

NCE AND SEE INTERPRETIVE GUIDE

Program Administrators may access summary score reports for both the National Certification Examination (NCE) and the Self-Evaluation Examination (SEE) via the NBCRNA website. The summary report will contain the results of all currently enrolled students or graduates of the program within the last five years. Students and graduates may not request program summary or individual NCE or SEE score reports.

The information contained in this guide is intended to provide assistance in interpreting NCE and SEE test takers' scores. The score summaries contained in this document are based on test taker performance in FY2016 (9/1/15 – 8/31/16).

NCE

- Program Administrators:
 - The Program Administrator summary report is in Excel format. The report contains the Person ID, student name, test date, exam number, total scaled score, result (P/F), and content area scaled scores. The content areas are described in detail in the test content outline of the *National Certification Examination (NCE) Candidate Handbook*.
 - To calculate the first-time test taker average for the total scaled score and each content area score for your students, simply sort the Excel spreadsheet by exam number (1 for first-time takers) and sum the candidate scores for your program, both for the total score and for the content area scores, and divide by the number of candidates for your program. Refer to the NCE Example of Calculating an Average that appears on page 2.that appears below.
 - These averages can be compared to the national NCE means (total and content area scores) in Table 1 on page 2.
 - The scaled score is listed for the total test and each of the content areas. The scaled score is a transformation of the examinee's demonstrated ability measure. The scaled scores on the NCE range from 0-900.

- Students:
 - Compare your scores to the national NCE means in Table 1 on page 2.

NCE EXAMPLE OF CALCULATING AN AVERAGE

Report of NCE Takers for Program 0111 Test Dates 10/1/20XX to 12/1/20XX

Person ID	Last, First	Test Date	Exam No.	Total Score	Result	Score 1	Score 2	Score 3	Score 4	Score 5
12345	Doe, F	11/19/20XX	1	413	F	410	306	454	419	0
67890	Doe, M	11/8/20XX	1	446	F	428	443	456	459	0
09876	Jane, E	11/2/20XX	1	497	P	482	459	499	501	0
54321	Jane, P	10/26/20XX	1	496	P	571	450	486	488	0
Total				1852		1891	1658	1895	1867	0
Average				463		472	414	473	466	0

(Average = Total Divided by number of test takers; in this case 4)

For individuals testing **after** January 1, 2013, please note that a zero (0) will appear in the Score 5 column and the remaining scores will reflect the following content areas:

- Score 1 = Basic sciences
- Score 2 = Equipment, instrument, technology
- Score 3 = Basic principles of anesthesia
- Score 4 = Advanced principles of anesthesia

Table 1. Descriptive Statistics for NCE Overall and Domain Scores—First-Time Candidates FY 2016

	Average	Standard Deviation
Basic Science	500.8	63.6
Equipment, Instrumentation, and Technology	501.8	73.2
Basic Principles of Anesthesia	498.5	56.2
Advanced Principles of Anesthesia	486.8	54.4
Overall Score	491.7	43.4

SEE (for examinations PRIOR to 9/1/16 ONLY)

- Program Administrators:
 - The Program Administrator summary report is in Excel format. The report contains the Person ID, student name, test date, year in program, total scaled score, and content area scaled scores from 1-5. The content areas are described in detail in the test content outline of the *Self-Evaluation Examination (SEE) Candidate Handbook*.
 - The scaled score is listed for the total test and each of the content areas. The scaled score is a transformation of the examinee's demonstrated ability measure. The scaled scores on the SEE range from 300-600.
 - To calculate the average for the SEE total scaled score and each content area score for your students, simply sum the candidate scores for your program, both for the total score and for the content area scores, and divide by the number of candidates for your program. Refer to the SEE Example of Calculating an Average that appears on page 4.
 - These averages can be compared to the national SEE means in Table 2 on page 4 and to the cumulative percentage tables starting on page 5.

- Students:
 - Compare your scores to the cumulative percentage tables starting on page 5.

SEE EXAMPLE OF CALCULATING AN AVERAGE

Report of SEE Takers for Program 0111 Test Dates 7/1/20XX to 7/31/20XX

Person ID	Last, First	Test Date	Year in Program	Total Score	Score 1	Score 2	Score 3	Score 4	Score 5
12345	Doe, F	7/13/20XX	1	464	426	460	459	440	536
67890	Doe, M	7/28/20XX	1	379	411	358	351	404	412
09876	Jones, F	7/27/20XX	1	350	380	459	321	389	384
54321	Jones, M	7/28/20XX	1	376	368	357	391	329	438
Total				1569	1585	1634	1522	1562	1770
Average				392	396	408	380	390	442

(Average = Total Divided by number of test takers; in this

case 4) The scores reflect the following content areas:

- Score 1 = Professional and legal aspects of nurse anesthesia
- Score 2 = Anatomy, physiology, pathophysiology, anesthesia considerations
- Score 3 = Pharmacology
- Score 4 = Basic principles of anesthesia practice
- Score 5 = Advanced principles of anesthesia practice

Table 2. Descriptive Statistics for SEE Overall and Domain Scores, FY 2016

	1 st Year in Program		2 nd Year in Program		3 rd Year in Program		All	
	Avg	SD	Avg	SD	Avg	SD	Avg	SD
Professional and Legal Aspects	387.1	66.1	395.3	63.8	399.4	66.0	395.1	64.7
Anatomy, Physiology, Pathophysiology	400.2	54.1	407.8	56.9	404.0	57.4	405.9	56.7
Pharmacology	398.0	61.3	409.3	57.5	402.8	59.2	406.3	58.5
Basic Principles	403.9	66.7	410.2	64.5	407.2	61.6	408.6	64.2
Advanced Principles	383.4	54.0	408.1	58.8	405.6	60.9	404.1	59.2
Overall Score	389.5	44.1	401.7	42.6	398.7	44.5	399.3	43.5

CUMULATIVE PERCENTAGE TABLES: SEE
(Note: use for examinations before 9/1/16 ONLY)

At the top of the following pages, the main headings list each of the content areas and the total test. You can compare your individual or your students' performance with other students for each of these content areas by finding the appropriate heading.

Under each main heading you will see groups of columns with subheadings as in the following example:

Anatomy, Physiology, Pathophysiology, Anesthesia Considerations

	Year 1 Cum %	Year 2 Cum %	Year 3&Up Cum %	All Cum %
401-410	59.3	52.7	59.0	55.1
411-420	64.1	59.7	64.4	61.4
421-430	70.5	66.4	68.9	67.6
431-440	76.1	73.6	75.6	74.4
441-450	80.7	78.4	80.1	79.1

To compare a score on "Anatomy, physiology, pathophysiology, anesthesia considerations", locate the column on your Program Administrator report labeled score 2 and find the student's scaled score. If the student's scaled score on this content area was 405, you would look down the first column on the cumulative percentage table for "Anatomy, Physiology, Pathophysiology, Anesthesia considerations" until you found the score range of 401-10. The next column to the right, labeled "Year 1 Cum. %," lists the corresponding cumulative percentage of 59.3 for all 1st year examinees. The 52.7 in the next column is the cumulative percentage for all 2nd year examinees. The 59.0 in the next column is the cumulative percentage for all 3rd year and beyond examinees. The corresponding cumulative percentage of 55.1 for all examinees at that scaled score value is listed in the far right column labeled "All Cum. %." This means that with a scaled score of 405 on "Anatomy, Physiology, Pathophysiology, Anesthesia considerations", your student scored higher or equal to 55.1% of all examinees on that content area.

Students should use these tables in the same manner as Program Administrators in order to interpret their individual SEE performance across the content areas and total test.

Score 1: Professional and Legal Aspects of Nurse Anesthesia

	Year 1 Cum %	Year 2 Cum %	Year 3&Up Cum %	All Cum %
300-310	14.1	8.8	8.3	9.4
311-320	16.8	12.7	11.3	12.9
321-330	20.7	16.9	14.2	16.8
331-340	27.1	21.3	17.6	21.2
341-350	33.9	27.3	22.5	27.1
351-360	40.2	32.2	29.0	32.6
361-370	45.9	37.6	35.3	38.2
371-380	51.5	45.0	43.4	45.5
381-390	57.1	51.9	49.5	52.1
391-400	60.2	56.6	56.4	57.1
401-410	66.8	62.7	62.2	63.2
411-420	72.7	68.1	68.6	68.9
421-430	77.6	73.2	74.4	74.1
431-440	82.7	77.1	77.3	78.0
441-450	84.6	81.0	80.9	81.5
451-460	87.8	84.1	83.4	84.5
461-470	88.8	87.1	86.4	87.2
471-480	90.7	89.7	89.2	89.7
481-490	92.2	91.8	91.1	91.7
491-500	93.9	93.6	92.6	93.4
501-510	95.1	95.7	93.8	95.2
511-520	96.6	96.4	94.4	95.9
521-530	97.3	97.1	95.7	96.8
531-540	97.6	97.8	96.7	97.5
541-550	97.6	98.1	97.0	97.8
551-560	97.8	98.6	97.3	98.2
561-570	97.8	98.7	97.3	98.2
571-580	98.3	98.8	97.5	98.4
581-590	98.5	98.9	100.0	98.5
591-600	100	100.0	100.0	100.0

Score 2: Anatomy, Physiology, Pathophys., Anesthesia Considerations

	Year 1 Cum %	Year 2 Cum %	Year 3&Up Cum %	All Cum %
300-310	4.4	4.3	4.9	4.4
311-320	7.6	6.8	7.4	7.0
321-330	10.5	9.4	9.0	9.4
331-340	14.1	12.1	12.6	12.5
341-350	19.0	16.5	16.1	16.8
351-360	24.6	21.1	21.8	21.8
361-370	30.7	26.4	28.4	27.5
371-380	39.3	31.7	36.0	33.8
381-390	45.4	38.3	43.3	40.4
391-400	52.4	45.7	50.7	47.8
401-410	59.3	52.7	59.0	55.1
411-420	64.1	59.7	64.4	61.4
421-430	70.5	66.4	68.9	67.6
431-440	76.1	73.6	75.6	74.4
441-450	80.7	78.4	80.1	79.1
451-460	84.6	82.6	85.3	83.5
461-470	89.5	86.7	87.7	87.3
471-480	93.4	89.2	90.8	90.2
481-490	95.4	91.9	92.6	92.5
491-500	96.8	94.0	94.2	94.4
501-510	97.6	96.0	95.6	96.1
511-520	98.3	97.4	97.0	97.5
521-530	99.0	98.0	97.9	98.1
531-540	99.3	98.6	98.2	98.6
541-550	99.5	98.8	98.4	98.8
551-560	99.8	99.1	98.4	99.1
561-570	99.8	99.4	98.5	99.2
571-580	100.0	99.6	99.4	99.6
581-590	100.0	99.8	99.6	99.8
591-600	100.0	100.0	100.0	100.0

Score 3: Pharmacology

	Year 1 Cum %	Year 2 Cum %	Year 3&Up Cum %	All Cum %
300-310	8.5	5.4	5.9	5.9
311-320	11.5	7.7	8.4	8.4
321-330	13.9	10.2	11.9	11.1
331-340	17.8	12.7	16.3	14.2
341-350	22.2	15.0	20.3	17.2
351-360	27.3	18.9	25.5	21.6
361-370	34.6	25.1	30.2	27.6
371-380	42.2	31.8	36.4	34.3
381-390	50.0	38.1	44.0	41.1
391-400	55.4	44.6	50.7	47.5
401-410	61.0	50.3	56.6	53.2
411-420	67.3	58.1	63.6	60.6
421-430	71.7	64.5	68.3	66.4
431-440	76.8	71.1	73.5	72.5
441-450	80.7	76.8	78.8	77.8
451-460	84.4	81.6	83.6	82.4
461-470	87.6	85.5	87.4	86.3
471-480	91.0	89.0	90.2	89.6
481-490	92.7	91.8	91.9	91.9
491-500	94.4	94.3	94.2	94.3
501-510	94.9	95.6	96.0	95.6
511-520	96.8	96.9	96.7	96.9
521-530	97.3	98.1	97.6	97.9
531-540	97.6	98.8	98.4	98.5
541-550	97.6	99.0	99.0	98.8
551-560	98.5	99.5	99.1	99.3
561-570	99.0	99.5	99.4	99.4
571-580	99.5	99.7	99.7	99.7
581-590	99.5	99.8	99.7	99.7
591-600	100.0	100.0	100.0	100.0

Score 4: Basic Principles of Anesthesia Practice

	Year 1 Cum %	Year 2 Cum %	Year 3&Up Cum %	All Cum %
300-310	7.3	5.0	5.9	5.6
311-320	12.7	8.6	8.9	9.2
321-330	16.6	11.1	11.6	12.0
331-340	19.0	13.8	14.8	14.8
341-350	25.1	18.2	19.9	19.5
351-360	28.0	22.9	22.8	23.6
361-370	32.0	27.1	28.3	28.1
371-380	38.8	34.4	35.6	35.3
381-390	45.6	40.4	41.0	41.2
391-400	48.8	46.5	45.9	46.7
401-410	54.9	52.8	52.7	53.1
411-420	60.2	59.8	59.9	59.9
421-430	67.6	65.7	65.9	66.0
431-440	73.4	71.1	72.7	71.8
441-450	77.6	75.8	78.1	76.6
451-460	80.7	79.9	80.4	80.1
461-470	83.4	83.3	84.1	83.5
471-480	86.8	86.6	87.3	86.8
481-490	89.8	88.7	90.8	89.3
491-500	91.7	90.5	93.3	91.3
501-510	93.7	92.6	95.9	93.5
511-520	95.1	94.2	96.7	94.9
521-530	96.8	95.6	97.2	96.1
531-540	97.3	96.5	97.3	96.8
541-550	97.6	97.1	97.5	97.2
551-560	97.8	97.6	98.4	97.8
561-570	97.8	98.2	98.8	98.3
571-580	98.0	98.5	99.0	98.5
581-590	98.8	98.5	99.6	98.8
591-600	100.0	100.0	100.0	100.0

Score 5: Advanced Principles of Anesthesia Practice

	Year 1 Cum %	Year 2 Cum %	Year 3&Up Cum %	All Cum %
300-310	10.5	6.0	6.4	6.7
311-320	14.1	7.4	8.6	8.6
321-330	17.6	10.4	11.3	11.6
331-340	21.7	13.0	16.0	14.9
341-350	29.8	17.3	19.7	19.6
351-360	36.6	21.3	23.6	23.9
361-370	42.9	26.0	29.3	29.1
371-380	49.3	31.5	34.5	34.6
381-390	56.6	37.7	40.0	40.9
391-400	65.9	45.3	46.8	48.5
401-410	73.7	52.0	55.0	55.7
411-420	77.3	59.8	60.7	62.4
421-430	79.5	66.6	69.2	69.0
431-440	83.7	72.6	73.6	74.4
441-450	87.3	78.6	79.4	80.0
451-460	89.5	82.9	82.4	83.7
461-470	93.4	86.5	85.9	87.3
471-480	95.9	89.8	89.3	90.5
481-490	96.8	92.2	91.9	92.8
491-500	98.0	94.3	93.5	94.6
501-510	98.5	95.4	95.4	95.8
511-520	98.8	96.6	96.1	96.8
521-530	99.3	97.2	97.3	97.5
531-540	99.5	98.1	97.8	98.2
541-550	99.8	98.4	98.2	98.5
551-560	100.0	98.6	98.4	98.7
561-570	100.0	98.9	98.5	99.0
571-580	100.0	99.1	98.7	99.1
581-590	100.0	99.3	99.1	99.4
591-600	100.0	100.0	100.0	100.0

Overall Scaled Score for Total Test

	Year 1 Cum %	Year 2 Cum %	Year 3&Up Cum %	All Cum %
300-310	4.6	2.3	1.6	2.5
311-320	6.6	3.9	4.1	4.3
321-330	9.3	6.2	6.8	6.7
331-340	14.1	8.9	9.6	9.8
341-350	19.5	12.1	13.8	13.5
351-360	24.9	16.1	20.7	18.4
361-370	33.4	22.4	27.0	25.0
371-380	42.2	29.2	35.4	32.4
381-390	53.2	37.8	42.5	41.0
391-400	60.7	47.0	51.0	49.8
401-410	68.0	57.8	60.6	59.8
411-420	76.8	67.5	69.6	69.3
421-430	82.4	76.0	77.6	77.2
431-440	86.8	82.3	82.8	83.0
441-450	90.2	88.2	87.7	88.4
451-460	93.7	91.7	93.0	92.3
461-470	96.8	95.0	95.3	95.3
471-480	99.0	96.7	96.7	97.0
481-490	99.5	98.3	97.6	98.3
491-500	99.8	99.0	98.2	99.0
501-510	99.8	99.6	98.4	99.4
511-520	99.8	99.8	98.8	99.6
521-530	99.8	99.8	99.3	99.7
531-540	99.8	99.9	99.7	99.9
541-550	99.8	99.9	100.0	99.9
551-560	100.0	100.0	100.0	100.0
561-570	100.0	100.0	100.0	100.0
571-580	100.0	100.0	100.0	100.0
581-590	100.0	100.0	100.0	100.0
591-600	100.0	100.0	100.0	100.0