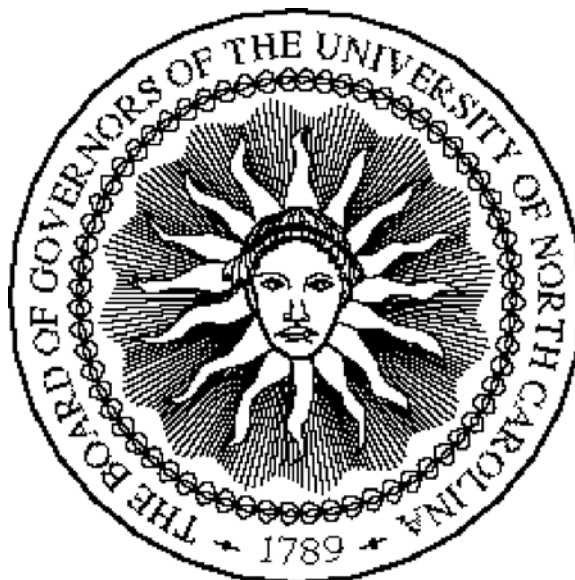


A Report on Pass Rates on Licensure Exams

Presented to the Committee on Educational
Planning, Policies, and Programs



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Review of National Licensure Examination Development, Administration, and UNC System-wide Pass Rates

This report presents data on the UNC system-wide pass rates on the licensure examinations for Nursing, Professional Knowledge in Teaching, Law, and Public Accounting. All pass rates are reported for first-time test takers only. Institutional pass rates in all areas *except law* include the scores of graduates who take the test in another state, providing the graduates identify their preparatory institution on the registration form. Pass rates for law schools exclude the scores of graduates who take the test out of state.

This report differs from annual reports on licensure pass rates in individual professional areas in that it compares each institution's pass rate with the national average pass rate. The comparison is shown in the shaded column of each table, and is expressed as a percentage of the national average pass rate. Thus, a value of 105.0 in this column would indicate that an institution's pass rate is 5.0 percent above the national average.

Nursing LicenNsure Examination

Data presented in Table 1 show that the UNC system-wide pass rate (90.7%) for the National Council Licensure Examination (NCLEX) was slightly above (106.8% of) the 2000 national average (85.1%).

A candidate must pass the NCLEX in order to be licensed as a Registered Nurse. The process requires candidates to register with the Chauncey Group (the National Council's contracted testing service), and after they have received eligibility status from the board of nursing they may schedule and take the exam at a Sylvan Technology Center.

The test is a computerized adaptive test (CAT) in which the score is based on the

difficulty of questions answered correctly rather than the number of questions answered correctly. This is a fundamentally different approach from the traditional paper-and-pencil test where all candidates receive the same questions. In the CAT approach examinations are individualized.

Table 1. Nursing: First-time Test Takers' Pass Rates (2001)¹

Institution	Number of Test Takers	% Passing Exam	% of Nat'l Pass Rate
ASU			
ECU	147	93.0%	109.3%
ECSU			
FSU			
NCA&TSU	37	78.0%	91.7%
NCCU	36	81.0%	95.2%
NCSA			
NCSU			
UNCA			
UNC Chapel Hill	134	94.0%	110.5%
UNCC	71	94.0%	110.5%
UNCG	84	92.0%	108.1%
UNCP			
UNCW	54	91.0%	107.0%
WCU	43	95.0%	111.6%
WSSU	63	84.0%	98.7%
UNC ALL	669	90.7%	106.6%
National (2000)	35,572	85.1%	100.0%

The difficulty level of the 3000 questions in the NCLEX item pool has been statistically analyzed. The computer-generated items begin with relatively easy

¹ National data provided by the National Council of State Boards of Nursing, Inc.: *2000 Licensure and Examination Statistics*.

questions and become progressively harder until the candidate begins missing questions. Then the cycle begins again with easier questions and this “zig zagging” approach continues until the candidate reaches the 50 percent point. That is, that point where the candidate consistently answers one question correctly and one question incorrectly.

After the candidate has answered the minimum number of questions (N=75), a comparison is made between the candidate’s competence level and the passing standard. If the competence is calculated to be clearly above the passing standard, the candidate passes and the examination ends. Similarly, if the candidate is clearly below the passing standard, the candidate fails and the examination ends. However, if the competence level is close enough to the passing standard that it is unclear whether the candidate should pass or not, the candidate continues to answer questions. Clearly passing or failing is defined as when the “gray zone” around a candidate’s competence level falls entirely above or below the passing standard. The gray zone is the region within which the measurement of individual competence might vary. The gray zone shrinks marginally after each question because individual competence is based on more information. However, if after a candidate answers the maximum number of questions (N=265), it continues to be impossible to ascertain whether the individual clearly passed or failed, the gray-zone methodology is disregarded. The final competence level would then be based on every question answered and if 64% were answered correctly the candidate passes; otherwise the candidate fails the examination.

Professional Knowledge Examination for Teachers

To receive an initial license to teach in a North Carolina public school, candidates must pass a test of pedagogy and content. Because the test of content varies with the specialty area and grade level (elementary, middle, secondary, all levels), there are more than 140 individual content-area-based tests. All candidates must complete a test of pedagogical skill (i.e., professional knowledge). The results summarized in this year’s report on pass rates (Table 2) are based on UNC students who took this single test of pedagogical skill within a fixed number months of successfully completing their student teaching course during the 1999-2000 year—i.e., during the “authorized period².” As indicated, the pass rate at ten institutions and for the system as a whole was greater than the national pass rate (88.9%). Content scores are not considered, because the number of students taking each test at each constituent institution in any given year is generally too small to provide a meaningful or representative pass rate.

The benchmark national pass rate was derived from the unpublished distribution of NTE Professional Knowledge test scores. The distribution included all scores from a three-year test period—1998-2000—and did not differentiate between first-time and repeat test takers. The national average pass rate was calculated as the percentage of test takers that obtained a score at least as high as the cut score used in North Carolina to set its pass rate.

It is not clear whether the combination of scores from first-time and repeat test

² Authorized period: Fall completion of student teaching—March 1999 through November 2000; spring completion of student teaching—June 1999 through April 2001; summer completion of student teaching—January 2000 through June 2001.

takers introduces a bias into the calculated national average pass rate. To the extent that repeat takers are better prepared to pass the test the second or third time around, the national benchmark would be biased high.

Table 2. Professional Knowledge (Teaching): First-time Test Takers' Pass Rates (1999-2000)³

Institution	Number of Test Takers	% Passing Exam	% of Nat'l Pass Rate
ASU	317	95.3%	107.2%
ECU	288	91.0%	102.4%
ECSU	29	82.8%	93.1%
FSU	61	68.9%	77.5%
NCA&TSU	13	53.8%	60.5%
NCCU	61	72.1%	81.1%
NCSA			
NCSU	65	95.4%	107.3%
UNCA	41	97.6%	109.8%
UNC Chapel Hill	91	98.9%	111.2%
UNCC	184	92.4%	103.9%
UNCG	181	95.6%	107.5%
UNCP	14	100.0%	112.4%
UNCW	201	95.5%	107.4%
WCU	130	98.1%	104.7%
WSSU	21	85.7%	96.4%
UNC ALL	1,697	92.0%	103.4%
National (2000)	97,363	88.9%	100.0%

To the extent that repeat takers are marginal candidates who have demonstrated a greater likelihood of failing the licensure exam in the past, and are thus more likely to fail in future sittings, the national benchmark rate will be biased low. We believe that these alternative effects are counterbalancing and that the calculated national benchmark is sufficiently unbiased to be valid, but the

³ National norm data provided by *Educational Testing Service and Examination Statistics*; includes test takers October 1, 1998 through July 31, 2001.

critical reader should take account of this potential flaw in the benchmark. Evidence to support the assumption of “no bias” is the fact that national data on CPA pass rates show that repeat takers have pass rates that are about the same as those of first-time takers.

Bar Examination

Data presented in Table 3 indicate that system-wide the UNC percentage pass rate on the Bar Examination (81.7%) was above the national average of 79.0 percent.

Table 3. Law: First-time Test Takers' Pass Rates (2001)⁴

Institution	Number of Test Takers	% Passing Exam	% of Nat'l Pass Rate
ASU			
ECU			
ECSU			
FSU			
NCA&TSU			
NCCU	82	70.7%	89.5%
NCSA			
NCSU			
UNCA			
UNC Chapel Hill	131	88.5%	112.2%
UNCC			
UNCG			
UNCP			
UNCW			
WCU			
WSSU			
UNC ALL	213	81.7%	103.4%
National (2000)	51,147	79.7%	100.0%

⁴ National data compiled and presented by the National Conference of Bar Examiners: *The Bar Examiner*, vol. 69, no. 2, May 2000.

The North Carolina Bar exam is given each year in the last weeks of February and July. It consists of a Multistate Bar Exam (MBE), a multiple-choice exam prepared by the National Conference of Bar Examiners and reviewed by the Board of Law Examiners, and an essay exam that is prepared and graded by the North Carolina Board of Law Examiners is administered. The MBE score counts 40 percent, and the essay exam 60 percent, of a candidate's total score.

The nationally standardized MBE is given in all but three states—Washington, Indiana (adoption effective in 2001), and Louisiana. It is a 200-item multiple-choice examination covering Constitutional Law, Contracts, Criminal Law, Evidence, Real Property, and Torts. Both raw and scaled scores are computed for each applicant. Raw scores on different forms of the test are scaled to ensure that grades are comparable across administrations of the examination.

Because the essay portion of the exam, and the weight assigned to it, are unique to the state, the passing score on the full Bar exam varies by state. In North Carolina, the essay exam consists of 12 questions worth 10 points each, and each question is graded by a single member of the board who looks for issue recognition and legal analysis. A model answer is prepared by the full Board of Examiners and once the answer is found the grader stops reading. The grade is not based on writing style, grammar, or organization, but rather on the presence of sound legal analysis and issue recognition.

CPA Examination

The path to licensure in public accounting is likely to be more indirect than the path to licensure in teaching, nursing, or law. This is because most accounting programs do not just focus on training CPAs. Instead they offer training in management accounting, corporate

accounting, internal auditing, non-profit and government accounting, and related fields. In addition, CPA candidates have historically been required either to complete *five* years of field work in accounting or to work *two* years in public accounting under a licensed CPA before they can be certified. However, on January 1, 2001 those alternatives were reduced by one year, to *four* and *one*, respectively. In addition, a number of CPA candidates take degrees in business administration and even law, rather than accounting. There is no screening of candidates to determine which ones have completed appropriate training for the exam. For these and other reasons, relatively few graduates in accounting pursue public accounting, and because training in accounting varies widely among test takers, pass rates on the exam tend to be low.

One step taken by many states to improve pass rates and the general competence of newly licensed CPAs is to require that candidates for the CPA complete at least 150 semester credit hours, at least 30 of which must be taken in accounting, before they can be licensed. North Carolina implemented this requirement in 2001. Given the move nationally and within North Carolina to this new standard, the passing scores reported in this section are limited to students who have either completed an advanced degree or have completed the 150 hours by the time they sit for the CPA exam. By focusing the analysis of pass rates on this group, there is a greater likelihood that pass rates will reflect the performance of students who have completed a minimally cohesive CPA training program. Nevertheless, there will be some exceptions. For example, the Master of Accountancy (MAC) program at UNC Chapel Hill admits only non-accounting baccalaureates and focuses on areas of accounting other than public accounting.

The data displayed in Table 4 show the success rates of all UNC first-time CPA candidates who have earned an advanced degree (or have completed at least 150 semester hours of college courses) at the time they first sat for the exam. Because

Table 4. Public Accounting: First-time Test Takers with Advanced Degree's Pass Rates on All Subjects (2000)⁵

Institution	Number of Test Takers	% Passing Exam--all subjects	% of Nat'l Pass Rate
ASU	14	50.0%	182.5%
ECU	38	21.1%	77.0%
ECSU			
FSU			
NCA&TSU			
NCCU			
NCSA			
NCSU	49	42.9%	156.6%
UNCA			
UNC Chapel Hill	100	28.0%	102.2%
UNCC			
UNCG	23	26.1%	95.2%
UNCP			
UNCW	36	5.5%	20.1%
WCU	7	0.0%	0.0%
WSSU			
UNC ALL	267	29.6%	108.1%
National (2000)	6,033	27.4%	100.0%

few candidates pass all subjects on their first attempt, a table showing the pass rates for *some or all* subjects has been added (Table 5). The data in Table 4 show that UNC students in three of the graduate programs passed *all* subjects at a rate at

⁵ National data compiled by the National Association of State Boards of Accountancy (NASBA): *Candidate Performance on the Uniform CPA Examination*, 2001 edition. Includes test takers for May and November 2000.

least equal to the national average (27.4%). As depicted in Table 5, students in three of the programs passed *some or all* of the subjects at or above the national average pass rate (60.3%).

Table 5. Public Accounting: First-time Test Takers with Advanced Degree's Pass Rates on Some or All Subjects (2000)

Institution	Number of Test Takers	% Passing Exam--some or all subjects	% of Nat'l Pass Rate
ASU	14	78.6%	130.3%
ECU	38	66.0%	109.5%
ECSU			
FSU			
NCA&TSU			
NCCU			
NCSA			
NCSU	49	85.7%	142.1%
UNCA			
UNC Chapel Hill	100	57.0%	94.5%
UNCC			
UNCG	23	48.0%	79.6%
UNCP			
UNCW	36	33.3%	55.2%
WCU	7	28.6%	47.4%
WSSU			
UNC ALL	267	60.0%	100.0%
National (2000)	6,033	60.3%	100.0%

The National Association of State Boards of Accountancy (NASBA), which compiled these data, has gathered data on CPA candidates since 1982 and began publishing the results in 1985. The report is prepared through voluntary participation of individual boards of accountancy and the cooperation of the American Institute of Certified Public Accountants (AICPA), which prepares and grades the Uniform CPA Examination.

The national examination consists of standardized questions relating to four subject areas: Auditing, Business Law and Professional Responsibilities, Financial Accounting and Reporting-Business Enterprise, and Accounting and Reporting—Other Areas. Each area must be passed with a score of 75 or higher in order for a candidate to pass the CPA exam. It should be noted, however, that a score of 75 does not assure the candidate of earning credit for a particular examination subject. This is due to “conditioning requirements,” which vary among jurisdictions (states and territories) and make granting credit dependent upon passing and achieving a minimum score on any subjects that were failed. The most typical conditioning requirements—and those adopted by North Carolina—require a score of 75 percent on at least two of the subject areas *and* a score of at least 50 percent on all subject areas not passed, in order to receive credit for subject areas passed. Because the conditioning requirements affect only the calculation of the percentage passing *some*, but not *all*, subjects, it does not affect the calculation of the national pass rate used in [Table 4](#), but it could affect the national rate used in [Table 5](#).

Most jurisdictions, including North Carolina, also require that first-time candidates take all four subjects and that repeat candidates take all remaining unpassed subjects. However, five jurisdictions (California, New Mexico, New York, Pennsylvania, and the Virgin Islands) permit their first-time candidates to take fewer than all of the subjects for which they are eligible, a practice that produces a pass rate that could be biased. This is because the pass rate published by the AICPA is the percentage of test takers who pass all the subjects *taken*, not necessarily all four subjects. In preparing this report, an adjusted pass rate was calculated for all jurisdictions except California, New York, and Pennsylvania (New Mexico and the

Virgin Islands have too few test takers to matter), and it was identical to the published rate. Therefore, the published rate was used in the comparison with individual institutions.

While an institution’s CPA pass rate is a useful criterion for evaluating program effectiveness, it must be considered within the context of its program focus. For example, given the non-CPA focus of the program at UNC Chapel Hill, its pass rate is low, yet it has had *seven* “Top Successful Candidates” since 1995 (that designation is for candidates having one of the top three scores in the State). Several other UNC institutions have programs similar to the one at UNC Chapel Hill.

Summary

Table 6 combines the previous tables in one for a comprehensive view of the pass rates on licensure exams. The data show that:

- Graduates from six of UNC's nine **nursing programs** passed the national nursing licensure examination at a rate *at or above the national average (85.1%)*.
- Students from 10 of 15 UNC institutions with **teacher education programs** passed the Professional Knowledge Teaching licensure examination at a rate *at or above the national average (88.9%)*.
- Graduates of one of UNC's two **law schools** passed the Bar exam at a rate *above the national average (79.0%)*.
- Students with an advanced degree from three UNC institutions passed **all parts** of the **CPA examination** at a rate *at or above the national average (27.4%)*. Students from three of the institutions passed **some or all parts** of the exam at a rate *at or above the national average (60.3%)*.
- **In all professional areas**, UNC graduates taken together passed licensure exams at rates *at or above the national average*.

Table 6. Comprehensive View of First-time Test Takers' Pass Rates on Licensure Exams⁶ in Nursing, Professional Knowledge (Teaching), Law, and Public Accounting (most recent year available)

Institution	Nursing ¹ (2001)			Professional ² Knowledge (1999-2000)			Law ³ 2001			Public Accounting (2000)					
	Number of Test Takers	% Passing Exam	% of Nat'l Pass Rate	Number of Test Takers	% Passing Exam	% of Nat'l Pass Rate	Number of Test Takers	% Passing Exam	% of Nat'l Pass Rate	With Advanced Degree-- all subjects			With Adv. Deg.-- some or all subjects		
										Number of Test Takers	% Passing Exam--all subjects	% of Nat'l Pass Rate	Number of Test Takers	% Passing Exam--some or all subjects	% of Nat'l Pass Rate
ASU				317	95.3%	107.2%				14	50.0%	182.5%	14	78.6%	130.3%
ECU	147	93.0%	109.3%	288	91.0%	102.4%				38	21.1%	77.0%	38	66.0%	109.5%
ECSU				29	82.8%	93.1%									
FSU				61	68.9%	77.5%									
NCA&TSU	37	78.0%	91.7%	13	53.8%	60.5%									
NCCU	36	81.0%	95.2%	61	72.1%	81.1%	82	70.7%	89.5%						
NCSA															
NCSU				65	95.4%	107.3%				49	42.9%	156.6%	49	85.7%	142.1%
UNCA				41	97.6%	109.8%									
UNC Chapel Hill	134	94.0%	110.5%	91	98.9%	111.2%	131	88.5%	112.2%	100	28.0%	102.2%	100	57.0%	94.5%
UNCC	71	94.0%	110.5%	184	92.4%	103.9%									
UNCG	84	92.0%	108.1%	181	95.6%	107.5%				23	26.1%	95.2%	23	48.0%	79.6%
UNCP				14	100.0%	112.4%									
UNCW	54	91.0%	107.0%	201	95.5%	107.4%				36	5.5%	20.1%	36	33.3%	55.2%
WCU	43	95.0%	111.6%	130	98.1%	104.7%				7	0.0%	0.0%	7	28.6%	47.4%
WSSU	63	84.0%	98.7%	21	85.7%	96.4%									
UNC ALL	669	90.7%	106.6%	1,697	92.0%	103.4%	213	81.7%	103.4%	267	29.6%	108.1%	267	60.0%	100.0%
National (2000)	35,572	85.1%	100.0%	97,363	88.9%	100.0%	51,147	79.7%	100.0%	6,033	27.4%	100.0%	6,033	60.3%	100.0%

1. National data provided by the National Council of State Boards of Nursing, Inc.: *2000 Licensure and Examination Statistics*.

2. National norm data provided by *Educational Testing Service and Examination Statistics*; includes test takers October 1, 1998 through July 31, 2001.

3. National data compiled and presented by the National Conference of Bar Examiners: *The Bar Examiner*, vol. 69, no. 2, May 2001.

4. National data compiled by the National Association of State Boards of Accountancy (NASBA): *Candidate Performance on the Uniform CPA Examination*, 2001 edition. Includes test takers for May and November 2000.

⁶ Most recent year available, as indicated.