams in the future (California prospectively adds almost 360 more foreign-language candidates)?

A7. No, there are no plans to increase the cost for Foreign Language exams. In fact, there are no current plans to raise the examination fees for the English exams.

Q8. How will NCCAOM accommodate additional score reporting requirements if identified/requested by the CA Acupuncture Board and what score reports will NCCAOM provide to the CA Acupuncture Board?



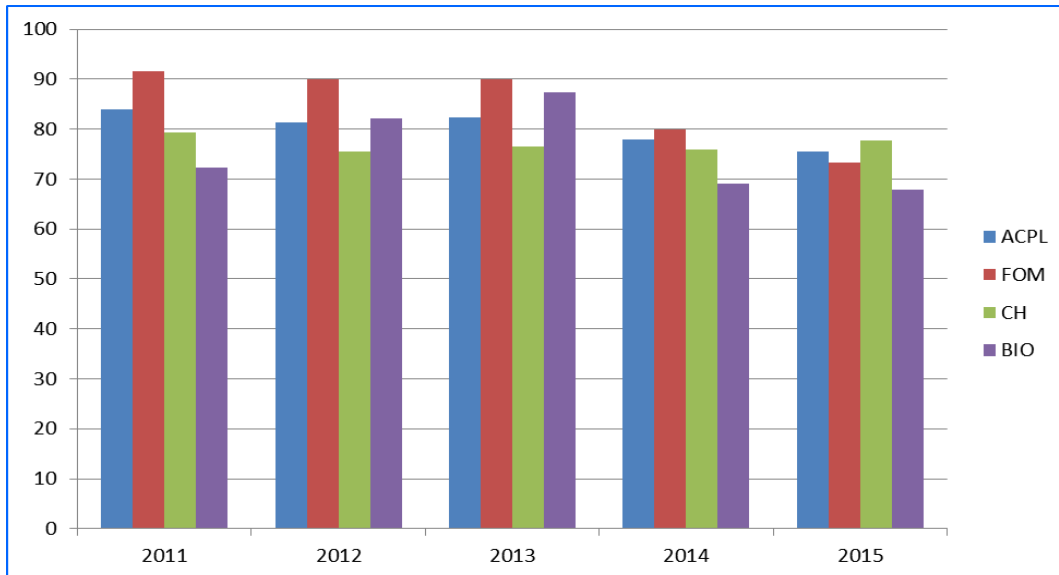
A8. NCCAOM would enter into a memorandum of understanding or contract with the CAB or other entities (e.g., OPES) designated by the CAB to provide additional reports as requested. NCCAOM currently provides School/Program Performance Reports, which include national benchmark report and individual candidate detailed score reports (see **Attachment # 2- School Performance Report - Sample**), to all schools that have an ACAOM accredited/candidate Acupuncture and/or Oriental Medicine program.

Q9. If the CAB requires a supplemental exam for its licensees, in addition to the NCCAOM exams, how could the NCCAOM be of service in administration of the supplemental exam?

A9. The NCCAOM would be happy to facilitate the administration of any multiple-choice exam that the CAB may require of its candidates for licensure. NCCAOM has an ongoing contract with Pearson VUE to administer multiple-choice tests at their professional test centers. The NCCAOM would be open to providing any other exam development or administrative function for supporting the requirement of a supplemental exam.

Q10. The CAB and other interested parties have asked about the pass rates on the NCCAOM over the years. There was concern that the NCCAOM examinations had very high pass rates. Is this the case?

A10. The pass rates for all test takers have remained consistent within the testing program, averaging in the mid- to high-70s for ACPL, BIO, and CH. There have been higher pass rates for FOM that have since lowered (i.e., 91.7% in 2011 vs. 73.3% in 2015). First time test takers (FTTTs) and repeat test takers (RTTS) also continued to be consistent within the testing program across time. The pass rates and other exam statistics for 2014 and 2015 can be seen in **Attachment #3a and 3b – Exam Statistics for 2011 – 2013 and Exam Statistics for 2014 – 2015**. The graph below shows the exam pass rates for each of the NCCAOM examinations (Foundations of Oriental Medicine - FOM, Acupuncture with Point Location - ACPL, Chinese Herbology - CH, and Biomedicine - BIO exams) for 2011 through 2015.



Q11. Can candidates take the NCCAOM exams in various locations throughout CA and are the exam sites secure?

A11. Candidates for the NCCAOM examination(s) can schedule and take their examinations as soon as they are approved to test by the NCCAOM, any day, year-round at over 260 locations throughout the U.S. and abroad (with 22 locations in California). NCCAOM examinations are offered in a computer adaptive format, which minimizes testing error and improves examination reliability. In addition, computer adaptive testing (CAT) provides candidates with a preliminary pass/fail screen after completion of the examination giving them a preliminary indication of how they performed on the examination. The NCCAOM is able to offer these candidate friendly exam administration services because it is assisted in its examination administration by [Pearson VUE](#), one of the leading testing services in the United States and the world. In addition, candidates are ensured a safe and secure examination site thanks to Pearson VUE's state-of-the-art security systems, which has virtually eliminated cheating by test-takers. Since contracting with Pearson VUE, the NCCAOM has had zero incidents of cheating or examination compromise owing to the extremely secure system that exist at the Pearson VUE Professional Test Centers.

**Graduation Route Pass Rates v. Pre-Graduation Pass Rates
January 1, 2013 – December 31, 2015**

ACPL - First Time Test Takers - Graduates	
Passed Count	1139
Failed Count	310
Grand Count	1449
Pass Rate	79%

ACPL - First Time Test Takers - Pre-Graduates	
Passed Count	1507
Failed Count	252
Grand Count	1759
Pass Rate	86%

ACPL - Return Test Takers - Graduates	
Passed Count	232
Failed Count	151
Grand Count	383
Pass Rate	61%

ACPL - Return Test Takers - Pre-Graduates	
Passed Count	95
Failed Count	55
Grand Count	150
Pass Rate	63%

FOM - First Time Test Takers - Graduates	
Passed Count	1041
Failed Count	250
Grand Count	1291
Pass Rate	81%

FOM - First Time Test Takers - Pre-Graduates	
Passed Count	1632
Failed Count	240
Grand Count	1872
Pass Rate	87%

FOM - Return Test Takers - Graduates	
Passed Count	170
Failed Count	140
Grand Count	310
Pass Rate	55%

FOM - Return Test Takers - Pre-Graduates	
Passed Count	85
Failed Count	58
Grand Count	143
Pass Rate	59%

BIO - First Time Test Takers - Graduates	
Passed Count	949
Failed Count	335
Grand Count	1284
Pass Rate	74%

BIO - First Time Test Takers - Pre-Graduates	
Passed Count	1163
Failed Count	236
Grand Count	1399
Pass Rate	83%

BIO - Return Test Takers - Graduates	
Passed Count	244
Failed Count	168
Grand Count	412
Pass Rate	59%

BIO - Return Test Takers - Pre-Graduates	
Passed Count	84
Failed Count	65
Grand Count	149
Pass Rate	56%

**Graduation Route Pass Rates v. Pre-Graduation Pass Rates
January 1, 2013 – December 31, 2015**

CH - First Time Test Takers - Graduates	
Passed Count	615
Failed Count	180
Grand Count	795
Pass Rate	77%

CH - First Time Test Takers - Pre-Graduates	
Passed Count	604
Failed Count	95
Grand Count	699
Pass Rate	86%

CH - Return Test Takers - Graduates	
Passed Count	75
Failed Count	78
Grand Count	153
Pass Rate	49%

CH - Return Test Takers - Pre-Graduates	
Passed Count	30
Failed Count	18
Grand Count	48
Pass Rate	63%

Assumptions:

ACAOM Schools only

Applied either through Grad or Pre-Grad Route - not apprenticeship; international school; combo rte

Grad/Pre-Grad status is based on if the person tested before (Pre-Grad) or after their graduation date (Grad). If the Graduation Date field did not contain data, Grad and Pre-Grad status was determined by the route that they filled out on their application.

Acronyms:

ACPL – Acupuncture with Point Location Exam – was given in the Adaptive format from January 1, 2013 – September 30, 2015; the Linear format was administered from November 9-21, 2015.

FOM – Foundations of Oriental Medicine Exam – was given in the Adaptive format from January 1, 2013 – December 31, 2015

BIO – Biomedicine Exam – was given in the Adaptive format from January 1, 2013 – December 31, 2015

CH – Chinese Herbology Exam – was given in the Adaptive format from January 1, 2013 – December 31, 2015

NCCAOM® Program Performance Report: January 1 - December 31, 2015



Academy of Acupuncture	Acupuncture with Point Location				Biomedicine				Chinese Herbology				Foundations of Oriental Medicine				ACAOM Program Parameters		
	School FTTT First Time Tester	Exam Date	School RTT Repeat Tester	Exam Date	School FTTT First Time Tester	Exam Date	School RTT Repeat Tester	Exam Date	School FTTT First Time Tester	Exam Date	School RTT Repeat Tester	Exam Date	School FTTT First Time Tester	Exam Date	School RTT Repeat Tester	Exam Date	School Program Name	School Enrollment Date	School Graduation Date
Student																			
Joel, Billy	78	2/10/2015			81	3/2/2015			82	3/26/2015							OM - Chinese	1/6/2006	12/20/2010
Cooper, Alice	82	7/8/2015											80	12/7/2015			OM - Chinese	4/5/2012	
Hsu, Hannah					66	7/10/2015											OM - Chinese	1/2/2012	
Moore, Alicia	67	11/9/2015			77	12/30/2015			73	11/11/2015			77	12/16/2015			OM - Chinese		1/10/2013
Lake, Robert	83	11/20/2015											90	10/14/2015			OM - English	1/5/2012	
Lee, Brenda					73	5/27/2015			89	11/21/2015			87	2/5/2015			OM - Chinese	9/1/2012	9/7/2015
Farmer, John					67	6/12/2015	74	8/24/2015					75	2/5/2015			OM - Chinese	9/1/2012	9/7/2015
Wiggins, Lisa					75	10/16/2015			82	7/21/2015							OM - Chinese	3/1/2008	1/12/2012
Rain, Wilson					71	4/30/2015											OM - Chinese		
Patterson, Virginia									60	10/16/2015							OM - Chinese		7/5/2008
School	# of Exams by Students⁽ⁿ⁾	4		0	7		1		5		0		5		0		Key n = number of exams by students/testers (less than 30 exams - not significant) School FTTT: First time test taker from accredited and candidate ACAOM schools School RTT: Repeat test taker from accredited and candidate ACAOM schools		
	Mean	77.50			72.86		74.00		77.20				81.80						
	Standard Deviation	7.33			5.37				11.17				6.46						
	Pass Rate (%)	75.0		0.0	71.4		100.0		80.0		0.0		100.0		0.0				
National	# of Exams by Testers(n)	1,285		199	1,029		304		551		86		1,109		244				
	Mean	76.05		70.35	73.95		69.65		78.42		72.14		76.10		69.07				
	Standard Deviation	8.76		7.78	8.52		6.66		11.22		9.39		8.84		6.23				
	Pass Rate (%)	79.8		52.8	72.3		55.9		80.2		58.1		78.1		50.8				

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Public Protection Through Quality Credentials

NCCAOM

Examination Statistics Comparison Report

January 1 through December 31: 2011 - 2013

	January 1 - December 31, 2011							January 1 - December 31, 2012							January 1 - December 31, 2013*						
	n	Pass Rate %	Minimum Score	Maximum Score	Mean Score	Standard Error	Standard Deviation	n	Pass Rate %	Minimum Score	Maximum Score	Mean Score	Standard Error	Standard Deviation	n	Pass Rate %	Minimum Score	Maximum Score	Mean Score	Standard Error	Standard Deviation
	Acupuncture with Point Location							Acupuncture with Point Location							Acupuncture with Point Location						
All Test Takers	1370	83.9	21	99	78.04	0.12	9.15	1584	81.4	13	99	76.62	0.12	8.86	1564	82.3	34	99	76.76	0.12	9.02
ACAOM FTTT	1120	86.5	42	99	79.00	0.11	8.52	1257	85.5	41	99	77.78	0.11	8.19	1263	85.7	44	99	77.81	0.11	8.55
Other FTTT	68	69.1	21	99	73.19	0.21	15.09	80	60.0	13	99	70.90	0.19	13.49	76	65.8	34	93	72.24	0.17	12.52
ACAOM RTT	163	76.1	45	98	74.50	0.11	8.10	207	69.1	50	99	73.01	0.11	8.19	194	69.1	45	91	72.37	0.11	8.00
	Biomedicine							Biomedicine							Biomedicine						
All Test Takers	1515	72.3	28	96	73.90	0.14	10.36	1141	82.1	36	98	77.04	0.13	9.71	1319	87.4	15	98	78.79	0.12	9.11
ACAOM FTTT	1159	79.6	28	96	76.04	0.12	9.21	966	86.6	40	98	78.42	0.11	8.74	1086	91.9	41	98	80.26	0.10	7.97
Other FTTT	66	37.9	31	85	63.83	0.22	13.73	84	54.8	36	93	69.01	0.19	13.32	70	70.0	15	92	72.01	0.22	15.65
ACAOM RTT	243	52.3	32	86	68.10	0.14	9.52	68	52.9	56	84	69.40	0.12	8.20	126	65.9	45	92	71.90	0.11	8.19
	Chinese Herbology							Chinese Herbology							Chinese Herbology						
All Test Takers	704	79.4	25	99	78.88	0.15	11.73	726	75.6	30	99	77.89	0.14	11.06	796	76.6	35	99	78.16	0.15	11.75
ACAOM FTTT	606	81.2	33	99	79.50	0.14	11.32	583	78.2	46	99	78.94	0.14	10.89	667	79.8	35	99	79.03	0.15	11.70
Other FTTT	34	91.2	25	99	83.74	0.18	14.89	34	94.1	54	99	85.50	0.12	10.11	31	93.5	41	99	83.65	0.15	12.32
ACAOM RTT	62	56.5	51	92	70.81	0.12	8.57	108	55.5	30	86	69.88	0.11	7.87	93	49.5	53	92	70.14	0.12	8.09
	Foundations of OM							Foundations of OM							Foundations of OM						
All Test Takers	1301	91.7	34	99	79.92	0.10	8.02	1491	90.0	11	99	79.01	0.10	8.01	1485	89.9	28	99	78.95	0.10	8.17
ACAOM FTTT	1170	92.8	48	99	80.31	0.10	7.69	1305	92.7	11	98	79.76	0.09	7.50	1312	91.8	40	99	79.60	0.09	7.54
Other FTTT	70	88.6	34	99	79.09	0.14	10.75	82	80.5	38	99	77.26	0.13	10.36	75	82.7	28	96	77.79	0.16	12.75
ACAOM RTT	53	83.0	58	93	74.11	0.09	6.89	95	63.2	46	87	71.35	0.10	7.32	87	69.0	42	84	71.15	0.10	7.16

Key

*2013 incorporates both ACAOM accredited and candidates schools in ACAOM FTTT and RTT 2013

n = number of exams by testers (less than 30 exams - not significant)

ACAOM FTTT: First time test taker from accredited ACAOM schools

Other FTTT: First time test taker from ACAOM Candidate schools*, Foreign schools or apprenticeship route

ACAOM RTT: Repeat test taker from accredited ACAOM schools

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NCCAOM
Examination Statistics Comparison Report
January 1 through December 31: 2014 - 2015

	January 1 - December 31, 2014							January 1 - December 31, 2015						
	n	Pass Rate %	Minimum Score	Maximum Score	Mean Score	Standard Error	Standard Deviation	n	Pass Rate %	Minimum Score	Maximum Score	Mean Score	Standard Error	Standard Deviation
	Acupuncture with Point Location							Acupuncture with Point Location*						
All Test Takers	1511	78.0	34	99	75.45	0.12	8.75	1588	75.5	25	99	75.11	0.12	9.13
ACAOM FTTT	1173	82.5	35	99	76.75	0.11	8.19	1,224	79.7	26	99	76.19	0.12	8.85
International FTT	73	69.9	34	87	71.96	0.15	11.03	83	67.5	25	96	72.89	0.17	12.58
Apprenticeship FTT	2	0.0	42	68	55.00	0.33	18.38	5	100.0	74	88	79.80	0.06	5.07
ACAOM RTT	228	60.1	47	92	70.78	0.11	8.05	258	58.9	44	92	70.90	0.10	7.40
	Biomedicine							Biomedicine						
All Test Takers	1323	69.0	15	98	73.22	0.13	9.56	1,441	67.8	35	99	72.69	0.12	8.59
ACAOM FTTT	1022	74.1	32	98	74.55	0.12	8.93	1,029	72.3	40	99	73.95	0.12	8.52
International FTT	56	57.1	29	94	69.75	0.17	11.65	62	61.3	35	94	69.05	0.18	12.35
Apprenticeship FTT	4	25.0	15	78	46.33	0.59	27.14	3	100.0	58	71	65.33	0.10	6.66
ACAOM RTT	210	54.3	35	94	69.91	0.11	7.60	304	55.9	45	86	69.65	0.10	6.66
	Chinese Herbology							Chinese Herbology						
All Test Takers	726	75.9	39	99	77.49	0.14	10.92	679	77.8	33	99	77.96	0.15	11.34
ACAOM FTTT	600	80.0	47	99	78.88	0.13	10.53	551	80.2	33	99	78.42	0.14	11.22
International FTT	20	100.0	70	97	83.45	0.12	9.61	40	90.0	53	99	84.98	0.13	10.94
Apprenticeship FTT	2	100.0	73	97	85.00	0.20	16.97	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ACAOM RTT	101	47.5	39	89	68.53	0.12	8.14	86	58.1	47	99	72.14	0.13	9.39
	Foundations of OM							Foundations of OM						
All Test Takers	1539	80.0	20	99	76.14	0.11	8.51	1,443	73.3	20	99	74.81	0.12	8.81
ACAOM FTTT	1256	83.8	44	99	77.14	0.11	8.15	1,109	78.1	20	99	76.10	0.12	8.84
International FTT	72	86.1	50	94	76.86	0.11	8.10	75	78.7	60	94	75.47	0.10	7.69
Apprenticeship FTT	5	60.0	20	85	58.60	0.44	26.02	3	100.0	70	73	71.33	0.02	1.53
ACAOM RTT	191	55.5	47	91	70.01	0.09	6.41	244	50.8	49	85	69.07	0.09	6.23

Key

n = number of exams by testers (less than 30 exams - not significant)

ACAOM FTTT: First time test taker from accredited and candidate ACAOM schools

International FTTT: First time test taker from Foreign schools

Apprenticeship FTTT: First time test takers from apprenticeship route

ACAOM RTT: Repeat test taker from accredited and candidate ACAOM schools

*2015 ACPL ACAOM FTTT and ACAOM RTTT Revised 5-2016