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2004 Nurse Licensee Volume and NCLEX® Examination

Mission Statement

The National Council of State Boards of Nursing, composed of member boards, provides leadership to advance regulatory excellence for public protection.

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Introduction

The mission of the National Council of State Boards of Nursing (NCSBN) is to lead in nursing regulation by assisting its member boards, collectively and individually, to promote safe and effective nursing practice in the interest of protecting public health and welfare.

NCSBN serves as a consultant, liaison, advocate and researcher to its members, and as an education and information resource to policymakers and the general public. This publication provides statistics, for the year 2004, on the licensing activities of NCSBN's member boards and its two licensure examinations, the National Council Licensure Examination for Practical Nurses (NCLEX-PN® examination) and the National Council Licensure Examination for Registered Nurses (NCLEX-RN® examination).

Part I – Licensure Statistics

The data reported in Part I of this document include licensing statistics of the 60 state and territorial boards of nursing. The numbers of new licenses by endorsement and examination, as well as the total number of active licenses, are provided for each jurisdiction.

The data included in this publication provide licensing statistics for the period July 1, 2003– June 30, 2004.

Part II – NCLEX® Examination Statistics

The NCLEX-RN and NCLEX-PN examinations are administered on behalf of NCSBN's 60 member boards. The purpose of these examinations is to determine if a candidate possesses the minimum knowledge and abilities to provide entry level nursing care that is safe and effective.

Candidate performance on the NCLEX-RN and NCLEX-PN examinations is summarized and reported by quarter and year. This publication provides a detailed report of the NCLEX examinations' statistics for January 1 – December 31, 2004. Additionally, summaries of historical data from April 1, 1994 are also included.

Part I

2004 Licensure Statistics

The data reported in this section indicate licensure processing activity and data on the total number of individuals licensed to practice within each jurisdiction during NCSBN's fiscal year 2004. All data was obtained from state and territorial boards of nursing.

Estimates were provided where the exact figure requested for this collection of data was unknown.

Data are presented in a series of tables. Table 1 lists the National Council of State Boards of Nursing (NCSBN) member boards, the geographic locality within which a board has responsibility for regulating nursing practice, the types of licenses for which a board has licensing authority, and whether or not the board is empowered to issue licenses or certificates to practice in a specialty area of nursing. Tables 2–5 provide data related to new licenses issued by endorsement or examination, total numbers of active licenses (both RN and LPN/VN) by jurisdiction (JD), and graduates of foreign nursing programs licensed, by jurisdiction. Table 6 provides a summary of licensing activities by examination and endorsement for RNs, LPN/VNs and graduates of foreign nursing programs. Tables 7 and 8 provide the numbers of active specialty licenses issued within each jurisdiction, by specialty license category. Figure 1 provides a review of the numbers of active licenses for the years 1994–2004. Unless noted otherwise, all percentages are calculated in terms of column totals.

Note that nurses in Puerto Rico are licensed by virtue of passing Puerto Rico's Spanish-language examination. In addition to taking this examination, some nurses also take the NCLEX-RN® and/or NCLEX-PN® examination. The Puerto Rican examination only allows nurses to practice in Puerto Rico; if they would like to practice elsewhere, they must take the NCLEX® examination.

Key Terms

Registered Nurses (RNs) and Licensed Practical or Vocational Nurses (LPN/VNs) obtain licensure by endorsement (if licensed in another jurisdiction) or by examination (if the applicant has never taken the appropriate NCLEX examination).

ACTIVE LICENSE figures are based on the reported actual or estimated total number of individuals holding an active license.



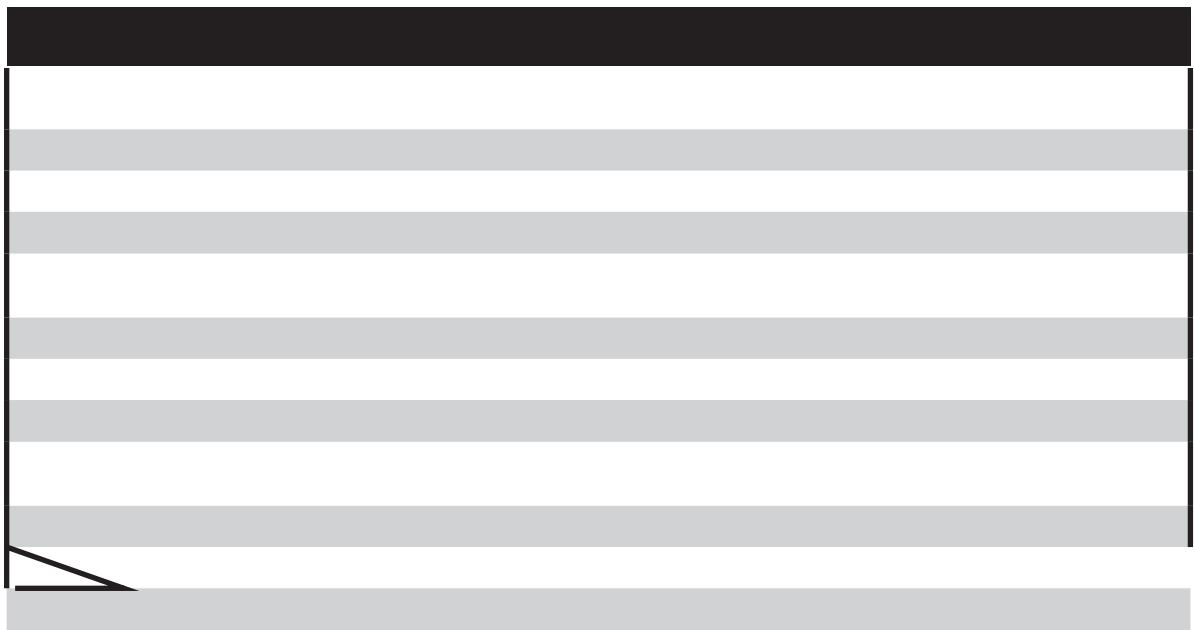
Table 4. Total Number of Active Licenses: Registered Nurses and Licensed Practical/Vocational Nurses, by Jurisdiction

	1.69	1.67	65,652	1.69
MS	33,282			
	18,884	0.62	3,249	0.39

Table 4, continued

JD	Registered Nurses		Licensed Practical/ Vocational Nurses		Total Number	
	n	%	n	%	n	%
NV	20,267	0.66	2,937	0.35	23,204	0.60
NY	240,194	7.85	67,437	8.13	307,631	7.91
OH	140,190	4.58	45,050	5.43	185,240	4.76
OK	33,050	1.08	16,900	2.04	49,950	1.28
OR	38,425	1.26	4,087	0.49	42,512	1.09
PA	207,335	6.77	49,330	5.95	256,665	6.60
RI	17,359	0.57	2,610	0.31	19,969	0.51
SC	42,070	1.38	11,374	1.37	53,646	1.38





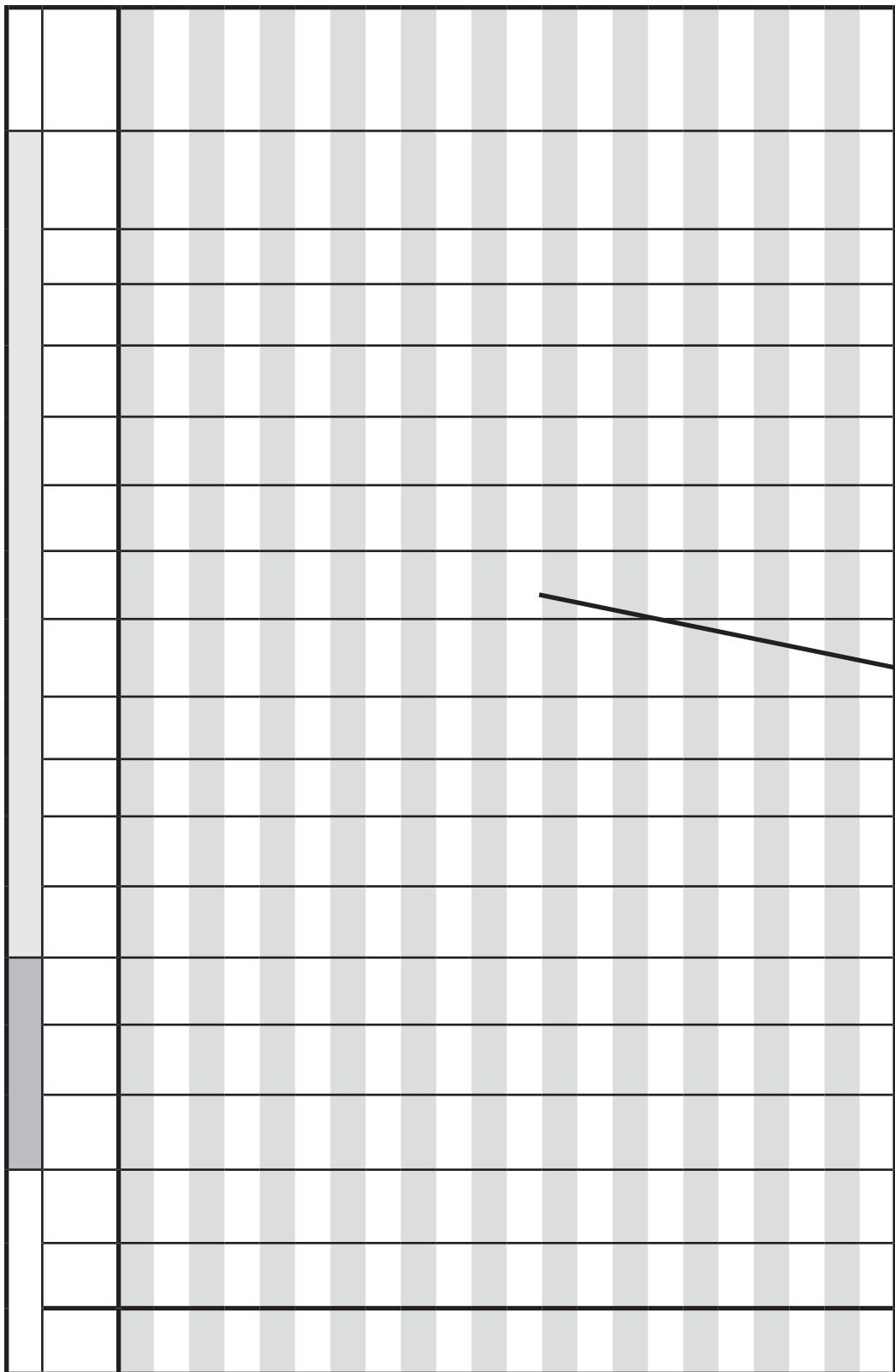


Figure 1. Total Number of Active Licenses: Registered Nurses and Licensed Practical/Vocational Nurses, 1994–2004



PART II**2004 NCLEX® Examination Statistics****Introduction**

In 1982, NCSBN revised the State Board Test Pool Examination (SBTPE) substantially. NCSBN changed the examination from a norm-referenced test to a criterion-referenced test, implemented a new test plan and used Rasch's (1960) one parameter logistic model to calibrate items and measure candidates' abilities. At this time, NCSBN renamed the examinations the National Council Licensure Examination for Registered Nurses (NCLEX-RN®) and the National Council Licensure Examination for Practical Nurses (NCLEX-PN®). However, these NCLEX examinations were very different than the NCLEX examinations taken by candidates today. These examinations were administered only twice a year in a pencil and paper format and each administration lasted two days.

In 1986, the NCSBN Board of Directors funded an initial investigation on the feasibility of using Computerized Adaptive Testing (CAT) procedures. CAT held the promise to make tests available year round, make tests shorter by only giving candidates items that were appropriate for their ability and provide greater security for the content of the items. On April 1, 1994, NCSBN began administering the NCLEX-RN and NCLEX-PN examinations exclusively via CAT. This publication provides a detailed breakdown of candidate performance for 2004, as well as historical data.

Computerized Adaptive Testing (CAT)

CAT is a method of administering examinations that combines the power and speed of current computer technology with modern measurement theory. With CAT, each candidate's test is unique; it is assembled interactively as the individual

is tested. As the candidate answers each question, the computer calculates an ability estimate based on all earlier answers. The test administration software then identifies the content area for the next item. Next, the software scans through the available items within the identified content area for an item that has a degree of difficulty sufficient to give the candidate approximately a 50% chance of answering it correctly. This item is selected and presented to the candidate on the computer screen. This process is repeated for each item, creating an examination tailored to the individual's ability level while fulfilling all NCLEX test plan requirements. The examination continues in this way until a pass/fail decision can be determined. Because the test could end at any time after the minimum number of items has been answered, it is important that the test plan specifications are met throughout the entire test, as all tests must meet the test plan specifications.

Setting the Passing Standard

To ensure a consistent standard of competence in nursing practice, NCSBN uses a criterion-referenced standard, which means that passing or failing depends solely upon a candidate's level of performance in relation to the established point that represents safe entry-level competence. There is no preassigned percentage of candidates that pass or fail each examination. Because the practice of nursing changes over time, it is necessary to reevaluate the appropriateness of the passing standard from time to time. To ensure that the passing standards for the NCLEX-RN and NCLEX-PN examinations accurately reflect the amount of nursing ability currently required to practice competently at the entry level, NCSBN's Board of Directors reevaluates the passing standard every

95% certainty requirement and makes a pass or fail decision based upon the candidate's final ability estimate. If the candidate's ability estimate is above the passing standard, the candidate passes. If not, he or she fails.

If an NCLEX examination ends because time runs out, then the computer does not have enough information to make a clear pass-fail decision; if it did, it already would have stopped administering items. However, when the response patterns of people who ran out of time were investigated, it was found that some had been performing con-

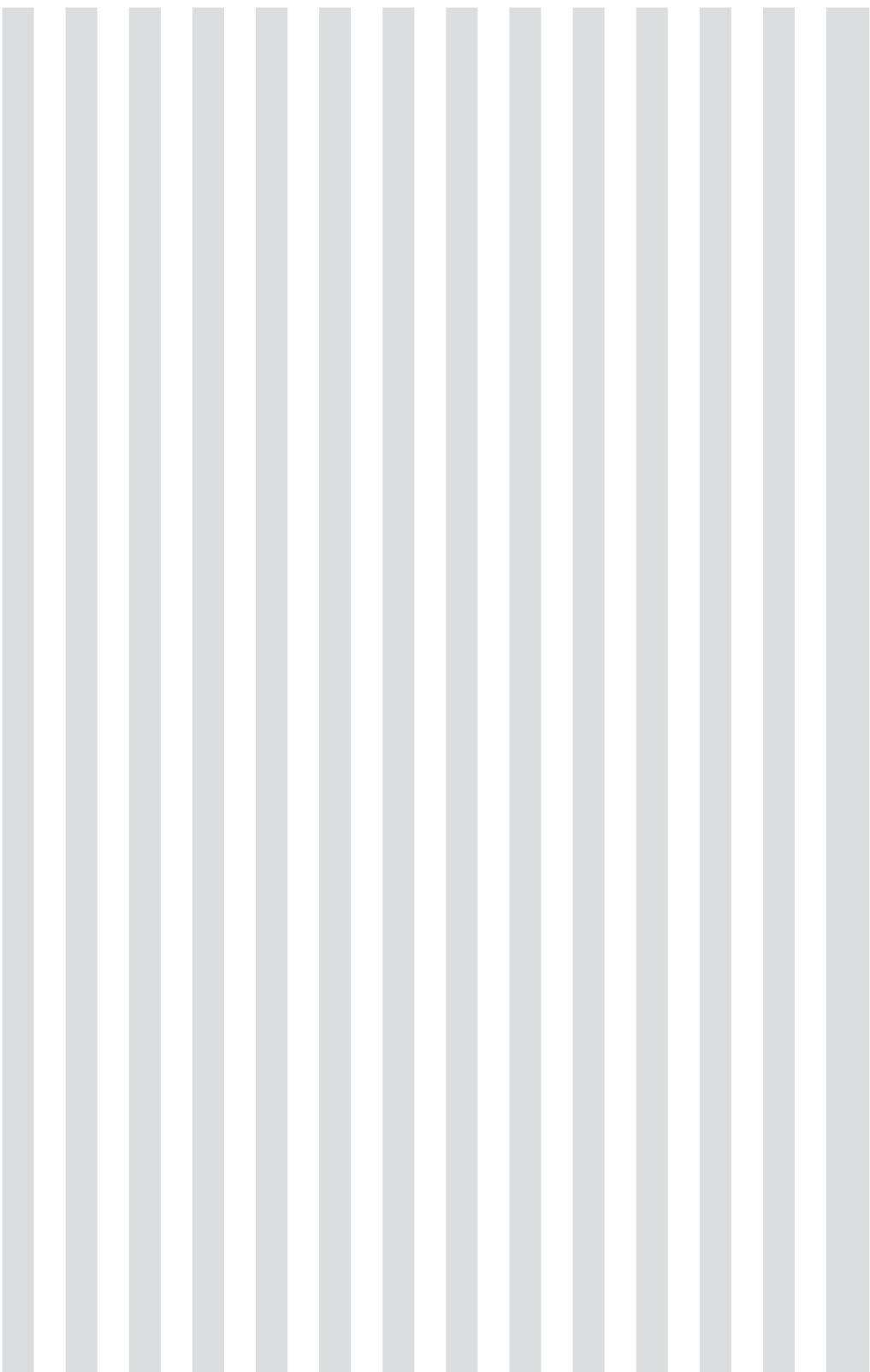
sistently above the passing standard, and their "true" ability level appeared to be above passing, although close to it. A mechanism is therefore provided for these candidates to pass. The key word here is "consistently." If a candidate's ability estimate has been consistently above the passing standard over the last 60 items, then he or she will pass, despite having run out of time.

Table 1. Candidates Taking the NCLEX-RN® Examination, by Type of Candidate, January 1 – December 31, 2004.¹

Type of Candidate	Jan 1 – Mar 31, 2004			Apr 1 – Jun 30, 2004			Jul 1 – Sep 30, 2004			Oct 1 – Dec 31, 2004			Total: Jan 1 - Dec 31, 2004		
	Candidates	Passed	%	Candidates	Passed	%									
First-Time, U.S.-Educated															
Diploma	855	747	87.4	855	747	87.4	1,390	1,231	88.6	374	34	86.2	3,176	2,806	88.4
Associate Degree	10,852	9,438	87.0	14,804	13,099	88.5	23,607	19,875	84.2	4,012	3,056	76.2	53,275	45,468	85.3
Baccalaureate Degree	6,619	5,770	87.2	7,436	6,560	88.2	14,065	11,651	82.8	2,508	2,000	79.7	30,628	25,981	84.8
Total	37,405	32,650	86.5	4,015	90@ 5										







1	Abnormalities of the Heart and Lungs	1.8%	35	82	37	23	2	1	0.00
2	Aerosol Therapy	0.4%	7	11	18	15	2	1	0.87
3	Anemia	0.4%	7	25	38	38	4	4	0.00
4	Anterior Segment Eye	0.4%	7	17	38	38	4	4	0.00
5	Assessing the Child	0.4%	7	12	38	38	4	4	0.00
6	Breastfeeding	0.4%	7	25	38	38	4	4	0.00
7	Chest	0.4%	7	25	38	38	4	4	0.00
8	Congenital Defects	0.4%	7	25	38	38	4	4	0.00
9	Contaminated Items	0.4%	7	25	38	38	4	4	0.00
10	Dressing Wounds	0.4%	7	25	38	38	4	4	0.00
11	Fever	0.4%	7	25	38	38	4	4	0.00
12	Gastrointestinal System	0.4%	7	25	38	38	4	4	0.00
13	Heart Sounds	0.4%	7	25	38	38	4	4	0.00
14	Hypothermia	0.4%	7	25	38	38	4	4	0.00
15	Injuries	0.4%	7	25	38	38	4	4	0.00
16	Introducing Medications	0.4%	7	25	38	38	4	4	0.00
17	Kidneys	0.4%	7	25	38	38	4	4	0.00
18	Liver	0.4%	7	25	38	38	4	4	0.00
19	Medical Devices	0.4%	7	25	38	38	4	4	0.00
20	Medications	0.4%	7	25	38	38	4	4	0.00
21	Measuring Vital Signs	0.4%	7	25	38	38	4	4	0.00
22	Myocardial Infarction	0.4%	7	25	38	38	4	4	0.00
23	Oxygen	0.4%	7	25	38	38	4	4	0.00
24	Pain	0.4%	7	25	38	38	4	4	0.00
25	Pulse	0.4%	7	25	38	38	4	4	0.00
26	Radiation Therapy	0.4%	7	25	38	38	4	4	0.00
27	Respiratory System	0.4%	7	25	38	38	4	4	0.00
28	Shock	0.4%	7	25	38	38	4	4	0.00
29	Skin	0.4%	7	25	38	38	4	4	0.00
30	Spine	0.4%	7	25	38	38	4	4	0.00
31	Stomach	0.4%	7	25	38	38	4	4	0.00
32	Thyroid Gland	0.4%	7	25	38	38	4	4	0.00
33	Ventricular Assist Device	0.4%	7	25	38	38	4	4	0.00
34	Wound Dressings	0.4%	7	25	38	38	4	4	0.00
35	X-ray	0.4%	7	25	38	38	4	4	0.00
36	Total	9.7%	275	870	2,400	2,400	4	4	0.00

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25

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0.87





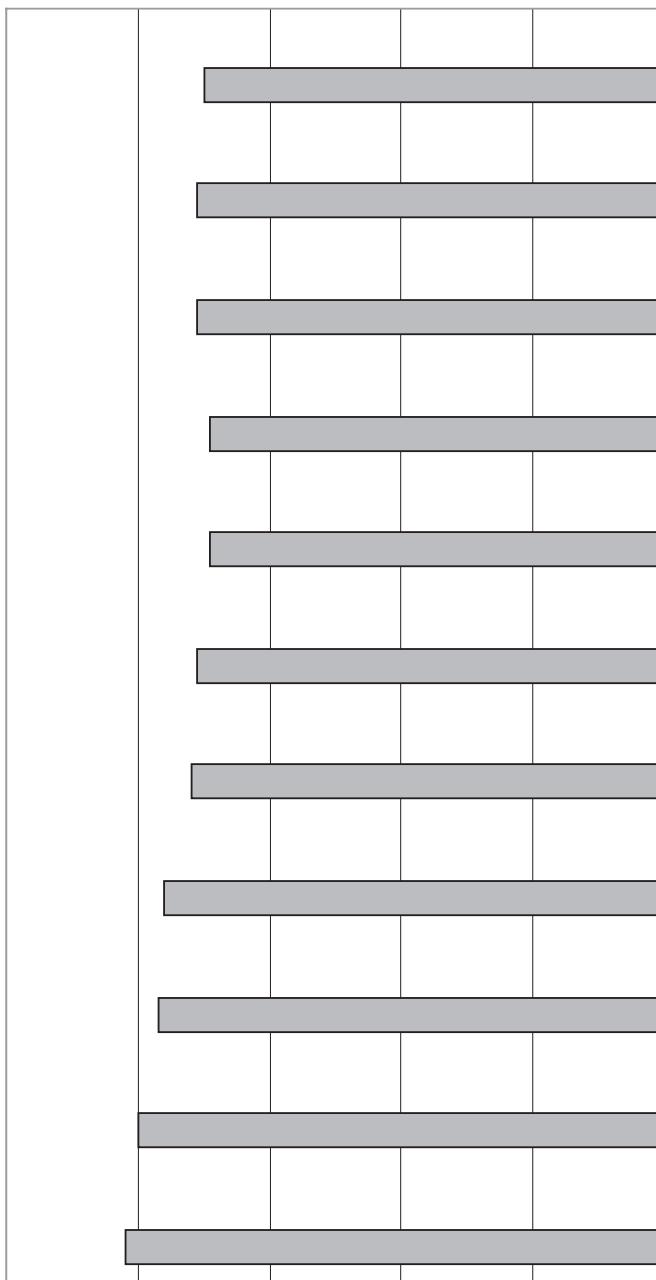


Table 9. Candidates Taking the NCLEX-PN® Examination, by Type of Candidate, January 1 – December 31, 2004¹

Type of Candidate	Jan 1 – Mar 31, 2004		Apr 1 – Jun 30, 2004		Jul 1 – Sep 30, 2004		Oct 1 – Dec 31, 2004		Total Jan 1 – Dec 31, 2004			
	Candidates	Passed	%	Candidates	Passed	%	Candidates	Passed	%	Candidates	Passed	%
First-Time, U.S.-Educated	10,060	8,875	88.2	9,130	8,012	87.8	18,690	17,051	91.2	11,403	10,103	88.6
Repeat, U.S.-Educated	2,151	979	45.5	2,446	1,108	45.3	2,191	936	42.7	2,317	1,091	47.1
First-Time, Internationally Educated	490	251	51.2	430	234	54.4	479	246	51.4	518	284	54.8
Repeat, Internationally Educated	436	135	31.0	458	124	27.1	440	108	24.5	473	133	28.1
All Candidates	13,137	10,240	77.9	12,464	9,478	76.0	21,800	18,341	84.1	14,711	11,611	78.9

¹ Performance of PN Educational Programs. The following is a summary of the 2004 NCLEX pass rates for U.S. PN education programs based upon first-time candidate performance. In 2004, 1,303 U.S. PN programs had at least one first-time candidate. The mean pass rate for those programs was 89.3% (SD 15.3). When including only those programs with at least ten first-time examinees (N=1,151), the mean pass rate was 91.1% (SD 9.7).

Table 10. Summary Statistics for First-Time, U.S.-Educated Candidates Taking the NCLEX-PN® Examination, January 1 – December 31, 2004

NCLEX-PN®	January–December 2004
Passing Standard ¹	-0.42 logits
Estimated Decision Consistency ²	0.92
Average Test Length ³	110 items
Percent of Candidates Taking the Minimum Number of Items	61.9%
Percent of Candidates Taking the Maximum Number of Items	13.1%
Average Testing Time ⁴	1 hour, 53 minutes
Percent of Candidates Taking the Maximum Amount of Time	0.6%

¹ The NCLEX-PN scale uses logits as the unit of measurement. Logits is short for log-odds-units. These units have no inherent meaning with regard to nursing content and, in fact have an arbitrary zero point, but logits are practical because the probability of a correct response can easily be computed when the candidate's ability and the item's difficulty are known. Typically, the logit range on the NCLEX-PN scale is from -2.00 (easy) items or low ability candidates) to 2.00 (difficult items or high ability candidates).

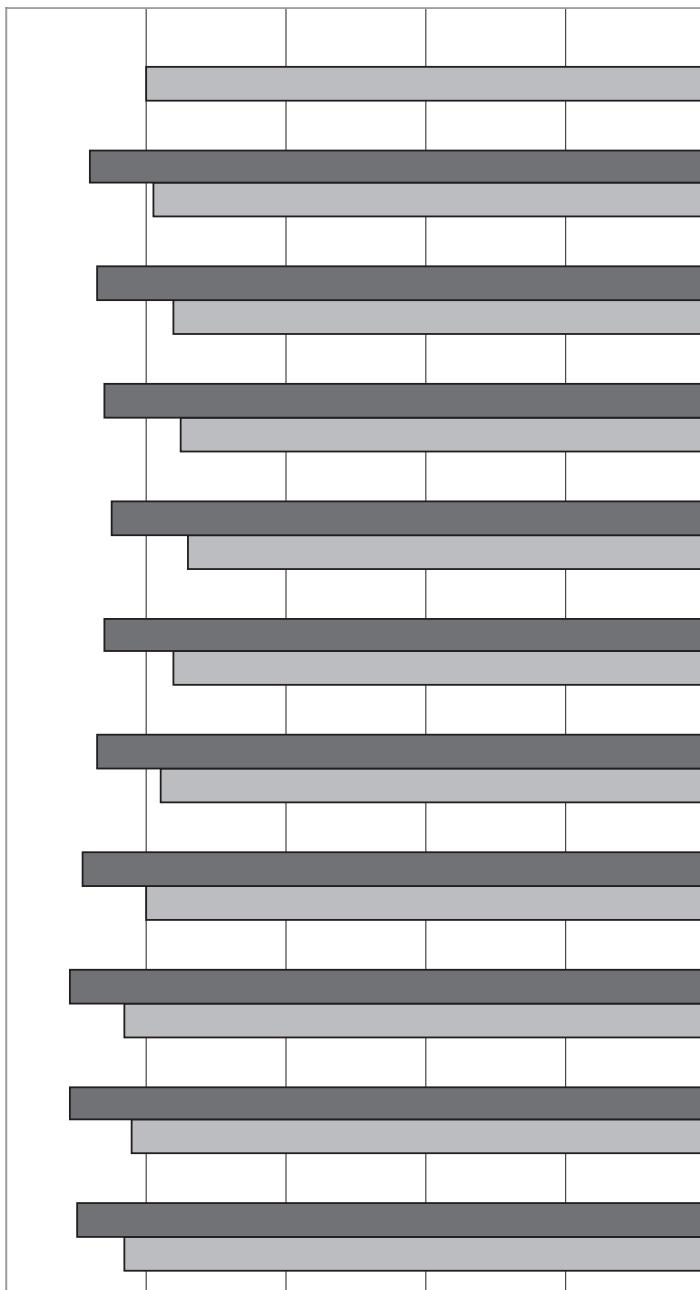
² Estimated Decision Consistency is an indicator of reliability. Conceptually, it is the proportion of pass-fail decisions that would remain the same if the same population were retested immediately after their first test (assuming no learning or fatigue effects); using a different set of items.

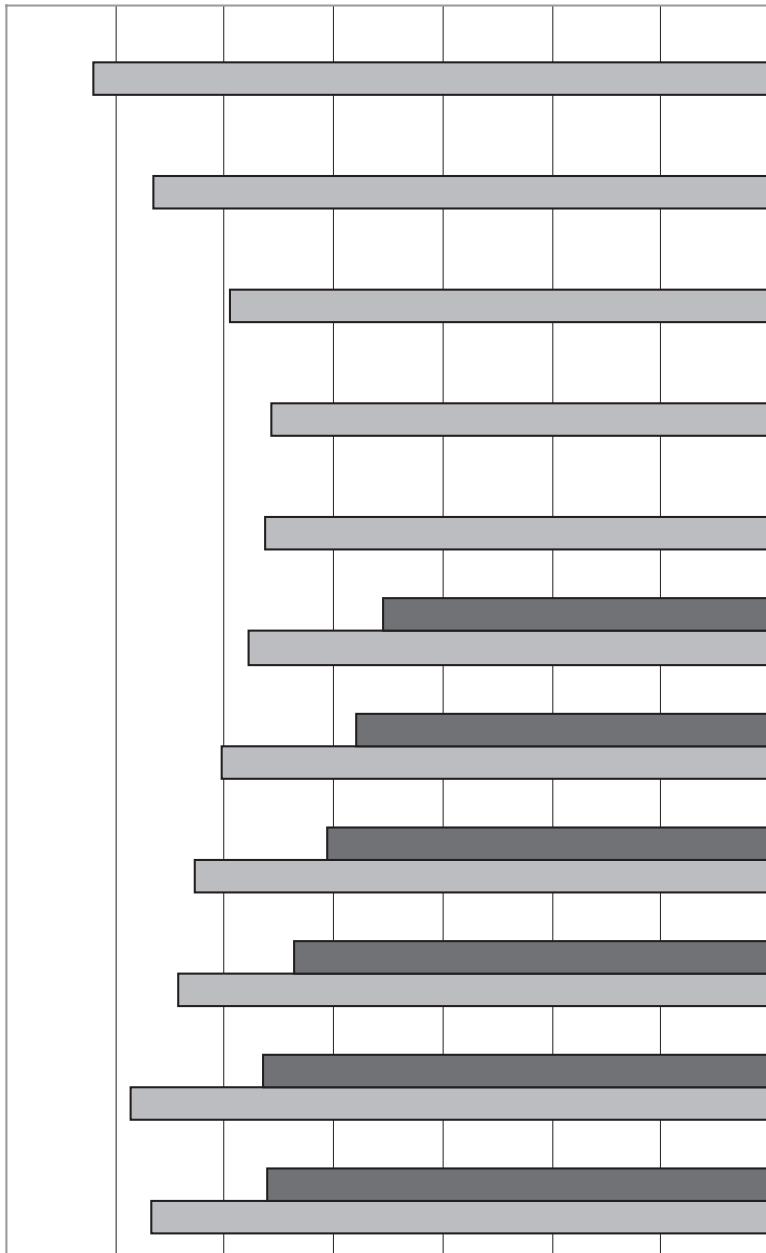
³ NCLEX-PN examinations consist of 85 to 205 items.

⁴ The standard amount of allotted testing time for the NCLEX-PN examination is 5 hours.









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