1991 Book of Reports

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National Council of State Boards of Nursing, Inc.
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Chicago, Illinois 60611

Table of Contents

Convention Schedule 1

Description of Convention Events 2

TAB 1: Business Agenda, Delegate Assembly Rules & Summary of 1991 Recommendations
Business Agenda of the 1991 Delegate Assembly 1
Rules for Conduct of Delegate Assembly 3
Summary of Recommendations to the 1991 Delegate Assembly 5

TAB 2: Committee on Nominations
Report of the Committee on Nominations 1

TAB 3: Officer Reports
Report of the President 1
Report of the Vice-President 3
Report of the Secretary 4
Report of the Treasurer 5
Report of Independent Auditors 7
  Balance Sheets 8
  Statement of Revenue and Expenses 9
  Statement of Changes in Fund Balance 10
  Statements of Cash Flows 11
  Notes to Financial Statements 12
Report of the Area I Director 14
Report of the Area II Director 15
Report of the Area III Director 16
Report of the Area IV Director 17
Report of the Director-at-Large 18

TAB 4: Board of Directors Report, Operational Plans & Budget
Report of the Board of Directors 1
  Attachment A: Position Paper 6
National Council FY91 Operational Plan 7
National Council FY92 Operational Plan 35
FY92 Budget by Program 59

TAB 5: Foreign Nurse Issues Committee
Report of the Foreign Nurse Issues Committee 1

TAB 6: Nurse Information System Committee
Report of Nurse Information System Committee 1

TAB 7: Special Projects (CAT) Committee
Report of the Committee for Special Projects 1
  Attachment A: Computerized Testing Glossary 7
  Statistical Terms 10

TAB 8: Job Analysis Monitoring Committee
Report of the Job Analysis Monitoring Committee 1

TAB 9: CST Steering Committee
Report of the Steering Committee, Computerized Clinical Simulation Testing Project 1
Attachment A: Glossary of Computer Testing Terms 5
Annual Report of the National Board of Medical Examiners (NBME) 9
Appendix A: Transaction List Review CST Field Test Data 13

TAB 10: Test Service Reports (NCLEX & NACEP)
Annual Report of the NCLEX Test Service 1991 1
Annual Report of the NCLEX Data Center 15
Annual Report of the NACEP Test Service 17
Attachment A:
Figure 1: NACEP Co-op Service One 21
Figure 2: NACEP Co-op Service Two 22
Figure 3: NACEP Co-op Service Three 23
Figure 4: NACEP Full Service 24
Attachment B:
Figure 1: List of Nurse Aide Programs by Contractor 25
Attachment C:
Table 1: NACEP Written/Oral Evaluation, number tested and percent passing by state 27
Table 2: NACEP Manual Skills, number tested and percent passing by state 28
Table 3: NACEP Manual Skills, percent passing by task 29
Table 4: NACEP Written/Oral Evaluation, number and percent of candidates tested by selected variables 30
Attachment D:
Figure 1: NACEP Written/Oral Evaluation, percent tested by level of education 31
Figure 2: NACEP Written/Oral Evaluation, percent tested by ethnicity 32

TAB 11: Report of Executive Director
Report of the Executive Director 1
1990-91 National Council staff 6

TAB 12: Bylaws Committee
Report of the Bylaws Committee 1
Attachment A 3

TAB 13: Long Range Planning Committee
Report of the Long Range Planning Committee 1
Attachment A: Preliminary Report of the Trend Analysis Survey 3

TAB 14: Communications Committee
Report of the Communications Committee 1
Attachment A: Report on Audiovisual Production 5

TAB 15: Finance Committee
Report of the Finance Committee 1

TAB 16: Examination Committee
Report of the Examination Committee 1

TAB 17: Administration of Examination Committee
Report of the Administration of Examination Committee 1

TAB 18: Nursing Practice and Education Committee & Subcommittees
Report of the Nursing Practice and Education Committee 1
Attachment A: Entry into Practice Report 3
Table I: Member Boards with Entry into Practice Positions 3
Attachment B: Continued Competence Update Report 5
Table II: Continued Competency Mechanisms 6
Attachment C: Conceptual Framework for Continued Competence 7
Attachment D: Nursing Care in the School Setting: Regulatory Implications 15
Attachment E: Declaratory Statements, Advisory Opinions--Survey Results 17
Attachment F: Activities of Generalists as They Relate to Advanced Nursing Roles 21
Table 1: Licensed Practical Nurses 23
Table 2: Registered Nurse 27
Table 3: Advanced Nurse Roles 36
Attachment G: Traveling, Transport and Interstate Nurse Roles--Survey Results 43
Report of the Subcommittee to Study Regulatory Models for Chemically Dependent Nurses 49
Attachment A: Sources of Letters of Support for Research 51
Report of the Subcommittee to Study the Regulation of Advanced Nursing Practice 53

TAB 19: NACEP Committee
Report of the Ad Hoc Nurse Aide Competency Evaluation Program (NACEP) Committee 1

TAB 20: Summary of 1990 Delegate Assembly Actions
Summary of Major Actions of 1990 Delegate Assembly 1

TAB 21: Resolutions Committee & New Business
Report of the Resolutions Committee 1
Resolution on Administering NCLEX-RN to USAR 91C's in Germany 3
Resolution Requesting Field Tests to Determine the Effect of Time on Candidates' Performance on the NCLEX-RN Examination Under Either Paper-and-Pencil or CAT Administration 7
Resolution on Increased NCLEX Testing Time to Accommodate Candidates Whose Primary Language is Not English 15

TAB 22: Orientation Manual
Orientation Manual 1
Appendix A: National Council Organization 11
Appendix B: 1991 Staff Resource Reference List 13

TAB 23: Glossary
Glossary 1

1
BUSINESS AGENDA
DELEGATE ASSEMBLY RULES
& 1991 RECOMMENDATIONS

Meeting Schedule

National Council Office .... Atlanta Room
Incidental Meeting Rooms .... Stetson E and Stetson F

Incidental meeting rooms are available throughout the week and may be reserved via sign-up sheets located at the registration desk.

Monday July 29

11:00am-5:00pm
Registration
Regency Foyer

1:00-5:00pm
Educational Session: The NCLEX Process
Regency A

5:00-6:30pm
Early Bird Social
Regency B

Tuesday July 30

8:00am-2:00pm
Registration
Regency Foyer

8:30-9:30am
Orientation
Regency C

9:30-9:45am
Coffee Break

9:45-11:15am
Networking Groups
- Executive Dir.
  Watertower
- Board Members
  Acapulco
- Board Staff
  Toronto

11:15am-12:30pm
Lunch
On your own

12:30-1:30pm
Delegate Assembly
Regency A & B

1:30-3:00pm
NP&E Forum
Regency A & B

3:00-3:15pm
Coffee Break

3:15-5:15pm
CAT Forum
Regency A & B

7:00-8:00pm
Candidates' Forum
Regency A & B

8:00-10:00pm
CTB Reception
Regency D

Wednesday July 31

8:00-9:00am
Registration
Regency Foyer

8:30-10:00am
CST Forum
Regency A & B

10:00-10:15am
Coffee Break

10:15am-12:15pm
Standing Committees' Forum
Regency A & B

12:15-1:30pm
Area Luncheons
- Area I
  Acapulco
- Area II
  Belmont
- Area III
  Toronto
- Area IV
  Wrigley

1:30-3:30pm
Educational Session: From Student to Practitioner, Making the Transition
Regency A & B

3:30-3:45pm
Coffee Break

3:45-5:15pm
Board of Directors' Forum
Regency A & B

5:15-6:15pm
Resolutions Committee Meeting
Hong Kong

Thursday August 1

7:00-8:00am
Registration
Regency Foyer

7:30-8:30am
The Psychological Corporation Breakfast
Grand F

7:30-8:30am
Elections
Grand E

8:30am-12Noon
Delegate Assembly
Regency A & B

12Noon-1:30pm
Awards Luncheon
Regency C

1:30-3:00pm
Resolutions Forum
Regency A & B

3:00-3:15pm
Coffee Break

3:15-4:15pm
Ad Hoc Committees' Forum
Regency A & B

4:15-5:15pm
NACEP Forum
Regency A & B

5:45-10:30pm
White Sox Baseball Game
Comiskey Park

Friday August 2

7:30-8:30am
Registration
Regency Foyer

8:00-9:00am
Testing Forum
Regency C & D

9:00-10:00am
Research Forum
Toronto

10:00-10:15am
Poster Session and Coffee Break
Regency Foyer

10:15am-12:30pm
Delegate Assembly
Regency C & D

12:30-2:00pm
Lunch
On your own

2:00-5:00pm
Delegate Assembly
Regency C & D

NOTE:
Time has been reserved on Saturday morning to conduct Delegate Assembly business, if needed. Saturday afternoon is available for attendee organized activities.

Monday — July 29, 1991

Educational Session

Earn continuing education units while learning about NCLEX test development. This four-hour educational session is sponsored by National Council's Examination Committee and presented by testing service staffs from the National Council and CTB MacMillan/McGraw-Hill.

Early Bird Social

The Board of Directors welcomes attendees at this informal and casual gathering.

Tuesday — July 30, 1991

Orientation

Learn about the history and structure of the National Council as well as the parliamentary procedures used during the Delegate Assembly.

Networking Groups

Exchange ideas and activities with your colleagues during this unique informal networking opportunity.

First Meeting of the Delegate Assembly

National Council delegates conduct the organization's business. Observers are welcome.

Nursing Practice and Education Forum

The Nursing Practice and Education (NP&E) Committee welcomes attendee input on its paper entitled "A Conceptual Framework on Continued Competence" and its statement entitled "Nursing Care in the School Setting: Regulatory Implications." Reports of NP&E subcommittees will also be presented.

CAT Forum

The Committee for Special Projects will give its final report on the Computerized Adaptive Testing (CAT) feasibility study. Opportunity for discussion will be made available.

Candidates' Forum

Be certain to attend this important session to hear the ideas and positions of those nominated for a National Council office. The membership will be electing a secretary, treasurer, Area I director, Area III director, and all members of the Committee on Nominations.

CTB MacMillan/McGraw-Hill Reception

CTB MacMillan/McGraw-Hill is our host for this evening of quiet elegance.

Wednesday — July 31, 1991

CST Forum

The CST Steering Committee will report on the results of the Clinical Simulation Testing (CST) pilot study. Also, try the hands-on demonstration of CST, now augmented with interactive video, available at various times during the week.

Standing Committees Forum

Activities of the Bylaws Committee, Communications Committee, Finance Committee and Long Range Planning Committee will be presented. Bylaws amendments have been proposed. This is your opportunity to speak to the suggested changes.

Area Meeting Luncheons

Lunch with colleagues from your neighboring states and explore topics of mutual concern and interest.

Educational Session

This year's panel is titled "From Student to Practitioner: Making The Transition." Dr. Karen Ehrat, Sr. VP at St. Joseph's Health Network in Michigan and past president of AONE, and Kathleen Andreoli, VP of Nursing and Dean of Nursing for Rush/Pres-byterian St. Lukes Medical Center in Chicago, will dialogue on this important topic.

Board of Directors Forum

Capitalize on this opportunity to discuss with National Council's Board of Directors on such timely issues as the Computerized Adaptive Testing (CAT) project and the Computerized Clinical Simulation Testing (CST) project.

Thursday — August 1, 1991

The Psychological Corporation Breakfast

Start your day with the gracious hospitality of the NACEP test service staff.

Second Meeting of the Delegate Assembly

Awards Luncheon

Join us as we pause to honor some of the many who have made significant contributions on behalf of the National Council and its mission.

Resolutions Forum

This is your opportunity to discuss new business coming before the National Council.

Ad Hoc Committees Forum

Reports on the NIS Feasibility Study and the PN Job Analysis will be given.

Nurse Aide Competency Evaluation Program (NACEP) Forum

Hear the results of the 1990 incumbent nurse aide job analysis and the resulting changes made to the NACEP Blueprints.

Chicago White Sox Baseball at the New Comiskey Park

Everyone is invited to get casual, enjoy a picnic-style dinner buffet in an enclosed patio and root the Chicago White Sox to victory over the Texas Rangers.

Friday — August 2, 1991

Testing Forum

The Examination Committee, Administration of Examination Committee, and CTB MacMillan-McGraw Hill, the NCLEX test service, report on activities.

Research Forum and Poster Session

Hear and see the results of research projects conducted by various boards of nursing.

Third Meeting of the Delegate Assembly

Business Agenda of the 1991 Delegate Assembly

I. Opening Ceremonies

II. Opening Reports
- A. Registration Committee
- B. Rules Committee
- C. Committee to Approve Minutes

III. Nominations
- A. Committee on Nominations' Report
- B. Nominations from the Floor

IV. Officers' Reports
- A. President's Address
- B. Vice-President
- C. Secretary
- D. Treasurer, including audit
- E. Area I Director
- F. Area II Director
- G. Area III Director
- H. Area IV Director
- I. Director-at-Large
- J. Overview of Delegate Assembly Business Sessions

V. Executive Director's Report

VI. Election of Officers and Committee on Nominations
Thursday, August 1, 1991, at 7:30 a.m.

VII. Long Range Planning Committee Report

VIII. Finance Committee Report

IX. Election Committee Report

X. Report of Board of Directors and Ad Hoc Committee Reports

- A. Introduction
- B. Committee for Special Projects Report
  (Board of Directors' recommendation #1)
- C. Steering Committee, Computerized Clinical Simulation Testing Report
  (Board of Directors' recommendation #2)
- D. NCLEX Test Service and Data Center
- E. NACEP Test Service
- F. Nurse Aide Competency Evaluation Program Committee Report
  (Board of Directors' recommendation #3)
- G. Job Analysis Monitoring Committee Report
- H. Nurse Information System Committee Report
- I. Foreign Nurse Issues Committee Report

XI. Administration of Examination Committee Report

XII. Examination Committee Report

XIII. New Business - Resolutions Committee Report
Friday, August 2, 1991, at 2:00 p.m.

XIV. Bylaws Committee Report

XV. Communications Committee Report

XVI. Nursing Practice and Education Reports

- A. Nursing Practice and Education Committee
- B. Subcommittee to Study Regulatory Models for Chemically Dependent Nurses
- C. Subcommittee to Study Regulation of Advanced Nursing Practice
- D. Subcommittee to Study the Regulatory Implications of Changing Nursing Education

XVII. Adjournment

Rules for Conduct of Delegate Assembly

General Procedures

1. All meetings will be called to order on time. Delegates are requested to be in their seats five minutes before the opening of each meeting.

2. Badges will be provided for delegates and alternates upon registering and must be worn at all meetings.

3. The order of business may be changed by a majority vote.

4. Smoking shall not be permitted in meeting rooms.

Resolutions

1. All new business introduced through resolutions has been reviewed by the Resolutions Committee prior to presentation to the Delegate Assembly.

2. The deadline for presenting resolutions is 5:00 p.m. on Wednesday, July 31, 1991.

3. Resolutions must be accompanied by a fiscal impact statement.

4. Other new business may be introduced if permission is granted by a majority vote of the Delegate Assembly.

Motions

1. All main motions and amendments shall be written, signed by the maker, and presented to the Chair immediately after proposal.

2. Motions use the terms "receive" and "adopt." When used by the National Council convened in Delegate Assembly, any motion using the word "accept" will be interpreted to mean "receive."

3. Motions originating from the Board of Directors or committee reports shall be considered appropriately presented to the Assembly.

4. On a counted vote, the white voting card receives one vote, the pink voting card receives two votes.

Debate

1. To be entitled to the floor, a delegate, alternate, or other person in attendance must go to the microphone, address the Chair, and give name and jurisdiction.

2. A delegate shall speak no more than three minutes to a motion without consent of the Delegate Assembly, granted by a majority vote.

3. A nondelegate may speak once to an issue for three minutes after all interested delegates have spoken. Such nondelegate may speak again, only at the Chair's invitation.

4. A delegate may speak more than once to the same question only after all who wish to speak have done so.

5. Members of the Board of Directors retain the same rights to speak on issues as the delegates.

6. A red card raised at the microphone interrupts business for the purpose of a point of order, a question of privilege, orders of the day, a parliamentary inquiry or an appeal.

7. A timekeeper will signal when allotted time has expired.

Nominations and Elections

1. The person making a nomination from the floor shall be permitted two minutes to give the qualifications of the nominee and to indicate that written consent of the nominee and a written statement of qualifications have been forwarded to the Committee on Nominations. Seconding speeches shall not be allowed.

2. The adopted electioneering rules shall remain in effect until amended or rescinded.

3. Election for officers and members of the Committee on Nominations shall be held Thursday, August 1, 1991, at 7:30 a.m..

4. Electioneering for candidates is prohibited in the vicinity of the polling place.

5. If no candidate receives the required vote for an office and revoting is required, the president shall announce the time for revoting immediately after the original vote is announced.

6. The voting strength for the election will be determined by those registered by 7:30 a.m. on the day of the election.

Summary of Recommendations to the 1991 Delegate Assembly

To provide an overview, the recommendations presented to the 1991 Delegate Assembly for consideration are listed below.

Committee on Nominations

1. Adoption of the 1991 Slate of Candidates.

Treasurer

1. The auditor's report for the 15-month period beginning July 1, 1989, and ending September 30, 1990, be approved as presented.

Board of Directors

1. Computerized Adaptive Testing (CAT) -- The Board's recommendation regarding CAT will be included in a supplementary mailing to Member Boards and delegates in late June, when all field test analyses and conclusions have been reviewed.

2. Computerized Clinical Simulation Testing (CST) -- The Board of Directors recommends that research and development on CST be continued, with a timeframe of three to four years, and including annual reports to the Delegate Assembly which evaluate progress and implications for future development.

3. Nurse Aide Competency Evaluation Program (NACEP) -- The board of Directors recommends that, given the November 1993 expiration of the contract with The Psychological Corporation (TPC), the Delegate Assembly direct the Board of Directors to select and contract with a test service for NACEP for the period beginning with the expiration of the current contract.

Committee for Special Projects

1. Any committee recommendation regarding CAT will be included in a supplementary mailing to Member Boards and delegates in June.

Bylaws Committee

1. The committee recommends the consideration of the nineteen proposed amendments to the bylaws as presented in Attachment A of its report.

Communications Committee

1. The Communications Committee recommends that the 1991 Delegate Assembly not pursue the development of audiovisual materials at this time.

Examination Committee

1. The Examination Committee's recommendation regarding the NCLEX-PN test plan will be included in a supplementary mailing to Member Boards and delegates in late June.

Administration of Examination Committee

1. The committee recommends the following dates for the year 2001 administration of the NCLEX: RN, February 7-8 (W-Th), July 11-12 (W-Th); and PN, April 18 (W), October 17 (W).

2. The committee recommends the following alternate dates for the year 2001 administration of the NCLEX: RN, March 14-15 (W-Th), September 5-6 (W-Th); PN, May 9 (W), November 14 (W).

Nursing Practice and Education Committee

1. The Nursing Practice and Education Committee recommends that the Delegate Assembly adopt the *Conceptual Framework on Continued Competence.*

2. The Nursing Practice and Education Committee recommends that the Delegate Assembly adopt the *Nursing Care in the School Setting: Regulatory Implications.*

2

COMMITTEE ON NOMINATIONS

Report of the Committee of Nominations

The Committee on Nominations met twice in Chicago and three times via telephone conference to complete its work. Its first meeting was held in conjunction with the Fall Planning Retreat in October, 1990. At that time, in addition to participating in various group meetings, the committee discussed and identified various barriers which impact on the current difficulty of preparing a complete slate, as dictated by National Council bylaws. The committee also revised the organization's nomination form, as suggested by the 1990 Delegate Assembly, to better reflect nominees' activities and background outside of the National Council which would serve as an asset to the organization.

The offices to be elected by the 1991 Delegate Assembly are:
- Secretary
- Treasurer
- Area I Director
- Area III Director

Additionally, nominees were sought for each of the four positions on the Committee on Nominations: Areas I, II, III and IV. In an effort to spark early and numerous submissions of nominations for the above offices, the Committee on Nominations employed suggestions of the Bylaws Committee and the 1990 Delegate Assembly to increase contact with potential nominees. Complete sets of nomination forms were distributed in five consecutive National Council *Newsletters*, beginning November 15, 1990, and ending December 28, 1990. On January 22, 1991, the committee sent correspondence to each Member Board, encouraging submission of qualified candidates and creating a sense of urgency with the February 15, 1991, deadline for nomination fast approaching. Beginning January 28, 1991, each committee member made personal follow-up phone calls to Member Boards in their respective Area.

As of March 1, 1991, the committee had received a total of eight nominations. Two of the eight positions to be filled did not have two nominees as required by the bylaws.

The committee met in Chicago on March 2, 1991, to determine the slate. During this meeting, the committee further discussed the problems experienced in identifying, as the bylaws require, *"at least two names for each position to be filled."*

Bylaws Recommendation

The committee agreed to make an immediate move toward addressing the problems of developing a full slate by submitting a recommendation to change two bylaws. The bylaws in question are: 1) the bylaw requiring that the president shall have served at least one year on the Board of Directors prior to being elected to office, and 2) the bylaw requiring at least two names for each position to be filled.

First Proposed Bylaw, addressing president qualifications:

Current Bylaw:

Article V, Officers

B. Qualifications

3. The president shall have served at least one year on the Board of Directors prior to being elected to office.

Proposed Bylaw Change:

Amend the bylaw to read:

3. The president shall have served as a delegate or a committee member or an officer prior to being elected to office.

Rationale:

The bylaw as currently written severely limits the pool of qualified candidates. It does not necessarily meet its intent, as it does not guarantee continuity. This amendment responds to the concerns expressed by delegates attending the 1990 Delegate Assembly. The Bylaws Committee supports this change.

Second Proposed Bylaw, addressing number of names per position to be filled:

Current Bylaw:

Article VI, Nominations and Elections

A. Committee on Nominations

6. Report

The Committee on Nominations shall submit at least two names for each position to be filled. The report shall be read on the first day of the meeting of the Delegate Assembly, when additional nominations may be made from the floor. No name shall be placed in nomination without the written consent of the nominee.

Proposed Bylaw Change:

Change the first sentence to read:

6. Report

The Committee on Nominations shall submit a slate of candidates for the positions to be filled. The report shall be read on the first day of the meeting of the Delegate Assembly, when additional nominations may be made from the floor. No name shall be placed in nomination without the written consent of the nominee.

Rationale:

During the 1990 Fall Planning Retreat, the Committee on Nominations discussed at length the barriers to completing a full slate as defined by the bylaws and some possible solutions to those barriers. The barriers and possible solutions are identified below:

1. *Barrier:* Time commitment.
   Possible solutions: Have staff continue to prepare materials that facilitate moving the agenda, therefore reducing meeting time. Shorten the Delegate Assembly. Offer compensation for the position of president.

2. *Barrier:* Running against a popular incumbent.
   Possible solutions: The committee should be involved in proactive recruitment, obtaining candidates before the incumbent declares intent for re-appointment. Also, possibly change the bylaws to allow elected officers to hold their position for only two terms.

3. *Barrier:* Terms of appointment to own board.
   Possbile solutions: Again, proactive recruitment, asking candidates to run while there is still time in their appointment. The National Council should provide orientation to newly-appointed state board members so that they are aware of what the National Council is and how to become involved.

4. *Barrier:* No follow-up of initial call for nominations.
   Possible solutions: This year, the committee has planned for articles to appear continuously in the *Newsletter* from late October through December in order to serve as a reminder to nominate candidates. The committee will also place specialized calls to potential candidates or nominators.

5. *Barrier:* No previous National Council experience.
   Possbile solutions: Revised nomination form to accommodate those persons who have not had previous National Council experience so that they can note related experience in other organizations.

6. *Barrier:* People want to be asked to run.
   Possible solutions: The committee could contact those persons who ran in the previous year's election and did not receive an office. They could also contact the boards of those persons who applied to be on committees yet did not receive a position. The committee felt that these were identifiable persons who might be interested in serving the National Council.

7. *Barrier:* Have to be on the Board of Directors to run for the office of President.
   Possible solutions: Possible bylaws change.

Capitalizing on suggestions made by the 1990 Delegate Assembly and Bylaws Committee and including some of the above ideas generated by the Committee on Nominations at the 1990 Fall Planning Retreat, the committee implemented the following to elicit candidates for nomination to the 1991 slate:

1. Complete sets of nomination forms were attached to five (5) consecutive *Newsletters*, beginning October 26 and ending December 21, 1990.
2. A reminder letter was sent from the committee to all Member Boards on January 22, 1991.
3. Each committee member made personal follow-up phone calls to either all or most of the Member Boards in their respective Area.

This effort did not produce enough candidates to complete the slate as required by the bylaws.

The committee is deeply concerned about this situation. In the telephone contacts with Member Boards, committee members learned of three key factors which were commonly identified as contributing to the problem: the time commitment required of the Board; running against a popular incumbent; and, state restrictions on out-of-state travel, even if it is reimbursed. Other key points raised included the fact that, over the years, the number of National Council committees has increased, thereby decreasing the candidate pool as more and more volunteers choose to remain in their committee role rather than run for an office. As the National Council continues to grow, the committee anticipates that the pool of qualified candidates will continue to decrease.

The Committee on Nominations also empathizes with the problem faced by board members, particularly consumer members, who would be adding national responsibilities to their full time job and a time-demanding state position. It was noted that some associations, unlike the National Council, offer a "state leave of absence" upon appointment/election to a national position--a practice which may increase the pool of qualified candidates. However, the committee recognizes that with the National Council, it is because of the state position that they are elected to national office, negating the opportunity to eliminate state responsibilities.

For the reasons stated above, the Committee on Nominations respectfully recommends that the bylaw be changed as proposed. The Bylaws Committee supports the change.

Guidelines for the 1991 Candidates' Forum

The committee decided to continue the successful format of the 1990 Candidates' Forum by providing those nominees for offices with five minutes of presentation time and providing nominees for Committee on Nominations with two minutes of presentation time. Rosa Lee Weinert, chair of the Committee on Nominations, will moderate.

The presentation order for the hour-long forum is as follows:

1. *Area IV, Committee on Nominations*
2. *Area III, Committee on Nominations*
3. *Area II, Committee on Nominations*
4. *Area I, Committee on Nominations*
5. *Area III Director*
6. *Area I Director*
7. *Treasurer*
8. *Secretary*

The committee concurred that no change be made to the policy established in 1990 by the Committee on Nominations that allowed the opportunity for nominees to communicate prior to the commencement of the annual meeting and also allowed participation in informal verbal communications following the first business session of the Delegate Assembly (at which time the slate will have been adopted by the delegates).

Slate of Candidates

An overview of the slate developed and adopted by the Committee on Nominations follows. More detailed information on each nominee is provided in the subsequent pages of this report. This detailed information is taken directly from the nomination forms. Each nominee on the slate will have an opportunity to expand on this information during the Candidates' Forum, scheduled to be held Tuesday, July 30, 1991, from 7:00 - 8:00 p.m.

Secretary

Judi Crume .... Arizona .... Area I
Judie Ritter .... Florida .... Area III

Treasurer

Susan Boone .... Ohio .... Area II
Carol Osman .... North Carolina .... Area III

Area I Director

Gail McGuill .... Alaska .... Area I
Colleen Minami .... Hawaii .... Area I

Area III Director

Carol McGuire .... Kentucky .... Area III
Marcella McKay .... Mississippi .... Area III

Committee on Nominations

Area I

Toma Nisbet .... Wyoming .... Area I
Mickey Wade .... Nevada .... Area I

Area II

Marty Lind-Martin .... Michigan .... Area II
Rosa Lee Weinert .... Ohio .... Area II

Area III

Barbara Morvant .... Louisiana .... Area III
Janice Oster .... Kentucky .... Area III

Area IV

Harriet Johnson .... New Jersey .... Area IV
Doris Nuttelman .... New Hampshire .... Area IV

DETAILED INFORMATION, as taken directly from nomination forms and organized as follows:

1. Name, Jurisdiction, Area
2. Present board position
3. Present employer
4. Educational preparation
5. Offices held or committee membership, including National Council activity
6. Professional organizations
7. Personal statement

Secretary

1. **Judi Crume, Arizona, Area I**

2. Associate Executive Director

3. Arizona State Board of Nursing

4. University of Kentucky, MSN, 1980
   Murray State University, BSN, 1973

5. National Council
   Communications Committee, Chair, 1990-1991
   Communications Committee, 1989
   Planned Parenthood, Board of Directors, 1989-1990

6. Arizona Administrators Association
   Arizona Nursing Network
   Sigma Theta Tau

7. Since becoming involved with National Council three years ago, I have been richly rewarded. I now serve as chair of the Communications Committee and had the pleasure of a professional interface within the membership that has enhanced my work in licensing and regulation.

   As a result of my interactions, I have had the opportunity to make several observations about National Council and its membership. One of the most prevalent of those observations is that National Council will continue to expect competent direction and leadership as well as active participation from the membership as essential elements in reaching the mission and goals of the organization. I believe my responsibilities in the daily operations of a licensing/regulatory agency, insight from involvement in National Council, and commitment to the continuance of clarity in direction and vision can be very beneficial in providing that leadership.

   This year, you will select a new secretary on the Board of Directors. I would consider it both an honor and a privilege to serve you in that capacity. Thank you for your consideration in 1991.

Secretary

1. **Judie K. Ritter, Florida, Area III**

2. Executive Director

3. Florida Board of Nursing

4. University of Florida, doctoral program in nursing, 1986-present
   Ohio State University, MSN, 1969
   Duke University, BSN, 1968

5. National Council
   National Council Nurse Information System Committee, Chair, 1988-present
   Nurse Information System Committee, 1987
   Delegate, 1985-present
   Florida Nursing Review, Editorial Board, 1985-present
   Hospital Cost Containment Board Nursing Shortage Study, Technical Advisory Panel, 1988-present
   Co-sponsored national conference on continued competency, hosted by Florida Board, 1984
   Florida Nurses' Association, Board of Directors, 1975-1977
   American Nurses' Association
   Council on Continuing Education, Nominating Committee, 1975-1977
   National Data Bank Committee, 1976

6. American Nurses' Association
   Florida Nurses' Association
   Sigma Theta Tau
   Florida Organization of Nurse Executives
   Duke University School of Nursing Alumni Association

7. The NCSBN has the vital mission of influencing health care policies affecting public safety. My background includes eighteen years' experience as a professional staff member in a large regulatory agency. This gives me a unique perspective in dealing with NCSBN concerns.

   Priority issues include:
   a) Ensuring the continued development of a current, reliable, valid and legally defensible national licensing examination.
   b) Ongoing assessment of and response to expressed needs of Member Boards related to the administration of their regulatory responsibilities.
   c) Serving as a clearinghouse for information related to Member Boards' roles and responsibilities.

   It would be a privilege for me to serve the NCSBN.

Treasurer

1. **Susan Boone, Ohio, Area II**

2. Operations Manager

3. Ohio Board of Nursing

4. Xavier University, MBA, 1981
   State of Ohio Licensure as Public Accountant, 1976
   Franklin University, BSBA, 1974

5. The Educational Foundation of AWSCPA-ASWA
   Administrative Director, 1988-present
   Trustee, 1986-1989
   American Society of Women Accountants
   Chair of numerous national committees, 1981-present
   Vice President-Elect, President of local chapter, 1977-1980
   Chair of numerous committees at local chapter, 1975-1977

6. American Society of Women Accountants

7. My background includes 16 years experience in the following fiscal auditing areas: financial and compliance auditing of tax exempt organizations; budget and financial statement preparation, implementation and monitoring; expenditure planning and control; and development and implementation of internal fiscal controls.

This practical experience, combined with my educational background provides me with the skills to analyze and comprehend the complex financial situation of NCSBN. It is mandatory that the Council maintain fiscal responsibility while remaining in compliance with the legal and tax requirements of its exempt status.

The greatest challenge facing NCSBN at this time is the decision of whether or not to go forward with CAT. The accurate analysis of the legal and fiscal aspects of CAT is critical, not only to the Council but also to all jurisdictions who will rely heavily upon the Council's expertise to assist them. My experiences will help the Council in facilitating the attainment of this goal.

Treasurer

1. **Carol Osman, North Carolina, Area III**

2. Executive Director

3. North Carolina Board of Nursing

4. North Carolina State University, Ed.D., 1987
   East Carolina University, MSN, 1983
   University of Tennessee, MS, 1968
   East Tennessee State University, BSN, 1962

5. National Council
   - Finance Committee, 1987-present
   - Resolutions Committee, 1988-1990

   North Carolina Nurses' Association
   - Treasuer, 1985-1986
   - Finance Committee

   UT Chapter of Pi Lambda Theta, Treasurer
   North Carolina League for Nursing, Finance Committee

6. American Nurses' Association
   North Carolina Nurses' Association
   National League for Nursing
   North Carolina League for Nursing
   Sigma Theta Tau
   Pi Lambda Theta

7. Members of the Board of Directors should have broad knowledge and understanding of the Council's goals and objectives, and the strategies and resources to achieve them. Membership on the Finance and Resolutions Committees has provided me with background, and with experience that is vital to the position of Treasurer. I ask for the opportunity to use it on your behalf as Treasurer for the Council.

   I believe the Council's priority issues in the future will be those related to practice and testing. Additionally, the impact of an unstable economy in many states will be an important consideration as we move forward.

Area I Director

1. **Gail McGuill, Alaska, Area I**

2. Executive Secretary

3. Alaska Board of Nursing

4. University of Alaska, enrolled in MSN program
   Seattle University, BSN, 1974

5. National Council
    Area I Director, 1989-1991
    Administration of Examination Committee, 1983-1987
    Administration of Examination Committee, Chair, 1987-1989
    Committee on Nominations, 1984-1986
   Alaska Nurses' Association, Board member, 1979-1980
   Anchorage School District Medical Advisory, Board member, 1986-1988

6. Sigma Theta Tau, Theta Omicron
   National Nurses' Society on Addictions
   American Nurses' Association
   Alaska Nurses' Association

7. It is an honor to have served you these past two years and to be considered for reelection as the Area I Director for the National Council of State Boards of Nursing.

   I believe my term as Area Director has proven that I am a valuable member of the NCSBN leadership. The expertise I brought to the Board has been supplemented now to include all aspects of the Council's management and programs.

   I have worked on your behalf, contacting you for your opinions. I will continue to keep informed of your needs and concerns.

   I believe the Council should continue to focus on matters related to providing psychometrically valid, legally defensible and secure licensing exams, using the technology of the '90s. I think electronically linking Boards together so we can obtain endorsement licensure data and disciplinary data will help us to protect the public and should be pursued. As the Area I Director, I will continue to work toward the goals and operational plans set by our organization.

Area I Director

1. **Colleen E. Minami, Hawaii, Area I**

2. Vice Chair, State of Hawaii Board of Nursing

3. State of Hawaii, Department of Health, Nursing Supervisor

4. University of California, MSN, 1965
   University of Hawaii-Manoa, BSN, 1964

5. State of Hawaii Board of Nursing
    Vice Chair, 1989-present
    Nurses' Aide Committee, 1989-present
   Hawaii Nurses' Association
    Continuing Education Committee, 1989-present
    Margaret Tores Memorial Fund, Chair, 1988-1990
   Coalition for Prescriptive Authority, 1990-present
   Senior Companion and Respite Program, Advisory Council, Chair, 1989-present

6. Hawaii Nurses' Association
   American Public Health Association
   Sigma Theta Tau, Alpha ETA Chapter
   Hawaii Public Health Association
   Hawaii Pacific Gerontological Society

7. I have served on the Hawaii State Board of Nursing for two years now and it has certainly enhanced my growth and development as a nurse and as a consumer in the regulatory process. But I realize that I have a lot more to learn. It has widened my perspective about issues which impact on the Boards's work as well as it has given me a healthy respect for the law and the administrative rules which follow. Although I may not have the years of experience of other nominees, I feel that I can bring a different perspective in the National Council as the Area I Director because I come from a state dealing with foreign nurse graduates, a nursing shortage, nurse aides regulation, prescriptive practice and the LVN scope of practice issues.

   I am willing to get involved and do research in order to learn about issues which impact on our Board because I believe that it is important to the nursing profession and the public welfare and safety of our consumers. I feel that I am able to communicate and work as a team with other professionals, with other nurses and other state boards. I am willing to explore alternatives, consider different points of view, but I will also stand by what I believe in. I will uphold the standards set by the National Council and will facilitate its goals and objectives as they apply to each state board in Area I. I will share whatever knowledge and information I have to others in order to implement actions. I feel that the following issues are top priority: 1) regulation of all nurse aides; 2) standards for prescriptive practice; and 3) consistent standards for all foreign nurse graduates.

Area III Director

1. **Carol McGuire, Kentucky, Area III**

2. Assistant Executive Director

3. Kentucky Board of Nursing

4. Florida State University, MS, 1974
   Spalding University (Nazareth College), BSN, 1960

5. National Council
   Nurse Information System Committee, 1990-present
   Kentucky Nursing Practice Project, Steering Committee, Chair, 1989-1990
   Kentucky Associate Degree Nursing Council, KY Board of Nursing representative, 1987-present
   Kentucky Continuing Education Cabinet, KY Board of Nursing representative, 1989-present
   Kentucky Nurses' Assocation Education Cabinet, KY Board of Nursing representative, 1988-1990
   Nazareth Community Health Services, Board of Directors, Chair and member, 1985-present
   Hospice of Central Kentucky, Board of Directors, Founding member/chair, 1983-1987

6. American Nurses' Association
   Kentucky Nurses' Association
   National League for Nursing
   Kentucky League for Nursing

7. My motivation for seeking the elected position of Area III Director stems from a belief in, and a commitment to, experiences and creative leadership using consultative collaboration to foster "win-win" organizational dynamics. The National Council has a number of opportunities to respond in the changing regulatory arena. For instance, how proactive will the organization choose to be? Can we unify and celebrate our rich diversity to significantly impact future nursing and health care policy decisions? The current challenges associated with producing a psychometrically sound, legally defensible, job-related examination will continue to be a major priority for the National Council. Other emerging issues facing the membership include the regulation of assistive personnel and the management of challenges emanating from external pressures, i.e., federal regulations, nurse supply-demand, and educational articulation.

Area III Director

1. **Marcella McKay, Mississippi, Area III**

2. Executive Director

3. Mississippi Board of Nursing

4. University of Mississippi, MSN, 1980
   Mississippi University for Women, M.Ed., 1976
   Mississippi University for Women, BSN, 1976
   Mississippi University for Women, BS, 1973
   Mississippi University for Women, AD, 1973

5. National Council
   Committee for Special Projects, 1987-1991
   Mississippi Governor's Task Force on Infant Mortality, Research Committee, 1985-1991
   Sigma Theta Tau/Theta Beta Chapter, Chair, 1987-1990
   Mississippi Governor's Select Committee on Indigent Care, 1989
   Mississippi Coalition for Mothers and Babies, Chair, 1983-1990
   Fondren Learning Center, Board of Directors, 1991

6. Mississippi Nurses' Association
   Sigma Theta Tau, Theta Beta Chapter

7. Member Boards of the National Council of State Boards of Nursing have articulated and prioritized organizational goals and objectives; however, many are struggling within a environment of diminishing state financial resources and ever-increasing demands for services. To facilitate achievement of National Council's goals and objectives while acknowledging states' perspectives, leaders must excel in communication, priority-setting, resource allocation, and policy making.

   I believe that I would bring to the Board of Directors these qualities as well as a perspective of theoretical and practical experience related to Computer Adaptive Testing which would be valuable in making decisions regarding future innovative testing methodologies. Additionally, I would pledge knowledge, enthusiasm, and creativity in organizational leadership.

Committee on Nominations

<u>Area I</u>

1. **Toma Nisbet, Wyoming, Area I**

2. Executive Director

3. Wyoming Board of Nursing

4. Northern Illinois University, MS, 1973
   Northern Illinois University, BSN, 1969
   St. Mark's Hospital School of Nursing, Diploma, 1967

5. National Council
   Administration of Examination Committee, 1990-present
   Delegate, 1988-1990
   Wyoming PH Association, Secretary/Treasurer, 1988-1991

6. American Nurses' Association
   Wyoming Nurses' Association
   Wyoming Organization of Nurse Executives
   APHA, Wyoming PH Association
   LWV

7. My years of experience as a nursing educator, practitioner, and administrator have helped me in developing the ability to appreciate talent and to recognize those who can get the job done. I have always had enthusiasm for this type of challenge and keen sense for its reality. Fortunately, humor has often helped me temper the reality.

   The Committee on Nominations has the important responsibility for selecting a slate of leaders who collectively will be able to move the National Council toward accomplishing our/its mission. I would like to be part of the process in selecting those leaders and would be honored to serve as a member of the Committee on Nominations.

<u>Area I</u>

1. **Mildred "Mickey" Wade, Nevada, Area I**

2. Associate Executive Director for Education

3. Nevada Board of Nursing

4. University of Colorado, MS, 1966
   St. Louis University, BS, 1954
   Mercy Hospital School of Nursing, Diploma, 1951

5. National Council
   Subcommittee on Non-Traditional Nursing Education, 1991
   Idaho Commission on Nursing and Nursing Education, 1975-1987
   Idaho Nurses' Association, Region I Representative, 1973-1975
   Idaho Board of Nursing, Board member, various committee and chair positions, 1977-1983
   Nevada Board of Nursing, staff, various committee and chair positions, 1987-1991
   Numerous college and university committees, 1971-1987

6. American Nurses' Association
   Sigma Theta Tau

7. The Nominating Committee attempts to provide the National Council with the highest quality candidates for office, in order to facilitate achievement of NCSBN's goals and objectives. I will bring perspicacity, perseverance, and a sense of humor to the tasks of the committee.

<u>Area II</u>

1. **Marty Lind-Martin, Michigan, Area II**

2. Nursing Consultant

3. Department of Licensing and Regulation

4. Andrews University, MSN, 1987
   Nazareth College, BSN, 1981

5. Michigan Nurses' Association, Board of Nursing liaison, 1988-present
   Michigan League for Nurses, Board of Nursing liaison, 1988-present
   Michigan Association for ADN-PN Education, Board of Nursing liaison, 1988-present
   Michigan Association of Colleges of Nursing, Board of Nursing liaison, 1988-present

6. Michigan Nurses' Association
   Michigan League for Nursing
   Sigma Theta Tau
   Nazareth College Alumnae Association

7. During my twenty years in nursing I have held positions within the clinical, academic and regulatory settings. My professional associations over these years afford me with the ability to provide NCSBN with candidates that are able to provide leadership for the protection of the public's health, safety and welfare.

   I believe the important issues for NCSBN to address are minimum competency, impaired practitioners and effective relationships with those who influence our profession.

   I am interested in providing the membership with the most capable of governing officers. I hope to serve on this committee and provide Member Boards with a superior slate of nominees.

Area II

1. **Rosa Lee Weinert, Ohio, Area II**

2. Executive Director

3. Ohio Board of Nursing

4. Ohio State University, MS, 1975
   Ohio State University, BSN, 1972
   Good Samaritan Hospital, Diploma, 1949

5. National Council
   - Committee on Nominations, 1990-1991
   - Examination Committee Alternate, 1988-1990, 1984-1986
   - Examination Committee, 1986-1988
   - Delegate, 1982-1990

6. American Nurses' Association
   Ohio Nurses' Association
   Sigma Theta Tau
   Ohio State University College of Nursing Alumnae Association

7. Having served one year on the Committee on Nominations, I have become acutely aware of the difficulties encountered in trying to prepare for the delegates a slate of qualified candidates for office in NCSBN. Several factors contributing to these difficulties have been identified by the Nominating Committee and attempts are being made to explore and address these factors. I am interested in continuing to serve on the Nominating Committee in order to follow through with the alternative suggestions posited by the Committee so that recruitment of well-qualified individuals to seek office will be enhanced and the organization will benefit from their expertise. Effective leadership in this dynamic organization is of paramount concern considering the weighty issues facing NCSBN at this time.

   National Council's top priority must remain to provide a psychometrically sound, legally defensible, job-related, performance-based examination and to engage in the appropriate research and study that contributes toward producing that kind of examination regardless of the methodology.

<u>Area III</u>

1. **Barbara L. Morvant, Louisiana-RN, Area III**

2. Executive Director

3. Louisiana State Board of Nursing

4. Louisiana State University, Medical Center, School of Nursing, MSN, 1976
   Louisiana State University, Medical Center, School of Nursing, BA, 1973
   Touro Infirmary, School of Nursing, Diploma, 1970

5. National Council
   Committee on Nominations, 1990

6. American Nurses' Association
   Louisiana Nurses' Association
   Sigma Theta Tau

7. Committed, involved leadership is the key to the survival of any member organization. Whether the organization thrives vs. survives is dependent on experienced, visionary elected membership who can work collaboratively with paid staff.

   A top priority of any organization needs to be continued growth and development of leadership. I believe that careful attention must be given to the organizational factors which impact the ability of qualified individuals to submit their names for office.

   It has been my privilege to serve you on the NCSBN Nominating Committee in 1990. I believe the Committee worked diligently to fulfill its charge by the 1989 Delegate Assembly. It would be a privilege to serve the NCSBN in 1991.

<u>Area III</u>

1. **Janice Oster, Kentucky, Area III**

2. Board member, Kentucky Board of Nursing

3. Ephraim McDowell Regional Medical Center, Case Manager/QA

4. Danville School of Health Occupations, LPN, 1978

5. Kentucky State Association of Licensed Practical Nurses
   Unit President, Vice President, 1983-1987
   Nomination Committee Chairman, 1988-1989
   Unit CEU Chairman, 1983-1988
   Girl Scout Association, District Chairman for 33 troops, 1970-1972

6. National Federation of Licensed Practical Nurses
   Kentucky State Association of Licensed Practical Nurses
   Kentucky Association of Quality Assurance Professionals

7. As a Kentucky Board of Nursing (KBN) member, I review the National Council Newsletter, Issues, and the Delegate Assembly materials, and know the type of persons and commitment they have to make to serve the National Council.

I have served on an Ad Hoc Recruitment/Nurse Investigator Committee for KBN and have served on the Nomination Committee for KSALPN; the Education and Practice Committees of KBN; a Steering Committee for the KY Nursing Practice Project; and as a member of the Medication Aide Curriculum Committee for Kentucky.

I have an open mind, am honest, outgoing, and am a team player. If I make a commitment, I follow through. I am flexible and willing to listen to the opinion of others.

I will endeavor to recruit and select the best slate of candidates to service the National Council. I believe the continued communication with Member Boards should be addressed as a top priority of the National Council.

Area IV

1. **Harriet L. Johnson, New Jersey, Area IV**

2. Assistant Executive Director

3. New Jersey Board of Nursing

4. Hunter College of the University of New York, MS, 1970
   Seton Hall University, BS, 1958
   Jersey City Medical Center, School of Nursing, Diploma, 1954

5. National Council
   - Committee on Nominations, 1990
   - Examination Committee, 1982-1988

   NANBEW, Inc.
   - Assistant Corresponding Secretary, 1983-1987
   - First Vice President, 1975-1979

   SNA, Program Committee, 1973

6. Sigma Theta Tau
   National League for Nursing
   Jersey City Alumnae

7. If I'm reelected to the Nominating Committee, I will bring to the committee one (1) year of experience on the committee and a better understanding of the many problems associated with trying to procure candidates. I will also bring to the position, if elected, thirteen (13) years as professional staff on the Board of Nursing in the State of New Jersey.

   As chairperson of the Examination Committee, I had the opportunity to attend many Delegate Assemblies, which has given me insight into some of those characteristics needed in order to carry out the many mandates of the organization.

   The issue I believe that should continue to be addressed is the correlation of the roles of the Licensed Practical Nurse and the Registered Nurse in practice and testing the beginning competencies of each. I also believe the Council needs to seriously address how to conduct its business more economically and efficiently.

Area IV

1. **Doris G. Nuttelman, New Hampshire, Area IV**

2. Executive Director

3. State of New Hampshire Board of Nursing

4. Vanderbilt University, Ed.D., 1989
   University of Massachusetts, MSN, 1975
   University of Massachusetts, MAT, 1973

5. National Council
   Subcommittee on Non-Traditional Nursing Education, 1991
   New Hampshire Nurses' Association, Commission on Education, 1980-1991

6. Sigma Theta Tau
   American Public Health Association
   National League for Nursing
   American Nurses' Association
   New Hampshire Nurses' Association

7. My convoluted journey through the disciplines of nursing and education provided multiple professional and secular opportunities to achieve personal and organizational goals. Through challenging life experiences, I have achieved a broad grounding in organizational management, human resource development, motivational skills, and utilization of common sense and humor.

   The Nominating Committee facilitates achievement of the Council's goals by screening and recommending candidates for Council offices. If elected, these candidates will direct and implement actions to attain the Council's goals. As a member of the Nominating Committee, I perceive my role as contributing to candidate screening and recommendation, and facilitating the Committee's activities so nominations are completed and submitted in a timely manner.

Committee on Nominations
Rosa Lee Weinert, OH, Area II, *Chair*
Harriet Johnson, NJ, Area IV
Barbara Morvant, LA, Area III
Catherine Puri, CA, Area I

Staff
Susan Woodward, *Director of Communications*

3

OFFICER REPORTS

Report of the President

It is with a great sense of privilege and pride that I welcome you to the Thirteenth Annual Meeting of the National Council of State Boards of Nursing. The past year has been filled with challenge, excitement and much activity. The combined efforts of volunteers and National Council staff have resulted in an impressive list of accomplishments focused on achievement of the National Council's mission, goals and objectives.

During the past year, the Board and staff have maintained the commitment of providing complete, comprehensive information to the Member Boards, both about routine activities and newly developing projects. Through the Communications Committee, new mechanisms have been developed to systematically enhance communication within the National Council. This report will focus on specific activities and organizational perspectives from the role of the President.

In reflecting on my involvement with the National Council during the past year, four major themes come to mind: PEOPLE, PLACES, PLANNING and PROGRAMS. The highlight of the year for me personally has been the opportunity to meet and work with so many dynamic, energetic and committed people, both within the National Council and from other organizations. What an opportunity it has been for me to experience first hand the potential of an organization whose backbone and heart are the enormous contributions of volunteers. Participants in committee meetings, Board meetings and other National Council functions have exhibited energy, creativity and expertise in formulating strategies to achieve organizational goals. Commitment to protection of the public has been consistently demonstrated in the decisions made about the future of the organization. The staff of dedicated professionals has enabled the committees and Board of Directors to move with resolve toward their goals. Colleagues from other organizations have engaged in collaborative efforts to exchange ideas and enhance communication.

The section reflecting on places could be subtitled "planes." Fortunately, airplanes offer at least a limited opportunity for contemplation and undisturbed thinking. Since the National Council is composed of 62 individual jurisdictions across the country, the opportunity to attend all four of the Area meetings was especially interesting to me. Many issues were to some extent originated by federal or state legislation. Concerns related to testing, advanced practice, regulation of nurse aides, the foreign educated nurse and scope of practice were discussed in each Area.

Liaison meetings have been held with American Nurses' Association (ANA), National League for Nursing (NLN), National Federation for Licensed Practical Nurses (NFLPN), and American Organization of Nurse Executives (AONE). Several other liaison opportunities are scheduled. The Regulatory Conference sponsored by the National Council, as well as the Federation of Associations of Regulatory Boards (FARB) meeting, allowed participants with mutual interests in regulation to identify and discuss common concerns.

Planning has occupied a substantial portion of the time and energy of the Board, staff and several committees. Although the major focus of many planning activities has been the Computerized Adaptive Testing project, attention has been given to strategic planning and visioning by the Long Range Planning Committee and Board. Mechanisms to provide an overall evaluation of organizational, committee and operational objectives are being developed. Upon realizing that some form of organization change would be precipitated by the report of the Committee for Special Projects, the Board attempted to solicit and analyze information to facilitate optimal decision-making about the future of testing options. At the Fall Planning Retreat, numerous questions were identified and assigned to various committees, consultants and staff. At first, every question seemed to generate another question. Gradually, answers and information were gathered and formulated into Communiques which were distributed to Member Boards. The presentation of pertinent reports and the Delegates' response to Board recommendations will likely be only an interim step in planning relative to the future of the licensure

recommendations will likely be only an interim step in planning relative to the future of the licensure examinations.

Finally, the variety, complexity and extensiveness of programs sponsored by the National Council will be evident as you review the contents of the *Book of Reports* and prepare for the forums, presentations and business sessions of the Delegate Assembly. From the opening ceremonies to adjournment, you will be invited to contribute your unique perspective to the operation of the organization through participation in the Delegate Assembly.

It has been my distinct honor and privilege to serve as President of the National Council during the last year. I look forward to the future with a spirit of optimism as we attempt to resolve problems, establish priorities and investigate new testing possibilities. It is my belief that an organization whose stated purpose is to protect the public by the regulation of nursing indeed serves to strengthen the profession. I look forward to seeing each of you in Chicago.

Carolyn Hutcherson, *President*

Report of the Vice-President

During the past year as Vice-President of the Board of Directors, I have participated in the following activities since the 1990 Delegate Assembly:

- Attended meetings of the Board of Directors and participated in Board conference calls.
- Attended the Board Coordinating Committee meetings and participated in the committee conference calls.
- Served on the Board subcommittees for Computerized Adaptive Testing (CAT) planning activities and the approval of minutes.
- Participated in the Fall Planning Retreat held in Oak Brook, Illinois, in October 1990.
- Attended the National Council 's Second Regulatory Conference.
- Wrote an article regarding CAT from the perspective of a Board Member for *Issues*.
- Served as the Board liaison to the Examination Committee.
- Represented the Board at the National Council and CTB/McMillan McGraw-Hill annual test service contract evaluation meeting in March 1991.

A highlight of the year was representing the National Council at the Clearinghouse on Licensure, Enforcement and Regulation (CLEAR) Convention in Seattle, where Dr. Bosma and I accepted the 1990-91 CLEAR Program Award on behalf of the National Council. The Council received the award for undertaking three innovative projects: the Computerized Adaptive Testing (CAT) Study; the Computerized Simulation (CST) Project; and the Disciplinary Data Bank. In presenting the award, CLEAR stated that *"through these projects the National Council has demonstrated its continuing leadership in the improvement of professional regulation."* It was indeed a proud moment for the National Council to be recognized as a leader by an organization whose members truly value the intent and importance of professional regulation.

This has been another busy year for the Board. As you are aware, CAT planning has been of strategic importance as the Board has endeavored to provide information and answers to the numerous questions the Member Boards and committees have had regarding CAT as a new testing modality. As Board and staff, we have felt a tremendous responsibility in charting new territory, and we have learned that vision and risk cannot be separated. Most of all, we have tried to be responsive and accountable to you in providing the information you need to feel confident in making an informed and responsible decision about CAT at the 1991 Delegate Assembly.

Although the focus has been on CAT this year, the Board has been very cognizant of all the other important activities and research projects taking place in other committees and subcommittees during this past year. The work that is accomplished by this organization and the dedication and perseverance shown by the individuals who serve this Council continues to awe me time and time again.

I am proud to serve as your Vice-President. Thank you for giving me the opportunity to do so.

Joan Bouchard, *Vice President*

Report of the Secretary

As the Secretary of the National Council of State Boards of Nursing, Inc., I have participated in the following activities since the 1990 Delegate Assembly:

I attended all of the Board of Directors meetings and participated in all but one conference call of the Board. I attended the Board and Committee Fall Planning Retreat at Oak Brook, Illinois, and participated in committee meetings during that time. As a Board Member, I attended work sessions on Computerized Adaptive Testing (CAT) and reviewed and responded to several documents related to testing.

My responsibility as Secretary included that I review all minutes of the Board of Directors meetings and the Summary of Major Board Actions. These functions were performed before any public distribution or publication in the National Council *Newsletter.*

I served as a member of the Board Projects Committee and attended all of the meetings and conference calls. I served as the Board Liaison to the Nursing Practice and Education Committee. I had the privilege of representing the National Council at the annual convention of the National Federation of Licensed Practical Nurses and the National Association of Practical Nurse Education and Service.

This past year has been one of excitement and challenges. To have been able to be a part of an organization that is so committed to its mission, to promote public policy related to the safe and effective practice of nursing in the interest of public welfare, has been my greatest privilege. The people I've worked with on the Board of Directors, I will always hold in high regard for both their strong commitment and visionary approach to the National Council. My appreciation to the staff, who are amazing in the dedication to their work. To all of the people who work with the National Council, I would like to say thank you for your commitment and time, and to tell you it has been an honor to have served as your Secretary.

Helen L. Kelley, *Secretary*

Report of the Treasurer

Recommendation

1. The auditor's report for the 15-month period beginning July 1, 1989, and ending September 30, 1990, be approved as presented.

Activities

By vote of the Delegate Assembly, the fiscal year was changed from July 1 through June 30 to October 1 through September 30. The new fiscal year allows for better budget controls since Delegate Assembly actions can be incorporated into the budget prior to the beginning of the fiscal year. In order to facilitate the transition to the new fiscal year a 15-month audit was performed which encompasses the FY90 fiscal year (July 1, 1989 - June 30, 1990) and a fifth quarter (the three-month period beginning July 1, 1990, and ending September 30, 1990). The audit was completed in January 1991, and the auditors found no irregularities in the financial statements and expressed an unqualified opinion.

The National Council of State Boards of Nursing continues to maintain a strong financial position. Again revenues exceeded expenditures due to an increased number of examination candidates, continued strong revenues in the publications area and the ability to maintain relatively high interest rates on investments in the current market. Success in managing the resources of the National Council has been due to both careful management of resources by the staff and monitoring by the Finance Committee. We also continue to maintain a conservative approach throughout the budget process.

This year marks the fifth year of program budgeting for the National Council. This system provides a means to closely monitor expenditures in each program area and to evaluate the fiscal impact of each program. We continue to make improvements in the system to assure that revenue and expenditures are appropriately categorized and reflect actual activity.

All requests for adjustments to the budget were reviewed in terms of their impact on the approved budget and other financial resources. Recommendations regarding the impact of the request were presented to the Board of Directors for consideration in addition to the specific information regarding the request. Quarterly financial reports and investment statements were reviewed and presented to the Finance Committee and Board of Directors. Once approved, the information was forwarded to Member Boards. No comments regarding the financial statements were received from any Member Board.

Several other significant actions took place this year. A new auditing firm was engaged and the audit report revised to better meet the National Council's needs. A designated fund was created to cover six months' operating costs. The financial policies require that the National Council retain six months' operating costs in the fund balance and it was decided that a designated fund would better protect these funds. The five-year financial forecast was refined and used as a tool in decision-making. After consultation with our investment advisor, changes were made in the investment policy to reflect current investment opportunities within the National Council's investment philosophy, thus allowing the maximizing of investment dollars. As always, I consulted regularly with the Financial Manager on financial matters including investments. I also assured that all activities were in compliance with the financial policies.

During the past year, I attended all meetings of the Board of Directors and the Coordinating Committee, chaired the Finance Committee and represented the National Council at the Fall meeting of the American Association of Colleges of Nursing. I also functioned as the Board liaison to the Nurse Aide Competency Evaluation Program

Committee (NACEP). In the Fall and again this Spring, I participated in the contract evaluation with The Psychological Corporation as the representative of the Board of Directors.

Finally, with this report my tenure as Treasurer ends. The past five years have been extremely rewarding both professionally and personally. I have had the opportunity to participate in decision-making during some of the most challenging years of the National Council. We have come a long way in five years in financial matters alone. We now have a budget system that allows careful monitoring and evaluation. We have five year projections that are realistic. Reports have been made more readable. Strong policies are in place, and the National Council is more financially sound than ever. These things could not have been accomplished without the commitment of a strong Finance Committee and Financial Manager. I cannot thank Kathleen Hayden enough for all her assistance over these years. Without her expertise and untiring energy, we could not have accomplished our goals. I also want to thank the Finance Committee for contributing their expertise, long hours and patience. Last but not least, a special thank you to all Member Boards for your support and for giving me the opportunity to serve.

Donna M. Dorsey, *Treasurer*

Report of Independent Auditors

Board of Directors
National Council of State Boards of Nursing, Inc.

We have audited the accompanying balance sheet of the National Council of State Boards of Nursing, Inc. as of September 30, 1990 and the related statements of revenue and expenses, changes in fund balance and cash flows for the 15-month period then ended. These financial statements are the responsibility of the management of the National Council of State Boards of Nursing, Inc. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements of the National Council of State Boards of Nursing, Inc. for the year ended June 30, 1989 were audited by other auditors whose report dated August 25, 1989 expressed an unqualified opinion on those financial statements.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the 1990 financial statements referred to above present fairly, in all material respects, the financial position of the National Council of State Boards of Nursing, Inc. as of September 30, 1990, and the results of its operations and its cash flows for the 15-month period then ended in conformity with generally accepted accounting principles.

Ernst & Young
December 4, 1990

Balance Sheets
National Council of State Boards of Nursing, Inc.

	September 30 1990	June 30 1989
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$1,137,894	$ 686,334
Accounts receivable	90,599	90,693
Due from Member Boards	465,557	253,211
Inventories (less reserve for obsolescence of $16,000 in 1990 and 1989)	52,445	37,836
Accrued interest, prepaid expenses and other	213,840	167,883
TOTAL CURRENT ASSETS	1,960,335	1,235,957
INVESTMENTS, at cost (market: 1990--$5,378,588; 1989--$3,511,495)	5,369,047	3,467,026
PROPERTY AND EQUIPMENT		
Furniture, fixtures and leasehold improvements	169,575	154,866
Equipment and computer software	414,277	338,286
	583,852	493,152
Less accumulated depreciation	403,164	329,460
	180,688	163,692
	$7,510,070	$4,866,675
LIABILITIES AND FUND BALANCE		
Accounts payable	$1,694,180	$ 535,430
Accrued salaries and payroll taxes	123,847	100,107
TOTAL CURRENT LIABILITIES	1,818,027	635,537
Deferred revenue:		
Examination fees collected in advance (net of prepaid processing fees of $112,707 in 1990 and $196,443 in 1988)	965,103	1,578,177
Contract and convention fees	-	110,640
	965,103	1,688,817
Fund balance:		
Unrestricted:		
Undesignated	3,210,401	1,323,585
Designated	1,047,264	1,110,040
	4,257,665	2,433,625
Restricted	469,275	108,696
TOTAL FUND BALANCE	4,726,940	2,542,321
	$7,510,070	$4,866,675

See notes to financial statements.

Statements Of Revenue And Expenses
National Council Of State Boards Of Nursing, Inc.

	15-Month Period Ended September 30 1990	Year Ended June 30 1989
Revenue--unrestricted funds:		
Examination fees	$8,415,163	$4,856,808
Less cost of development, application and processing	5,515,410	3,424,936
NET EXAMINATION FEES	2,899,753	1,431,872
Member Board contracts	366,000	183,000
Publications	217,351	151,008
Delegate Assembly	143,260	60,579
Honoraria and other	14,550	15,690
Nurse aide program	484,050	-
Investment income	544,789	288,676
TOTAL REVENUE--UNRESTRICTED FUNDS	4,669,753	2,130,825
Program and organizational expenses--unrestricted funds:		
Member Board contracts	18,968	4,904
Publications	68,013	83,645
Delegate Assembly and convention planning	157,465	73,306
Nurse aide program	222,708	79,341
Job analysis studies	58,089	3,496
Computerized adaptive testing	324,118	174,689
Board meetings and travel	137,730	112,816
Public relations and communications	72,015	69,862
Other committee expenses	116,319	76,940
TOTAL PROGRAM AND ORGANIZATIONAL EXPENSES--UNRESTRICTED FUNDS	1,175,425	678,999
Administrative expenses--unrestricted funds:		
Staff salaries and benefits	1,173,635	852,686
Professional fees	46,517	35,965
Office supplies and expense	93,360	75,784
Insurance	41,211	31,597
Rent and utilities	170,825	139,316
Equipment maintenance and rental	39,008	23,286
Depreciation	101,578	98,588
Miscellaneous	4,154	4,995
TOTAL ADMINISTRATIVE EXPENSES--UNRESTRICTED FUNDS	1,670,288	1,262,217
TOTAL EXPENSES--UNRESTRICTED FUNDS	2,845,713	1,941,216
REVENUE IN EXCESS OF EXPENSES--UNRESTRICTED FUNDS	1,824,040	189,609
Restricted grant revenue--computerized simulation testing	1,159,041	-
Computer research expenses--computerized simulation testing	798,462	477,238
REVENUE IN EXCESS OF EXPENSES--RESTRICTED FUNDS	360,579	(477,238)
REVENUE IN EXCESS OF (LESS THAN) EXPENSES	$2,184,619	$ (287,629)

See notes to financial statements.

Statement Of Changes In Fund Balance
National Council Of State Boards Of Nursing, Inc.

15-Month Period Ended September 30, 1990
and Year Ended June 30, 1989

	Unrestricted					Restricted	
	Undesignated	Designated for Computerized Adaptive Testing	Designated for Crisis Management	Designated for NACEP	Total Unrestricted Fund	Computerized Simulation Testing	Total
Fund balance at June 30, 1988	$2,227,768	$16,248			$2,244,016	$585,934	$2,829,950
Transfer to Board designated funds	(1,347,822)	756,378	$121,836	$469,608	-		-
Revenue in excess of (less than) expenses	443,639	(174,689)		(79,341)	189,609	(477,238)	(287,629)
Fund balance at June 30, 1989	1,323,585	597,937	121,836	390,267	2,433,625	108,696	2,542,321
Revenue in excess of (less than) expenses	1,886,816	(324,118)		261,342	1,824,040	360,579	2,184,619
FUND BALANCE AT SEPTEMBER 30, 1990	$3,210,401	$273,819	$121,836	$651,609	$4,257,665	$469,275	$4,726,940

See notes to financial statements.

Statements Of Cash Flows
National Council Of State Boards Of Nursing, Inc.

	15-Month Period Ended September 30 1990	Year Ended June 30 1989
OPERATING ACTIVITIES		
Revenue in excess of (less than) expenses	$2,184,619	$ (287,629)
Adjustments to reconcile revenue in excess of (less than) expenses to net cash provided (used) by operating activities:		
Depreciation and amortization	101,578	98,588
Increase in accounts receivable	(212,252)	(240,855)
Increase in prepaid expenses	(45,957)	(36,159)
Increase in inventory	(14,609)	(5,961)
Increase (decrease) in accounts payable	1,158,750	(253,587)
Increase in accrued salaries and payroll taxes	23,740	7,637
Decrease in deferred revenue	(723,714)	(516)
NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES	2,472,155	(718,482)
INVESTING ACTIVITIES		
Net additions to property and equipment	(118,574)	(23,180)
(Increase) decrease in investments, net	(1,902,021)	422,132
NET CASH (USED) PROVIDED BY INVESTING ACTIVITIES	(2,020,595)	398,952
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	451,560	(319,530)
Cash and cash equivalents at beginning of year	686,334	1,005,864
CASH AND CASH EQUIVALENTS AT END OF YEAR	$1,137,894	$ 686,334

See notes to financial statements.

Notes To Financial Statements
National Council Of State Boards Of Nursing, Inc.

September 30, 1990 and June 30, 1989

Note A—Organization And Operation

National Council of State Boards of Nursing, Inc. (the Council) is a not-for-profit corporation organized under the statutes of the Commonwealth of Pennsylvania. The primary purpose of the Council is to serve as a charitable and educational organization through which state boards of nursing act on matters of common interest and concern affecting the public health, safety and welfare, including the development of licensing examinations and standards in nursing. The Council is a tax-exempt organization under Internal Revenue Code section 501(c)(3).

Note B—Summary of Significant Accounting Policies

Exam Revenue: Examination fees collected in advance net of processing costs incurred are deferred and recognized at the date of the examination.

Cash Equivalents: Cash equivalents consist of money market funds.

Services of Volunteers: Officers, committee members, the Board of Directors and various other nonstaff associates assist the Council, without remuneration, in various program and administrative functions. No value has been ascribed for such voluntary services.

Pension Plan: The Council maintains a defined contribution pension plan covering all employees who complete 6 months of employment. Contributions are based on employee compensation. The Council's policy is to fund pension costs accrued. Pension expense was $78,526 and $115,234 for 1990 and 1989, respectively.

Property and Equipment: Property and equipment are stated on the basis of cost. Provisions for depreciation are computed using the straight-line method over the estimated useful lives of the assets.

Investments: Investments are carried at cost. Investments consist of the following:

	September 30, 1990		June 30, 1989	
	Cost	Market Value	Cost	Market Value
U.S. Government obligations	$4,369,047	$4,378,588	$2,967,026	$3,011,495
Certificate of deposit	1,000,000	1,000,000	500,000	500,000
	$5,369,047	$5,378,588	$3,467,026	$3,511,495

Board Designated Funds: The Board of Directors has designated certain funds to be used for specific projects. These projects include the development of computerized adaptive testing software, the purchase of paper and printing materials to be used in the event of a security break occurring directly prior to a scheduled examination (crisis management), and a nurse aide competency evaluation program (NACEP). These funds are reflected as designated unrestricted funds in the accompanying financial statements.

Restricted Fund: In 1988, the Council received a restricted grant from the Kellogg Foundation to develop a software system to insure clinical competence of nurses and to insure interprofessional collaboration between nursing and medicine, through computer based clinical simulation. The grant, amounting to $1,868,954, will be received in full in three installments through June of 1991. If at the end of this commitment there remain any unexpended funds, the unexpended cash balance is to be returned to the Kellogg Foundation.

Note C—Commitments

On September 1, 1989, the Council entered into a lease agreement for office space. Under this agreement, the Council has the option to terminate the lease after five years, or continue under the lease agreement through August 31, 1999.

Future rental commitments as of September 30, 1990, are as follows:

1991	$253,471
1992	258,540
1993	263,718
1994	269,003

The Council has entered into an agreement for the design of a computerized system for processing test applications. In connection with this system, the agreement provides for the test service company to process the test applications with a minimum annual fee of $413,000 through July 1991.

Report of the Area I Director

As Area I Director, I participated in all the Board meetings and conference calls which were held this year, including the Fall Planning Retreat held at Oak Brook, Illinois. In addition, I chaired the Board Projects Committee, the CAT Communication Team, the Area Directors' Group, and served as the Board Liaison to the Communications Committee.

The Area I meeting was held in Jackson Hole, Wyoming, on February 28-March 1, 1991. Twelve of our eighteen jurisdictions were represented at this meeting. The representatives were informed of all activities related to computerized testing and updated on major National Council activities. The attendees discussed additional subjects of interest, including:

- Prescriptive authority for advanced nurse practitioners
- English as a second language and testing
- Delegation of nursing activities to unlicensed providers, including delegation in school settings

Appreciation is extended to the Wyoming Board of Nursing, its Executive Director, Toma Nisbet, and her staff, for arranging the meeting and for attending to our needs during the meeting, which, of course, included snow for the skiers and bargains for the shoppers! Thanks also to Leola Daniels of the Idaho Board of Nursing for recording the minutes of the meeting.

I would like to recognize the efforts of the many Area I volunteers who also served on committees and extend my appreciation to the Area I Boards who responded to my requests during the year.

Thank you for the opportunity to serve as your representative on the Board of Directors this year. The commitment of the Area I Member Boards to the National Council and your support have made my term very rewarding.

Gail McGuill, *Area I Director*

Report of the Area II Director

Area II representatives continue to be responsive to the needs of the National Council and are active participants. I extend appreciation to all the members of Area II for their assistance and support and encourage their continued participation in this vital organization.

As the Area II Director, I attended all but one of the Board meetings and conference calls. I have also served as the Board Liaison to the Long Range Planning Committee and as Chair of the Board's Personnel Committee.

The Area II meeting was held in St. Paul, Minnesota, on April 29-30, 1991. Sixty-three participants represented all but one of the jurisdictions. Reports were presented by Carolyn Hutcherson, President, and Jennifer Bosma, Executive Director, in addition to committee reports by Area II participants. Anna Bersky, CST Project Director; Anthony Zara, Director of Special Projects; and David Wescott, Director of Professional Assessment Services for CTB, also made presentations. Minnesota nursing educators were invited by the Minnesota Board of Nursing, and several attended. All of the educators in attendance expressed appreciation for this unique opportunity to become more knowledgeable of the National Council. It was a positive experience that I would recommend to all Areas.

Other agenda items that were considered included:

- "English as a second language" (ESL) candidate problems related to testing
- Delegation of nursing practice to unlicensed personnel
- Nursing Assistant legislation updates
- Advanced Nursing Practice issues
- Recruitment of item writers and panel of content experts
- Recruitment of committee volunteers
- Recruitment of individuals to run for office and identification of barriers/resolutions

Area II participants drafted a resolution to be presented to the 1991 Delegate Assembly addressing increasing NCLEX administration time to accommodate ESL examinees.

On behalf of Area II, I applaud the Minnesota Board of Nursing for their gracious hospitality and accommodations at the Area meeting. The 1992 Area Meeting will be held in Detroit, Michigan.

I appreciate the opportunity to represent Area II on the National Council Board of Directors and am committed to being sensitive and responsive to the issues and concerns of such a thoughtful and productive group.

Shirley Brekken, *Area II Director*

Report of the Area III Director

As Area III Director of the National Council of State Boards of Nursing, Inc., I have engaged in the following activities:

- Attended all Board of Directors' meetings
- Participated in conference calls
- Served as Board liaison to the Committee for Special Projects
- Served on the Board's Personnel Committee and the 1991 Rules Committee

Further, I represented the Council at the ANA Health Policy Conference and presented with others "Getting Ready for Computerized Testing" during the American Association of Colleges of Nursing, Spring 1991 Program Meeting.

During the Winter of 1991, updates were submitted regarding Area III Member Boards activities for publication in *Issues*. The aggregate reports reflected innovation in ideas and approaches.

The Area III meeting was held April 22-23, 1991, in Orlando, Florida, with 59 board and staff members in attendance. Florida Board Members and staff were very warm and gracious hostesses. Jack L. McRay, General Counsel, Department of Professional Regulation and Natalia Cruz, Chair, Florida Board of Nursing gave us very warm and informative welcomes.

Fourteen (87%) of the sixteen Member Boards were represented. Participants included: Carolyn Hutcherson, National Council President; Jennifer Bosma, Executive Director; Anna Bersky, CST Project Director; Tony Zara, CAT Project Director; and, Meredith Mullins of CTB.

Tony Zara, Marcella McKay and Barbara Kellogg provided a detailed presentation regarding computerized adaptive testing (CAT) from the committee perspective. Similarly, Carolyn Hutcherson and Jennifer Bosma presented the Board of Directors' CAT report which included information related to the policy, administration, cost and legal issues. The Computerized Clinical Simulation Testing Project and a Computerized Simulation Testing demonstration were presented by Shirley Silverman, Barbara McCant and Anna Bersky.

The following reports were presented and discussed:

- Long Range Planning Committee Report - Marcia Rachel
- Nursing Practice and Education Committee - Julia Gould
- Foreign Nurse Issues Committee Report - Louise Waddill
- Nurse Information System Committee Report - Judie Ritter
- CTB Report - Meredith Mullins

Further, each Member Board submitted a one page written report regarding their activities. Verbal input from members regarding unlicensed personnel, advanced practice, regulation of nurse aides, number of retakes on NCLEX, Alabama Study of Nursing Education and other issues was valuable.

Serving as Area III Director has been a challenging and rewarding experience. Thank you for the opportunity of serving you this past year.

See you in Chicago!

Charlie Dickson, *Area III Director*

Report of the Area IV Director

As Area IV Director, I have attended all meetings of the Board of Directors, participated in all but one conference call and served as a member of the Board of Directors' Projects Committee. On April 17-19, 1991, I represented the National Council at the annual convention of the National Student Nurses' Association held in San Antonio, Texas.

The Area IV Member Boards met on April 11-12, 1991, in Washington, District of Columbia. Ten of the fourteen jurisdictions were represented at the meeting. Representing the National Council were Carolyn Hutcherson, President; Dr. Jennifer Bosma, Executive Director; Vickie Sheets, Director for Public Policy, Nursing Practice and Education; Anthony Zara, Computerized Adaptive Testing (CAT) Project Director; and Anna Bersky, Computerized Clinical Simulation Testing (CST) Project Director. Also in attendance was Karen Selikson, CTB MacMillan/ McGraw-Hill. Agenda items included the following:

1. Committee reports
2. Advanced practice and prescriptive authority - impact of proposed DEA regulations
3. Request by U.S. Army to administer NCLEX-PN in Germany annually
4. Relationship of CAT to CST - whether prior computer experience is necessary
5. Regulation of assistive personnel and training programs
6. Computerized Adaptive Testing (CAT) presentation
7. Computerized Clinical Simulation Testing (CST) demonstration

Appreciation is extended to the District of Columbia Nursing Board Members and staff for their warm hospitality.

The 1992 Area IV spring meeting will be held in Lancaster, Pennsylvania.

Thank you for the opportunity to represent you on the Board during this challenging time in the Council's history. I will continue to bring to the attention of the Board your ideas, questions and concerns.

Jean Caron, *Area IV Director*

Report of the Director-at-Large

I was appointed to the National Council's Board of Directors as Director-at-Large in January 1991. I was in Chicago for a day of orientation with the Associate Director, staff Directors and Managers. The orientation served to bring me up-to-date on the current issues and information needed to serve.

I have participated in three Board meetings, two Personnel Committee meetings and all telephone conference calls (since appointment), and was appointed as the Board liaison to the Nurse Information System (NIS) Committee and the Steering Committee, Computerized Clinical Simulation Testing Project (CST).

I was appointed as the National Council representative to the Board of Directors for the Federation of Associations of Regulatory Boards (FARB) and attended the May meeting of this Board to plan for the annual meeting.

I attended the Area I meeting in Jackson Hole, Wyoming, and assisted the Area I Director when required.

I would like to thank you for the support I received at the Delegate Assembly in 1990. Since my appointment to this position, I have worked diligently on my orientation as a Board member, and I am now ready to participate more completely in Board activities.

I continue to be impressed with my nurse colleagues who serve on the National Council's various committees; the reports from each committee represent a high degree of knowledge and critical thinking.

As the Director-at-Large, I believe I have accepted an obligation to represent all Member Boards and individuals regarding Board of Director's discussions and actions. I will always be open to communication from you, and your concerns and ideas will be brought before the Board in an unbiased way.

Susan Boots, *Director-at-Large*

4

BOARD OF DIRECTORS
REPORT & OPERATIONAL
PLANS AND BUDGET

Report of the Board of Directors

Recommendations

1. Computerized Adaptive Testing (CAT) - The Board's recommendations regarding CAT will be included in a supplementary mailing to Member Boards and delegates in late June, when all field test analyses and conclusions have been reviewed.

2. Computerized Clinical Simulation Testing (CST) - The Board of Directors recommends that research and development on CST be continued, with a timeframe of three to four years, and including annual reports to the Delegate Assembly which evaluate progress and implications for future development.

   Rationale

   At least four potential uses have been identified for CST in evaluating nursing competence (initial licensure, re-entry after a period out of practice, re-entry after discipline, and continued competence). Further research will enable the National Council to determine the usefulness of CST for potential applications in terms of:

   - practical feasibility,
   - psychometric soundness,
   - usefulness to Member Boards,
   - cost/benefit, and
   - timelines required.

   (A fiscal impact statement, indicating total estimated costs of further research, external funding possibilities, and financial obligations to the National Board of Medical Examiners for the software, will be included in the supplementary mailing.)

3. Nurse Aide Competency Evaluation Program (NACEP) - The Board of Directors recommends that, given the November 1993 expiration of the contract with The Psychological Corporation (TPC), the Delegate Assembly direct the Board of Directors to select and contract with a test service for NACEP for the period beginning with the expiration of the current contract.

   Rationale

   The Board requests direction from the Delegate Assembly regarding whether the decision on contracting for NACEP testing services should be delegated to the Board or should be made by the Delegate Assembly in 1992.

Meetings

The Board of Directors of the National Council of State Boards of Nursing met on the following dates since the time of the last annual report to the Delegate Assembly:

July 16-17, 1990	November 30-December 1, 1990
August 5-6, 1990	December 14, 1990*
August 11, 1990	January 14, 1991*
August 23, 1990*	January 28, 1991*
October 8, 1990*	February 11-13, 1991
October 9, 1990*	March 21, 1991*
November 5-7, 1990	April 2-4, 1991

Meetings are scheduled for June 17-19, 1991, and July 28-29, 1991.

* *Indicates meetings via telephone conference call*

1990 Delegate Assembly Directives

The Board of Directors received four major directives from the 1990 Delegate Assembly.

Disciplinary Data Bank Conversion

In response to the motion that the National Council's Disciplinary Data Bank will be maintained, with conversion of the database structure and reports to be congruent with National Practitioner Data Bank (NPDB) report forms, the Board has monitored staff efforts including surveying of Member Boards' preferences for revised report formats. Conversion is continuing, with progress slowed somewhat by two factors: the lack of progress on issuance of rules for implementation of the relevant section of the public law mandating participation for nursing in the NPDB, and the exploration by the National Council of use of a different database software package.

NCNET Access to Disciplinary Data

The Board was directed to implement a pilot study utilizing NCNET to access disciplinary data and to report to the 1991 Delegate Assembly. A pilot project for electronic access of the disciplinary data bank is currently underway in eight states. Reports will be presented to the delegates at the Annual Meeting. If a positive outcome is reported, the acquisition of the hardware and software necessary for access via NCNET (rather than by long distance call) will be budgeted for the coming fiscal year to facilitate full-scale implementation for all Member Boards wishing to access disciplinary data directly via NCNET.

Foreign-Educated Nurse Credentialing

The Board was directed to study issues concerning foreign-educated nurse credentialing, to develop strategies to assist Member Boards in maintaining standards for public protection through the licensure process, and to report to the 1991 Delegate Assembly on this directive. In response, the Board appointed a Foreign Nurse Issues Committee, which has carried out this charge and submitted a report to the Delegate Assembly in this *Book of Reports*. Based on that committee's analysis, the Board has approved the establishment of a Foreign Nurse Credentialing Committee for the coming fiscal year to carry out the strategies recommended by the 1991 Committee.

Endorsement of Position Statements

The 1990 Delegate Assembly authorized the Board to endorse position statements of other organizations within certain guidelines. A statement submitted by the Nursing Consortium on Alcohol and Other Drug Abuse (Health Resources and Services Administration) met the guidelines and was endorsed by the Board *(Attachment A)*.

1989 Delegate Assembly Directive

The Board was directed by the 1989 Delegate Assembly to monitor the status of (1) the contextual ("qualitative") job analysis instrument, and (2) the sample size of registered nurses working in positions differentiated by level of educational preparation. The purpose of this monitoring is for the Board to consider making a recommendation to the Delegate Assembly at such time as a limited scope job analysis study of individuals in "differentiated practice" could be undertaken, in order to determine whether or not the competencies synthesized by the Task Force on Examinations for the Future and the PN/VN Competencies Subcommittee are validated. Until such a study is performed, the development of any of the models of testing for future examinations is "on hold." The Board has directed the research staff to apprise them of the outcomes of a pilot study to evaluate the use of critical incident description analysis as a means of differentiating evolving levels of nursing practice. The results of this study supported the usefulness of the instrument to obtain data on non-quantitative aspects of practice by newly licensed nurses, but did not provide evidence of differentiation of practice by educational level. Whether this lack of evidence is a result of the approach used or the characteristics of the study participants could not be determined. The research staff also informed the Board that the sample size of new nurses who are practicing in jobs differentiated by educational preparation remains extremely small. Therefore, the Board of Directors brings no recommendation at this time regarding the conduct of a limited-scope job analysis. The Board will continue to monitor the situation during the next year and report to the Delegate Assembly in 1992.

Planning

At the annual Fall Planning Retreat, the Board of Directors, committees, and staff planned specific activities to carry out the mission, goals, objectives, and strategies of the National Council. Participants focused on creative thinking and generation of new ideas for opportunities and challenges which may face the National Council in the future. The Board began work on mechanisms for organizational evaluation. The Board approved the Operational Plan for FY91 and the projected plan for FY92. The FY91 budget was designed to allow accomplishment of the activities in the Operational Plan.

Another major activity of the Fall Planning Retreat was the identification of questions, issues, and concerns related to the implications of potential CAT implementation for Member Boards and the National Council. The Board, committees and staff identified questions requiring answers before the 1991 Delegate Assembly and developed a framework within which appropriate groups were assigned to work on answers. Subsequently, the Board planned strategies which could be used to operationalize CAT implementation, while the Committee for Special Projects continued its work on the CAT feasibility study to provide information on the psychometric, legal, operational, and cost aspects of CAT. The final report of the Board's planning activities for CAT will be found in the supplementary mailing to the *Book of Reports.*

Committees

Board Committees

Members of the Board of Directors served on the following committees to expedite the work of the Board: (1) Coordinating, (2) Personnel, and (3) Projects. The Coordinating Committee facilitates Board work by planning the agenda for each board meeting and providing preliminary review of documents and issues to be presented to the Board. The Personnel Committee facilitates Board work by considering all proposals related to National Council staffing and preparing recommendations for personnel policies. In view of the organization's evolution since 1978, the Personnel Committee and Board believe that an indepth assessment of staff structure and compensation is timely, and have thus worked with the executive director and Ernst & Young management consultants to assist in this evaluation. The Projects Committee oversees identified projects, such as the NCNET disciplinary data bank access, NCNET licensure verification, and the drafting of a uniform licensure verification form. The committee has focused on identifying Member Boards' needs for electronic access to information, followed by emphasis on appropriate systems and uses for electronic communications.

Ad Hoc Committees

The following are ad hoc committees created by and reporting to the Board of Directors, with charges to perform particular tasks related to the mission and goals of the National Council:

- Foreign Nurse Issues Committee *(Goal III, Objective B, Strategy 2)*
- Committee for Special Projects - CAT Feasibility Study *(Goal I, Objective A, Strategies 6 & 7)*
- Steering Committee, Computerized Clinical Simulation Testing Project *(Goal I, Objective A, Strategy 8)*
- Job Analysis Monitoring Committee *(Goal I, Objective A, Strategy 4)*
- Nurse Information System Committee *(Goal IV, Objectives A & B)*

The Nurse Aide Competency Evaluation Program Committee is an ad hoc committee created by the Delegate Assembly, whose work progress is monitored throughout the year by the Board of Directors *(Goal I, Objective C, Strategy 7).*

Standing Committees

The following are standing committees of the Delegate Assembly whose work progress is monitored throughout the year by the Board of Directors:

- Administration of Examination Committee
- Bylaws Committee
- Communications Committee
- Examination Committee
- Long Range Planning Committee
- Finance Committee
- Nursing Practice and Education Committee

Board of Directors' Actions

Major actions of the Board of Directors since the last report to the Delegate Assembly are summarized below.

Testing

- Evaluated the passing standard for the NCLEX-PN under the new test plan (which was implemented in October 1990), and set a new passing standard. In this process, the Board considered data from a panel of judges; a survey of educators, directors of nursing, and boards of nursing, regarding expected pass rates; and standardized achievement test data for practical nursing students. The new passing standard required four more correct answers than the previous standard.
- Denied a candidate challenge to questions on the NCLEX-RN 790, based on the conclusions of the Examination Committee's investigation of the items' content validity and psychometric soundness.
- Held a special meeting (November 30-December 1, 1990) specifically for the purpose of identifying questions related to CAT which required answers prior to the 1991 Delegate Assembly, and to assign these questions to appropriate groups for answers. Subsequently, the Board published a series of *CAT Communiques* and resource books to inform Member Boards of progress and answers as they were obtained.
- Approved funds for the development by CTB Macmillan/McGraw-Hill of test items for NCLEX-PN; this will provide sufficient items for field testing as well as administration of NCLEX-PN via CAT.
- Authorized the engagement of Ernst & Young consultants to perform an analysis of needs for CAT, including hardware requirements, physical facilities, and security issues.
- Approved a study of face validity of simulated NCLEX examinations assembled according to CAT specifications.
- Authorized the establishment of a four-member psychometric review panel to review the methodology and analysis/conclusions of the CAT field test data.
- Based on the nurse aide job analysis study, approved a new blueprint for the Nurse Aide Competency Evaluation Program (NACEP) and declared this blueprint to be appropriate for testing of nurse aides in long term, home health, and acute care settings. The Board also established five years for the interval between nurse aide job analysis studies.

Member Boards

- Authorized finalization of membership status for the Puerto Rico Department of Health and assigned Puerto Rico to Area IV. (Current numbers of Boards in each Area: Area I = 18, Area II = 14, Area III = 16, Area IV = 14.)
- Issued a reprimand to the Indiana Bureau of Health Professions for noncompliance with security measures and procedures, and for actual loss of an examination booklet resulting in breach of security and compromise of examination integrity, in connection with the July 1990 NCLEX-RN administration.
- Directed staff to make available to Member Boards various means for accessing the disciplinary data bank during this interim period while direct electronic access is in pilot stages.
- Approved a new publication, *Emerging Issues,* to be used to publicize information to Member Boards and others on developing areas of concern to nursing regulation on an as-needed basis.
- Approved a new program, the Resource Network, for providing services to Member Boards; allocated funds and adopted procedures for the program and directed staff to publicize its purpose and benefits.
- Selected Orlando, Florida, as the site for the 1993 Delegate Assembly meeting.

Appointments

- Appointed two subcommittees to the Nursing Practice and Education Committee to study regulation of advanced nursing practice and nontraditional models of nursing education, respectively.
- Appointed Susan Boots to fill the unexpired term of Carol Stuart as Director-at-Large.
- Appointed Louise Waddill as the National Council's representative on the Commission on Graduates of Foreign Nursing Schools' Board of Trustees.
- Appointed Susan Boots as the National Council's representative on the Federation of Associations of Regulatory Boards' Board of Directors.
- Appointed chairs of committees and ratified the Area Directors' appointment of committee members.

Operational

- Approved the addition of 2.4 FTE support staff and 1.0 FTE administrative staff; adopted a uniform system of position titles for the National Council staff.
- Directed that a study of the National Council's future computer needs be conducted, and based upon the results of the study, agreed to budget funds for acquisition of new hardware and software in FY92.

Interorganizational Issues

- Provided commentary on public policy issues such as the proposed regulations for the Americans with Disabilities Act, the assignment of Drug Enforcement Administration numbers, and the Immigration Nursing Relief Act.
- Authorized staff to share with the National Center for Nursing Research the list of nursing interventions contained in the CST nursing intervention database.

Awards

The Board of Directors had the privilege of announcing the receipt of a grant of $116,772 from the Robert Wood Johnson Foundation to study the feasibility of establishing a nurse information system. Additionally, the CLEAR Program Award was awarded to the National Council in September 1990 for the Council's innovative programs and their contribution to the advancement of licensure and regulation.

Board Members

Carolyn Hutcherson, GA, Area III, *President*
Joan Bouchard, OR, Area I, *Vice-President*
Helen Kelley, MA, Area IV, *Secretary*
Donna Dorsey, MD, Area IV, *Treasurer*
Gail McGuill, AK, Area I, *Area I Director*
Shirley Brekken, MN, Area II, *Area II Director*
Charlie J. Dickson, AL, Area III, *Area III Director*
Jean Caron, ME, Area IV, *Area IV Director*
Susan Boots, WA-PN, Area I, *Director-at-Large*

Staff

Jennifer Bosma, *Executive Director*

Attachment A

Position Paper

National Consortium Conference on Alcohol and Other Drug Abuse
We, as representatives of professional nursing in the United States, recognize that alcohol and substance abuse is a leading health problem in this country. We believe that education about the risk factors and outcomes of alcohol and drug use are good defenses against abuse. We acknowledge that nurses and other health professionals are themselves vulnerable to alcohol and drug abuse. We pledge ourselves and our professional associations to work in partnership with the public and our professional colleagues to educate about drug and alcohol use, to promote healthy life styles, and to provide quality nursing care to persons entrapped by alcohol or drugs.

National Council Operational Plan (FY91) *

Goal I. Develop, promote, and provide relevant and innovative services.

Objective A: Develop licensure examinations that are based upon current accepted psychometric principles and legal considerations.

	FY 91 Activity
1. Collect data from states relative to competencies for nursing practice.	Monitor the entry into practice issue and present an updated report to the Delegate Assembly; collect data related to entry into practice as part of yearly collection of statistical data. (NPEC, ST)** Funded under Nursing Practice and Education Committee. Share information with states regarding option to participate in state-level data collection for role delineation study. (ST) Funded under Research. Collect and compile supplemental data for PN and RN standard setting. (ST) Funded under NCLEX support. Determine comprehensiveness of data collected from states. (BOD, ST) Funded under Research.

* As of January 31, 1991

——————————————— > No activity during fiscal year

See Appendix A for Key to Responsible Party

2. Establish the directions for the development of licensure examinations based on ongoing job analysis and role delineation studies.

   Explore the psychometric properties of the licensure examinations. (EC) Funded under test service contract and Examination Committee.

   Monitor development of licensure examinations and recommend modifications as necessary. (EC) Funded under test service contract and Examination Committee.

   Report on NCLEX item pool studies and need for item writers and panel of content experts. (EC, ST) Funded under test service contract and Examination Committee.

   Monitor compliance of NCLEX test service with contract provisions, especially production of items. (BOD, ST) Funded under NCLEX support costs.

   Monitor congruence of computerized adaptive testing with job analysis study results. (EC, ST) Funded under CAT.

   Complete the evaluation of dimensionality of the NCLEX-RN, prepares report; plan for evaluation of NCLEX-PN dimensionality. (CTB, EC, CSP, ST) Funded under test service contract and NCLEX support costs.

   Investigates the face validity and measurement scale stability of the licensure examinations. (EC, CTB, ST) Funded under test service contract and NCLEX support costs.

3. Evaluate the ACT report for implications in the initial licensing examinations and for competency examinations.

   —————————————— >

4. Continue to conduct research on the job-relatedness of the licensure examinations.

   Review outcomes of Critical Incident Description Pilot Study and input from External Job Analysis Monitoring Panel. (JAMC) Funded under Job Analysis Monitoring Committee.

   Review outcomes of longitudinal study of entry-level RNs. (JAMC) Funded under Job Analysis Monitoring Committee.

   Review plans for performance on entry-level LPN/VN job analysis study. (JAMC) Funded under Job Analysis Monitoring Committee.

See Appendix A for Key to Responsible Party

4. (continued) Continue to conduct research on the job-relatedness of the licensure examinations.	Review draft report of LPN/VN Job Analysis Study and input from External Job Analysis Monitoring Panel. (JAMC) Funded under Job Analysis Monitoring Committee. Review plans for performing evaluation of job analysis data collection tool. (JAMC) Funded under Job Analysis Monitoring Committee. Present recommendations regarding PN job analysis to 1991 Delegate Assembly. (EC) Funded under Examination Committee. Conduct LPN/VN job analysis using revised instrument. (ST) Funded under Research. Prepare report on findings and interpretation of handicapped research. (AEC, ST) Funded under Examination Committee.
5. Continue to develop test plans for licensure examinations that are based on current nursing practice.	Recommend to 1991 Delegate Assembly if revisions to PN test plan are indicated. (EC) Funded under Examination Committee. Analyzes alternative approaches/methodologies to test plan development. (BOD, ST) Funded under Research.
6. Perform a feasibility study of the computerized adaptive testing (CAT) program.	Collaborate with Committee for Special Projects on aspects of CAT project that relate to item development. (EC) Funded under Examination Committee and Committee for Special Projects. Continue to conduct the Computerized Adaptive Testing (CAT) Study along revised timelines, develop items for and field test RN candidates. (CSP) Funded under CAT designated funds. Continue planning, assistance and communication with selected field test states for February 1991. (CSP, ST) Funded under CAT designated funds. Continue regular communication of CAT progress to Member Boards through *Newsletter* and other special materials. (CSP, BOD) Funded under CAT designated funds.

See Appendix A for Key to Responsible Party

6. (continued) Perform a feasibility study of the computerized adaptive testing (CAT) program.	Begin planning for PN CAT field testing. (CSP) Funded under CAT designated funds. Continue assessment and modification of CAT security implementation for field testing. (CSP, AEC) Funded under CAT designated funds. Perform evaluation of possible CAT implementation models. (BOD) Funded under CAT designated funds. Prepare Phase II final report for the 1991 Delegate Assembly. (CSP) Funded under CAT designated funds. Produce a publication summarizing the legal review of computerized adaptive testing for licensure examinations. (BOD, ST) Funded under CAT designated funds. Provide communication services (e.g., publications, educational programming) to support CSP Committee and Board of Directors. (ST) Funded under CAT designated funds and Board of Directors. Determine opportunities and obstacles for implementation of computerized adaptive testing. (BOD, CSP, ST) Funded under CAT designated funds and Board of Directors.
7. Investigate the feasibility of computerized clinical simulation testing (CST) for initial and continued licensure.	Conduct computerized clinical simulation testing project as proposed and develop and test software/database program. (STCST) Funded under CST restricted funds. Prepare proposal for continued funding of CST project. (STCST, ST) Funded under CST restricted funds. Present project findings to 1991 Delegate Assembly. (STCST) Funded under CST restricted funds. Evaluate preliminary data regarding CST and, monitor staff development of proposal for continued funding, if appropriate, and develops recommendation to 1991 Delegate Assembly regarding CST. (BOD, STCST) Funded under CST restricted funds and Board of Directors. Prepare and finalize CST orientation and cases for pilot study; prepare technical confidential proctor manual. (ST, NBME) Funded under CST restricted funds.

See Appendix A for Key to Responsible Party

7. (continued) Investigate the feasibility of computerized clinical simulation testing (CST) for initial and continued licensure.	Conduct pilot study, including recruitment of subjects, training of proctors, maintenance of security, analysis of data and drafting of report. (ST) Funded under CST restricted funds.
8. Explore producing licensure examinations through computer-based technology.	Work with consultants to analyze and evaluate approaches to delivery of computerized examinations with respect to equipment, data transmission, security, and potential sources of required services. (BOD, ST) Funded under CAT designated funds and Board of Directors.
	Explore services provided by professional test services as related to potential models for administration of computerized examinations. (BOD, ST) Funded under CAT designated funds and Board of Directors.
	Make inquires of professional computerized testing services to obtain service/cost information. (ST) Funded under CAT designated fund and Board of Directors.
	Explore the implications of CAT implementation for CST. (STCST, ST) Funded under CST restricted funds.
	Examine CAT polices and procedures for possible impact on CST. (STCST, ST) Funded under CST restricted funds.
	Explore methods for bias sensitivity review of Computerized testing. (ST) Funded under CST restricted funds.

Goal I. Develop, promote, and provide relevant and innovative services.

Objective B: Establish policies and procedures for the licensing examinations in nursing.

	FY 91 Activity
1. Develop policies and procedures for computer-based testing.	Continue the development of policies and procedures for computer-based testing. (AEC, EC, CSP, SCCST) Funded under CAT designated and CST restricted funds.

See Appendix A for Key to Responsible Party

1. (continued) Develop policies and procedures for computer-based testing.	Prepare to recommend policies related to security measures for computer-based testing to Delegate Assembly. (AEC) Funded under CAT designated and CST restricted funds. Identify concerns/issues of Member Boards relative to computer-based testing. (BOD, ST) Funded under CAT designated funds and Board of Directors.
2. Evaluate policies and procedures for the licensing examinations.	Meet annually and as necessary to coordinate examination and practice-related activities. (CHRS) Funded under appropriate committees. Monitor the plan for Crisis Management . (AEC) Funded under Administration of Examination Committee. Set NCLEX future dates/alternate dates and report to Delegate Assembly. (AEC) Funded under Administration of Examination Committee. Publish NCLEX administration dates/alternate dates for next ten years. (ST) Funded under NCLEX support costs. Monitor bias sensitivity review process. (EC) Funded under Examination Committee. Monitor and evaluate the Bias Sensitivity Panel Review activities and the effects on the NCLEX. (EC) Funded under Examination Committee. Review existing policies and procedures for test development and administration. (EC, AEC) Funded under Examination Committee and Administration of Examination Committee. Develop Request for Proposals (RFP) for professional test services for FY93 and beyond. (BOD, ST) Funded under NCLEX support costs. Monitor administration of examination in Germany by the Washington-PN Board. (AEC) Funded under Administration of Examination Committee. Visit examination administration sites. (AEC, ST) Funded under Administration of Examination Committee.

2. (continued) Evaluate policies and procedures for the licensing examinations.	Investigate and report on shipment of NCLEX to overseas jurisdictions. (CTB, ST) Funded under NCLEX support costs.

Goal I. Develop, promote, and provide relevant and innovative services.

Objective C: Provide consultative services for National Council members, groups, agencies, an individuals regarding the safe and effective practice of nursing.

	FY 91 Activity
1. Expand and promote orientation and educational programs for Member Boards.	Review survey findings on educational programs at annual meeting and proposes programs, if appropriate. (CC) Funded under Communications Committee. Plan orientation program for the annual meeting with presentations for targeted needs. (CC) Funded under Communications Committee. Prepare and present planning session for Board of Directors and committees. (BCC, ST) Funded under Fall Planning Retreat. Review and update orientation manual for *Book of Reports*. (ST) Funded under Delegate Assembly. Continue to respond to written or telephone inquiries for service or assistance. (ST) Funded under appropriate program. Plan orientation sessions as requested at meetings. e.g., Delegate Assembly and Area Meetings. (ST) Funded under Delegate Assembly and Area Meetings. Sponsor pre-session at annual meeting on item writing for NCLEX. (EC) Funded under Examination Committee. Develop NCLEX Invitational Conferences and present information. (CTB, ST) Funded under test service contract and NCLEX support costs.

Objective	Activities
2. Develop an orientation section in the NCSBN manual for new Board staff and Board members.	Review and update orientation sections of NCSBN manual as needed. (BOD, ST) Funded under Board of Directors.
3. Explore the consultation needs of Member Boards.	Implement and promote the Resource Network. (CC, ST) Funded under Communications Committee. Participate in providing Resource Network services. (All) Funded under Communications Committee.
4. Publish a list of consultants within the Council according to area of expertise with input from Member Boards.	Maintain a current Resource Network Team. (ST) Funded under Communications Committee.
5. Monitor the health care delivery system to evaluate implications for safe and effective practice.	Produce paper on continued competence. (NPEC) Funded under Nursing Practice and Education Committee. Study and identify issues related to advanced practice model. (NPEC) Funded under Nursing Practice and Education Committee. Monitor current publications, meetings, conferences, workshops, etc., in the health care arena. (ST) Funded under Public Relations. Monitor implementation of OBRA 1987 (PL 100-203) and report to Delegate Assembly regarding regulatory implications. (NPEC) Funded under Nursing Practice and Education Committee.
6. Continue to disseminate National Council statements on trends and issues affecting nursing education and nursing practice.	Prepare, publish and disseminate Emerging Issues as appropriate. (BOD, ST) Funded under Publications. Make available previously published position papers on advanced practice, unlicensed personnel, delegation, and peer assistance programs. (ST) Funded under Publications. Continue to alert Member Boards to potential issues in the health care policy arena. (BOD, ST) Funded under Communications Committee and Board of Directors. Continue to publish and disseminate Issues on a quarterly basis. (ST) Funded under Publications.

See Appendix A for Key to Responsible Party

6. (continued) Continue to disseminate National Council statements on trends and issues affecting nursing education and nursing practice.

Develop position papers and alternative methods for analysis and interpretation of trends and issues in nursing education and practice, e.g., checklist approach. (NPEC) Funded under Nursing Practice and Education Committee and Publications.

7. Develop Nurse Aide Competency Evaluation Program (NACEP).

Monitor compliance with the License Agreement with test service. (BOD, ST) Funded under NACEP and test service contract.

Oversee the ongoing development of the Nurse Aide Competency Evaluation Program including blueprint based on job analyses data; administration instructions and security measures; supervision of item/task development and administration processes; and final approval of each form of the competency evaluation program. (NACEPC) Funded through test service contract.

Continue the process for the inclusion of home heath aides in NACEP. (NACEPC) Funded through test service contract.

Initiate the process for inclusion of acute care nurse aides in NACEP. (NACEPC) Funded under NACEP.

Market Nurse Aide Competency Evaluation Program to state agencies responsible for evaluation of nurse aides. (TPC, ST) Funded through test service contract and NACEP.

Promote efforts for working with constituent members and other organizations to safeguard the public health and welfare by preserving the integrity of the 1987 Nursing Home Reform Act and related laws. (NACEP, ST) Funded under NACEP.

Review the test service plan for assisting NACEP user state agencies with the OBRA 1987 required post approval program provider reviews. (NACEPC) Funded through test service contract.

Review results of incumbent job analysis survey. (NACEPC) Funded under NACEP.

See Appendix A for Key to Responsible Party

7. (continued) Develop Nurse Aide Competency Evaluation Program (NACEP).	Evaluate effectiveness of *Model Nurse Aide Regulation Act* and *Model Nurse Aide Administrative Rules*; analyze need for review and revision. (ST) Funded under Publications.
	Provide current information on federal and state nurse aide competency evaluation activities to Member Boards and other interested parties. (ST) Funded under NACEP.
	Conduct incumbent nurse aide job analysis survey and reports results to the Nurse Aide Competency Evaluation Committee. (ST) Funded under NACEP.
	Review outcomes of Nurse Aide Job Analysis study and input for External Job Analysis Monitoring Panel. (JAMC) Funded under Job Analysis Monitoring Committee.
	Explore new product/service development. (TPC, NACEPC) Funded under NACEP.
	Review/evaluate statistics related to NACEP to monitor the quality of the instrument. (NACEP) Funded under NACEP.
	Consider educational/articulation issues related to nurse aides. (NACEPC) Funded under NACEP.
	Encourage/plan for a "Nurse Aide Competency Evaluation Program user day." (ST, TPC) Funding to be determined.
	Investigates the feasibility of a "Newsletter" for NACEP. (ST) Funded under NACEP.
	Organize and conduct/facilitate focus groups to gather market opinions on proposed new product. (ST) Funded under NACEP.
	Sponsor nurse aide conferences as necessitated by rule changes and market demand. (ST) Funded under NACEP.
	Monitor ongoing development of NACEP including test statistics, item development, task development, blueprint revisions, and standard setting. (TPC, NACEPC, ST) Funded under test service contract.

See Appendix A for Key to Responsible Party

7. (continued) Develop Nurse Aide Competency Evaluation Program (NACEP).	Maintain current information in Director of Nurse Aide Registries. (ST) Funded under NACEP.

Goal I. Develop, promote, and provide relevant and innovative services.

Objective D: **Maintain and enhance communication about NCSBN, its members, and issues concerning safe and effective nursing practice.**

	FY 91 Activity
1. Continue investigation of electronic mail and electronic communications, including teleconferencing.	Implement a pilot study accessing NCNET for disciplinary data, and report to 1991 Delegate Assembly. (BOD, ST) Funded under Board of Directors.
	Provide training to Member Boards on NCNET; increase use of routine forms and other applications such as licensure verification. (ST) Funded under Board of Directors.
	Continue marketing NCNET services. (CC) Funded under Publications.
2. Investigate mechanism for increased communications among Member Boards and National Council.	Utilize the communications model as a foundation, develop a National Council communications plan. (CC) Funded under Communications Committee.
	Continue to identify specific areas of policy development related to communications. (CC) Funded under Communications Committee.
3. Provide forums for Member Board exchange.	Plan forums on topics of Member Boards interest during the annual Delegate Assembly meetings. (CC, ST) Funded under Communications Committee.
	Continue to implement open forums at Board meetings. (BOD) Funded under Board of Directors.
	Plan agendas for Member Board Area meetings. (AD, ST) Funded under Area meetings.

See Appendix A for Key to Responsible Party

3. (continued) Provide forums for Member Board exchange.	Update, publicize, and disseminate resource list of Resource Network and paper and presentation topics. (ST) Funded under Communications Committee.
	Use "update" columns in Issues to facilitate communication with and among Member Boards. (AD, ST) Funded under Publications.
4. Stimulate greater use of NCSBN resources by updating members on available service.	Publishes staff resource list. (ST) Funded under Publications.
	Report on and promote Resource Network services. (ST) Funded under Communications Committee.
5. Provide audio-visual materials on the license examinations for nursing practice.	Make available audiovisual materials on NCLEX development. (ST) Funded under Publications.
	Incorporate audiovisual materials in NCLEX Invitational Conferences. (CTB, ST) Funded under NCLEX Support costs and test service contract.
	Create audiovisual materials to accompany presentations to nursing organizations on computerized testing studies and potential applications for NCLEX. (BOD, ST) Funded under CAT.
6. Provide a publication about trends in regulation and activities of Member Boards.	Prepare, publish and disseminate Emerging Issues as appropriate. (BOD, ST) Funded under Publications.
	Publish and market *State Nursing Legislation Quarterly*. Funded under Publications.
7. Maintain and update NCSBN Manual.	Review changes made by Delegate Assembly, the Board of Directors and committees and, on that basis, update policies and procedures and circulate revised or new forms and materials to Member Boards. (ST) Funded under Publications.
	Finalize Board policy and procedure manual, incorporating polices and procedures for all standing committees. (BOD, ST) Funded under Board of Directors.
8. Evaluate current and future publications related to the licensing process, legal responsibilities, and National Council services.	Establish a comprehensive system to evaluate National Council publications. (CC) Funded under Communications Committee.

See Appendix A for Key to Responsible Party

8. (continued) Evaluate current and future publications related to the licensing process, legal responsibilities, and National Council services.

Publish and disseminate annual report, including examination data, to Member Boards and other organizations. (ST) Funded under Publications.

Prepare *Book of Reports* which includes summary of prior Delegate Assembly actions. (All) Funded under Delegate Assembly.

Collect and publish definitions of nursing, definitions of advanced practice, powers of board, and other common features of nurse practice acts across jurisdictions. (ST) Funded under Nursing Practice and Education Committee and Publications.

Produce general information handbook on NCLEX. (ST) Funded under NCLEX support costs and Publications.

Produce resource documents on standard setting process and anomaly analysis/flagging implications. (ST) Funded under NCLEX support costs and Publications.

9. Continue to publish the national disciplinary data bank reports and summaries.

Collect, summarize, and disseminate data on disciplinary reports on a monthly basis. (ST) Funded under Disciplinary System.

Monitor status of National Practitioner Data Bank (NPDB). (ST) Funded under Disciplinary System.

Convert the National Council's Disciplinary Data Bank structure and reports to be congruent with the NPDB report forms. (ST) Funded under Disciplinary System.

Provide ongoing assistance in the form of orientation and training for Member Board staff to use forms; develop materials to support this effort. (ST) Funded under Disciplinary System.

Facilitate access to disciplinary data bank as routine step in application process for initial licensure and endorsement (see also, I.D.1). (ST) Funded under Disciplinary System.

10. Publish National Council research on licensure examinations and nursing practice.

Publish research findings on licensure examinations and nursing practice. (ST) Funded under Publications.

Make available previously published reports of job analysis studies conducted by the National Council. (ST) Funded under Publications.

Objective	Activity
11. Publish test plans for licensure examinations.	Make available test plan for NCLEX-RN and NCLEX-PN. (ST) Funded under Publications.
12. Publish study guides on the licensure examinations.	Investigate potential for producing a study guide on the licensure examinations. (BOD, FC, ST) Funded under Publications.
	Monitor Chicago Review Press contract compliance. (ST) Funded under Communications Committee.
13. Publish the National Council long range plan.	Conduct and analyze the results of a Trend Analysis Survey. (LRPC) Funded under Long Range Planning Committee.
	Analyze the results of organizational visioning activities of the Fall Planning Retreat. (LRPC) Funded under Long Range Planning Committee.
	Report preliminary Trend Analysis Survey data to 1991 Delegate Assembly. (LRPC) Funded under Long Range Planning Committee.
	Investigate preparation of long range plan as stand-alone document for publication, with data on rank-ordering of goals and objectives. (LRPC, ST) Funded under Long Range Planning Committee.
14. Provide *Model Nursing Practice Act* and *Model Administrative Rules*.	Continue to make available the *Model Nursing Practice Act* and *Model Administrative Rules*. (ST) Funded under Publications.
15. Publish ACT reports.	Make available reports of job analysis studies conducted by ACT. (ST) Funded under Publications.

See Appendix A for Key to Responsible Party

Goal I. Develop, promote, and provide relevant and innovative services.

Objective E: Promote consistency in the licensing process among the respective jurisdictions.

	FY 91 Activity
1. Evaluate the regulatory implications of entry into practice and its implications for National Council services.	Evaluate outcomes of RN job analysis with contextual instrument. If appropriate, make a recommendation to Delegate Assembly regarding validation of hypothesized sets of competencies through ongoing job analysis studies. (BOD) Funded under Board of Directors.
2. Continue to investigate mechanisms for evaluating continued competence.	Develop a conceptual framework for continued competence and licensure, continued competence as it is related to relicensure, and concepts of "assure" and "ensure" related to general regulatory responsibilities. (NPEC) Funded under Nursing Practice and Education Committee.
	Identify mechanisms for maintenance of continued competence and operationally define them. (NPEC) Funded under Nursing Practice and Education Committee.
	Consult, as requested by Nursing Practice and Education Committee, on methods of determining maintenance of minimal competence. (EC) Funded under Examination Committee.
	Study possible applications of CST to continued competence and discipline (assessment and evaluation of effectiveness of remedies) (SCCST, ST) Funded under CST restricted fund.
3. Provide data to Member Boards on licensure requirements.	Continue to make available compilation of Member Boards' licensure requirements. (ST) Funded under Publications.
	Develop generic licensure verification form. (BOD, ST) Funded under Board of Directors.
	Plan approaches regarding licensure requirements for volunteer nurses. (NPEC) Funded under Nursing Practice and Education Committee.

See Appendix A for Key to Responsible Party

Goal II. Utilize human and fiscal resources efficiently to allow for growth and creativity.

Objective A. Implement a planning model to be used as a guide for the development of NCSBN.

	FY 91 Activity
1. Provide for an organizational planning process and structure.	Plan for the next fiscal year before and after the Fall Planning session. (All) Funded under Fall Planning Retreat and committees.
	Review strategies of all committees for relevance to the National Council mission statement and goals. (LRPC) Funded under Long Range Planning Committee.
	Review 1990 Delegate Assembly actions to evaluate implications as related to goals, objectives and strategies. (LRPC) Funded under Long Range Planning Committee.
	Review the National Council structure as related to proposed committee activities. (LRPC) Funded under Long Range Planning Committee.
	Determine need for ad hoc committees, establish committee charges, make committee appointments, and communicate with committees on a regular basis. (BOD) Funded under Board of Directors.
2. Develop an evaluation mechanism for the organization.	Collect and compile evaluations of committee effectiveness annually. (BOD) Funded under Board of Directors.
	Determine policy regarding periodic major organizational evaluation--internal and/or external. (BOD) Funded under Board of Directors.
3. Implement a program budgeting system for the National Council.	Evaluate the program budget. (FC) Funded under Finance Committee.
	Develop and monitor the annual program budget. (FC, ST) Funded under Finance Committee.
	Analyze the fiscal impact of data for new program activities and determines availability of funding. (FC) Funded under Finance Committee.

See Appendix A for Key to Responsible Party

3. (continued) Implement a program budgeting system for the National Council.	Evaluate the effectiveness of the fiscal impact statement with actual costs and make adjustments as required. (FC) Funded under Finance Committee. Prepare quarterly financial information for Board of Directors, Member Boards, and management. (FC, ST) Funded under Finance Committee. Maintain financial data for outside grants in accordance with grant requirements. (ST) Funded under Finance Committee. Assist auditors in preparation of work papers and prepare financial information for annual audit. (ST) Funded under Finance Committee.
4. Investigate the feasibility of new revenue sources for the organization.	Continue to explore new revenue sources for the National Council. (FC) Funded under Finance Committee. Support efforts throughout the National Council to develop new revenue sources and analyze the fiscal feasibility of the suggestions. (FC) Funded under Finance Committee. Alert Board/Finance Committee to marketing opportunities for current publications. (ST) Funded under Finance Committee. Alert Board/Finance Committee to opportunities for external funding of projects. (ST) Funded under Finance Committee.
5. Maintain financial polices which provide guidelines for organizational development.	Continue to recommend financial policies to the Board of Directors and evaluate the financial policies of the National Council. (FC) Funded under Finance Committee. Continue to evaluate and revise currently existing designated funds and recommend to the Board of Directors need for additional designated funds. (FC) Funded under Finance Committee. Monitor and evaluate the management of the investment portfolio. (FC, ST) Funded under Finance Committee.

See Appendix A for Key to Responsible Party

5. (continued) Maintain financial policies which provide guidelines for organizational development.	Maintain working relationship of extramural financial relationship and evaluate the effectiveness of the relationship. (FC, ST) Funded under Finance Committee. Invest the funds of the organization in accordance with financial policies in order to secure the highest return on investment. (ST) Funded under Finance Committee.
6. Review and revise forecast assumptions to maintain a current forecasting model.	Revise budget assumptions based on the most recent financial information. (FC) Funded under the Finance Committee. Revise five-year projections using the most recent financial information and budget assumptions. (FC, ST) Funded under Finance Committee. Utilize the five-year projections to analyze the fiscal feasibility of proposed activities and evaluation of fee structure. (FC) Funded under Finance Committee. Prepare cost data for new projects and services. (ST) Funded under Finance Committee. Develop net examination revenue projections based on anticipated candidate volume projections as needed for review by Finance Committee. (ST) Funded under Finance Committee.

See Appendix A for Key to Responsible Party

Goal II. Utilize human and fiscal resources efficiently to allow for growth and creativity.

Objective B: Strengthen the organizational structure in the complex environment of high technology, transforming health care delivery systems, global communication and international interaction.

	FY 91 Activity
1. Evaluate the current organizational structure relative to: 1. organizational planning; 2. committee structure; 3. membership options; 4. decision-making process; 5. interrelationships; and 6. lines of communication and authority.	Consider proposed amendments to Bylaws. (BC) Funded under Bylaws Committee. Report to 1991 Delegate Assembly on any revisions or amendments to the bylaws. (BC) Funded under Bylaws Committee. Recommend qualifications for president. (BC) Funded under Bylaws Committee. Review officer election schedule. (BC) Funded under Bylaws Committee. Evaluate candidates and prepare slate. (CON) Funded under Committee on Nominations. Review and evaluate candidate pre-screening framework. (CON) Funded under Committee on Nominations. Evaluate campaign process and guidelines and revises if necessary. (CON) Funded under Committee on Nominations. Recruit qualified candidates. (CON) Funded under Committee on Nominations. Analyze the process of recruiting qualified candidates for NCSBN offices and make recommendation(s) as deemed appropriate. (CON) Funded under Committee on Nominations. Develop a comprehensive database to track and record volunteer involvement and interest. (ST) Funded under Committee on Nominations and Board of Directors.

See Appendix A for Key to Responsible Party

Goal III. Expand collaborative relationships with relevant organizations to facilitate the development and promotion of health related public policy.

Objective A: Provide specific opportunity for direct dialogue, interaction and mutual decision making among national health groups.

	FY 91 Activities
1. Develop a public relations program for the National Council.	Include National Council's public relations program as part of the communications plan. (CC) Funded under Communications Committee.
	Maintain ongoing liaison activities with major nursing, health care, and regulatory organizations. (BOD, CC, ST) Funded under Public Relations.
	Recommend nominees for Member Board and Meritorious Service awards. (CC) Funded under Communications Committee.
	Present awards in accordance with awards/recognition program. (BOD) Funded under Communications Committee.
	Maintain frequent contacts with staff leadership of major nursing, health care and regulatory organizations. (ST) Funded under Public Relations.
	Arrange for formal liaison meetings with ANA, NLN, AONE, AACN, CGFNS, ICN, NFLPN, NAPNES. (BOD, ST) Funded under Public Relations.
	Send representative to annual meetings of ANA, NLN (and Councils as possible), AONE, AACN, NFLPN, NAPNES, CLEAR, NOCA, FARB, AMA Nurse Advisory Panel. (BOD, ST) Funded under Public Relations.
	Publish "NCLEX News and Notes" on quarterly basis with National Council input and review. (CTB) Funded under test service contract.
2. Initiate a sponsorship of educational programs of regulatory significance.	Recommend plan for next regulatory conference. (CC) Funded under Communications Committee.

See Appendix A for Key to Responsible Party

Goal	Action
2. (continued) Initiate a sponsorship of educational programs of regulatory significance.	Implement plans and perform follow-up evaluation for 1991 Regulatory Conference. (ST) Funded under Regulatory Conference.
	Consider the development of regional educational programs before and after Area Meetings. (AD, CC, ST) Funded under Communications Committee.
3. Expand dissemination of information about NCSBN and regulatory trends.	Continue to implement identified methods of distributing information about the National Council and regulatory trends. (CC) Funded under Communications Committee.
	Review and disseminate information about state and federal initiatives that have regulatory implications. (BOD, ST) Funded under Board of Directors.
	Develop a defined plan for development and use of audio-visual materials and reports to the 1991 Delegate Assembly. (CC) Funded under Communications Committee.
	Perform surveys and analysis of issues and trends in nursing regulation. (ST) Funded under Research.
	Segment mailing lists for effective and efficient dissemination routes for information. (ST) Funded under Publications.
4. Promote the inclusion of regulatory perspective in national and regional programs on health and related issues.	Through interorganizational liaison activities, promote the inclusion of the regulatory perspective in national and regional programs on health and related issues. (BOD, ST) Funded under Public Relations.
5. Involve consumers in the development of clear position statements on health-related public policies.	Continue to appoint consumer members of Member Boards to National Council committees, especially those committees that develop position statements on health-related public policies. (BOD) Funded under Board of Directors.
6. Maintain effective working relationships with appropriate community agencies, business and industry.	Assess feasibility of an informational interchange between the National Council and appropriate external agencies. (CC) Funded under Communications Committee.
	Develop new working relationships with outside financial agencies and maintain ongoing relationships. (FC, ST) Funded under Finance Committee.

See Appendix A for Key to Responsible Party

Goal III. Expand collaborative relationships with relevant organizations to facilitate the development and promotion of health related public policy.

Objective B: Promote and facilitate effective communications with related organizations, groups, and individuals.

	FY 91 Activity
1. Sponsor an annual invitational forum in collaboration with related organizations.	Plan for an informational interchange between the National Council and appropriate external agencies. (CC) Funded under Communications Committee. Continue to participate in CTB Invitational Conferences on NCLEX. (ST) Funded under test service contract. Facilitate an interorganizational liaison meeting on advanced practice. (BOD, NPEC/Sub, ST) Funded under Board of Directors and Nursing Practice and Education Committee.
2. Work with health-related organizations in formalizing statements on trends and issues affecting nursing education and nursing practice.	Meet with selected committees of other interested organizations to identify continued competency mechanism. (NPEC) Funded under Nursing Practice and Education Committee. Participate as member of governing board of the National Commission on Nursing Implementation Project. (BP) Funded under Public Relations. Direct study of standards for licensure of foreign nurses in consultation with the International Council of Nurses (ICN), the Commission on Graduates of Foreign Nursing Schools (CGFNS), and the Tri-Council for Nursing to develop strategies to assist Member Boards in maintaining standards for public protection; and report to the 1991 Delegate Assembly. (FNIC) Funded under Foreign Nurse Issues Committee. Provide input into health policy statements by nursing and health-related organizations as possible. (BOD, ST) Funded under Board of Directors. Facilitate completion of statement on nursing shortage with ANA and NFLPN. (BOD, NPEC, ST) Funded under Board of Directors.

See Appendix A for Key to Responsible Party

3. Identify and promote desirable and reasonable standards in nursing education and nursing practice.	Collect data to use in planning approaches to nontraditional models of nursing education for effect on practice and education trends. (NPEC/sub) Funded under Nursing Practice and Education Committee. Work cooperatively with other nursing and health care organizations as well as support efforts of Member Boards and nursing community to promote desirable and reasonable standards in nursing education and practice. (BOD) Funded under Board of Directors.

Goal III. Expand collaborative relationships and relevant organizations to facilitate the development and promotion of health related public policy.

Objective C: Increase consumer involvement with NCSBN.

	FY 91 Activity
1. Seek interorganizational sharing of information with consumer groups.	Develop ways of sharing information with interested consumer groups. (CC) Funded under Communications Committee. Facilitate network for consumer members of Member Boards through the Citizens' Advocacy Center. (BOD, ST) Funded under Public Relations.
2. Continue appointment of consumers to National Council committees.	Solicit consumer members of Member Board for appointment to National Council committees. Appoint outside consumer consultants to committees as needed. (BOD) Funded under Board of Directors. Solicit consumer members of Member Boards for nomination to an elected office. (CON) Funded under Committee on Nominations. Revise procedure for making committee appointments. (AD) Funded under Board of Directors.

See Appendix A for Key to Responsible Party

Goal IV. Develop a comprehensive information system for use by members, organizations and the public.

Objective A: Implement a five-year plan for an information system.

	FY 91 Activity
1. Consolidate present information system.	Complete data collection on key licensure data in the pilot study jurisdictions that are representative of Member Boards' data collection capabilities. (NISC, ST) Funded under NIS Committee restricted funds. Analyze data from pilot project. (NISC, ST) Funded under NIS Committee restricted funds.
2. Assign a Board level committee to develop guidelines for data collection, data use, distribution, and other functions related to information systems.	Initiate design of data collection instrument for pilot project. (NISC) Funded under NIS Committee restricted funds. Draft a budget for the total implementation of the project and communicate budget information to potential funding sources. (NISC, ST) Funded under NIS Committee restricted funds. Continue to pursue outside funding for full implementation of the total project to collect licensee information. (NISC, ST) Funded under NIS Committee restricted funds. Submit finalized funding proposal. (NISC, ST) Funded under NIS Committee restricted funds. Finalize plans for development and ongoing maintenance of the NIS. (NISC) Funded under NIS Committee restricted funds. Survey Member Boards for input regarding establishing an NIS, its potential uses, marketing potential, contract issues, fees for data release. (NISC) Funded under NIS Committee restricted funds. Establish liaison with Communications Committee and staff regarding potential for NCNET transmission of NIS data. (NISC) Funded under NIS Committee restricted funds.

See Appendix A for Key to Responsible Party

2. (continued) Assign a Board level committee to develop guidelines for data collection, data use, distribution, and other functions related to information systems.	Establish liaison with NPEC and staff regarding potential linkages between NIS and disciplinary data bank. (NISC) Funded under NIS Committee restricted fund. Provide information to Member Boards during 1991 annual meeting regarding outcome of feasibility study and, if feasible, plans for implementation of the NIS and its funding status. (NISC) Funded under NIS restricted funds. Continue communicating with Member Boards regarding NIS to dispel misunderstanding concerning use of their data. (NISC) Funded under NIS Committee restricted funds. Develop explanatory mailing to Member Boards from chair and Area representative prior to final survey of Member Boards regarding data elements. (NISC) Funded under NIS Committee restricted funds. Publish article in *Issues* (Spring, 1991) to explain NIS project (interest, status, etc.) and initiate news releases regarding funding by Robert Wood Johnson Foundation, ANA, Division of Nursing. (NISC, CC) Funded under NIS Committee restricted funds and Publications. Refine data collection tools based on outcomes of pilot study. (NISC) Funded under NIS Committee restricted funds.

Goal IV. Develop a comprehensive information system for use by members, organizations and the public.

Objective B: Collect, analyze and disseminate data and statistics in such areas as licensure, educational programs, and regulatory functions.

	FY 91 Activity
1. Assess the market for data distribution.	Survey Member Boards regarding collection, storage, and retrieval of data elements. (NISC) Funded under NIS Committee restricted funds.

See Appendix A for Key to Responsible Party

1. (continued) Assess for the market for data distribution.	Collect and analyze Member Board data regarding potential data uses and users. (NISC) Funded under NIS Committee restricted funds. Identify all potential uses and users of NIS data and most marketable methods of data sorting. (NISC) Funded under NIS Committee restricted funds. Gather information for review by Finance Committee and Board of Directors regarding potential of data as revenue source. (NISC, ST) Funded under NIS Committee restricted funds. Perform market research using in-kind services offered by ANA, as part of NIS feasibility study. (ST) Funded under NIS Committee restricted funds.
2. Develop and market a nurse licensee database if market assessment indicates such action.	————————————— >
3. Establish a data clearinghouse.	Continue to publish and update as necessary compilations of licensure and examination statistics, Member Board profiles (internally), continued competence/continuing education requirements by state. (ST) Funded under Research and Publications.

Goal V. Advance research that contributes to the public health, safety, and welfare.

Objective A: Conduct and disseminate research pertinent to the mission of NCSBN.

	FY 91 Activity
1. Evaluate the use of the *Model Nursing Practice Act* and make appropriate revisions.	Update report of findings on incorporation of quality assurance mechanisms by states to Delegate Assembly. (NPEC) Funded under Nursing Practice and Education Committee. Disseminate information on transport, traveling and interstate nurse roles. (NPEC) Funded under Nursing Practice and Education Committee.
2. Gather data regarding the regulatory issues of chemically dependent nurses.	If funded, Study on Regulatory Models for Chemically Dependent Nurses implemented. (NPEC/sub) Funded externally.

2. (continued) Gather data regarding the regulatory issues on chemically dependent nurses.	Report work on Regulatory Models for Chemically Dependent Nurses and seek funds to implement as proposed. (NPEC/sub) Funded under Nursing Practice and Education Committee.
3. Gather data concerning issues and trends regarding disciplinary actions.	Publish yearly update on the data from the disciplinary data bank. (ST) Funded under Disciplinary System.
	Disseminate information on declaratory statements and advisory opinions. (NPEC) Funded under Nursing Practice and Education Committee restricted funds.
4. Monitor the major nursing research projects relative to implications on legal standards of nursing practice.	Continue to monitor nursing journals to identify resources related to legal standards of nursing practice. (ST) Funded under Publications.
	Monitor changes in legal standards by states and publish in SNLQ. (ST) Funded under Publications.
5. Investigate research needs regarding approval of nursing education programs.	Assess Member Boards' needs regarding educational program approval activities. (NPEC, ST) Funded under Nursing Practice and Education Committee.
6. Gather data concerning advanced practice.	Analyze data to differentiate advanced nursing practice from extension of generalist practice. (NPEC/sub) Funded under Nursing Practice and Education Committee.
	Plan approaches for utilization and supervision of public health, community health, and school nurses. (NPEC) Funded under Nursing Practice and Education Committee.
	Appoint individuals to participate as requested in groups considering advanced practice issues, e.g., certification of specialties, credentialing, etc. (BOD) Funded under Public Relations.
	Collect data, analyze, review options regarding inter- and intra-state issues regarding model for advanced practice. (NPEC/sub, ST) Funded under Nursing Practice and Education Committee.
	Identify issues and changes pending on the federal level affecting advanced practice. (NPEC/sub, ST) Funded under Nursing Practice and Education Committee.

See Appendix A for Key to Responsible Party

Goal V. Advance research that contributes to the public health, safety, and welfare.

Objective B: Promote research proposals annually which merit funding.

	FY 91 Activity
1. Disseminate research at annual meeting.	Plan a forum for research sharing during the annual meeting. (CC) Funded under Delegate Assembly.
2. Maintain a database of potential sources of government and private grant funding in areas of interest.	Maintain a list of potential sources of government and private grant funds. (ST) Funded under Research.

Goal V. Advance research that contributes to the public health, safety, and welfare.

Objective C: Involve Member Boards in research at the jurisdictional level for use and distribution by NCSBN.

	FY 91 Activity
1. Request and publicize abstracts of completed, ongoing and projected studies by Member Boards.	In connection with Research Forum at annual meeting, publish abstract of Member Board research findings. (ST) Funded under Publications.
2. Publish research findings in National Council publications.	Publish research findings as obtained from Member Boards. (ST) Funded under Publications.

See Appendix A for Key to Responsible Party

National Council Operational Plan (FY92) *

Goal I. Develop, promote, and provide relevant and innovative services.

Objective A: Develop licensure examinations that are based upon current accepted psychometric principles and legal considerations.

	FY 92 Activity
1. Collect data from states relative to competencies for nursing practice.	Monitor the entry into practice issue and present an updated report to the Delegate Assembly; collect data related to entry into practice as part of yearly collection of statistical data. (NPEC, ST) Funded under Nursing Practice and Education Committee. Collect and compile supplemental data for PN and RN standard setting. Funded under NCLEX support costs. Perform evaluation of job analysis data collection instrument and pilot test revisions. (ST, JAMC) Funded under Research. Plan for implementation of role delineation study in FY93. (ST, JAMC) Funded under Research.

* As of January 31, 1992

——————————— > No activity during fiscal year

See Appendix A for Key to Responsible Party

2. Establish the directions for the development of licensure examinations based on ongoing job analysis and role delineation studies.	Explore the psychometric properties of the licensure examinations. (EC) Funded under test service contract and Examination Committee. Monitor development of licensure examinations and recommend modifications as necessary. (EC) Funded under test service contract and Examination Committee. Report on NCLEX item pool studies and need for item writers and panels of content experts. (EC, ST) Funded under test service contract. Monitor compliance of NCLEX test service with contract provisions, especially production of items. (BOD, ST) Funded under NCLEX support costs. Review and report to the Examination Committee regarding the effectiveness of current statistical and Bias Sensitivity Review Panel (BSRP) approaches to reducing potential ethnic/gender bias in the licensure examinations. (ST) Funded under NCLEX support costs.
3. Evaluate the ACT report for implications in the initial licensing examinations and for competency examinations.	——————————— >
4. Continue to conduct research on the job-relatedness of the licensure examinations.	Review outcomes of evaluation of job analysis data collection tool and plans for conducting the FY93 entry-level RN Job Analysis and the Role Delineation Study. (JAMC) Funded under Job Analysis Monitoring Committee. Reviews the results of the RN Job Analysis. (EC) Funded under Examination Committee. Review results of role delineation study. (EC) Funded under Examination Committee.
5. Continue to develop test plans for licensure examinations that are based on current nursing practice.	Implement decision of 1991 Delegate Assembly on PN test plan revisions. (EC, ST) Funded under Examination Committee. Recommend to 1992 Delegate Assembly if revisions to RN test plan are indicated. (EC) Funded under Examination Committee.

See Appendix A for Key to Responsible Party

6. Perform a feasibility study of the computerized adaptive testing (CAT) program.	Conduct PN CAT field testing (if approved by Delegate Assembly). (ST) Funded under CAT.
	Participate in the CAT transition tasks (if directed by the Delegate Assembly). (BOD, ST, committees) Funded under CAT.
7. Investigate the feasibility of computerized clinical simulation testing (CST) for initial and continued licensure.	Activity to be determined.
8. Explore producing licensure examinations through computer-based technology.	Activity to be determined.

Goal I. Develop, promote, and provide relevant and innovative services.

Objective B: Establish policies and procedures for the licensing examinations in nursing.

	FY 92 Activity
1. Develop policies and procedures for computer-based testing.	Continue the development of policies and procedures for computer-based testing. (AEC, EC, CSP, SCCST) Funded under CAT designated and CST restricted funds.
	Prepare to recommend policies related to security measures for computer-based testing to Delegate Assembly. (AEC) Funded under CAT designated and CST restricted funds.
	Issue Request for Proposals (RFP) for professional computerized test services if CAT is approved by Delegate Assembly. (BOD, ST) Funded under Board of Directors.
2. Evaluate policies and procedures for the licensing examinations.	Meet annually and as necessary to coordinate examination and practice-related activities. (CHRS) Funded under appropriate committees.
	Monitor the plan for Crisis Management . (AEC) Funded under Administration of Examination Committee.

See Appendix A for Key to Responsible Party

2. (continued) Evaluate policies and procedures for the licensing examinations.	Set NCLEX future dates/alternate dates and report to Delegate Assembly. (AEC) Funded under Administration of Examination Committee.
	Publish NCLEX administration dates/alternate dates for next ten years. (ST) Funded under NCLEX support costs.
	Monitor Bias Sensitivity Review process. (EC) Funded under Examination Committee. Monitor and evaluate the BSRP activities and the effects on the NCLEX. (EC) Funded under Examination Committee.
	Review existing polices and procedures for test development and administration. (EC, AEC) Funded under Examination Committee and Administration of Examination Committee.
	Monitor administration of examination in Germany by the Washington-PN Board. (AEC) Funded under Administration of Examination Committee.
	Visit examination administration sites. (AEC, ST) Funded under Administration of Examination Committee.
	Issue Request for Proposals (RFP) for professional test service for FY93 and beyond. (BOD, ST) Funded under Board of Directors.

Goal I. Develop, promote, and provide relevant and innovative services.

Objective C: **Provide consultative services for National Council members, groups, agencies, and individuals regarding the safe and effective practice of nursing.**

	FY 92 Activity
1. Expand and promote orientation and educational programs for Member Boards.	Review survey findings on educational programs at annual meeting and propose programs, if appropriate. (CC) Funded under Communications Committee.
	Plan orientation program for the annual meeting with presentations for targeted needs. (CC) Funded under Communications Committee.

Objective	Activities
1. (continued) Expand and promote orientation and educational programs for Member Boards.	Prepare and present planning session for Board of Director and committees. (BCC, ST) Funded under Fall Planning Retreat.
	Review and update orientation manual for *Book of Reports*. (ST) Funded under Delegate Assembly.
	Continue to respond to written or telephone inquires for service or assistance. (ST) Funded under appropriate program.
	Plan orientation sessions as requested at meetings, e.g., Delegate Assembly and Area Meetings. (ST) Funded under Delegate Assembly and Area Meetings.
	Develop NCLEX Invitational Conferences and participate in presentation of information. (CTB, ST) Funded under test service contract.
2. Develop an orientation section in the NCSBN manual for new Board staff and Board members.	Review and update orientation sections of NCSBN manual as needed. (BOD, ST) Funded under Board of Directors.
3. Explore the consultation needs of Member Boards.	Implement and promote the Resource Network. (CC, ST) Funded under Communications Committee.
	Participate in providing Resource Network services. (All) Funded under Communications Committee.
4. Publish a list of consultants within the Council according to area of expertise with input from Member Boards.	Maintain a current Resource Network Team. (ST) Funded under Communications Committee.
5. Monitor the health care delivery system to evaluate implications for safe and effective practice.	Produce paper on advanced practice model. (NPEC) Funded under Nursing Practice and Education Committee.
	Monitor current publications, meetings, conferences, workshops, etc., in the health care arena. (ST) Funded under Public Relations.
6. Continue to disseminate National Council statements on trends and issues affecting nursing education and nursing practice.	Prepare, publish and disseminate Emerging Issues as appropriate. (BOD, ST) Funded under Publications.

See Appendix A for Key to Responsible Party

6. (continued) Continue to disseminate National Council statements on trends and issues affecting nursing education and nursing practice.

Make available previously published position papers on advanced practice, unlicensed personnel, delegation, and peer assistance programs. (ST) Funded under Publications.

Continue to alert Member Boards to potential issues in the health care policy arena. (BOD, ST) Funded under Communications Committee and Board of Directors.

Continue to publish and disseminate Issues on a quarterly basis. (ST) Funded under Publications.

Plan approaches related to education and practice of handicapped nurses. (NPEC) Funded under Nursing Practice and Education Committee.

7. Develop Nurse Aide Competency Evaluation Program (NACEP).

Monitor compliance with the License Agreement with test service. (BOD, ST) Funded under NACEP and test service contract.

Oversee the ongoing development of the NACEP including blueprint based on job analyses data; administration instructions and security measures; supervision of item/task development and administration processes; and final approval of each form of the competency evaluation program. (NACEPC) Funded through test service contract.

Continue the process for the inclusion of home heath aides in NACEP. (NACEPC) Funded through test service contract.

Initiate the process for inclusion of acute care nurse aides in NACEP. (NACEPC) Funded under NACEP.

Market NACEP to state agencies responsible for evaluation of nurse aides. (TPC, ST) Funded through test service contract and NACEP.

Promote efforts for working with constituent members and other organizations to safeguard the public health and welfare by preserving the integrity of the 1987 Nursing Home Reform Act and related laws. (NACEP, ST) Funded under NACEP.

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7. (continued) Develop Nurse Aide Competency Evaluation Program (NACEP).

Review the test service plan for assisting NACEP user state agencies with the OBRA 1987 required post approval program provider reviews. (NACEPC) Funded through test service contract.

Continue the process for inclusion *of acute* care aides in NACEP. (NACEPC) Funded under NACEP.

Provide current information on federal and state nurse aide competency evaluation activities to Member Boards and other interested parties. (ST) Funded under NACEP.

Explore new product/service development. (TPC, NACEPC) Funded under NACEP.

Review/evaluate statistics related to NACEP to monitor the quality of the instrument. (NACEPC) Funded under NACEP.

Consider educational/articulation issues related to nurse aides. (NACEPC) Funded under NACEP.

Sponsor nurse aide conferences as necessitated by rule changes and market demand. (ST) Funded under NACEP.

Monitor ongoing development of NACEP including test statistics, item development, task development, blueprint revisions, and standard setting. (TPC, NACEPC, ST) Funded under test service contract.

Maintain current information in Directory of Nurse Aide Registries. (ST) Funded under NACEP.

Prepare materials for discussion and decisions regarding extension of License Agreement with test service (BOD, ST) Funded under NACEP.

7. (continued) Develop Nurse Aide Competency Evaluation Program (NACEP).	Prepare recommendations to the Board of Directors regarding NACEP test service contract. (NACEPC) Funded under NACEP.

Goal I. Develop, promote, and provide relevant and innovative services.

Objective D: **Maintain and enhance communication about NCSBN, its members, and issues concerning safe and effective nursing practice.**

	FY 91 Activity
1. Continue investigation of electronic mail an electronic communications, including teleconferencing.	Continue marketing NCNET services. (CC) Funded under Publications.
2. Investigate mechanism for increased communications among Member Boards and National Council.	Utilizing the communications model as a foundation, develop a National Council communications plan. (CC) Funded under Communications Committee.
	Continue to identify specific areas of policy development related to communications. (CC) Funded under Communications Committee.
3. Provide forums for Member Board exchange.	Plan forums on topics of Member Boards' interest during the annual Delegate Assembly meetings. (CC, ST) Funded under Communications Committee.
	Continue to implement open forums at Board meetings. (BOD) Funded under Board of Directors.
	Plan agendas for Member Board Area meetings. (AD, ST) Funded under Area meetings.
	Update, publicize, and disseminate resource list of Resource Network and staff papers and presentation topics. (ST) Funded under Publications. Use "Updates" columns in Issues to facilitate communication with and among Member Boards. (AD, ST) Funded under Publications.

Objective	Activity
4. Stimulate greater use of NCSBN resources by updating members on available service.	Publish staff resource list. (ST) Funded under Publications. Report on and promote Resource Network services. (ST) Funded under Communications Committee.
5. Provide audio-visual materials on the licensure examinations for nursing practice.	Make available audio-visual materials on NCLEX development. (ST) Funded under Publications. Incorporate audio-visual materials in NCLEX Invitational Conferences. (CTB, ST) Funded under test service contract. Create audio-visual materials to accompany presentations to nursing organizations on computerized testing studies and potential applications for NCLEX. (BOD, ST) Funded under CAT.
6. Provide a publication about trends in regulation and activities of Member Boards.	Publish *Issues* on quarterly basis. (ST) Funded under Publications. Publish and market *State Nursing Legislation Quarterly*. (ST) Funded under Publications.
7. Maintain and update NCSBN Manual.	Review changes made by Delegate Assembly, the Board of Directors and committees and, on that basis, update policies and procedures and circulate revised or new forms and materials to Member Boards. (ST) Funded under Publications.
8. Evaluate current and future publications related to the licensing process, legal responsibilities, and National Council services.	Establish a comprehensive system to evaluate National Council publications. (CC) Funded under Communications Committee. Publish and disseminate annual report, including examination data, to Member Boards and other organizations. (ST) Funded under Publications. Prepare *Book of Reports* which includes summary of prior Delegate Assembly actions. (All) Funded under Delegate Assembly. Collect and publish definitions of nursing, definitions of advanced practice, powers of board, and other common features of nurse practice acts across jurisdictions. (ST) Funded under Nursing Practice and Education Committee and Publications.

See Appendix A for Key to Responsible Party

Objective	Strategies
9. Continue to publish the national disciplinary data bank reports and summaries.	Collect, summarize, and disseminate data on disciplinary reports on a monthly basis. (ST) Funded under Disciplinary System. Monitor status of National Practitioner Data Bank (NPDB). (ST) Funded under Disciplinary System. Provide ongoing assistance in the form of orientation and training for Member Board staff to use forms; develop materials to support this effort. (ST) Funded under Disciplinary System. Facilitate access to disciplinary data bank as routine step in application process for initial licensure and endorsement (see also, I.D.1). (ST) Funded under Disciplinary System.
10. Publish National Council research on licensure examinations and nursing practice.	Publish research findings on licensure examinations and nursing practice. (ST) Funded under Publications. Make available previously published reports of job analysis studies conducted by the National Council. (ST) Funded under Publications.
11. Publish test plans for licensure examinations.	Make available test plans for NCLEX-RN and NCLEX-PN. (ST) Funded under Publications.
12. Publish study guides on the licensure examinations.	Monitor Chicago Review Press contract compliance. (CC) Funded under Communications Committee.
13. Publish the National Council long range plan.	Re-evaluate goals, objectives and strategies. (LRPC) Funded under Long Range Planning Committee. Prepare revised Long Range Plan (goals, objectives, strategies) with rational for changes for presentation to 1992 Delegate Assembly. (LRPC) Funded under Long Range Planning Committee. Present trend analysis data to Fall Planning Retreat for visioning purposes. (LRPC) Funded under Long Range Planning Committee.
14. Provide *Model Nursing Practice Act* and *Model Administrative Rules*.	Continue to make available the *Model Nursing Practice Act* and *Model Administrative Rules*. (ST) Funded under Publications.
15. Publish ACT reports.	Make available reports of job analysis studies conducted by ACT. (ST) Funded under Publications.

See Appendix A for Key to Responsible Party

Goal I. Develop, promote, and provide relevant and innovative services.

Objective E: Promote consistency in the licensing process among the respective jurisdictions.

	FY 92 Activity
1. Evaluate the regulatory implications of entry into practice and its implications for National Council services.	Evaluate outcomes of RN job analysis with contextual instrument. If appropriate, make a recommendation to Delegate Assembly regarding validation of hypothesized sets of competencies through ongoing job analysis studies. (BOD) Funded under Board of Directors.
2. Continue to investigate mechanisms for evaluating continued competence.	Consult, as requested by Nursing Practice and Education Committee, on methods of determining maintenance of minimal competence. (EC) Funded under Examination Committee.
	Study possible applications of CST to continued competence and discipline (assessment and evaluation of effectiveness of remedies) (SCCST, ST) Funded under CST restricted fund.
3. Provide data to Member Boards on licensure requirements.	Continue to make available compilation of Member Boards' licensure requirements. (ST) Funded under Publications.
	Publish update compilation of Member Board licensure requirements if data indicate changes in requirements. (ST) Funded under Publications.
	Plan approaches to licensure of graduates from non-NCLEX jurisdiction schools. (NPEC) Funded under Nursing Practice and Education Committee.

See Appendix A for Key to Responsible Party

Goal II. Utilize human and fiscal resources efficiently to allow for growth and creativity.

Objective A. Implement a planning model to be used as a guide for the development of NCSBN.

	FY 92 Activity
1. Provide for an organizational planning process and structure.	Plan for the next fiscal year before and after the Fall Planning session. (All) Funded under Fall Planning Retreat and committees. Review strategies of all committees for relevance to the National Council mission statement and goals. (LRPC) Funded under Long Range Planning Committee. Review Delegate Assembly actions to evaluate implications as related to goals, objectives and strategies. (LRPC) Funded under Long Range Planning Committee. Review the National Council structure as related to proposed committee activities. (LRPC) Funded under Long Range Planning Committee. Determine need for ad hoc committees, establish committee charges, make committee appointments, and communicate with committees on a regular basis. (BOD) Funded under Board of Directors.
2. Develop an evaluation mechanism for the organization.	Collect and compile evaluations of committee effectiveness annually. (BOD) Funded under Board of Directors. Determine policy regarding periodic major organizational evaluation--internal and/or external. (BOD) Funded under Board of Directors.
3. Implement a program budgeting system for the National Council.	Evaluate the program budget. (FC) Funded under Finance Committee. Develop and monitor the annual program budget. (FC, ST) Funded under Finance Committee. Analyze the fiscal impact of data for new program activities and determines availability of funding. (FC) Funded under Finance Committee.

See Appendix A for Key to Responsible Party

3. (continued) Implement a program budgeting system for the National Council.

Evaluate the effectiveness of the fiscal impact statement with actual costs and make adjustments as required. (FC) Funded under Finance Committee.

Prepare quarterly financial information for Board of Directors, Member Boards, and management. (FC, ST) Funded under Finance Committee.

Maintain financial data for outside grants in accordance with grant requirements. (ST) Funded under Fiance Committee.

Assist auditors in preparation of work papers and prepare financial information for annual audit. (ST) Funded under Finance Committee.

4. Investigate the feasibility of new revenue sources for the organization.

Continue to explore new revenue sources for the National Council. (FC) Funded under Finance Committee.

Support efforts throughout the National Council to develop new revenue sources and analyze the fiscal feasibility of the suggestions. (FC) Funded under Finance Committee.

Alert Board/Finance Committee to marketing opportunities for current publications. (ST) Funded under Finance Committee.

Alert Board/Finance Committee to opportunities for external funding of projects. (ST) Funded under Finance Committee.

5. Maintain financial polices which provide guidelines for organizational development.

Continue to recommend financial policies to the Board of Directors and evaluate the financial policies of the National Council. (FC) Funded under Finance Committee.

Continue to evaluate and revise currently existing designated funds and recommend to the Board of Directors need for additional designated funds. (FC) Funded under Finance Committee.

Monitor and evaluate the management of the investment portfolio. (FC, ST) Funded under Finance Committee.

See Appendix A for Key to Responsible Party

5. (continued) Maintain financial policies which provide guidelines for organizational development.	Maintain working relationship of extramural financial relationship and evaluate the effectiveness of the relationship. (FC, ST) Funded under Finance Committee. Invest the funds of the organization in accordance with financial policies in order to secure the highest return of investment. (ST) Funded under Finance Committee.
6. Review and revise forecast assumptions to maintain a current forecasting model.	Revise budget assumptions based on the most recent financial information. (FC) Funded under the Finance Committee. Revise five-year projections using the most recent financial information and budget assumptions. (FC, ST) Funded under Finance Committee. Utilize the five-year projections to analyze the fiscal feasibility of proposed activities and evaluation of fee structure. (FC) Funded under Finance Committee. Prepare cost data for new projects and services. (ST) Funded under Finance Committee. Develop net examination revenue projections based on anticipated candidate volume projections as needed for review by Finance Committee. (ST) Funded under Finance Committee.

See Appendix A for Key to Responsible Party

Goal II. Utilize human and fiscal resources efficiently to allow for growth and creativity.

Objective B: Strengthen the organizational structure in the complex environment of high technology, transforming health care delivery systems, global communication and international interaction.

	FY 92 Activity
1. Evaluate the current organizational structure relative to: 1. organizational planning; 2. committee structure; 3. membership options; 4. decision-making process; 5. interrelationships; and 6. lines of communication and authority.	Consider proposed amendments to bylaws. (BC) Funded under Bylaws Committee. Evaluate candidates and prepare slate. (CON) Funded under Committee on Nominations. Review and evaluate candidate pre-screening framework. (CON) Funded under Committee on Nominations. Evaluate campaign process and guidelines and revise if necessary. (CON) Funded under Committee on Nominations. Recruit qualified candidates. (CON) Funded under Committee on Nominations. Analyze the process of recruiting qualified candidates for NCSBN offices and make recommendation(s) as deemed appropriate. (CON) Funded under Committee for Nominations. Develop a comprehensive database to track and record volunteer involvement and interest. (ST) Funded under Committee on Nominations and Board of Directors.

See Appendix A for Key to Responsible Party

Goal III. Expand collaborative relationships with relevant organizations to facilitate the development and promotion of health related public policy.

Objective A: Provide specific opportunity for direct dialogue, interaction and mutual decision making among national health groups.

	FY 92 Activity
1. Develop a public relations program for the National Council.	Include National Council's public relations program as part of the communications plan. (CC) Funded under Communications Committee.
	Maintain ongoing liaison activities with major nursing, health care, and regulatory organizations. (BOD, CC, ST) Funded under Public Relations.
	Recommend nominees for the R. Louise McManus Award. (CC) Funded under Communications Committee.
	Present awards in accordance with awards/recognition program. (BOD) Funded under Communications Committee.
	Maintain frequent contacts with staff leadership of major nursing, health care and regulatory organizations. (ST) Funded under Public Relations.
	Arrange for formal liaison meetings with ANA, NLN, AONE, AACN, CGFNS, ICN, NFLPN, NAPNES. (BOD, ST) Funded under Public Relations.
	Send representative to annual meetings of ANA, NLN (and Councils as possible), AONE, AACN, NFLPN, NAPNES, CLEAR, NOCA, FARB, AMA Nurse Advisory Panel. (BOD, ST) Funded under Public Relations.
	Publish "NCLEX News and Notes" on quarterly basis with National Council input and review. (CTB) Funded under test service contract.
2. Initiate a sponsorship of educational programs of regulatory significance.	Recommend plan for next regulatory conference. (CC) Funded under Communications Committee.

See Appendix A for Key to Responsible Party

3. Expand dissemination of information about NCSBN and regulatory trends.	Continue to implement identified methods of distributing information about the National Council and regulatory trends. (CC) Funded under Communications Committee. Review and disseminate information about state and federal initiatives that have regulatory implications. (BOD, ST) Funded under Board of Directors. Perform surveys and analyses of issues and trends in nursing regulation. (ST) Funded under Research. Segment mailing lists for effective and efficient dissemination routes for information. (ST) Funded under Publications.
4. Promote the inclusion of a regulatory perspective in national and regional programs on health and related issues.	Through interorganizational liaison activities, promote the inclusion of the regulatory perspective in national and regional programs on health and related issues. (BOD, ST) Funded under Public Relations.
5. Involve consumers in the development of clear position statements on health-related public policies.	Continue to appoint consumer members of Member Boards to National Council committees, especially those committees that develop position statements on health-related public policies. (BOD) Funded under Board of Directors.
6. Maintain effective working relationships with appropriate community agencies, business and industry.	Assess feasibility of an informational interchange between the National Council and appropriate external agencies. (CC) Funded under Communications Committee. Develop new working relationships with outside financial agencies and maintain ongoing relationships. (FC, ST) Funded under Finance Committee.

Goal III. Expand collaborative relationships with relevant organizations to facilitate the development and promotion of health related public policy.

Objective B: Promote and facilitate effective communications with related organizations, groups, and individuals.

	FY 92 Activity
1. Sponsor and annual invitational forum in collaboration with related organizations.	Plan for an informational interchange between the National Council and appropriate external agencies. (CC) Funded under Communications Committee. Continue to participate in CTB Invitational Conferences on NCLEX. (ST) Funded under test service contract and NCLEX support costs.
2. Work with health-related organizations in formalizing statements on trends and issues affecting nursing education and nursing practice.	Meet with selected committees of other interested organizations to identify continued competency mechanism. (NPEC) Funded under Nursing Practice and Education Committee. Provide input into health policy statements by nursing and health-related organizations as possible. (BOD, ST) Funded under Board of Directors.
3. Identify and promote desirable and reasonable standards in nursing education and nursing practice.	Work cooperatively with other nursing and health care organizations as well as support efforts of Member Boards and nursing community to promote desirable and reasonable standards in nursing education and practice. (BOD) Funded under Board of Directors.

See Appendix A for Key to Responsible Party

Goal III. Expand collaborative relationships with relevant organizations to facilitate the development and promotion of health related public policy.

Objective C: Increase consumer involvement with NCSBN.

	FY 92 Activity
1. Seek interorganizational sharing of information with consumer groups.	Develop ways of sharing information with interested consumer groups. (CC) Funded under Communications Committee. Facilitate network for consumer members of Member Boards through the Citizens' Advocacy Center. (BOD, ST) Funded under Public Relations.
2. Continue appointment of consumers to National Council committees.	Solicit consumer members of Member Boards for appointment to National Council committees. Appoint outside consumer consultants to committees as needed. (BOD) Funded under Board of Directors. Solicit consumer members of Member Boards for nomination to an elected office. (CON) Funded under Committee on Nominations.

Goal IV. Develop a comprehensive information system for use by members, organizations and the public.

Objective A: Implement a five-year plan for an information system.

	FY 92 Activity
1. Consolidate present information system.	Initiate data collection in all jurisdictions if feasibility study supports establishment of an NIS. (NISC, ST) Funded under NIS Committee. Continue to pursue outside funding for full implementation of the total project to collect licensee information. (NISC, ST) Funded under NIS Committee.

See Appendix A for Key to Responsible Party

2. Assign a Board level committee to develop guidelines for data collection, data use, distribution, and other functions related to information systems.	Update established liaison with Communications Committee and staff regarding potential for NCNET transmission of NIS data. (NISC) Funded under NIS Committee. Update five-year plan (FY92-97) for NIS. (NISC) Funded under NIS Committee. Establish liaison with NPEC and staff regarding potential linkages between NIS and disciplinary data bank. (NISC) Funded under NIS Committee. Continue communicating with Member Boards regarding NIS to dispel misunderstanding concerning use of their data. (NISC) Funded under NIS Committee restricted funds.

Goal IV. Develop a comprehensive information system for use by members, organizations and the public.

Objective B: Collect, analyze and disseminate data and statistics in such areas as licensure, educational programs, and regulatory functions.

	FY 92 Activity
1. Assess the market for data distribution.	Gather information for review by Finance Committee and Board of Directors regarding potential of data as revenue source. (NISC, ST) Funded under NIS Committee.
2. Develop and market a nurse licensee database if market assessment indicates such action.	Activity to be determined.
3. Establish a data clearinghouse.	Continue to publish and update as necessary complications of licensure and examination statistics, Member Board profiles (internally), continue competence/continuing education requirements by state. (ST) Funded under Research and Publications.

3. (continued) Establish a data clearinghouse.	Interface with other committees for marketing and education. (NISC) Funded under appropriate committees.

Goal V. Advance research that contributes to the public health, safety, and welfare.

Objective A: Conduct and disseminate research pertinent to the mission of NCSBN.

	FY 92 Activity
1. Evaluate the use of the *Model Nursing Practice Act* and make appropriate revisions.	
2. Gather data regarding the regulatory issues of chemically dependent nurses.	If funded, Study on Regulatory Models for Chemically Dependent Nurses implemented. (NPEC/sub) Funded externally.
	Report work on Regulatory Models for Chemically Dependent Nurses and seek funds to implement as proposed. (NPEC/sub) Funded under Nursing Practice and Education System.
3. Gather data concerning issues and trends regarding disciplinary actions.	Publish yearly updates on the data from the disciplinary data bank. (ST) Funded under Disciplinary System.
4. Monitor the major nursing research projects relative to implications on legal standards of nursing practice.	Continue to monitor nursing journals to identify resources related to legal standards of nursing practice. (ST) Funded under Publications.
	Monitor changes in legal standards by states and publish in SNLQ. (ST) Funded under Publications.
5. Investigate research needs regarding approval of nursing education programs.	Assess Member Boards' needs regarding educational program approval activities. (NPEC, ST) Funded under Nursing Practice and Education Committee.
6. Gather data concerning advanced practice.	Appoint individuals to participate as requested in groups considering advanced practice issues, e.g., certification of specialties, credentialing, etc. (BOD) Funded under Public Relations.

See Appendix A for Key to Responsible Party

6. (continued) Gather data concerning advanced practice.	Collect data, analyze, review options regarding inter- and intra-state issues regarding model for advanced practice. (NPEC/sub, ST) Funded under Nursing Practice and Education Committee. Identify issues and changes pending on the federal level affecting advanced practice. (NPEC/sub, ST) Funded under Nursing Practice and Education Committee.

Goal V. Advance research that contributes to the public health, safety, and welfare.

Objective B: Promote research proposals annually which merit funding.

	FY 92 Activity
1. Disseminate research at annual meeting.	Plan a forum for research sharing during the annual meeting. (CC) Funded under Delegate Assembly.
2. Maintain a database of potential sources of government and private grant funding in areas of interest.	Maintain a list of potential sources of government and private grant funds. (ST) Funded under Research Services.

Goal V. Advance research that contributes to the public health, safety, and welfare.

Objective C: Involve Member Boards in research at the jurisdictional level for use and distribution by NCSBN.

	FY 92 Activity
1. Request and publicize abstracts of completed, ongoing and projected studies by Member Boards.	In connection with Research Forum at annual meeting, publish abstract of Member Board research findings. (ST) Funded under Publications.
2. Publish research findings in National Council publications.	Publish research findings as obtained from Member Boards. (ST) Funded under Publications.

See Appendix A for Key to Responsible Party

Key to Responsible Parties

KEY	RESPONSIBLE PARTY
AD	Area Directors
AEC	Administration of Examination Committee
BC	Bylaws Committee
BCC	Board Coordinating Committee
BOD	Board of Directors
BP	Board Presidents
CC	Communications Committee
CHRS	Committee Chairs
CON	Committee on Nominations
CSP	Committee on Special Projects
CTB	CTB Macmillan/McGraw-Hill
EC	Examination Committee
FC	Finance Committee
FNIC	Foreign Nurse Issues Committee
JAMC	Job Analysis Monitoring Committee
LRPC	Long Range Planning Committee
NACEPC	Nurse Aide Competency Evaluation Program Committee
NBME	National Board of Medical Examiners
NISC	Nurse Information System Committee
NPEC	Nursing Practice and Education Committee
SCCST	Steering Committee CST Project
ST	Staff
sub	Sub-Committee
TPC	The Psychological Corporation

FY91 Budget -- 10/1/91 - 9/30/92
By Program

NCLEX		
NCLEX Exam Revenue	(7,505,473)	
NCLEX Processing Costs	3,997,580	
Handscoring Review Fees	(61,400)	
Handscoring Review Costs	53,450	
Other NCLEX Related Expense	10,900	
Exam Committee	18,655	
Admin. of Exam Committee	28,100	
Ethnic-Gender Bias Review	137,580	
NCLEX Support Costs	126,800	
NCLEX Income Subtotal		(3,193,808)
NACEP		
Royalty Income	(159,000)	
Committee Travel	14,075	
Marketing/Staff Travel	29,675	
Other NACEP Expense	49,925	
NACEP Income Subtotal		(65,325)
INVESTIMENTS		
Investment Income	(300,000)	(300,000)
MEMBER BOARDS		
Member Board Contract Income	(186,000)	
Associated Exp. (Legal and Other)	6,000	
Member Board Income Subtotal		(180,000)
PUBLICATIONS		
Publications Revenue	(83,000)	
Publications Expense	74,525	
Publications Income Subtotal		(8,475)

DELEGATE ASSEMBLY

Delegate Assembly Income	(58,675)	
Delegate Assembly Expense	86,150	
Convention Planning	2,150	
Delegate Assembly Subtotal		29,625

AREA MEETINGS

Area Meetings Board Travel	9,400	
Area Meetings Staff Travel	9,400	
Area Meetings Expense Subtotal		18,800

PUBLIC RELATIONS

Honoraria	(3,500)	
Public Relations Expense	52,700	
Communications Committee	42,075	
Public Relations Expense Subtotal		91,275

RESEARCH

Research Fees	27,900	
Job Analysis Committee	11,876	
Other	10,900	
Research Expense Subtotal		50,676

PRACTICE AND EDUCATION

Public Policy Expense	3,600	
Practice and Education Committee	35,750	
Chemical Dep. Nurse Subcommittee	8,450	
Disciplinary System	84	
Reg. of Adv. Nursing Practice	29,450	
Practice and Education Expense Subtotal		77,334

ORGANIZATIONAL

Board of Directors	105,575	
Personnel Committee	7,275	
Projects Committee	7,275	
Coordinating Committee	14,900	
Nurse Info. System Committee	7,875	
Nominating Committee	11,000	
Finance Committee	26,400	
Bylaws Committee	16,575	
Long Range Planning Committee	30,915	
Fall Planning Retreat	25,000	
Resolutions Committee	6,625	
Foreign Nurse Credentials Committee	28,150	
Organizational Expense Subtotal		287,565

ADMINISTRATION

Personnel Costs		
Salary and Benefits	1,548,200	
Staff Travel	5,000	
Professional Fees		
Legal	20,000	
Accounting	20,000	
Other	89,075	
Library/Membership	5,500	
Printing/Supplies	72,000	
Insurance	32,000	
Miscellaneous Expense	2,400	
Administration Expense Subtotal		1,794,175

OCCUPANCY

Rent/Utilities	325,000	
Electronic Mail	10,000	
Telephone	30,000	
Postage 45,800		
Equipment Maintenance/Rental	28,000	
Computer Maintenance/Rental	14,000	
Depreciation	77,300	
Occupancy Expense Subtotal		530,100

SUMMARY

TOTAL REVENUE		($8,357,048)
TOTAL EXPENSE	7,488,990	
REVENUE OVER EXPENSE		(868,058)

National Council
of State Boards of Nursing, Inc.

676 North St. Clair Street
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Chicago, Illinois 60611-2921

312 787.6555
FAX 312 787.6898

TO: Annual Meeting Attendees

FROM: Board of Directors

RE: Computerized Adaptive Testing (CAT) Communiques

Throughout the past year, the Board of Directors has distributed eight CAT Communiques, regularly updating and informing the membership on various CAT issues prior to the 1991 annual meeting.

The following is a list of all CAT Communiques produced over the past year. If you are missing any one of the following, or if you wish to have a complete set mailed to you prior to your arrival at the annual meeting, please contact Sandy Rhodes at the National Council office. To allow for mail delivery, we will appreciate receiving your request prior to July 17, 1991.

CAT Communiques:

1. Progress Report and Questionnaire regarding Computerized Adaptive Testing (CAT)
2. Working Assumptions and Facts Pertinent to Potential Implementation of Computerized Adaptive Testing
3. Answers to Initial Member Board Questions about CAT
4. CAT: What Information Can I Expect and When?
5. Legal Issues in Computerized Adaptive Testing
6. Security of Computerized Adaptive Testing Examinations
7. Area Meeting Update
8. Results of the CAT Field Testing

Addendum Report of the Board of Directors

Introduction

The Board of Directors brings three recommendations to the 1991 Delegate Assembly. The following report addresses each of the Board's recommendations and provides an overview of the Computerized Adaptive Testing (CAT) project, timelines, and fiscal impacts.

These three recommendations involve a series of decisions regarding whether or not the National Council should implement CAT and if so, how; whether or not the National Council should consider continued research and development of Computer Simulated Testing (CST); and a request for direction regarding contracting for the Nurse Aide Competency Evaluation Program (NACEP) testing service. The Board realizes that all three recommendations will have a significant impact on National Council programs; in particular, the computerized testing recommendations set a new direction for the National Council. All three recommendations are the result of a long and careful consideration by the Board. Throughout the past year, the Board of Directors spent much time and attention on gathering information relative to CAT, and the following is a report of its deliberations after comprehensive review.

The Board would like to express its thanks to those Member Boards and committees who continued to ask questions which generated thought and response to their issues and concerns, and who provided invaluable ideas and encouragement. Special thanks goes to the Committee for Special Projects, Examination Committee and Administration of Examination Committee for their indispensable work, and to the National Council staff for their extraordinary dedication to this complex task.

Recommendations

Following consideration of the results of the CAT Feasibility Study, the Board of Directors recommends to the Delegate Assembly that (rationale for the recommendations begins on page 66):

1. **CAT be the examination method for all National Council Licensure Examinations (NCLEX).**

Provided that recommendation #1 is adopted:

1a. That conversion from paper-and-pencil to CAT occurs at one point in time for all jurisdictions.

Provided that recommendation #1 is adopted:

1b. The National Council contract with a national vendor(s) for the CAT administration of NCLEX in all jurisdictions.

Provided that recommendation #1b is adopted:

1c. The transition timeline be established following the receipt of proposals from qualified vendors, so that implementation occurs at a point mutually agreed upon between the National Council and the selected vendor(s), but no sooner than November, 1993.

Provided that recommendation #1 is adopted:

1d. The Board of Directors be authorized to negotiate a contract extension with CTB Macmillan/McGraw-Hill for paper-and-pencil administration, if necessary, to provide services during the transition between July 1993 NCLEX-RN and implementation of CAT. The contract is to be negotiated at a price not to exceed the current test service prices, providing certain conditions are met regarding the number of examinations to be covered during the transitional period and the candidate volume does not significantly decrease.

2. **The Board of Directors recommends that research and development on CST be continued, within a three to four year timeframe, and include annual reports to the Delegate Assembly which evaluate progress and implications for future development.**

3. **The Board of Directors recommends that, given the November 1993 expiration of the contract with The Psychological Corporation (TPC), the Delegate Assembly direct the Board of Directors to select and contract with a test service for NACEP for the period beginning with the expiration of the current contract.**

Computerized Adaptive Testing (CAT) Recommendations—#1, #1a, #1b, #1c, #1d

Background

From the beginning of the CAT Feasibility Study in 1986, the Committee for Special Projects (CSP) directed and monitored research designed to determine the psychometric, legal, operational, and cost implications for the potential use of CAT to administer the National Council's licensure examinations. The Board of Directors and the Delegate Assembly received reports from the committee throughout the project.

With the project entering its last year, the year of field testing, the Board of Directors became actively involved in exploring questions regarding implementation and the potential impact for states and the National Council, should the project lead to the conclusion that CAT is feasible.

The Board's studies began with the 1990 Fall Planning Retreat, where members of the Board, committees, and staff initially developed over 200 questions (in nine categories) which required further consideration. Some of the answers were critical to obtain prior to the 1991 Delegate Assembly's vote on CAT, others were important to answer at a later stage of planning or implementation.

Subsequent to the retreat, the Board devoted a portion of each regular meeting to CAT, and convened a special two-day meeting at the end of November dedicated to CAT exclusively. Steady progress toward answering questions in each category resulted in the following activities and products:

CATEGORIES	ACTIVITIES/PRODUCTS
1) Legal:	Jurisdictional legal issues, survey, *Collected Works on the Legal Aspects of Computerized Adaptive Testing*
2) Education/Public Relations:	*The NCLEX Process: Special Edition*, Communiques, presentations at national meetings
3) Security:	Ernst & Young study, draft revision of CAT security measures, CAT Communique on security issues
4) Administration:	Member Board & national vendor options; Ernst & Young "Request For Information" (RFI)
5) Financial:	Board cost worksheets developed for Area Meetings, RFI data, FY92 Fiscal Impact Statement
6) Psychometric:	*A Psychometric Comparison of Computerized Adaptive and Paper-and-Pencil Versions of the National RN Licensure Examination*, studies of face validity and dimensionality
7) Procedural/Implementation:	Request for Proposals (RFP) development which will include transition issues
8) Policy:	Development of policy alternatives for Area Meetings discussion and recommendations for Delegate Assembly vote

9) Technical: .... Series of questions developed and sent to CSP, AEC, and Examination Committee for joint recommendations to Board of Directors

In the policy area, one of the first undertakings was the drafting of a set of assumptions which would guide the development of policy alternatives and the formulation of recommendations.

Assumptions

1. Maintenance of a uniform standard of testing for licensure in nursing is in the best interest of the public.

2. A primary goal of the National Council is to "develop, promote, and provide relevant and innovative services, [including] licensure examinations that are based upon current accepted psychometric principles and legal considerations." (citation from National Council Long Range Plan).

3. At present, over 150,000 RN and LPN candidates are tested annually.

4. The premises upon which interstate endorsement is granted should not be compromised.

5. Biannual testing limits the timing of entry of licensed nurses into the workplace.

6. More frequent paper-and-pencil testing is not a viable option.

7. Computerized adaptive testing draws upon the benefits of modern technology and current psychometric theory to create the potential for a testing system that offers opportunity for greater "psychometric precision and more timely licensure.

8. Technological and consultative assistance are currently available to support implementation of a computer-based testing system.

9. Currently, total cost of initial licensure to the candidate includes state costs, test agency costs, and National Council cost.

10. Price per candidate is determined by candidate volumes, desired testing services, and length of transition period:

    a. Price per candidate will be lower with higher volume within a single testing system; price per candidate will be higher with lower volume.

    b. The more accurately candidate volumes can be predicted, the more accurately price per candidate can be predicted.

    c. The more precisely desired services are specified, the more precisely price per candidate can be estimated.

    d. The longer the time it takes for all jurisdictions to completely convert from one testing system to another, the higher the price per candidate will be during the transition period.

11. The current contract with CTB expires after the July 1993 examination and requires:

    a. a preliminary "meeting of parties...to discuss any revisions and modifications...which either party may require as a prerequisite to extension..." must take place on or before April 1991;

    b. written notice about extension of the contract must be given on or before January 1992.

12. As directed by the Delegate Assembly in 1989, issuance of a request for proposals (RFP) for future testing services must occur in 1991, since an August 1992 selection of contractor by the Delegate Assembly will be needed to ensure continuity and quality of services during 1993.

13. Transition plans must be fair, reasonable, and equitable for all jurisdictions and their constituencies.

14. Testing methods and their comparability must be legally defensible.

15. Education about the new testing process and transition period for the membership, candidates, educators, health care agencies, legislators, and consumers of health care is of paramount importance.

Rationale For Each CAT Recommendation

Recommendation #1

1. The Board of Directors recommends that CAT be the examination method for all National Council Licensure Examinations (NCLEX).

The following benefits of CAT have been demonstrated through field testing and other studies:

- superior measurement precision
- more convenient time and scheduling, e.g., a single session, scheduled at the candidate's convenience
- immediate availability of results
- feasibility of using the present item bank with reasonable modifications and enhancements
- capability to assure security
- positive candidate response to features of the CAT testing environment

In addition, factors which could have proven to be problematic were investigated, with the following positive outcomes:

- candidate results do not depend on prior computer experience
- demographically diverse candidate groups are not disadvantaged
- results are comparable to present paper-and-pencil measures of candidate competence
- prior case law supports the acceptability of measurement modes which have demonstrated content validity and other attributes of psychometric soundness
- availability of a number of viable options for administration in all jurisdictions at a cost within reason

Based on the above considerations, the Board has concluded that CAT administration of NCLEX-RN and NCLEX-PN (see Appendix A for overview of PN field testing) offers a superior state-of-the-art testing methodology to Member Boards and candidates.

Recommendation #1a

1a. The Board of Directors recommends that the conversion from paper-and-pencil to CAT occurs at one point in time for all jurisdictions.

After serious consideration of several transition options and gathering input from the Area Meetings and various committees, the Board believes that a plan which provides for a short transition period (as close to simultaneous for all Member Boards as possible) would be preferred.

A short transition period would eliminate interstate differences in administration of NCLEX examinations, i.e., candidates taking different types of examinations (paper-and-pencil versus CAT). Another possible problem that might be created by candidates in one state being allowed to retake the examination quickly, while candidates in another state would have to wait for a July/February or an October/April examination, would also be eliminated.

The Board also considered the financial implications addressed in #10 of the Board assumptions stated previously. By splitting the number of candidates taking paper-and-pencil and CAT, the costs of each examination could

increase because of lower candidate volume in each respective administration method. The Board also believed that the National Council could benefit from the recent experience of another national organization of state regulatory boards which provided for a long transition period in conversion from paper-and-pencil to computerized testing. They found that the long transition period resulted in a significant increase in the cost of the project.

A specific time for all states to implement CAT would also allow for a target date for nursing education programs to prepare their graduates for computerized testing, and for the National Council to develop educational and public relations programs aimed at a single point in time.

Last, but perhaps most important, the Board felt that a clear message emerged from the discussions at Area Meetings indicating that the majority of Member Boards preferred that the transition occur at one point in time for all states. "Do it right and do it quickly" was the message received from many Member Boards. With careful planning, the Board believes that this can be accomplished.

Recommendation #1b

1b. The Board of Directors recommends that the National Council contract with a national vendor(s) for the CAT administration of NCLEX in all jurisdictions.

The Board identified two primary options for administration of CAT, should it be adopted as the methodology for NCLEX. The first option is administration (directly or indirectly) by Member Boards; the second option is administration by a national vendor(s) contracted through the National Council. (Please note that the contractor here referred to as "vendor" differs from the contractor engaged to provide professional testing services, e.g., CTB.)

The Member Board option provides a number of identifiable possibilities: establishment of test centers owned/ leased and operated by Member Boards, use of a computer facility within the state government structure, lease of computer lab facilities at a local school or college, or contract with a local agency capable of computerized test administration. All decisions regarding the specific administration arrangements, as well as all negotiations and ongoing monitoring of contracts involved, would be the responsibility of the individual Member Board. The selection and implementation of specific testing administration arrangements would vary across Member Boards. Security measures would be uniform (as is currently the case), but procedures would vary by site.

The national vendor option would be implemented by means of a contract between the National Council and a vendor (or vendors) capable of providing CAT administration in every jurisdiction. Negotiations and ongoing contract management would be the responsibility of the National Council. Development of specifications and a request for proposals would be the first steps in implementing this option. Uniform application and scheduling procedures, instructions, security, and equipment would be utilized by a national vendor. Financial benefits include no capital outlay for Member Boards and the negotiating leverage of a national candidate volume. In order to provide Member Boards with a point of reference in regard to the process and timeline for a CAT Request for Proposals (RFP), this information is included in Appendix B.

Having considered the options for administration of CAT examinations, the Board recommends that in order to promote security and standardization of administration, all Member Boards use a vendor(s) contracted by the National Council for CAT.

Recommendation #1c

1c. The Board of Directors recommends that a transition timeline be established following receipt of proposals from qualified vendors, so that implementation occurs at a point mutually agreed upon between the National Council and the selected vendor(s), but no sooner than November, 1993.

With respect to the timing of transition, the Board has considered input from Member Boards, such as was received at Area Meetings. The conclusions reached include:

- The transition timeline should allow adequate time for Member Boards to prepare in their jurisdictions (few statute changes are required, some rule changes; much education and public relations).

- The timeline should also allow adequate time for the National Council and test service(s) to plan and test procedures.
- The timeline should not separate the decision from the implementation date so long that the momentum for CAT acceptance is lost.
- The transition timeline should have the flexibility to allow for the most advantageous contractual arrangements in the interests of Member Boards and candidates.

These conclusions led the Board to formulate the recommendation for a timeline that is open-ended and flexible enough to incorporate the best thinking of the test services (who will be part of the transition). The timeline recommendation also incorporates maximum negotiating flexibility.

Recommendation #1d

1d. *The Board of Directors be authorized to negotiate a contract extension with CTB Macmillan/McGraw-Hill for paper-and-pencil administration, if necessary, to provide services during the transition between July 1993 NCLEX-RN and implementation of CAT. The contract is to be negotiated at a price not to exceed the current test service prices, providing certain conditions are met regarding the number of examinations to be covered during the transitional period and the candidate volume does not significantly decrease.*

CTB Macmillan/McGraw-Hill (CTB) has submitted a formal offer for a contract extension in which the price is conditional on the examinations to be covered and on candidate volume. Based on realistic projections of the annual number of RN and PN applications (175,000 per year) and assuming contract extensions of either one or two years (to July, 1994 or July, 1995), the price of the extension will not exceed current prices, e.g., $19.38 (test service) and $4.13 (data center - direct applications). The price will be higher if the number of scored examinations is less than projected, or if the contract extension includes more low volume examinations (February and April) than high volume examinations (October and July). Due to CTB's desire that additional specific cost information remain confidential, the amount of increase under these conditions may be disclosed in an executive session of the Delegate Assembly.

The Board of Directors believes the CTB offer is fair and reasonable. It would enable the National Council to continue to provide paper-and-pencil examinations through July 1995 at the current prices, provided certain conditions are met. It also would allow the National Council to direct its focus on the CAT RFP process and prepare for the implementation of CAT examinations.

Other CAT Related Issues

Fiscal Impact

The fiscal impact statement for the PN Field Testing and a Transition Committee, which the Board believes is necessary for FY92 if the Delegate Assembly votes to proceed with CAT, can be found in Appendix C.

Draft Security Measures

The Administration of Examination Committee spent considerable time discussing how the current security measures might differ under CAT administrations. The committee developed a draft set of CAT Security Measures which can be found in Appendix D. The Board noted that many of the current security measures do not change under CAT. The major focus of change appears to be in Section II which delineates the requirements for the receipt, storage and transportation of the examination. The security measures for this section will be dependent upon which model of administration the Delegate Assembly chooses (national vendor option or Member Board option).

Technical Issues with Policy Implications

During the Board of Directors' February 1991 meeting, several CAT technical issues with policy implications (and how they should be resolved) were discussed. The Board directed the Committee for Special Projects (CSP), the Administration of Examination Committee (AEC), and the Examination Committee (EC) to develop recommendations for resolution of these issues and present them to the Board.

The CAT Project Director and other appropriate staff prepared informational papers relating to the technical issues. The CSP, AEC, and EC reviewed and discussed the information independently and developed "committee consensus recommendations" for resolution of each of the issues. The committees then met jointly, by telephone, to discuss the CAT issues and develop joint CSP-EC and CSP-AEC recommendations to the Board of Directors. Approximately 32 joint recommendations were discussed by the Board during its June, 1991, meeting and adopted. Among the items prepared and discussed by the various committees were minimum number of items, maximum number of items, maximum testing time, and stopping rules. Time will be designated during the 1991 Delegate Assembly to allow detailed discussion about any and all of the CAT technical issues with policy implications.

Computerized Clinical Simulation Testing (CST) Recommendation—#2

2. *The Board of Directors recommends that research and development on CST be continued, within a three to four year timeframe, and include annual reports to the Delegate Assembly which evaluate progress and implications for future development.*

Rationale

At least four potential uses have been identified for CST in evaluating nursing competence (initial licensure, re-entry after a period out of practice, re-entry after discipline, and continued competence). Further research will enable the National Council to determine the usefulness of CST for potential applications in terms of:

- practical feasibility,
- psychometric soundness,
- usefulness to Member Boards,
- cost/benefit, and
- timelines required.

CST Fiscal Impact

Although the CST budget for January 1992 through September 1995 is still in preparation at this time, the general implications for timeline and finances can be described. All Delegate Assembly registrants will receive the full budget/fiscal impact in their registration packets. Appendix E provides an overview of how the continuation of the CST project would fit into the overall scheme of CST development. The Board's recommendation addresses the "Phase II" portion of the project timeline.

The Delegate Assembly's vote on the proposal to continue research and development of CST would have the following fiscal implications:

1. If the vote is "yes,"

   a. The National Council will incur expense for software license and maintenance to the National Board of Medical Examiners (NBME). The National Council will pay $50,000+ (adjusted for inflation) per year for the exclusive rights to use their "computer based examinations (CBX)" software in connection with any testing or educational activity for nursing. This could include educational products for sale as well as a variety of testing applications.

   b. In addition to the licensing fee, there will be costs for research and development. External funding is being sought to cover as much of these costs as possible. The final budget to be available at the Delegate Assembly will specify all projected costs for the proposed Phase II of CST. If the anticipated external funding source does not grant the requested funds, the Board of Directors will explore other viable funding sources and determine the best way to carry out the directive of the Delegate Assembly.

2. If the vote is "no" the National Council must return all software and developmental materials to the NBME and relinquish all rights to the NBME. No further costs will be incurred.

Nurse Aide Competency Evaluation Program (NACEP) Recommendation—#3

3. *The Board of Directors recommends that, given the November 1993 expiration of the contract with The Psychological Corporation (TPC), the Delegate Assembly direct the Board of Directors to select and contract with a test service for NACEP for the period beginning with the expiration of the current contract.*

Rationale

The Board requests direction from the Delegate Assembly regarding whether the decision on contracting for NACEP testing services should be delegated to the Board or should be made by the Delegate Assembly in 1992.

In August of 1988, the Delegate Assembly authorized the Board of Directors "to proceed with activities, including the selection of a test service and approval of a test plan, as may be necessary," to implement the Delegate Assembly's decision to develop a competency evaluation program for nurse aides. A test service was selected by the Board in November, 1988. In November, 1993, the current contract with TPC expires. By contract, the National Council must give notice one year prior to the contract expiration date regarding the decision to continue with the contract. Thus, this decision must be made prior to November, 1992. If the Delegate Assembly wishes to approve the contractor, the completed contract will need to be prepared for the August, 1992, Delegate Assembly.

Over the past three years, changing federal requirements (both by legislation and regulation) for nurse aide competency evaluation have often required both flexibility and immediate response by the Board of Directors. Final regulations for implementing OBRA 1987 are expected in August or September of 1991. These regulations may require changes in the National Council's Nurse Aide Competency Evaluation Program. Additional technical amendments to OBRA 1987 may yet be proposed and passed by the Congress.

Given the anticipated changes in the program, the Board believes that there continues to be a need for flexibility in decisions regarding contracting for NACEP services. Therefore, the Board requests authorization to select and contract with a test service for NACEP.

Appendixes

A .... PN Field Study
B .... CAT RFP Timeline
C .... CAT Fiscal Impact Statement for August 1991 - January 1994
D .... CAT Security Measures
E .... CST Timeline - 1988-2000

Appendix A

CAT PN/VN Field Testing Plans

The National Council will conduct PN/VN CAT field testing in six states, in conjunction with the October 1991 NCLEX-PN examination administration. As the timeline is short, the states that participated in the RN CAT field testing will be the first choice as participants in order to reduce much of the start-up learning about candidate recruitment and CAT procedures.

The main purposes of the PN CAT field testing are to determine the psychometric comparability of CAT and paper-and-pencil versions of NCLEX-PN, and to verify the efficacy of the CAT procedures on the PN/VN population. The positive CAT-RN psychometric outcomes suggest that the CAT-PN version will also perform comparably. An important benefit of the PN/VN CAT field testing is that any possible differences in the ways that PN/VN candidates and RN candidates reacted to, and performed using, CAT will be uncovered. These differences can then be accounted for in designing CAT procedures for actual implementation. Also, it makes sense to investigate the entire population (RNs and PN/VNs) that may be potentially affected by a change in testing modality (to CAT).

Appendix B

CAT Request for Proposals (RFP) Timelines

June 24, 1991	First draft of RFP to committee and legal counsel
June 28, 1991	RFP conference call
July 8, 1991	Second draft of RFP to committee and testing committee chairs
July 12, 1991	Second conference call
July 15, 1991	RFP included in Board of Directors mailing
July 29, 1991	RFP presented to Board for conditional approval
August 3, 1991	Final RFP approved by Board
September 1, 1991	RFP issued to bidders
Early October, 1991	Bidders conference
January 1, 1992	Proposals due to National Council
January, 1992	Evaluation of proposals
February, 1992	Proposals evaluation complete recommendations to Board
February - May, 1992	Contract negotiation for all CAT services
August, 1992	Present signed contracts to Delegate Assembly for vote

Appendix C

CAT Fiscal Impact Statement for August, 1991 to January, 1994

Designated Fund - CAT

Prefix	Title Suffix	Budget Request	Title
CAT	Personnel	$508,000	Project Director, Project Manager, Secretary from 8-1-91 to 1-31-94
PN Advisory Committee	Committee Travel	14,100	3 members, 4 2-day trips
PN Advisory Committee	Telephone	450	2 conference calls
PN Field Test	Committee Travel	11,700	12 1-day BOD/Visitor/Observer trips
PN Field Test	Staff Travel	36,000	24 3-day trips (4 site visits, 4 training visits, 4 pre- and 4 post-NCLEX assistance trips)
PN Field Test	Honorarium (Candidate)	60,000	600 candidates x $100
PN Field Test	Site Rental	30,000	600 candidates x $50
PN Field Test	Telephone	225	1 conference calls
PN Field Test	Legal Fees	3,375	15 hours x $225
PN Field Test	Consultants	7,200	100 hours x $50; 1,000 for items; 1,200 for NCLEX scores
PN Field Test	Computer Programming	50,000	all CAT fixes and enhancements
Transition Committee	Committee Travel	70,000	8 meetings over 30 months
Transition Committee	Staff Travel	50,000	Visit to all jurisdictions
Transition Committee	Telephone	1,575	7 conference calls
Transition Committee	Legal	4,500	20 hours x $225
Transition Committee	Computer supplies/equip.	20,000	Anticipated needs
Transition Committee	Computer Consultants	15,000	Development of CAT demonstration and practice disks
Transition Committee	Consultants	33,000	Includes CAT training video production, test service consultation for developing CAT procedures
CAT	Admin. Overhead	50,000	
	Total	**$965,125**	

Appendix D

NATIONAL COUNCIL OF STATE BOARDS OF NURSING, INC.

SECURITY MEASURES

FOR THE

NATIONAL COUNCIL LICENSURE EXAMINATION (CAT)

Jurisdiction ______________________________

Effective Date of Security Measures ______________________________

Standards			Rationale
I.	IMPLEMENTATION OF SECURITY MEASURES		
	There shall be one person designated by the Board of Nursing who is responsible for implementing the CAT security measures.		No change
..	RECEIPT, INVENTORY, STORAGE AND TRANSPORTATION OF TEST DATA		
	A.	There shall be no more than three persons per site who are authorized to receive the test data.	No change
	B.	There shall be at least two authorized persons who shall jointly conduct an inventory of the test data immediately upon receipt.	This is only applicable to sending data by physical storage devices.
	C.	There shall be a written record of the inventory made and maintained for six months.	Same as above

	Standards	Rationale
D.	Any discrepancy in the physical storage devices or data transferred and received shall be reported to the Council, and to the applicable investigative agency immediately by telephone. A copy of the written report shall be mailed to all agencies.	Data could be sent via various methods, e.g. physical storage device or electronic transfer.
E.	The written report of discrepancies shall be retained for six months unless otherwise specified by the Council.	No change
F.	There shall be secure storage into which the data are placed as soon as inventoried. Data files shall be securely stored at all times.	Physical storage devices could be stored in a locked file cabinet, safe, or locked drawer. Electronic data would be stored on a computer hard drive, therefore the computer would have to be secured.
G.	There shall be no more than three authorized persons per site supervising the placement of the test data into each secure storage site.	No change
H.	While test data are in the custody of the Board or designated agency, each storage facility shall be secured in the following ways:	No change
	1. The lock on the storage facility shall be unique. It may be a key lock, a combination lock, or a fail secure electronic locking device.	No change

Standards	Rationale
2. There shall be no more than three authorized persons with access to the unique lock.	No change
3. All storage areas must be double-locked. No one person controls access to both locks Secure storage should be inspected daily. A visible seal may be used.	No change
4. A written record of security checks shall be maintained for six months.	No change
5. Any discrepancy in the security checks shall be reported by telephone to the Council and to the applicable investigative agency. A written report will be sent to the Council within 24 hours.	No change
6. Entrance into the secure storage facility shall be supervised by one of the authorized individuals with access to the unique lock.	No change
I. There shall be secure transportation of physical storage data to and from the examination center(s) by bonded carrier or vehicle staffed with a member of the examination team.	No change Since electronic data may be transferred over telephone wires this may not be necessary.

Standards	Rationale
J. When the jurisdiction ships physical storage devices to one or more test administration sites, the shipment shall not identify the contents by addressing or labeling.	No change Same as above
K. There shall be a person designated at each test administration site who shall assume responsibility for:	No change
1. The receipt and secure storage of the shipment.	No change
2. The inventory of the physical storage devices and testing equipment.	No change
3. The creation and maintenance of written records.	No change
4. The reporting of any discrepancies to the Council, and to the applicable investigative agency.	No change
III. COMPUTERIZED TEST CENTER	
A. In selecting a computerized test center, the following requirements shall be met:	
1. Each testing center will have at least one computer reserved for the exclusive use of the examination team.	

Standards	Rationale
2. A non-pay telephone with access to an outside line must be available for use by the examination team.	
3. Candidate space shall be minimum of 4′ X 6′ including a hard writing surface of 12" X 12". Aisles shall be at least 2 1/2′ wide. For handicapped candidates, appropriate space and equipment shall be provided.	The committee evaluated a work station and determined this is the minimum adequate space for candidate comfort.
4. The site shall provide an adjustable monitor screen or adjustable chair heights. There shall be adequate lighting and ventilation.	This is essential for candidate comfort.
5. Adequate restroom facilities shall be available.	No change
6. Access to and exit from the examination rooms shall be controlled.	No change

IV. EXAMINATION TEAM

A. In selecting members of the examination team, the following requirements shall be met:

Standards	Rationale
1. The person shall not be affiliated with a nursing program unless the person is a current Board member.	No change

Standards			Rationale
	2.	The person shall not be a student in a nursing program preparing the person for licensure.	No change
	3.	The person has not been disciplined by the Board, and is not under investigation.	No change
	4.	The person shall participate in an annual orientation.	No change
	5.	The person must demonstrate the ability to perform the assigned duties.	No change
B.		There shall be at least two examination team members present in each examination room at all times.	No change
	1.	If there are more than 16 candidates in a room, there shall be an additional proctor for every 8 candidates or a fraction thereof (17 - 24 = 3 persons, 25 - 32 = 4 persons, etc.).	This provides for adequate supervision of candidates, coverage for emergencies and breaks.

Standards	Rationale
C. There shall be at least one examiner per examination center. The examiner shall be knowledgeable about the requirements of these security measures and capable of conducting the examination.	No change
D. There shall be provisions for an alternate to the examiner who meets the same requirements as the examiner.	No change
E. There shall be a member of the examination team specifically responsible for each of the following duties at the time of examination administration:	No change
1. Providing appropriate technical support for computer operations.	An individual must be available for technical support to assure that computers are in good operational order and remain so throughout testing.
2. Checking the examination center for compliance with security measures.	No change
3. Admitting and identifying candidates.	No change
4. Setting up the test center.	No change
a. Setting up the test stations.	
b. Setting up the chief examiner's computer.	

Standards	Rationale
5. Distributing test materials.	No change
6. Entering candidate records into the computers, if needed.	This is for walk-in candidates.
7. Starting-up the CAT software.	A designated member of the exam team needs to start each candidate's computer.
8. Observing candidates.	No change
9. Supervising the unused testing stations and materials.	To ensure no one tampers with the materials.
10. Distributing secure notepaper and collecting the secure notepaper from candidates before they exit the testing center for any reason.	To prevent removal of examination information.
11. Monitoring the entrances and exits of the examination room.	No change
12. Monitoring the exit of candidates and issuing exit documents.	No change
13. Dealing with suspected cheating.	No change
14. Monitoring presence of authorized personnel, other than examination team members, such as janitors, etc.	No change
15. Collecting examinee data from the testing computers.	These data must be transferred to the designated agency.

Standards	Rationale
16. Removing CAT software and wiping the hard disk to eliminate any confidential data.	This is to assure security.
17. Implementing the Crisis Management Plan as necessary.	No change
F. Initial orientation and a annual review shall be held for all members of the examination team and shall include the following:	No change
1. Duties of each examination team member.	No change
2. Review of all materials related to the examination administration.	No change
3. Examination schedule.	No change
4. Responsibilities for security and legal aspects of a licensure examination.	To assure all team members are aware of security and legal implications of a licensure examination.
5. Responsibilities during emergency situations.	No change
V. ADMINISTRATION OF THE EXAMINATION	
A. Candidates shall be issued an admission document.	No change
B. Identification and admission of candidates to the examination.	No change

Standards		Rationale
1.	Entrance to the examination room shall be controlled by a member of the examination team.	No change
2.	Candidate identification will be verified by a member of the examination team.	No change
	a. Identification shall be by the admission document, and at least one of the following: picture, signature or fingerprinting.	No change
	b. Candidate application records will be present on the computers for all regularly scheduled examinations.	This is to assure the candidate was pre-scheduled and requirements for licensure checked by the Board.
	c. Candidates must enter their last name, first name, and other identifying data on the computer prior to starting the examination.	Another mechanism of identification.

Standards	Rationale
3. There shall be a procedure for identifying candidates who arrive without admission credentials. The identification shall be by verifying the scheduling of the individual against Board records and at least one of the following: signature or picture identification card.	No change
C. The candidate shall retain the same computer assignment for the entire examination except as detailed below:	No change
1. The examiner shall approve and may change the assignment of test stations if it becomes necessary because of security or operational reasons.	No change

		Standards	Rationale
	2.	The examiner shall approve test station adjustments for candidates with mild disabilities that require special consideration (e.g., lighting, acoustics, mobility, and proximity to the restroom facilities).	No change
D.		The examiner will follow the secure, confidential directions for test center set-up, CAT test start-up, data retrieval, and test center closing.	No change
E.		Candidates shall be allowed to use the restroom facilities during the examination. The test station shall be secured by the assigned proctor.	No change
F.		Candidates shall be under constant surveillance to assure the candidates are:	No change
	1.	Entering responses appropriately.	No change
	2.	Working independently.	No change
	3.	Not using any unauthorized aids.	No change
	4.	Not lifting information from the test.	No change
G.		There shall be a procedure for dealing with candidates who are suspected of cheating.	No change

	Standards	Rationale
H.	There shall be a procedure for dealing with computers that malfunction.	New procedures which is a result of CAT implementation.
I.	Notepaper will be provided for each examinee which must be returned to the proctors during breaks and at the completion of the test. The proctor will dispose of the notepaper according to written procedures.	Candidates need to have paper for calculations. This must be handled securely.
J.	Exit from and readmission to the examination room shall be controlled by a member of the examination team a candidate shall not be allowed to leave or reenter the examination room without showing their admission document.	No change
	The candidate must surrender their admission document at the completion of the examination.	No change
K.	Only authorized individuals shall be present during the administration of the examination. Authorized individuals shall be restricted to:	Further information about exact administration procedures will be needed to refine this situation (e.g., will non-nurse candidates be testing in the same room?).
	1. Members of the examination team.	No change
	2. Identified candidates.	No change
	3. Authorized personnel of the examination center who are discharging essential duties, such as, janitors.	No change

Standards	Rationale
VI. EMERGENCY SITUATIONS DURING EXAMINATION ADMINISTRATION	
There shall be a written procedure for handling emergencies that provides for:	No change
A. Safety of the candidates.	
B. Security of the testing data. Candidates shall not be allowed to leave the examination room with notepaper in their possession.	
C. Safety of the examination team.	
VII. REPORTING UNUSUAL INCIDENTS	
In the event of any unusual incidents, the person responsible for implementing the security measures shall provide a written report to the Council.	No change
VIII. DETAILED PROCEDURES	
Written procedures shall be maintained detailing the current plan for implementing the security measures.	No change

Standards	Rationale
IX. The Board of Nursing will submit an annual written report to the National Council verifying compliance with security measures.	Required annually rather than after each exam administration because of the increase in frequency of exam administration.

ADDENDUM

STANDARDS FOR A TEST ADMINISTRATION AGENCY (TAA) TO ADMINISTER THE EXAMINATION FOR A MEMBER BOARD	This may or may not be applicable under CAT.
A. The Test Administration Agency (TAA) utilized shall be approved by the Council.	No changes in the Addendum items.
B. The Board designee shall have administrative responsibility on behalf of the Board for contract compliance.	
C. The Board or another appropriate state agency shall determine the eligibility of persons to take the licensure examination.	
D. The TAA shall allow the Board the privilege of observing the administration of the examination at any time.	
E. The TAA shall be familiar with the contents of the following and must adhere explicitly to the requirements specified in the:	

Standards	Rationale

1. Contract for the examinations negotiated between the Council and the Board.

2. Security measures for the examination.

3. Manuals for the administration of the examinations.

F. In the event of any unusual incidents, the TAA shall immediately, upon completion of each exam, report such incidents to the Board and the Council. A written report shall be sent to the Council within 24 hours.

G. The TAA shall, in the event of any situation which may be regarded as a security problem, immediately report by telephone, and promptly thereafter submit a detailed written report to the Board designee and to the Council and cooperate in taking appropriate action.

The current measures for handling review drafts and previously administered examinations will remain essentially unchanged.

Glossary of Terms

Term	Definition
unique lock	off all master keying. Only staff cited in the security measures can open the lock. These locks must be changed whenever an authorized person is no longer employed by the Board of Nursing.
authorized person	the person listed in the security measures as having permission to carry out a particular activity.
off site	not in the Board of Nursing <u>office</u>. This includes storage in the building that houses the Board of Nursing office, as well as storage that may be in another location.
immediate	within thirty minutes of the time a problem is discovered.
related	mother, father, sister, brother, spouse, child, (including step-children), aunt, uncle, niece or nephew. This includes in-laws.
investigative agency	the law enforcement agency within the state or local government that would handle security issues for the Board of Nursing.
combination lock	manipulated dial or number punch (electronic or manual) lock.
double lock	two separate locking devices with separate keys or ability to enter the storage site.
visible seal	use of any type of material that will tell an inspector that a storage facility entrance has been opened (e.g. tape to seal the door, or anything else inventive).
secure storage	any facility that meets the criteria set forth in the security measures.
fail-secure electronic locking device	all locks remain locked in the case of a power failure.
CAT field test	the administration of NCLEX-CAT to candidates in July 1990 and February 1991. The term CAT field test sometimes refers to the general event of candidates taking both the CAT and regular paper-and-pencil NCLEX examination.

Standards	Rationale
test station	a test station consists of the computer , desk space, and testing area where a candidate will be administered the CAT field test.
CAT software	a group of computer programs used to deliver CAT examinations.
secure notepaper	refers to the only paper that candidates are allowed to use during the CAT field test. It will be specifically checked-out to them for the CAT test and returned upon test completion.
wiping the hard disk	refers to a method of erasing the CAT files from the hard disk. Wiping not only erases the files, but writes dummy characters over the entire disk area.
encryption	refers to the encoding of data in electronic files so that it cannot be meaningfully accessed without de-coding.
"hidden"	the state of CAT files where they do not appear in any directory listing.
password	refers to the secret word that must be typed on the computer in order for it to be used. The password will be communicated to the CAT coordinators by the Project Director.
booted	is the term used for the start-up of a computer. After a computer is turned on, it must boot up to engage the operating system and be ready for use. The CAT field test computers will boot up automatically upon being turned on.

Computerized Clinical Simulation Testing (CST) Project Timeline: 1988 - 2000

June 1, 1988 - December 31, 1991
Phase I:
Feasibility study funded by a $1,868,954.00 grant from the W. K. Kellogg Foundation to determine the feasibility of developing computerized clinical simulations for nursing licensure examinations. Specific goals of the project are to (1) adapt technology developed by the National Board of Medical Examiners (NBME) for the development and delivery of computer based clinical simulations for initial nurse licensure; (2) initiate development of 20 computerized clinical simulations in nursing; (3) examine the validity and reliability of CST examinations; and (4) develop and implement a plan for promoting the future use of CST in nursing licensure examinations.

August 1991
Based on results of Phase I outcomes, Delegate Assembly takes action on recommendation to conduct additional research and development of CST.

> If response is "No," discontinue work on project and return all software to NBME.
> If response is "Yes," proceed with Phase II, as outlined below.

January 1, 1992 - August 31, 1995
Phase II:
The primary purpose of Phase II would be to obtain additional evidence of the validity and reliability of using CST for evaluating competence in nursing. The goals of the project would be: (1) to evaluate and finalize changes made in the CST model at the completion of Phase I; (2) to develop and standardize criteria/procedures for supporting the content validity of CST cases; (3) to develop and standardize criteria/procedures for the development of scoring keys; (4) to produce/revise sufficient number of CST cases for use in a full scale pilot test; (5) to evaluate and revise software and procedures for scoring examinee performance on CST; (6) to develop and evaluate procedures for producing multiple equivalent forms (sets) of CST cases; (7) to conduct large scale pilot test to evaluate (a) impact of examinee and environmental characteristics on performance, (b) construct validity, and (c) generalizabilty of performance scores; and (8) to disseminate information about the potential uses of CST as a means for testing clinical decision making competence.

August 1995
Based on outcomes of Phase II, Delegate Assembly would take action on recommendations regarding future use(s) of CST. If decision is made to proceed towards implementation of CST for evaluating clinical decision making competence (initial licensure, re-entry, discipline, and/or continued competence), proceed with Phase III.

August 1995 - 2000 (tentative)
Phase III:
Time necessary to develop and field test a sufficient number and variety of CST cases in order to provide adequate coverage of test plan and adequate security for implementation.

5

FOREIGN NURSE ISSUES
COMMITTEE

Report of the Foreign Nurse Issues Committee

Background

At the August 1990 meeting of the Delegate Assembly, the delegates adopted the following resolution for the study of standards for licensure of foreign nurses that:

1. the National Council of State Boards of Nursing in consultation with Commission on Graduates of Foreign Nursing Schools, the International Council of Nurses, and the Tri-Council study the issues concerning Foreign Nurse Credentialing and develop strategies to assist Member Boards in maintaining standards for public protection through the licensure process, and

2. the Board of Directors report the findings and recommendations to the 1991 Delegate Assembly.

During the brainstorming session at the Fall Planning Retreat and at the Board of Directors Projects Committee meeting, multiple issues related to the licensure of foreign educated nurses became evident. Given the depth and breadth of the issues, the Board of Directors formed an ad hoc committee to study the issues and recommend strategies. The major charge to the ad hoc committee was to meet the direction of the resolution by exploring issues relating to the following:

1. foreign nurse credentialing process and procedures used by Member Boards
2. legal aspects
3. pros and cons of administering licensure exams overseas

Meetings

The Foreign Nurse Issues Ad Hoc Committee met February 5-6, 1991, and March 12-13, 1991.

Activities

In accordance with the charge, the committee reviewed pertinent literature; responses from the Long Range Planning Committee's Trend Analysis Survey, and the various issues confronting Member Boards regarding this matter. For the purpose of this report, foreign educated nurse is defined as a nurse whose nursing education was obtained outside the United States or its territories. The committee determined that all issues and strategies will relate to both the RN and LP/VN.

The committee invited input from the International Council of Nurses (ICN), the Tri-Council and the Commission on Graduates of Foreign Nursing Schools (CGFNS). ICN has a natural, historical and sustained interest in how nursing is regulated worldwide. Constance Holleran, Executive Director of ICN responded that ICN is not involved in the credentialing of nurses between countries. However, ICN does have concerns regarding ethical issues of recruitment, equal treatment for foreign nurses, and concerns over "brain drain" and emphasized the need for each country with persistent shortages to work out some means to meet its nursing needs. The Tri-Council, whose membership is comprised of the American Nurses' Association (ANA), National League for Nursing (NLN), American Organization of Nurse Executives (AONE), and the American Association of Colleges of Nursing (AACN) has interests in all aspects of nursing, nationwide. Lucille A. Joel, President of ANA, responded that ANA, through its support of CGFNS, continues to seek to increase the prediction of a successful practice for foreign graduates and prevent their exploitation and ANA is currently exploring the possibility of acculturation courses. Geraldine Bednash, Executive Director of AACN, responded that the issues surrounding foreign nurses in the United States are complex. Some of the issues of concern to AACN relate to practice as a professional nurse in this country and the need to assure competency of any

nurse practicing in this country. Specifically, AACN has a particular concern regarding the foreign nurse who has elected to acquire some level of formal education in the United States. The committee met with representatives of the Commission on Graduates of Foreign Nursing Schools (CGFNS): Virginia Maroun Executive Director, Barbara Schaefer Director of Credentials Service, and Robin Wells Director of Test Services. CGFNS is a non-profit organization dedicated to protecting both foreign nurses and the quality of nursing care in the United States. It is directed by a voluntary board of trustees composed of leaders in nursing education, research, and international nursing. CGFNS offers a two part screening and testing program which is a requirement for occupational preference visas for registered nurses. However, at the present time, it does not offer a credential evaluation service. The committee engaged in open dialogue with the CGFNS representatives regarding the

- role and function of CGFNS in the credentialing process of foreign nurse graduates;
- process and standards used in the screening review;
- methodology used to ensure the reliability and validity of the CGFNS examination, examination results, and predictive validity of the CGFNS examination for NCLEX;
- possibility of CGFNS expanding its services to include a national repository for foreign nurse graduates' credentials and a credentials evaluation service.

Primary Issues

The committee identified the following as the primary issue concerning foriegn nurse credentialing. There is no central repository for information about foreign nursing education programs, nor is there a central service for collecting, maintaining and evaluating credentials of graduates of these programs. Thus it is difficult for Member Boards to obtain or perform an objective, legally defensible credentials evaluation to protect the health, safety, and welfare of the public in a cost effective manner. The comparability of foreign nursing education programs to United States' nursing education programs is difficult to determine. Furthermore, the overall NCLEX pass rate of foreign educated nurses is significantly lower than that of United States educated nurses.

Proposed Strategies

1. Conduct an assessment of Member Boards' needs for a central repository and/or evaluation service. If need is identified, then:

   a. Investigate existing agencies to ascertain their service capability to provide a central repository for information about foreign RN and LP/VN nursing education programs and/or a central service for collecting, maintaining and evaluating credentials of graduates of foreign nursing education programs, including:

      (1) the nature and extent of their services
      (2) process of obtaining information
      (3) standards of and criteria for evaluation
      (4) systems for storaging and retrieving data

   b. Investigate the feasibility and fiscal impact of establishing a central repository and/or evaluation service

      (1) privately based
      (2) National Council based

2. Develop criteria to be used as a guide in evaluating the comparability of nursing programs.

3. Identify significant causal factors impacting the pass rate on NCLEX of foreign educated nurses. (An Area resolution relates to this strategy.)

4. Make available a mechanism for tracking the number of times foreign nurse candidates take NCLEX. (National Council testing staff is working with CTB to address this strategy.)

Secondary Issues

1. Some jurisdictions report increased pressure for overseas administration of NCLEX to graduates of foreign nursing schools.

Committee Response

Until the primary issue identified above is resolved, the committee suggests that it is not reasonable to consider administering NCLEX overseas to foreign nurse graduates.

2. Some jurisdictions are being asked to license foreign nurses by endorsement.

Strategy

Member Boards, as appropriate in their respective jurisdictions, should:

1. Reaffirm and encourage use of the following guidelines adopted by the 1989 Delegate Assembly:

   a. Uniform Standards for Endorsement
   b. Uniform Requirements for Licensure of Foreign Educated Nurses

2. Review nurse practice acts, rules/ regulations, and other pertinent laws, to assure that they are as free as possible from unduly restrictive requirements. Review may include:

   a. criteria and process for endorsement and the impact on other jurisdictions
   b. presence of potentially unnecessary requirements, e.g., requirement of CGFNS prior to endorsement despite having passed NCLEX in another jurisdiction.

Additional Strategies

1. More formal dialogue and exchange of information among the National Council of State Boards of Nursing, its Member Boards and CGFNS regarding issues of mutual concern.

2. National Council and CGFNS work to establish methods to collect accurate data on CGFNS certificate holder performance on NCLEX-RN.

The committee recognizes the need to develop and appropriately utilize our national nursing resources, RNs, LPN/VNs, and auxiliary personnel, so as not to "drain" the nursing resources of other nations. The widespread utilization of foreign nurse graduates should continue to be viewed as merely a short term approach to easing the nursing shortage.

Future Activities

The Board of Directors has approved the formation of a Foreign Nurse Credentialing Committee for FY92. The committee will explore and further develop the following strategies:

1. To assess Member Boards' needs for a central repository for information regarding foreign educational programs and/or evaluation service for individual foreign nurse credentials, and investigate follow-up actions as appropriate;

2. To develop criteria to be used by Member Boards as a guide for evaluating foreign nursing programs, to facilitate comparison with jurisdictional requirements.

In addition, the Board will seek to provide more opportunity for dialogue and exchange of information between the Member Boards and CGFNS regarding issues of mutual concern, and will work with CGFNS to establish methods to collect and disseminate accurate data on CGFNS certificate holder performance on NCLEX-RN.

Committee Members
Louise Waddill, TX-RN, Area III, *Chair*
Harriett Wedgeworth Clark, CA-RN, Area I
Nancy Smart, IL, Area II
Patricia Swann, GA-PN, Area III
Cynthia VanWingerden, VI, Area IV
Mary Jane Ewart, NY, Area IV

Board Liaison
Shirley Brekken

Staff
Doris E. Nay, *Associate Executive Director*

6

NURSE INFORMATION
SYSTEM COMMITTEE

Report of the Nurse Information System Committee

Background

The Nurse Information System (NIS) Committee was established in 1986 to study the need for and use of a comprehensive, national database on all licensed nurses, and, if needed, to determine the steps necessary to create the system.

The primary purpose of the NIS is to provide an unduplicated count of nurse licensees nationwide. In addition, the data will be used to compile aggregate statistical information about the supply of nurses. Access to an unduplicated count of licensees in both the RN and LPN/VN licensure categories and accurate, up-to-date information about nurse characteristics would assist Member Boards in carrying out their mandate to protect the public health, safety, and welfare by allowing Boards to make decisions based on accurate and complete data. The Congress, state legislatures, and other groups would also be able to use accurate information about nursing as they deliberate about policy and funding decisions. If an NIS were established, the funding of existing nursing education programs, the provision of scholarship and loan funds to nursing students, and decisions relative to the need for additional programs would be based on analyses of accurate information about the supply of nurses in relation to the demand for their services.

Making the NIS available to others such as federal and state agencies, regional nursing groups, university researchers, and other private organizations and individuals will not only help to improve the general quality of information about the nursing profession, it will provide some of the revenue necessary to support an ongoing NIS. For these reasons, the committee has recommended an expanded list of data elements to be contained in the NIS. The "essential" data elements are those considered necessary to develop an NIS. The proposed NIS has been expanded to include the "desired" variables, as well. The idea of an expanded list of data elements has been presented in various forms, including the survey of Member Boards conducted in 1990-91. The expanded NIS will be more useful as a database and sampling frame, will provide a more complete picture of basic licensee characteristics, and will be the only unduplicated count of licensees available. Because of its broader usefulness, the expanded database will generate some of the funds required to maintain the NIS. Proposed NIS data elements are shown in Table 1.

Table 1. Proposed NIS Data Elements

Essential data elements	Desired data elements
Names	Gender
Address	Race/ethnic origin
Social security number	Levels of educational preparation
Date of birth	Employment status
State in which currently licensed	Employment setting
License number	Practice area
Original state of licensure	
Date licensed in original state	
Type of basic nursing education program	
Date of graduation	

The NIS Committee would like to emphasize that any release of licensee data by the National Council would be controlled through a contract with each Member Board. NIS data will be released only for uses authorized by the Member Boards, or at the request of Member Boards. In addition, the Boards will not risk loss of revenue-producing opportunities due to outside groups obtaining data from the NIS. Charges for data would continue to be assessed by and paid to the Member Board, regardless of the source of the data. For example, if the National Council provided

a listing of licensees from a particular state to an individual researcher, the charge to the researcher would include the cost of data preparation, as well as any revenue the Board would have earned for supplying the information. The specific charges and authorization for release of data will be delineated in contracts with the individual Member Boards.

Activities

The committee met on October 8-9, 1990, February 25-26, 1991, and July 15-16, 1991. During 1991, the committee has focused its attention on implementation of the NIS Feasibility Study in order to determine the likelihood of developing an unduplicated database of all nurse licensees in the United States. The 11-month feasibility study was designed to evaluate approaches to resolving several issues that impact on the establishment and maintenance of an NIS. One aspect of the study is designed to evaluate the ability to compile an unduplicated list of registered nurses licensed to practice in one or more of the following states: Georgia, Nebraska, and South Carolina. The study focuses on the economic and legal issues impacting on NIS development and the procedural steps necessary to coordinate management of data collected from all states and territories of the United States. The Robert Wood Johnson Foundation has provided a grant of $116,772 in support of the NIS Feasibility Study. Other funding was received from the Division of Nursing of the Public Health Service ($15,000) and the American Nurses' Association ($16,900).

The Feasibility Study consists of 1) a pilot study, 2) a survey of Member Boards, and 3) a market analysis.

Pilot Study

The NIS pilot study was initiated in Fall 1990. Data were collected in Georgia, Nebraska, and South Carolina at their regular renewal times. The purpose of the pilot study is to determine what methods are most effective for collection and processing of NIS data, and how successfully the data file can be unduplicated. In the three pilot study states, renewal forms incorporating NIS data elements were sent out at regular 1990 renewal times. Data from Georgia and Nebraska were obtained by the National Council by April 1991. Data from South Carolina were obtained in May 1991.

Because all data may not be available from all Member Boards for the NIS, pilot study data will be analyzed to determine which data elements are necessary to create an unduplicated data base. Plans for analysis include setting up "phony" states with deliberate duplicates in order to test NIS data elements for their power to unduplicate. Particular attention will be given to the use of social security number and date of birth, because these may be the most difficult variables to obtain from all Member Boards. Based on the results, the committee will determine what data is necessary to produce an unduplicated file. Analysis of the pilot study data is ongoing as of the writing of this report. (Note: Results of the pilot study will be presented in an addendum to this report.)

Member Board Survey

Also beginning in Fall 1990, the Member Boards were surveyed regarding the availability of licensee data, constraints on data release, and the cost of supplying data for an NIS. Sixty of 62 Boards responded. The results of the survey indicated that most Member Boards can provide data necessary to produce an NIS. Social security number and date of birth are the data elements most likely to be restricted from release, by Board policy or state law. Table 2 summarizes the constraints on release of essential data elements for the purposes of an NIS, by jurisdiction.

Table 2. Proposed NIS Data Elements Restricted from Release by Board of Nursing

	Name	Address	Social Security Number	Date of Birth	Current State of Licensure	License #	State of 1st Licens.	Date 1st Licens.	Type of Nrs. Educa.	Date of Grad.
AK			X							
AR			X			X				
CA-RN		X	X							
CA-VN		X	X							
DC			X	X						
GU		X	X	X		X	X	X	X	X
MA			X	X						
MI			X	X						
MO						X				
NH			X	X						
NJ			X							
NY		X	X	X					X	
OH			X							
PA			X	X					X	
SD			X			X				
VT			X							
VA			X	X			X	X	X	X
WV-RN			X	X		X	X	X	X	X

Committee members and staff have contacted many Member Boards regarding data availability and constraints on release of data for an NIS. In many cases, Boards have agreed to release licensee data for the purposes of an NIS. An NIS Fact Sheet was developed and distributed to Member Boards to provide up-to-date information on the project and to help Boards make decisions regarding their own participation. The committee is currently investigating alternatives through which restricted data could be obtained for purposes of an NIS, with the aid of legal review. Based on the success of these attempts so far, it is expected that most Boards will agree to supply information for an NIS. The results of the pilot study will be considered along with the limitations on data availability to determine the feasibility of establishing and maintaining a permanent NIS.

Market Analysis

The NIS Committee is currently working with the American Nurses' Association to conduct a market analysis survey and develop a public relations package about the NIS. The purpose of the market analysis survey is to identify potential users of the NIS, and to determine their specific needs. The results of the survey will also provide a basis for decisions about the cost for use of NIS data. The public relations package will provide information about the NIS to Member Boards, state and national nursing organizations, and others. The survey was sent out in May, 1991, and the public relations package was also available in May, 1991.

Committee Members

Judie Ritter, FL, Area III, *Chair*
Susan Brank, CA-RN, Area I
Vicky Burbach, NE, Area II
Marie Hilliard, CT, Area IV
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7

SPECIAL PROJECTS
(CAT) COMMITTEE

Report of the Committee for Special Projects

Background

Computerized adaptive testing (CAT) has been discussed by National Council member boards of nursing, the Board of Directors, staff, and the test service since the early 1980s. At the November, 1986, meeting of the Board of Directors, a significant step beyond discussion was taken when the Board authorized Phase I of the CAT Feasibility Study, a project designed to study the feasibility of using the CAT methodology for administering NCLEX. Phase I was completed with a project report to the Board of Directors in February, 1988, and the Delegate Assembly in August, 1988. Phase II began in August, 1988, and will be completed with this final project report to the 1991 Delegate Assembly.

From the earliest discussions of CAT, significant benefits for candidates and Member Boards have been anticipated. Candidates could sit for the examination in an environment conducive to optimal performance: quiet, private, and self-paced. They could schedule examinations, at their convenience, near the time when they graduate. Candidates who miss one administration date, or need to retake the examination would not have to wait six months for the next examination date. Results could be made available to candidates immediately upon the conclusion of the examining session, rather than weeks or months later.

Member boards of nursing would also benefit from using CAT to administer NCLEX. Rather than obtaining facilities and proctors for two mass administrations per examination per year, examinations could be administered to smaller groups of candidates on a more frequent basis. Greater flexibility in the determination of administration dates, facilities, and staffing for the examinations would be possible. Because CAT examinations are unique for each individual, the integrity of each examination is maintained, and CAT administration could be scheduled throughout the year.

With CAT, the **accuracy** of each candidate's score can be enhanced because testing will continue for each individual until a desired level of precision has been reached. Previously, the accuracy of scores has been evaluated on a group basis. Also, **efficiency** in the measurement process will result from use of CAT. Since "targeted" questions are given to each candidate, the amount of "measurement information" contained in each response is maximized. This will result in **savings of testing time** for both Member Boards and candidates.

Project Overview

What is CAT?

Computerized adaptive testing (CAT) is based on the established measurement principle that for any given examinee, certain questions will be more effective than others in revealing his/her competence level. Following this principle, only questions that are appropriate for the examinee's competence level are administered during an adaptive test. Little to no information is gained by administering items that the candidate has an extremely high or low probability of answering correctly.

With CAT, each candidate's test is unique: it is assembled interactively as the individual is being tested. As the candidate answers each question, the computer calculates a skill estimate based on all earlier answers. The test questions, which are stored in a large item bank and classified by test plan area, are then scanned and the one determined to measure the candidate most precisely in the appropriate test plan area is selected and presented on the computer screen. This process is repeated for each question, creating a test tailored to the individual's knowledge and skills and fulfilling all test plan requirements.

At some point in a CAT test, the score estimate becomes sufficiently precise to determine with a known degree of confidence, whether or not the candidate possesses the minimum competence necessary to be licensed. The CAT examination terminates at this point. CAT can provide a more accurate pass/fail decision than is currently made using the paper-and-pencil NCLEX because it continues to test each candidate until a reliable decision can be made. Paper-and-pencil testing does not permit additional questions to be administered to borderline candidates, thus allowing some ambiguity to exist with respect to the pass/fail decision. The enhanced precision of CAT measurement will allow Member Boards to enhance public protection by increasing their confidence in the pass/fail decision for candidates near the passing point.

Overview of Phase I

The major tasks of Phase I were to develop the CAT software, investigate the capabilities of the software through pilot testing, investigate nurses' interactions with the software, pursue external funding for the project, and communicate outcomes.

Software Components

The National Council's CAT software consists of a secure database for items and candidate records, a comprehensive three-part keyboard training exercise for teaching the use of the five keys needed to take a CAT examination, an examination delivery component, and a reporting capability. The CAT software was designed so that the necessary keyboard training and five unscored warmup items are presented to candidates prior to the start of the examination (only five keys are needed to take CAT, the rest are "turned off"). Also, the software has been developed so that every candidate's test is constructed of items that conform to the specified NCLEX test plan percentages.

Funding and Partners

Four avenues were used to locate and contact potential sources of funds: (1) private foundations, (2) research and development partnerships, (3) exploration of software sales, and (4) corporate sponsorship. Sixty foundations were contacted but none granted funds for the project. The Board of Registry of the American Society of Clinical Pathologists joined the project as a research partner, providing mostly in-kind services and $10,000 in funding. The American Board of Orthopaedic Surgery has joined the project as a research partner, contributing $100,000 to the project. No software sales or corporate sponsorships have provided funds.

Results of Software Testing/Reactions

The CAT software was developed and successfully delivered CAT-NCLEX examinations to 87 nurses during the pilot testing sessions. The nurses had little to no difficulty in using the computer to take the CAT-NCLEX examinations and reacted very favorably to the testing process.

In fulfillment of the main purposes of the pilot study, the results showed that: (1) the National Council did develop software that makes it feasible to deliver appropriate CAT examinations for determining licensure; (2) the number of items needed to make a pass/fail decision using CAT could be less than the number presently administered in the NCLEX and testing time can be reduced; and (3) every nurse participating in the pilot was able to successfully get through the keyboard tutorial and use the software to take the CAT test. Moreover, the reactions of nurses to the experience of taking a CAT test were almost uniformly positive. Given these results, the 1988 Delegate Assembly voted to continue the project into Phase II.

Communications

Throughout Phase I, the committee communicated about project progress using the *Newsletter* and *Issues*. Project updates were provided at the 1987 and 1988 Area Meetings, and committee reports were included in the 1987 and 1988 *Book of Reports*. The committee also presented project reports at informational forums during the 1987 and 1988 Delegate Assemblies.

Overview of Phase II

The Objectives of Phase II of the CAT Feasibility Study

The purpose of Phase II is to investigate the feasibility of the entire CAT measuring system, with the field tests designed to provide pivotal information about psychometric comparability and administrative logistics. The feasibility of using the CAT methodology to administer NCLEX was determined by researching:

1. Operational issues
   a. Logistics
   b. Costs
   c. Staffing
   d. Computer needs
2. Security procedures
3. Legal issues
4. Psychometric issues

and by communicating outcomes to Member Boards.

In Phase II, different types of facilities and administration configurations (e.g. leased testing centers, school computer centers, or test administration agency-assembled sites) were investigated to obtain comparative data for convenience, cost, equipment problems, security, and staffing needs.

CAT Field Testing

The July, 1990, and February, 1991, CAT field testing was successfully completed. The CAT Project Director provided on-site assistance to the Oregon, Illinois, Mississippi, New York, Missouri and New Jersey boards; California and Texas field testing was supported by telephone. The number and demographic composition of candidates field tested was within committee and research design expectations (the Psychometric Monograph addendum, to be mailed in June, will provide detailed field test results).

Computerized Testing Sites. In July, 1989, the Board of Directors and Committee for Special Projects selected eight states to participate in the CAT field tests. For July, 1990, Oregon, Illinois, Mississippi, and New York were the CAT field test states. For the February, 1991, field tests, California, Missouri, Texas, and New Jersey participated.

In July, 1990, the CAT field tests were administered at:

a. Portland, Oregon—Portland Community College;
b. Chicago, Illinois—PLATO Development Center;
c. Clinton, Mississippi—Mississippi College; and
d. New York, New York—PLATO Development Center and State University of New York-Brooklyn.

In February, 1991, the CAT field tests were administered at:

a. California—PLATO Development Centers in San Francisco, Los Angeles, and Irvine;
b. Missouri—PLATO Development Center in St. Louis, and State of Missouri computer training lab in Jefferson City;
c. San Antonio, Texas—PLATO Development Center; and
d. Princeton, New Jersey—State of New Jersey Human Resources Department computer training lab.

Selection of Nursing Programs. In each state, nursing education programs were selected for participation based on the input of a CAT Coordinator at the state's board of nursing. The demographics of the selected programs' graduating classes ensured a strong representation of minority candidates. The volunteers for the CAT field tests were students from the selected nursing education programs. Foreign-educated candidates and repeaters were contacted by communicating with recruiters and employers.

Candidate Motivational Communication. The CAT Coordinators planned and arranged for meetings with nursing educators and administrators in each state. Individual members of the Committee for Special Projects and the CAT Project Director travelled to the eight CAT field test states in November and December, 1989, February and April

1990, to present information about the CAT field testing to deans and directors of state nursing programs. Several of the states also invited employers to attend the talk. It was as a part of these presentations that the directors were invited to volunteer to assist in motivating their students to participate in the CAT field tests.

In continuing the task of motivating students to participate in the CAT tield tests, the committee developed and conducted a communications plan for reaching the volunteer candidates (this plan was detailed in the 1990 *Book of Reports*).

Field Test State Staff Training for CAT. To assist the participating states in delivering the CAT field tests, the committee developed a very detailed *Procedures Manual for the Administration of the National Council CAT-RN Field Tests.* This manual was used as the basis for training board staff in how to administer the CAT field tests.

In May and December, 1990, the CAT Project Director conducted a hands-on, on-site instruction program in the setup and use of CAT for the states' personnel who will be participating in the CAT field tests. This structure for the field test training was very effective since it was conducted at the actual computerized testing sites used for the CAT field test. The objective of the CAT field test training was to teach the participating board staff to perform all the tasks needed to receive materials and administer a secure CAT field test.

CAT Field Testing Results. The CAT field test results and conclusions are presented in detail in the Pyschometric Monograph addendum report. Additional operational and cost information can be found in the Board of Directors' CAT report. Both of these reports are scheduled to be mailed in June.

<u>Legal</u>

An extensive two-part CAT legal analysis was conducted by the University of Illinois Department for Social Science Research and Vedder, Price, Kaufmann, and Kammholz. The entire legal analysis was published as a separate monograph (*Collected Works on the Legal Aspects of Computerized Adaptive Testing*) and sent to all Member Boards. The outcome of the legal analysis is that CAT is legally defensible for licensure testing and that a major part of the defense relies on the psychometric properties of the CAT examination.

<u>Operational Issues</u>

Both the July 1990 and the February 1991 CAT field testing were completed successfully. The personnel at each different CAT testing site (whether state or professional testing center employees) were trained to administer the CAT field tests and did so without incident. Slight differences in candidate satisfaction were found between the professional testing labs and the college computer labs. Additional operational issues pertaining to potential future implementation of CAT will be discussed in the Board of Directors' addendum report.

<u>Security</u>

Both the July, 1990, and February, 1991, CAT field tests were conducted with no compromise or breach of the Administration of Examination Committee-approved field test security procedures. Administration of Examination Committee representatives observed and evaluated the CAT field testing procedures during both July and February.

The National Council contracted with outside consultants to assist in the plan and evaluation of CAT security. Conclusions from the consultants report have been incorporated in the *CAT Communique* on security which was sent from the Board of Directors to Member Boards during April.

The Administration of Examination Committee has worked with the Committee for Special Projects to address the security-related CAT technical issues with policy implications. A joint report will be presented to the Board of Directors during their June meeting.

<u>Communications</u>

Throughout Phase II, communication about the progress of the CAT project has been disseminated to Member Boards using the *Newsletter* and *Issues*. The Board of Directors instituted a series of *CAT Communiques* to address specific issues and concerns of Member Boards. Project updates were provided at the 1989, 1990, and 1991 Area Meetings,

and committee reports were included in the 1989, 1990, and 1991 *Book of Reports*. The committee also presented project reports at informational forums during the 1989, 1990, and 1991 Delegate Assemblies.

Detailed reports on CAT were presented to deans and directors of educational programs in the eight field test states in conjunction with candidate recruitment. National Council CAT reports were also presented at the 1989 and 1991 CTB NCLEX Invitational Conferences.

In terms of communication outside of the National Council, much has also been accomplished. Progress reports on CAT were presented at the 1988 and 1991 Nursing Informatics conferences in Dublin, Ireland, and Melbourne, Australia. National Council representatives are also speaking about the CAT project to nursing organizations including the National League for Nursing, American Association of Colleges of Nursing, American Nurses' Association, American Organization of Nurse Executives, National Federation of Licensed Practical Nurses, and the National Association for Practical Nurse Education and Service.

Summary & Conclusions

The project summary and conclusions will be included in the addendum report of the committee.

Committee Members

Billie Haynes, CA-VN, Area I, *Chair*
Paula Buffone, MA, Area IV, (until March, 1991)
Patricia Gremmler, NY, Area IV, (until December, 1990)
Barbara Kellogg, SC, Area III
Marcella McKay, MS, Area III
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Board Liaison

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Anthony R. Zara, *CAT Project Director*

Attachment A

Computerized Testing Glossary

A: or a:—is the designation for the main floppy disk drive on the computer. When copying files from floppy disks to the hard drive, drive A: is used.

admission document—the admission document will be a letter mailed from the participating Member Board to the candidate approximately three weeks before the first CAT field testing day. Candidates must bring this letter to the CAT testing center to gain admittance to the CAT field test.

ATTR.COM--is the program used to hide the CAT files and subdirectory so that they will not appear in a directory listing.

AUTOEXEC.BAT—is the file used by the computer when booting to tell the machine certain needed information.

Bayesian—is a statistical method used to estimate candidates' scores (or it can be used to select the next item). It uses "known" information (as specified in a prior distribution) to refine the statistical estimates.

booting—is the term used for the start-up of a computer. After a computer is turned on, it must boot up to engage the operating system and be ready for use. The CAT field test computers will boot up automatically upon being turned on.

C: or c:—is the designation for the hard disk drive for the computer. It is the storage area for the CAT files and data.

CAT.EXE—is the program that performs the CAT testing.

Circulating Proctor—is the proctor responsible for monitoring candidates during the CAT testing session. One circulating proctor must be assigned for every eight candidates.

Chief Examiner—is the person within a participating state with the overall responsible for the CAT Field Tests. In many participating Member Boards it will be the CAT Coordinator.

computerized test site coordinator—is an employee of the organization supplying the computerized testing site who acts as liaison with the CAT Coordinator.

DATAUTIL.EXE—is the program used to collect the CAT field test data from the computers at the computerized test site.

DBUTIL.EXE—is the program used to create applicant records, if needed.

DIR—is the program used to list the files present in the current subdirectory on the screen. When a file or subdirectory has been hidden, its name will not appear in the directory listing obtained by using DIR.

directory listing—is a list of the files present on the current subdirectory. A directory listing is obtained using the program DIR.

DOS—stands for Disk Operating System. It is the operating system for the computers used in the CAT field testing.

encrpytion—the process of "coding" written material so that it is unreadable without first being decrypted. Encryption provides security to sensitive textual material.

error band—the number of standard errors of measurement that a candidate must be above or below the cutscore for the CAT exam to determine a pass/fail decision. This is set by the Council in the Exam Definition File.

Exam Definition File (EDF)—the file containing the psychometric parameters for running the specific CAT test (e.g. minimum and maximum number of questions, which questions to make warmups, the test plan percentages, size of the error band, etc.).

Final CAT Candidate Roster-the document that lists all participants in the CAT field tests for each state and their candidate numbers. Spaces will be included to list the test station number of the computer used by the candidate, the number of the secure notepaper assigned to the candidate, defective computer information, and time of candidate arrival and departure.

FILE.DB—the large database that contains the applicant and item information.

Floating Proctor—the proctor responsible for escorting candidates from the reception area to the testing computers, from the computers to the washroom and back, and from the computers to the reception area after testing. The Floating Proctor should also be the exam team member most familiar with emergency procedures.

hard disk—the part of the computer that provides large-scale permanent storage for files and data.

keyboard exercise—administered to all candidates prior to the start of the CAT exam. It is to insure that all candidates are able to manipulate the keyboard to take the CAT exam before the exam starts. Candidates are not allowed to start the CAT exam until they demonstrate competence on the keys needed for CAT.

math coprocessor—a computer chip used to speed up the performance of the statistical calculations that the CAT software needs to make in administering the CAT field tests. They are called 80287 or 80387 chips, depending on the type needed for the CAT field test computers.

minimum/maximum number of items—are set (by Council) in the exam definition file. They determine the minimum and maximum length of the CAT exam.

maximum likelihood—is a statistical method for estimating candidates' scores.

maximum information item selection—is a statistical method for determining which question should be administered next to an examinee. It chooses the question that will provide the most information possible for that examinee.

operating system—is the internal program or set of instructions that tells the computer how to work. The CAT field test computers will all use versions of DOS as their operating system.

password system—A password system will be utilized on each CAT testing computer to help keep the computers secure. After turning on the computers, the password must be typed in before the computers will allow any activity to be performed. The password must be kept secret by the chief examiner. It will be communicated from the National Council to the chief examiner prior to the CAT field testing.

PE.EXE—is a line editing program. It will be used during the CAT field test to remove the password protection from the AUTOEXEC.BAT files after the CAT field testing is completed.

post-exam questionnaire—The post-exam questionnaire is one of the most important information gathering tools of the CAT field test. All participating candidates will be asked to complete the questionnaire. It will be used to learn about the candidates' previous computer experience, their feelings about CAT, their experience with the testing center logistics, and their reactions to the CAT experience.

Preliminary Roster—is generated from the returned Agreements to Participate. It is used to send the Notification Letters (with RSVP instructions) to candidates approximately six weeks prior to the first CAT administration.

PROTECT.EXE—is the program used to implement a password system on each CAT testing computer.

Reception Proctor—is responsible for admitting candidates to the test site, disseminating and collecting secure scratch paper, marking the Final CAT Candidate Roster, and administering the post-exam questionnaire.

RESTORE.EXE—is the program used to read and copy the CAT testing files from the floppy diskettes to the hard disk drive.

Roster 2—is based on the returned candidate RSVPs, the NCLEX listings, NCLEX cross-checks, foreign-educated and repeater listings, and sampling considerations. It is used to send the Admission Letters to the selected candidates approximately three weeks prior to the first CAT administration.

secure scratch paper—Only secure scratch paper will be provided to the candidates for taking notes during the CAT field testing. Candidates will not be allowed to remove any paper with writing on it from the CAT testing room at any time. It will be unique and easily identifiable from a distance. Candidates will be assigned secure scratch paper (which will be collected after the CAT test) as a control for the possibility of their trying to remove secure item information from the testing site.

subdirectory—A hard disk is usually divided into several subdirectories as a convenient way to organize the information it contains. Subdirectories usually contain files that are related in some way. Thus subdirectories can be thought of as individual file drawers.

TRO—is The Roach Organization. They are a company that provides computerized testing services. Several of the CAT field test sites were TRO-run sites.

UNIFY—is a commercial database software product that is used in the Council's CAT software.

VER—is the program used to show which version of the DOS operating system is being used on the CAT field test computers.

WIPEFILE.EXE—is the program used to wipe all vestiges of the CAT computer files from the hard disk after the CAT field testing. Using a simple erase command would leave much of the CAT information on the hard disk. WIPEFILE actually obliterates any hint that the CAT information was ever present and is a much more secure way to remove the files from the hard disk.

Statistical Terms

chi-square tables—another name for contingency tables. The chi-square statistic describes the statistical relationship between the two outcomes.

concordance rates—describes the percentage of candidates that have the same pass/fail outcome on the CAT and NCLEX exams. An examinee that passes both or fails both has a concordant result; if she/he passes one and fails the other, the result is non-concordant.

contingency tables—a summary statistical table showing the number of candidates and their outcomes on two variables of interest (e.g. an accounting of the pass/fail decisions on each examination, NCLEX and CAT).

correlation—a statistic describing the degree of association between two variables. The correlation coefficent ranges between -1.0 (high negative association, e.g. temperature and number of people wearing coats) and +1.0 (high positive association, e.g. temperature and the number of people wearing shorts). A correlation of zero implys no association between the variables.

mean—the arithmetic average of a set of numbers

mean differences—describes the quantitative difference between group averages on the variable of interest

non-concordance (of pass/fail decisions)—see concordance rates.

post-exam questionnaire—is administered to CAT field test candidates to get their reactions to CAT, inquire about their previous computer experience, and get other non-testing information.

reliability—is the repeatability of a test score. In classical test theory, reliability describes the error of measurement and is the same for all candidates on a given test.

statistical significance—is the term to describe how rare a given event is, as compared to expectation. In general, a result is not considered "statistically significant" unless it would occur less than 5 times out of 100 by chance alone.

standard error of measurement (SEM)—a quantity describing the amount of error (uncertainty) that is built into every test score. The smaller the SEM, the more accurate the score.

t-test—a statistical test to evaluate the differences between group means

theta—the generic name of the variable that NCLEX (and CAT) is measuring (i.e. the knowledge, skills and abilities to perform entry-level nursing safely and effectively)

Addendum Report of the Committee for Special Projects

CAT Field Testing Results

The CAT field testing results are summarized in Attachment B. A full copy of the psychometric monograph (A Psychometric Comparison of Computerized Adaptive and Paper-and-Pencil Versions of the National RN Licensure Examination) can be obtained from the National Council.

CAT Feasibility Study Summary and Conclusions

The CAT Feasibility Study was successful throughout its conduct. The outcomes of Phase I showed that the CAT software for nurse licensure testing was developed in a timely fashion, performed as intended, was useable by registered and practical/vocational nurses, and was evaluated positively by the pilot test volunteers. Phase II showed these outcomes:

(1) The CAT field testing showed that CAT and paper-and-pencil nurse licensure testing are psychometrically comparable and that computer experience had no effect on candidate performance.

(2) The CAT legal analysis showed that CAT was legally defensible.

(3) The CAT field testing showed that CAT testing security could be maintained.

(4) The CAT field testing showed that CAT examinations could be successfully delivered under various administration scenarios with proper staff training.

All recommendations regarding CAT are presented in the Board of Directors addendum report.

The Committee for Special Projects would like to thank the Member Boards and Board of Directors for their generous support and assistance throughout the duration of the project. A special thanks is extended to those Member Boards and board staff that so generously provided assistance during the CAT field testing: California-RN, Illinois, Mississippi, Missouri, New Jersey, New York, Oregon, and Texas-RN. The success of the project would not have been possible without their leadership and hard work.

CAT Feasibility Study Budget Summary

Regarding the CAT designated fund, the total funding was:

FY87	FY88	FY89	FY90	FY91	
$176,900	$318,042	$184,514	$275,126	$277,316	
		4,800	6,372	45,600	
				19,422	
		189,314	281,498		
				342,338	= $ 1,308,092

The total spent has been:

FY87	FY88	FY89	FY90	FY91	
$179,533	$264,820	$174,689	$324,118	$214,193*	= $ 1,157,353

Summary Total

CAT Designated Fund:	$ 1,308,092	
Spent:	- 1,157,353*	
	150,739*	Balance in CAT Designated Fund

*As of May 31, 1991

CAT Field Test Results
A psychometric monograph (National Council, 1991) was developed which describes the CAT field test results in detail. This monograph was reviewed by a panel of outside experts, the Psychometric Review Panel (PRP). The PRP was composed of Dr. Ben Wright (Professor, University of Chicago), Dr. Gage Kingsbury (Coordinator of Measurement Research, Portland Public Schools), Dr. Barbara Showers (Director, Office of Examinations, State of Wisconsin), and Dr. Joanne Stevenson, RN, (Professor, Ohio State University). The outside review process was incorporated to assure that the psychometric results and conclusions of the CAT Feasibility Study were supported by other experts in the field.

The purposes of the field testing were to investigate the psychometric properties of a CAT examination for nurse licensure and the practical/logistic issues encompassing CAT administration. This addendum report addresses the psychometric aspect of the research.

Psychometric Questions
The purpose of the CAT field testing was to acquire information on the feasibility of replacing the paper-and-pencil NCLEX-RN (PP) with a CAT version. Psychometric comparability was investigated by evaluating performance distributions of both examinations, individual candidate performance, group passing rates, and the pass/fail decisions produced by the PP and the CAT examinations. The major questions addressed were:

(1) Do candidates perform in a comparable way on CAT and the PP nursing licensure examinations?

(2) Are individuals from protected demographic classes advantaged or disadvantaged by CAT?

The analyses conducted were to gather evidence to answer the above questions. The availability of two candidate populations (July and February) afforded the opportunity to investigate the equivalence of the groups on both PP and CAT. A limitation of the study was that licensure was offered only on the basis of the PP examination and candidates were repeatedly made aware that the CAT examination did not affect licensure. The results must be interpreted with this in mind.

The number of candidates by test site and testing session is shown in Table 1. The July sample was 468 candidates; the February sample included 496 candidates. The listing of candidate demographic data is shown in Table 2. The sampling design of the study was successfully met; the number of participating hispanic candidates was lower than desired, but sufficient for allowing generalizable conclusions. The general computerized test site characteristics are shown in Table 3. Three college labs, two state labs, and seven professional testing labs were used for the CAT field tests.

Ability Estimates
The most important comparison of within-person performance differences is shown in Figures 1 and 2 which show the graph of CAT vs. PP performance for the July and February CAT field test administrations. The passing standard and ± 1.65 standard error bands (90% confidence level) have also been marked. These figures show the preponderance of cases to be in the pass/pass or fail/fail areas or falling within the error bands. Very few cases fall outside the ± 1.65 standard error bands in the quadrants with non-matching pass/fail decisions suggesting that most of the observed performance differences could be attributed to measurement error. This is a powerful indicator that CAT and PP were performing comparably. Even though there were probable motivational differences between the examinations, very few candidates had larger CAT vs. PP differences than expected.

A case by case analysis of the candidates with disparate CAT and PP performances showed that they could not be characterized by any common, single identifying feature. Their most telling feature was that 13 out of the 28 outliers answered the questions on their CAT examination faster than .69 minutes per question, implying that they were hasty and may not have given full attention to the CAT examination.

Table 4 shows the average within-person CAT vs. PP performance differences. There were statistically significant overall differences between CAT and PP performance for both the July and February groups. The July difference is fairly small; the February difference is somewhat larger. Surprisingly, the results show that the demographically diverse July candidate groups (black, hispanic asian, repeat, and foreign-educated candidates) actually performed better on CAT than PP; however, these results did not obtain in February where all subgroups achieved lower CAT than PP performance (as expected, due to the limitations of the study mentioned earlier).

Reliability

Since the CAT methodology enables individual-level reliabilities to be calculated (standard error of measurement), a group-level reliability index is not the best way to judge CAT. Nevertheless, the reliability results were very positive. The marginal reliabilities (Green, et al., 1984) for the July and February CAT field test examinations were .86 and .90, respectively. The KR-20 internal consistency reliabilities (the standard NCLEX reliability index) of the PP examinations were .86 and .88, in July and February, respectively, demonstrating further the comparability of CAT and PP.

A more sensitive index may be obtained by comparing the mean standard errors of measurement near the passing point for the CAT and PP examinations. In July, for ability estimates within 0.1 units from the passing point, the mean PP standard error of measurement was .1269; the mean CAT standard error was .1205 (for those candidates taking at least 225 items). The CAT comparison group was limited to those candidates because candidates will not take less than 225 CAT items if their performance is within
± 1.65 standard errors of the passing point. For the February administrations for ability estimates within 0.1 units from the passing point, the mean PP standard error was .1261; for CAT the mean standard error was .1218. Thus, CAT produced more accurate measurements than PP near the passing point in both the July and February field testing.

Pass/Fail Decisions

Decision consistency. As the NCLEX is a licensure examination which is the basis for a pass/fail decision, the decision consistency analyses provide additional evidence for determining the similarity of the measurement characteristics of CAT and PP. The overall raw CAT and PP pass/fail decision agreement was very similar across field test administrations: 81% in July and 82% in February. This can be compared to theoretical maximum possible agreement between two forms of the same examination of .86 and .89, for the July and February administrations respectively. Thus, the difference in the actual rate and estimated maximum decision agreement rate was only 5% and 7% across the two field test administrations.

These results show slightly more comparability than those found in another high-stakes CAT field test (for Clinical Pathologist certification examinations; Lunz and Bergstrom, 1991). Thus, these results suggest very strongly that pass/fail decisions on the nursing licensure examination are comparable whether the examination was administered using CAT or PP methodology.

Decision consistency was also investigated by comparing the concordance rates for candidates who passed or failed each examination with a 95% degree of confidence. This comparison helped to isolate possible administration method effects from the effect of measurement error inherent in any pass/fail decision. For February, there were 2.2% non-concordant decisions for candidates when both PP and CAT tested to the standard error criterion. For July, there were 3.63% non-concordant pass/fail decisions when both PP and CAT examinations tested to the standard error criterion (made with 95% confidence). Thus, these analyses showed that in terms of the quality of measurement decisions, CAT, again, is comparable to PP.

Passing rate analyses. The analyses of passing rates add little pure psychometric information to that presented above, but are of some interest given the nature of the test. Because of the confound in the study design (only PP results qualified for licensure), though, they do not offer guidance as to the possible passing rate effects of implementing CAT for the nurse licensure examination.

Table 5 shows the passing rates for candidates on both the CAT and PP examinations for July and February. The total sample passing rates for July were 75.6% and 80.1% (for CAT and PP, respectively). For the February field test sample, the passing rates were 67.3% and 79.6% for CAT and PP, respectively. The CAT passing rate was 8.3%

lower in February than in July. Across administrations, the passing rates for field test candidates were 71.4% and 79.9% for CAT and PP, respectively. As can be inferred from the earlier ability estimate analyses, a lower CAT passing rate was expected due to the nature of the experimental design and the lack of criticality of the CAT administration to the candidates.

As shown in Table 5, the demographically-diverse groups had higher CAT than PP passing rates in the July, but not the February field testing. The February candidates achieved lower passing rates on CAT than PP across all demographic groupings. In July, black, hispanic, asian, foreign-educated, and repeat candidates passed CAT at a higher rate than PP. The increase in CAT passing rate ranged from 1.1% (black candidates) to 24% (foreign-educated candidates). This was especially surprising given the passing rates for white candidates (82.6% CAT vs. 96.7% PP). Several hypotheses were tested to try and determine the cause for the July passing rate results:

1. Motivation on CAT (results not counted towards licensure)
2. Learning from the CAT pre-test which aided student performance on PP (differences in preparation for CAT and PP)
3. Environmental (computer testing lab differences)

Table 6 shows the average time spent per CAT item for July candidates by pass/fail decisions on the CAT and PP examinations. White candidates who failed CAT and passed PP spent an average of only .77 minutes on each CAT question. This value is the lowest in the table, implying that these candidates did not spend very much time on the CAT questions (as contrasted with the 1.01 minutes that white candidates who passed both examinations spent taking each CAT question). Black, hispanic, and asian candidates who passed CAT and failed PP had average time per item ranging from 1.2 to 1.33. These average times are well above the time/item allotted for PP (.97 minute per item), implying that these candidates may have failed the PP due to lack of time. Also, the "untimed" nature of CAT examination vs. NCLEX may help explain the passing rate results. On the CAT field test examinations, candidates received credit or non-credit for only the questions they actually answered; on NCLEX candidates receive scores of incorrect for any questions unanswered at the end of testing.

Table 7 shows the passing rate results for July candidates separated into two groups based on the average amount of time taken on each CAT item. The idea was that candidates who answered CAT questions "too quickly" (< .85 minutes) may have been "hasty" in taking the CAT examination and possibly not trying to their full abilities. These results clearly show that those candidates who took their time on CAT (maybe due to increased motivation to perform to their abilities) passed at a more similar rate (to PP) than those who "rushed" through the CAT examination. For example, "hasty" white candidates had a 26% higher PP than CAT passing rate; "thoughtful" white candidates had only a 6% higher PP than CAT passing rate.

Other analyses showed that the college labs (Mississippi and Oregon, where the majority of candidates were white) were rated statistically significantly lower than the other sites for room layout, testing stations, noise level, and parking (see Table 8). However, the size of the lab differences effect was very small and probably did not cause the passing rate results.

Tables 9 and 10 show the average time per item and "hasty" candidate analyses for February candidates. Table 9 shows that the same pattern of results as does Table 6: those candidates passing PP and failing CAT spent the least amount of time on the CAT items compared to those that passed or failed both, or passed CAT and failed PP.

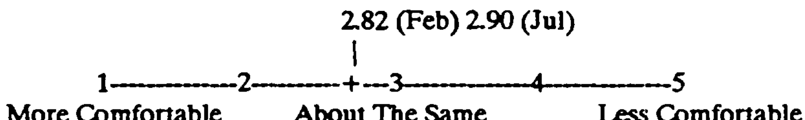
Candidate Variables

Table 11 shows the correlations of computer experience with CAT and PP performance, CAT-PP difference, time needed to complete the keyboard training, and the number of times candidates failed the keyboard training exercise. There was virtually no important relationship between computer experience and CAT performance or between computer experience and the within-candidate CAT-PP difference. The correlation of computer experience and keyboard training time was somewhat larger, but there was no relationship between experience and the number of keyboard exercise failures. Thus, lack of previous computer experience was no disadvantage to candidates taking CAT.

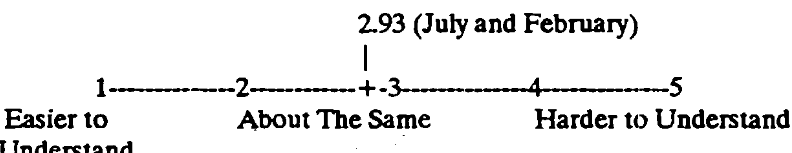
The statistics for the post-exam questionnaire questions across July and February administrations showed that on average, the field test volunteers were slightly inexperienced with computers (mean = 2.67 in July and 2.74 in February). Only 11% and 6.8% (July and February) thought that CAT was a poor way to test. Also, the keyboard training seemed to be effective as only 2.2% and 2.1% of the candidates felt that it did not prepare them to take the CAT examination. There were not any major differences in the candidates' reactions to the CAT testing across the July and February groups, and the candidates were generally positive about the experience.

The following post-examination questionnaire items assessed candidates' reactions to CAT in relation to the PP administration. Average responses for the February and July samples are indicated on the rating scale:

1. How did you feel about taking this test administered by computer in comparison to taking the NCLEX using pencil-and-paper?



2. In comparison to the format in which the questions appear in the paper-and-pencil test, was the computerized format?



3. Were the questions in the computerized format easy or hard to read?

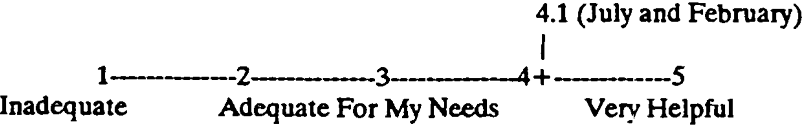
2.24 (July and February)
|
1------------2---+---------3------------4------------5

Easy to Read   About The Same   Hard to Read

These data show that candidates rate CAT as being equivalent to, or better than PP administration regarding their ability to read and understand the test questions. Thus, presenting test items on a computer screen vs. on paper is quite acceptable to candidates.

The keyboard training exercise played an important role in these positive results. Candidate reactions from the post-CAT questionnaire (Questions #6, #7, and #8) show that the keyboard training is both effective and essential:

6. The instructions explaining how to use the computer for testing were:



7. The keyboard training exercise (about how to use the keys) at the start of the test:

	July		February	
	Frequency	%	Frequency	%
taught me all I needed to know to take the test using the computer.....	368	79.8	379	78.0
taught me almost everything I needed to know to use the computer to take the test...	83	18.0	97	20.0
did not teach me nearly enough to use the computer to take the test	10	2.2	10	2.1

8. The printed instruction card was:

	July		February	
	Frequency	%	Frequency	%
Very useful	221	48.0	254	52.4
Somewhat useful	133	28.9	146	30.1
Not useful at all	9	2.0	4	0.8
Unnecessary, due to the training exercise	97	21.1	81	16.7

These data show that the instructions and hands-on training in how to use the computer and keyboard are helpful and important. The responses to Question #7, in particular, show that candidates had no difficulty in using the computer. Thus, it is evident that requiring candidates to use a computer or keyboard to record their answers to test questions does not invalidate CAT as a testing modality, provided candidates are given adequate instructions and training prior to testing.

Is NCLEX Administered by CAT Valid?

Green (1988) states that one advantage of putting existing tests on the computer is that "the validity can be imported." The validity of a licensure examination (such as NCLEX) rests squarely on the relationship of the examination to safe and effective practice. The primary focus of the relationship to practice is the examination's job analysis-based content validity. NCLEX administered by CAT is clearly valid from this perspective. The CAT version of NCLEX was designed to be as equivalent to the PP version as possible: CAT examinations were constructed from the paper-and-pencil NCLEX item pool and the CAT examinations were constrained to meet the PP NCLEX test plan percentages. All of the documentation supporting the content validity of the paper-and-pencil NCLEX--job analyses, detailed item writing guides, reports of test development panels and committees--also supports the validity of CAT versions of the examinations.

There are two possible disturbances to the imported validity of NCLEX administered by CAT: (1) the computer delivery of items and (2) the adaptive nature of CAT. Both were addressed by the CAT vs. PP comparisons enabled by the design of this study. CAT items were presented on a computer screen rather than on a piece of paper, and candidates were required to use a keyboard rather than making appropriate pencil marks on a computer-scannable bubble sheet. This study showed that prior computer experience did not affect candidates' performance on the CAT examination, or their ability to perform the keyboard training exercise. Recent research has also found that it does not make a significant difference on student performance to allow review and changing of previous answers (which is permitted in PP but not in the CAT procedures; Wise, Johnson, Plake, & Nebelsick-Gullett, 1990). As for the adaptive nature of CAT, Green (1988) states "So far, no one has demonstrated an effect due solely to the adaptive nature of a test." The comparability of CAT and PP performance in this study also support the lack of an "adaptive" effect and the importability of the NCLEX validity.

A more extensive legal treatment of the validity of CAT for licensure testing can be found in *Collected Works on the Legal Aspects of Computerized Adaptive Testing* (National Council of State Boards of Nursing, 1991).

Conclusions

The large-scale CAT field test study provided sufficient data to evaluate the comparability of CAT and PP for RN nurse licensure testing. An important limitation of the study was that the candidates were made aware on repeated occasions that the CAT examination did not count towards licensure. This probably decreased candidate motivation on CAT, and the results must be interpreted with this in mind.

The analyses indicated that the CAT examination administration modality enables comparable candidate performance with PP examination administration. The graphs provided a clear indication of comparable candidate performance on CAT and PP. The decision consistency results were very positive, showing near the maximum expected concordance rates for both the July and February administrations. The test reliability analyses showed that CAT out-performed PP in terms of measurement accuracy near the passing point. The analyses of candidate variables showed that prior computer experience was not a factor in CAT performance or in successfully completing the keyboard training exercise.

The comparisons of CAT and PP estimates of ability (to practice safely and effectively at entry-level) showed that demographically-diverse candidates performed better on CAT than PP in July, but not in February. These mixed results could have been due to differences between the July and February groups caused by diverse recruitment procedures (all testing and other procedures remained the same). With mixed results not attributable to any testing-related cause, it is reasonable to conclude that demographic groups should be neither advantaged nor disadvantaged by CAT test administration.

Overall, the PRP review was very positive towards the study design, the outcomes, and the conclusions that were drawn. Each reviewer made comments about individual aspects of the study or data analysis, but in no case did their comments indicate discomfort about the comparability of CAT and paper-and-pencil NCLEX testing.

In summary, the CAT field test study provides important evidence that candidates perform comparably on CAT and PP nursing examinations. The Psychometric Review Panel felt that the study conclusions were justified by the data. Demographic groups seem to be neither advantaged nor disadvantaged through CAT administration. The results also showed that presenting items on a computer screen and using a keyboard to accept candidates' responses does not affect the performance of candidates lacking prior computer experience. The content validity of CAT can be "imported" from NCLEX, and is supported by the same processes and documentation that support the content validity of the current PP examinations. Thus, the use of CAT for administering nurse licensure examinations is psychometrically sound.

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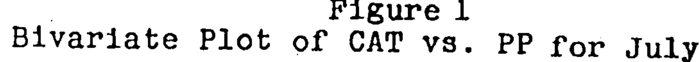

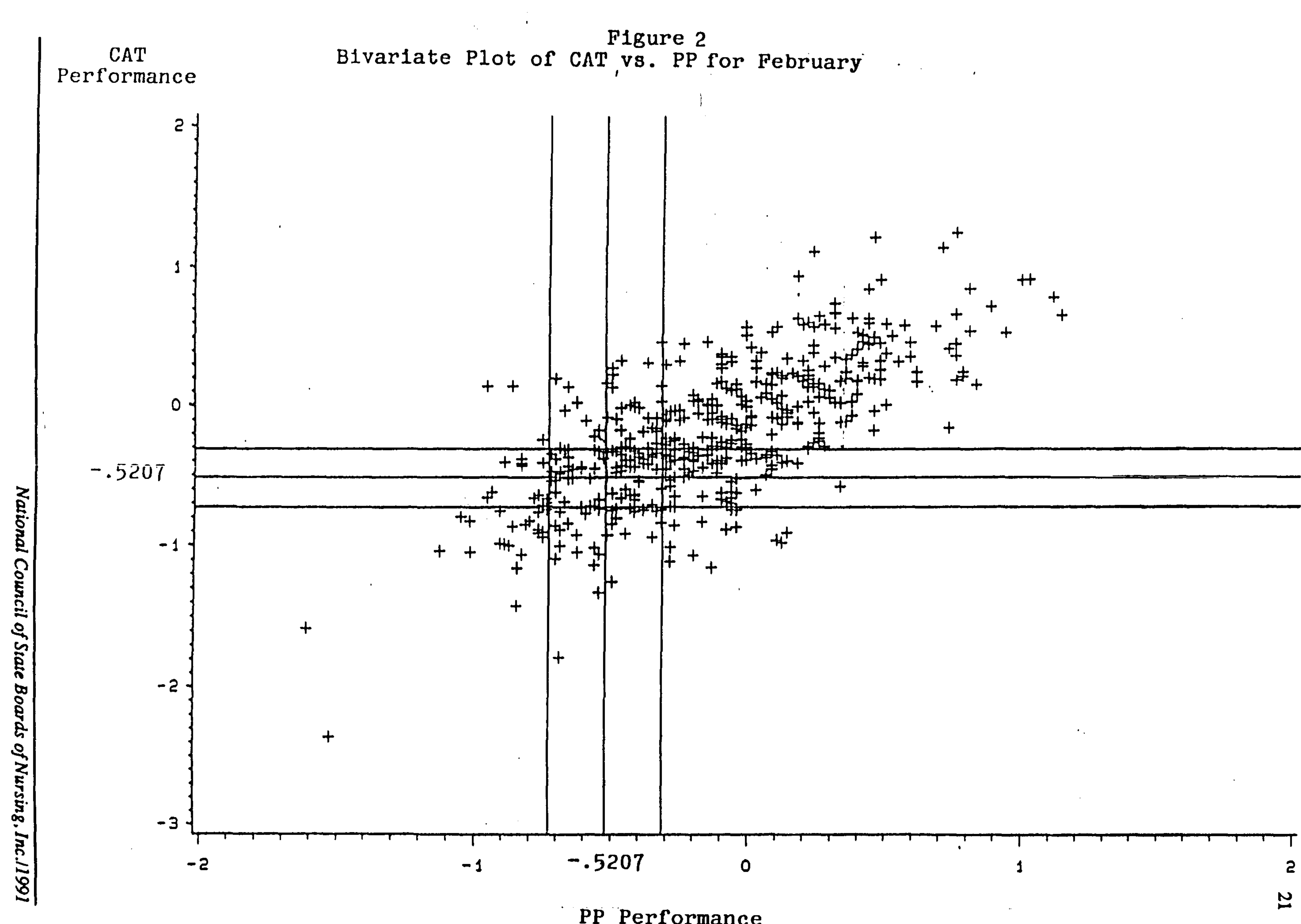

Figure 2
Bivariate Plot of CAT vs. PP for February

National Council of State Boards of Nursing, Inc./1991

Table 1
Number of Candidates by Test Site and Testing Session

July			February		
Site	Pre	Post	Site	Pre	Post
Oregon	63	62	CAI	22	20
			CAL	32	20
			CAS	32	19
Illinois	79	51	MOJ	63	22
			MOS	19	16
Mississippi	56	58	Texas	56	43
NYS	38	10	New Jersey	26	106
NYT	32	19			
Total	268	200		250	246

NYS - New York, SUNY site
NYT - New York, TRO site
CAI - California, TRO Irvine site
CAS - California, TRO San Francisco site
CAL - California, TRO Los Angeles site

Table 2
Number of Candidates by Demographic Group and Administration

Group	July N	February N	Total N
none	43	41	84
White	242	245	487
Black	88	31	119
Hispanic	18	34	52
Asian	71	129	200
US-ed.	405	360	765
Foreign	63	136	199
First-time	421	358	779
Repeat	47	138	185
English	358	351	709
ESL	71	105	176
Total	468	496	964

Table 3
Site Characteristics by State and Administration

State	July	State	February
Oregon	Jr. College Lab	California	TRO TRO TRO
Illinois	TRO	Missouri	State Lab TRO
Mississippi	University Lab	Texas	TRO
New York	University Lab TRO	New Jersey	State Lab

TRO is a company that professionally administers computerized tests in their own testing centers

Table 4
Mean and Standard Deviation of (CAT - NCLEX) Scores
by Demographic Group and Field Test Administration

	July			February		
Group	N	Mean	Std Dev	N	Mean	Std Dev
None	43	-0.022	0.375	41	-0.068	0.364
White	242	-0.155**	0.323	245	-0.164**	0.291
Nlack	88	0.030	0.353	31	-0.083	0.342
Hisp.	18	0.027	0.365	34	-0.124	0.457
Asian	71	0.096*	0.368	129	-0.192**	0.354
Ftime	421	-0.073**	0.353	358	-0.130**	0.314
Repeat	47	0.078	0.355	138	-0.236**	0.380
US-ed	405	-0.083**	0.346	360	-0.157**	0.302
Foreign	63	0.102*	0.379	136	-0.166**	0.417
Total	468	-0.058**	0.356	496	-0.159**	0.337

* Mean score is significantly different than 0.0 at ($p < .05$)
** Mean score is significantly different than 0.0 at ($p < .01$)

Table 5
Number and Percent Passing the CAT and Paper-and-Pencil NCLEX
by Ethnic Group and Field Test Administration

	July			February			Total		
Ethnic	N	CAT	PP	N	CAT	PP	N	CAT	PP
none	43	72.1	67.4	41	65.8	73.2	84	69.0	70.2
White	242	82.6	96.7	245	84.9	94.7	487	83.8	95.7
Black	88	75.0	73.9	31	61.3	80.6	119	71.4	75.6
Hispanic	18	77.8	72.2	34	67.6	82.4	52	71.2	78.8
Asian	71	52.1	40.8	129	36.4	53.5	200	42.0	49.0
US-ed.	405	79.0	87.9	360	78.1	91.9	765	78.6	89.[illegible]
Foreign	63	54.0	30.2	136	39.0	47.1	199	43.7	41
First-time	421	78.2	85.3	358	80.0	91.1	779	78.9	
Repeat	47	53.2	34.0	138	33.3	50.0	185	38.4	
English	358	79.0	87.4	351	74.1	87.5	709	76.	
ESL	71	62.0	52.1	105	46.7	56.2	176	52	
Total	468	75.6	80.1	496	67.3	79.6	964	71	

Table 6
Mean Time Per Item by Pass/Fail Decision and Ethnic Group for July

Ethnic Group	Pass Both Mean	Pass Both S.D.	P-CAT/F-PP Mean	P-CAT/F-PP S.D.	F-CAT/P-PP Mean	F-CAT/P-PP S.D.	Fail Both Mean	Fail Both S.D.
White	1.008	.259	-	--	.772	.261	.939	.266
Black	1.152	.322	1.322	.286	1.145	.393	1.185	.317
Hispanic	1.137	.268	1.217	.199	1.301	.380	1.195	.369
Asian	1.159	.249	1.331	.273	1.029	.422	1.155	.321
None	1.007	.289	1.200	.256	.957	.379	1.225	.351

Table 7
Percent Passing and Number of July Candidates Passing/Failing
Paper-and-Pencil NCLEX and CAT by Ethnic Group
and the Mean Time Used to Answer the CAT Items
(Fast < .85 Minute; Thoughtful > .85 Minute)

Ethnic	Pass/Fail	Fast CAT	Fast %	Fast PP	Fast %	Thoughtful CAT	Thoughtful %	Thoughtful PP	Thoughtful %
None	Fail	2		0		10		14	
	Pass	9	82%	11	100%	22	69%	18	56%
White	Fail	28		4		14		4	
	Pass	65	70%	89	96%	135	91%	145	97%
Black	Fail	3		2		19		21	
	Pass	13	81%	14	88%	53	74%	51	71%
Hispanic	Fail	0		0		4		5	
	Pass	1	100%	1	100%	13	76%	12	71%
Asian	Fail	6		5		28		37	
	Pass	3	33%	4	44%	34	55%	25	40%

Table 8
Oneway ANOVAs for test center variables for the testing centers in the July CAT Field Testing

Variable	F Value	Prob.	Variance explained
Q13 Room Layout	4.71	0.0010*	4.7%
Q14 Testing Stations	4.16	0.0026*	4.2%
Q15 Noise Level	3.94	0.0038*	4.0%
Q18 Parking	43.31	0.0001*	31.3%

* = Statistically significant at $p < .01$ level

Table 9
Mean Time Per Item by Pass/Fail Decision and Ethnic Group for February

Ethnic Group	Pass Both		P-CAT/F-PP		F-CAT/P-PP		Fail Both	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
White	.977	.262	1.171	.436	.846	.189	1.058	.374
Black	1.196	.272	1.514	-	1.190	.265	1.198	.476
Hispanic	1.131	.265	2.009	.143	1.061	.315	1.133	.165
Asian	1.266	.325	1.321	.511	1.140	.258	1.218	.352
None	1.131	.348	1.428	.321	1.092	.413	1.187	.393

8
JOB ANALYSIS
MONITORING COMMITTEE

Report of the Job Analysis Monitoring Committee

Background

The Job Analysis Monitoring Committee is an ad hoc committee of the Board of Directors. Its major charge is to provide advice to and to monitor the activities of Research Services staff regarding performance of all job analysis studies. To ensure that the job analysis studies are performed appropriately and that the conclusions are sound, the committee receives input submitted by the External Job Analysis Monitoring Panel, following its review of research protocols and drafts of final reports.

Activities

Committee activities were related to the performance of two job analysis studies (nurse aides and licensed practical/vocational nurses), a pilot study to evaluate the use of critical incident descriptions, and a study to determine differences in the practice of newly licensed RNs at two different periods in time.

The committee met January 14, 1991, and May 6, 1991, at the National Council. In addition, the chair received periodic updates from the Director of Research Services regarding performance of the nurse aide and the LPN/VN job analysis studies. The committee also responded, via phone and mail, to the Director's requests for input regarding modifications in the analysis of nurse aide data.

Job Analysis of Nurse Aide Practice in Nursing Homes, Home Health Care Agencies, and Hospitals

During its January 1991 meeting, the committee reviewed the procedures implemented to collect job analysis data obtained from a convenience sample of nurse aides and nurse aide supervisors who were employed in randomly selected nursing homes, home health care agencies, and hospitals. Based on a critique of the study submitted by the External Job Analysis Monitoring Panel, and its own review, the committee suggested minor revisions be made in the report before its submission to the Nurse Aide Competency Evaluation Program Committee. The final report of the 1991 job analysis of nurse aides has been disseminated to Member Boards.

Job Analysis of Newly Licensed, Entry-Level Licensed Practical/Vocational Nurses

During its January 1991 meeting, the committee reviewed the procedures implemented to collect job analysis data from a randomly selected group of newly licensed LPN/VNs. The committee also reviewed and approved plans for data analysis. During its May 1991 meeting, the committee reviewed a critique, provided by the External Job Analysis Monitoring Panel, of a draft report prepared by the Director of Research Services. Based on these reviews, the committee identified minor revisions to be incorporated into the final report which will be shared with the Examination Committee during its June 1991 meeting.

Pilot Study: Use of Content Analysis of Critical Incident Descriptions to Differentiate Practice

During the January 1991 meeting, the committee reviewed progress made in the analysis of critical incident description data provided by participants in the 1989-90 RN job analysis study. At the May 1991 meeting, the committee concurred with the conclusions of the Director of Research Services, as supported by the External Job Analysis Monitoring Panel.

The inclusion of items within a job analysis study to stimulate the description of critical incidents provided a rich data source for analysis. These descriptions provided insight into the practice patterns of newly licensed registered nurses and what they considered to be situations where they had a "critical" impact on client well-being. In addition, this

"qualitative data" provided information not only about a client's problem, but about how the nurse dealt with a specific situation.

The analysis of data provided by individuals employed under "traditional" job descriptions resulted in the identification of seven different areas where either level of educational preparation or the length of time in practice had an impact on practice patterns. However, based on the large number of analyses performed (>150), great caution is urged in the interpretation of these findings since this number of statistically significant results could have occurred by chance alone.

Based on the outcomes of this study, concern exists regarding whether limitations posed by study design and sample sizes provided ample opportunity to answer the question posed. The overall failure of the analytic procedures to differentiate practice patterns cannot be ascribed to the analysis procedure alone. Given the small sample sizes within the "differentiated" job description group and the potential for an absence of differences in the practice of individuals employed under "traditional" job descriptions, the original question remains: "Does the use of content analysis of critical incident descriptions provide an effective means for differentiating the practice patterns of newly licensed registered nurses who graduated from different types of nursing education programs?" Therefore, there was neither support for or against the use of content analysis of critical incident descriptions as a means of differentiating the practice of evolving levels of nursing practice. Given the paucity of institutions/agencies currently using "differentiated" job descriptions based on educational preparation of a job incumbent, it was recommended that further research on the use of this technique be postponed until an adequate number of individuals working under "differentiated" job descriptions which are based on level of educational preparation can be identified.

Definition of Time-Frame for Demarcating Entry-Level Practice
During the January 1991 meeting, the committee reviewed the outcomes of a study to determine if there were identifiable differences in the practice of entry-level RNs when data were collected during the first and second six months of practice. This repeated measures study was performed using data contributed by individuals who participated in the 1989-90 RN job analysis study and who were employed under either a "traditional" or a "differentiated" job description.

Data were collected during October-November 1989 and, again, during May-June 1990. Data analysis focused on movement from one clinical setting to another, the frequency and criticality of activity performance, and category weights for the NCLEX-RN Test Plan.

The committee reviewed the study methodology and a draft of the final report. It concurred with the conclusions of the Director and the External Job Analysis Monitoring Panel that there was no statistical evidence to support a conclusion that there were any quantifiable differences in practice across the two time periods. The results of the study will be shared with the Examination Committee during its June 1991 meeting.

Evaluation of Job Analysis Data Collection Instrument
In anticipation of the regularly scheduled 1992 entry-level RN job analysis study and the role delineation study to be initiated in FY92, the committee discussed approaches to the evaluation and, potentially, revision of the current survey instrument. It is anticipated that a major portion of the survey instrument would be applicable to both studies.

Committee Members
Louise Waddill, TX-RN, Area III, *Chair*
Ruth Bell, MD, Area IV
Constance Connell, AZ, Area I

External Job Analysis Monitoring Panel
Angeline Jacobs, Azuza Pacific College, CA
Michael Kane, American College Testing, IA

Board Liaison
Susan Boots

Staff
Carolyn J. Yocom, *Director of Research Services*
Beth A. Cayia, *Research Assistant*
Jerrold Jacobson, *Research Assistant*

9

CST STEERING COMMITTEE

Report of the Steering Committee, Computerized Clinical Simulation Testing Project

Overview

The goals of the three-year CST feasibility study have been accomplished. The National Council has collaborated with the National Board of Medical Examiners (NBME) to adapt NBME's computerized clinical simulation testing model to nursing. CST is an uncued examination which permits examinees to realistically simulate the problem-solving and decision-making activities used in the management of client needs. Twenty-seven nursing simulation cases have been developed. Twenty-five cases have been programmed, 25 scoring keys have been developed, and two cases have audio-visual augmentation. A 2500 term default nursing intervention database has been developed. This database enables CST to function as a unique uncued examination since it is programmed to recognize a full range of nursing activities specified by examinees through free keyboard entry. A small-scale field study and large-scale pilot study have been conducted to examine the validity and reliability of CST.

Background

The third year's activities focused primarily on: analyzing the CST Field Study data and making modifications in the CST simulation model, database and orientation system based on the outcomes of the field study; planning for and conducting the CST Pilot Study and subsequent scoring key validation; analysis of the pilot study data; demonstration of CST and dissemination of information about CST to nursing and licensure and certification groups across the country; preparing a funding proposal to submit to the W.K. Kellogg Foundation for continued research and development of CST.

Activities

During Fiscal Year 1991, the third year of the project, the Steering Committee met at Oak Brook Hills Conference Center on October 8 and 9, 1990; at the National Council on March 7 and 8, 1991; at the National Council on May 2 and 3, 1991; and at the National Council on June 5, 6, and 7, 1991.

Project Goals and Activities of the CST Steering Committee and Staff

Goal I. Adapt technology developed by National Board of Medical Examiners (NBME) for the development and delivery of computer based clinical simulations for initial licensure.

Activities

1. Completed the CST Field Studies and analysis of problems encountered by 77 examinees while working through CST cases. (Note: a full report of the field study will be provided in a future addendum to this report.)

2. Based on the problems identified by field study examinees, made recommendations to NBME for modifications of the CST model, default database, and orientation system in preparation for the CST Pilot Study. (Note: a full report of the Pilot Study will be provided in a future addendum to this report.)

3. Recruited and monitored the progress of 12 nurse consultants (educators and practitioners) from the Chicago area who "took" the CST cases and identified problems encountered while working through the cases.

4. Based on the problems identified by nurse consultants, pilot study examinees, and nurse facilitators (further described in Goal III) who assisted in the orientation of pilot study examinees to the CST system, approved additional changes in the CST model. Major changes include (a) deletion of the Assessment (F1) Screen, (b) conversion of assessment activities from the cued list to free entry, and (c) subsequent merging of the assessment and intervention screens so that all nursing activities are carried out on a single screen. This will not only simplify the mechanics of CST but will also convert CST from a partially cued to a completely uncued testing environment.

5. Negotiated the completion of model modifications and changes with NBME and monitored NBME's progress in making the model, database, and orientation system modifications.

6. Planned, with NBME, the delivery system for CST as a secure and "user friendly" examination. Monitored the progress of NBME in programming the delivery system and participated in testing the system before its finalization.

Goal II. Develop a pool of computerized clinical simulation cases.

Activities

1. Completed videodisc development and monitored the progress of NBME in preparing and programming the videodisc addresses and model modifications required for videodisc augmentation.

2. Selected a pool of CST cases to be considered for use in the CST Pilot Study. Twenty-one of the 25 programmed cases were selected based on the results of hand-scoring of examinee performance during the field study. These results were used to identify the cases in which examinees seemed best able to simulate nursing practice.

Goal III. Examine the validity and reliability of computerized clinical simulation tests as a basis for making nursing licensure decisions.

Activities

1. To assure that the CST cases used in the pilot study would provide the most valid and reliable research data possible at this point, the following steps were taken:

    a. Preliminary analysis of field study data was used to identify: the cases which provided the best measurement information on examinees; the approximate number of cases needed to obtain reliable estimates of candidate performance; and the amount of real time needed to complete a CST case.
    b. Evaluation of the content of the scoring keys for the cases with the "best measurement" potential was performed to identify the combination of cases which provided the best match to the four client need categories and their relative weightings contained in the current NCLEX test plan. A pool of 11 cases identified as having the "best measurement potential" and being most representative of the test plan, varied client care settings, and varied client age range, was subsequently identified as the pilot study examination.

2. Planned for and conducted the pilot study during December 1990, and January 1991. This included the following:

    a. Determination that subject participation include a four-hour orientation session (a computer orientation and five practice cases) and a six and one-half hour examination session (the 11 case examination described in number one above);
    b. Development of security measures and subsequent approval by the Administration of Exam Committee (AEC);
    c. Development of a procedure manual which contained detailed instructions for handling the secure CST testing materials, loading and unloading the CST software and examinee performance data, administration of the examination and survey forms, handling examinee performance data, and trouble-shooting computer problems;
    d. Recruitment of subjects which included explaining the CST Pilot Study and demonstrating CST to graduating senior students and faculty at 18 schools of nursing in the Philadelphia, Chicago, and Indianapolis areas;
    e. Recruitment and training of nurse facilitators for the four-hour examinee orientation sessions. Recruited and trained six nurse faculty (in Chicago and Indianapolis) who served as "facilitators" to examinees being

oriented to the CST system. The role of the facilitators was to assist examinees, who had no previous encounter with this testing modality, with the orientation to, and mechanics of, CST. This was done in order to minimize examinee difficulty and frustration with the mechanics of the system and thus enable them to more "realistically" simulate nursing practice in an unfamiliar testing environment (computer). The goal was not only to make examinees more comfortable, but also to reduce the measurement error introduced by this very new and complex testing modality.

f. Making arrangements for the administration of CST in two college nursing labs, two professional computer testing centers, and at the NBME Computer Testing Center;
g. Conducting three, two-day training sessions for those who were responsible for administering CST and maintaining the security of the examination.

3. Planned for and conducted a scoring key validation meeting following the pilot study. During this meeting, unanticipated actions (those performed by examinees but not identified as scoring items), misfitting items, and extremely difficult items for each case were reviewed by six members of the Scoring Key Development Committee. Unanticipated actions which were identified by the committee as equivalents to existing scoring items were added to the scoring keys. Inappropriate and risky behaviors were also identified and subsequently added to the scoring keys. Misfitting and extremely difficult items were considered on a case by case basis and decisions were made by the committee regarding the items retention or deletion from the scoring keys.

Goal IV. Develop and Implement a plan for promoting the use of clinical simulation testing in nursing licensure examinations with Member Boards and the nursing community.

Activities

1. A follow-up on CST field testing which summarized examinee responses to CST was reported in the National Council's publication of *Issues*, 1990, Volume 11, Number 2.

2. CST was available for hands-on-experience at the National Council's 1990 Annual Meeting. Sixty-four annual meeting attendees signed in at the computer terminals. Attendee reactions to CST were summarized and reported in the National Council's publication of *Issues*, 1990, Volume 11, Number 3.

3. Members of the Steering Committee and staff presented an update on the CST project along with a demonstration of CST at each Area Meeting in 1991.

4. An update on the CST Pilot Study was summarized and reported in the Spring 1991, publication of *Issues*.

5. The following CST presentations and demonstrations were given:

   a. to the Chicago Area Testing Organizations meeting on September 11, 1990;
   b. to the Virginia Council of Associate Degree Nurse Educators on September 24, 1990, in Richmond, Virginia;
   c. at the CTB McMillan/McGraw-Hill Invitational (attended by close to 200 nurse educators) on September 13, 1990, in St. Louis;
   d. in Washington, D.C., at the American Association of State Social Work Boards in December 1990.
   e. to the Examination Committee of the American Veterinary Association on January 16, 1991, in Chicago;
   f. to the Council on Research in Nursing Education on February 6, 1991, in San Francisco;
   g. at the CTB McMillan/McGraw-Hill Invitational on February 22, 1991, in Monterey, California;
   h. to the American Dental Association on April 16, 1991, in Chicago;
   i. at the annual meeting of the American Association of Colleges of Nursing in March 1991, in Washington, D.C.;
   j. at the meeting of the American Organization of Nurse Executives in May 1991, in San Diego, California;
   k. at the National League for Nursing (NLN) conference on June 12, 1991, in Nashville, Tennessee.

6. Paper on the Measurement Characteristics of CST accepted for presentation at the NLN Conference on Measurement on June 9, 1991, in Nashville, Tennessee.

7. Began development of an external funding proposal to be submitted to the Kellogg Foundation. Emphasis to be on identification and testing of processes that demonstrate the validity and reliability of CST for use in evaluating nursing competence.

8. Recommended to, and received authorization from, the Board of Directors to share with the National Center for Nursing Research (NCNR), the copyrighted list of nursing interventions contained in the CST default nursing intervention database. This will be used by NCNR in the development of a computerized, standardized taxonomy of nursing data.

9. Reviewed and approved for use a questionnaire disseminated to all RN and LPN/VN nursing education programs requesting information about computer hardware and software accessibility and use in basic/undergraduate education. The questionnaire was accompanied by a letter explaining the National Council's investigation of computerized testing and the need to assess the computer usage in schools of nursing for future planning should these testing modalities be implemented. (Note: results of this survey will be reported in a future addendum.)

Committee Members
Shirley Silverman, AL, Area III, *Chair*
Patricia Beck, NY, Area IV
Debra Brady, NM, Area I
Dorothy Fiorino, OH, Area II
Eva Matherly, ID, Area I
Barbara McCant, GA-RN, Area III
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Staff
Anna Bersky, *CST Project Director*
Carolyn Yocom, *Director of Research Services*

Attachment A

Glossary of Computer Testing Terms

Action—a request made by an examinee in managing a CST case; these requests are recorded on a transaction list (T.L.) which is a readable form of examinee data used for building a score. An action refers to the request made by the examinee; an item refers to a criterion for performance recorded in the scoring key.

Benefits—elements of the CST scoring criteria (scoring key items) which are actions, identified by the Scoring Key Development Committee (SKDC), essential to the correct management of the simulated client. Credit is gained when benefit actions are taken.

BIGSTEPS—software program which applies the RASCH PARTIAL CREDIT MODEL to CST performance data and produces an estimate of ability for each examinee and difficulty for each item and the steps within each item.

Boolean logic—for the CST scoring keys, the structured means of encoding scoring criteria, using either..or, if..then and other algebraic statements.

CAPTURE—a feature of the CST software which captures and records each examinee action that is not in the nursing intervention database and therefore is unrecognized by the system. This allows for the collection of terms which may be subsequently added to the nursing database.

Case Author—content expert who defines the structure and content of a CST case.

Case Development Committee—the National Council committee of CST case authors. The committee meets to review the simulations at various stages of development and then to approve the final programmed version of the case. A criteria for appointment to this committee is that a member work with new nursing graduates.

Case Specific Response—a response consistent with a specific client's health status which is received when the examinee requests nursing assessments or interventions and results of medical procedures/studies during a specific CST case. These responses are available for database terms when specified by case authors.

CST analyst—specialized technical staff at the National Board of Medical Examiners (NBME) who convert the case flow charts developed by case authors into simulations that can be presented on the computer. When scoring criteria are developed, CST analysts convert the performance criteria into rigidly encoded logical statements that direct the computer to compare examinee actions with the scoring criteria (scoring key items).

CST case—specific situation amenable to nursing management which presents the examinee with a brief description of the client in a particular setting. The examinee is able to apply the nursing process by interacting with the client through data collection and free keyboard entry of nursing interventions. Client status changes over time and in response to nursing actions thus allowing the examinee to evaluate and take subsequent action. Since the CST environment does not use questions to prompt examinee actions, problem solving is uncued.

CST Scoring Key—a set of scoring items (nursing actions) and their equivalents (some of which have been timed and/or sequenced according to when they should be performed) that have been specified by a group of expert nurses (Scoring Key Development Committee) as those actions expected of a minimally competent beginning level nurse in a given CST case.

Debug—to discover and correct logical or technical inconsistencies in a computer system. An important part of the developmental cycle of CST cases.

Default Response—in CST, the normal values and responses to examinee requests for nursing interventions or the results of medical procedures or treatments. Such responses are available for every term in the nursing and medical databases.

DINSTALL—command typed into the computer to remove the CST subdirectory and its contents from the hard disc.

Encryption Key—a security measure that uses a confidential phrase which must be typed into the computer to decrypt (make readable, transfer, and uncompress) the CST exam data files and examinee answer files.

Flags—elements of the CST scoring criteria (scoring key items) which are critical actions identified by the Scoring Key Development Committee (SKDC) as indicative of serious problems in understanding and managing a given clinical simulation. Credit is lost when flag actions are taken.

Flow Chart—a detailed representation of the client problem that is being modeled and its response to interventions over time. Initially developed by the case author, refined by the CST analyst and reviewed and approved by the Case Development Committee. This document serves as the basis for "programming" the simulation.

Function Key—a dedicated key on the IBM-PC compatible keyboard, used in CST to access the major functions in managing the simulated client: F1, ASSESS; F2, REVIEW; F3, INTERVENE; F4, CLOCK ADVANCE; F6, HELP.

Inappropriates—elements of the CST scoring criteria (scoring key items) deemed by the SKDC to be unnecessary for the management of the simulated client, but not posing actual risk to the client. Credit is lost when inappropriate actions are taken.

Item—CST scoring criteria which define actions expected of examinees in each case. Items consist of benefits, inappropriates, risks, and flags.

Item Difficulty Calibration—the calibration (in logit units) of the difficulty of an item when the Rasch measurement model is applied to test data. Examinees with higher ability measures are more likely to succeed on more difficult items than examinees with lower ability measures.

INTERPRETER—computer program that compares coded CST scoring criteria with examinee Transaction Lists and produces a string of item responses for analysis.

Key Validation—study by the CST SKDC of the elements in a scoring key based on a statistical analysis of examinee performance. CST scoring elements that perform in an aberrant statistical manner, as well as actions performed by examinees when managing the cases but not initially part of the scoring keys, are reviewed by the SKDC. At this point, items may be altered, deleted from, or added to the scoring key.

Logit—logarithmic values for person ability and item difficulty which are produced when the Rasch model is applied to test data.

Medical Intervention Database—over 2,000 medical procedures and therapies (including diagnostic tests, medications, and treatments, along with the normal values and/or responses) that are recognized in CST and are available for administration or review by examinees.

Neutrals—elements in the CST scoring criteria thought to be related to the clinical problem, but for which no consensus could be achieved by the SKDC; or, actions that the SKDC agreed did not make one examinee more qualified than another. These elements are assessed as part of the key validation process.

Nursing Intervention Database—over 2,500 nursing procedures and therapies (along with the normal responses) that are recognized by CST when requested by examinees through free keyboard entry of desired nursing interventions.

Megabytes of hard disc space—Space available on the computer's hard drive which is needed to store and administer a computerized test.

Partial Credit Item—a scoring item (in CST, nursing action or set of actions) that identifies acceptable alternative approaches to patient management which can be ordered from least to most correct. The item has a step structure where each item step represents an increasing level of difficulty and/or correctness. This structure permits awarding different amounts of credit for different levels of performance on an item.

Person Ability Measure—the measure (in logit units) of the ability of a person when the Rasch measurement model is applied to test data.

Practice Effect—for CST, an effect on performance related to learning of the test system's characteristics rather than the competence of the examinee.

RASCH MEASUREMENT MODEL—an application of item response theory which produces estimates of examinee ability and item difficulty expressed in logit units. These estimates are positioned on a common linear scale ranging from approximately -3 to +3 logits. Since this is a probabilistic model, there is a 50/50 chance that an examinee will succeed on an item when its difficulty matches the examinee's ability.

RASCH PARTIAL CREDIT MODEL—a measurement model used to estimate examinee ability and item and item step difficulty when more than one action, course of action, or alternative action is available for credit. The most optimal action, course of action, or its alternative, is awarded full credit while less optimal but appropriate actions are awarded partial credit.

RESTART—command typed into the computer if there is a software malfunction during administration of the CST examination. Initiating this command returns the examinee to the case in process at the time of the malfunction.

Risks—elements of the CST scoring criteria (scoring key items) deemed by the SKDC as dangerous to the simulated client. Credit is lost when risky actions are taken.

Scoring Key Development Committee (SKDC)—a National Council committee of content experts who review CST simulations to develop performance criteria (scoring keys). The committee meets in subgroups of 5-7 members to develop keys for individual cases. A criteria for appointment to this committee is that members work with new nursing graduates since it is the committee's responsibility to develop scoring keys which define expectations of the minimally competent beginning level nurse.

Transaction List (T.L. or Lister)—a record of examinee actions, including the timing and sequencing of actions, which is produced as the examinee works through each CST case.

Annual Report of the National Board of Medical Examiners (NBME)

The following report summarizes the Computerized Clinical Simulation Testing (CST) development activities completed by the National Board of Medical Examiners (NBME) from May 1990, to May 1991.

I. Model Customizations

Network version of CST

A preliminary investigation into the feasibility of modifying the model to run on a network found the timeline too short to adequately complete and test such a modification in time for the pilot study administration.

The following changes were made to the model:

1. Medication Record was removed from the model. In its place, a phrase is added to the case stem indicating that the patient has not received any prn medications in the past eight hours.

2. Interrupt messages are now recorded under the Nurses Notes/data section of the chart.

3. The case introduction is now recorded under the Nurses Notes/data section of the chart.

II. Default Database Modification

Presently there are 721 parent terms and 1675 synonyms in the CST default database. New terms and synonyms continue to be identified by committee members, consultants, debuggers and field test participants.

III. Simulation Development

The remaining 12 programmed CST simulations were approved by the CST Case Development Committee at its June 1990 meeting. This brings the total case pool to 25 programmed case simulations.

IV. Scoring Key Development

The remaining 13 scoring keys were developed at the June 1990, and July 1990, Scoring Key Development meetings. This brings the total to 25 completed scoring keys. Nineteen scoring keys have been coded into logic statements and entered into the INTERPRETER program.

V. Field Test

The first 12 simulations were administered to 47 examinees between April 23, 1990, and June 14, 1990. The remaining 15 simulations were administered to 32 examinees between June 25, 1990, and July 3, 1990.

VI. Field Test Data Analysis

Examinee transaction lists for all 25 cases were hand scored by NBME staff to identify cases that performed well. The National Council determined which cases best covered the NCLEX-RN test plan. Eighteen cases that covered the test

plan and performed well were analyzed using M-STEPS and SPSS-X. Sixteen cases were chosen by the National Council for use in a one and one-half day test pilot study.

VII. Videodisc Development

Video addresses were programmed into two simulations for use with the videodisc at the Philadelphia exam site.

VIII. Pilot Study Preparation

1. The CST cases and default database were internally reviewed, edited, and updated based on feedback from National Council review.

2. The CST orientation was modified to include the recent model changes.

3. The HELP function screens were modified to include the recent model changes.

4. CST was demonstrated by NBME and National Coucil staff at eight local Pennsylvania and New Jersey nursing schools to recruit December graduates for the CST Pilot Study.

5. The NBME's Computer Based Testing Manual was used as a guide for developing a CST Pilot Study administration procedure manual.

IX. CST Pilot Study

CST Software

A controller program was developed to administer the CST Pilot Study in two sessions. The first session, Day 1, collected examinee identification, displayed on-screen instructions and administered the orientation program and five practice CST cases. The second session, Day 2, collected examinee identification, displayed on-screen instructions and administered 11 CST cases.

Archival and encryption routines were incorporated into the system to ensure the security of the software. A unique encryption code was assigned to each test site. This code was necessary to load the exam software onto the computer, to transfer the examinee response files from computer to diskette and to remove the exam software from the computer at the end of testing.

The Day 2 examination cases were administered in two forms. To test for practice effect, the first nine exam cases were administered in reverse order to half of the examinees. The last two cases were administered in the same order to all examinees.

A videodisc augmented version of the last two cases was administered at the Philadelphia site. It was thought that the examinees taking the videodisc augmented cases would be less distracted by the additional stimulus if the video cases were presented last.

An internal timer was programmed to allow examinees 30 minutes to take each of the five practice cases and 35 minutes to take each of the 11 exam cases. If the examinee exceeded the time allowed, the cases ended with a message that the examinee had run out of time. Over 50% of the examinees ran out of time on the first practice case. The proctors were instructed to give content and technical assistance during the practice session. Many examinees ran out of time on the practice cases because they were discussing the case with the proctor.

X. CST Pilot Study Sites

Five sites were authorized by the National Council as CST Pilot Study sites. Pilot study site location, exam administration dates and examinee totals are summarized below in Table 1.

Table 1. 1990-1991 CST Pilot Study Sites

CST Pilot Study Site	Exam Dates	# Of Examinees
NBME CBT Center, Philadelphia	12/5/90 to 1/26/91	86
TRO Plato Center, Indianapolis	12/5/90 to 2/1/91	72
TRO Plato Center, Chicago	12/15/90 to 2/1/91	66
Northern Illinois University	12/11/90 to 12/13/90	19
Joliet Junior College	12/18/90 to 12/19/90	20

XI. Pilot Study Administration Problems

Documents regarding exam administration procedures, security measures, and software installation and de-installation procedures were distributed to the five exam sites.

There were few technical problems experienced during the two-month CST Pilot Study administration. NBME staff was available for technical support. Most inquires were related to test site staff being unfamiliar with the disk operating system (DOS) and not following the procedures in the technical manual. Few hardware problems were encountered.

Of the 4208 examinee transaction lists produced by 263 examinees taking 16 cases, six transaction lists were not recoverable and four were only partially recoverable due to technical problems.

XII. Intervene Screen Use

The CST model is capable of capturing every intervention attempted by an examinee through the INTERVENE function. A report can be generated that lists the number of interventions requested (typed in) by an examinee and the percent of those interventions actually carried out. Reasons for not carrying out requested interventions include not following the appropriate procedures, misspelling the request, requesting a term not in the database or cancelling the request. The information obtained through intervention sheet capture is valuable in assessing how examinees try to "communicate" with the system.

The following table summarizes the INTERVENE screen capture information for 16 cases. The totals and percentages reported below in Table 2 are averages for the group. For example, the 32 pilot examinees enrolled in diploma programs requested an average of 182 interventions while managing 16 CST cases. Of the 182 interventions requested, an average of 72% were actually carried out to completion by the examinee. This percentage is remarkably high given the lack of standardization in nursing terminology and the fledging status of this project.

Table 2. 1990-1991 CST Pilot Exam Summary of INTERVENE Screen Use.

Program	Number of Examinees	Average # of Interventions	Average % of Interventions Carried Out
Diploma	32	182	72%
BSN	76	219	74%
ADN	155	249	71%

XIII. CST Key Validation

A Scoring Key Validation meeting was held March 11 to 13, 1991, in Philadelphia to review the CST Pilot Study cases and keys. Six members of the CST Scoring Key Development Committee met with National Council and NBME staff to review data gathered during the CST Field Test and Pilot Study.

XIII. CST Key Validation

The CST Key Validation Committee managed the CST case as a group, reviewed the existing scoring key and discussed poorly fitting items and problematic issues. As the committee directed, items were modified, added or deleted to further ensure that the scoring keys assess minimal competence. Actions taken by CST pilot examinees that had not been anticipated or previously scored were reviewed and categorized by the committee. All 11 pilot study cases were reviewed and validated by the committee. NBME staff is making the necessary modifications to the scoring keys by recoding and entering the logic statements into INTERPRETER. The resulting INTERPRETER output is forwarded to the National Council for analysis.

XIV. Transaction List Review

The CST Key Validation Committee reviewed the transaction lists of ten field test examinees for each of 11 CST cases and rated their performance from poor to superlative using the rating scale in Appendix A.

Appendix A. Transaction List Review CST Field Test Data

Instructions

These transaction lists were selected from the CST Field Test. They reflect the actions of soon to graduate or recent nursing graduates. Assume nothing about the distribution of students; you may rate all transaction lists poor or award superlatives to all. Select whole numbers for the ratings.

Rating Scale

5 - SUPERLATIVE. The examinee displayed maximum efficiency and accuracy in application of the nursing process. Nursing actions are relevant and timed and sequenced in such a manner that client management is most optimal.

4 - GOOD. The examinee demonstrated above average efficiency and accuracy in application of the nursing process. The examinee keyed in to the problem quickly. A few actions were missed, but overall the client was managed well.

3 - MINIMALLY COMPETENT. The examinee demonstrated sufficient efficiency and accuracy in application of the nursing process. Some important actions were missed or delayed, but the framework for appropriate client management seems to be present.

2 - MARGINAL. The efficiency and accuracy in application of the nursing process is questionable. Actions missed may jeopardize client health status thus client management may be inadequate.

1 - POOR. The examinee missed the point of the case completely.

Addendum Report of the Steering Committee, Computerized Clinical Simulation Testing Project

All recommendations regarding the Computerized Clinical Simulation Testing (CST) Project are presented in the Addendum Report of the Board of Directors.

Introduction

In March, 1988, the National Council was the recipient of a three-year, $1,868,954 grant from the W.K. Kellogg Foundation to investigate the feasibility of using Computerized Clinical Simulation Testing (CST) to measure nurse candidates' clinical decision-making competence. A first step in the development of CST was to collaborate with the National Board of Medical Examiners (NBME) to adapt their clinical simulation software to nursing.

Under the direction of the CST Steering Committee and project staff, the goals of the three-year feasibility study have been accomplished. The National Council has collaborated with NBME to adapt its computer simulation model to nursing. CST was designed to evaluate clinical decision-making competence in nursing. CST permits examinees to realistically simulate the problem-solving and decision-making skills used in the management of client needs. In CST, each case begins with a brief description of a client situation presented on an introductory screen. The examinee interacts with the client, without cuing (no questions or answer options are presented), through data collection and intervention activities that are specified by free keyboard entry. The simulations are dynamic in that the client's condition changes over time and in response to nursing actions. This permits examinees to evaluate the effectiveness of nursing actions and to provide follow-up care.

Twenty-seven nursing simulation cases have been developed. Twenty-five cases have been programmed, 25 scoring keys have been developed, and two CST cases have audio-visual augmentation. A 2500+ term default nursing intervention database has been developed. This database enables CST to function as a unique uncued examination since it is programmed to recognize a full range of nursing activities specified by examinees through free keyboard entry. A small-scale field study and large-scale pilot study have been conducted to evaluate the feasibility of administering CST and to examine the validity and reliability of CST.

The pilot study results suggest that CST can be administered to large numbers of examinees without breaches of security and with minimal technical problems. Results of the Post-Test Questionnaire analysis suggest that examinees were able to demonstrate clinical decision-making skills in CST. Results of the analysis of CST performance data indicate that CST is a potentially valid and reliable exam which can be administered within a reasonable timeframe.

The details related to the accomplishment of each project goal are summarized below.

Accomplishment of Project Goals

Goal I. Adapt technology developed by National Board of Medical Examiners (NBME) for the development and delivery of computer based clinical simulations for initial licensure.

During the three years of the CST Project, NBME's computer simulation model has been adapted to reflect professional nursing practice. In evaluating the components of this model and its potential adaptation to nursing, it was recognized that a number of modifications were needed. The CST simulation model is described below.

1. Labels of the Function Keys are as follows:

   A. [F1 ASSESS]: permits the examinee to specify/order desired client assessment data
   B. [F2 REVIEW]: permits the examinee to specify/order desired client record for review
   C. [F3 INTERVENE]: permits the examinee to type in the desired nursing action. When a nursing activity is specified, the time required to carry out the request is reported on the screen. The examinee then has the opportunity to cancel or confirm the request and have it carried out. When the activity is carried out, the clock advances in simulated time and the new time is displayed at the top of the screen.

D. [F4 CLOCK ADVANCE]: permits the examinee to move forward in time so that either the client can be evaluated following nursing intervention or further nursing interventions can be specified
E. [F6 HELP]: permits the examinee to obtain on line help with the technical functions of CST

2. Development of a Default Nursing Database. The professional nurse primarily engages in ongoing client assessment and intervention activities which are independent of medical orders and carried out in direct contact with the client. Therefore, a mechanism was needed through which the nurse could easily specify desired nursing actions.

A default nursing database was needed to permit simulation of professional nursing practice. This was a major undertaking since no standardized nursing language had previously been compiled and the database needed to be broad enough to recognize numerous nursing activity terms and all their synonyms which might be typed in by examinees. The default nursing database which exceeds 2500 terms was developed by twelve database consultants. The work of these consultants included identifying parent terms (the most common terms used to refer to specific nursing actions) and all synonyms (all possible ways which an examinee might request the nursing action through free keyboard entry) for each parent term.

While this database has been carefully developed to recognize all examinee requests, the lack of standardization in nursing terminology continues to cause some frustration for examinees who sometimes have to try a variety of synonyms for their request before it is recognized. During the pilot study, 72% of all requests typed into the [F3 INTERVENE] screen were actually carried out by examinees. This percentage is remarkably high given the lack of standardization in nursing terminology and the fledgling status of the project. However, in order to increase system recognition and ultimately increase the ability of examinees to carry out their requests, the CST system makes a record of, or "captures," all requests that are not recognized. These actions are subsequently reviewed and those which would enhance the system are added to the database. Database development, therefore, is ongoing.

Included in the ongoing database work will be the development of an entire nursing assessment database. The CST Steering Committee recently decided upon a major change in the simulation model in order to enhance the ability of examinees to more realistically simulate nursing practice. This involves elimination of the current [F1 ASSESS] screen. Examinees will subsequently make requests for assessments with [F3] through free keyboard entry. The [F3] screen will be labeled [F3 ASSESS & INTERVENE]. This decision was based on two major factors.

A. One factor was feedback from the CST field and pilot test subjects, nurse educator facilitators of the CST Pilot study orientation sessions, content experts, and those who have had hands-on experience with CST at the various meetings and conferences across the country where CST has been demonstrated. The comments indicated that many examinees were confused about where to obtain assessment data which was not available through [F1]. The data available in F1 was limited to that obtained through specific physical examination activities and a generic request for either client or family interview. One prevailing complaint from individuals who experienced CST was that they wanted to be able to specify what information they wanted from the client and receive a response. Another was that they were not sure how to get certain assessment information that was not available through [F1 ASSESS]. As a result, assessment data unavailable through [F1] but available through [F3] was frequently not obtained by "CST nurses" because of this confusion. In order to make the system less complex or more "user friendly" and to be able to resolve some of the scoring dilemmas, the CST Steering Committee requested that NBME make this change in the simulation model.
B. A second major factor precipitating the decision to eliminate the [F1 ASSESS] screen was one that arose from scoring key issues. Since the Assess screen actually provides cues to examinees regarding which assessments might be done, it was not possible to determine if an examinee succeeded on an assessment item because it was either intentionally or inadvertently selected.

3. Case Starting Point. In CST, each case starting point is different for the CST nurse. As in real life, the CST nurse enters the picture at various points during the client's encounter with the health care system. For example, the CST nurse may first encounter the client during the first post-op day, on a home visit after discharge, upon transfer to a long term care facility or during a first clinic visit. This requires a mechanism for providing an update on client status. An Interim Summary, which provides an update on client status will be available in the Nurses' Notes section of [F2 REVIEW].

4. Handling of PRN, STAT, and Routine Medications and Treatments. In CST, the nurse is not responsible for administering routinely scheduled or stat treatments and medications. These will be automatically initiated by the system and an ongoing record of these will be kept in the Nurses' Notes. The CST nurse is responsible for administering PRN medications and treatments. The name of the medication is typed in [F3] and the examinee is queried as to whether the medication should be administered or held. The examinee must then indicate the desired action which is then recorded in the Nurses' Notes. If the CST nurse wishes to hold any treatment, this request will be typed into the [F3] screen and subsequently recorded in the Nurses' Notes where it can be reviewed at any time.

5. Handling of Requests for Medical Interventions not Ordered by the Physician. When a medication administration is requested without a physician order, the system informs the examinee that the medication is not available without a doctor's order. When a medical treatment other than medication is requested without a physician order, the responses to the examinee vary. Any requests for unordered medical interventions are noted in the examinee performance record and may result in loss of credit.

6. Selection of Client Diagnostic Test Results for Review. In the development of scoring keys, the committee felt that examinees should be scored on the types of items they selected from the client chart for review. They were most interested in capturing, for scoring purposes, which diagnostic test results the examinee reviews. It was therefore necessary to modify the simulation model so that examinees could only select one diagnostic test result at a time for review, and only the results of the test selected would be reported. In the original simulation model, when an examinee selected a test result for review, that test result plus all the results below it would be reported to the examinee. The examinee's record then indicated that all the results reported to the examinee had been reviewed. It was, however, unclear from the examinee record which test result had been selected by the examinee for review.

7. Production of Interactive Videodisc. In CST, the motion sequences are client responses which include not only videos of client assessment such as wound drainage, skin, extremities, etc., but also videos of the client in which both verbal and nonverbal messages are transmitted to the examinee. These motion sequences make the simulations even "more real" as examinees report becoming more involved with the client during these cases. The development of interactive videodisc was facilitated by a Videodisc Consultant, a professional production company, and acquiring an appropriate filming location.

8. Development of a CST Orientation System. NBME's CBX orientation system was adapted for use with CST. While this program presents the basic instructions for managing the CST system, field study examinees reported some dissatisfaction with the system. The system was then revised prior to the pilot study. However, during both field and pilot studies, it was noted that examinees frequently neglected to perform the expected follow-up nursing activities when the client appeared to improve. Because of the anticipated model changes, the entire orientation system will be revised. In addition to incorporating the new model changes, the system will be designed to: 1) guide the examinee through a case step-by-step; 2) remind the examinee to use problem-solving as if in "a real life" situation; and 3) inform him/her of the expected performance criteria emphasizing the need for performing follow-up activities.

9. Miscellaneous Model Adaptations. A number of minor model modifications which are actually invisible to the examinee, but which will enhance the "user friendliness" of the system, are currently being completed by NBME. These include: changing the function of the [Escape] and [Enter] keys in order to prevent inadvertent early exit from the case; and, reformatting some of the report screens to eliminate examinee confusion about what was being reported on the screen during an "Interrupt Message" (unsolicited updated information about the client is periodically provided in CST as in real life when a nursing assistant or family member interrupts the nurse to report some change in the client's condition).

10. Software Development and Customization for Administration of the CST Cases. A customized CST software package was developed by NBME for the National Council to administer CST to Nurse Experts for review and comment. Other software packages were developed and customized by NBME for the administration of the CST Field Study and Pilot Study. These packages were designed to administer the cases in a designated sequence and to produce performance records.

A controller program was developed to administer the CST Pilot Study in two sessions. The first session collected examinee identification, displayed on-screen instructions and administered the orientation program and five CST practice cases. The second session collected examinee identification, displayed on-screen instructions and administered 11 CST cases.

Archival and encryption routines were incorporated into the system to ensure the security of the software. A unique encryption code was assigned to each test site. This code was necessary to load the exam software onto the computer, to transfer the examinee response files from computer to diskette, and to remove the exam software from the computer at the end of testing.

The examination cases were administered in two forms. To test for practice effect, the first nine exam cases were administered in reverse order to half the examinees. The last two cases were administered in the same order to all examinees. A videodisc augmented version of the last two cases was prepared for administration at one site. An internal timer was programmed to allow examinees 30 minutes to take each of the five practice cases and 35 minutes to take each of the 11 exam cases. If the examinee exceeded the time allowed, the cases ended with a message that the examinee had run out of time.

Manuals supporting the CST Pilot Study software were developed through the collaborative efforts of National Council and NBME staff. Manuals regarding exam administration procedures, security procedures, security measures and software installation and de-installation procedures were distributed to the five exam sites. Testing site staff (at all sites except the NBME Computer Based Testing Center in Philadelphia) responsible for administering the exam were given a two-day orientation to the procedure manuals and to the procedures for administering CST by National Council staff.

There were few technical problems experienced during the two-month CST Pilot Study administration. NBME and National Council staff were available for technical support. Most inquiries were related to test site staff being unfamiliar with the disk operating system (DOS) and not following the procedures in the technical manual. Few hardware problems were encountered. Of the 4208 examinee transaction lists (examinee performance records) produced by 263 examinees taking 16 cases, six transaction lists were not recoverable and four were only partially recoverable. Most of the data lost was from the orientation session. Only one examinee record from one of the eleven exam cases was not recoverable. While the loss of data on a case is possible, a reliable estimate of examinee performance could still be obtained.

Goal II. Develop a Pool of Computerized Clinical Simulation Cases.

During the three years of the CST Project, a pool of 27 CST cases was developed. Twenty-five cases were programmed, field tested, and debugged; a 2500+ term default nursing database was developed; and two cases were augmented with interactive videodisc.

1. Case development activities during project year one included:

   A. Development and CST Steering Committee approval of guidelines for 24 cases in October, 1988.
   B. Criteria for appointment to the Case Development Committee (CDC) and the Scoring Key Development Committee (SKDC) were developed and approved by the CST Steering Committee and Board of Directors. Individuals appointed to the committees are representative of all major areas of nursing practice.
   C. Appointment of a 12-member Case Development Committee.
   D. Began case development process. The case development process began December 7-9, 1988, with the first meeting of the CDC. Forms for the development of cases and direction for their use were prepared by the CST Project Director and NBME's CST Project Coordinator. Since no CST case was available for demonstration to the members of the CDC, the CST Project Director prepared and presented a sample case to CDC members in order to model the case development process. By the end of the first project year, 24 cases were in various stages of development.

2. Case development activities during project year two included:

   A. Approval of 27 written cases.
   B. Recruitment of six nursing Content Experts, representing all clinical areas, who served as case debuggers and consultants to NBME's programmers. These individuals review cases for consistency and realism and assist programmers so that the integrity of the cases is maintained.

C. Programming and debugging 25 CST cases.

D. Appointment of the 12-member Scoring Key Development Committee (SKDC).

E. Psychometric consultation regarding scoring key development. A panel of psychometric consultants was convened prior to development of CST Scoring Keys. Based on the recommendations of the psychometric consultants, the CST Steering Committee decided that NBME's procedure for scoring key development should be adapted for CST. It should then be evaluated and modified as needed following the field and pilot testing.

F. Orientation of the SKDC members and development of Scoring Keys for 25 cases. The responsibility of the SKDC is to develop scoring items for each case which will define and distinguish between minimally competent and less than competent licensure candidates. The scoring items are labeled as "BENEFIT," "INAPPROPRIATE," "RISK," AND "FLAG."

Those actions which the examinee is expected to take are called BENEFITS. Actions that pose potential harm to the patient are called RISKS. INAPPROPRIATES are those actions which may not place the patient at risk, but represent disorganized thinking. A FLAG is an error of omission (commission in some instances) which indicates that the examinee missed the point of the case.

Further information about examinee competence is obtained when the SKDC ranks actions according to their relative importance and/or with respect to the simulated time or sequence in which the actions were taken. When such items are part of a scoring key, more or less credit is earned by the examinee depending on the level of correctness, the timing, and/or the sequencing of the actions. The temporal characteristics of CST allow the SKDC to specify relative credit using the passage of time in a simulated case. As the case progresses, more information may be provided to examinees when they have not taken the appropriate action. The examinee's activities are interrupted by a message reporting a change in the client's status which more specifically clues the examinee to a client need. The SKDC may specify that examinees who take appropriate action before the clue should receive "more credit" than others.

Examinees are not constrained to "one" right action or course of action. The SKDC defines alternative but equally optimal courses of action that will be awarded full credit as well as suboptimal but appropriate courses of action that can be awarded partial credit. As each examinee takes each case, an examinee transaction list (Attachment A), a record of the examinee's performance, is generated. When the examinee performance record is compared to the case specific scoring key (Attachment B) by a computer program "INTERPRETER," the string of examinee scores on the items is produced. This string of performance data is then subjected to a program for partial credit analysis called BIGSTEPS. BIGSTEPS is a software program which applies the Rasch Partial Credit Model to CST performance data and produces an estimate of ability for each examinee and difficulty for each item and the steps within each item. It also produces person and item fit statistics for each case; person and item separation reliability coefficients; and, a mean item difficulty calibration and mean person ability measure for each case. These statistics permit examination of the behavior of the persons and items within each case.

The SKDC developed 25 scoring keys during the second project year. These keys were subsequently used to score the performance of field study participants.

G. Field test of 25 CST cases. From April to July, 1990, 77 recent nursing graduates, recruited through nine schools of nursing, participated in the field study which was conducted at the NBME Computer Based Testing Center in Philadelphia. Each examinee completed three four-hour testing sessions which included the CST orientation program, two practice cases, and the 10 to 13 CST examination cases. Data for 16 cases were analyzed using the Rasch Partial Credit Model. The analysis produced Rasch person separation reliability (internal consistency) estimates for cases ranging from 0.66 to 0.88. In addition to the statistical analyses, examinee problems with the system were identified and remedied prior to the pilot study. Survey data was also collected and feedback from examinees provided information regarding the number of CST practice cases (3-4) needed to feel comfortable and confident with the CST system. The results of statistical analyses as well as feedback from examinees assisted in identifying and fixing "bugs" in the system, selection of cases to be used in the CST Pilot Study, and preparation of instruction manuals for administering the CST examination.

3. Case Development Activities During Project Year 3.

A. Completed Videodisc Development for Two CST Cases. Videodisc addresses for the two cases were programmed by NBME and 18 copies of the videodisc were pressed for use in the CST Pilot Study.

B. Twenty-five programmed cases reviewed by 12 nurse Content Experts. Comments regarding the flow of the cases and the database needs were used to assist in the final debugging of the cases and default nursing database prior to the CST Pilot Study.
C. Completed all case and database modifications prior to the CST Pilot Study.
D. Held a Scoring Key Validation Committee Meeting Following the Pilot Study. After the CST pilot, the scoring keys for 11 cases were validated. This process included the review and modification of scoring keys prior to the final scoring and analysis of CST performance data. During the key validation meeting "Unanticipated Actions" (actions taken by pilot study examinees which were not on the initial case scoring key) were reviewed. In the review of these actions, the committee determined whether an action was "equivalent" to existing benefit items; a neutral item; or risky or inappropriate action which should be added to the key. They also reviewed very difficult and misfitting items and reconsidered their inclusion in the keys. Items tend to "misfit" because the "more able" people are missing them at a higher rate than is expected. Such items need to be studied carefully because they may obscure the measures and thus cloud the differences between the more and less competent examinees.
E. Held a meeting of psychometric consultants to discuss modifications of the BIGSTEPS program for Rasch Partial Credit Analysis. The modifications involved the development of varied scoring models which reflect a more accurate conceptualization of the different types of partial credit items in the CST scoring keys.

Goal III: Pilot Testing

Objective: Examine the validity and reliability of computerized clinical simulation tests as a basis for making nursing licensure decisions.

Following is a report of the findings of the CST Pilot Study.

Introduction and Methodology

The CST Pilot Study was conducted from December 4, 1990, through January 26, 1991. Two hundred and sixty-three February '91 NCLEX-RN licensure candidates from 25 schools of nursing in the Chicago, Indianapolis, and Philadelphia areas participated in the study. Subjects were volunteers recruited primarily through their schools of nursing. The CST Project Director solicited subject participation by making presentations about the CST Pilot Study to faculty and potential graduates at 19 of the 25 schools.

The sample consisted of 76 BSN graduates from eight baccalaureate degree programs, 155 ADN graduates from 14 associate degree programs, and 32 Diploma graduates from three hospital diploma programs. There were 240 female and 23 male participants ranging in age from 20 to 55. More detailed demographic information as well a summary of sample characteristics including marital status, ethnic background, and English as a first language is reported in Tables 1 through 7.

Participants were required to complete a registration form (Appendix A), to sign a participation agreement (which permitted the National Council to use their NCLEX-RN performance data for research connected with this study) and to sign a confidentiality agreement which assured their anonymity. Participation required a commitment to one and one-half days of testing which included an orientation and a testing session and completion of several survey forms. Participants were paid $150.00 upon completion of the sessions.

The study was conducted at two professional computer testing centers (one in Chicago and one in Indianapolis), two college computer laboratories in the Chicago area, and at the National Board of Medical Examiner's (NBME) Computer Based Testing (CBT) Center in Philadelphia. Subjects were given a schedule of available testing times and called the computer testing centers to schedule their orientation and test sessions. Subjects were tested following completion of their educational program and prior to taking NCLEX.

Orientation sessions included an on-line computer orientation to CST and five practice cases. These sessions were facilitated by nurse educators who themselves had completed an extensive orientation to the mechanics of CST and the content of the practice cases. In order to reduce the impact of a "practice effect" on examinee performance, facilitators assisted examinees with both the technical and content aspects of working through CST practice cases. During the orientation session, demographic information was gathered and subjects completed the following pre-test questionnaires (Cronbach alpha reliability coefficients obtained with this sample for each instrument are reported where indicated):

1. Computer Testing Anxiety (alpha = .89)
2. Computer Experience (alpha = .60)
3. Watson-Glaser Critical Thinking Appraisal (alpha = .85)
4. Demographic Data

Examination sessions included completion of 11 CST cases (two cases augmented with interactive videodisc for the Philadelphia site participants) and the following post-test questionnaires:

1. Computer Testing Anxiety (alpha = .86)
2. Opinions About CST (alpha = .91)
3. Opinions About Videodisc (alpha = .94)
4. Open-ended questions requesting feedback related to examinee experience with CST

The following report of the data analysis and results of the CST Pilot Study is organized according to the research questions that were addressed by the study. Each question is presented along with the results of the data analysis used to answer the question.

Research Questions

1. Is CST a potentially reliable and valid exam? What is the optimum number of cases that needs to be administered to obtain a reliable estimate of examinee ability?

2. What is the relationship between candidate performance on CST and other cognitive measures?

3. Is there a practice effect (i.e., a learning curve) demonstrated by changes in estimates of examinee ability over the course of the examination?

4. Is there a relationship between computer experience and examinee performance on CST?

5. Is there a relationship between computer testing anxiety and examinee performance on CST?

6. Do differences in type of basic nursing education (Diploma, ADN, BSN) have an effect on examinee performance on CST?

7. Is there a relationship between performance on CST and examinee characteristics (age, work experience, number of children)? Do examinee characteristics such as gender, LPN experience, or ethnicity have an effect on CST performance?

8. What is the impact of audio-visual enhancement on examinee performance and on examinee perceptions of realism?

9. What are examinee reactions to CST (likes, dislikes, perceptions of realism, problems, preference for type of exam)?

Analysis and Results

Research Question 1. Is CST a potentially reliable and valid exam? What is the optimum number of cases that needs to be administered to obtain a reliable estimate of examinee ability?

The results of the analyses indicate that CST is a potentially reliable and valid exam and that reliable estimates of examinee ability can be obtained with an administration of six to eight CST cases. Following validation of the scoring keys (explained in the discussion of Goal II), reprogramming of the scoring keys, and scoring of examinee actions, data for the eleven CST examination cases were analyzed using the Rasch Partial Credit Model (RPCM), an application of Item Response Theory (IRT). BIGSTEPS, a computer program designed to construct Rasch measurement, was used to estimate: a) calibrations for items; b) calibrations for the different ordered response category structures

present in the CST scoring items when timing, sequencing, and/or level of correctness are taken into consideration; and, c) measures of person ability. Internal consistency reliability coefficients (which indicate the consistency with which the items within each case measure the candidate) for each case were also obtained and range from .69 to .87 (Table 8). An average performance for each examinee across cases was then calculated to obtain the mean person ability measures. The mean CST person ability measure for each examinee was used for subsequent analyses. The mean person ability measures for the 11 CST examination cases was 0.966 and ranged from -1.58 to 3.02. A frequency distribution of the person ability measures is displayed in Figure 1.

Intercase reliability estimates were obtained using Cronbach's Coefficient Alpha. The intercase alpha reliability coefficients (Table 9) ranged from 0.86 to 0.89 depending on the sequence in which the cases were administered. These reliability coefficients indicate that candidates are being measured consistently across cases and suggest that a reliable estimate of candidate performance can be obtained with six to eight cases where alpha = 0.82 after six cases and alpha = 0.84 after eight cases.

These findings suggest that CST has the potential to provide reliable estimates of examinee ability. In addition, an acceptable level of reliability (alpha > 0.80) can be achieved when examinees are administered from six to eight cases. This is very encouraging since candidates were able to complete six to eight cases in less than four hours.

Content validity issues were also addressed. In order to assure content validity of the CST examination (content consistent with the NCLEX-RN Test Plan and appropriate for the evaluation of minimal nursing competence), case authors (members of the Case Development Committee) were each given a set of confidential directions which instructed them as follows:

"Using (1) the competencies of problem solving and priority setting, (2) application of the nursing process, and (3) the expected knowledge, skills, and abilities of a minimally competent, newly-licensed registered nurse, develop a case description that is specific to the nursing management of:"

The directions then specified the client age range, setting, and client need which was to be addressed in each case. Each client need was identified as belonging to one of the four client need categories specified in the NCLEX-RN Test Plan. These directions helped to insure that the test plan content as well as the steps of the nursing process would be addressed by each case. At several stages of the case development process, both before and after the cases were programmed and prior to development of scoring keys, the content as well as the appropriateness of each case for testing minimal competence was reviewed and discussed by the committee.

Prior to field testing, the cases underwent an additional review when the Scoring Key Development Committee (SKDC) met to develop scoring keys for each case. This committee was instructed to develop scoring keys that contained performance criteria (scoring items) which were expected of the minimally competent nurse in each case.

Following field testing and prior to conducting the CST Pilot Study, an analysis of the CST cases and scoring keys was performed to determine which combination of CST cases would provide the highest content validity for the CST Pilot Study examination. The analysis consisted of the following: 1) Analysis of case content in terms of setting, client age, and nursing diagnoses; 2) Analysis of case scoring key items and assignment of each item to one of the four client need categories specified in the current NCLEX-RN Test Plan.

Since it was desirable to present candidates with an examination which was as valid and reliable as possible, these analyses, in addition to field study data analyses, assisted in determining which cases which should be used on the CST pilot study examination.

Following the CST field study, examinee transaction lists were reviewed (hand scored) to determine if expected actions (items on CST scoring keys) were specified by examinees while working through cases. Based on this review, as well as the RASCH Analysis of the examinee data, cases with the best measurement potential were identified. From this pool, eleven cases with the characteristics described below were selected as the CST Pilot Study Exam.

1. Cases included clients with an age range from neonate to 77 years and a wide variety of nursing diagnoses. Cases were representative of a outpatient, home, and long term care settings, as well as a variety of acute care settings (neonatal, medical-surgical, psychiatric, obstetrics, and pediatric units). (Table 10)

2. Analysis and categorization of scoring key items indicated that the composite of items across CST cases were distributed across the four client need categories specified in the NCLEX-RN Test Plan (Table 11). The weighting of items in the CST examination across the four client need categories closely approximates those specified in the NCLEX-RN Test Plan (Table 12). Since CST is an inferential model, it is not possible to categorize all scoring

items according to a particular step of the nursing process. However, CST can directly evaluate the candidate's data collection and intervention activities, and the timing and prioritization of those activities. When the appropriate actions are taken and are timed and sequenced properly, it is inferred that the steps of analysis, planning, and evaluation have been utilized.

In summary, the content distribution of the CST pilot study examination closely approximated that specified in the NCLEX-RN Test Plan. This suggests that CST examination can be constructed so that it is consistent with the NCLEX-RN Test Plan, thus assuring content validity.

Research Question 2. What is the relationship between examinee performance on CST and other cognitive variables?

Construct validity issues (does CST measure something different from multiple choice question [MCQ] tests and does it evaluate clinical decision making competence?) were explored by assessing the relationship of CST performance to performance on other cognitive variables (Grade Point Average-GPA, Clinical Grade, NCLEX person measures, and measures on the Watson Glaser Critical Thinking Appraisal-CTA).

The correlation between CST performance and NCLEX performance was $r = 0.37$. This was approximately the expected correlation. Since CST provides an uncued testing environment which permits examinees to demonstrate the process of clinical decision-making through data collection and specification of nursing interventions, it is expected to measure examinee abilities that are not currently tapped into by MCQs. Therefore, performance on NCLEX or a MCQ test could not precisely predict performance on a test which measures a process of clinical decision-making.

The correlation between CST and CTA was $r = 0.28$. It was initially expected that there would be a higher correlation between CST performance and a measure of critical thinking. In retrospect, however, since the CTA is a multiple choice question test which does not permit examinees to demonstrate the process of critical thinking, it is not surprising that the correlation was low.

The correlation between CST and GPA was $r = 0.18$. Since most of the assessment which produces the GPA are obtained through MCQ tests, it is not surprising that the correlation was so low.

The correlation between CST performance and self-reported Clinical Grade was $r = 0.19$. Since many individuals were unable to report a clinical grade, this correlation reflects data from a very small portion of the sample and contributes no information to the issue of construct validity.

In summary, CST performance did not have a strong relationship to any of the cognitive variables for which correlations were obtained. The low correlation with NCLEX, CST, and GPA may indicate that CST measures something different from MCQ tests, a process that cannot be measured in the cued MCQ testing environment. Comments from examinees (Tables 14 and 15) strongly suggest that CST is a measure of their clinical decision making ability.

Research Question 3. Is there a practice effect (i.e., a learning curve) demonstrated by changes in estimates of examinee ability over the course of the examination?

Analysis of examinee performance across the first nine cases in the CST examination resulted in no evidence of a practice effect.

In order to reduce the impact that a "practice" effect might have on candidate performance, an extensive orientation and practice session was completed by each candidate prior to the examination. This session included five practice cases and was facilitated by nurse educators. When examinees were asked on the Post-Test Questionnaire if the orientation session provided enough CST practice, of those who responded, 212 (82%) said yes and only 46 (18%) said no.

The inclusion of five practice cases was determined to be the optimum number based on the survey results of the CST Field Study and on NBME's experience in administering their Computer Based (clinical simulation) Examination (CBX). In NBME's 1987 Computer Based Testing (CBT) Pilot Study, there was evidence of a case-order effect; examinees achieved higher scores on cases given at the end of the examination than at the beginning. It appeared that three to four cases were needed to become familiar enough with the system so that performance on CBX cases was not affected. In NBME's Phase II of CBX, examinees were encouraged to practice with the CBX cases prior to taking the examination. After using practice cases, examinees did not perform better on cases at the end of the examination compared with those at the beginning.

In order to test for a practice effect in the CST pilot study, the first nine examination cases were administered in one sequence to one-half of the examinees and in the reverse sequence to the second half of the examinees. Examinees were randomly assigned to sequence Group 1 (cases 1 - 9) or sequence Group 2 (cases 9 - 1). Examinees did not achieve higher scores on cases given at the end of the examination than on those given at the beginning of the exam. For example, the first case given to Group 1 was the ninth case given to Group 2. Both Groups had the lowest mean ability measure for this case. Also, the first case given to Group 2 was the ninth case given to Group 1. Both Groups had the second highest mean ability measure for this case. When the cumulative average ability estimates for cases was plotted for each group, no trends of increasing ability over the course of the examination were detected. Since the study was designed to reduce the impact of a "practice" effect on examinee performance, this finding is not surprising.

Research Question 4. Is there a relationship between computer experience and examinee performance on CST?

Analysis of examinee data revealed no relationship between computer experience and CST performance. Computer experience questionnaires were completed at the beginning of the orientation session by study participants (n=263). The mean computer experience measure was -1.89 on a Rasch scale which ranged from -5.3 to 0.19. When examinees were asked about the number of times they had used a computer, 11 said never, 144 said 1 to 10 times in a year, 47 said 1 to 4 times per month, and 60 said 2 to 4 or more times per week. When asked how many time they had used computer assisted instruction in nursing courses, 89 said never, 128 used it 1 to 5 times, and 45 used it 6 or more times in a year. This indicates that about half the sample had very little, if any, computer experience. There was no correlation between CST performance and computer experience: $r = 0.09$.

An Analysis of Variance (ANOVA) was performed to test for significant differences in computer experience among BSN, ADN, and Diploma graduates. There was no significant difference between Diploma graduates and BSN or ADN graduates. There was a significant difference in computer experience between BSN and ADN graduates. The mean computer experience measure for BSN was -1.91 and for ADN -2.11 with $F= 6.57$ and $p = 0.0016$. Because of this difference, correlation coefficients were calculated between CST performance and computer experience for each program. No relationship could be detected. The correlation between CST performance and computer experience for BSNs was $r = 0.16$, and for ADNs, $r = 0.03$. Therefore, even though BSNs reported more computer experience, this experience does not appear to have placed them at an advantage in performance on CST.

Additional information regarding candidate perceptions about the relationship of computer experience to CST performance was gathered on the post-test questionnaire. When asked to rate the importance of typing skills or keyboard familiarity to success on CST, 165 (63%) said Not Important, and 97 (37%) said Important. When asked if computer experience other than CST practice was needed, 147 (56%) said No, and 115 (44%) said Yes. Of those who said yes, several stated that they would need to have experience with CST during their educational program.

These results suggest that while some examinees would feel more comfortable with CST if they had more computer experience or practice, amount of computer experience does not appear to place examinees at an advantage or disadvantage on CST.

Research Question 5. Is there a relationship between computer testing anxiety and examinee performance on CST?

Analysis of examinee data revealed no relationship between computer testing anxiety and performance on CST. A computer testing anxiety questionnaire was completed by participants at the beginning of the orientation session and again at the end of the examination session. For this sample, there was no relationship between CST performance and pre-test computer testing anxiety, $r = 0.03$. There was also no relationship between CST performance and post-test computer testing anxiety, $r = 0.08$.

T tests were performed to test for differences between computer testing anxiety reported pre- and post-CST examination. There was a significant difference for this sample between pre- and post-test computer testing anxiety: $T= 4.42$, $p= 0.0001$. This indicates that examinees were significantly more anxious about the use of computers for testing after taking CST than prior to taking CST. This can be explained by comments made by candidates on the post-test questionnaire. While many candidates expressed a liking for this testing modality, most expressed a need for experience with CST during their educational programs prior to taking a CST exam.

Other variables that may impact on computer testing anxiety are time required for a CST exam and ability to focus on the computer screen for an extended period of time. When candidates were asked: "How long could you sit for a CST exam?" Of those who responded, 26 (11%) said "Under 4 Hours;" 160 (70%) said "4 to 6 Hours;" and

41 (19%) said "6 to 8 Hours." When asked to rate agreement with the statement: "While taking CST, I found it easy to focus my attention on reading the computer screen," 236 (90%) of the participants agreed. It is encouraging that the majority of these candidates reported no difficulty focusing on the computer screen and felt comfortable sitting at the computer for a period of time that might be required to obtain reliable estimates of performance.

Only 19 (7%) reported experiencing stress and frustration with the CST system. However, when asked to rate agreement with the statement: "I would feel anxious about taking a licensure exam that had a CST component," 183 (72%) agreed and 71 (28%) disagreed. This also helps to explain why an increase in computer testing anxiety was detected following the CST exam. In summary, it seems that while there is anxiety among examinees related to taking CST as a component of the licensure examination, there is great enthusiasm about its potential use in educational programs and future licensure exams. Perhaps, as some candidates indicated, there would be a great comfort associated with this form of evaluation if this had been introduced during the educational process.

Research Question 6. Do differences in type of basic nursing education (Diploma, ADN, BSN) have an effect on examinee performance?

The results of data analysis revealed a statistically significant difference in CST performance between BSN and ADN examinees.

Prior to this analysis, performance on two cases for which part of the sample received videodisc augmentation was eliminated for the following reasons: a) videodisc presents a different testing stimuli than a textual presentation and therefore a potentially different examination; and b) videodisc augmentation was available at only one site (Philadelphia), where the entire sample of diploma graduates and only eight BSN graduates were tested.

An ANOVA was performed to test for differences in CST performance among graduates of BSN (mean = 1.289, range = -0.593 to 3.332), ADN (mean = 0.984, range = -1.497 to 3.009), and Diploma (mean = 0.924, range = -0.493 to 1.801) programs. Figure 2 displays the frequency distributions of CST measures for BSN, ADN, and Diploma examinees. No significant differences in CST performance between Diploma graduates and BSN or ADN graduates were detected. There was a statistically significant difference in CST performance between BSN and ADN graduates ($F= 3.14$, $p= 0.045$).

In order to determine if this difference in performance on CST was consistent with differences in performance on other cognitive measures, two additional analyses were performed.

An ANOVA was performed to test for differences in NCLEX performance among graduates of BSN (mean = -0.118, range = -0.880 to 0.754), ADN (mean = -0.024, range = -0.895 to 1.151) and Diploma (mean = 0.016, range = -0.600 to 0.780) programs. No significant differences in NCLEX performance among graduates of BSN, ADN, Diploma programs was detected ($F= 1.49$, $p= 0.227$).

An ANOVA was also performed to test for differences in performance on the Watson Glaser Critical Thinking Appraisal among graduates of BSN (mean = 51, range = 31 to 73), ADN (mean = 49.6, range = 28 to 72) and Diploma (mean = 48, range = 30 to 63) programs. No significant Differences among graduates of different types of programs was detected ($F= 2.42$, $p= 0.091$).

In summary, graduates of BSN programs performed significantly better on CST than graduates of ADN programs, but there was no evidence of a program effect on measures of other cognitive variables.

Research Question 7. Is there a relationship between performance on CST and examinee characteristics (age, work experience, number of children)? Do examinee characteristics such as gender, LPN experience, or ethnicity have an effect on CST performance?

Evaluation of the Pearson correlation coefficients indicated that there was no correlation between CST performance and age, work experience, or number of children (Table 13).

In addition, T Tests were performed to test for differences between selected demographic groups on CST performance. There was no significant difference in performance on CST between men ($n = 23$, mean = 0.995) and women ($n = 240$, mean = 0.963) ($T = 0.1735$, $p = 0.8624$).

There was no significant difference in performance on CST between those who were LPNs ($n = 28$, mean = 0.873) and those who were not LPNs ($n = 235$, mean = 0.977) ($T = 0.553$, $p = 0.5$).

There was, however, a significant difference in performance on CST between whites and blacks (representation of other ethnic groups was too small to include in this analysis). Whites ($n = 199$, mean = 1.082) performed significantly higher on CST than blacks ($n = 40$, mean = 0.564) ($T = 3.309$, $p = 0.001$).

In order to determine if this difference in performance on CST was consistent with differences in performance on other cognitive measures, two additional analyses were performed.

There was a significant difference in performance on NCLEX between whites (mean = 0.009) and blacks (mean = -0.238) for this sample (T = 3.607, p = 0.0003). There was also a significant difference in performance on Critical Thinking Appraisal between whites (mean = 52) and blacks (mean = 43) for this sample (T= 5.018, p= 0.0000).

In summary, age, work experience, and number of children were not related to performance on CST. In addition, neither gender nor LPN experience advantaged examinees' on CST. However, for this sample, being black placed examinees at a disadvantage on CST, NCLEX, and CTA performance.

Research Question 8. What is the impact of audio-visual enhancement on examinee performance and on examinee perceptions of realism?

Results of the analysis revealed no difference in performance on cases presented in videodisc and non-videodisc format. The 86 examinees tested in Philadelphia were administered two cases with videodisc enhancement. The remaining 177 examinees tested at other sites were administered the same two cases with the same client information presented in textual form.

A T Test was performed to test for differences between the video and non-video groups in performance on the two cases. There was no significant difference in performance between the video group (mean = 0.289) and the non-video group (mean = 0.476) (T= -1.531, p= 0.1269).

In addition, evaluation of the Pearson correlation coefficients revealed no relationship between "Opinions About Videodisc Augmentation of CST Cases" and performance on the videodisc augmented cases: r = -0.136.

While the videodisc augmentation had no statistically significant effect on overall examinee performance on the two cases, there were differences in how examinees performed on different items within cases depending on whether or not the cases were augmented with videodisc. These differences were not detected through statistical analysis but rather by evaluating the frequency of item success depending on video vs. non-video experience. Further investigation of this is currently underway.

To assess the impact of audio-visual (AV) enhancement on examinee perceptions of CST, responses to post test questions about AV enhancement are summarized below:

1. Seventy-four (86%) stated that seeing and hearing the client in CST was helpful.

2. Seventy-three (85%) stated that cases with AV were more real than cases without AV. They could "relate better to the patient" or "pick up on nonverbal cues."

3. Forty-five (62%) stated that seeing and hearing the client helped to improve their assessment of the client in CST.

4. Twenty-nine (34%) stated that seeing and hearing the client helped to improve their performance on CST, but 57 (66%) felt that they didn't perform any differently on the AV cases than on the cases without AV.

5. Thirty-one (36%) made a variety of negative comments regarding their feelings about seeing and hearing the client: 12 said it was too distracting; 3 said it increased their anxiety; and only 5 made comments such as the following: "not realistic," "poor sound," "poor acting."

In summary, while examinees expressed many positive feelings about AV enhancement, the current data do not suggest that AV enhancement resulted in improved performance. Other questions, however, arise. Do examinees perform differently on some items depending on whether or not there is AV enhancement? Are there particular types of AV stimuli that result in more success on some items? These questions are currently being addressed and it is anticipated that the results will provide some direction for future videodisc development.

Research Question 9. What are examinee reactions to CST (likes, dislikes, perceptions of realism, problems, preference for type of exam)?

Overall, examinees expressed very positive opinions about CST. However, there was no correlation between the degree of positive opinions about CST and performance on CST: r = 0.065.

Examinees were very positive about the realism of CST and their ability to demonstrate their client management skills without having "to select a right answer from a list." (Tables 14 and 15). They were divided in their opinions about whether a MCQ test or CST is a better test of their nursing knowledge (Tables 15 and 16). Perhaps this is because CST better assesses the process of clinical decision-making while MCQs better assess the finer details of nursing knowledge. If this is the case, then the best assessment of nursing competence would be accomplished through an examination with both CST and MCQ components.

Summary and Conclusions

The results of this study provide preliminary evidence that a valid and reliable CST examination can be constructed to evaluate clinical decision-making competence in nursing. Statistical evidence supports the hypothesis that CST is measuring something different than that which is measured by multiple choice questions. While there was no clear documentation of construct validity, examinee comments strongly suggest that they were able to demonstrate use of clinical decision-making skills.

The use of videodisc augmentation had no statistically significant effect on overall examinee performance on two cases. However, there were differences in how examinees performed on different items within these cases, depending on whether or not the cases were augmented with videodisc material. (Given the small number of cases augmented with videodisc, the small sample receiving videodisc augmentation, and the differences in performance on items when videodisc was used, further investigation of this is needed.)

Examinee performance on CST was not influenced by the degree of computer experience, computer anxiety, age, or work experience. However, differential performance was detected between black and white examinees and between graduates of baccalaureate and associate degree programs.

CST can be administered in a variety of settings. In addition, it can be administered without security breaches and with minimal technical difficulty.

In interpreting the results of this study, careful consideration needs to be given to limitations inherent in its design. These limitations are: (1) the use of a convenience sample and therefore, the inability to balance the sample based on demographic, geographic, or ability level characteristics; (2) given the potential uses of CST, the study was conducted using a relatively small sample; and (3) the developmental nature of the project precluded finalization of simulation software changes and database development prior to performance of the study.

Given the limitations of this study, additional evidence about the psychometric properties (validity and reliability) of CST as a testing mechanism and its legal defensibility are necessary. The issues that need to be addressed include:

1. development and evaluation of procedures to support the content validity of individual CST cases;

2. development and evaluation of procedures that (a) enhance the reliability and validity of scoring keys and the scoring process and (b) which provide definitive evidence of the impact of videodisc enhancement on examinee performance;

3. development and evaluation of procedures for constructing multiple, equivalent forms (sets) of CST examinations that (a) meet test blueprint criteria and (b) provide an equivalent test for all examinees;

4. evaluation of the construct validity of CST as a measure of clinical decision-making;

5. evaluation of the interaction of examinee and environmental characteristics, not related to clinical decision-making, with examinee performance; and

6. evaluation of the generalizability of performance outcomes on CST cases in relation to test length, case content, and test plan (blueprint) specifications.

When the psychometric and legal issues have been resolved, there will be many potential applications for CST as a meausre of clinical decision-making competence in nursing. Its potential uses include examination of candidates for licensure and of licensed nurses returning to practice after a period of inactivity in the profession. The use of CST as a diagnostic assessment tool also has great potential. Its use as a diagnostic tool would be applicable to licensees

in those jurisdictions with mandatory continued competence requirements and for use by board staff, or others, when evaluating licensees who have had disciplinary action taken against their licenses. Subsequently, re-education could be targeted to identified areas of weakness.

Goal IV. Information Dissemination

Objective: Develop and implement a plan for promoting the use of computerized clinical simulation testing in nursing licensure examinations with Member Boards and the nursing community.

Following is a summary of the dissemination activities over the three year project period.

Year One

1. Information about the CST Project was incorporated into presentations to:

   A. Deans and directors of nursing education programs in Tennessee at a conference sponsored by the Tennessee Board of Nursing, January, 1989.
   B. Nurse educators from hospital and diploma schools of nursing at a conference sponsored by the Northeast Coalition of Hospital and Diploma Schools of Nursing, February, 1989.
   C. Associate Degree program educators in Virginia via a teleconference sponsored by the Northern Virginia Community College Department of Nursing, April, 1989.
   D. Nurse educators in New York at a conference co-sponsored by the New York Board of Nursing and the State University of New York at Stoney Brook, April, 1989.

2. A CST presentation was given at the Interactive Healthcare '89 conference in Alexandria, VA, on June 5, 1989.

3. A report on CST was given at all Area Meetings:
   Area I, March 2-3, 1989, Anchorage, Alaska
   Area II, April 10-11, 1989, Lincoln, Nebraska
   Area III, April 6-7, 1989, New Orleans, Louisiana
   Area IV, April 20-21, 1989, Atlantic City, New Jersey

Year Two

1. A presentation which included a review of the simulation model for CST and an update on the progress of the project as well as a demonstration of CST was given at the Area Meetings:
   Area I, March 1-2, 1990, Phoenix, Arizona
   Area II, April 24-25, 1990, St. Louis, Missouri
   Area III, March 12-13, 1990, Charleston, South Carolina
   Area IV, April 26-27, 1990, Baltimore, Maryland

2. A CST FACT SHEET was prepared by National Council staff and distributed to all participants at The First AJN Conference on Interactive Video for Nursing Education on April 26-27, 1990, in Bethesda, Maryland, at the National Library of Medicine.

3. A feature of the CST Project appeared in the National Council publication *Issues*, April, 1990.

4. The following CST presentations, including a status report and a demonstration, were given by National Council staff at:

   A. The Symposium for Deans and Directors, Southern Regional Education Board, Continuing Nursing Education in Computer Technology, Atlanta, GA, October 25, 1989.
   B. The Clear Regional Conference sponsored by The National Clearinghouse on Licensure, Enforcement and Regulation on May 18, 1990, in Madison, Wisconsin.

C. Concordia University - West Suburban College of Nursing on May 31, 1990, in Oak Park, Illinois.

5. Completed survey of individuals who had requested examination administration variances due to handicaps or disability (scheduled for publication in the July-August, 1991, issue of *Computers in Nursing*. Copies will be made available to Member Boards).

Year Three

1. A follow-up on CST field testing which summarized examinee responses to CST was reported in the National Council's publication of *Issues*, 1990, Volume 11, Number 2.

2. CST was available for hands-on-experience at the National Council's 1990 Annual Meeting. Sixty-four attendees signed in at the computer terminals. Attendee reactions to CST were summarized and reported in the National Council's publication of *Issues*, 1990, Volume 11, Number 3.

3. The CST Steering Committee Report of project year 2 activities given to the Delegate Assembly at the August, 1990, Annual Meeting included: a demonstration of a CST case and review of the corresponding scoring key; a report of the preliminary results of the CST field tests; and a review of the Pilot Study plans and research questions to be addressed.

4. Members of the Steering Committee and staff presented an update on the CST project along with a demonstration of CST at each Area Meeting in 1991.

5. An update on the CST Pilot Study was summarized and reported in *Issues*, 1991, Volume 12, Number 1.

6. The following CST presentations and demonstrations were given:

   A. Chicago Area Testing Organization meeting, September 11, 1990;
   B. Virginia Council of Associate Degree Nurse Educators, September 24, 1990, in Richmond, Virginia;
   C. CTB McMillan/McGraw-Hill Invitational (attended by close to 200 nurse educators), September 13, 1990, in St. Louis;
   D. American Association of State Social Work Boards, December, 1990, Washington, DC;
   E. Examination Committee of the American Veterinary Association, January 16, 1991, in Chicago;
   F. Council on Research in Nursing Education, February 6, 1991, in San Francisco;
   G. CTB McMillan, McGraw-Hill Invitational, February 22, 1991, in Monterey, California;
   H. Examination Committee of the American Dental Association, April 16, 1991, in Chicago;
   I. Annual meeting of the American Association of Colleges of Nursing, March, 1991, in Washington, DC;
   J. Meeting of the American Organization of Nurse Executives, May, 1991, in San Diego, California;
   K. NLN conference on June 12, 1991, Nashville, Tennessee;

7. Paper on the Measurement Characteristics of CST presentation at the NLN Conference on Measurement, June 9, 1991, in Nashville, Tennessee.

8. A recruitment brochure describing CST and criteria for participation in the CST Pilot Study as well as a registration form were developed and disseminated to potential pilot subject participants.

9. CST presentations and demonstrations were given to nursing faculty and graduating senior students at 18 schools of nursing in order to facilitate the recruitment of participants for the CST Pilot Study.

10. The National Council Board of Directors authorized release of the copyrighted list of nursing interventions contained in the CST default nursing intervention database to the National Center for Nursing Research. This will be used to facilitate the development of a computerized, standardized taxonomy of nursing data.

11. A questionnaire was sent to all RN and LPN/VN nursing education programs requesting information about computer hardware and software accessibility and use in basic/undergraduate education. The questionnaire was accompanied by a letter explaining the National Council's investigation of computerized testing and the need to assess the computer usage in schools of nursing for future planning should these testing modalities be implemented. (Attachment C)

12. A brochure describing CST and the current status of the CST Project was developed to disseminate at conferences where CST is presented.

Table 1. Number of Schools and Participants from each type of educational program.

TYPE OF PROGRAM	NUMBER OF SCHOOLS	PERCENT	NUMBER OF SUBJECTS	PERCENT
BACCALAUREATE	8	32	76	29
ASSOCIATE	14	56	155	59
DIPLOMA	3	12	32	12
TOTAL	25	100	263	100

Table 2. Number of Participants tested at each site.

SITE	FREQUENCY	PERCENT
NBME CBTC IN PHILADELPHIA	86	32.7
PLATO DEVELOPMENT CENTER IN INDIANAPOLIS	72	27.4
PLATO DEVELOPMENT CENTER IN CHICAGO	66	25.1
NORTHERN ILLINOIS UNIVERSITY COMPUTER LAB	19	7.2
JOLIET JUNIOR COLLEGE COMPUTER LAB	20	7.6

Table 3. Distribution of Participants across Age Ranges

AGE GROUP	FREQUENCY	PERCENT
20-29 YEARS	148	56.3
30-39 YEARS	80	30.4
40-49 YEARS	31	11.8
OVER 50 YEARS	3	1.1
MISSING DATA	1	0.4

Table 4. Number of Female and Male Participants.

GENDER	FREQUENCY	PERCENT
FEMALE	240	91.3
MALE	23	8.7

Table 5. Marital Status of Participants.

MARITAL STATUS	FREQUENCY	PERCENT
SINGLE	125	47.5
MARRIED	110	41.8
WIDOWED	2	0.8
SEPARATED	6	2.3
DIVORCED	19	7.2
MISSING DATA	1	0.4

Table 6. Ethnic/Racial Background of Participants.

RACIAL/ETHNIC GROUP	FREQUENCY	PERCENT*
CAUCASIAN/WHITE	198	75.3
BLACK/AFRICAN AMERICAN	40	15.2
PHILIPPINE	2	0.8
ASIAN	3	1.1
HISPANIC	2	0.8
AMERICAN INDIAN	1	0.4
MISSING DATA	17	6.5

*Add to more than 100% due to rounding error

Table 7. Number of Participants with English as a First or Second Language.

ENGLISH AS A FIRST LANGUAGE	FREQUENCY	PERCENT
YES	254	96.6
NO	9	3.4

Table 8. Internal Consistency Reliability Coefficients for eleven examination cases.

CASE NUMBER	PILOT STUDY N=263
6	0.84
7	0.76
10	0.86
11	0.76
14	0.74
16	0.87
18	0.69
20	0.80
21	0.75
24	0.85
25	0.82

Table 9. Intercase Reliability for Cases in Order of administration

NUMBER OF CASES ADMINISTERED	GROUP 1 IN ORDER OF ADMINISTRATION N = 131	GROUP 2 IN ORDER OF ADMINISTRATION N = 132
2	0.66	0.38
3	0.69	0.61
4	0.77	0.73
5	0.79	0.78
6	0.82	0.82
7	0.82	0.85
8	0.84	0.84
9	0.84	0.87
10	0.85	0.88
11	0.86	0.89

Table 10. Case Representation of Client Age and Setting.

CASE	AGE	SETTING
06	13	OUTPATIENT/PEDS
07	28	ACUTE/PSYCH
10	48	ACUTE/MED-SURG
11	37	ACUTE/MED-SURG
14	75	LTC (LONG-TERM CARE)
16	72	HOME
18	16	ACUTE/MED-SURG
20	NEONATE	ACUTE/NEONATAL
21	16	ACUTE/OB
24	77	ACUTE/MED-SURG
25	5	ACUTE/PEDS

TABLE 11. CST Item Distribution Across the Four Client Need Categories Specified in the NCLEX-RN TEST PLAN*

DISTRIBUTION OF ITEMS BY CASE ACROSS CLIENT NEED CATEGORIES

CASE	SEE	PI	HPM	PSI	TOTAL
CASE 6	0	4	15	7	**26**
CASE 7	1	11	5	4	**21**
CASE 10	6	41	-	6	**53**
CASE 11	7	13	2	3	**25**
CASE 14	6	10	3	12	**31**
CASE 16	13	21	6	3	**43**
CASE 18	3	7	2	4	**16**
CASE 20	7	21	-	1	**29**
CASE 21	16	21	-	3	**40**
CASE 24	14	26	-	4	**44**
CASE 25	8	18	10	5	**41**
TOTAL	**SEE ITEMS**	**PI ITEMS**	**PSI ITEMS**	**HPM ITEMS**	**TOTAL ITEMS**
	81	193	52	43	369

* *Four client need categories: SEE = Safe Effective Environment, PI = Physiological Integrity, PSI = Psychosocial Integrity, HPM = Health Promotion and Maintenance*

TABLE 12. Weighting of Items across Client Need Categories

WEIGHTING OF CATEGORIES IN CST EXAM

SEE%	PI%	PSI%	HPM%
22%	52%	14%	12%

WEIGHTING OF CATEGORIES
As specified in the NCLEX-RN Test Plan (August 1987)

SEE%	PI%	PSI%	HPM%
25-31%	42-48%	9-15%	12-18%

**Four client need categories: SEE = Safe Effective Environment, PI = Physiological Integrity, PSI = Psychosocial Integrity, HPM = Health Promotion and Maintenance*

Table 13. Correlations (r) between CST Performance and Demographic Variables

DEMOGRAPHIC VARIABLES	CST PERFORMANCE
AGE	-0.135
CLINICAL WORK EXPERIENCE	-0.068
NON-CLINICAL WORK EXPERIENCE	-0.007
NUMBER OF CHILDREN	-0.08

Table 14. Post Test Questionnaire responses when examinees were asked to rate their agreement with the following statements.

	AGREE	DISAGREE
I enjoyed CST	240 (91%)	23 (9%)
CST realistically simulates a client situation	216 (86%)	46 (17%)
CST permits realistic simulation of client management	188 (71%)	75 (29%)
CST realistically represents complexity of a nursing situation	194 (74%)	69 (26%)
I was able to demonstrate my client management skills in CST	169 (64%)	92 (35%)
CST has potential value as a component of NCLEX	197 (75%)	64 (25%)
CST has potential value for evaluation of continued nursing competence	209 (79%)	54 (21%)

Table 15. Post Test Questionnaire responses to "What did you like best about CST?"

Comments:	% of Respondents making comment
Challenging and interesting, allowed me to manage patient my way: tests data collection, planning, decision making, follow-up and evaluation of nursing interventions	52%
Better test of knowledge than MCQ, more realistic than MCQ	48%

Table 16. Post Test Questionnaire responses to open ended questions.

Which testing methodology best assesses your nursing knowledge?

Type of Test	Frequency and % n = 237
MCQ	126 (53%)
CST	111 (47%)

Figure 1. Frequency Distribution of CST Measures for Entire Sample

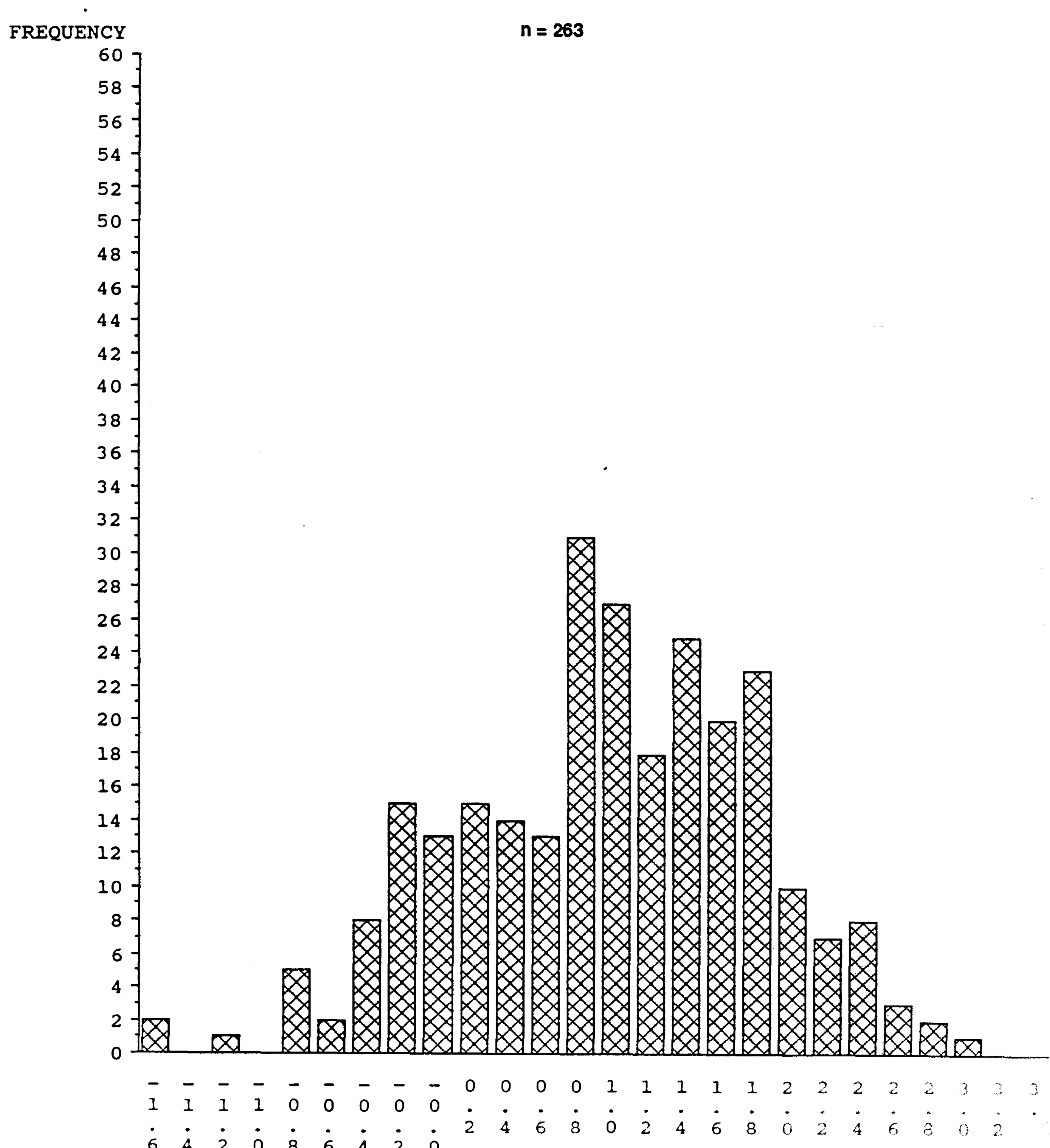


Figure 2. Frequency Distributions of CST Measures, by Type of Education Program

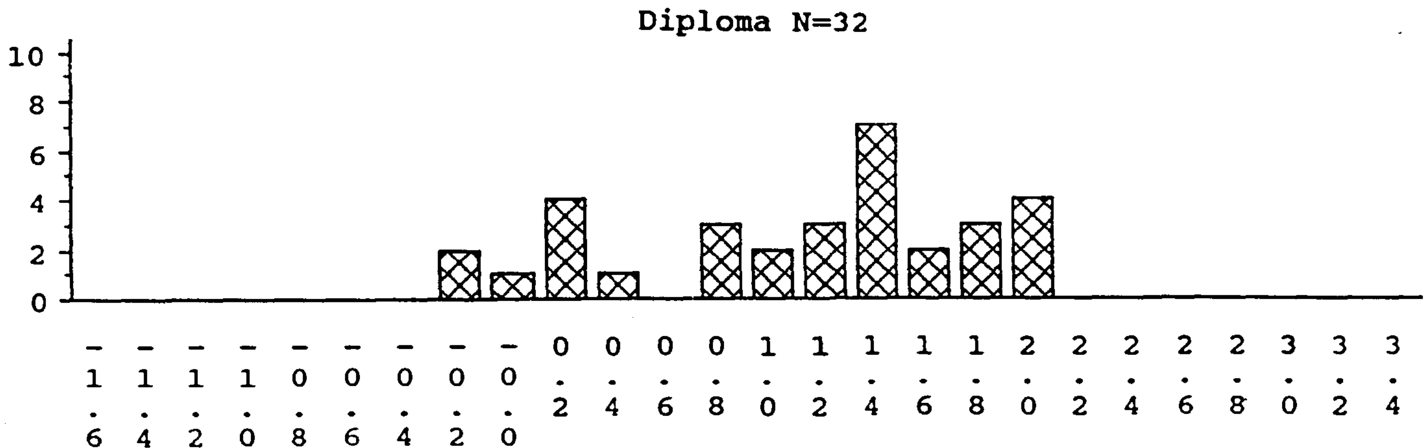
BSN N=76

FREQUENCY

14
12
10
8
6
4
2
0

ADN N=155

18
16
14
12
10
8
6
4
2
0



----> Transaction List <---- **Attachment A**

A 46 year-old woman arrived at the clinic an hour ago complaining of a pounding, frontal headache. She says the headache has continued intermittently for the past several weeks.

The clinic doctor examined the patient and ordered diagnostic tests to be performed. The results of those tests will be reported to you when they become available.

Examinee id: 9443515 Case id: 500012 Date: 06/15/90

Ordered		Name	Route	Test / Therapy Seen / Cancelled
1 @ 10:00	S	Urea nitrogen, blood		1 @ 10:10
1 @ 10:00	S	CBC with differential		1 @ 10:10
1 @ 10:00	S	Electrolytes, blood		1 @ 10:10
1 @ 10:00	S	Cardiac enzymes		1 @ 10:10
1 @ 10:00	E	Blood pressure		1 @ 10:01
1 @ 10:01	E	Respiratory rate		1 @ 10:03
1 @ 10:03	E	Pulse rate		1 @ 10:05
1 @ 10:05	E	Temperature, oral		1 @ 10:06
1 @ 10:06	E	Interview patient		1 @ 10:09
1 @ 10:06	E	Review Doctor order sheet		
1 @ 10:06	E	Review Medication Record		
1 @ 10:06	E	Review History and physical, medical		1 @ 09:00
1 @ 10:06	E	Review Doctor order sheet		
1 @ 10:06	E	Review Medication Record		
1 @ 10:09	E	Interview family/other		1 @ 10:10
1 @ 10:10	S	X-ray, chest PA/lateral		1 @ 10:10
1 @ 10:10	S	Electrocardiography, 12 lead		1 @ 10:10
1 @ 10:10	E	Cardiac examination		1 @ 10:11
1 @ 10:11	E	Weight, obtain		1 @ 10:12
1 @ 10:12	E	Height, obtain		1 @ 10:13
1 @ 10:13	E	General appearance		1 @ 10:14
1 @ 10:14	E	Extremities examination		1 @ 10:15
1 @ 10:15	E	Complete physical exam		1 @ 10:30
1 @ 10:30	E	Medications, instruct about		1 @ 10:35
1 @ 10:30	E	Review Doctor order sheet		
1 @ 10:30	E	Review Electrocardiography, 12 lead		1 @ 10:10
1 @ 10:30	E	Review History and physical, medical		1 @ 09:00
1 @ 10:30	E	Review Medication Record		
1 @ 10:30	E	Review Doctor order sheet		
1 @ 10:35	E	Medications, reinforce		1 @ 10:40
1 @ 10:40	E	Diet, 2 gram sodium, teach		1 @ 10:45
1 @ 10:40	E	Review Doctor order sheet		
1 @ 10:45	E	Activities, pace, instruct to		1 @ 10:48
1 @ 10:48	E	Review History and physical, medical		1 @ 09:00
1 @ 12:00		Interrupt Message		

INTERRUPT MESSAGE:
The patient is leaving the clinic now.

60 @ 10:00 Interrupt Message

INTERRUPT MESSAGE:
The patient has returned to clinic complaining of persistent pounding

```
                                                          Test / Therapy
Ordered         Name                            Route     Seen / Cancelled
------------------------------------------------------------------------------
   headaches.  She says she has not been taking her medications because
   she did not get the prescriptions refilled.

 60 @ 10:00  E  Pulse rate                                 60 @ 10:02
 60 @ 10:02  E  Blood pressure                             60 @ 10:03
 60 @ 10:03  E  Respiratory rate                           60 @ 10:05
 60 @ 10:05  E  Temperature, oral                          60 @ 10:06
 60 @ 10:06  E  Medications, reinforce                     60 @ 10:11
 60 @ 10:06  E  Review Doctor order sheet
 60 @ 10:06  E  Review Nursing health history               1 @ 09:00
 60 @ 10:06  E  Review Interview patient                    1 @ 10:09
 60 @ 10:06  E  Review Interview family/other               1 @ 10:10
 60 @ 10:06  E  Review Cardiac examination                  1 @ 10:11
 60 @ 10:06  E  Review General appearance                   1 @ 10:14
 60 @ 10:06  E  Review Extremities examination              1 @ 10:15
 60 @ 10:06  E  Review Complete physical exam               1 @ 10:30
 60 @ 10:06  E  Review Medications, instruct about          1 @ 10:35
 60 @ 10:06  E  Review Medications, reinforce               1 @ 10:40
 60 @ 10:06  E  Review Diet, 2 gram sodium, teach           1 @ 10:45
 60 @ 10:06  E  Review Activities, pace, instruct to        1 @ 10:48
 60 @ 10:06  E  Review Doctor order sheet
 60 @ 10:11  E  Diet, 1200 calorie, teach                  60 @ 10:16
 60 @ 10:16  E  Diet, 2 gram sodium, teach                 60 @ 10:21
 60 @ 10:21  E  Activities, pace, instruct to              60 @ 10:24
 60 @ 10:24  E  Behavior, coping, model                    60 @ 10:29
 60 @ 10:41     Interrupt Message
INTERRUPT MESSAGE:
   The patient is leaving the clinic now.

 90 @ 10:41     Interrupt Message
INTERRUPT MESSAGE:
   The patient has returned to the clinic for her appointment.  She is excited
   because she lost a few pounds over the past few weeks.

 90 @ 10:41  E  Blood pressure                             90 @ 10:42
 90 @ 10:42  E  Pulse rate                                 90 @ 10:44
 90 @ 10:44  E  Respiratory rate                           90 @ 10:46
 90 @ 10:46  E  Temperature, oral                          90 @ 10:47
 90 @ 10:47  E  Complete physical exam                     90 @ 11:02
 90 @ 11:02  E  Interview family/other                     90 @ 11:03
 90 @ 11:03  E  Interview family/other                     90 @ 11:07
 90 @ 11:03  E  Interview patient                          90 @ 11:07
 90 @ 11:07  E  Review Doctor order sheet
 90 @ 11:07  E  Review X-ray, chest PA/lateral              1 @ 10:10
 90 @ 12:11     Interrupt Message
INTERRUPT MESSAGE:
   The patient is leaving the clinic now.

 90 @ 12:42     Case end
Case start: Wed Apr 25 05:53:07 1990
  Case end: Wed Apr 25 06:50:55 1990
The case lasted 57 minutes
```

Attachment B

SCORING KEY FOR CASE 12

CLIENT PROBLEMS AND NURSING DIAGNOSES

Problems:

headache
high BP
overweight
not taking BP medication
not following diet
codeine allergy
trace pitting ankle edema
stress incontinence
SOB on exertion
worried about potential job loss
sedentary life style
Hx TAH - BSO
Hx family HTN

Nursing Diagnoses:

Activity intolerance
Anxiety related to potential job loss
Circulation, alteration in
Comfort, alteration in
Knowledge deficit:
medications, diet, family Hx, HTN
Noncompliance, medication and diet
Nutrition, alteration in
Skin integrity, impairment of

SCORING ITEMS (PERFORMANCE CRITERIA)

DICHOTOMOUS ITEMS

	Assess:	Done	Not Done
1.	BP	1	0
2.	General appearance	1	0
	Review:		
3.	Vital signs	1	0
4.	Physician's orders	1	0
5.	Nurses' notes/data	1	0
6.	Medical history	1	0

PARTIAL CREDIT ITEMS

Timing

	Intervene:	Done Day 1	Done Day 60	Done Day 135	Not Done
7.	Teach about 1200 calorie/ low calorie diet	3	2	1	0
8.	Teach about low sodium/2 GM Na diet	3	2	1	0
9.	Teach about medications	3	2	1	0
10.	Teach about high blood pressure	3	2	1	0
11.	Call doctor; report results	1	1	1	0
12.	Teach about exercise program	3	2	1	0
13.	Refer to social service	3	2	1	0
14.	Give emotional support	3	2	1	0

DICHOTOMOUS ITEMS

Sequence: After review of doctor's orders

Intervene:		Done	Not Done
15.	Teach about 1200 calorie diet	1	0
16.	Teach about low sodium diet	1	0
17.	Teach about medications	1	0

Sequence: After review of nursing or medical history

Intervene:		Done	Not Done
18.	Teach about high blood pressure	1	0
19.	Teach about exercise program	1	0
20.	Refer to social service	1	0
21.	Give emotional support	1	0

Sequence: After Instruction about meds, 1200 calorie diet and low sodium diet:

Assess:		Done	Not Done
22.	B/P	1	0
23.	Extremities	1	0
24.	Weight	1	0
25.	Interview patient	1	0
26.	Pulse	1	0
27.	Respirations	1	0
28.	General appearance	1	0

Intervene:		Done	Not Done
29.	Reinforce 1200 calorie diet	1	0
30.	Reinforce low sodium diet	1	0
31.	Reinforce medication teaching	1	0
32.	Emotional support	1	0

FLAGS:		Avoided	Not Avoided
33.	No review of Nursing or medical history	1	0
34.	No blood pressure	1	0

INAPPROPRIATES:

35.	Teach bland diet	1	0
36.	Teach gluten free diet	1	0
37.	Teach high calorie diet	1	0
38.	Teach lactose free diet	1	0
39.	Teach low phosphate diet	1	0
40.	Teach low potassium diet	1	0
41.	Teach low protein diet	1	0
42.	Teach low residue diet	1	0

Attachment C

Computer Use in Nursing Education Programs

The National Council of State Boards of Nursing is contemplating the use of two different types of computer-based testing as a replacement for paper-and-pencil NCLEX. In the event that computerization of NCLEX occurs, information about future licensure candidates' exposure to computer technology within their educational programs is desirable. This information would assist the National Council in making transition plans and determining the need for developing educational/orientation materials. Therefore, a survey of all nursing education programs preparing individuals for licensure as a licensed practical/vocational nurse (LPN/VN) or as a registered nurse (RN) was conducted. This report describes the methodology for conducting the study and the results.

Methodology

The purposes of this descriptive study were to determine (1) the availability of computer hardware and software within nursing education programs and (2) the uses made of computers by students and faculty.

Data Collection

A questionnaire developed by the Southern Council on Collegiate Education for Nursing (SCCEN), in collaboration with the Southern Regional Education Board (SREB), to obtain similar information from RN education programs in 1987 and 1989 was used to collect data. Permission to use and modify the instrument was obtained from SCCEN's executive director. Modifications consisted of (1) deleting one section designed to obtain faculty perceptions about implementation of computer supported education; (2) modifying the wording of statements to reflect both LPN/VN and RN programs; and (3) adding questions designed to obtain information about the acquisition of computer technology and a question requesting information about the availability of simulation software for use by students.

The questionnaire and a cover letter explaining the purpose of the study and requesting participation were sent to the chief nursing administrator of all programs listed in the publications, *State Approved Schools of Nursing - LPN* (National League for Nursing (NLN), 1990) and *State Approved Schools of Nursing - RN* (NLN, 1990). The questionnaires were sent to 1,090 LPN/VN programs and 1,483 RN programs; all three types of RN programs (diploma, associate degree, baccalaureate degree) were included.

In addition, a copy of the questionnaire and an explanatory letter were sent to each state board of nursing. Since only one mailing of the questionnaire was planned, each board was requested to assist in promoting a high response rate by communicating the importance of the study to the administrators of educational programs within their jurisdiction and requesting program participation.

The confidentiality of program responses was assured by the assignment of a unique ID number. This number was included on each program's questionnaire and was only used to assist with verifying the type of educational program(s) offered, if questions arose during data entry.

A total of 1,632 questionnaires, representing 1,943 different programs, were returned (See Table 1). This represents a response rate of 69% (751/1090) for LPN/VN programs and 72% (1064/1483) for RN programs and an overall response rate of 71% (1815/2573).

Upon receipt, data were entered into a data base file for the purpose of generating descriptive statistics. The remainder of this document reports the findings of this study.

Table 1. Number of questionnaires returned, by type of program

Type of program	Number Returned
Practical/Vocational Nursing	5
RN Diploma	120
RN Associate Degree	346
RN Baccalaureate Degree	350
LPN/VN and RN Associate Degree[1]	248
RN Associate Degree and Baccalaureate Degree[2]	63
RN Program type unknown	2
Total Number of LPN/VN programs represented:	751
Total Number of RN programs represented:	1192

[1] Number of educational institutions having both an LPN/VN program and an RN Associate Degree program who received two questionnaires, but reported data for both programs on one questionnaire. (Counted as two separate entities when determining LPN/VN and RN program totals).

[2] Number of educational institutions having both an RN Associate Degree and a Baccalaureate Degree program. (Only counted as one institution when determining RN program totals)

Results

The results of this study are reported in two major sections. The first section describes the availability of, and users of computer technology within educational programs. The second section summarizes the various instruction-related uses made of computer technology by nursing students.

Availability of, and Users of Computer Technology

Information was requested about the availability of microcomputers for use by students enrolled in either a non-nursing or a nursing major. Responses to these questions are summarized in Table 2. With the exception of RN Diploma programs, individuals enrolled in non-nursing majors had access to computers in more than 70% of the responding educational institutions/programs. Thirty to fifty-nine percent reported that microcomputers were available to students enrolled in a nursing major for non-nursing or pre-nursing courses. With the exception of LPN programs (29%), microcomputers were used for instruction in nursing courses by a minimum of 65% of each type of RN program, with baccalaureate programs reporting the highest percent of usage (83%). Mainframe computers were used by relatively few programs (<20%) for teaching nursing courses.

A second series of questions addressed the use of computers by nursing staff and students in clinical facilities used for student learning experiences. Of the 1,632 responding institutions/programs, 74% (n=1202) indicated staff nurse use of computers. This represents a range from a low of 63% of facilities used by LPN programs to a high of 82% for those used by baccalaureate programs. Student use of computers in clinical agencies was reported by 38.6% (n=630) of the educational institutions/programs, with baccalaureate programs reporting the highest percentage of use (56%) and LPN/VN programs the lowest (22%) (See Table 3). The percentage of students using computers during clinical learning experiences, by type of program, is also reported in Table 3. Diploma (59%) and baccalaureate programs (56%) reported the highest percentages of student use, while LPN/VN programs reported the lowest (22%). However, the overall percent of students within a program who use computers during clinical learning experiences is low (See Table 3).

The ownership of microcomputers by nursing education programs for instructional purposes was reported by 64% (n=1046) of all institutions/programs (See Table 4). Diploma (82%) and baccalaureate programs (83%) reported the highest percentage of ownership; LPN/VN programs, the lowest (41%). The availability of microcomputers for indirect (e.g., administrative) instructional uses was reported by 84 % (n=1373) of all institutions/programs (See Table 4). A significant percentage of institutions/programs obtained external funding to assist with the purchase of computer hardware (43%) and software (39%). Program specific data is reported in Table 4.

Access to microcomputers located within the nursing education facility were generally provided to administrators, faculty, staff, and nursing students. As reported in Table 5, the greatest access was provided within those institutions offering RN programs. This finding is consistent with data previously reported regarding the overall availability of microcomputers within the various institutions/programs.

Educational Uses of Microcomputers

Program administrators were requested to indicate the percent of the basic/undergraduate nursing program taught through the use of microcomputers. The distribution, by type of institution/program is reported in Table 6. While a great deal of variation is present, the greatest percent (46%) reported less than 5% of the program was taught using microcomputers. An additional 32% indicated that 5%-25% of the program was taught in this manner.

Administrators of those institutions/programs where nursing students had access to microcomputers during nursing courses (n=1045) were requested to identify (1) the types of learning activities provided; (2) the nursing-related content taught, in whole or part; (3) the major instructional uses; and (4) the major instructional purposes for which they were being used.

Across all settings, the learning activities identified by the largest percentage of institutions/programs were simulations (76%), tutorials (72%), drill and practice (66%), word processing (59%), and testing (44%). Percentage distributions by type of institution/program are reported in Table 7. Use of computers for drill and practice was the most common student use in LPN/VN programs (63%). In RN Diploma programs, the most common use was for the administration of tutorials (88%). In all other programs or combinations of programs (i.e., LPN & AD, AD & BAC), simulations accounted for the most commonly identified use of microcomputers by students.

- The most frequently cited areas of nursing content, across all institutions/programs, taught in whole or part by microcomputers were drug calculations (64%), adult health (medical/surgical nursing) (63%), and clinical case studies (50%). Percentage distributions by type of institution/program are reported in Table 8. Use for teaching drug calculations also was the most frequently cited content in all institutions/programs except RN AD programs where it was ranked second (72%). In RN AD programs, the most frequently cited use was for teaching adult health (medical/surgical nursing) content (73%).

The use of microcomputers for the enrichment of learning experiences was the most frequently identified instructional use of microcomputers across all institutions/program types (67%). The next most frequently cited uses were for basic learning experiences required of all students (50%), remedial work (50%), and optional basic learning experiences (50%). Specific information for each institution/program type is reported in Table 9.

The major instructional purposes for which microcomputers were used was also identified. The most frequently cited purpose was to supplement classroom learning (78%). This was followed by using them for enrichment of classroom learning (68%) and supplementing clinical learning (58%). Data for each type of institution/program is reported in Table 10.

Summary

A survey was conducted of all state-approved nursing education programs to determine the availability of computer hardware and software to program staff, faculty, and students and the uses made of computer technology within the educational program. Responses were received from 1,632 institutions (62% response rate) representing 1,943 programs preparing individuals for licensure as an LPN/VN or RN.

The results of this study indicate that microcomputers were used for instructional purposes in a majority of the three types of RN programs (69% - 83%) in contrast to only 29% of the LPN programs. Similarly, the receipt of external funds to support the purchase of computer technology was reported by over 50% of the three types of RN programs, but by only 20% of the LPN programs. While a majority of all types programs reported staff nurse use of computer technology in clinical facilities used for student learning experiences, the equipment was used by relatively few students during the course of their clinical rotations.

Within those institutions/programs where students had access to computer technology, it was used for a wide variety of learning activities. Using this technology, the predominant student learning activities were games, drill and practice, tutorials, simulations, word processing, and testing or evaluation. The primary instructional purposes of computer use were the provision of supplementation and/or enrichment of classroom and clinical learning.

Table 2. Percent of institutions/programs reporting instructional use of microcomputers/mainframe computers by non-nursing majors and by nursing majors during pre-nursing or non-nursing courses and during nursing courses.

Use by:	LPN/ VN (503)	Dipl. (120)	AD (346)	BAC (350)	LPN & AD (248)	AD & BAC (63)
Basic/undergraduate students enrolled in a:						
1. Non-nursing major, using microcomputers						
YES	74%	35%	94%	95%	95%	90%
NO	20	52	3	3	4	5
MISSING/UNKNOWN	6	13	3	2	1	5
2. Nursing major, using microcomputers for pre-nursing/ non-nursing courses,						
YES	30%	38%	55%	56%	52%	59%
NO	64	48	32	19	34	19
MISSING/UNKNOWN	6	14	13	25	14	22
3. Nursing major, using microcomputers for nursing courses						
YES	29%	69%	69%	83%	67%	65%
NO	69	29	29	16	31	32
MISSING/UNKNOWN	2	2	2	1	2	3
4. Nursing major, using mainframes for nursing courses						
YES	5%	12%	7%	14%	7%	19%
NO	82	72	81	70	78	70
MISSING/UNKNOWN	13	16	12	16	15	11

Table 3. Percent of institutions/programs reporting staff nurse and student use of computers in clinical facilities used for clinical learning experiences.

Use by:	Type of program: LPN/ VN (503)	Dipl. (120)	AD (346)	BAC (350)	LPN & AD (248)	AD & BAC (63)
1. Use agencies where staff nurses use computers for nursing purposes	63%	82%	79%	82%	70%	78%
2. Students use computers during clinical learning experiences	22%	59%	41%	56%	33%	43%
3. Percent of students using computers during clinical learning experiences:						
1-9%	4%	5%	6%	7%	5%	0%
10-29%	1	6	7	12	7	6
30-49%	2	7	7	7	5	8
50-69%	4	5	6	6	4	10
70-89%	1	6	5	6	2	3
90-99%	1	5	1	4	1	2
100%	8	3	9	11	10	13

Table 4. Use of institution/program microcomputers for instructional and administrative purposes and the availability of external funds to facilitate purchase of computer technology.

	Type of program:					
	LPN/ VN (503)	Dipl. (120)	AD (346)	BAC (350)	LPN & AD (248)	AD & BAC (63)
1. Use of own microcomputers for instructional purposes	41%	82%	68%	83%	69%	71%
2. Availability of microcomputers for instructional support activities	72%	87%	87%	94%	88%	94%
3. External funds received for purchase of microcomputers	20%	68%	50%	59%	41%	51%
4. External funds received for purchase of software	17%	57%	49%	55%	39%	44%

Table 5. Percent of institutions/programs where access to microcomputers in the nursing education facility is provided to various groups of individuals.

	Type of program:					
Group:	LPN/ VN (503)	Dipl. (120)	AD (346)	BAC (350)	LPN & AD (248)	AD & BAC (63)
Nursing Students	43%	81%	68%	82%	67%	71%
Non-nursing students	16%	14%	18%	17%	24%	22%
Faculty	64%	89%	90%	95%	85%	89%
School of nursing staff	56%	84%	72%	91%	75%	87%

Table 6. Percent of institutions/programs reporting use of microcomputers in basic/undergraduate nursing courses, by percent of program taught using microcomputers instructional purposes.

	Type of program:					
Percent of program taught using microcomputers:	LPN/ VN (503)	Dipl. (120)	AD (346)	BAC (350)	LPN & AD (248)	AD & BAC (63)
None	10%	12%	7%	5%	8%	10%
Less than 5%	23	35	33	43	27	30
5 - 25%	7	28	21	35	23	24
26-50%	<1	<1	1	1	<1	3
51-75%	0	0	0	<1	<1	0
76-99%	<1	0	<1	0	<1	3
100%	<1	<1	<1	<1	0	0

Table 7. Percent[1] of institutions/programs reporting use of microcomputers in basic/undergraduate nursing courses, by type of learning activity.

Learning Activity	LPN/ VN (216)	Dipl. (97)	AD (234)	BAC (286)	LPN & AD (168)	AD & BAC (45)
	Type of program:					
Games	38%	52%	36%	39%	35%	22%
Drill and practice	63%	74%	64%	71%	64%	60%
Tutorials	60%	88%	73%	76%	68%	73%
Simulations	59%	77%	84%	82%	78%	80%
Data bases	10%	21%	22%	35%	19%	22%
Testing or evaluation	33%	40%	44%	51%	41%	60%
Computer programming	5%	4%	6%	7%	7%	4%
Word processing	35%	69%	53%	79%	53%	76%
Electronic spreadsheet	11%	16%	14%	32%	11%	27%
Statistical analysis	3%	10%	12%	45%	8%	33%
Interactive videotape	5%	3%	10%	14%	12%	2%
Interactive videodisc	8%	20%	26%	29%	22%	36%

[1] Percents based on only those institutions/programs reporting they currently owned/had access to microcomputers for student instruction.

Table 8. Percent[1] of institutions/programs reporting use of microcomputers in basic/undergraduate nursing courses, by content area.

	Type of program:					
Learning Activity	LPN/ VN (216)	Dipl. (97)	AD (234)	BAC (286)	LPN & AD (168)	AD & BAC (45)
Computer literacy	23%	24%	24%	38%	21%	24%
Nutrition	26	24	24	27	28	29
Basic mathematics	48	60	54	42	48	47
Psychomotor Skills	3	22	19	26	17	33
Research	0	5	1	41	3	24
Anatomy/Physiology	28	21	15	11	9	16
Pathology	1	9	6	7	1	2
Adult Nsg. (Med/Surg)	40	67	73	60	66	56
Community Health Nsg.	2	6	2	20	2	15
Public Health Nsg.	0	1	1	6	0	4
Nursing Leadership	5	14	8	17	10	11
Literature searches	2	20	13	43	12	27
Pharmacology	40	50	44	41	42	44
Clinical Case Studies	27	59	58	54	54	47
Clin. Decision Making	18	53	56	51	47	42
Calculations (Drugs/Solutions)	52	73	72	62	66	60
Nursing Process	23	50	57	43	47	53
Clinical Topics	15	50	53	47	48	47
Medical terminology	24	20	24	21	20	16
Maternity Nsg. (OB,GYN)	26	62	62	48	55	40
Pediatric Nsg.	20	52	51	39	48	33
Mental Health (Psychiatric Nsg.)	14	53	55	37	48	38
Nursing Management	3	20	14	19	16	16
Statistics/Data analysis	1	7	3	35	0	24

[1] Percents based on only those institutions/programs reporting they currently owned/had access to microcomputers for student instruction.

Table 9. Percent[1] of institutions/programs reporting use of microcomputers in basic/undergraduate nursing courses, by major instructional uses.

	Type of program:					
Instructional use:	LPN/ VN (216)	Dipl. (97)	AD (234)	BAC (286)	LPN & AD (168)	AD & BAC (45)
Diagnosis of student learning needs	9%	16%	14%	14%	16%	13%
Remedial learning experiences	45	71	53	46	47	40
Required basic learning for all students	30	63	50	63	47	51
Optional basic learning for all students	38	62	53	53	49	44
Enrichment learning experiences	59	76	69	69	63	73
Testing or evaluation	18	34	22	38	26	40
Self-awareness/self-help assistnace for students	31	41	36	33	35	27

[1] Percents based on only those institutions/programs reporting they currently owned/had access to microcomputers for student instruction.

Table 10. Percent[1] of institutions/programs reporting use of microcomputers in basic/undergraduate nursing courses, by major instructional purposes.

Instructional purpose:	LPN/ VN (216)	Dipl. (97)	AD (234)	BAC (286)	LPN & AD (168)	AD & BAC (45)
Replace/substitute for classroon learning	4%	22%	14%	18%	13%	22%
Replace/substitute for clinical learning	4	13	14	12	11	11
Supplement classroon learning	68	79	78	84	79	70
Supplement clinical learning	37	66	64	62	66	62
Enrichment of classroon learning	61	79	65	68	68	78
Enrichment of clinical learning	39	69	57	56	58	64

Type of program: LPN/VN, Dipl., AD, BAC, LPN & AD, AD & BAC.

[1] Percents based on only those institutions/programs reporting they currently owned/had access to microcomputers for student instruction.

10

TEST SERVICE REPORTS
(NCLEX & NACEP)

Annual Report of the NCLEX Test Service 1991

Introduction

This report provides a summary of CTB Macmillan/McGraw-Hill's activities with the National Council Licensure Examinations (NCLEX) from July 1990 through June 1991. During this time, the NCLEX project staff members have provided support for the following major phases of the NCLEX program:

Examination Development

- continuing the development of valid and reliable Registered Nursing (RN) and Practical (Vocational) Nursing (PN) tests that accurately measure entry-level proficiency in the RN and PN professions
- developing test items that measure the performance of the job-related nursing skills identified in the RN and PN test plans
- analyzing the RN and PN item pools to direct item development at targeted test plan areas and difficulty levels
- reviewing items for characteristics that result in appropriate difficulty levels; incorporating this information into additional item writer training
- facilitating the Examination Committee's development of operational definitions for the RN and PN test plans
- providing information about the currency of content in items that have not been used in six to eight years
- developing a guide in conjunction with the Examination Committee for use by Member Boards for review of a previously administered exam
- preparing quarterly and yearly item pool tallies according to test plan areas and item difficulty
- preparing yearly RN and PN item pool text and statistics tapes
- conducting a national textbook survey to identify the most widely used PN and RN entry-level textbooks for use in validating test items
- conducting meetings of the Bias Sensitivity Review Panel (BSRP); facilitating the refinement of BSRP policies and procedures; developing BSRP performance criteria; incorporating information provided by the BSRP into item development
- placing BSRP revised items as research tryout items in NCLEX- RN 791, NCLEX-PN 091, and NCLEX-RN 292, along with matched research control items
- studying the face validity of tests created by the Computerized Adaptive Testing field test software
- placing 216 additional items (6 forms) in NCLEX-PN 091 as PN CAT tryouts; placing 252 additional items (7 forms) in NCLEX-PN 492 as PN CAT tryouts; developing an additional 360 items (10 forms) to be placed in NCLEX-PN 092 as PN CAT tryouts
- preparing a manual outlining NCLEX examination construction procedures for the National Council staff

Examination Administration, Scoring, and Reporting

- reporting examination results and Jurisdiction Summary Reports (Green Sheets) in a timely manner

- continuing to work with the Administration of Examination Committee and National Council staff to monitor all shipping and security procedures

- modifying and refining all score reports and the NCLEX Summary Profiles in response to the Delegate Assembly's implementation of a new PN Test Plan

- implementing a revised PN Candidate Diagnostic Profile, starting with NCLEX-PN 090

- continuing to provide pertinent information to Member Boards to help each jurisdiction track the arrival of examination booklets

- developing a new scoring brochure for distribution to candidates, beginning with the NCLEX-PN 091 examination

Research and Technical Support

- providing technical support in all areas of research, including the monitoring of examination statistics, the monitoring of passing standards, and the performance of special research studies requested by the National Council and its committees

- providing a quarterly review of literature related to testing and measurement

- implementing new techniques to detect possible ethnic or gender bias in test items by including the application of the Mantel-Haenszel statistic on newly field-tested items, and refining existing statistical procedures for implementation with small ethnic groups

- providing information to the Committee for Special Projects; providing information input in the designing of the Computerized Adaptive Testing field test

- contributed to the development of policies and procedures for the Bias Sensitivity Review Panel

In addition to supporting these major phases of the NCLEX program, the CTB project staff members have also responded in a timely and effective manner to all requests from the National Council and its Member Boards for additional services and information.

Examination Development

Item Writing

A major focus of the CTB test development staff is the coordination, training, and support of item writers in the development of NCLEX test items. Extensive item writer training and interactive support has been provided by CTB's Content Director, nursing consultant staff, and editorial staff.

During conferences, item writers were guided to develop items in targeted areas of the PN and RN test plans. They were also guided to develop items at specific difficulty levels and in identified content areas. Additionally, the *PN* and *RN Item-Writing Guidelines* and *PN* and *RN PCE Review Guidelines* were updated to reflect the most current procedures.

The existing item development and review procedures for both the NCLEX-PN and the NCLEX-RN item pools continue to ensure the quality of all test items and to ensure that each test item measures a knowledge, skill, or ability associated with current, entry-level nursing practice.

Item-Writing Conferences
Two RN Item-Writing Conferences, one PN Item-Writing Conference, and one PN CAT Item-Writing Conference were held from July 1990 through June 1991. Participants were sent pre-conference exercises, provided as an introduction to CTB's item development process. These exercises were rated by CTB content staff and the ratings were shared with the Examination Committee. Mail-in test items were solicited to obtain additional PN CAT items.

RN Item Writing
An RN Item-Writing Conference was held July 9-13, 1990, in Monterey, California. Fifteen writers selected by the National Council were invited to participate in RN item development. These writers represented California, Idaho, Louisiana, Minnesota, Montana, New Jersey, New York, West Virginia, Florida, Indiana, Mississippi, North Carolina, New Mexico, Oregon, and Massachusetts. Three hundred fifty-eight items were created by the item writers and then reviewed by CTB nursing consultants and editing staff. A total of 358 items was written.

A second RN Item-Writing Conference was held January 14-18, 1991, in Monterey, California. The fifteen writers selected by the National Council represented Alabama, California, Missouri, Ohio, Pennsylvania, Texas, Virginia, Washington, and Wisconsin. A total of 329 items was written.

Writers have been selected for the July 8-12, 1991, RN Item-Writing conference, which will be held in Monterey, California. Information about this conference will be provided in the 1991-1992 Annual Report.

PN Item-Writing
A PN Item-Writing Conference was held August 27-31, 1990, in Monterey, California. The 15 participants selected by the National Council represented Alabama, Arkansas, Missouri, Ohio, Pennsylvania, Texas, and Wisconsin. A total of 264 items was written.

A PN CAT Item-Writing Conference was held May 20-24, 1991, in Monterey, California. Eleven writers participated in developing PN CAT items. The writers represented Alabama, Kentucky, Maryland, Michigan, Minnesota, Missouri, New York, Ohio, Pennsylvania, South Carolina, and Wisconsin. The total number of items written will be presented in next year's annual report.

Mail-in PN CAT items were received from January-April, 1991. Fifteen writers who had previously written NCLEX PN items were selected for PN CAT item development. These writers developed approximately 232 items.

Panel of Content Experts
From July 1990 through June 1991, four Panel of Content Experts conferences were held. Two of those conferences were RN PCE's, one was a PN PCE, and one was a PN CAT PCE. The Panel of Content Experts review was coordinated by CTB. At the conferences, items were reviewed to ensure that they have one and only one correct response (documented in two standard nursing textbooks or one textbook and one approved journal) and to ensure that they are an accurate reflection of current, entry-level practice.

RN Panel of Content Experts
A Panel of Content Experts Conference was held September 24-29, 1990, in Monterey, California, for the review of NCLEX-RN test items. The 16 participants selected by the National Council represented Arkansas, Arizona, California, Florida, Hawaii, Illinois, Louisiana, Maine, Minnesota, Missouri, New Jersey, South Dakota, West Virginia, and Wisconsin. A total of 358 newly written items were reviewed. Twenty-nine items were deleted and 329 items were approved for use as future experimental items. In addition, 178 items that had not been used since NCLEX-RN 287 were reviewed. Eleven items were recommended for deletion from the RN pool, and 167 items were approved as representative of current, entry-level practice.

The second RN Panel of Content Experts Conference was held March 11-15, 1991, in Monterey, California. The 14 participants selected by the National Council represented California, Connecticut, Kentucky, Minnesota, Mississippi, New Mexico, Oklahoma, Rhode Island, South Carolina, Tennessee, and Texas. A total of 329 items were reviewed; nine items were deleted during the review process; and 320 items were approved for use as future experimental items.

PN Panel of Content Experts
A Panel of Content Experts Conference was held December 10-14, 1990, in Monterey, California, for the review of NCLEX-PN test items. The 15 participants selected by the National Council represented Idaho, Kentucky, Minnesota, Montana, New Jersey, North Carolina, North Dakota, Virginia, and Wyoming. A total of 266 items were reviewed. Three items were deleted and 263 items were approved for future use as experimental items. In addition, 256 items that had not been used since NCLEX-PN 085, NCLEX-PN 486, and NCLEX-PN 086 were reviewed. Of these, 43 items were recommended for deletion from the PN pool. Two hundred thirteen items were accepted as representative of current, entry-level practice. These items will be field tested as PN CAT items.

A Panel of Content Experts Conference was held May 6-10, 1991, for the review of PN CAT items. The 12 participants represented Arkansas, Connecticut, Mississippi, Nebraska, New Jersey, New York, North Dakota, Ohio, Pennsylvania, South Carolina, and Washington. Approximately 300 items were reviewed. The items included mail-in items and previous tryout items with unacceptable statistics, which were revised by CTB content staff prior to the PCE.

Continuing Education Credits
Item writers were awarded 41.5 contact hours of Continuing Education credit, and Panel of Content Experts members were awarded 41.4 contact hours of Continuing Education credit for their participation in those conferences.

BSRP Sensitivity Review Panel
CTB coordinates the meeting of the Bias Sensitivity Review Panel (BSRP) in Monterey, California, four times per year. The BSRP provides the judgmental process that complements the statistical procedures which detect potential bias in NCLEX test items. Panel Members represent six major ethnic groups. A linguist also serves on the panel.

The BSRP met at CTB in Monterey, California, June 4-6, 1990. The panel reviewed 300 NCLEX-RN 789 real items for facial bias (stereotypical or offensive material). Two of those items were flagged by the panel for revision. The panel reviewed 27 real items from NCLEX-RN 789 during their review of statistically flagged items (items that were identified by statistical indices as having a potential bias). Ten of those items were flagged by the panel for revision. Six additional items were flagged by the panel but were indicated to be retained as measures of safe, effective practice.

On September 12-14, 1990, the BSRP reviewed 204 real items from NCLEX-PN 089 for facial bias. Three of those items were flagged by the panel for revision. The panel reviewed 83 real items from NCLEX-PN 089 during their review of statistically flagged items. Twenty of those items were flagged by the panel for revision. Two additional items were flagged by the panel but were indicated to be retained as measures of safe effective practice.

On November 7-9, 1990, the BSRP reviewed 281 real items from NCLEX-RN 290 for facial bias. Five items were flagged by the panel for revision. The panel reviewed 101 real items from NCLEX-RN 290 during their review of statistically flagged items. Ten of those items were flagged by the panel for revision.

On February 4-6, 1991, the BSRP reviewed 195 real items from NCLEX-PN 490 for facial bias. Two items were flagged by the panel for revision. The panel reviewed 88 real items from NCLEX-PN 490 during their review of statistically flagged items. Thirteen of those items were flagged by the panel for revision. Four items were flagged by the panel but were indicated to be retained as measures of safe, effective practice. The panel also reviewed 82 real items from NCLEX-PN 489 during their review of statistically flagged items. Eight items were flagged by the panel for revision. Two items were flagged by the panel but were indicated to be retained as measures of safe, effective practice. The panel also completed their review of statistically flagged items in NCLEX-PN 089 (16 items from 089). The panel flagged one item for revision.

The BSRP met April 29-May 1, 1991. The panel reviewed 176 real items from NCLEX-RN 790, 163 real items last used in NCLEX-RN 289, 110 real items last used in NCLEX-PN 489, and 148 real items last used in NCLEX-RN 291, for facial bias. No items were flagged for facial bias. The panel reviewed 55 real items from NCLEX-RN 790 and 67 real items last used in NCLEX-RN 289 during their review of statistically flagged items. Ten items were flagged by the panel for revision.

Member Board Review of Experimental Items

CTB staff completed a review of information provided by Member Boards in their 1990-1991 review of experimental items. Three hundred fifty-nine PN experimental items were available for Member Board review during the late summer/early fall review period. A total of 10 Member Boards participated in this review. Items identified as inconsistent with entry-level practice were submitted to the PN Panel of Content Experts, which met in December 1990. The items designated as inconsistent with a state nurse practice act were submitted with documentation to the National Council for final review in early October 1990, and were reviewed by the Examination Committee at the December 3-7, 1990, meeting.

Eight hundred sixty-four RN items were available for Member Board review during the winter review period. A total of nine Member Boards participated in this review. Items designated as inconsistent with entry-level practice were submitted to the RN Panel of Content Experts in March 1991. The items designated as inconsistent with a state nurse practice act were submitted with documentation to the National Council on March 4, 1991, and were reviewed by the Examination Committee at the March 25-29, 1991, meeting.

CTB continues to closely monitor the security and packaging procedures for review drafts. Feedback from Member Boards indicated that the refined review draft packaging methods greatly facilitated inventory procedures.

Item Bank Assessment

CTB completed its annual assessment and update of the RN item pool in November 1990 and completed the PN item pool update in December 1990. A tally of items in the pool, according to difficulty and discrimination indices, was provided to the National Council. A computer tape of the statistics of all usable items and a tape of the corresponding item text were also provided.

A second set of item pool tallies was performed according to revised specifications from the National Council; the new tallies included Item Response Theory (IRT) difficulty statistics. The tallies were sent to the National Council in December 1990.

Revised Item Pool Tallies

CTB completed programming modifications to enhance the item pool tally reports that are provided to the National Council. The enhanced reports facilitate the ability to direct item development at targeted test plan areas and difficulty levels.

These reports are now provided to the National Council on a quarterly basis, after each examination administration.

Examination Construction

The two Registered Nursing examinations (NCLEX-RN 791 and NCLEX-RN 292) and the two Practical Nursing examinations (NCLEX-PN 491 and NCLEX-PN 091) were developed according to the RN and PN test plans approved by the Delegate Assembly and the test construction guidelines established by the Examination Committee. The examinations were constructed to be equivalent to previous forms of RN and PN examinations from both a content and a statistical perspective. They were reviewed by CTB's nursing consultant staff, editorial staff, research staff, and the Examination Committee to ensure that all items met the established criteria.

Examination Committee Meetings

The Examination Committee met in Monterey, California, on October 1-5, 1990; December 3-7, 1990; March 25-29, 1991; and June 10-14, 1991. At these meetings, CTB staff worked in cooperation with committee members to review all NCLEX and CAT examination materials and to discuss related issues.

CTB Nursing Consultants and Test Development staff provided information as requested and provided summary reports on all committee-related activities. CTB Technical Coordinators presented research reports analyzing the results of NCLEX-RN 790, NCLEX-RN 291, NCLEX-PN 090, and NCLEX-PN 491. In addition, Person-Fit reports, Ethnicity/Gender reports, and results of various research studies were presented. Additional research studies completed in 1990-1991 are described in the Research and Technical Support section of this report. Test development reports presented to the Examination Committee are described in the test development section.

Examination Administration, Scoring, and Reporting

Examination Administration

Two RN and two PN examinations were administered during the past year. The NCLEX-RN 790 examination was administered to 73,889 candidates. The NCLEX-RN 291 examination was administered to 39,735 candidates. The NCLEX-PN 490 examination was administered to 21,945 candidates. The NCLEX-PN 090 examination was administered to 34,467 candidates. Information regarding NCLEX-PN 491 was not available when this report was prepared and will be reported in the 1991-1992 Annual Report.

Examination Materials Retrieval/Scoring

All examination materials were collected and accounted for under secure conditions. Candidate information, test materials, and late applications were checked by the CTB scoring staff and the Data Center staff for completeness and accuracy, and test materials were scanned.

The passing points were set in cooperation with the National Council according to the established standard of entry-level competence, and all test results were shipped on or before the scheduled date.

CTB staff continue to provide the service of automatically handscoring all examinations within a particular range of the passing point. Approximately 1,046 booklets were handscored during the verification process for NCLEX-PN 490 (this figure was not available for the 1989-1990 Annual Report), 2,065 booklets were handscored for NCLEX-RN 790, 1,379 were handscored for NCLEX-PN 090, and 1,581 were handscored for NCLEX-RN 291. At the time this report was written, information regarding the number of examination booklets verified for NCLEX-PN 491 was not available. This information will be included in the 1991-1992 Annual Report.

CTB reviewed approximately 3,600 booklets for other abnormal candidate markings and omitted responses, updated candidate information that was in error, and provided a scoring tracking record to each Member Board to summarize key dates in the scoring cycle and details of incomplete, duplicate, or inaccurate candidate data.

Handscoring

CTB responded to 357 handscoring requests from candidates for the NCLEX-RN 290, and 31 requests for the NCLEX-PN 490. (These figures were not available for the 1989-1990 Annual Report.) Two hundred and sixty-three handscoring requests were received for the NCLEX-RN 790 examination and 53 handscoring requests were received for the NCLEX-PN 090 examination. At the time this report was written, no handscoring requests had been received for NCLEX-RN 291 or for NCLEX-PN 491.

No scoring errors were revealed as a result of the handscoring process. All scores remained as originally reported.

Candidate Information Brochures

Effective with the NCLEX-PN 091 examination, the 1991-1992 revised generic Candidate Information Brochures have been included with the candidate applications. Brochures for the NCLEX-PN 091 and NCLEX-RN 292 examination administrations were distributed to Member Boards in April 1991. Brochures for the NCLEX-PN 492 and NCLEX-RN 792 examination administrations will be distributed to Member Boards in September 1991. CTB staff worked in cooperation with the Administration of Examination Committee to ensure that the new brochures address the needs of the candidates and Member Boards.

New Scoring Brochure

CTB developed a new scoring brochure that will be ready for distribution with the NCLEX-PN 091 exam. This brochure will be distributed to candidates at the test site, after they complete the NCLEX examination. The brochure describes what happens to the test booklets after they leave the test site, and explains the steps taken to ensure accuracy during scoring.

Operational Issues

RN July 1990 Security Breach

On July 11, 1990, the Indiana Board of Nursing reported to the National Council that a single booklet was missing from one packet of NCLEX-RN 790 examination booklets. This was discovered at the test site on the day of the examination. Investigation by CTB and the National Council yielded evidence that the booklet may have been taken prior to the administration of the examination. The National Council determined that there was a high probability of a security breach.

The Board of Directors requested that CTB perform a statistical anomaly analysis to detect whether or not a widespread dissemination of examination questions had occurred. On the basis of the results of the statistical anomaly analysis and other information presented to the Board of Directors, the Board of Directors concluded, on August 23, that widespread dissemination had not occurred and authorized the immediate release of score reports to Member Boards. Score reports were delayed less than two weeks on average, and reports to two jurisdictions were not delayed at all.

CTB performed additional statistical analyses of data in order to ascertain the validity of test results at the levels of educational programs and individual candidates. On the basis of this work, CTB supported the validity of all the test results.

Quality Assurance Program

CTB completed the final phases of a six-part quality assurance program designed to monitor the quality of services and products of the NCLEX program.

CTB presented this quality assurance program at the April 1990 Board of Directors' meeting, submitted a preliminary written report to the National Council in June 1990 and to the National Council Board of Directors in July 1990. The Final Quality Assurance Report was submitted to the National Council in July 1990 and to the Board of Directors in August 1990.

The Final Report included two sets of recommendations for further improvements to quality assurance at CTB. Eight organizational recommendations were made by RGD Associates, an external quality assurance consulting firm contracted by CTB to interview NCLEX staff and analyze project documentation. A second set of recommendations was the result of several full-day meetings of 26 key CTB personnel assigned to the NCLEX project.

An NCLEX Quality Assurance Follow-up Report was submitted to the National Council Board of Directors in December 1990. This report presented CTB's plans for implementation of the recommendations and new procedures.

Research and Technical Support

The research staff continues to provide the National Council with the information needed to monitor the technical performance of each examination. Technical reports have been submitted to the National Council for the NCLEX-PN 490, NCLEX-RN 790, NCLEX-PN 090, NCLEX-RN 291, and NCLEX-RN 491 examination administrations. In each technical report, CTB test development and research staff have provided a detailed description of the development and analyses carried out for each examination. Tables of historical statistics were also included in those reports.

The CTB research staff has conducted the following research studies during the past year:

Person-Fit Analyses

Person-fit analyses are studies conducted to assess whether there is any evidence suggesting that candidates have had prior access to items contained in previously administered examinations. Such analyses were conducted on NCLEX-RN 790 and NCLEX-PN 090. Reports summarizing these analyses and the obtained results were submitted to the National Council after each examination administration.

To enhance person-fit analyses, CTB research staff completed the first phase of research comparing the W2 statistic with the presently used person-fit statistic (W1). The two person-fit statistics are sensitive to different kinds of items. The old statistic (W1) is influenced by very difficult and very easy items, while the new W2 statistic is more sensitive to items of average difficulty.

Special Anomaly Analyses

CTB performed group anomaly analyses associated with the potential security breach for NCLEX-RN 790. These analyses included an investigation of two baseline examinations, NCLEX-RN 788 and NCLEX-RN 789. The analyses were conducted at the aggregate, jurisdiction, and school levels.

CTB also performed a special person-fit analysis of NCLEX-RN 290 to assess the items at risk from the NCLEX-RN 288 security breach. The results showed no evidence that the items at risk had been compromised.

CTB completed the development of computer programs that support modified and improved identical strings analysis procedures. Identical strings procedures compare one candidate's item responses with another candidate's responses, to detect the number of responses that are the same. These procedures will be used when Member Boards request investigations of suspected cheating on the NCLEX examinations.

Ethnicity/Gender Bias Analyses

Ethnicity/Gender bias analyses were conducted on NCLEX-PN 490, NCLEX-RN 790, and NCLEX-PN 090. Reports summarizing these analyses and the obtained results were submitted to the National Council after each examination administration.

CTB completed analyses of the effects on the Mantel-Haenszel alpha statistic of reducing the cell size minimum for bias analyses of RN and PN examinations. As a result, CTB has been able to extend its analyses to minority groups with small candidate populations that have not been previously investigated. A paper describing this research was presented by CTB at the April 1991 Annual Meeting of the American Educational Research Association in Chicago, Illinois.

RN Dimensionality Analyses

The two final phases of research on the dimensionality of the NCLEX-RN examinations were completed and reports of the results were submitted to the National Council in August and December 1990. The first of these phases was an exploration and characterization of the second dimension underlying RN test performance. Although possible characterizations of the second dimension emerged, additional research would have been required to substantiate these characterizations. It was deemed more important to determine the practical impact of multidimensionality on the consistency of pass/fail decisions in order to establish a context within which the need for further research to define the second dimension could be evaluated.

The second phase of dimensionality research involved assessing the impact of the second dimension on pass/fail classifications. Results showed that the degree of multidimensionality present in the NCLEX-RN pool had no practical effect on the consistency of pass/fail decisions obtained from current NCLEX-RN examinations. A final phase of research scheduled for completion in June 1991 will clarify the effect of multidimensionality on examinations of shorter length, such as might be administered in computerized adaptive testing.

Standard-Setting
A report on the NCLEX-PN 090 standard setting was presented to the National Council in July 1990. The new standard, set by the National Council Board of Directors, will apply to every PN examination administered under the new test plan.

Annual CTB–National Council Research Meetings
CTB continues to work with the National Council to discuss the results of current research studies and to identify future research directions for the NCLEX examinations. To this end, CTB research staff met with National Council staff in Oak Brook, Illinois, in October 1990 to develop a schedule of research studies.

Additionally, CTB research staff met with the National Council staff in Chicago, Illinois, during the 1991 Annual Meeting of the American Educational Research Association to discuss the results of the research studies completed at that time and to consider possible issues that would merit investigation in the future. Future research projects were listed and prioritized at both meetings.

Other Research Activities
In addition to original research, the psychometric staff at CTB continues to publish a review of literature regarding pertinent measurement issues in CTB's Quarterly Report to the National Council.

CTB staff completed the investigation of items omitted by candidates on NCLEX-RN 289, NCLEX-RN 789, NCLEX-RN 290, NCLEX-PN 489, and NCLEX-PN 089. The results showed that omit rates on the last six items of the examinations investigated were very low, indicating no evidence of "speededness" on these exams. That is, for the assessed population of first-time, U.S.-educated candidates, there was no sign that candidates did not have enough time to finish the exam. A report was submitted to the National Council on July 16, 1990.

CTB staff submitted an article for the fall publication of the National Council's *Issues*. The article discussed the role of tryout items in NCLEX examinations.

A paper on the pass/fail trends of foreign-educated nurses was presented at the National Council Regulatory Conference in Monterey on February 23-24, 1991.

At the request of the Examination Committee, CTB began compiling data regarding the effect on item statistics of registered nurses who are taking the PN exams.

"Scored" item statistics were examined by CTB. An evaluation was made for the degree to which the statistics for scored items change from pre-test to post-test. A report was submitted to the National Council on May 1, 1991.

Specifications for a study on the effects of Bias Sensitivity Review Panel revisions were submitted to the National Council on April 26, 1991.

Specifications for evaluating scale drift were submitted in June, 1991. Scale drift is a psychometric phenomenon whereby the measurement scale changes systematically over time.

Design specifications were submitted for evaluating the relative merits of W1/W2 statistics for assessing person-fit.

Communications
CTB has instituted the following programs and services in the area of communication with Member Boards, educators, and related consumer groups.

CTB continues to provide an emergency telephone number so that Member Boards may reach CTB personnel 24 hours a day. When the National Council and CTB are closed, Member Boards can reach the CTB Security Department, which will then contact the appropriate NCLEX personnel at home.

CTB editorial staff produced and distributed the summer 1990, winter 1990-1991, and spring 1991 editions of *NCLEX News & Notes*, a newsletter for Member Boards and educators.

CTB staff produced four Quarterly Reports and one Annual Report.

CTB presented and coordinated the November 1990 NCLEX Regional Invitational Conference in St. Louis and the February 1991 NCLEX Invitational Conference in Monterey.

CTB collaborated with the National Council's Communications Committee to plan the Monterey Invitational Conference, and to establish guidelines for its communications and public relations activities. This meeting took place at the October Oak Brook Fall Planning Retreat. CTB staff also met with National Council's communications staff on April 4, 1991.

Two CTB staff members attended the 20th Biennial Convention of the National League for Nursing in Nashville, Tennessee, June 9-11, 1991. Information on the NCLEX Summary Profiles service was made available to attending nursing program representatives.

CTB has begun planning and preparation for two Regional Invitational Conferences in 1992. The spring conference will be held in New Orleans, LA (Area III). The fall conference will be held in Albuquerque, NM (Area I).

National Council Meetings

Contract Evaluations

The National Council and CTB staff participated in quarterly conference calls to discuss contract issues on June 21, 1990; September 24, 1990; December 18, 1990; and June 17, 1991. Topics of discussion included the NCLEX item bank, computer adaptive testing, research, and other issues related to the contract.

On March 29, 1991, CTB managers met with the Vice President of the National Council Board of Directors, the Executive Director of the National Council, the National Council Director of Testing Services, and the National Council NCLEX Program Manager for the annual evaluation of CTB's service. Issues and procedures relating to various aspects of the contract were discussed.

National Council Board of Directors' Meetings

CTB's NCLEX Contract Manager and the NCLEX Technical Coordinator attended the August 5-6, 1990, pre-convention Board of Directors' Meeting in Portland, Maine. During this meeting, the NCLEX Contract Manager answered questions regarding the NCLEX-RN 790 security breach. The Technical Coordinator answered questions about the design of the Anomaly Analysis that would be performed on the NCLEX-RN 790 examination booklets in conjunction with the security breach.

The Final Report of the 1990 NCLEX Quality Assurance Audit was also presented to the Board of Directors at this meeting. The report described the results of an audit which was conducted by an outside quality assurance consulting firm during the months of May, June and July 1990. A preliminary status report had been submitted to the Board of Directors and reviewed at their July 1990 meeting. The NCLEX Contract Manager was available to answer questions regarding the final report at the August 1990 meeting.

Delegate Assembly

The Twelfth Annual Delegate Assembly was held in Portland, Maine, August 6-10, 1990. Nine staff members from CTB attended.

CTB staff attended all Delegate Assembly meetings and forums. The Project Director and Content Director gave a brief presentation at the Testing Forum describing new programs and activities at CTB. Materials provided for the Testing Forum included a description of the NCLEX Invitational Conference in St. Louis, a mock-up of the improved

Candidate Diagnostic Profile, and a flowchart of the NCLEX test development process.

In addition, CTB provided all Delegate Assembly attendees with packets that included an NCLEX organizational chart, a description of the staff's functions, information about the 1992 Regional Invitational Conferences, and a special convention issue of *NCLEX News and Notes*, the NCLEX newsletter.

CTB hosted a dessert reception at the Portland Museum of Art on Tuesday evening, August 7.

Oak Brook Fall Planning Retreat

On October 7-9, 1990, seven CTB staff members attended the Oak Brook Fall Planning Retreat.

At Oak Brook, CTB and the National Council Testing Services staff held the annual Three Year Planning Meeting and Research Planning Meeting. During these meetings the *NCLEX Three Year Plan* was presented. The *Three Year Plan* is a medium-range planning tool designed so that both CTB and the National Council can be proactive in anticipating new services and program modifications, and anticipating the fiscal impact of new services and additional research studies. The Plan is discussed and revised as often as necessary, but at least twice each year. The final *Three Year Plan* was submitted for review at the Board of Directors' meeting in February 1991.

Administration of Examination Committee

The NCLEX Associate Project Director attended the Administration of Examination Committee Meeting held October 7-9, 1990, in Oak Brook, Illinois. At this meeting, the Associate Project Director presented information and answered questions about the administration of NCLEX-PN 490 and NCLEX-RN 790.

The Associate Project Director also attended the March 16-17, 1991, Administration of Examination Committee Meeting held in Chicago, Illinois, to present information and answer questions about the administration of NCLEX-PN 090 and NCLEX-RN 291.

NCLEX Regional Invitational Conferences

CTB presented the Second 1990 NCLEX Regional Invitational Conference on November 12-13, in St. Louis, Missouri. Five staff members from CTB, as well as the National Council NCLEX Program Manager and the National Council Project Director of Computerized Clinical Simulation Testing, presented at the conference. Over 175 educators and Member Board staff attended the two-day conference. The conference included an overview of test development, administration, scoring and reporting, the application process, research, and the NCLEX Summary Profiles. A workshop for educators was given on the principles of item writing.

CTB has begun planning and preparation for two Regional Invitational Conferences in 1992. The spring conference will be held in New Orleans, LA (Area III). The fall conference will be held in Albuquerque, NM (Area I).

NCLEX Monterey Invitational Conference

The Fourth NCLEX Monterey Invitational Conference was held February 21-22, 1991. Ten staff members from CTB, the National Council NCLEX Program Manager, and the National Council Project Director of Computerized Clinical Simulation Testing presented at the conference. Forty-nine educators and Member Board staff attended the two-day conference. The conference included an overview of test development, research, the application process, the NCLEX Summary Profiles, and various topics related to NCLEX administration. A presentation of Computerized Clinical Simulation Testing (CST) and Computerized Adaptive Testing (CAT) was also given. Conference participants were given an opportunity for hands-on experience with CST. This conference was held in conjunction with the second National Council Regulatory Conference, which was held February 23 and 24.

1991 Area Meetings

An overview of CTB's current testing activities, NCLEX Summary Profiles, and operational issues were presented by CTB staff at the 1991 Area Meetings during the months of March and April. The NCLEX Editing Manager and the

NCLEX Contract Manager attended the Area I meeting in Jackson Hole, Wyoming; the Manager of Professional Assessment Services attended the Area II meeting in Minneapolis, Minnesota; the NCLEX Contract Manager attended the Area III meeting in Orlando, Florida; and the NCLEX Associate Project Director attended the Area IV meeting in Washington, D.C.

Special Meeting to Assess Information Processing Needs

Six CTB managers met with the National Council's Executive Director and the Director of Testing Services on March 28, 1991, to discuss the National Council's future information storage, retrieval, and data processing needs. Possible uses of new technology to further improve services provided by CTB were explored during this meeting.

Special Requests and Additional Services

In response to special requests from the National Council and its Member Boards, CTB provided the following services at no additional cost:

- Responded to requests from five Member Boards for special analysis of suspected cheating
- Responded to requests from Member Boards for review of previously administered examinations: five Member Boards requested a review of NCLEX-PN 089 and five Member Boards requested a review of NCLEX-RN 790
- Provided answer keys to the National Council for Member Board reviews for each exam administration
- Completed and tested the programming necessary for redesigning the Diagnostic Profile to reflect the new PN Test Plan, which was effective with NCLEX-PN 090
- Developed and presented the second *NCLEX Three Year Plan*
- Produced and distributed the spring and winter edition of *NCLEX News & Notes*, a newsletter for Member Boards and educators
- Provided sample large-print examination materials to a Member Board for review of handicapped candidate testing options
- Provided cost estimates and options for providing the NCLEX examination on audio tape for handicapped candidates
- Prepared diskettes for the National Council containing the text and statistical data of the NCLEX-RN 790 tryout items
- Prepared an article for *Issues* entitled "The Role of Tryout Items in the NCLEX Exams"
- Prepared and submitted a proposal for CAT PN Item Development
- Responded to requests for cost estimates related to CAT and CST
- Prepared content and psychometric validation for two items challenged by a candidate taking the NCLEX-RN 790 examination; prepared specifications and cost estimates for possible rescoring of the exam
- Prepared a manual outlining NCLEX examination construction procedures
- Revised the BSRP Orientation Manual
- Developed BSRP performance criteria for review by the Examination Committee

- Explored possibilities for adding information to the General Research Tape (GRT)
- Explored possibilities for adding additional candidate questions to the front cover of test booklets
- Completed programming for a pre-examination program code roster which is sent to Member Boards

The following services were provided to the National Council and its Member Boards at additional cost:

- Provided floppy disks containing the data for candidates who took NCLEX-RN 790 and NCLEX-RN 291 and who participated in CAT field testing
- Responded to requests from 13 Member Boards for 31 failure candidate reviews
- Prepared large print NCLEX examination booklets for testing visually handicapped candidates for NCLEX-RN 790, NCLEX-RN 291, and NCLEX-RN 791 examination administrations
- Performed special initial handscoring services for two handicapped candidates for a Member Board
- Processed person ability measures for NCLEX-RN 291 CST Pilot Study candidates
- Provided the National Council with a floppy disk and printout of 79 person ability measures for NCLEX-RN 789, NCLEX-RN 290, and NCLEX-RN 790 CST candidates
- Provided results for NCLEX-RN 291 and NCLEX-RN 790 on diskette for two Member Boards

NCLEX Summary Profiles

Subscriptions to the NCLEX Summary Profiles continued to increase during the past year. The July 1990 Profiles were received by 686 registered nursing programs. Included with each set of July 1990 Profiles was a subscriber survey. A report detailing subscriber response to the survey and proposed modifications to the design, format, and frequency of the Profiles was presented to the National Council in May 1991.

The October 1990 NCLEX Summary Profiles were shipped to 203 subscribing schools of practical nursing. The October Profiles were the first to reflect the new PN Test Plan. Promotional materials describing the changes in the test plan were sent to all non-subscribing practical nursing programs in October 1990 and have generated an additional 60 new subscribers to date.

Annual Report of the NCLEX Data Center

Introduction

This report provides an overview of CTB Macmillan/McGraw-Hill's activities in the National Council Data Center during the past year and covers NCLEX-RN 790, NCLEX-PN 090, NCLEX-RN 291, and NCLEX-PN 491. This year, efforts in the NCLEX Data Center have concentrated on providing support to all Member Boards.

Applications Processing

The Data Center shipped a total of 343,000 application packets to Member Boards during the fall 1990 and spring 1991 sendout periods. The applications reflected a price increase to $40.00, which was effective with the October 1990 Practical Nurse Examination. Generic brochures have been included as part of the application packet. Candidate brochures will no longer need to be sent separately to Member Boards.

The four NCLEX examinations covered in this report reflect a total of 182,832 applications processed to date and represent an increase of 14,886 or 8.86% over last year's 167,941 applications. An additional 5,598 applications were returned to candidates for errors, for receipt after the deadline, or for being too early to process.

A summary of applications processed is included on the following page.

Program Code Changes

A maximum of 40 Member Boards for any one examination sent in program code corrections and/or changes in education or repeat status for a total of 3,402 candidates. This total is 196 candidates more than the 3,206 total changes for 1990, or an increase of 6.1%.

Telephone Communication

The Data Center responded to over 1,350 telephone calls during the year; many of these calls were inquiries regarding candidate application receipt status.

Additional Services

Several new activities at the Data Center have been implemented to assist Member Boards in the application and examination processes.

New Candidate Code Correction Process

A new procedure started with NCLEX-PN 090 that allows Member Boards to make program code corrections at the test site. Proctors are now instructed to ask candidates at the exam site if the school name and program code on their admission card is correct. If it is not correct, corrections can be made on the rosters, and the program codes will be corrected. For the NCLEX-PN 090 exam, nine Boards made 55 corrections, and for the NCLEX-RN 291 exam, 12 Boards made 48 corrections.

New Program Code Correction Process

Starting with NCLEX-RN 791, each school of nursing will be given the opportunity to make corrections to program codes prior to the examination. A pre-examination program code roster is being sent to all Member Boards. The

Member Boards, in turn, send the rosters to each school for verification. These rosters list all candidates from each school in a given jurisdiction, regardless of where the candidates are testing.

Applications Processed

The following is a summary of the NCLEX-RN 790, NCLEX-PN 090, NCLEX-RN 291, and NCLEX-RN 491 applications processed to date.

Table 1. Summary of Applications Processed

Applications Processed:	**RN 790**	**PN 090**	**RN 291**	**PN 491**
Including Tape and Late Applications:	77,258	36,568	43,044	25,962
Application Returns:	1,480	1,856	1,259	1,103
Candidate Code Corrections To Date:				
Number of Candidates	1,048	973	516	865
Percent of Direct Apps	2.1%	3.5%	2.7%	4.9%
Number of Boards	40	39	40	32

As Table 1 illustrates, approximately 182,000 applications were received and processed at the Data Center during 1990-1991.

Annual Report of the NACEP Test Service

Introduction

This report first presents a brief retrospect and then provides a summary of The Psychological Corporation's activity with the Nurse Aide Competency Evaluation Program (NACEP) of the National Council of State Boards of Nursing, Inc., from May 1990, through April 1991.

Retrospect

New Directions

More than two years ago, The Psychological Corporation charted a course that many believed would be almost impossible to navigate when we began the development of a competency evaluation for nurse aides. Federal legislation created rough waters that quickly turned to stormy seas. The Nursing Home Reform Act was unpopular with many in the nursing home industry. Both administrators and nurse aides alike had issues and concerns. The nurse aide asked, "After twenty years of working, why do I have to take a test to determine if I can continue to work?" The nursing home administrator said, "Testing all my people will be a scheduling nightmare!" In addition to this logistical fear was the belief that the population to be tested was not prepared to handle standardized testing.

Today, the federal government has yet to calm the waters. There are still no definite guidelines for complying with the mandate. Yet, despite these obstacles, The Psychological Corporation has remained on course; we have achieved success in the certification testing of nurse aides at the national level. The NACEP is a "superior solution" to the evaluation requirements of the Nursing Home Reform Act.

First Bearings

In year one, The Psychological Corporation initiated test and systems development and heavily marketed the program. In year two, initial test development was completed, and large numbers of candidates were tested. Shortly before the 1989 Delegate Assembly, we had tested in only three states. By the 1990 Delegate Assembly, The Psychological Corporation had tested in twenty states on over 50 different dates. During that period it became evident that many of our initial assumptions, particularly that NACEP would be a standard national program, were incorrect; each state wanted and needed something different.

Course Corrections

While adapting to the changing needs of the state and federal governments and, at the same time, processing high volumes of candidate application and evaluation documents, service problems were experienced that were not typical of the service quality that The Psychological Corporation is accustomed to providing. To allow for flexibility in the delivery of service and to better meet the delivery and service needs of individual states, The Psychological Corporation developed additional delivery models and enhanced service operations.

Current Year Summary

The Psychological Corporation focused on introducing the new delivery models, retaining current states, and increasing market share for the program this year.

New Services

By introducing the new delivery models, we entered a new "year one" and experienced the pitfalls that come with the inauguration of any new program. We remained flexible, though, and adjusted our plans to make the new service

options work smoothly. Attachment A provides information on the current delivery models.

The new delivery models, particularly the Co-op Service Two and Three options, allow state agencies to assume more responsibility for the administration of the NACEP while still maintaining the integrity of the program. The term "co-op" emphasizes the cooperative rather than "turn-key" arrangement for testing services entered into by a state and The Psychological Corporation. For example, in the Co-op Service Three option, The Psychological Corporation provides evaluation materials and scoring services, while the state agency registers candidates and arranges for the administration of the test.

The Psychological Corporation provided the Co-op Service Three option to seven jurisdictions: Alaska, Arizona, Louisiana, Oregon, South Dakota, the Virgin Islands, and Wyoming. Nevada exercised the Co-op Service Two option, and the District of Columbia and Idaho operated under the Co-op Service One option. Those ten clients represent over 45% of the NACEP family.

It is important to note that the new delivery models have been particularly well received by many NACEP states where the board of nursing is responsible for the evaluation of nurse aides. Seven of those ten states have elected to use one of these models. The Psychological Corporation is pleased to be able to provide the flexibility of service that these options offer Member Boards.

Continued Confidence

The Psychological Corporation is proud of the NACEP success. All NACEP states which had contract expiration dates between May of 1990 and April of 1991 have renewed or extended their agreements. Alabama, Arizona, the District of Columbia, Idaho, Illinois, Nevada, North Dakota, South Carolina, South Dakota, Vermont, Virginia, and West Virginia, 12 states in all, expressed their continued confidence in The Psychological Corporation by going forward with the NACEP. Of those 12 states, only three, Arizona, South Carolina, and Vermont, issued formal requests for proposals. We responded appropriately and were awarded new contracts in Arizona and South Carolina. In Vermont, the current contract has been extended three months to allow the state more time to consider the proposal.

Looking to future renewals, it is confirmed that Nevada and Virginia will again renew or extend their agreements with The Psychological Corporation. Virginia elected to exercise its option to extend its current contract to June 30, 1992, after issuing a new request for proposal. Contract discussions are underway in several other NACEP states and initial indications are positive.

Expansion

While we strove to achieve that client retention record, we also worked hard to win new contracts. We are excited that The Psychological Corporation was awarded a three-year contract by the State of Maryland to provide the Full-Service NACEP with registry services. We are also pleased that we came to an agreement with Louisiana and a state-approved test administrator to provide Co-op Service Three. Because of the quality of the evaluation instrument, the security of administration, and the flexibility of service offered by The Psychological Corporation, states continue to show a high degree of interest in the NACEP. In short, we remain optimistic about the future growth of the program. Attachment B provides information on nurse aide programs by contractor.

Psychometric Support

The Psychological Corporation continued to examine test form reliability, item characteristics, and passing rates. We also reviewed the National Council's incumbent job analysis and analyzed the data to make recommendations regarding the new evaluation blueprint. In addition, a number of special studies were conducted at the request of the National Council.

In consultation with the National Council's Director of Testing Services, a study was performed and a report submitted to evaluate item performance of potentially compromised forms; an inventory of the item bank and logit item difficulty was conducted to evaluate the adequacy of the item bank; and a complete item analysis with both classical and Rasch statistics of all current written evaluation forms was provided for evaluation.

National Council Meetings

Representatives of The Psychological Corporation attended the 1990 Delegate Assembly and hosted a breakfast for attendees. The annual license agreement meeting was held in St.Louis, Missouri, in October 1990. The Psychological Corporation met with the NACEP Committee during the National Council Planning Retreat that same month. The Psychological Corporation hosted three NACEP Committee meetings. In addition, The Psychological Corporation participated in two conferences on nurse aides/assistants held by the National Council. We also attended the focus groups sponsored by the National Council where the demand for a new product to evaluate the competency of nurse aides working in home health and acute care settings was discussed.

Statistical Report

Attachment C presents selected results of the NACEP test administrations processed March 1, 1990, through February 28, 1991.

Table 1 displays information on the written/oral administration. A total of 41,441 administrations of the written or oral evaluation were processed; the percent passing was 95.9%. In states administering the evaluation to at least 100 candidates, the percent of candidates passing ranged from 87.5% to 100.0%. In 1990, the written/oral evaluation was administered on 47 different scheduled national test dates. Beginning in January 1991, The Psychological Corporation initiated a national monthly testing schedule.

Tables 2 and 3 provide manual skills information. A total of 35,146 manual skills evaluations were processed; the percent passing was 91.3%. In states administering the evaluation to at least 100 candidates, the percent passing ranged from 85.4% to 98.6%. Table 3 details the percent of candidates passing by task.

Table 4 and Figures 1 and 2 reflect selected demographic variables based on self-reported information. Seventy-eight percent of the candidates who were administered the written/oral evaluation indicated a level of education of grade 12 or above. Thirty-six percent of the candidates who were administered the written/oral evaluation were minorities.

Attachment A

Figure 1. NACEP Co-op Service One

Highlights

With this cooperative option, the state:

- establishes and staffs test sites.

The Psychological Corporation:

- publishes and distributes all candidate information;
- provides application services and tests on national test dates;
- distributes all test materials to test sites;
- arranges for the return of materials for scoring; and
- provides scoring and reporting services.

Candidate Information

The Psychological Corporation publishes and distributes state specific Candidate Handbooks, Sponsor Handbooks and applications to candidates. The handbooks contain the necessary information for a candidate to apply and take the evaluation, and provides sample test questions. "Sponsors" is our term for entities such as nursing facilities, community colleges, and voc-tech programs that the state specifies to The Psychological Corporation as being qualified to attest to the eligibility for nurse aide certification. In addition to providing us with a list of sponsors, the state is responsible for determining eligibility requirements and supplying that information to The Psychological Corporation for inclusion in handbooks.

Application and Registration

Each candidate is screened for eligibility, registered, and then sent admission tickets to the written and manual skills evaluation centers. Each candidate must apply about 4 weeks prior to each test date. The written evaluation is administered on national test dates determined by The Psychological Corporation.

In contrast, the manual skills evaluation is scheduled by the nurse aide setting an appointment with a manual skills evaluation center. No application will be accepted unless it is accompanied by a cover letter from a sponsor who is qualified by the state to verify and document candidate eligibility.

Test Administration

The state establishes the sites for both the written/oral and the manual skills evaluations. The state recruits, approves and contracts (or staffs) examiners and proctors for the written/oral evaluation, and coordinators and raters for the manual skills evaluation. The Psychological Corporation provides training materials to the test personnel prior to the administration of the manual skills evaluation. The state signs an agreement with The Psychological Corporation to follow security requirements.

Delivery and Return of Evaluation Materials

The Psychological Corporation is responsible for distributing all evaluation materials to the evaluation sites and for arranging the return of these materials to The Psychological Corporation.

Scanning, Scoring, and Reporting

The Psychological Corporation scans, scores, and mails the candidate's results to the nurse aide after receipt of evaluation forms by The Psychological Corporation. We process according to an established schedule and provide summary and administrative reports to the state agency on a monthly basis.

Figure 2. NACEP Co-op Service Two

Highlights

With this cooperative option, the state:

- provides and distributes candidate information;
- provides application services and sets testing schedule; and
- establishes and staffs test sites.

The Psychological Corporation:

- distributes all test materials to test sites;
- arranges for the return of materials for scoring; and
- provides scoring and reporting services.

Candidate Information

The Psychological Corporation provides the state with a generic booklet for candidates that includes information on test format and content, and sample questions. The state will provide the necessary information for a candidate to apply or register to take the evaluation.

Application and Registration

The state is responsible for application procedures and may delegate this responsibility to school-based training programs. The written evaluation and manual skills evaluation are administered on a schedule determined by the state. This schedule may or may not include set dates. For example, the state may arrange for school-based training programs to test at the completion of a training program.

Test Administration

The state establishes and approves the sites for the written/oral and manual skills evaluations. The state recruits, approves and contracts (or staffs) examiners and proctors for the written/oral evaluation, and coordinators and raters for the manual skills evaluation. For example, test personnel may be the staff of a school-based training program. The state provides a list of the approved test personnel, including addresses and phone numbers, to The Psychological Corporation. The state signs an agreement with The Psychological Corporation to follow security requirements.

Order and Return of Evaluation Materials

All approved test personnel will order evaluation materials directly from The Psychological Corporation approximately 3 weeks prior to a test date. All written materials and completed manual skills rating forms will be returned to The Psychological Corporation immediately following testing. Each site will maintain an inventory of manual skills materials.

Scanning, Scoring, and Reporting

The Psychological Corporation scans, scores, and mails the candidate's results to the nurse aide after receipt of evaluation forms by The Psychological Corporation. We process according to an established schedule and provide summary and administrative reports to the state agency on a monthly basis.

Figure 3. NACEP Co-op Service Three

Highlights

With this cooperative option, the state:

- provides and distributes candidate information;
- provides application services and sets testing schedule;
- establishes and staffs test sites;
- stores evaluation materials and distributes to test sites; and
- arranges for the return of materials to TPC for scoring.

The Psychological Corporation:

- distributes all test materials to the state; and
- provides scoring and reporting services.

Candidate Information

The Psychological Corporation provides the state with a generic booklet for candidates that includes information on test format and content, and sample questions. The state will provide the necessary information for a candidate to apply and take the evaluation.

Application and Registration

The state is responsible for application procedures. The written evaluation and manual skills evaluation are administered on a schedule determined by the state. This schedule may or may not include set dates. For example, the state may arrange for school-based training programs to test at the completion of a training program.

Test Administration

The state establishes the sites for the written/oral and manual skills evaluations. The state recruits, approves and contracts (or staffs) examiners and proctors for the written/oral evaluation, and coordinators and raters for the manual skills evaluation. The state signs an agreement with The Psychological Corporation to follow security requirements.

Delivery and Return of Evaluation Materials

The state is responsible for distributing all evaluation materials to the evaluation sites and for arranging the return of these materials to the state. The state, in turn, returns completed evaluation forms in a bulk shipment to The Psychological Corporation. The state must maintain an inventory of evaluation materials from The Psychological Corporation.

Scanning, Scoring, and Reporting

The Psychological Corporation scans, scores, and mails the candidate's results to the nurse aide after receipt of evaluation forms by The Psychological Corporation. We process according to an established schedule and provide summary and administrative reports to the state agency on a monthly basis.

Figure 4. NACEP Full Service

Highlights

The Psychological Corporation:

- publishes and distributes all candidate information;
- provides application services and tests on national test dates;
- establishes and staffs test sites;
- distributes all test materials to test sites;
- arranges for the return of materials for scoring; and
- provides scoring and reporting services.

Candidate Information

The Psychological Corporation publishes and distributes state specific Candidate Handbooks, Sponsor Handbooks and applications to candidates. The handbooks contain the necessary information for a candidate to apply and take the evaluation, and provides sample test questions. "Sponsors" is our term for entities such as nursing facilities, community colleges, and voc-tech programs that the state specifies to The Psychological Corporation as being qualified to attest to the eligibility for nurse aide certification. In addition to providing us with a list of sponsors, the state is responsible for determining eligibility requirements and supplying that information to The Psychological Corporation for inclusion in handbooks.

Application and Registration

Each candidate is screened for eligibility, registered, and then sent admission tickets to the written and manual skills evaluation centers. Each candidate must apply about 4 weeks prior to each test date. The written evaluation is administered on national test dates determined by The Psychological Corporation.

In contrast, the manual skills evaluation is scheduled by the nurse aide setting an appointment with a manual skills evaluation center. No application for the NACEP will be accepted unless it is accompanied by a cover letter from a sponsor who is qualified by the state to verify and document candidate eligibility.

Test Administration

The Psychological Corporation establishes the sites for both the written/oral and the manual skills evaluations. We recruit and contract examiners and proctors for the written/oral evaluation, and coordinators and raters for the manual skills evaluation. In addition, we provide training materials to the test personnel prior to the administration of the manual skills evaluation. The state is responsible for providing detailed information regarding possible sites and for encouraging prospective evaluation centers to participate in the program.

Delivery and Return of Evaluation Materials

The Psychological Corporation is responsible for distributing all evaluation materials to the evaluation sites and for arranging the return of these materials to The Psychological Corporation.

Scanning, Scoring, and Reporting

The Psychological Corporation scans, scores, and mails the candidate's results to the nurse aide approximately two weeks from receipt of an evaluation form by The Psychological Corporation. We provide summary and administrative reports to the state agency on a monthly basis.

Attachment B

Figure 1. List of Nurse Aide Programs by Contractor

The Psychological Corporation
Alabama
Alaska
Arizona
Colorado
Delaware
District of Columbia
Idaho
Illinois
Maine
Maryland
Nevada
North Dakota
Oregon
Rhode Island
South Carolina
South Dakota
Vermont
Virginia
Virgin Islands
West Virginia
Wyoming

Other
California
Florida
Georgia
Iowa
Kansas
Kentucky
Minnesota
Missouri
Montana
Nebraska
Tennessee
Utah
Wisconsin

Educational Testing Service
Hawaii
Michigan
New York
Ohio
Oklahoma
Pennsylvania

Health Care Training Corporation of Arkansas
Arkansas

Multiple Provider
Indiana
Louisiana
Mississippi
New Hampshire
North Carolina

Assessment Systems, Inc.
Connecticut
Massachusetts
New Jersey
New Mexico
Texas
Washington

Attachment C

Table 1. NACEP Written/Oral Evaluation
Number Tested and Percent Passing by State
March 1, 1990 - February 28, 1991

State	Written/Oral		Written		Oral[b]	
	Number Tested	Percent Passing	Number Tested	Percent Passing	Number Tested	Percent Passing
Alabama	3,872	91.6	3,767	92.8	105	48.6
Alaska	210	96.6	207	96.6	3	66.7
Arizona	4,820	97.8	4,779	98.2	41	53.7
Colorado	3,993	97.4	3,853	98.9	140	57.1
Delaware	1,615	93.4	1,544	94.8	71	63.4
District of Columbia	627	88.4	607	90.1	20	35.0
Idaho	1,439	99.2	1,433	99.2	6	100.0
Illinois	5,731	96.4	5,621	97.1	110	62.7
Maine	165	99.4	163	99.4	2	100.0
Minnesota	5	100.0	5	100.0	a	a
Mississippi	259	94.2	259	94.2	a	a
Nevada	991	97.8	986	98.1	5	40.0
New Hampshire	130	100.0	130	100.0	a	a
North Dakota	1,632	98.7	1,603	99.3	29	69.0
Oregon	1,395	99.1	1,392	99.1	3	100.0
South Carolina	3,158	87.5	3,083	88.4	75	50.7
South Dakota	783	95.3	734	96.9	49	71.4
Vermont	1,191	98.9	1,171	99.4	20	70.0
Virginia	6,238	96.8	6,197	96.9	41	80.5
Virgin Islands	c	c	c	c	c	c
West Virginia	2,397	98.0	2,353	98.5	44	70.5
Wyoming	790	99.5	782	99.7	8	75.0
Total	41,441	95.9	40,669	96.5	772	60.4

[a] No oral evaluations administered
[b] Includes Spanish
[c] No evaluations administered

Table prepared 4/26/91

Table 2. NACEP Manual Skills
Number Tested and Percent Passing by State

State	Number Tested	Number Passing	Percent Passing
Alaska	143	141	98.6
Arizona	3,102	2,820	90.9
Alabama	3,265	3,065	93.9
Colorado	5,208	4,576	87.9
Delaware	1,582	1,403	88.7
District of Columbia	844	721	85.4
Georgia	86	79	91.9
Illinois	5,023	4,673	93.0
Maine	194	175	90.2
Minnesota	47	47	100.0
Mississippi	258	233	90.3
Nevada	1,219	1,155	94.7
New Hampshire	48	46	95.8
North Dakota	1,833	1,771	96.6
Oregon	1,467	1,344	91.6
South Carolina	2,556	2,270	88.8
Vermont	1,067	1,023	95.9
Virginia	6,575	5,946	90.4
Virgin Islands	a	a	a
Wyoming	629	617	98.1
Total	35,146	32,105	91.3

Note. Data reflects candidates tested from 3/1/90 through 2/28/91.

[a] No evaluations administered

Table prepared 4/26/91

Table 3. NACEP Manual Skills
Percent Passing by Task (In Descending Order)

Task	Percent Passing*
Lift and carry a box	96.7
Make an unoccupied bed	96.4
Make an occupied bed	94.7
Transfer resident from bed to chair	93.3
Give range-of-motion exercises to a knee and ankle	89.6
Brush the teeth	89.4
Give a partial bath	89.4
Position the call signal	89.1
Put on elastic stocking	88.0
Wash hands	85.3
The resident is choking: Give abdominal thrusts	81.0
Apply a transfer belt and walk the resident to a chair	79.8
Use Universal Precautions	76.7
Reposition the resident in a wheelchair	76.6
Move and turn the helpless resident	72.8
Measure and record temperature, pulse and respirations	56.2
Give catheter care	55.2
Put on a vest restraint	48.2
Give perineal care	47.5

* Total N = 35,146. Data reflects candidates tested from 3/1/90 through 2/28/91.

The following tasks were not tested during this period.
- Feed the resident
- Walk the resident
- Measure and record blood pressure
- Measure and record height and weight

Table prepared 4/26/91

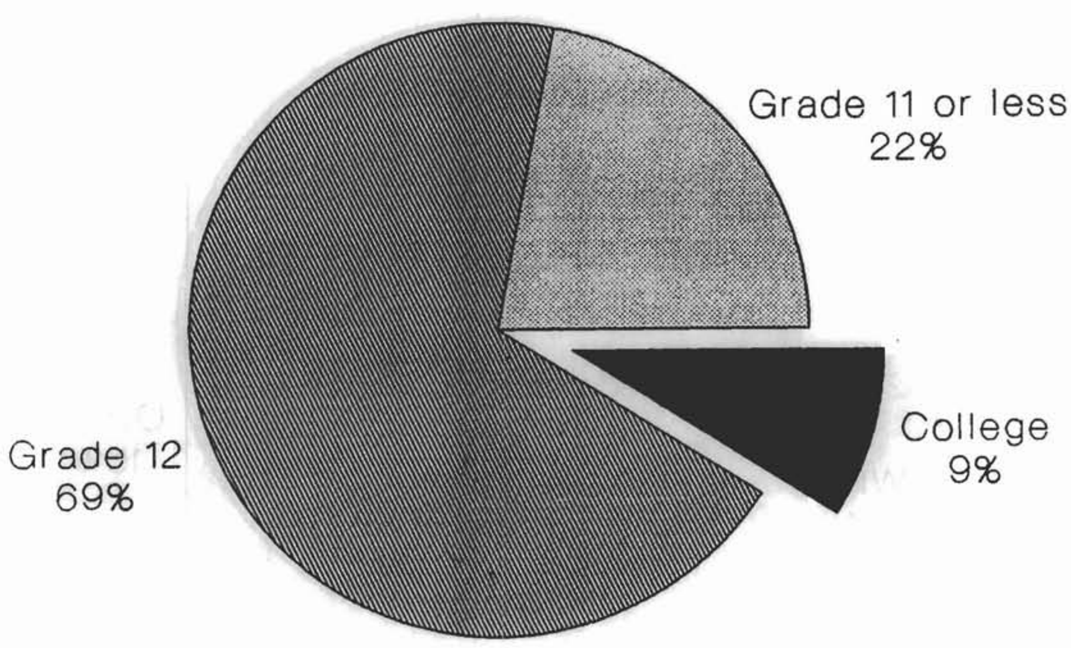
Table 4. NACEP Written/Oral Evaluation
Number and Percent of Candidates Tested by Selected Variables[a]
March 1, 1990 - February 28, 1991

Variable	Candidates Tested	
	Number	Percent
Sex		
Female	35,463	90.5
Male	3,701	9.5
Highest Level of Education		
Grade 7 or less	315	0.8
Grade 8	763	1.9
Grade 9	1,277	3.3
Grade 10	2,608	6.7
Grade 11	3,801	9.7
High School	26,902	68.7
Two years college	2,419	6.2
Four years college	1,061	2.7
Native Language		
English	38,190	97.3
Other	1,060	2.7
Ethnicity		
American Indian	924	2.5
Asian American	445	1.0
Black	10,080	26.0
Hispanic	1,854	5.0
Other	540	1.5
White	24,381	64.0
Experience		
Less than 6 months	13,608	38.4
6 months - 1 year	5,589	15.8
1 - 2 years	3,322	9.4
2 - 3 years	2,193	6.2
3 - 5 years	2,800	7.9
5 years or more	7,944	22.4

[a] Number of candidates is based on those responding to questions and includes first-time test takers only. Information is self-reported. Missing information is not included in the calculation of percentages.

Table prepared 4/26/91

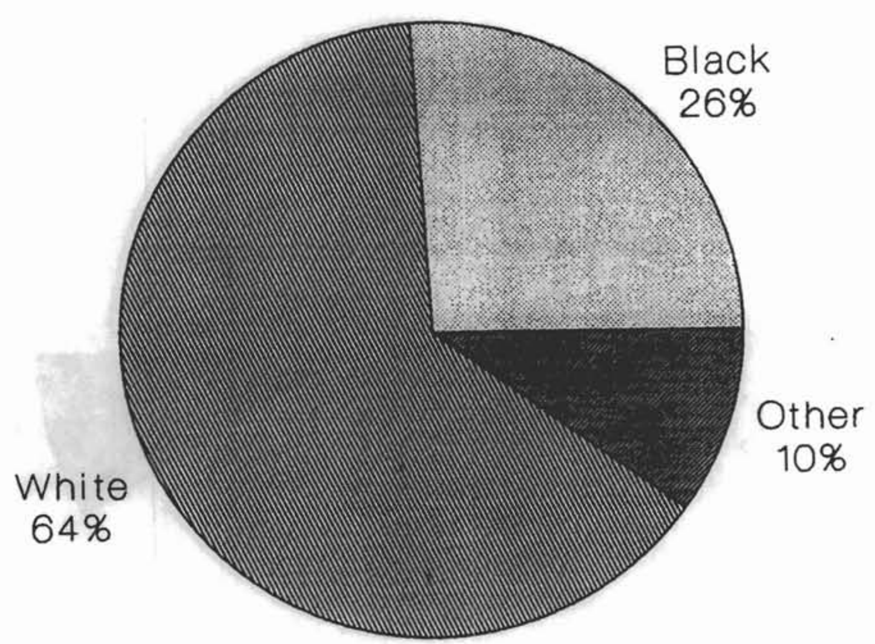
Figure 1. NACEP Written/Oral Evaluation
Percent Tested by Level of Education



Note: Data reflects candidates tested from 3/1/90 through 2/28/91. Number of candidates is based on those responding to questions and includes first-time test takers only. Information is self-reported. Missing information is not included in the calculation of percentages.

Chart prepared 4/26/91

Figure 2. NACEP Written/Oral Evaluation
Percent Tested by Ethnicity



Note: Data reflects candidates tested from 3/1/90 through 2/28/91. Number of candidates is based on those responding to questions and includes first-time test takers only. Information is self-reported. Missing information is not included in the calculation of percentages.

Chart prepared 4/26/91

11
REPORT OF
EXECUTIVE DIRECTOR

Report of the Executive Director

Introduction
This report summarizes the major activities of the National Council staff from May 1990 through April 1991. Activities are grouped by programmatic areas, and a description of staff responsibilities is found behind Tab 22, Orientation Manual, in this *Book of Reports*. Staff names, by position, are included at the end of this report.

National Council Licensure Examinations
Testing staff provided support to the Administration of Examination Committee, the Examination Committee, and the Committee for Special Projects during the time period covered by this report. Liaison with the professional test service, CTB Macmillan/McGraw-Hill, is a daily activity for staff.

Examination Development
In connection with the implementation of a new test plan for NCLEX-PN in October 1990, testing staff coordinated and monitored standard setting activities. This included a survey of nursing professionals in various settings in which new graduates or licensees are present, collection of standardized achievement test data, and coordination of the Panel of Judges which used the modified Angoff method for recommending a passing standard. Staff also coordinated the preparation and timely publication of the *Guidelines for PN Item Writers*. Annual standard setting surveys of nursing professionals are being conducted for the purpose of compiling trend data to be considered by the Board of Directors in future standard setting processes.

A book describing "The NCLEX Process" was developed by testing staff, specifically for the purpose of providing comparison to procedures that would be applicable with CAT administration of the licensure examinations. The book is currently being slightly modified for publication as a general-purpose informational document on NCLEX development, measurement theory, applications process, administration procedures, scoring and reporting.

Staff has continued to work with CTB research staff to refine the design and to interpret the results of research on the dimensionality of the NCLEX-RN. (Dimensionality refers to the number of abilities or traits that an examination is measuring: ideally one.) Conclusions reached to date indicate that the validity of NCLEX-RN results is maintained, as is reliability, despite some departure from perfect unidimensionality in the NCLEX-RN item pool.

Examination Administration
Staff assisted the Puerto Rico Board of Nursing/Department of Health in processing required for membership and initial administration of NCLEX. Observation of examination administration by a Puerto Rico board member was arranged, program codes organized, and security measures and procedures reviews were facilitated until accepted by the Administration of Examination Committee (AEC). Arrangements have also been made for AEC designees to be present at Puerto Rico's anticipated first administration of NCLEX in July 1991.

During the July 1990 NCLEX-RN, a breach in security occurred. Subsequently, testing staff worked with the Indiana Board, CTB Macmillan/McGraw-Hill, and legal counsel to provide information necessary for the Board of Directors to make decisions regarding release of examination results and communications to Member Boards and other organizations.

Computerized Adaptive Testing (CAT) Project
Field testing for CAT was supported by staff surrounding the administration of the NCLEX-RN in July 1990 and February 1991. The Project Director assisted field test states with arrangements for computer testing centers, staff training, software installation, and contacts with educational program directors to recruit candidates according to the established sampling design.

Staff supervised the data analysis for the field tests, including CAT test results, questionnaire responses, demographic data, and paper-and-pencil NCLEX results. A four-member psychometric review panel has been organized and coordinated by staff to review (1) the methodology for data analysis and (2) the interpretation of data and conclusions regarding validity of CAT as an administration mechanism for NCLEX.

Testing staff worked with CTB at the direction of the Examination Committee to design and interpret the results of a study on face validity of CAT examinations. (Face validity refers to the perception of examination users that the examination is measuring what they perceive is important; it is distinguished from content validity, which is the demonstration through concrete evidence that examination content includes all important components of the ability or trait to be measured.)

Staff worked with consultants and programmers to perform indepth analyses of the security of the CAT software, technical needs for CAT hardware, data transfer techniques, and methods for projecting equipment/space/staffing needs and costs. The CAT software continues to be perfected through additional programming for data encryption, screen text presentation, and simulation of CAT tests to use in research (e.g., face validity).

Staff in all program areas were assigned follow-up on questions regarding CAT generated at the Fall Planning Retreat. This included legal, communications, security, staffing, computer, research, and testing categories. Activities involved drafting, disseminating, and analyzing data for a survey of jurisdictional legal issues, correspondence with legal counsel regarding various potential legal concerns expressed by Member Boards, design and dissemination of *CAT Communiques*, and design of cost estimation worksheets and procedures for use by Member Boards.

Nurse Aide Competency Evaluation Program (NACEP)

Staff provided support to the NACEP Committee and liaison to the professional test service, The Psychological Corporation (TPC).

Two conferences for boards of nursing with interest in the training and competency evaluation of nurse aides were facilitated by staff. The NACEP Program Manager arranged for representatives of the Health Care Financing Administration (HCFA) to be present at the second conference to respond to questions.

When interpretation of the federal regulations revealed in July 1990 that observation of home health aides was required for all skill areas (not a sampling as in the manual skills component of the competency evaluation for aides in long term care), staff worked with legal counsel and TPC to prepare a skills checklist for approval by the Board of Directors. The checklist has been used successfully as a supplement to the NACEP to meet the requirements of the regulations for home health aide competency evaluation.

Program staff assisted in market research regarding the potential development of evaluation products targeted for home health and acute care aides by convening and conducting three focus groups. Conclusions drawn from the input of the groups (not in support of new product development) were useful to TPC and the National Council.

Implementation concerns and two security incidents required significant attention by staff during the past year. Both security incidents were resolved without disruption to the integrity of the evaluation. Implementation concerns continue to be addressed through TPC's offering of additional flexible service options, and the interventions of National Council and TPC managers to facilitate communications and follow-up with state agencies.

Staff provided support to TPC in marketing efforts by visiting states as needed to explain service options and staffing exhibits at national meetings.

Public Policy, Nursing Practice and Education

In the area of public policy, nursing practice and education, staff provided support to the Nursing Practice and Education Committee, the Subcommittee to Study Regulatory Models for Chemically Dependent Nurses, the

Subcommittee to Study the Regulation of Advanced Nursing Practice, and the Subcommittee to Study the Regulatory Implications of Changing Nursing Education.

Reappointment of Vickie Sheets to the Executive Committee of the National Practitioner Data Bank (NPDB) assured continuing input and information flow on NPDB developments affecting boards of nursing. With respect to the National Council's Disciplinary Data Bank, staff has continued to process monthly and annual reports for dissemination to Member Boards. Screening of names submitted by the Public Health Service and all branches of the military for matching with names in the bank has continued. Operational support has been provided for the pilot study of electronic access to the National Council's data bank. While electronic access is in the pilot stage, staff has been instrumental in designing and operationalizing multiple methods for boards of nursing to access the data in the course of endorsement procedures.

Staff has performed surveys of Member Boards and redesigned the data base, reports, and computer "screens" in connection with the conversion of the National Council's Disciplinary Data Bank to a format congruent with the anticipated format of NPDB reports. The conversion is continuing, pending the issuance of final rules for Section Five of the federal law, which mandates reporting by boards of nursing.

Public policy staff monitored developments in federal legislation over the past year. Legislation identified for development of written comments included the Immigration Nursing Relief Act, rules from the Drug Enforcement Administration regarding the assignment of DEA numbers to nurse practitioners, and the Americans with Disabilities Act.

In support of the Subcommittee to Study Regulation of Advanced Nursing Practice, staff has surveyed Member Boards by telephone regarding the current status of regulation of advanced practice in their jurisdictions. A mail survey has been created by staff and sent to educational programs to gather information relevant to the work of the Subcommittee to Study the Regulatory Implications of Changing Nursing Education.

Communications

The area of communications has several identifiable sub-areas related to the goals of the National Council. One of these is the publications program. Two other areas, intraorganizational and interorganizational communications, include meetings, presentations, liaisons, and public relations within the National Council structure and with external organizations related in some way to the mission of the National Council. Within the area of communications, staff provides support for the Communications Committee. A significant element in this support during the past year was the development of a draft communications plan, outlining needs, goals, and communications vehicles.

Publications

Staff has published four editions of *Issues* (#1-Research/CST, #2-Nursing Practice and Education, #3-Communications/Convention, #4-Testing/CAT). Under the direction of the Communications Committee, *Issues* was redesigned to include new columns and features emphasizing two-way communication between readers and the National Council. Upon approval of the new ad hoc publication, *Emerging Issues*, by the Board of Directors, staff facilitated design of the publication format and the production of the first issue on the test administration implications of the Americans with Disabilities Act.

State Nursing Legislation Quarterly (SNLQ) was produced under a new format. Synopses, charts, and indexes have been added to enhance the publication's usefulness as a reference. Federal legislation and pertinent court cases have been routinely incorporated.

Intraorganizational Communications

Staff implemented a small demonstration project in licensure verification using NCNET which was reported at the 1990 Delegate Assembly. Subsequently, NCNET services have been targeted for upgrading and staff has provided the Upfront communications software and training to a number of Member Boards. Currently in process are conversion of NCLEX-administration reporting forms for use on NCNET/Upfront and preparations for the eight-state licensure verification pilot beginning in the late summer.

Interorganizational Communications

Communications between the National Council and related organizations (nursing, regulatory, testing) occur primarily in several ways: liaison meetings with elected officers and executive staff of those organizations, presentations at functions they sponsor, and attendance at their annual meetings and other conferences.

Liaison meetings have been held with the American Nurses' Association (ANA), National League for Nursing (NLN), American Organization of Nurse Executives (AONE), National Federation of Licensed Practical Nurses (NFLPN), Commission on Graduates of Foreign Nursing Schools (CGFNS), and the American Red Cross. A staff member participated in the meeting of the American Medical Association (AMA) panel of nurse consultants. A June meeting is scheduled with the executive director of the International Council of Nurses (ICN). Additionally, research staff participated in meetings of the Interagency Conference on Nursing Statistics (ICONS).

Presentations have been made by staff at meetings of the following organizations during the past year: Secretary's Commission on the Nursing Shortage, NLN, ANA, American Association of Colleges of Nursing (AACN), CLEAR (National Clearinghouse for Licensure, Enforcement and Regulation), the Federation of Associations of Regulatory Boards, American Educational Research Association, National Council on Measurement in Education, Midwest Objective Measurement Seminar, Fourth International Symposium on Use of Computers in Nursing, and the Citizens Advocacy Council (CAC).

Staff has assisted with the representation of the National Council at meetings and conventions of other organizations including: NAPNES, AONE, ANA, NLN, AACN, NFLPN, CAC, National Student Nurses' Association, National Nursing Research Roundtable, The American Association of Nurse Attorneys, Emergency Nurses' Association, and the National Organization for Competency Assurance.

The second National Council Regulatory Conference was coordinated by staff and held on February 23-24, 1991, in Monterey, California. Approximately 60 people attended the conference; topics addressed included the NPDB, unlicensed personnel, advanced practice, and foreign nurse credentialing, among others.

Research

Examination-related Studies

The Job Analysis Monitoring Committee (JAM) provides oversight and guidance to the research staff for all examination-related research. An additional panel consisting of two external experts in job analysis (Dr. Michael Kane and Angeline Jacobs) also provides methodological review.

Research staff has completed a job analysis study of newly licensed Registered Nurses, and began a job analysis study of newly licensed Practical Nurses during the past year. Results of the RN job analysis supported the current test plan for NCLEX-RN and were the basis for the Examination Committee's recommendation to the 1990 Delegate Assembly not to revise the test plan. In addition, the first incumbent job analysis of nurse aides was completed (previous studies have been based on logical analysis).

A second wave of job analysis surveys was sent to participants in the RN job analysis study, facilitating further analyses and conclusions regarding the time period to be considered "entry" and appropriate timing for surveys.

The development of new job analysis methodology formed an important part of the work of the staff this year. The nurse aide job analysis required the use of innovative techniques for sampling, response formats, and assuring validity of data collected from respondents. Contextual or "qualitative" aspects of care provided by Registered Nurses were successfully assessed by means of a critical incident description component added to the quantitative (frequency/criticality) task inventory which is the standard technique for job analysis.

Nurse Information System (NIS)

Under the direction of the Nurse Information System Committee and the Board of Directors, staff prepared and submitted funding proposals to the Division of Nursing and the Robert Wood Johnson Foundation for a study of the feasibility of establishing a national nurse information system. Both proposals resulted in funding. Additionally,

staff worked with the American Nurses' Association to obtain and utilize in-kind services from the ANA to accomplish specific objectives of the feasibility study. The feasibility study is currently being implemented in three states, including data collection by various methods and unduplication attempts using various data element combinations. Staff has also surveyed Member Boards regarding constraints on data release and usage.

Computerized Clinical Simulation Testing (CST) Project
CST project staff continued to carry out the activities of the CST feasibility study, under the oversight of the CST Steering Committee and in collaboration with the National Board of Medical Examiners (NBME). Twenty-seven cases were written and approved; twenty-five were programmed and have scoring keys developed. Two cases were augmented by videodisc images. Field testing of the CST software was completed last summer.

Project staff recruited multiple nursing schools in the Chicago, Philadelphia, and Indianapolis areas to participate in the pilot testing of CST during December, January, and February. Site arrangements were made with professional testing centers and college computer labs. Pilot testing was completed in January with 263 participants. Staff coordination of intensive analysis of scoring keys, along with several state-of-the-art scoring research conferences, is contributing to the development of valid and reliable scoring for CST cases.

Other Research and Data Dissemination
With guidance from the Subcommittee to Study Regulatory Models for Chemically Dependent Nurses, research staff collaborated with Dr. Mary Haack to develop proposals meeting specific research aims of a number of federal agencies. The cultivation of potential funding sources is a continuing effort.

Staff completed and distributed to Member Boards a report containing summarized data collected via the Member Board Profiles survey. Subsequently, the "off years" short-form survey was distributed and returns are currently being compiled.

Organizational and Operational Matters
In the organizational area, staff provided support for Board of Directors' activities, and for committees including the Long Range Planning Committee, Foreign Nurse Issues Committee, Bylaws Committee, Finance Committee, Committee on Nominations, and Board Committees (Personnel, Projects, Coordinating, and Area Directors).

Staff from all program areas assisted in the planning and implementation of the program and logistics for the Fall Planning Retreat held for committee members and the Board of Directors.

The planning, distribution, and compilation of data from the Long Range Planning Committee's trend analysis survey were facilitated by staff. In addition, consultation in strategic planning, "visioning," and the maintenance of long range plans was obtained.

In the financial area, staff managed the transition from one audit firm to another, and the transition from a July 1 fiscal year to an October 1 fiscal year. A 15-month audit was performed, with appropriate 12-month breakdowns for comparison purposes. In response to concerns over financial constraints affecting a number of Member Boards, staff implemented a survey directed by the Finance Committee to determine the impact on Member Board participation in Delegate Assembly meetings.

A Policy and Procedure Manual has been compiled by staff, incorporating all Board of Directors and committee policies. Policies have been identified for drafting or revision and submission to the Board of Directors in order to assure that all organizational practices are consistent with established legal and bylaws guidelines.

Member Board contract amendments were processed by staff, working with legal counsel. Individual needs of states with respect to contracting were negotiated and resolved to assure continuity of services.

Jennifer Bosma, Ph.D., C.A.E.
Executive Director

1990-91 National Council Staff

Administrative Staff

Jennifer Bosma, Ph.D., C.A.E .... Executive Director
Doris E. Nay, M.A., R.N. .... Associate Executive Director

Burleigh P. Angle, MA .... Director of Computer and Convention Services *(through September 1990)*
Anna Bersky, M.S., R.N. .... CST Project Director
Susan Davids .... Manager of Meetings and Convention Services
Ellen Gleason .... Administrative Assistant, Testing Services
Barbara Halsey, M.B.A. .... NACEP Program Manager
Kathleen J. Hayden, B.B.A. .... Financial Manager
William J. Lauf, M.B.A., C.D.P. .... Director of Operations
Nancy Miller, M.S., R.N. .... NCLEX Program Manager
Melanie Neal .... NIS Project Manager
Kerry Nowicki .... Publications Manager
Matthew Schulz, Ph.D. .... Director of Testing Services
Vickie Sheets, J.D., R.N. .... Director for Public Policy, Nursing Practice and Education
Debra A. Tomsky .... Administrative Assistant, Testing Services *(through May 1990)*
Ann Watkins .... Executive Secretary
Keith Williams .... Information Resource Manager
Susan Woodward .... Director of Communications
Carolyn J. Yocom, Ph.D., R.N. .... Director of Research Services
Anthony R. Zara .... CAT Project Director

Support Staff

Wanda Anderson .... Operations
Cynthia Bentel .... Research
Jodi Borger .... NACEP
Yvonne Brown .... Communications
Beth Cayia .... Research
Andrea Change .... Testing *(through May 1990)*
Cheryl Dillon .... Practice & Discipline *(through June 1990)*
Charrisse Franklin .... Reception *(through May 1990)*
Magdalene Frazier .... Reception *(through April 1991)*
Haiba Hamilton .... Research
Beverly Howard .... Administration
Marco Huerta .... Operations
Jerrold Jacobson .... Research
Donna Masiulewicz .... Practice & Discipline
Danyetta Murray .... NACEP *(through June 1990)*
Louise Peter .... Testing
Sandra Rhodes .... Testing
Cathy Streeter .... Research
Mary Trucksa .... Operations
Andrea Wilburn .... Research *(through June 1990)*
Fleurette Workman .... Reception

12 BYLAWS COMMITTEE

Report of the Bylaws Committee

Recommendation

The committee recommends the consideration of the nineteen proposed amendments to the bylaws as presented in Attachment A of this report.

Meeting Dates

The committee met two times: October 6-8, 1990; and April 1-2, 1991.

Activities

The specific activities of the Bylaws Committee were as follows:

1. Participated in the National Council's Fall Planning Retreat held in Oak Brook, Illinois.
2. Reviewed the National Council's bylaws for potential changes.
3. Reviewed bylaws from various other organizations for possible approaches to officer election schedules and organizational structure, and reported to the Board of Directors.
4. Reviewed all proposed bylaw amendments submitted by Member Boards and committees.
5. Prepared the proposed amendments to the bylaws for presentation to the 1991 Delegate Assembly.

Committee Members

Libby Lund, RN, Area III, *Chair*
Beverly E. Hofferber, WA-RN, Area I
Timothy McBrady, ME, Area IV
Mary Snodgrass, MA, Area IV *(through February 1991)*
Christine Zambricki, MI, Area II

Parliamentarian

Ardith Inman

Staff

Vickie R. Sheets, *Director for Public Policy, Nursing Practice and Education*

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
Article III Membership and Fees			
C.1. The annual fee payable each fiscal year by each Member Board shall be $3000.00.	The annual fee payable each ~~fiscal year by each Member Board shall be $3000.00~~ July 1 shall be $3000.00 for each Member Board.	This language maintains the current July 1 payment schedule, which coincides with most Member Boards' fiscal year.	The Bylaws Committee recommends the adoption of this proposed amendment.
Proposed by the Finance Committee			
Article III Membership and Fees			
C.2.a. In addition to membership fees, delinquent fees shall be assessed as follows: a. Ninety days after the beginning of the Council's fiscal year, a delinquent fee of $500.00 shall be added to the annual fee.	Delete current language and substitute: Any membership fee not paid by September 30 of each year shall be subject to a delinquent charge of $500.00.	This continues to allow Member Boards a ninety day grace period for submission of membership fees, but is based on the July 1 payment schedule rather than the National Council's first year.	The Bylaws Committee recommends the adoption of this proposed amendment.
Proposed by the Finance Committee			
Article III Membership and Fees			
C.2.b. A member whose annual fee is not paid within the designated 90-day period shall be subject to review and possible termination by the Board of Directors at its next regular meeting.	A member whose annual fee is not paid ~~within the designated 90-day period~~ after September 30 shall be subject to review and possible termination by the Boards of Directors at its next regular meeting.	If the other amendments regarding fees are adopted, this change is necessary to make the language in this section consistent.	The Bylaws Committee recommends the adoption of this proposed amendment.
Proposed by the Finance Committee			

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
Article III Membership and Fees			
F.1. Any Member Board whose fees remain unpaid 90 days after the beginning of the Council's fiscal year, or who does not comply with the provisions of the bylaws, standing rules or contracts shall be subject to termination after review by the Board of Directors. Such board action is subject to appeal to the voting body of the Council, hereinafter referred to as the Delegate Assembly.	Any Member Board whose fees remain unpaid ~~90 days after the beginning of the Council's fiscal year~~ after September 30, or who does not comply with the provisions of the bylaws or contracts shall be subject to termination after review by the Board of Directors. Such board action is subject to appeal to the voting body of the Council, hereinafter referred to as the Delegate Assembly.	If the other amendments regarding fees are adopted, this change is necessary to make the language in this section consistent.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Finance Committee

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
Article V Officers			
B.3. The president shall have served at least one year on the Board of Directors prior to being elected to office.	The president shall have served as a delegate or a committee member or an officer prior to being elected to office.	The bylaws as currently written severely limits the pool of qualified candidates. It does not necessarily meet its intent, as it does not guarantee continuity. This amendment responds to the concerns expressed by the delegates attending the 1990 Delegate Assembly.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Nominations Committee, the Bylaws Committee and the Maine State Board of Nursing

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation

Article VI Nominations and Elections

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
A.6. The Committee on Nominations shall submit at least two names for each position to be filled. The report shall be read on the first day of the meeting of the Delegate Assembly, when additional nominations may be made from the floor. No name shall be placed in nomination without the written consent of the nominee.	The Committee on Nominations shall submit ~~at least two names for each position to be filled~~ <u>a slate of candidates for the positions to be filled</u>. The report shall be read on the first day of the meeting of the Delegate Assembly, when additional nominations may be made from the floor. No name shall be placed in nomination without the written consent of the nominee.	Three key factors have been identified by Member Boards as contributing to barriers to completing a full slate of officers as currently required by the bylaws: the time commitment required of the Board; running against a popular incumbent; and state restrictions on out-of-state travel, even if it is reimbursed. Other key points include the fact that, over the years, the number of National council committees has increased, thereby decreasing the candidate pool as more and more volunteers choose a committee role rather than run for office. As the National Council continues to grow, the Committee on Nominations anticipates that the pool of qualified officer candidates may continue to decrease. *(See Report of the Committee on Nominations for further discussion.)*	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Nominations Committee

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation

Article VII Meetings

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
C.1. An annual session of the Council, hereinafter referred to as a convention, shall be held at a time and place as determined by the Board of Directors.	An annual session of the Council, hereinafter referred to as the ~~convention~~ Annual Meeting, shall be held at a time and place as determined by the Board of Directors.	The term convention implies more educational programming and social events than does the term annual meeting which is widely used to describe business meetings. The National Council Delegate Assembly and associated activities are primarily focused on the business of the Council. It is believed that this change in language will assist Member Boards to obtain funding to send representatives to the Delegate Assembly.	The Bylaws Committee recommends the adoption of the proposed amendment.

Proposed by the Bylaws Committee

The following amendments are consequential to the adoption of the amendment to Article VII C.1.

Article VIII Delegate Assembly

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
C.1. The Delegate Assembly shall meet annually during the convention of the Council.	The Delegate Assembly shall meet annually during the ~~convention~~ annual meeting of the Council.	If the other amendment regarding changing convention to annual meeting is adopted, this change is necessary to make the language in the section consistent.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Bylaws Committee

Article VII Meetings

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
C.2. The official call to the convention, giving the time and place of the session, shall be sent to each Member Board at least 90 days prior to the convention.	The official call to the ~~convention~~ annual meeting, giving the time and place of the session, shall be sent to each Member Board at least 90 days prior to the session.	If the other amendments regarding changing convention to annual meeting are adopted, this change is necessary to make the language in the section consistent.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Bylaws Committee

Article VII Meetings

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
C.3. In the event of a national emergency, the Board of Directors by a two-thirds vote may cancel the annual convention and shall schedule a meeting of the Delegate Assembly as soon as possible to conduct the business of the Council.	In the event of a national emergency, the Board of Directors by a two-thirds vote may cancel the annual ~~convention~~ meeting and shall schedule a meeting of the Delegate Assembly as soon as possible to conduct the business of the Council.	If the other amendments regarding changing convention to annual meeting are adopted, this change is necessary to make the language in the section consistent.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Bylaws Committee

Article IX Board of Directors

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
B.5. Set the time and place for each convention and session of the Delegate Assembly;	Set the time and place for each ~~convention~~ annual meeting and session of the Delegate Assembly;	If other amendments regarding changing convention to annual meeting are adopted, this change is necessary to make the language in the section consistent.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Bylaws Committee

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation

Article IX Board of Directors

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
C.1. The Board of Directors, shall meet in the convention city prior to and immediately following the annual convention of the Council and at other times as necessary to accomplish the work of the Board.	The Board of Directors, shall meet in the ~~convention~~ annual meeting city prior to and immediately following the annual ~~convention~~ meeting of the Council and at other times as necessary to accomplish the work of the Board.	If the other amendments regarding changing convention to annual meeting are adopted, this change is necessary to make the language in the section consistent.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Bylaws Committee

Article X Committees

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
B.2.b. A term shall begin after convention...	A term shall begin after ~~convention~~ the annual meeting....	If the other amendments regarding changing convention to annual meeting are adopted, this change is necessary to make the language in the section consistent.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Bylaws Committee

Article X Committees

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
C.2.b. Each committee shall submit an annual report at least 60 days before the annual convention for presentation to the Delegate Assembly...	Each committee shall submit an annual report at least 60 days before the annual ~~convention~~ meeting for presentation to the Delegate Assembly...	If the other amendments regarding changing convention to annual meeting are adopted, this change is necessary to make the language in the section consistent.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Bylaws Committee

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
Article X Committees			
F.2.e. [The Communications Committee shall] plan the Council's annual convention.	[The Communications Committee shall] plan the Council's annual ~~convention~~ meeting.	If the other amendments regarding changing convention to annual meeting are adopted, this change is necessary to make the language in the section consistent.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Bylaws Committee

This concludes the amendments pertaining to changing the name of the convention to annual meeting.

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
Article VIII Delegate Assembly			
A.1.a. The Delegate Assembly, the voting body of the Council, shall be comprised of delegates designated by each Member Board.	The Delegate Assembly, the voting body of the Council, shall be comprised of delegates designated by each Member Board and the Officers.	The Officers do not represent individual Member Boards but are representing the interests of the National Council. The Board is entrusted with the Council's assets and is responsible for providing strategic planning and policy oversight/approval. The Board votes on a broad spectrum of complex issues between Delegate Assemblies. The Council would benefit from the expression of the Officers' experience and judgment through the mechanism of voting.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Maine State Board of Nursing

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
Article VIII Delegate Assembly			
	New statement: A.3.d. Each Officer shall be entitled to one vote.	The Officers do not represent individual Member Boards but are representing the interests of the National Council. The Board is entrusted with the Council's assets and is responsible for providing strategic planning and policy oversight/approval. The Board votes on a broad spectrum of complex issues between Delegate Assemblies. the Council would benefit from the expression of the Officers' experience and judgment through the mechanisms of voting.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Maine State Board of Nursing

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
Article X Committees			
B.1.b. No person shall serve more than six consecutive years on the same committee.	No person shall serve more than six consecutive years on the same committee except persons serving as members or alternates on the Examination Committee. These persons may serve a total of twelve consecutive years with a minimum of six consecutive years as a committee member.	This amendment states the current practice of using alternates to the Examination Committee. It is essential to the ongoing development of NCLEX to have representatives from each Area participate in the work of the Examination Committee. Alternates who have experience with the NCLEX process are able to step in when needed to represent their Area and provide continuity in processing complex issues without extensive orientation in the development of the examination.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Examination Committee

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation

Article X Committees

Current Bylaw	Proposed Bylaw Amendment	Rationale	Bylaws Committee Recommendation
G.1.a. The Examination Committee shall consist of at least six members. One of the members shall represent Member Boards licensing practical/vocational nurses.	The Examination Committee shall consist of at least six members and at least six alternates. The alternates shall be called on at any time to serve temporarily as a member of the committee and have all the responsibilities and rights of full membership when they are called to serve as a member. One of the committee members shall represent Member Boards licensing practical/vocational nurses.	This language clarifies the role of the Examination Committee alternate.	The Bylaws Committee recommends the adoption of this proposed amendment.

Proposed by the Examination Committee

13

LONG RANGE PLANNING COMMITTEE

Report of the Long Range Planning Committee

Background
In 1988, the Long Range Planning Committee was established as a standing committee by the Delegate Assembly. The committee's charge is to establish and implement a periodic review of the National Council's structure, mission statement, goals, objectives, and strategies and to propose revisions as indicated.

At the 1990 Delegate Assembly, the delegates reaffirmed the Mission Statement of the National Council, and the committee presented the updated rank ordering of the National Council's goals and objectives.

Meetings
The Long Range Planning Committee met October 8-10, 1990; January 9-11, 1991; February 19, 1991, by conference call; and April 8-10, 1991.

Activities
The Long Range Planning Committee developed a Trend Analysis Survey Tool. The committee compiled the Organizational Visioning data received from the Fall Planning Retreat and the responses to the Trend Analysis Survey. The methodology used in conducting the survey and a preliminary description of the data received is found with this report as Attachment A.

The committee chair and staff person met with consultants from Ernst & Young to discuss organizational visioning and long range planning.

The committee revised the Six-Year Evaluation/Planning Cycle, to shorten the time line for the presentation of the Trend Analysis data to the Delegate Assembly. A report of the preliminary Trend Analysis data will be presented to the 1991 Delegate Assembly, and a final report with suggested revisions to the long range plan will be presented to the 1992 Delegate Assembly.

The committee reviewed the FY91 Operational Plan, considering the activities submitted by committees, Board of Directors and staff.

The committee developed a first draft of a National Council Vision Statement.

Future Activities
The committee will analyze and interpret the Trend Analysis data; review the current Long Range Plan and present a revised Long Range Plan to the 1992 Delegate Assembly; develop a draft of a National Council Vision Statement and request input from the Board of Directors, committees, Member Boards and staff.

Committee Members
Marcia Rachel, MS, Area III, *Chair*
Pat Broten, ND, Area II
Leola Daniels, ID, Area I
Nancy Durrett, VA, Area III
Lorinda Inman, IA, Area II
Jeanette Ware, VT, Area IV

Board Liaison
Shirley Brekken

Staff
Doris E. Nay, *Associate Executive Director*

Attachment A

National Council of State Boards of Nursing, Inc.
Long Range Planning Committee

Preliminary Report of the Trend Analysis Survey

In January 1983, the Board of Directors of the National Council of State Boards of Nursing, Inc., adopted a motion to appoint an ad hoc Long Range Planning Committee to develop and implement a long range planning process for the National Council. This committee functioned from that point through most of 1986. During this time, the committee developed and presented several documents to the Delegate Assembly: mission statement (adopted in 1984); goals and objectives (adopted in 1985); strategies (accepted in 1986); and directional strategies (accepted in 1988). The goals and objectives were prioritized after the 1986 Delegate Assembly.

The Long Range Planning Committee was established by the Delegate Assembly as a standing committee in 1988. The committee's charge, as delineated in the bylaws, is to establish and implement a periodic review of the National Council structure, mission statement, goals, objectives, and strategies, and to propose revisions as indicated.

During 1989-1990, the committee reviewed the National Council mission statement and evaluated the goals and objectives based on data received from member jurisdictions. The rank ordering of the goals and objectives was updated and the mission statement was reaffirmed by the 1990 Delegate Assembly. The committee then developed a procedure whereby current trends could be identified, future trends could be projected, and potential National Council responses could be formulated. This concept of trend analysis is supported in strategic and long range planning literature. In fact, literature indicates that "futures" planning (often referred to as "visioning") is essential in providing a sense of direction to an organization. This process goes beyond predicting the future and encompasses an approach which permits the envisioning of a desired future.

The purpose of this report is to describe the methodology used in conducting the trend analysis survey and to present a preliminary description of the data received. A more detailed and complete report will be presented upon completion of the analysis of data.

Methodology

The Trend Analysis Survey Tool (Appendix A) was distributed to all member jurisdictions of the National Council in October 1990. The tool required narrative responses to three questions: 1) Currently, what trends or issues are having the greatest impact on your board of nursing?; 2) Within the next five years, what trends or issues do you expect will have the greatest impact on your board of nursing?; and 3) How can the National Council of State Boards of Nursing assist your board of nursing to address these trends and issues? Board members and professional staff members of boards were asked to complete the survey individually, taking no more than 10 minutes to complete it, and to return it to the National Council office by December 7, 1990.

As of March 1991, completed survey forms had been received from 56 member jurisdictions, representing all four National Council Areas. This reflects a 91.8% response rate, with Area response rates as indicated in Table 1.

Table 1. Member Board Response Rate

Area	% of Member Boards represented from this Area responding	% of total responses by Member Boards in this Area
I	83.3	26.8
II	100.0	25.0
III	100.0	28.6
IV	84.6	19.6

Over 2600 written comments were received, representing both board members and professional staff members of the responding jurisdictions. Number of responses by question appear in Table 2.

Table 2. Number of Responses by Questions

Question & Number of Comments

1. Currently, what trends or issues are having the greatest impact on your board of nursing?
   Number of comments: 1,050

2. Within the next five years, what trends or issues do you expect will have the greatest impact on your board of nursing?
   Number of comments: 972

3. How can the National Council of State Boards of Nursing, Inc. assist your board of nursing to address these trends and issues?
   Number of comments: 623

Data Description

Current and Future Trends and Issues

Responses to questions 1 and 2 (current and future trends, and issues impacting boards of nursing) were quite similar, indicating a perception that, for the most part, issues and trends currently having an impact on boards of nursing will continue to remain important in the next five years. A review of all responses led to the development of seven major categories into which all responses to the first two questions were grouped. These categories, and the number of written comments falling into each category, are presented in Table 3.

Table 3. Frequency of comments by category and question--current and future trends and issues

Category	# of comments by question 1(current)	2(future)	Totals
Nursing Practice	383	348	731
Discipline	199	122	321
Unlicensed Personnel	135	109	244
Nursing Education	128	129	257
Board of Nursing	99	103	202
Licensure	89	91	180
Testing	17	70	87
N=	1050	972	2022

Of the 56 jurisdictions participating in the survey, responses were distributed throughout the seven categories as described in Table 4.

Table 4. Number and Percentage of Jurisdictions submitting comments--by category and by question.

N=56

Category	Total # of jursidications responding to question 1 (current)	to question 2 (future)	% of jurisdictions responding to question 1 (current)	to question 2 (future)
Nursing Practice	53	53	94.6	94.6
Discipline	45	36	80.4	64.3
Unlicensed Personnel	42	40	75.0	71.4
Nursing Education	40	39	71.4	69.6
Board of Nursing	33	35	58.9	62.5
Licensure	34	34	60.7	60.7
Testing	15	32	26.8	57.1

Based on data received, a rank ordering of responses was generated according to number of jurisdictions addressing the category, frequency of comments in each category, and comments submitted by the four National Council Areas. These rank orderings appear in Tables 5 and 6.

Table 5. Rank Ordering (RO) of Trends/Issues currently having greatest impact on boards of nursing (Question 1)

Category	RO by # of jurisdictions	RO by frequency of comments	RO by Area by frequency of comments I	II	III	IV
Nursing Practice	1	1	1	1	1	1
Discipline	4	2	2	2	2	3
Unlicensed Practice	2	3	3	5	4	4
Nursing Education	3	4	4	3	3	5
Board of Nursing	5	5	6	4	6	2
Licensure	6	6	5	6	5	6
Testing	7	7	7	7	7	7

Table 6. Rank Ordering of Trends/Issues expected to impact boards of nursing in the next five years (Question 2)

Category	RO by # of jurisdictions	RO by frequency of comments	RO by Area by frequency of comments I	II	III	IV
Nursing Practice	1	1	1	1	1	1
Discipline	4	3	3/4	2	3	4
Unlicensed Personnel	2	4	3/4	4/5	5	3
Nursing Education	3	2	5	3	2	5
Board of Nursing	5	5	7	4/5	4	2
Licensure	6	6	2	6	6	6
Testing	7	7	6	7	7	7

Major Categories

Each of the major categories of responses was comprised of several subcategories, reflecting frequently recurring issues and trends. A general discussion of these follows.

Nursing Practice

Within the general category of nursing practice, responses primarily related to scope/role trends, specific practice issues, nursing shortage, and advanced practice.

Scope/role trends included role expansion, encroachment by other disciplines, various factors impacting on nursing practice (for example, changing settings, increased complexity of equipment and procedures, and increased patient acuity levels), and third party reimbursement.

Specific practice issues which were mentioned related to practice settings (school, rural, home, correctional facilities), patient populations (geriatric, infectious diseases), ethical issues, specialization, and use of computers.

Nursing shortage was mentioned quite frequently, with responses relating to staffing, ratios, recruitment, and retention.

Regarding advanced practice, identified issues related to development of rules and regulations, prescriptive authority, independent practice, overlapping boundaries, and third party reimbursement.

Discipline

Issues related to discipline included substance abuse, board responsibilities, complexity and categories of disciplinary cases, philosophical issues, and electronic transfer of/access to data.

Substance abuse issues included research on impaired professionals, various strategies for dealing with the chemically dependent nurse (for example, regulatory, non-disciplinary and peer assistance), mandatory reporting, and re-entry into practice.

Board responsibilities/concerns which were mentioned related to increased numbers of cases (including repeaters), increased costs of hearings, increased length of hearings, and issues related to monitoring licensees. Specific categories of disciplinary cases which were mentioned included patient abuse, abandonment, quality of care, and chemical dependency.

Comments related to electronic transfer of/access to data concerned the National Council's and federal government's disciplinary data banks.

Unlicensed Personnel

Comments in this area related to two major issues: certified nurse aides and other types of unlicensed personnel.

Specific issues concerning nurse aides were OBRA requirements (including training programs, registration/certification requirements, and the registry), supervision/delegation issues, scope of practice and discipline.

Comments regarding other unlicensed personnel related to delegation of various tasks and responsibilities, special categories (nursing students, new graduates, and lay midwifery) and increased utilization in various settings (home, school).

Nursing Education

Comments in this category concerned availability and utilization of resources (for example, qualified faculty and preceptors, adequate clinical experiences, and computers), students (recruitment, retention and special issues such as chemical dependency, infectious disease and handicaps), approaches to nursing education (articulation issues, nontraditional programs), entry into practice, and differentiated licensure.

Board of Nursing

Comments in this category related to activities and concerns specific to the individual board's operations. Items mentioned related to legislative issues, communication, board composition and liability, and resources.

Legislative issues included monitoring legislation, sunset, and revisions of nursing practice laws. Communication issues involved other boards of nursing, other regulatory agencies, and individual licensees.

Comments related to board composition and liability included qualifications and responsibilities of individual board members.

Resource issues included financial concerns, staffing, educational programs for board members and staff, and materials (equipment, automated data processing).

Licensure

Within the category of licensure, responses related primarily to foreign nurses (foreign education and English as a second language), continued competency, endorsement, automation of data, and special types of licensure.

Foreign nurse issues included credentialing, increased recruitment and utilization and performance on the licensure examination.

Continued competency issues related to approaches to monitoring and measuring (for example, continuing education, testing, and practice approaches).

Regarding endorsement, comments involved inter-board communication, and increased number and mobility of nurses seeking endorsement.

Data automation was mentioned as an issue encompassing all aspects of licensure.

Comments about special types of licensure related to international licensure, institutional licensure, and restricted/limited licensure (for example, for disabled, handicapped, chemically dependent nurses).

Testing

Testing issues were largely confined to computerized testing, test development and administration, additional examinations, and special candidates.

Computerized testing comments related to current National Council projects (CAT and CST), and specific information needs concerning the implementation of these types of testing (legal issues, implementation guidelines, cost).

Test development and administration issues included an expansion to international administration and National Council becoming its own test service.

Additional examinations which were mentioned as issues were a third examination for baccalaureate graduates and differentiated practice.

Special candidates which were mentioned as an issue were handicapped applicants.

How National Council Can Assist

Responses to question 3 (how can National Council assist in addressing identified trends and issues) ranged from very specific to very general requests. A review of all responses led to the development of six major categories into which all responses from question 3 were placed. These categories and the number of written comments falling into each category, are presented in Table 7.

Table 7. Frequency of comments by category--How National Council Can Assist

Category	# of Comments
Clearinghouse Activities	172
Develop Models and Statements	155
Collaboration/Communication	126
Testing Services	69
Meetings/Programs	62
Research Activities	39
N=	623

Of the 56 jurisdictions participating in the survey, responses were distributed throughout the six categories as described in Table 8.

Table 8. Number and Percentage of Jurisdictions submitting comments--by category

Category	# of jurisdictions responding	% of jurisdictions responding
Clearinghouse Activities	43	76.8
Develop Models and Statements	44	78.6
Collaboration/Communication	44	78.6
Testing Services	29	51.8
Meetings/Programs	27	48.2
Research Activities	20	35.7

Based on data received, a rank ordering of responses was generated according to number of jurisdictions addressing the category, frequency of comments in each category, and comments submitted by the four National Council Areas. These rank orderings appear in Table 9.

Table 9. Rank Ordering of ways National Council can assist boards of nursing in addressing trends and issues (Question 3)

Category	RO by # of jurisdictions	RO by frequency of comments	RO by Area by frequency of comments I	II	III	IV
Clearinghouse Activities	3	1	1	1	1	1
Develop Models and Statements	1/2	2	2	2	2	3
Collaboration/Communication	1/2	3	3	3	3	2
Testing Services	4	4	4	4/5	5	4
Meetings/Programs	5	5	5	4/5	4	5
Research Activities	6	6	6	6	6	6

Major Categories

Each of the major categories of responses was comprised of several subcategories, reflecting frequently recurrent comments on ways National Council can assist boards of nursing to address identified trends and issues. A general discussion of these follows.

Clearinghouse Activities

Responses in this category were of two major types: kinds of information desired, and methodology used to obtain or receive the information.

Types of information requested included state and national legislation, practice decisions in member jurisdictions, dissemination of survey results and research results, disciplinary information, and information on specific licensees.

Electronic transfer of information was the most frequently mentioned methodology requested for obtaining this data. The Disciplinary Data Bank and the Nurse Information System were two specific programs which were mentioned.

Develop Models and Statements

Five major areas emerged within this category: nursing practice, education, foreign nurses, licensure, and discipline.

Nursing practice issues mentioned were model regulations, role/scope of the RN, LPN/LVN, new graduate and nurse aide, standards of practice, advanced practice (including the aspect of prescriptive privileges), nursing shortage, and current trends/professional issues (including AIDS and related diseases).

Education issues included nontraditional programs, curriculum content (chemical dependency, regulation), nurse aide curriculum, articulation, and use of preceptors.

Comments related to foreign nurses related to standardization of procedures for endorsement, measuring competence, and validating credentials.

Primary licensure issues included standardization of endorsement procedures, and policies and re-entry/ continued competency issues.

Comments related to discipline requested definitions of terms, alternative programs, nurse aides, and impaired professionals.

Collaboration/Communication

Four major areas became evident in this category: leadership in nursing regulation and testing, and cooperation/ collaboration with other national organizations in these areas; publications services; legislative activities; and promoting/facilitating National Council--board of nursing and inter-board communication/collaboration.

Specific areas of leadership in relation to other national organizations and areas in which cooperation among organizations would be beneficial included accreditation, consumer issues, disciplinary/regulatory issues, testing/credentialing, and entry issues.

Publications services which were mentioned included continuing current publications and expanding these services to address various issues in a timely manner.

Legislative activities which were requested included functioning in a "watchdog" fashion to monitor legislation and serving as a resource to provide information and promote healthcare/regulatory legislation as indicated.

Other comments in this category related to promoting and facilitating inter-board communication/collaboration and continuing to communicate and cooperate with member jurisdictions on various issues.

Testing Services

Four major areas were identified in this category: administrative issues; examination development/evaluation/ analysis; computerized testing; and additional examinations.

Administrative issues included the cost, frequency of administration, and timing of the licensure examination.

Examination development/evaluation/analysis comments related to additional statistics on candidates (repeaters, minorities, disabled, foreign, English as a second language), continuance of the development of psychometrically sound and legally defensible examinations (including all related research), and an enhanced diagnostic profile

Meetings/Programs
Requests in this category included three major areas: potential topics/issues for meetings and programs, networking opportunities, and availability of consultants to member jurisdictions.

> Major topics of meetings/programs included practice issues (unlicensed personnel, advanced practice), educational issues (testing, investigator certification workshops, administrative law, board orientations), and pro-nursing issues.
>
> Networking opportunities were requested at area and national meetings, and consultant services were requested regarding testing (NCLEX and computerized) and chemical dependency.

Research Activities
Comments related to research activities ranged from requests for general research to a need for research on specific issues (scope of practice, effectiveness of various disciplinary strategies, differentiated practice, and nursing education--use of preceptors, NCLEX outcomes). Other comments requested collaborative research efforts between National Council and Member Boards.

Future Activities
Data obtained through the Trend Analysis Survey will be further analyzed and will be utilized as the National Council's Long Range Plan is reviewed and revised. A revised Long Range Plan will be presented at the 1992 Area meetings and to the 1992 Delegate Assembly.

NATIONAL COUNCIL OF STATE BOARDS OF NURSING

Long Range Planning Committee
Trend Analysis Survey

APPENDIX A

Jurisdiction ____________________ Check one: ☐ Board Member ☐ Board Professional Staff

1. Currently, what trends or issues are having the greatest impact on your Board of Nursing?

   a.

   b.

   c.

   d.

   e.

2. Within the next 5 years, what trends or issues do you expect will have the greatest impact on your Board of Nursing?

   a.

   b.

   c.

   d.

   e.

3. How can the National Council of State Boards of Nursing assist your Board of Nursing to address these trends and issues?

   a.

   b.

   c.

   d.

   e.

Use reverse side or additional pages, if necessary.

PLEASE RETURN TO THE NATIONAL COUNCIL BY 12/7/90. Attention: Doris Nay, Assoc. Executive Director
676 North St. Clair, Suite 550, Chicago, IL 60611

14

COMMUNICATIONS COMMITTEE

Report of the Communications Committee

Recommendation

1. The Communications Committee recommends that the 1991 Delegate Assembly not pursue the development of audiovisual materials at this time.

   Background

   As directed by the 1990 Delegate Assembly, the Communications Committee further examined the development of audiovisual materials. Attachment A provides delegates with a detailed report explaining the committee's recommendation.

Meeting Dates

The Communications Committee met October 8-10, 1990; January 11-14, 1991; and February 27-March 1, 1991. Judi Crume continued as chair of the Communications Committee, and Gail McGuill served the committee as its liaison to National Council's Board of Directors.

Committee Activity

At the annual planning retreat held in October, committee members developed and submitted FY91 and FY92 Communications Committee activities to be merged into National Council's Operational Plan. Following this determination, the committee immediately began its work, helping to formulate and guide National Council's communications efforts. For the purpose of this report, committee activities will be organized into two sections: 1) communications, and 2) meeting planning.

Communications

Emerging Issues

As requested by the Board of Directors, the Communications Committee developed a new communications vehicle which responded to a need for more indepth reporting on individual topics that may potentially impact nursing regulation, practice and education, and other issues related to the mission of the National Council and its Member Boards. This new publication is called *Emerging Issues* and is published on an as-needed basis, as determined by the Board of Directors. The Communications Committee assisted in recommending publishing procedures for using this new communications tool and also provided its design.

Resource Network

The Communications Committee participated in the development of a communications service entitled the Resource Network. The Resource Network was designed to provide information services tailored for Member Boards, by Member Boards. Its intent is to make available the multiple resources within the National Council and its membership through a coordinated communications program which can be individualized depending upon Member Board need. The Communications Committee assisted in the program's development by recommending policies and procedures for Board consideration and approving a promotional brochure which introduces the program to Member Boards.

NCNET

Activities surrounding NCNET this year were concentrated with staff who worked with the Board of Directors' Projects Committee to implement the disciplinary data bank pilot project as directed by the 1990 Delegate Assembly. Communications materials produced during the past year included a user manual for the eight Member Boards participating in the pilot project, and design and development of a draft national licensure verification form which was distributed to Member Boards for review and input.

Chicago Review Press (CRP)

The committee continued to monitor and enforce CRP's contract compliance. Additionally, the committee identified some marketing suggestions that may further increase sales of the RN and PN review books. Royalty payments were timely over the past year.

Development of Communications Plan

The committee dedicated considerable time to the development of a communications plan. Initial work centered around determining the process within which the plan will be created. The thought process utilized was a common marketing format which begins with a communications analysis and ends with evaluation of communications activity. The committee worked through the process and shared its initial findings with the Board of Directors in February. Goals, objectives and activities were identified, leaving the development of an implementation plan with planned timelines yet to be developed following the gathering of membership input which is scheduled to occur during the 1991 annual meeting. Included as a part of the communications plan is a reference section that identifies all current printed communications and provides the reader with publishing specifications for each publication. This informational reference section is available to any interested person. Finalization of a comprehensive communications plan will provide the organization with an ongoing evaluation tool as well as a means to coordinate all National Council communication efforts.

Upcoming Activities

As part of its ongoing evaluation of National Council communications, the Communications Committee initiated a reader survey for the *Newsletter*. Results of this reader survey will assist in providing direction for any needed revision or modification to ensure that the *Newsletter* is serving its intended purpose and meeting reader needs. Additionally, the committee began discussion regarding the development of printed materials for use in providing orientation to the National Council for interested individuals and groups, e.g., new executive directors. Staff was requested to provide the committee with a design mock up for review and consideration by the committee, the membership, and the Board of Directors. These two activities will be part of the committee's agenda when it meets next in October, 1991.

Meeting Planning

1991 Annual Meeting

The committee reviewed a comprehensive document which compiled attendee evaluations of the 1990 annual meeting and, using the document as reference, identified areas of change and/or improvement for the 1991 annual meeting. Using the results of the evaluation, the committee created the 1991 convention schedule, incorporating ideas for improvement, various committee requests, and planned social events. With direction provided by the Board of Directors, the 1991 educational session was developed and speakers were identified and confirmed. With the Director of Research Services, the committee reviewed research abstracts, as submitted by Member Boards, and prepared a recommendation for Board selection of research presentations to be made during the 1991 Research Forum and those to be presented during the poster session. Additionally, in response to a request made by the Examination Committee, the Communications Committee scheduled an educational session on the NCLEX test development process as an option for attendees. To ensure that future annual meeting schedules appropriately reflect member and organizational needs, the committee developed an evaluation tool to be used during the 1991 annual meeting and discussed other creative means to capture more information to help in gathering input regarding this important topic.

Awards

The call for nominations for the 1991 Member Board Award and the 1991 Meritorious Service Award was distributed to all Member Boards. The committee collected all nominations and provided them to the Board of Directors for award selections. Additionally, the Board of Directors requested that the Communications Committee review and evaluate the entire awards program during its upcoming October meeting. To facilitate the distribution of individual awards during the Awards Luncheon, the committee recommended a change in procedure which includes the publication of an Awards Luncheon Program. Responding to concerns expressed via attendee evaluations, the committee acted to move the placement of the Awards Luncheon on the schedule to follow, instead of precede, elections.

Recommendations to Finance Committee

In response to increased financial restrictions experienced by Member Boards, the Communications Committee recommended to the Finance Committee that it recommend utilization of a graduated fee schedule for annual meeting registration fees. This recommendation was approved by the Board of Directors and inaugurated with the 1991 annual meeting. Also, in response to attendee criticisms regarding the difficulty in seeing audiovisual materials used during Delegate Assembly meetings, the Communications Committee recommended a budget adjustment which would allow the rental of video projection, a more sophisticated system which is expected to increase viewing ease for all attendees. This budget adjustment was approved by the Board of Directors for the 1991 annual meeting.

1993 Annual Meeting Site Selection

The Communications Committee received invitations from five states to host the 1993 annual meeting, scheduled to be held in Area III. After careful review of information regarding all five sites, the Communications Committee prepared a rank order recommendation of three for Board consideration and selection. Orlando, Florida, has been approved by the Board of Directors as the site of National Council's 1993 annual meeting.

1991 Regulatory Conference

Plans for the 1991 Regulatory Conference were finalized and implemented. Sixty-four people attended the conference which was held jointly with CTB Macmillan/McGraw-Hill's Fourth NCLEX Invitational Conference in Monterey, California, in February, 1991. Although recognizing that attendance was less than anticipated, the committee was pleased that attendee evaluations indicated well-prepared presentations on timely and important topics such as advanced practice, foreign educated nurses, the handicapped nurse, and issues in endorsement. Additionally, the committee was encouraged by the successful first-time joint marketing and registration efforts made in concert by National Council and CTB staff.

Committee Members

Judi Crume, AZ, Area I, *Chair*
Elaine August, WI, Area II
Joyce Boone, CA, Area I
Faith Fields, AR, Area III
Margaret Howard, NJ, Area IV
Charlotte Rappsilber, OK, Area III

Board Liaison

Gail McGuill

Staff

Susan Woodward, *Director of Communications*

Attachment A

Report on Audiovisual Production

Recommendation

1. The Communication Committee recommends that the 1991 Delegate Assembly not pursue the development of audiovisual materials at this time.

Background

During the 1989 Delegate Assembly, the Subcommittee on Nurse Shortage reported to delegates its recommended short- and long-term strategies which Member Boards and the National Council can take to minimize the negative consequences of the nurse shortage. The subcommittee's sole recommendation to the Delegate Assembly was as follows:

> *"That the National Council explore the feasibility of developing generally applicable audiovisual materials on the role of regulation for use by Member Boards."*

The following rationale on the above recommendation was included in the subcommittee's report:

> *"The current nurse shortage has resulted in closer scrutiny of Member Board activities by legislators, consumers, educators, and health care agencies. In some instances, the regulatory role is misunderstood, or at least not appreciated. Member Boards are often forced to assume a defensive posture when responding to complaints about certain regulatory functions. The subcommittee believes Member Boards could benefit from a comprehensive public relations program. Audiovisual materials that address Member Boards' role in protecting the public health, safety, and welfare would assist Member Boards in implementing such a program."*

The 1989 Delegate Assembly approved the recommendation and delegated the responsibility of *"exploring the feasibility of developing generally applicable audiovisual materials on the role of regulation for use by Member Boards"* to the Communications Committee.

The Subcommittee on Nurse Shortage had determined the subject matter: *"the role of regulation."* The subcommittee had also determined the intended purpose: *"for use by Member Boards."* The Communications Committee, therefore, concentrated on its charge: *"to explore the feasibility of developing generally applicable audiovisual materials."*

The committee's research into audiovisual production feasibility concentrated on the advantages/disadvantages, costs, and required production time. The committee determined that audiovisual production is feasible. At the 1990 Delegate Assembly, the Communications Committee made the following recommendation:

> *"As a part of the comprehensive communications plan, the Communications Committee recommends that the Delegate Assembly direct the National Council, through the Communications Committee, to develop appropriate audiovisual materials. At current costs, the estimated expense of this recommendation is $50,000."*

The 1990 Delegate Assembly directed:

> *"The Communications Committee develop a defined plan for development and use of audiovisual materials and report to the 1991 Delegate Assembly."*

Committee Activity

The Communications Committee started its work on the 1990 Delegate Assembly charge by first examining the FY90 Operational Plan. In the FY90 Operational Plan, the committee identified two places where specific desire to communicate had been indicated:

Goal I: Develop, promote, and provide relevant and innovative services.

Objective D: Maintain and enhance communication about NCSBN, its members, and issues concerning safe and effective nursing practice.

Strategy #5: *Provide audiovisual materials on the license examinations for nursing practice.*

Activity: Staff make available audiovisual materials on NCLEX development.

Goal III: Expand collaborative relationships with relevant organizations to facilitate the development and promotion of health related public policy.

Objective A: Provide specific opportunity for direct dialogue, interaction and mutual decision-making among national health groups.

Strategy #3: *Expand dissemination of information about NCSBN and regulatory trends.*

Activity: Communications Committee and staff continue to implement identified methods of distributing information about the National Council and regulatory trends.

The above two strategies, as taken from the FY90 Operational Plan, identify three subject areas for future communications:

1) license examinations for nursing practice;
2) information about NCSBN; and,
3) regulatory trends.

These FY90 goals, objectives and strategies remained the same in the FY91 Operational Plan.

To provide further definition to the development of audiovisual materials, as directed by the 1990 Delegate Assembly, the Communications Committee further developed the identified three subject areas:

TOPIC

1. License Examinations for Nursing Practice

Purpose: To describe the NCLEX process.

Target Audience: Member Boards (board members and staff)
Nursing Educators

Content:
- I. Job Analysis
- II. Test Plan
- III. NCLEX Panels
  - A. Item Writers
  - B. Panel of Content Experts
  - C. Bias Sensitivity Review Panel
  - D. Panel of Judges

IV. Member Board Option to Review Items
V. Field Testing
VI. Construction of Examination Form
VII. Examination Committee Review
VIII. Statistical Analyses
IX. Scoring

Cost of Production: $2,000 - $5,000 per finished running minute

Length: 20 minutes

Cost to Member Board: $50 - $75 rental

Current National Council Communications on this Topic:
NCLEX slide show
CTB Invitationals
The NCLEX Process
NCSBN Manual

2. Information about NCSBN

Purpose: To provide an historical perspective of the regulation of nursing.

Target Audience:
Member Boards (board members and staff)
Nursing Educators

Content:

I. History of Nursing Regulation
   A. Inception
   B. ANA

II. Evolution of NCSBN
   A. 1978 founding
   B. Mission
   C. Membership
   D. NCLEX

III. Today's NCSBN Structure
   A. Delegate Assembly
   B. Departments
   C. Services
   D. Products

Cost of Production: $2,000 - $5,000 per finished running minute

Length: 10 minutes

Cost to Member Board: $50 - $75 rental

Current National Council Communications on this Topic:
From an Idea to an Organization
by G. Malone, S. Fondiller, D. Heidorn
The Promise Continues–A Decade of Progress
by S. Fondiller
Moving Toward a Vision
(videotape, 00:07:18 running time)
National Council Orientation Manual

3. **Regulatory Trends**

Purpose: To provide information regarding alternative methods of dealing with impaired licensees.

Target Audience: Member Boards (board members and staff)
External publics (e.g., government, colleagues, associations)

Content: I. Non-disciplinary versus Disciplinary Approaches to Impaired Licensees
A. Restorative Programs
1. Peer assistance
2. Diversion programs
3. Board monitoring
B. Disciplinary Models
1. Suspension
2. Revocation
3. Probation
4. Censure
5. Limited Licensure
6. Reprimand

Cost of Production: $2,000 - $5,000 per finished running minute

Length: 15 minutes

Cost to Member Board: $50 - $75 rental

Current National Council Communications on this Topic: *Regulatory Management of the Chemically Dependent Nurse*

For Discussion

The Communications Committee recognizes that there may be more cost-effective communications vehicles that may be utilized to provide the same information to the same target audiences on the aforementioned three topics. However, the committee recognizes that the use of audiovisual production as a communications vehicle is a viable option throughout National Council's communications plan. Audiovisual production may achieve many communications objectives and would therefore ultimately assist in meeting the communications mission: *"to be recognized by all publics as the prime source of information and expertise regarding the regulation of nursing practice and education."*

The Communications Committee also recognizes that production costs of audiovisual materials are dependent upon a wide set of variables, such as: filming on location versus studio production; on-camera versus off-camera talent; custom versus library music; script by committee versus script by professionals; editing time, and the complexity and quantity of digital video effects used in editing. If the audiovisual production is as simple as a videotaped interview between two individuals, then the costs are dramatically reduced. The Communications Committee believes it wiser to leave production creativity to production experts, as long as financial parameters are agreed upon and met. Due to the wide variables of cost, it is not prudent to determine fiscal impact of audiovisual production solely on the price per finished running minute.

However, in discussion and as the committee further defined development of audiovisual materials, the following factors emerged:

1. Expense. Since the committee wishes to produce communications which reflect positively on the National Council image, it would highly recommend that, if approved for implementation, production of a videotape should be done by audiovisual professionals. When done professionally, audiovisual production can be expensive. At this time when the National Council is entering into new projects (e.g., CAT, CST, NPDB,

NACEP), the committee questions the wisdom of expending considerable dollars on a general videotape on the role of regulation. These dollars may be better spent on other vehicles to communicate information regarding National Council's emerging projects.

2. Time. Production of a quality videotape would require an inordinate amount of committee and staff time. The committee questioned whether it is appropriate to dedicate this effort during the upcoming year when the National Council may be relooking at its priorities. For example, results of the Long Range Planning Committee's Trend Analysis may point to new directions for the National Council.

3. Availability of VCR equipment. The committee suspects that a number of Member Boards do not own VCR equipment, thereby placing a question as to the number of Member Boards who would choose to use a videotape. The committee found it interesting that none of the Member Boards they represent (in attendance: AZ, AR, NJ, OK) own VCR equipment.

4. Difficulty in recouping the production expense. With the market narrowly defined as "for use by Member Boards," the committee recognized that the cost per videotape is increased to an unaffordable plateau. By reviewing sales brochures of other organizations (e.g., NLN), the committee agreed that the market will probably bear a rental cost of between $50-$75. This rental cost would be token revenue compared to the overall expense.

Therefore, the Communications Committee submits for delegate consideration its recommendation that the National Council not pursue the development of audiovisual materials at this time.

Communications Committee
Judi Crume, AZ, Area I, *Chair*
Elaine August, WI, Area II
Joyce Boone, CA, Area I
Faith Fields, AR, Area III
Margaret Howard, NJ, Area IV
Charlotte Rappsilber, OK, Area III

Board Liaison
Gail McGuill

Staff
Susan Woodward, *Director of Communications*

15

FINANCE COMMITTEE

Report of the Finance Committee

Meeting Dates

The Finance Committee met October 8-10, 1990; January 17-18, 1991; March 7-8, 1991; and May 6-8, 1991. Conference calls were held November 1, 1990; January 28, 1991; February 7, 1991; March 28, 1991; and June 14, 1991, to review quarterly financial statements, investment activity and any proposals to be presented to the Board with a fiscal impact.

Activity

- Prepared the FY92 budget including the capital requests. Due to the change in the fiscal year, there is a modification in the budget approval process. At the June Board of Directors' meeting, the Board approved a tentative budget. The budget will be finalized following the Delegate Assembly. Immediately after the Delegate Assembly, the Finance Committee will review any action with fiscal impact approved by the Delegate Assembly and make recommendations to the Board for incorporation in the budget. The Board will then approve a final budget to be implemented October 1, 1991. The new procedure allows for the addition of Delegate Assembly actions to the budget before the budget is implemented. This will result in a better managed budget.

- Met with auditor to discuss the 15-month audit. The audit included the FY90 (July 1-June 30) and a fifth quarter (July 1-September 30). This was done to facilitate transition to the new fiscal year. The auditors issued an unqualified report. The committee reviewed the management letter and took several actions to improve internal controls.

- Evaluated Member Board fees and developed several options for additional services to be included with an increase in fee. It was determined the current level of service could be continued with no fee increase, but that additional services may require an increase. Before making any proposal for a change in Member Board fees, it was decided to obtain feedback from Member Boards regarding additional services.

- Met with representatives of Friedman, Eisenstein, Rosner and Schwartz (FERS) to discuss the outcome of the computer needs study. With the growth of the National Council and increasing computer needs, it was necessary to study the hardware and software needs for the next several years. This will assure that dollars would not be wasted on inadequate equipment and software. The committee recommended implementation of the plan and the Board concurred with the recommendation. Implementation of the plan will begin in FY92 and continue for an additional two years.

- Completed survey of Member Boards regarding fiscal constraints on travel. The survey showed that 33 Member Boards have travel constraints and may not have funding to travel to Delegate Assembly and/or Area meetings. This information was used by the committee in future planning.

- Based on the committee's recommendation, the Board established a designated fund to cover six months' operating costs, the FERS plan and the role delineation study. These activities all met the criteria for designated funds. The six months' operating fund is required by policy to be readily available in the case of a fiscal emergency. The role delineation study and the FERS plan will span more than one budget year. The committee also recommended the deletion of the Nurse Aide Competency Evaluation Program Committee (NACEP) designated fund, since funding no longer extends beyond the current fiscal year.

- Evaluated cost information regarding implementation of Computerized Adaptive Testing (CAT) and provided feedback.

- Reviewed the fiscal impact of the July 1990 security break and discussed mechanisms for managing costs associated with such breaks. Currently, insurance is to be investigated as one option.

- Approved a new policy regarding the budget authority of the Executive Director. Revised the Investment Policy to reflect current investment strategies. Reviewed all other fiscal policies for currency.
- Continued to refine program budget categories. The committee has asked the auditors to provide a recommendation for allocation of administrative costs and appropriateness of establishing an administrative cost center.
- Reviewed all fees being charged (i.e., handscore, review and challenge), and determined that all fees are adequate at this time.
- Met with a representative of American National Bank to discuss the current banking relationship which remains positive.
- Met with the investment advisor to review options for investments.
- Approved interim pricing guidelines for various models of access to the disciplinary data bank.
- Proposed bylaw changes to clarify when Member Board fees are to be paid as well as any late fee.
- Determined that no candidate fee increase would be required in 1993.
- Monitored the five-year financial forecasts and used the projections to do future fiscal planning and evaluate the fiscal impact of proposals.
- Reviewed the fiscal impact statement.
- Set the registration fee for the Delegate Assembly.
- Developed the budget assumptions and budget calendar for FY92.
- Reviewed all insurance coverage and costs.
- Provided guidance to the Communications Department for pricing publications.
- Discussed with the Research Department the research agenda and fiscal implications for now and the future.
- Evaluated the audit firm.

The Finance Committee had another productive year. Management of the National Council's financial resources has become easier each year. This is due not only to experience of the committee and staff, but also to the financial information available to the committee. The committee would like to express its appreciation to Kathleen Hayden, Financial Manager, for her work with the committee as well as all the staff for their responsiveness to the committee requests.

Committee Members
Donna Dorsey, MD, Area IV, *Treasurer and Chair*
Charlene Kelly, NE, Area II
Sheila McMahon, DE, Area IV
Carol Osman, NC, Area III
Judith Traina, NM, Area I

Staff
Kathleen Hayden, *Financial Manager*

16 EXAMINATION COMMITTEE

Report of the Examination Committee

Introduction

The Examination Committee is charged with all aspects of the development of the National Council Licensure Examinations (NCLEX-RN and NCLEX-PN). This includes: adopting the final examination forms, evaluating the final statistics, monitoring research and disseminating information related to the examinations to Member Boards and other interested parties.

In addition to the routine work related to the examination, the committee has focused on issues related to computer adaptive testing (CAT), the Bias Sensitivity Review Panel (BSRP) and dimensionality. The committee's activities will be presented within the framework of the National Council's Operational Plan.

Activities

The committee met at CTB on October 1-5, 1990; at Oak Brook Hills on October 8, 1991; at CTB December 3-7, 1990 and March 25-29, 1991. Conference calls were held January 26, 1991, and March 13, 1991. An addendum report will be filed reporting the outcomes of the June 9-14, 1991, meeting.

Goal I. Develop, promote and provide relevant and innovative services.

Objective A: Develop licensure examinations that are based upon current accepted psychometric principles and legal considerations.

1. Adopted real and tryout items for NCLEX-PN 491 and 091 and for NCLEX-RN 791 and 292.

2. Evaluated item writing and panel of content experts sessions for process and productivity.

   a. The July 1990 RN item writing session included 15 writers who produced 358 items.

   b. The August 1990 PN item writing session included 15 writers who produced 266 items.

   c. The September 1990 RN panel of content experts session included 15 experts who reviewed 358 newly written items; 29 items were deleted, 329 were approved. In addition 178 items that had not been used since the 287 administration were reviewed. Of these, 11 were deleted and 167 were accepted as being current, entry-level practice. These items were rewritten as individual items and are available for future field testing.

   d. The December 1990 PN panel of content experts session included 15 experts who reviewed 266 newly written items; three items were deleted, 263 were accepted. In addition, 256 items that had not been used since the 085 administration were reviewed. Of these, 43 were deleted and 213 were accepted as current, entry-level practice. These items were rewritten as individual items and are available for future field testing.

   e. The January 1990 RN item writing session included 15 writers who produced 329 items.

3. Ratified appointments to the following test development panels: December 1990 PN, March 1991 RN, May 1991 PN CAT, September 1991 PN CAT, September 1991 RN and November 1991 PN

panel of content experts sessions; January 1991 RN, May 1991 PN CAT, July 1991 RN, and August 1991 PN item writer sessions.

4. Reviewed a report on a special person-fit analysis of NCLEX-RN 288, Book II items (involved in security break). Directed CTB to release these items for use in upcoming NCLEX-RN examinations.

5. Directed CTB to place on hold all items that appeared in NCLEX-RN 790, Book II (involved in security break). A subset of these items will appear in a future examination as tryouts and a person-fit analysis will be done to see if items have been compromised.

6. Responded to a candidate challenge of two items on NCLEX-RN 790. After review of the documentation in the nursing literature and the conclusions of the expert nursing panels during the test development process, the committee reported to the Board of Directors that both of the items challenged were valid test items and that the answers keyed as correct were the only correct answers. These items both functioned as psychometrically sound and valid items.

7. Reviewed RN and PN items that were designated by Member Boards as inconsistent with state statutes.

8. Responded to various letters addressing specific NCLEX items from Member Boards and candidates.

9. Reviewed the routine research reports that are generated following each examination. These include: preliminary and final statistical reports, ethnicity/gender reports and person-fit reports.

10. Reviewed a report on 2,400 NCLEX items that were last used between 1982 and 1985. One hundred randomly selected items were reviewed. One-third of the items did not meet current committee standards. The committee recommended to CTB that future item development focus on writing new items rather than rewriting them to meet current standards.

11. Reviewed a report on the relationship of item writer characteristics to item quality. The committee recommended to CTB that the study not be repeated in the future because it seemed that item content rather than writer personal characteristics may influence item difficulty.

12. Reviewed a report on prioritizing tryout slots for the paper and pencil NCLEX. Based upon the review of the item pool tallies, projections of available items and current test development schedules, it appears that the current number of tryout slots can manage all the items without affecting any one consideration adversely.

13. Reviewed a report on the need for additional tryout forms. The committee determined that there is no need to explore additional tryout forms for paper and pencil NCLEX.

14. Reviewed the dimensionality research done to date and forwarded the reports to the Board of Directors for consideration.

Objective B: Establish policies and procedures for the licensing examinations in nursing.

1. Monitored the work of the BSRP which included reviewing all the items that the BSRP flagged as having facial bias or culturally bound material, revising the orientation manual used for the panel, revising the committee policies and procedures related to the BSRP, and developing an evaluation mechanism for the panel.

2. Met with the Committee for Special Projects (CSP) to discuss joint concerns regarding CAT; reviewed written materials and developed recommendations related to CAT policies and procedures.

3. Developed a set of operational definitions. This is an internal document used by the committee and CTB to help code the items to the test plan. It will help assure that the coding is done in a consistent manner.

4. Revised the manuals used by Member Boards to review previously administered examinations.

5. Reviewed a textbook survey performed by CTB.

Objective C: Provide consultative services for National Council members, groups, agencies and individuals regarding the safe and effective practice of nursing.

1. Developed the program agenda for the Educational Forum that will be presented on July 29, 1991 from 1:00-5:00 p.m., prior to the Delegate Assembly.

Committee Members
Dorothy Chesley, TX-RN, Area III, *Chair (October-February)*
Karen Brumley, CO, Area I, *Chair (March-August)*
Susan Boots, WA-PN, Area I, PN Representative *(October-February)*
Patricia Earle, MN, Area II
Gwen Hinchey, CA-VN, Area I, PN Representative *(March-August)*
Renatta Loquist, SC, Area III *(March-August)*
Milene Megel, NY, Area IV
Maude Speakman, NC, Area III, Member-at-Large

Committee Alternates
Anita Daus, MI, Area II *(March-August)*
Gwen Hinchey, CA-VN, Area I *(October-February)*
Margaret Howard, NJ, Area IV *(March-August)*
Lura Kohrman, WY, Area I
Renatta Loquist, SC, Area III *(October-February)*
Sandra MacKenzie, MN, Area II
Cynthia Purvis, SC, Area III
Richard Sheehan, ME, Area IV

Board Liaison
Joan Bouchard

Staff
Nancy J. Miller, *NCLEX Program Manager*

Addendum Report of the Examination Committee

Recommendation

1. The committee recommends no change in the NCLEX-PN test plan. This recommendation is based on the results of the 1990 PN job analysis study. The empirical evidence provided by the job incumbents supports the current weights assigned to the nursing process and client needs of dimensions of the NCLEX-PN test plan.

Activities

The Examination Committee met on June 9-14, 1991, at CTB in Monterey, California.

Goal I: Develop, promote and provide relevant and innovative services

Objective A: Develop licensure examinations that are based upon current accepted psychometric principles and legal considerations.

1. Reviewed and made recommendations regarding: criteria for membership on NCLEX panels, NCLEX panel applications forms, recruitment of panel members and use of a generic press release for NCLEX panel members.

2. Approved revised *Guidelines for NCLEX-RN item Writers.*

3. Reviewed a report from CTB on the currency of the RN Crisis Management Plan (CMP) examination and the reserve examination. A conference call will be scheduled to address this issue further.

4. Approved transferring 100 to 160 RN test items to the PN Computerized Adaptive Testing (CAT) field test item pool, provided that the items: meet the PN test plan, are validated in a least one PN text book, and are taken to a PN panel of content experts for approval.

5. Reviewed the 1990 PN/VN job analysis study. The job analysis study documents three activity statements, formerly deleted from the *Guidelines for NCLEX-PN Item Writers,* performed by entry-level nurses. The committee will add statement #16, "Develop a plan to improve the effectiveness of a client's coping behavior," to the *Guidelines.* The other statements, #18, "Record a nursing history" and #40, "Use therapeutic interventions to increase clients' understanding of their behavior," will not be added. The committee felt that these concepts, as practiced by entry-level PNs/VNs, are currently addressed in the *Guidelines.*

6. Reviewed the study of differences in practice of newly licensed RNs between the first and second six months of practice. Determined that the time frame of the job analysis studies remain at six months after graduation. This study should be repeated every six years in conjunction with a job analysis study.

7. Reviewed the CAT face validity study from CTB and a paper from the National Council on the subject. The committee directed CTB and the National Council staff to implement the recommendations in CTB's report. The committee will monitor the work being done on the item pool for CAT and make recommendations for further study as time goes on.

17
ADMINSTRATION OF
EXAMINATION COMMITTEE

Report of the Administration of Examination Committee

Recommendations

1. The committee recommends the following dates for the year 2001 administration of the NCLEX: RN, February 7-8 (W-Th), July 11-12 (W-Th); and PN, April 18 (W), October 17 (W).

2. The committee recommends the following alternate dates for the year 2001 administration of the NCLEX: RN, March 14-15 (W-Th), September 5-6 (W-Th); PN, May 9 (W), November 14 (W).

Introduction

The Administration of Examination Committee (AEC) is charged with maintaining the security of the licensure examinations (NCLEX-RN and NCLEX-PN) and assuring that Member Boards are in compliance with all designated security measures.

Activities

The committee held meetings on October 8-9, 1990 and March 16-18, 1991. Conference calls were held on December 11, 1990, April 10, 1991 and April 29, 1991.

Handicapped Candidates

The committee reviewed and ratified National Council staff authorizations for modifications issued to 127 handicapped candidates for the NCLEX-RN 790, 291 and NCLEX-PN 090, 491. Conditions included: 108 learning/reading disabilities, 15 visual disabilities, three physical disabilities and one hearing disability. Extended time was granted to 125 candidates; readers were granted to 36 candidates; recorders were granted to three candidates; large print exams were granted to two candidates; and aids were granted for seven candidates.

Research on handicapped modifications continued. The committee reviewed data obtained from surveys of candidates who sat for the NCLEX-RN 790 and NCLEX-PN 090. Twenty complete data sets (Member Board, candidate and candidate's nursing program) were obtained from a possible 67. Since a larger data base is necessary, data will continue to be collected from candidates who request modifications on future examinations.

The passage of the Americans with Disabilities Act (ADA) and its implications for handicapped modifications was discussed by the committee. Full implications of the Act are not yet known. Inservices on the ADA were presented by the National Council's legal counsel and were attended by National Council staff. Information on the ADA was also distributed to all Member Boards via the *Newsletter*.

Security Measures

A security break occurred during the administration of the NCLEX-RN in July 1990 in Indiana. The committee recommended to the Board of Directors that a letter of reprimand be sent to the Indiana Department of Health Professions. The committee reviewed reports on the security break which were provided by the Indiana Department of Health Professions, CTB security and the Indiana State Police. Reports from CTB security and the Indiana State

Police were inconclusive and the investigation was closed. Indiana was asked to resubmit security measures and procedures to implement security measures. These were reviewed and approved by the committee.

The current status of security measures was reviewed by the committee. All Member Boards, including American Samoa and Puerto Rico, have submitted security measures. The status of procedures to implement security measures was also reviewed. Procedures for Puerto Rico and American Samoa were approved. Those states which do not have procedures on file have been asked to submit them for review by July, 1991. The committee established a policy that all procedures will be reviewed no less than every three years.

National Council staff visited the NCLEX printer and reported to the committee that all appropriate security procedures were being followed.

The committee reviewed a report on the shipment of NCLEX to overseas jurisdictions which was prepared by CTB staff subsequent to the 1990 Delegate Assembly. The committee is convinced that overseas shipment is being done as securely as possible.

The administration of the NCLEX-PN in Germany by the Washington-PN Board was postponed as a result of the Middle East crisis.

National Council staff was directed to start making visits to NCLEX administration sites. Puerto Rico is planning to administer the NCLEX-RN in July 1991 for the first time. Puerto Rico Board Members will be assisted in examination administration by Vella Salazar, AEC member, and Diane Goodrich Smith, a Georgia-RN board member.

The increase in late test booklets orders and its implications for the implementation of the crisis management plan was discussed. The committee discussed ways to assist Member Boards in decreasing the number of late test booklet orders. This will be discussed at the Delegate Assembly.

The crisis management plan was reviewed and revised.

The reports of committee members who attended Computerized Clinical Simulation Testing (CST) pilot tests and Computerized Adaptive Testing (CAT) field tests were reviewed. The reports offered constructive suggestions for implementation of CST and CAT and were referred to appropriate computerized testing committees. The CAT security measures were reviewed and revised, incorporating suggestions from CAT site visits. The Committee for Special Projects (CSP) was advised on testing conditions, including testing configurations, security measures, review and challenge procedures, and handscoring.

Examination Administration

The committee recommended to the Board of Directors that a decision regarding the feasibility of decreasing the administration of the NCLEX-RN to one day be deferred until after the Delegate Assembly decision regarding CAT.

A service to track NCLEX candidates who may have taken the NCLEX and failed and are applying for temporary work permits was discussed by the committee. A survey to assess the need for this service has been sent to all Member Boards.

The committee reviewed and discussed resolutions that are being presented to the Delegate Assembly for consideration. The committee sent comments to the Resolutions Committee.

The increase in unnecessary handscoring being performed by the test service was discussed by the committee. Member Boards were alerted to the problem in several issues of the *Newsletter* and were encouraged to remind examination team members to supervise candidates in marking the test booklets.

Two brochures, a brochure which explains the scoring process and a generic candidate brochure were reviewed by the committee. The generic candidate brochure incorporates information for the NCLEX-PN and NCLEX-RN candidate into one brochure.

The *Manual for Administration of the NCLEX-PN* was updated.

Reports of problems with examinations and scoring and tracking reports for the NCLEX-RN 790, 291 and NCLEX-PN 090 were reviewed and appropriate actions taken. Twenty-five requests for failure candidate review were authorized by National Council staff. These were reviewed and ratified by the committee. One failure candidate challenged two items on the NCLEX-RN 790, but the challenges were not sustained by the Board of Directors.

The members of the committee wish to thank the Board of Directors and Delegate Assembly for the opportunity to serve the National Council and Member Boards in this manner.

Committee Members
Betty B. Clark, ME, Area IV, *Chair*
Deborah Feldman, MD, Area IV
Alta Haunsz, KY, Area III
Toma Nisbet, WY, Area I
Vella Salazar, TX-VN, Area III

Board Liaison
Jean Caron

Staff
Ellen Gleason, *NCLEX Administrative Assistant*
Nancy J. Miller, *NCLEX Program Manager*

18
NURSING PRACTICE AND
EDUCATION COMMITTEE &
SUBCOMMITTEES

Report of the Nursing Practice and Education Committee

Recommendations

The Nursing Practice and Education Committee (NP&E) recommends that the Delegate Assembly adopt the following:

1. *Conceptual Framework on Continued Competence* (Attachment C); and

2. *Nursing Care in the School Setting: Regulatory Implications* (Attachment D).

The reports of the Subcommittee to Study Regulatory Models for Chemically Dependent Nurses, the Subcommittee to Study the Regulation of Advanced Nursing Practice and the Subcommittee to Study Changing Nursing Education are also addenda to this report and will be considered as individual reports.

Meeting Dates

The committee met three times: October 6-10, 1990; January 19-20, 1991; and March 2-4, 1991. The committee continues to follow the Delegate Assembly direction to bring update reports on entry into practice (see Attachment A) and continued competence (see Attachment B). The committee surveyed Member Boards in 1990 regarding: Declaratory Statements and Advisory Opinions; the Activities of Generalists as They Relate to Advanced Nursing Roles; and Traveling, Transport and Interstate Nurse Roles. The results of these surveys are presented in Attachments E, F and G.

Activities

The committee accomplished the following activities:

1. Reviewed and commented on reports from the Subcommittee to Study Regulatory Models for Chemically Dependent Nurses, the Subcommittee to Study the Regulation of Advanced Nursing Practice, and the Subcommittee to Study the Regulatory Implications of Changing Nursing Education.

2. Reviewed and analyzed data from entry into practice, continued competence, Declaratory Statements/Advisory Opinions, Activities of Generalists and Traveling/Transport/Interstate Nurses surveys for general trends and presentation in the *Book of Reports*.

3. Completed development of the *Conceptual Framework on Continued Competence* (Attachment C).

4. Prepared a statement on *Nursing in the School Setting: Regulatory Implications* (Attachment D).

5. Reviewed the issues presented by volunteer nurses and developed Volunteers in Practice: A Checklist to Assist Member Boards in Reviewing Licensure Issues Regarding Volunteer Nurses, and will publish this checklist in both *Issues* and the National Council's *Newsletter*.

6. Identified topics and articles for inclusion in the nursing practice and education edition of *Issues* which will be published this summer.

7. Received reports from committee members who attended the National Organization for Competency Assurance (NOCA) meeting and the Consortium on Substance Abuse in Nursing meeting.

8. At the request of the Executive Director, reviewed information relating to the National Council's Disciplinary Data Bank and made recommendations to staff regarding the revision of summary reports, statistical analysis and research opportunities afforded by the data bank.

Committee Members
Tom Neumann, WI, Area II, *Chair*
Nancy Cook, NC, Area III
Tina Delapp, AK, Area I
Julia Gould, GA-RN, Area III
Barbara Hatcher, DC, Area IV
Sr. Teresa Harris, NJ, Area IV

Board Liaison
Helen Kelley

Staff
Vickie R. Sheets, *Director for Public Policy, Nursing Practice and Education*

Attachment A

Entry into Practice Report

In 1986, the Delegate Assembly of the National Council of State Boards of Nursing, Inc., directed the Nursing Practice and Education Committee to prepare a yearly update report on entry into practice to the Delegate Assembly. In the winter of 1988, the committee circulated the extensive questionnaire developed in 1986 by the Entry into Practice Report Committee (as revised in 1987 by the Nursing Practice and Education Committee) and requested Member Boards to update the information if changes had occurred since 1987. The 1988 Delegate Assembly further directed that entry into practice data be collected as a routine part of the National Council data collection for yearly review by the Nursing Practice and Education Committee.

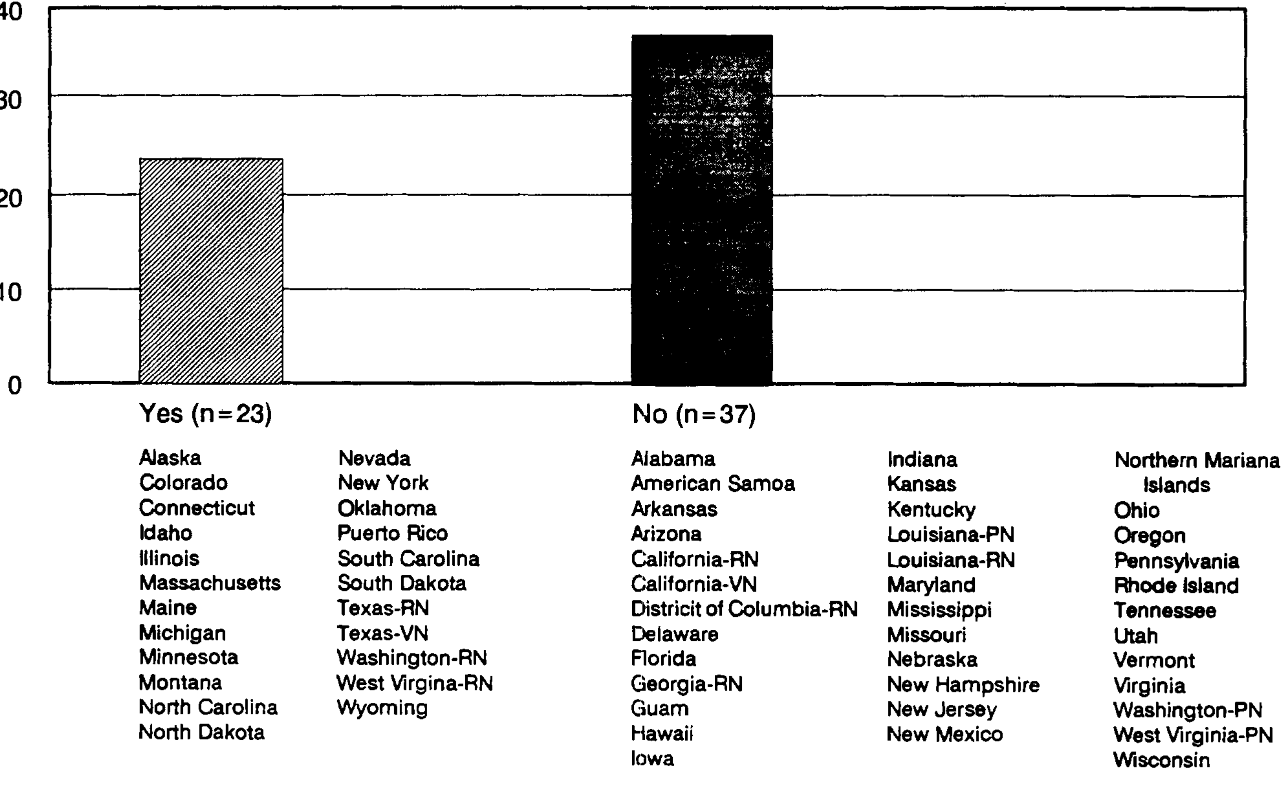
Results

Sixty (60) Member Boards responded to the entry into practice update questionnaire and reported the following results:

- Twenty-three (23) Member Boards of the sixty responding have taken a formal position on entry. No states reported taking a formal position since the update report presented to the 1990 Delegate Assembly.
- No Member Boards reported new activity relative to independent or collaborative activity to study or implement the profession's goal of two levels of nursing education with two new titles and distinct scopes of practice.
- Thirty (30) Member Boards reported the authority to implement changes to educational requirements for entry into nursing.

See Table I.

Table I. Member Boards with Entry Into Practice Positions.



Yes (n=23)

Alaska, Colorado, Connecticut, Idaho, Illinois, Massachusetts, Maine, Michigan, Minnesota, Montana, North Carolina, North Dakota, Nevada, New York, Oklahoma, Puerto Rico, South Carolina, South Dakota, Texas-RN, Texas-VN, Washington-RN, West Virgina-RN, Wyoming

No (n=37)

Alabama, American Samoa, Arkansas, Arizona, California-RN, California-VN, Districit of Columbia-RN, Delaware, Florida, Georgia-RN, Guam, Hawaii, Iowa, Indiana, Kansas, Kentucky, Louisiana-PN, Louisiana-RN, Maryland, Mississippi, Missouri, Nebraska, New Hampshire, New Jersey, New Mexico, Northern Mariana Islands, Ohio, Oregon, Pennsylvania, Rhode Island, Tennessee, Utah, Vermont, Virginia, Washington-PN, West Virginia-PN, Wisconsin

Continued Competence Update Report

In 1986, the Delegate Assembly of the National Council of State Boards of Nursing, Inc., directed the Nursing Practice and Education Committee to monitor the use of Continued Competence Mechanisms by boards of nursing and to present a yearly update report to the Delegate Assembly. The 1987 Delegate Assembly further directed the Nursing Practice and Education Committee to monitor the inclusion, into nursing practice acts, of the requirement of peer review as the mechanism for measuring continued competence. Subsequently, the 1988 Delegate Assembly directed that information about continued competence mechanisms be collected as a routine part of National Council data collection for yearly review by the Nursing Practice and Education Committee.

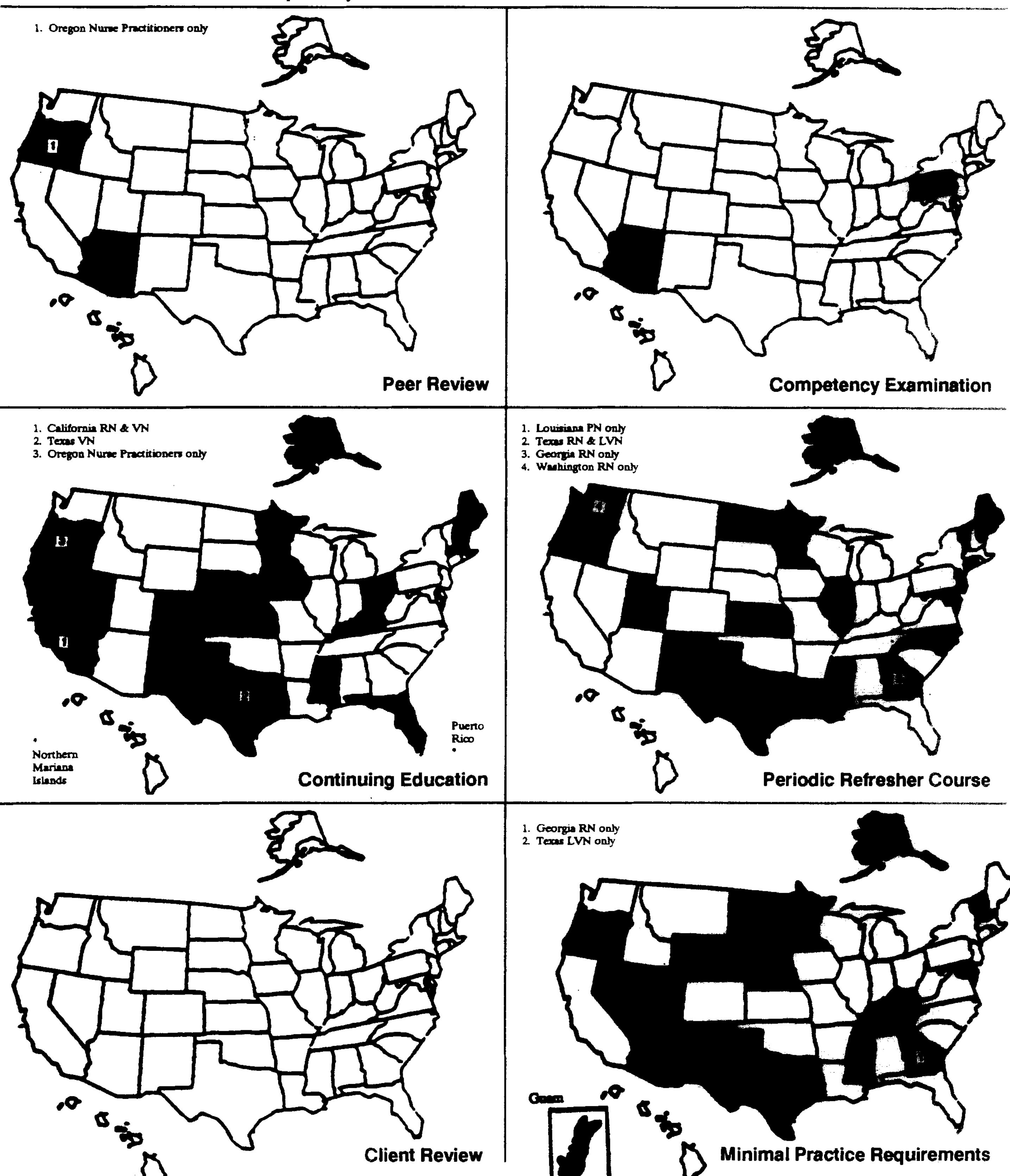
Results of Data Collected 1991

Sixty (60) Member Boards responded to the questionnaire. The tabulated data resulted in the following:

- Oregon and Arizona reported the use of peer review;
- Nineteen (19) Member Boards reported the use of continuing education mechanisms;
- No Member Boards reported the use of client review;
- Twenty (20) Member Boards reported the use of periodic refresher courses, with various conditions, for reentry into active practice after a prolonged absence from practice;
- Two (2) Member Boards reported the use of a competency examination; and
- Twenty (20) Member Boards reported the use of a minimum practice requirement for renewal of license.

The three most often used mechanisms are still continuing education, refresher courses and a practice requirement. See Table II.

Table II. Continued Competency Mechanisms



Attachment C

Conceptual Framework For Continued Competence

Purpose

The purpose of this work is to develop operational definitions and a conceptual framework on continued competence in nursing. It is anticipated that the framework will be used as a:

- basis for future research
- context for evaluating specific mechanisms
- guide for setting standards by different jurisdictions

History

The issue of continued competence grew out of the consumer movement that began in the 1960s. One outcome of that movement was the passage of Sunset legislation, which in many instances, mandated the establishment of mechanisms for assuring the public of the continued competence of practitioners in a wide variety of occupations and professions, including nursing.

In 1985, the National Council published a position paper on continued competence. In that position paper, the National Council:

1. described the status of continued competence regulation in the nation at that time;

2. broadly defined continued competence;

3. outlined the general regulatory implications of continued competence;

4. provided guidance for the establishment of continued competence regulations by jurisdictions; and

5. recommended efforts to establish mechanisms to validate continued competence.

The development of the operational definitions and the conceptual framework is an ongoing effort to extend the previous work in the area of continued competence completed by the National Council. Attention regarding continued competence is particularly critical in the current health care environment, which is characterized by increasing and rapidly changing technology, and by more complex nursing care needs. Consumers are subjected to potential harm when their complex needs are inadequately addressed.

Current Status

The current social climate is characterized by increased consumer involvement in decision making and by strong demands for assurance of the continued competence of licensed nurses. Those demands are predicated on the assumption that, when continued competence is assured, the public is adequately protected.

Although some Boards of Nursing have implemented mechanisms related to continued competency, the issue of continued competence is often handled in a reactive manner by licensing boards; it is assumed that continued competence is present until a complaint is received regarding a nurse's lack of competence. Typically, boards react

to such complaints by conducting an investigation and by taking disciplinary action when a complaint is validated. This reactive approach may fall short of the requirement that boards of nursing protect the public. Rather, the public good may be better served if a more proactive stance is assumed by boards. Documentation of continued nursing competence as a condition of license renewal is an example of a proactive approach.

From a regulatory viewpoint, the measurement of competence may be approached from empirical (research-based) and/or standard-setting perspectives. The empirical approach is the more rigorous of the two perspectives. It requires the regulatory entity to:

1. define competence;

2. determine how to measure competence; and

3. develop measurement tools that are valid, reliable, psychometrically sound, and, therefore, legally defensible.

In contrast, the standard-setting perspective is potentially less rigorous. It involves:

1. specification of standards;

2. establishment of processes for documenting adherence to the standards; and

3. establishment of mechanisms to allow for flexibility and ongoing evaluation of both the process and the standards.

The more rigorous perspective is applied to initial entry into nursing practice. To date, approaches to continued competence have been derived from the potentially less rigorous standard-setting perspective.

Also to be considered are the differing perspectives emphasized by the professional and regulatory communities. Within the regulatory context, the emphasis is on the assessment of minimal and essential skills necessary to protect the public at the time of initial licensure. This perspective is characterized by its mandatory nature. The professional perspective, on the other hand, is characterized by its voluntary nature and by its emphasis on growth and on the achievement of excellence.

Definitions

Competence is a synthesis of skill, knowledge, and performance. The ability to transform learning into effective and appropriate action is evidence of such competence.

Continued Competence is the ability to continue to demonstrate competence throughout one's career. In nursing, it encompasses the ongoing ability to render direct nursing care or the ongoing ability to make sound judgments upon which nursing care is based. Competent behavior rests on the use of the scientific method, from which the nursing process emanates. (NCSBN, 1985)

Premises

The following premises were included in the 1985 position paper and are judged to have continuing validity:

1. The public has a right to expect boards of nursing to assure the competence of nurses throughout their careers.

2. Continued competence is definable, measurable, and can be evaluated.

3. A regulatory mechanism requiring the continued competence of every licensee serves to assure the public health, safety, and welfare.

4. The nurse is responsible for maintaining competence in nursing practice through the process of life-long education.

5. The nurse is expected to participate judiciously in activities which maintain competence in nursing practice.

6. Disciplinary action is indicated when a nurse fails to demonstrate continued competence.

7. Continued competence requirements apply to renewal, reinstatement, and endorsement of a license.

8. Re-entry into nursing practice following a significant period of absence from practice requires evidence of current knowledge, skills, and abilities.

The following additional premises are judged to be valid:

1. Monitoring of continued competence may be done directly by Boards of Nursing or indirectly by other parties using the Board's established criteria.

2. Discipline refers to a broad range of activities, including remediation.

3. Employers have a twofold responsibility:

   a. to provide opportunities to nurses to facilitate their continued competence; and
   b. to take action, consistent with jurisdictional and agency requirements, to protect the public from the future acts of nurses judged to be incompetent.

4. The stringency of standards applied for initial admission to the practice of nursing are reasonable and appropriately more rigorous in comparison to the stringency of standards for continued competence. Underlying this judgment is the recognition that the new nurse has not yet demonstrated the minimal, essential knowledge, skill, and ability required for nursing practice in the practice setting (as opposed to the academic setting). This is in contrast to the continuing practitioner, who has demonstrated that ability.

5. What constitutes "minimal essential" varies over time, just as advances in knowledge and technology vary over time. This premise gives rise to the conclusion that the regulatory perspective must include a growth component that does not overlap into the professional arena.

6. Excellence is desirable but it is within the purview of the professional rather than the regulatory community. Collaboration between the professional and regulatory communities is both logical and reasonable since growth and excellence are on a continuum.

7. Assurance requires the establishment of a mechanism to document competence in a particular practice domain. An effective continued competency system requires:

   a. assessment of competence;
   b. strategies to achieve competence if the assessment indicates that competence is lacking; and
   c. reassessment to determine if competency has been achieved*

* *Two similar but different terms are commonly used in discussions of continuing competence; these terms are assure and ensure. Dictionary definitions of the two terms provide little assistance in distinguishing their meanings; indeed, one term is often used in defining the other. Despite the similarities of dictionary definitions, users of these terms tend to impart personal interpretation or meaning to them. Typically the term assure is interpreted to convey a degree of certainty while the term ensure is interpreted to convey a guarantee. In view of such common, albeit individual, interpretations, the term assure is judged to be the more appropriate term to use in discussions of continued competence.*

Mechanisms Related To Continued Competence

Six different mechanisms are commonly listed in discussions of continued competence. Close scrutiny of those mechanisms reveals that they can be grouped into two categories:

1. assessment approaches that enable documentation of continued competence and

2. strategies employed to achieve or maintain continued competence.

Three common strategies are mandated by some boards and used by nurses to achieve or maintain continued competence; they include continuing education courses or programs, refresher courses, and clinical practice. Although it is sometimes assumed that these strategies assure continued competence, that assumption can only be validated through the use of assessment techniques that document competent practice.

Assessment techniques include peer review, client or case review, and formal competency evaluation. It is important to note that the list of strategies and assessment techniques identified thus far is not exhaustive. Because the six mechanisms listed have received the most discussion in the nursing and health care provider communities, they are considered in this paper.

Mechanisms for Assessing Continued Competence

The three mechanisms to be considered include peer review, case or client review, and formal competency evaluation. The restriction of this paper to consideration of those three mechanisms is not meant to imply that they are the only mechanisms by which continued competence may be assessed.

Peer Review consists of the review and evaluation of the practice of a nurse by a peer or a group of peers in relation to established or accepted standards of practice.

This mechanism has the advantage of being focused in the practice setting which is the arena in which continued competence must be assured. A disadvantage is the current lack of established standards for the minimal essential knowledge, skills, and abilities necessary to assure continued competence; for peer review to be effectively used, such standards must be developed. Additional difficulties include issues related to the selection of peers to conduct the review as well as the potential for the process to be subjective or arbitrary.

Client or Case Review is the retrospective evaluation of the care or case management provided by the nurse, as it is documented in client records; the review is conducted by a peer or expert. As with peer review, the evaluation is based on established standards for competent practice.

Disadvantages of this approach are the same as those identified for peer review. In addition, it should be recognized that many of the activities that the average nurse incorporates into clinical judgment as part of providing competent care are often not documented (e.g., review of laboratory results). Further, in many agencies, data that could be used in the evaluation process are not retained in the client records (e.g., nursing care plans). Finally, the staff nurse employed in an inpatient or outpatient setting is typically responsible for the management of several clients simultaneously. Restriction of the evaluation to only one or two clients prevents consideration of activities and demands that are usually part of the nurse's routine (e.g., establishing priorities and balancing the needs of several clients simultaneously).

In general, case or client review may be an assessment technique more appropriately used to assure the competence of advanced nurse practitioners.

Competence Evaluation is a structured and formal assessment of the competence of a nurse in a defined practice domain. Use of this mechanism to assure competence requires the development of appropriate standards and of valid and reliable tools. It has the advantage of being capable of clear focus, of being tied directly to the practice arena, and of employing multiple techniques (e.g., direct observation, computer simulations, etc.).

Strategies Used to Achieve or Maintain Continued Competence

Three mechanisms will be described in this section of the paper; they include continuing education, refresher courses, and clinical practice. Again, the restriction of discussion to those three mechanisms is not meant to imply that they are the only mechanisms that may be used by the nurse to achieve or maintain continued competence.

Continuing Education is a planned learning experience designed to develop proficiencies that are applied in practice.

Such experiences include learning objectives that specify the knowledge to be acquired, activities designed to facilitate such acquisition, and a mechanism for determining that the specified learning has occurred.

Continuing education may be individually designed or structured formally. Formally structured activities are typically designed by educators or experts and offered to individuals on the basis of interest. The recipient may or may not select the activity on the basis of identified deficits. Further, the learner does not typically become involved in specifying learning objectives or selecting the content to be learned.

Individual nurses may design their own continuing eduction activities. In such cases, the individual formulates the learning objectives, specifies strategies to achieve those objectives, and develops a product that documents their achievement. Typically referred to as independent studies, such activities may or may not be selected on the basis of identified deficits.

In both types of continuing education activities, evaluation of the achievement of learning objectives is usually restricted to the acquisition of theoretical information or psychomotor skills. Seldom does the evaluation include an assessment of the degree to which the newly acquired knowledge and skills are applied in the practice setting. Thus, continued competence in the practice setting is not necessarily assured through this mechanism.

Another concern regarding the use of continuing education as a measure of continued competence is the question of relevance to the participant's scope of practice. In order to assure practice competency, the learning activity must be designed to upgrade or advance knowledge and skills that fall within the individual's actual or potential scope of practice.

Refresher Course is a planned and formal course of study designed to upgrade the knowledge and skill of a nurse whose practice has been interrupted for a time or to expand the knowledge and skill of a nurse who has functioned in a narrow practice arena and wishes to move into an arena that demands broader knowledge and skill.

Refresher courses include both theoretical and practice components. Theoretical learning is assessed with teacher made tests that may or may not be valid and reliable measures. Ideally, the evaluation in the practice component emphasizes the application of knowledge and information updated in the theory component.

Clinical Practice is the employment of a nurse in a nursing practice setting. When this mechanism is used to assure continued competence, its use assumes a continued upgrading of knowledge and skill through exposure to an expanding knowledge base.

Clinical practice is dependent upon the competency evaluation policies in place in the practice setting. Those policies may or may not be related to the maintenance of the minimal essential knowledge, skills, and abilities required for continued competence

Model For Continued Competence

The foregoing leads to a conceptual model of continued competence that begins with the assessment of the nurse's current level of competence in relation to some identified standard of practice that has established validity and reliability. Indeed, assessment of current competence can be considered to be the first step in the assurance of continued competence. That assessment may take place at scheduled time intervals (e.g., as part of professional performance evaluations or as a requirement for licensure renewal) or may be triggered by such things as a change in

responsibilities, concern regarding individual performance or formal complaints. There are two possible outcomes of the first step:

1. determination that the nurse is indeed competent; and

2. determination that the nurse is lacking competence, either generally or in specific areas of practice.

If the outcome of Step 1 is a determination that the nurse has continued competence to practice nursing, the process ends; it merely needs to be repeated at some specified future date. Between the initial assessment of continued competence and future assessments of that competence, the nurse may utilize strategies to maintain and upgrade knowledge and skills in order that competence continues to exist.

If the outcome of Step 1 is a determination that the nurse is lacking competence, it becomes critical to specify the areas in which competence is lacking; the specification of deficits becomes Step 2 in the process of assuring continued competence. Step 3, logically, is to identify and implement strategies designed to assist the nurse to achieve competence and to maintain continued competence in the future. The next step in the process is the reassessment of competence, essentially a replication of Step 1 in the process. At that point (reassessment), the same two outcomes that have already been identified are possible and, depending on the outcome, the sequence of steps that has been outlined recurs.

The process is presented schematically on the following page.

Conclusions

The assurance of continued competence is a complex process that must be based on identified and accepted standards of nursing practice that are relevant to the practice area of the individual nurse. Such standards must be valid and reliable, i.e., one must be able to state that the specified standards are indeed appropriate to the particular type of practice setting and that documentation of implementation of those standards in the individual nurse's practice assures competence in the full realm of practice in the particular type of setting.

Assurance of competence requires assessment of the nurse's practice in relation to those standards. Such assessment should be objective and non-arbitrary. If assessment demonstrates the presence of continued competence, nothing further is required until reassessment is conducted at some specified time in the future.

When competence is judged to be absent, based on standards-based assessment, the specification of deficits and interventions (strategies) may be employed to correct those deficits. The achievement of competence through completion of prescribed deficit correction strategies is determined through reassessment of practice in relation to specified standards.

It should be recognized that the application of this model would represent a shift from a reactive to a proactive stance. Within this context, the responsibilities of Boards of Nursing would include:

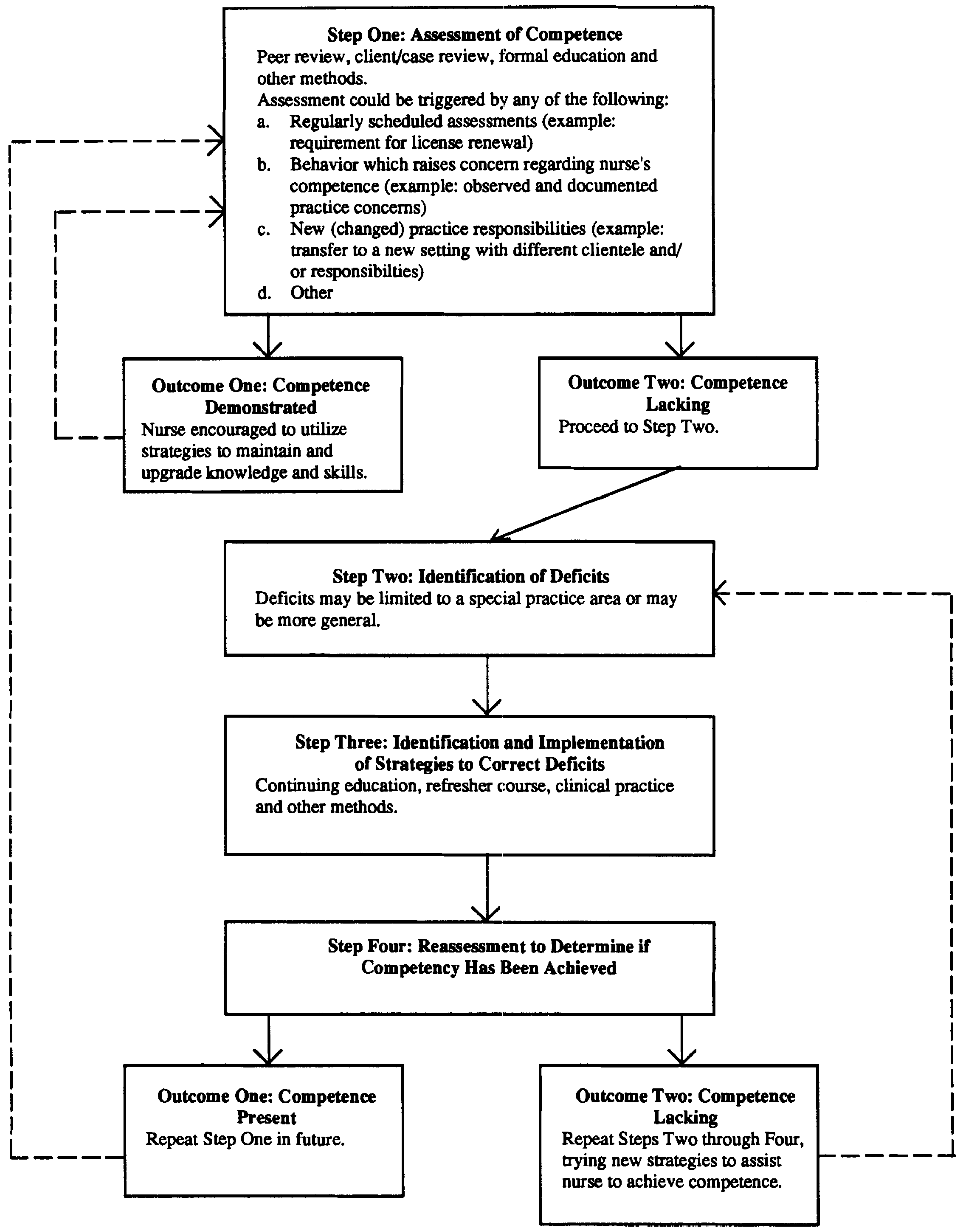
1. considering mechanisms to document continued competence as a requisite for licensure and relicensure;

2. providing guidance to individual nurses seeking ways of attaining and maintaining continued competence; and

3. protecting the public, through disciplinary action, from actions of nurses who have not achieved continued competence.

Clearly a critical factor in the assurance of continued competence of nurses is the identification of valid and reliable standards of practice. Such standards have been identified within the professional community; however, within the regulatory community, standards of practice need to be developed and validated. This is perhaps the first step in developing truly effective mechanisms for assuring the public of the continued competence of nurses.

Conceptual Framework For Assurance of Continued Competence



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Attachment D

Nursing Care in the School Setting: Regulatory Implications

Today's schools provide a great deal more than instruction. Historically, the traditional role of the school nurse was limited to such activities as providing first aid, performing routine screening, and occasionally running mass immunization programs aimed at school aged children and adolescents.

In recent years the role has expanded considerably. The increasing complexity of the school nurse role mirrors the increasing complexity of society and of the health care system. As a result of those societal changes, children may require nursing interventions for a wide variety of bio-psychosocial problems that were not apparent on their initial entry into school.

The developmental and interpersonal benefits derived by chronically ill and disabled students who participate in the traditional educational setting have been acknowledged. In addition, legal decisions have affirmed the right of all students to a public education that occurs in the least restrictive setting possible. As a result, disabled and chronically ill students have been "mainstreamed" into classroom/schools that may be ill-equipped to meet their needs. Whereas formerly many students who required complex care and who had specialized health care needs would have been privately tutored, they are now mainstreamed into classrooms with students needing less complex care. An increased demand for nursing care to meet the needs of those students has resulted.

The role of the school nurse in health screening programs has expanded and become more complex as has the decision making required when student health records are reviewed. In addition, school nurses serve as consultants to educational staff and provide health teaching to large numbers of students located in multiple settings. As a consequence, registered nurses often do not provide services directly in all of the schools under their supervision and jurisdiction. They may utilize licensed practical nurses and unlicensed personnel (e.g., health aides, teacher's aides, etc.) to provide direct care. In those instances, the direct care is delegated by the registered nurse who retains responsibility for that care and for the supervision of the individuals to whom the care is delegated. In assuming responsibility for the care of students in school settings, including delegation and supervision, the school nurse must follow the regulations included in the Nurse Practice Act, as well as other applicable laws, in the jurisdictions in which they are practicing.

Specifically, RNs who delegate nursing acts must adhere to the delegation requirements and guidelines of the jurisdiction in which they are practicing. The role of Boards of Nursing is to provide guidance to school nurses regarding the delivery of care in the school setting to ensure the health and safety of students. To fulfill this role, boards may refer to the Concept Paper on Delegation (National Council, 1990) as well as their own jurisdictional interpretations regarding requirements for the delegation of nursing tasks.

In addition, it is recommended that policies and procedures be developed to guide the educational preparation and practice of school nurses, and that those policies and procedures specifically address delegation and supervision issues. Consideration also needs to be given to the development of protocols for action in specific situations, including the identification of the qualifications of individuals who are authorized to initiate and implement those protocols. Finally, it is recommended that school districts consider establishing maximum student/nurse ratios; such ratios should take into consideration the health needs of the student population being served, the availability of licensed practical nurses and unlicensed personnel to provide direct services, and the need to assure adequate supervision of those individuals. Administrative personnel in school districts should consider their own liability in observing and supporting safe nurse/student ratios.

Where policies, procedures, and protocols are established to guide nursing practice in school settings, it is imperative that school nurses be involved in their development.

With the proliferation of specialties in nursing practice, school nursing must be recognized as one of those specialties. Certification for practice as a school nurse is currently available through the National Board for Certification of School Nurses; in addition, many board jurisdictions also provide for such certification through state boards of nursing and/ or education.

Attachment E

Declaratory Statements, Advisory Opinions--Survey Results

In 1990, the Nursing Practice and Education Committee surveyed Member Boards regarding their use of Declaratory Statements and Advisory Opinions. The response of the 44 Member Boards is summarized below.

Boards authorized to issue Declaratory Statements: 21
AR, CA-RN, CO, CT, FL, HI, IA, LA-RN, MD, MO, MT, NC, ND, NE, NJ, NM, NV, SD, TN, TX-RN, WI

Source of authority (Boards may have more than one source)
a. State Administrative Code: 14
AL, FL, HI, IA, LA-RN, MO, MT, NC, ND, NE, NM, SD, TN, WI

b. Nurse Practice Act: 11
AZ, CA-RN, CO, CT, LA-RN, NC, ND, NJ, NV, SD, TX-RN

c. Rules: 9
AR, FL, HI, MD, NC, ND, NE, NV, SD

d. Interpretive Statement from the Courts: 0

e. Interpretive Statement from State Attorney General's Office: 3
AR, CA-RN, NC

f. Other: (and comments)
GA-RN—Term is not used.
LA-RN—Administrative Procedure Act
MD—State law
NC—Legal opinions rendered by General Counsel to NC Board
NE—Opinions do not have the effect of law, therefore, statutory authority is not required
NM—Uniform Licensing Act

Boards authorized to issue Advisory Opinions: 21
AK, AL, AR, AZ, CA-VN, CO, CT, KY, LA-RN, MO, NC, NJ, NM, NV, PA, SC, TX-RN, VA, WA-PN, WI, WV-PN

Source of authority (Boards may have more than one source)
a. State Administrative Code: 5
AL, LA-RN, MO, NC, PA

b. Nurse Practice Act: 14
AK, AZ, CA-RN, CO, CT, KY, LA-RN, NC, NJ, NV, PA, SC, WA-PN, WV-PN

c. Rules: 5
AL, AR, NC, NV, WA-PN

d. Interpretive Statement from the Courts: 0

e. Interpretive Statement from State Attorney General's Office: 6
AR, CA-RN, MT, NC, NM, VA

f. Other: (and comments)
CA-VN—implied
GA-RN—term is not used in Georgia
LA-RN—Administrative Procedures Act
NC—Legal opinions rendered by General Counsel of NC Board
SD—Staff opinions are issued. The term "advisory opinion" is not used
TX-VN—No practice act for LVNs. Texas Administrative Code
VA—Advice from legal counsel
WI—Board interpretation of statutory charge to: "define and enforce professional conduct and unethical practices not inconsistent with the law."

Boards authorized to issue both Declaratory Statements and Advisory Opinions: 11
AR, CO, CT, LA-RN, MO, NC, NJ, NM, NV, TX-RN, WI

Are the terms Declaratory Statement and Advisory Opinion interchangeable?
a. Yes: 6
AL, AR, CT, MN, MO, TX-RN

b. No: 32
AK, AZ, CA-RN, CA-VN, CO, FL, GA-PN, GA-RN, HI, IA, ID, KY, LA-RN, MD, MT, NC, ND, NE, NJ, NM, NV, NY, OH, PA, RI, SC, SD, TN, TX-VN, VA, WA-PN, WI

Which term is preferable?
a. Declaratory Statements: 3
CT, FL, HI

b. Advisory Opinions: 8
AL, GA-RN, MN, MO, NC, SC, VA, WV-PN

c. Other terms indicated:
GA-RN—Practice opinions about the parameters of the legal scope of practice (infrequent)
ID—Board Decisions, the Board does have the statutory authority to establish standards of practice, so does issue decisions regarding functions within the legal scope of practice.
MS—Position Statement or Statement
NC—Interpretive Statements
TX-RN—Position Statements
TX-VN—Policy Statements

How are the terms defined, and differentiated?
AK—Our law refers to: "advisory opinions regarding whether nursing practice procedures or policies comply with acceptable standards of nursing practice as defined under this chapter."
AZ—Advisory Opinion is a further clarification of the law on professional and practical nurse function.
CA-RN—The aforementioned terms are not utilized in this state.

CA-VN—Declaratory statement is a general policy statement. An advisory opinion is a specific statement that something is or is not permissible within a specific factual setting.

CO—Declaratory statement is formal document following Chapter VIII of the rules. Advisory opinions are informal responses to questions at each meeting.

FL—There is no term "advisory opinion" within the jurisdiction of this Board.

HI—We do not provide advisory opinions.

IA—Do not define advisory opinions.

KY—The Kentucky Board of Nursing issues advisory opinions as to what constitutes safe nursing practice. An opinion is not a regulation of the Board and does not have the force and effect of law. It is issued as a guidepost to licensees who wish to engage in safe nursing practice and who wish to avoid the possibility of being subjected to malpractice litigation.

LA-RN—Declaratory Statements usually include rationale and detailed statement. Advisory opinions respond to specific questions.

MD—Advisory opinions are not issued. A declaratory ruling must be in compliance with the regulations governing the declaratory ruling.

MT—Declaratory ruling - the applicability of a statute regulation or order to an activity or proposed activity. Advisory opinions were considered by the Board as to its clarification of the Board's understanding of the law and rules.

NC—The term "declaratory statement" is not commonly used by the North Carolina Board of Nursing. Advisory opinions are generally obtained from the Office of the Attorney General of North Carolina or from legal counsel retained by the North Carolina Board of Nursing.

ND—Advisory opinion by law (administrative procedures act) is issued by the attorney general. Declaratory statement not defined in law but used to describe administrative agencies interpretation of the law rules, we call it a "Board opinion." Have been told that statement can be used as guideline but can be challenged either in the form of a request for an Attorney General's opinion or by court action.

NE—Declaratory ruling is binding between the agency and the petitioner. An opinion is advisory only and therefore not binding.

NJ—Have prepared, with legal counsel's assistance, a document to assist in the interpretation of the definitions as used by the Board.

NV—Violation of advisory opinion requires hearing to determine applicability of statutes. Violation of declaratory order constitutes violation of statutes and is cause for formal disciplinary hearing.

NY—Declaratory statement not used in our state. Advisory opinion means an official opinion from the state education department legal counsel on nursing practice or legal interpretation of the Nurse Practice Act.

OH—"Advisory Opinion" is issued by the office of the Attorney General in response to a request generated by a state agency and is reported along with the statute.

SC—We do not use the term declaratory statement. In addition to "advisory opinions" the Board also has "policy statements" that are used more by staff to interpret sections of the law or regulations in terms of the Board's position or interpretation.

SD—Declaratory ruling is defined as a judgement rendered regarding the validity or applicability of the rule in question. The board staff is from time to time asked to issued a staff opinion. The term "advisory opinion" is not utilized.

VA—Not defined in law, advisory opinion is used in reference to opinion or interpretation given by the Board in response to specific questions.

WA-PN—Declaratory statement is a legal opinion, advisory opinion is not legal in court.

WI—A declaratory statement by statute is issued by state agencies upon formal petition and after a hearing before the agency. An advisory opinion is given by the board based upon response from the Practice Committee of the board after review of verbal or written inquiries. Does not require a hearing and may be given verbally.

Boards not authorized to issue either Declaratory Statements or Advisory Opinions: 13
FL, GA-PN, IL, IN, MN, MO, MT, NE, OH, OK, RI, WV-RN

Boards advised that it is not within the Board's authority to issue Declaratory Statements or Advisory Opinions:

FL—Statute from the Florida Legislature

GA-PN—Attorney advises no legal authority

IL—No authority in Statute

IN—The board is not empowered to issue advisory opinions or interpretations of their law except by adopting rules necessary to enable them to carry into effect their statute

MN—Legal counsel states that we do not have specific statutory authority

MO—Statute limits scope of statements to specific nurse/patient situations

MT—State's Attorney General's Office advises that the Attorney General alone has the specific authority to issue broad legal opinions and that the Board of Nursing may be able to achieve its purpose through the issuance of interpretative rules or declaratory rulings

NE—Declaratory rulings are within the authority of the Regulatory Agency, the Board is advisory to the Agency

NY—Issued legal opinions may be shared upon request of practitioners but the developing philosophy of the department is to leave it to the professional judgement of the nurse or let her inquire the information from her lawyer.

OH—It was indicated in the Ohio Supreme Court decision received as a result of litigation initiated by the Board adopting a "position" that expanded the scope of practice for LPNs

OK—By our attorney, no statutory or other authority

RI—By legal counsel, there is not provision authorizing the Board to render advisory opinion or declaratory statements; the Director of Health may make a declaratory ruling upon petition

If Board does not have the authority to issue Declaratory Statements or Advisory Opinions, how are questions regarding general practice educational and scope of practice questions addressed?

GA-PN—refer person to the law

GA-RN—The board has a letter which can be sent in response to inquiries. If the issue is to be referred to the Practice Committee, a more in-depth form is to be completed. The board will attempt to assist with the process for resolution of the question but rarely says either yes or no unless the answer is that clear.

IL—On individual basis through General Counsel and committee study of issue. Tend to avoid listing specific activities.

IN—Questions are addressed by stating what the law says and suggesting that they contact their own legal counsel for further interpretation. If necessary, the Board may also request an opinion from the Attorney General's Office.

MN—We are able to respond orally and in writing to specific requests based on the legal definitions of nursing.

MO—Very carefully, and always trying to find specific situations which can be addressed.

MS—The Board of Nursing has the authority to regulate the practice of nursing by establishing standards of practice.

MT—Generally advice about the declaratory ruling approach. If a question has been addressed by the Board prior to the attorney general's statement, the Board will respond with their initial response.

NE—The declaratory ruling procedure, although in place, has never been used to date for a practice issue. The Board issues Advisory Opinions in response to requests for opinions regarding practice issues.

NY—Practice issues are discussed by the Board of Nursing practice committee and advice is given to Executive Secretary. Legal counsel is requested to approve, edit, rewrite. Information then is shared with field upon demand.

OH—The Board publishes Statement/Guidelines that amplify/clarify a specific section/sub-section of the statute or rules.

OK—By adoption of appropriate rules and regulations.

WA-PN—Many questions are answered by Executive Director and not sent to the Board for opinion.

WV-RN—The Board determines and is waiting to be challenged.

Attachment F

Activities Of Generalists As They Relate To Advanced Nursing Roles

Survey Results

In 1990, the Nursing Practice and Education Committee surveyed Member Boards for information regarding the activities of generalists and how they relate to advanced nursing roles. The committee specifically sought information regarding the delegated medical acts performed by nurses at the level of licensed practical/vocational nurses, registered nurses and advanced nursing roles, and whether boards had received requests for practice expansion for these types of nurses. The committee also requested information regarding how boards responded to requests for expansion of practice. The responses of the 44 Member Boards who participated in this survey are summarized below and in Table III.

The term "advanced nursing roles" is operationally defined to mean registered nurses who, by advanced education, certification and/or licensure, are legally recognized to carry out roles such as nurse anesthetist, nurse midwife, nurse practitioner or clinical nurse specialist. Examples of delegated medical acts include epidural anesthesia, intubation, interosseous medication administration, the role of first surgical assistant and the rupture of amniotic membranes. The source of request listed in the table ranges from an individual, agency, physician or professional association. Examples of settings where the delegated medical acts are performed include acute care settings, long term care facilities and the home.

Boards requested to expand licensed practical nurse (LPN) role: 25

AK, AL, AZ, CO, FL, IA, ID, IL, KY, LA-RN, MO, MS, NC, ND, NE, NJ, NM, NV, NY, PA, SC, SD, TN, WA-PN, WI

Of these, the role expansion request for the LPN included practice traditionally reserved for:

Registered nurse (RN): 23—AK, AL, AZ, CO, FL, IA, ID, IL, KY, LA-RN, MO, MS, NC, ND, NE, NJ, NM, NV, NY, PA, SC, TN, WA-PN, WI

Advanced nurse role (ANR): 2—CO, WA-PN

Other: 6—ID, IL, MO, NC, WA-PN, WI

Boards requested to expand registered nurse (RN) role: 26

AK, AL, AR, AZ, CA-RN, CT, FL, IA, ID, IL, KY, LA-RN, MD, MO, NC, ND, NE, NJ, NM, NY, PA, RI, SC, SD, TX-RN, WI

Of these, the role expansion request for the RN included practice traditionally reserved for:

Advanced nurse role (ANR): 22—AK, AL, AZ, CA-RN, CT, FL, IA, ID, IL, LA-RN, MO, ND, NE, NJ, NV, PA, RI, SC, SD, TN, TX-RN, WI

Other: 20—AL, AZ, CA-RN, FL, IA, KY, LA-RN, MD, MO, NC, ND, NE, NJ, NM, NY, SC, SD, TN, TX-RN, WI

Boards requested to expand advanced nurse role (ANR): 20
AK, AL, AZ, CT, FL, IA, ID, LA-RN, MD, MO, NC, ND, NJ, NV, NY, PA, RI, TN, TX-RN, WI

Of these, the role expansion request for the ANR included practice reserved for:
Other health care providers: 6 - AK, AZ, CA-RN, MO, SC, TX-RN

Table 1. Licensed Practical Nurses

Delegated Medical Act	State	Source	Setting	Experience	Board Requires Post Basic Education	Supervised Clinical Practice	Determined to be in Scope Yes	No
IV THERAPY								
IVS	AK	Hospital	Anywhere	X	X	X	X	
		Comments:						
	FL	Individual	All types			X		
		Comments: Under Advisement						
	KY	Agency	All	X	X	X		
		Comments: Limited Advisory Opinion						
	MS	Rules, regs	Any	X	X	X	X	
		Comments:						
	ND	LTC	Facilities		X	X	X	
		Comments:						
	NE	Individual	Acute care					X
		Comments: By statute, LPN must work at the direction of a physician, dentist, osteopath, podiatrist or RN.						
	NY	Agency	Acute care, Home care		X	X	X	
		Comments: Demonstrate Competence						
	TN	Employer	Not specified	X	X	X	X	
		Comments:						
IV Meds	AK	Hospital	Hospital					
		Comments: Not determined yet						
	CO	Hospital						X
		Comments: Needs rule change. Committee looking into it. Post-grad certification.						
	LA-RN	Agency	Acute Care					X
		Comments:						
	MS	Administration	Hospital					X
		Comments:						
Flushing IV Catheters	LA-RN	Agency	Acute Care	X	X	X	X	
		Comments:						
Therapeutic Plasma Exchange	LA-RN	Individual	Acute Care					X
		Comments: Rule #4111						

Delegated Medical Act	State	Source	Setting	Experience	Board Requires Post Basic Education	Supervised Clinical Practice	Determined to be in Scope Yes	No
DIALYSIS								
Peritoneal Dialysis	CO		Nursing Home					X
		Comments:						
Dialysis Tasks	LA-RN	Agency	L.T. Care	X	X	X	X	
		Comments:						
Home Hemodialysis	IA	Family	Home					X
		Comments:						
Dialysis	KY	Agency	Chronic Tx Facility					
		Comments: Under review currently						
NG/G-TUBE CARE								
Tube Feeding	ND	LTC	Facilities		X	X	X	
		Comments:						
NG Suctioning	ND	LTC	Facilities		X	X	X	
		Comments:						
NG Therapy	NE	Individual	Acute Care					X
		Comments: By statute, LPN must work at direction of a physician, dentist, osteopath, podiatrist or RN.						
Re-insert G-tube	AL	Agency	Acute Care	X	X	X	X	
		Comments: Chronic G-tube						
	LA-RN	Individual	LT Care					X
		Comments:						
	WI	Individual	Hospital	X	X			X
		Comments: Must be delegated to LPN, is not in scope of practice, must have either education or experience						
Insertion NG/G-tube	IA	Agency	LT Care	X	X	X	X	
		Comments:						

Delegated Medical Act	State	Source	Setting	Board Requires: Experience	Board Requires: Post Basic Education	Board Requires: Supervised Clinical Practice	Determined to be in Scope: Yes	Determined to be in Scope: No
SURGICAL PROCEDURES								
Assist MD in Surgical Procedure	NC	Agency	Acute Care	X	X	X		
		Comments: Activity not generally considered to be nursing practice; but not in conflict with Nursing Practice Act.						
Removing Sutures	WI	Agency	Clinic	X	X			X
		Comments: Must be delegated to LPN, is not in scope of practice. Must have either education or experience.						
Suturing	NM	Agency	Acute Care	X	X	X	X	
		Comments:						
First Assistant	NM	Agency	Acute Care					X
		Comments:						
SUPERVISION								
Supervision	IA	Prof. Assoc	LT Care	X	X	X	X	
		Comments:						
Charge Duties	TN	Employer	Nursing Home	X	X	X	X	
		Comments:						
OTHER MEDICAL SURGICAL PROCEDURES								
Suprapubic Catheters	AL	Agency	Acute Care	X	X	X	X	
		Comments:						
Intraoral Anesthesia	FL	Dentist	Office					
		Comments: Requested to seek Declaratory Statement re: scope of practice.						
Tracheostomy Care	ND	LTC	Facilities		X	X	X	
		Comments:						
Respirator Care	NM	Agency	Acute Care					X
		Comments:						

Delegated Medical Act	State	Source	Setting	Experience	Board Requires Post Basic Education	Supervised Clinical Practice	Determined to be in Scope	
							Yes	No
Hemodynamic Monitoring	SC	Hospital	Critical Care Unit	X	X	X		X
		Comments:						
Certain Specialized Tasks	GA-PN							
		Comments: 43-26-30 (2) (e) "Performing certain specialized tasks when appropriately trained and consistent with institutional policy and providing similar health care services in hospitals, clinics, nursing homes or other health care facilities."						
Any Procedures for Which Trained	WA-PN				X	X	X	
		Comments: Any procedure for which PNs have been trained - Board does not require but suggests.						

Table 2. Registered Nurse

Delegated Medical Act	State	Source	Setting	Experience	Board Requires Post Basic Education	Board Requires Supervised Clinical Practice	Determined to be in Scope: Yes	Determined to be in Scope: No
MEDICATIONS								
Administer Pain Medications	NJ	Agency *Comments:*	Any		X	X	X	
Prostaglandin Supp.	ID	Agency *Comments: Agency policies and procedures.*	Acute Care				X	
Dispense Medications	LA-RN	Agency *Comments: Pharmacy.*	L.T. Care					X
Compound Medications	LA-RN	Agency *Comments: Pharmacy.*	Home Care					X
IV THERAPY								
PICC	AK	Home Care *Comments:*	Anywhere	X	X	X	X	
	SD	*Comments:*	Acute Care	X	X	X		
	TN	Agency *Comments:*	Not specified	X	X	X	X	
PICC Insertion Maintenance	SC	Home HC *Comments:*	Hospital	X	X	X	X	
Intrathecal Narcotic Admin.	WI	Assoc. *Comments: Must have either education or experience.*	Hospital	X	X			X
Intraosseous IV	AK	Hospital *Comments:*	Hospital	X	X	X	X	
	IA	Agency *Comments: Initiating intraosseous transfusions.*	Emergency Flight	X	X	X	X	
	ID	Agency *Comments:*	Acute Care		X	X	X	

Delegated Medical Act	State	Source	Setting	Board Requires: Experience	Board Requires: Post Basic Education	Board Requires: Supervised Clinical Practice	Determined to be in Scope: Yes	Determined to be in Scope: No
	LA-RN	Doctor	Acute Care	X	X	X	X	
		Comments:						
	NC	Agency	Acute Care	X	X	X	X	
		Comments: Interosseous medication administration, only for air-med teams.						
	ND		All settings					X
		Comments: Interosseous medication administration.						
	NE	Agency	Acute					X
		Comments: Interosseous insertion. The Board does not specify education or experience but does hold the nurse accountable for their level of competency while performing any acts.						
	SC	Indiv	Hospital	X	X	X	X	
		Comments: Intraosseous devices.						
Removal Tunnelled IV Catheters	LA-RN	Agency	Acute Care	X	X	X	X	
		Comments:						
Peripherally Inserted Catheter	NJ	Indiv	Any		X	X	X	
		Comments: This was a Declaratory Statement.						
Insertion External Jugular Vein Cath.	AL	Agency	Acute	X	X	X	X	
		Comments:						
Peripheral Insertion of Central Line	LA-RN	Agency	Acute Care					X
		Comments:						
	TX-RN	RN	A.C. or H.C.	X	X	X		
		Comments: RN must be able to document appropriate education and experience.						
Sclerotherapy Varicose Veins	IA	Priv. pract.	Office	X	X	X	X	
		Comments:						
Initiation of Arterial Lines	LA-RN	Agency	Acute Care					X
		Comments:						

Delegated Medical Act	State	Source	Setting	Experience	Board Requires Post Basic Education	Supervised Clinical Practice	Determined to be in Scope Yes	No
ANESTHESIA								
Intraoral	FL	Dentist	Office					
		Comments: Requested to seek Declaratory Statement re: scope of practice.						
Local Anesthesia	LA-RN	Indiv	Priv. cons				X	
		Comments: LRS 37:930						
Monitoring Anesthesia	LA-RN	Indiv	Acute					X
		Comments: LRS 37:930						
Epidural Analgesia/ Pain Management	AK	Hospital	Hospital	X	X	X	X	
		Comments:						
	AL	Agency	Acute	X	X	X	X	
		Comments: Redosing epidurals with analgesics.						
	MD	Anesth	Hospitals				X	
		Comments: Admin. epidural narcotics						
	NC	Agency	Acute Care	X	X	X		
		Comments:						
	ND		All types	X	X	X	X	
		Comments: Epidural pain management.						
	NM	Agency	Home Health	X	X	X	X	
		Comments:						
	SC	MDs	Hospital	X	X	X	X	
		Comments:						
Epidural Anesthesia	CA-RN	Doctor	Acute Care	X	X	X		
		Comments: Board required competency.						
	LA-RN	Indiv.	Acute Care					
		Comments: Reinjecting epidural anesthesia. LRS 37:930						
	NC	Agency	Acute Care	X	X	X		
		Comments:						
	NY	Indiv	Acute Care					X
		Comments: No requirements.						
	SC	MDs	Hospital	X	X	X	X	
		Comments:						

Delegated Medical Act	State	Source	Setting	Experience	Board Requires Post Basic Education	Supervised Clinical Practice	Determined to be in Scope Yes	No
	WI	Agency	Hospital	X	X			X
		Comments: Must have either education or experience.						
SURGICAL PROCEDURES								
Assist Physician in Surgical Procedures	NC			X	X	X		
		Comments: Activity not generally considered to be nursing practice, but not in conflict with the Nursing Practice Act.						
First Assistant OR	AL	Agency	Acute	X	X	X	X	
		Comments:						
	CA-RN	Admin.	Acute Care	X	X	X		
		Comments: Standardized procedures.						
	CT	Prof	Hospital Acute	X	X	X	X	
		Comments:						
	LA-RN	Agency	Acute Care	X	X	X	X	
		Comments:						
	MD	RN	Hospitals				X	
		Comments:						
	ND		All settings	X	X	X	X	
		Comments:						
	NE	Agency	Acute					X
		Comments: The Board does not specify education or experience but does hold nurse accountable for their level of competency when performing any acts.						
	NM	Agency	Acute Care	X	X	X	X	
		Comments:						
	NY	Indiv.	Acute Care		X	X		X
		Comments: Board presently reviewing this.						
	RI	AORN	Hospital					
		Comments: Pending.						
	TX-RN	RN or MD	Acute Care	X	X	X	X	
		Comments: Must have either education or experience.						
	WI	Agency	Hospital	X	X			X
		Comments: Must have either education or experience.						
	WV-RN	Agency	Acute Care		X		X	
		Comments:						

Delegated Medical Act	State	Source	Setting	Board Requires Experience	Board Requires Post Basic Education	Board Requires Supervised Clinical Practice	Determined to be in Scope Yes	Determined to be in Scope No
RESPIRATORY PROCEDURES								
Intubation	AL	Agency	Acute	X	X	X	X	
		Comments:						
	CA-RN	Agency	All	X	X	X		
		Comments: Standardized Procedures.						
	LA-RN	Agency	Acute Care	X	X	X	X	
		Comments: Endotracheal intubation.						
	NC	Agency	Acute Care	X	X	X		
		Comments:						
	NE	Agency	Acute					X
		Comments: The Board does not specify education or experience but does hold the nurse accountable for their level of competency when performing any act.						
	NM	Agency	Acute Care	X	X	X	X	
		Comments:						
	SC	Agency	Acute Care	X	X	X	X	
		Comments: Intubation of adults/neonates.						
Irrigating Chest Tubes	LA-RN	Agency	Acute Care					X
		Comments:						
Removal of Chest Tubes	LA-RN	Agency	Acute Care					X
		Comments:						
Emergency Needle Thoracentesis	LA-RN	Agency	Acute care	X	X	X	X	
		Comments: On neonates.						
Insertion of Chest Tubes	KY	Agency	Air ambulance	X	X		X	
		Comments:						
CARDIAC PROCEDURES								
Flushing Intraventricular Lines	AL	Agency	Acute	X	X	X	X	
		Comments:						

Delegated Medical Act	State	Source	Setting	Board Requires Experience	Post Basic Education	Supervised Clinical Practice	Determined to be in Scope Yes	No
Removal Temporary Transvenous Pacemaker	IA	Agency *Comments:*	Acute	X	X	X	X	
Removal AV Pacing Wire	LA-RN	Agency *Comments:*	Acute					X
Swan-ganz Catheter	KY	Indiv. *Comment: Under Review.*	Acute Care					
Removal of Swan-ganz	LA-RN	Agency *Comments:*	Acute Care	X	X	X	X	
	NJ	Agency *Comments:*	Any	X	X	X	X	
Lymphangiograms	LA-RN	Doctor *Comments:*	Acute Care					X
Removal Mediastinal Tube	LA-RN	Agency *Comments:*	Acute Care					X
Carotid Artery Massage	LA-RN	Agency *Comments:*	Acute Care	X	X	X	X	
Elective Cardio-version	LA-RN	Agency *Comments:*	Acute Care					X
Inflation Coronary Artery Balloon	NJ	Indiv. *Comments:*	Acute Care					X
Intraguide Wires	NJ	Agency *Comments:*	Acute Care		X		X	
Inject Dye Cardiac Catheter	NJ	Agency *Comments:*	Acute Care		X		X	

Delegated Medical Act	State	Source	Setting	Experience	Board Requires Post Basic Education	Supervised Clinical Practice	Determined to be in Scope: Yes	Determined to be in Scope: No
CRANIAL PROCEDURES								
Zeroing Intracranial Pressure Probe	LA-RN	Agency *Comments:*	Acute Care					X
Medication into Ventriculostomy Shunt	LA-RN	Agency *Comments:*	Acute Care					X
Intracranial Pressure Monitoring	NJ	Agency *Comments:*	Any		X	X	X	
OTHER MED SURG PROCEDURES								
Instill Vesicant into Bladder	LA-RN	Agency *Comments:*	Acute Care					X
Reinsertion of Gastroscopy Tube	LA-RN	Agency *Comments: If track.*	Long Term Care	X	X	X	X	
Bone Marrow Aspirations	LA-RN	Doctor *Comments:*	Acute Care					X
Skin punch Biopsy	LA-RN	Doctor *Comments:*	Acute Care					X
Hyperthermia	LA-RN	Indiv. *Comments:*	Acute Care	X	X	X	X	
Removing Abdominal Drains	LA-RN	Agency *Comments:*	Acute Care		X	X	X	
Hyperbaric Tx	LA-RN	Agency *Comments:*	Acute Care	X	X	X	X	

Delegated Medical Act	State	Source	Setting	Experience	Board Requires Post Basic Education	Supervised Clinical Practice	Determined to be in Scope: Yes	No
OB/GYN PROCEDURES								
Neonatal Transport	LA-RN	Agency	Acute Care	X	X	X	X	
		Comments:						
Fetal Electrode Placement	AL	Agency	Acute	X	X	X	X	
		Comments:						
	LA-RN	Agency	Acute Care	X	X	X	X	
		Comments:						
Intrauterine Cath. for Fetal Monitoring	LA-RN	Agency	Acute Care					X
		Comments:						
Rupture of Membranes	NE	Agency	Acute					X
		Comments: The Board does not specify education of experience but does hold the nurse accountable for their level of competency when performing any acts.						
	NJ	Indiv.	Acute Care					X
		Comments:						
	SC	Indiv.	Acute Care	X	X	X		
		Comments:						
Pap Smears	ID	Agency	Public Health					X
		Comments: Only nurse practitioners may do pelvic examinations.						
	LA-RN	Agency	Clinic	X	X	X	X	
		Comments:						
Breast Screening	LA-RN	Indiv.	Consultant	X	X	X	X	
		Comments:						
Rape Crisis Center Pelvic Exams	FL	Agency	Acute					X
		Comments: Not considered routine screening procedures.						

Delegated Medical Act	State	Source	Setting	Experience	Board Requires Post Basic Education	Board Requires Supervised Clinical Practice	Determined to be in Scope: Yes	Determined to be in Scope: No
MISC								
Triage for Referral to Other Agency	LA-RN	Agency *Comments: Medical Dx.*	Acute Care					X
Pronouncement of Death	FL	Indiv. *Comments: Anticipated death, no code, natural death.*	Acute				X	

Table 3. Advanced Nurse Roles

Delegated Medical Act	State	Source	Setting	Experience	Board Requires Post Basic Education	Supervised Clinical Practice	Determined to be in Scope Yes	No
MEDICAL DIAGNOSIS								
Medical Diagnosis	MS	Rules/Regs *Comments:*	Any		X	X	X	
Medical Dx and Treatment	NY	Agency *Comments: Only nurse practitioners.*	All	X	X	X	X	
MEDICATIONS								
Medication Administration	CA-RN	Doctor *Comments: Standardized procedures.*	All	X	X	X		
Prescribing Medications	CT	Prof *Comments: National certification by 1994. MS required.*	Still undefined	X	X	X	X	
	FL	Indiv *Comments: Protocols must be filed identifying classifications of medications.*	All	X	X		X	
	IA	Pract *Comments: Pending in legislation.*	All					
	MD	Midwives *Comments: Written agreement with physician.*	Birth Centers		X	X	X	
	MS	Rules/Regs *Comments:*	Any		X	X	X	
	NY	Agency *Comments: Only nurse practitioners.*	All		X		X	
	SC	Indiv *Comments: Not authorized at this time.*	Clinic					
	TX-RN	NPA *Comments:*	Rural MUAs		X	X		
	WI	Agency *Comments: Must have either education or experience.*	Hospital	X	X			X

Delegated Medical Act	State	Source	Setting	Experience	Board Requires Post Basic Education	Supervised Clinical Practice	Determined to be in Scope Yes	No
IV THERAPY								
PI Therapy	AK	Indiv.	Out-pt.	X	X	X		X
		Comments:						
PICC Lines	TN	CRNAs	OR, CCU				X	
		Comments:						
Insertion of Intrasil Catheter	LA-RN	Indiv.	Acute Care	X	X	X	X	
		Comments:						
Insertion of Subclavian Line	LA-RN	Indiv.	Acute Care					X
		Comments:						
Arterial Line Withdrawal	WI	Agency	Hospital	X	X			X
		Comments: CRNA must either have education or experience.						
ANESTHESIA								
Epidural Pain Management Monitoring	ND				X	X	X	
		Comments:						
Epidural Anesthesia	CA-RN	Doctor	Acute Care	X	X	X		
		Comments: Standardized procedures.						
	NY	Indiv.	Acute Care	X	X	X	X	
		Comments: Only CRNAs.						
Regional Anesthesia	LA-RN	Indiv.	Acute Care	X	X	X	X	
		Comments:						
CRNAs Anesthesia Podiatrist	ID	Agency	Acute Care					X
		Comments: Statute Prohibits.						

Delegated Medical Act	State	Source	Setting	Experience	Board Requires Post Basic Education	Supervised Clinical Practice	Determined to be in Scope Yes	No
MEDICAL SURGICAL PROCEDURES								
Lumbar Puncture	AL	Agency *Comments:*	Acute	X	X	X	X	
	NC	CNS *Comments:*	Acute care	X	X	X		X
	NJ	Indiv. *Comments:*	Acute care		X	X		X
Nasal, Ear, Vaginal, Rectal Packing	AL	Agency *Comments:*	Indiv	X	X	X	X	
OB/GYN PROCEDURES								
Bimanual Pelvic Exam	AL	Agency *Comments:*	Acute	X	X	X	X	
Contraceptive Implants	ID	Agency *Comments: Surgical Procedure.*	Public Health					X
Insertion IUD	NJ	Agency *Comments:*	Clinic		X	X	X	
Rupture of Amniotic Membranes	CA-RN	Doctor *Comments: Standardized Procedure.*		X	X	X		

Expansion Of Practice Requests For Practical/Vocational Nurses

Boards which have adopted a uniform response to expansion of practice requests: 10
AZ, CT, ID, IL, NC, NM, NV, SC, WA-PN, WI

Boards which require education: 10
CO, CT, ID, IL, NC, NM, NV, SC, WA-PN, WI

Comment: WI—Determined by delegating RN or doctor

Boards which require prior supervised clinical practice: 7
CT, ID, NC, NM, NV, SC, WA-PN

Boards which require experience: 5
CT, NM, NV, WA-PN, WI

Comment: WI—Determined by delegating RN or doctor

Boards which require ongoing supervision: 7
CT, ID, NC, NM, NV, WA-PN, WI

Comment: NM—Direct RN Supervision
WI—Required (RN or doctor)

Boards which required medical back-up: 2
NV, WA-PN

Boards which have other requirements: 4
CO—If not in current education not in scope except for Board approved IV courses and certification
NC—Written procedure, written policy signed by nurse executive, agency administrator and medical staff
ND—General requirement in administrative rules that each nurse must accept only those responsibilities for which he/she has requisite knowledge, skills and abilities to perform safely
WI—Evaluation of act carried out

Expansion Of Practice Requests For Registered Nurses

Boards which have adopted a uniform response to requests for expansion of practice: 12
AK, AZ, CA-RN, CO, GA-RN, ID, IL, NC, NM, NV, SC, WI

Boards which require education: 9
AK, CA-RN, CO, ID, IL, NC, NM, SC, WI

Comment: WI—Determined by delegating doctor

Boards which require prior supervised clinical practice: 7
AK, CA-RN, CO, ID, NC, NM, SC

Boards which require experience: 3
CO, NM, WI

Comment: WI—Determined by delegating doctor

Boards which require ongoing supervision: 3
CO, ID, WI

Comment: ID—Sometimes
WI—Required (doctor)

Boards which require medical backup: 3
CO, NM, WI

Comment: WI—Consultation with doctor required

Boards which have other requirements: 3
NC—Written procedure, written policy signed by nurse executive, agency administrator and medical staff
ND—General requirement in administrative rules that each nurse must accept only those responsibilities for which he/she has requisite knowledge, skills and abilities to perform safely
WI—Protocol or written or verbal order

Expansion Of Practice Requests For Advanced Nursing Roles

Boards which have adopted a uniform response to expansion of practice requests: 7
AZ, CA-RN, CO, ID, NM, SC, WI

Boards which require education: 8
CA-RN, CO, CT, ID, IL, NM, SC, WI

Comment: WI—Determined by delegating doctor

Boards which require prior supervised practice: 6
CA-RN, CO, CT, ID, NM, SC

Boards which require experience: 3
CO, NM, WI

Comment: WI—Determined by delegating doctor

Boards which require on-going supervision: 3
CO, CT, WI

Comment: CT—Medical supervision
WI—Required (doctor)

Boards which require medical back-up: 5
CO, CT, ID, NM, WI

Comment: WI—Consultation with doctor required

Boards which have other requirements: 3
CT—National certification
ND—General requirement in administrative rules that each nurse must accept only those responsibilities for which he/she has requisite knowledge, skills and abilities to perform safely
WI—Protocol or written or verbal order

Attachment G

Traveling, Transport And Interstate Nurse Roles--Survey Results

In 1990, the Nursing Practice and Education Committee surveyed Member Boards as to how they dealt with issues raised by traveling, transport and interstate nurse roles. The responses of the 44 participating Member Boards are summarized below.

Traveling, defined as nurse who is transported to individual states for temporary or short-term clinical assignments.

Exemption to licensure provided for traveling nurses?

a. Yes: 2 (CO, RI)

b. No: 34 (AK, AL, AZ, CA-RN, CA-VN, CT, FL, GA-PN, GA-RN, IA, ID, IL, KY, LA-RN, MO, MS, MT, NC, ND, NE, NJ, NM, NV, NY, OH, OK, PA, SC, SD, TN, TX-RN, VA, WI, WV-RN)

c. No response: 8 (AR, HI, IN, MD, MN, TX-VN, WA-PN, WV-PN)

Licenses required for traveling nurses?

a. Yes: 37 (AK, AL, AZ, CA-RN, CO, CT, FL, GA-PN, GA-RN, IA, ID, IL, KY, LA-RN, MD, MO, MS, MT, NC, ND, NE, NJ, NM, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX-RN, VA, WI, WV-PN, WV-RN)

b. No: 2 (CA-VN, MN)

c. No response:: 5 (AR, HI, IN, TX-VN, WA-PN)

Temporary license/permit required for traveling nurses?

a. Yes: 22 (AK, AL, AZ, CO, CT, GA-RN, IA, KY, LA-RN, MD, MS, MT, NC, ND, NE, NJ, NV, OH, SC, SD, TN, TX-RN)

b. No: 10 (CA-RN, CA-VN, ID, MN, NM, NY, PA, RI, WI, WV-RN)

c. No response: 12 (AR, FL, GA-PN, HI, IL, IN, MO, OK, TX-VN, VA, WA-PN, WV-PN)

Is there a Declaratory Statement or Advisory Opinion regarding traveling nurses?

a. Yes: 3 (NC, NE, WI)

b. No: 32 (AK, AL, AZ, CA-VN, CO, CT, FL, GA-PN, GA-RN, IA, ID, IL, KY, LA-RN, MN, MO, MS, MT, ND, NJ, NM, NY, OH, OK, PA, RI, SC, SD, TN, TX-RN, VA, WV-RN)

c. No response: 9 (AR, CA-RN, HI, IN, MD, NV, TX-VN, WA-PN, WV-RN)

Transport, defined as nurses who deliver short-term clinical care to clients who are in transit from one jurisdiction to another.

Exemptions provided for transport nurses?

a. Yes: 29 (AL, CA-RN, CO, GA-RN, IA, ID, IL, KY, LA-RN, MD, MO, MS, MT, NC, ND, NE, NJ, NM, NY, OH, OK, RI, SC, SD, TN, TX-RN, VA, WA-PN, WV-RN)

b. No: 9 (AK, AZ, CA-VN, CT, FL, GA-PN, NV, PA, WI)

c. No response: 6 (AR, HI, IN, MN, TX-VN, WV-PN)

Licenses required for transport nurses?

a. Yes: 10 (AZ, CO, FL, GA-PN, NM, NV, OH, RI, WI, WV-PN)

b. No: 26 (AK, AL, CA-RN, CA-VN, CT, IA, ID, KY, LA-RN, MN, MO, MS, MT, NC, ND, NJ, NY, OK, PA, SC, SD, TN, TX-RN, VA, WA-PN, WV-RN)

c. No response: 8 (AR, GA-RN, HI, IL, IN, MD, NE, TX-VN)

Temporary license/permit required for transport nurses?

a. Yes: 4 (AZ, CO, CT, NV)

b. No: 27 (AK, AL, CA-RN, CA-VN, IA, ID, KY, LA-RN, MN, MO, MS, MT, NC, ND, NJ, NM, NY, OH, OK, PA, RI, SD, TN, TX-RN, WA-PN, WI, WV-RN)

c. No response: 13 (AR, FL, GA-PN, GA-RN, HI, IL, IN, MD, NE, SC, TX-VN, VA, WV-PN)

Is there a Declaratory Statement or Advisory Opinion regarding traveling nurses?

a. Yes: 5 (GA-RN, MS, NC, NE, WI)

b. No: 30(AK, AL, AZ, CA-VN, CO, CT, FL, GA-PN, IA, ID, IL, KY, LA-RN, MN, MO, MT, ND, NJ, NM, NY, OH, OK, PA, RI, SC, SD, TN, TX-RN, VA, WV-RN)

c. No response: 9 (AR, CA-RN, HI, IN, MD, NV, TX-VN, WA-PN)

Interstate nurse roles, defined as nurses who provide interstate clinical or consultative services as part of their roles as nurses.

Exemptions provided for interstate nurses?

a. Yes: 8 (CO, GA-RN, ID, MD, OK, RI, TN, WI)

b. No: 26 (AK, AL, AZ, CA-RN, CA-VN, CT, FL, GA-PN, IA, IL, KY, LA-RN, MN, MO, MS, NC, ND, NJ, NM, NV, NY, OH, PA, SC, SD, TX-RN, VA, WV-RN)

c. No response: 8 (AR, HI, IN, MT, NE, TX-VN, WA-PN, WV-PN)

Licenses required for interstate nurses?

a. Yes: 30 (AZ, CA-RN, CO, CT, FL, GA-PN, IA, ID, IL, KY, LA-RN, MN, MO, MS, NC, ND, NJ, NM, NV, NY, OH, PA, RI, SC, SD, TX-RN, VA, WI, WV-PN, WV-RN)

b. No: 5 (AK, AL, CA-VN, OK, TN)

c. No response: 9 (AR, GA-RN, HI, IN, MD, MT, NE, TX-VN)

Temporary license/permit required for interstate nurses?

a. Yes: 17 (AZ, CO, CT, IA, KY, LA-RN, MN, MO, MS, NC, ND, NJ, NV, OH, SC, SD, TX-RN)

b. No: 13 (AK, AL, CA-RN, CA-VN, ID, NM, NY, OK, PA, RI, TN, WI, WV-RN)

c. No response: 14 (AR, FL, GA-PN, GA-RN, HI, IL, IN, MD, MT, NE, TX-VN, VA, WA-PN, WV-PN)

Is there a Declaratory Statement or Advisory Opinion regarding interstate nurses?

a. Yes: 2 (NC, WI)

b. No: 30 (AK, AL, AZ, CA-VN, CO, CT, FL, GA-PN, IA, ID, IL, KY, LA-RN, MN, MO, MS, ND, NJ, NM, NY, OH, OK, PA, RI, SC, SD, TN, TX-RN, VA, WV-RN)

c. No response: 12 (AR, CA-RN, GA-RN, HI, IN, MD, MT, NE, NV, TX-VN, WA-PN, WV-PN)

Is there differentiation between clinical and non-clinical status?

Traveling nurse roles: No states reported differentiation.

Transport nurse roles: No states reported differentiation.

Interstate nurse roles: 8 states reported differentiation (AL, CT, GA-RN, ID, NE, NJ, SD, WI)

No response: 1 (CO)

Comments:

AL—Exemption for PNs, RNs of another state who are presenting educational programs or consultative services within Alabama, not to exceed 30 days.

CO—If practicing nursing according to definitions of practice then need license.

CT—Consult to a Connecticut licensed provider who is responsible for patient would not necessitate a license for interstate nurse roles.

GA-RN—An exemption is provided for a nurse visiting Georgia as a non-resident, in order to provide specific, non-clinical, short term, time limited services ... consultation, accreditation site visits and the participation in continuing education programs.

ID—Exempted if one time, temporary assignment or if enrolled in a one-time course of instruction or if assisting in emergencies, such as floods, etc.

MN—The issue is whether or not they are practicing nursing.

ND—Law exempts legally licensed nurses of another state whose employment requires them t accompany and care for a patient who is in transit for medical treatment. (NDCC 43-12.1-04).

NE—Interstate nurse consultants in non-clinical roles are not required to be licensed.

NJ—Frankly, nurses providing consultation have been unlikely to seek licensure we suspect.

SD—Regarding interstate, lecturing for five or less days does not require a license.

WI—Does not require licensure if nurse is not performing the nursing process, but is precisely following guidelines established by physician (e.g., insurance company referrals) is not seen by the board to be practicing nursing as defined in Nurse Practice Act.

How does board deal with time limited traveling, transport or interstate nurse roles?

Grant temporary license or permit: 11 (AK, AL, CA-RN, CT, IA, KY, LA-RN, MN, NE, NV, TX-RN)

Require full licensure: 16 (AZ, FL, GA-PN, IL, IN, MS, MT, NC, ND, NM, OK, RI, SC, WI, WV-PN, WV-RN)

Case by case review: 4 (LA-RN, PA, SD, WA-PN)

No response: 13 (AR, CA-PN, CO, GA-RN, ID, IL, MD, MO, NJ, NY, TN, TX-VN, VA)

Comments:

AL—A temporary permit is issued if the time limit is less than 3 months.

AR—Law takes care.

CA-VN—It has no regulatory authority in this area.

CA-RN—Section 2730 "Out of State Temporary Resident." If nurse licensed in another state cares for a patient temporarily residing in California, the nurse may give nursing care to patients in this state but may not hold out as a nurse licensed in this state.

CO—Same as any nurse coming in to practice not covered by 12-38-125.

CT—Others need to apply for license. (120 days), temporary permit given after application and fee submitted with notarized copy of valid out-of-state license.

GA-RN—In Georgia a temporary permit and license are interchangeable terms; anyone required to be licensed must obtain a full license.

IA—May apply for special licensure.

ID—When licensure is required, and application and fee for licensure is submitted. A temporary license may be issued for an additional fee if the person has current licensure in another state.

MD—They may obtain a one time temporary license good for 90 days. If the nurse has ever had a temporary license in Maryland or the temporary license expires, full licensure is required.

MN—Permit is available to persons applying for licensure, but they need not complete the process.

MS—Re: transport, no Mississippi license or temporary permit required if providing nursing care only while functioning as a transport nurse.

NC—Temporary license given until permanent license arrives.

ND—We have a continuing influx of itinerant nurse anesthetists. We require application for full licensure - issue temporary permit while paper work is being processed. Nurse may have left state before license is finally issued.

NJ—Nurses licensed in another state, contracting with a client for nursing care may accompany a client in N.J. to provide care to this client for a period up to 6 months without applying for a N.J. license.

NY—The exemption only addresses the period of such engagement - while patient is temporarily residing in this state.

OH—Ohio Revised Code Section 4723.32 states, in part, "...so long as each trip does not exceed 48 hours in this state..." All others would need to apply for licensure by endorsement to receive a temporary permit to practice in Ohio.

PA—Act provides for currently licensed Rns to practice in PA for a limited time period in relation to specific client care. Case by case review.

SC—Exception stated in Nursing Practice Act regarding transport nurses who accompany a patient for a single assignment of less than 6 months duration.

SD—Nurse traveling with one specific patient may do so for up to three months. Lecturing only may be for five or less days.

TN—Exemptions for transport and interstate time limited. Traveling requires licensure.

VA—License required except for nursing that is of an emergency nature.

How does Board identify use of traveling, transport or interstate roles before licensure?

Do not identify: 9 (AZ, CA-VN, FL, NC, NE, NM, NV, NY, WV-RN)

Question not clear: 2 (KY, TX-RN)

No response: 14 (AK, AR, GA-PN, HI, IA, ID, IL, IN, MS, MT, OH, TX-VN, VA, WV-PN)

Comments:

AL—When individual inquiries are received regarding licensure requirements for any of these roles, each case is handled according to the functions to be performed and time limits.

CA-RN—Only the transport role is exempt from licensure in California.

CO—No license to practice unless section: 125.

CT—Permitted practices.

GA-Rn—Only if they do so on application.

LA-RN—There is no structure to identify role since license is the same for any nursing role.

MD—Institutions identify the nurses.

MN—We are dependent upon being told.

MO—Temporary permit may be obtained immediately upon receipt of required documentation if all requirements met.
NC—Need not identify - all apply for licensure via same process.
ND—Transport, flight teams, donor harvest teams, those accompanying patients by ambulance, etc.
NJ—The only one of these three roles that has been addressed is that of transport nurse.
OK—By the nature of the request of the nurse.
PA—Only nurse mobility addressed is indicated, case by case review.
RI—Nurse Practice Act 5-34-31 states "nor shall it be construed as prohibiting the practice of nursing in this state by any legally qualified nurse of another state whose engagement requires his or her to accompany and care for a patient temporarily residing in this state during the period of one such engagement not to exceed six (6) months in length provided that person does not represent or hold himself or herself out as a nurse licensed to practice in this State."
SC—Request information regarding prospective employment on licensure application. Usually employer will call requesting guidance on licensure requirements or the applicant themselves.
SD—In all cases licensure must be current in at least one other jurisdiction (regarding transport and interstate). Temporary permit must be obtained prior to practice (regarding traveling).
TN—Case by case basis upon application and request for licensure.
WA-PN—PN transporting client to state and giving care not to exceed six months.
WI—Review inquiries made by telephone or in writing, including practice setting, time involved, specific practice involved.
WV-RN—Don't identify. Transports call.

Boards which identified concerns about these nurse roles.

Traveling nurse: 14 (AK, CT, GA-PN, GA-RN, ID, IL, LA-RN, MD, MT, NC, NV, OH, SC, TX-RN)

Transport nurse: 8 (CT, GA-PN, GA-RN, IL, LA-RN, NV, OH, TX-RN)

Interstate nurse: 15 (AL, CT, GA-PN, GA-RN, IL, LA-RN, MN, MS, MT,NJ, NM, NV, OH, SC, TX-RN)

No response: 5 (AZ, HI, ND, NE, TX-VN)

Comments:

AK—Concern regarding the quality of nurses with some of the traveling agencies.
AL—It is difficult to monitor or regulate consultative activities.
AZ—Full licensure is required.
CT—Impaired nurse.
FL—It is a difficult issue which has been discussed in the past; yes, generally.
GA-PN—The board is always concerned when people practice without a license. However, the bigger problem is that we don't know to what extent these practices occur.
GA-RN—A recent issue concerns nursing care (instructions) being provided via telephone or computer when the nurse and patient are in different states.
ID—Most of these individuals are present in the state only for a short time and often all documents required for renewable licensure (references, verification of licensure) are not received.
IL—How are they addressed in other jurisdictions and rationale.
LA-RN—Main concern is lack of information about the enactment of these roles and about the performance of the individuals.
MD—Nurses with discipline problems, i.e. drug abuse, often move too quickly to obtain necessary evidence for charges.
MN—If the person has recent disciplinary action in another state, we will not know before he/she has moved on.
MS—Statute requires licensure or temporary permit to practice as RN or LPN. Definition of RN, LPN practice is broad. To strictly enforce would place undue burden related to situations such as NLN site-visitors; very short-term consultants to schools or hospitals; CE offerings involving an out-of-state

presenter; etc. There are some questions related to nurses functioning in one state while monitoring patients in another state.

MT—Board has had some concern as to traveling nurses who need a license almost immediately. However, concern has not been thoroughly addressed.

NC—In some situations "traveling nurses" do not complete the process for licensure application. The temporary license is all that is obtained and retained for short-term work assignments. This may create a back-log of incomplete paperwork in our Board's office.

NJ—Need to examine role of nurses providing case management to clients that impacts in our state, particularly since nurses may contract for services such as personal care attendants to administer medication which is considered a violation of the Practice Act (by our Board). Also nurses transporting patients.

NM—Exception to licensure requirement will be sought in 1991.

NV—Endorsement form not completed by original license board and difficulty keeping National Council disciplinary information updated.

OH—Concerns are related to enforcement.

SC—Major problem is related to timelines in getting required information from other Boards to complete the licensure process if the nurse is only on duty for a short time. We have had concerns about issuing temporary permit then finding out there may be a problem in eligibility, only to learn they have moved on to another state.

TX-RN—Our law does not address these issues.

VA—Board has not discussed.

None of the Member Boards who participated in this survey had definitive data regarding numbers of traveling, transport and interstate nurses working in their states. Estimates of the extent of use of these nurses are summarized below.

Traveling nurses:

- Frequent use - 13 (AK, AZ, GA-RN, KY, LA-RN, MD, MT, NC, NJ, NM, NV, SC, TX-RN)
- Moderate use - 11 (AR, CA-RN, ID, MS, ND, PA, RI, SD, TN, VA, WV-RN)
- Seldom used - 16 (AL, CA-VN, CO, CT, GA-PN, IA, IL, IN, MN, NE, NY, OH, OK, WA-PN, WI, WV-PN)
- No response - 3 (FL, HI, MO)

Transport nurses:

- Frequent use - 6 (CO ID, NJ, OH, SD, TX-RN)
- Moderate use - 20 (AK, AR, GA-RN, IA, IL, KY, LA-RN, MD, MN, MT, ND, NE, NY, PA, RI, SC, TN, VA, WI, WV-RN)
- Seldom used - 11 (AL, CA-VN, CA-RN, CT, GA-PN, IN, MS, NC, OK, WA-PN, WV-PN)
- No response - 7 (AZ, FL, HI, MO, NM, NV, TX-PN)

Interstate nurses:

- Frequent use - 2 (NJ, NM)
- Moderate use - 17 (AR, GA-RN, IA, ID, KY, MD, MS, MT, ND, PA, RI, SC, SD, TN, TX-RN, VA, WI)
- Seldom used - 19 (AK, AL, CA-RN, CA-VN, CO, CT, GA-PN, IL, IN, LA-RN, MN, NC, NE, NY, OH, OK, WA-PN, WV-PN, WV-RN)
- No response - 6 (AZ, FL, HI, MO, NV, TX-VN)

Report of the Subcommittee to Study Regulatory Models for Chemically Dependent Nurses

Historical Background

The Subcommittee to Study Regulatory Models for Chemically Dependent Nurses was established in 1988 by the National Council as a subcommittee of the Nursing Practice and Education Committee. The subcommittee was charged with the responsibility to develop a funding proposal to study regulatory models for chemically dependent nurses and the cost effectiveness of these models. The anticipated outcomes of the study will provide Member Boards and other policy making groups with information that would allow them to identify an approach that would be most appropriate in terms of rehabilitating chemically dependent nurses and protecting the recipients of nursing care. The study will examine rates of return to, or maintenance of, active license status, return to work, and recidivism in terms of characteristics of the nurse, substance(s) abused, work setting and environment, type of management/rehabilitation model, and cost.

Activities

The chair met with the Nursing Practice and Education Committee during its October 1990 meeting. Based on a staff proposal that would facilitate proposal development and identification of funding sources within the National Institute of Drug Abuse (NIDA), National Institute of Alcohol and Alcohol Abuse (NIAAA), and other governmental agencies, the chair, in collaboration with the Nursing Practice and Education Committee, submitted a recommendation to the Board of Directors that the National Council enter into an agreement with Mary Haack, Ph.D., R.N. Following Board approval, this agreement was finalized in November 1990.

The subcommittee met on December 16, 1990, at the National Council of State Boards of Nursing to review progress made in development of the proposal, to coordinate subcommittee and staff activities regarding the solicitation of letters of support for the project from Member Boards and nursing organizations, and to solicit the cooperation of 16 Member Boards that could potentially facilitate data collection within their jurisdictions. Subsequently, letters of support were received from 36 Member Boards and 35 nursing organizations (see Attachment A). Letters were also received from the following Member Boards indicating they would be willing to participate in the study or serve as an alternate: Arizona, Colorado, Georgia-RN, Iowa, Maine, Missouri, Nebraska, New Mexico, New York, Ohio, Oregon, Pennsylvania, Texas-RN, Texas-VN, and Washington.

Between November 1990 and May 1991, Dr. Haack, in consultation with Research Services staff, contacted 18 different individuals and groups within the following agencies: NIDA, NIAAA, the National Institute for Mental Health (NIMH), the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA), the Agency for Health Care Policy and Research (AHCPR), and the National Center for Nursing Research (NCNR). Each contact involved the preparation of a cover letter introducing and summarizing the proposed study, the preparation of a draft proposal geared toward the specific funding interests/objectives of the applicable division or branch within each of the agencies listed above, and follow-up letters and phone contact. In all cases but one, the outcome of these exchanges resulted in a response that can best be characterized as follows: "This is a very important study and it is well thought out, but it doesn't quite fit, even if revised, exactly what we are interested in funding." On April 29, 1991, a potentially positive response was received from a special interest section within NIDA. Therefore, a detailed outline of a revised proposal is currently being prepared and will be submitted for technical review. If a positive review is received, the proposal will be completed in time for an October 1, 1991, submission deadline.

Committee Members
Melinda Sanders, MO, Area II, *Chair*
Pat Duphorne, NM, Area I
Cennette Jackson, GA-RN, Area III
Jean Sullivan, WA, Area I

Consultant
Mary Haack, *Georgetown University and the University of Maryland*

Board Liaison
Helen Kelley

Staff
Carolyn J. Yocom, *Director of Research Services*

Attachment A

Sources of Letters of Support for Research on the Outcomes of Regulatory Management of Chemically Dependent Nurses

Letters of support were received from the following Member Boards:
Alabama Board of Nursing
Arizona State Board of Nursing
Arkansas State Board of Nursing
California Board of Registered Nursing
California Board of Vocational Nurse and Psychiatric Technician Examiners
Colorado Board of Nursing
Connecticut Board of Examiners for Nursing
Georgia Board of Nursing
Hawaii Board of Nursing
Idaho Board of Nursing
Illinois Department of Professional Regulation
Iowa Board of Nursing
Kentucky Board of Nursing
Louisiana State Board of Nursing
Louisiana State Board of Practical Nurse Examiners
Maine State Board of Nursing
Michigan Board of Nursing
Mississippi Board of Nursing
Missouri State Board of Nursing
Nebraska Bureau of Examining Boards
New Jersey Board of Nursing
New Mexico Board of Nursing
New York State Board for Nursing
North Carolina Board of Nursing
North Dakota Board of Nursing
Ohio Board of Nursing
Oregon State Board of Nursing
Pennsylvania Board of Nursing
South Carolina State Board of Nursing
South Dakota Board of Nursing
Texas Board of Nurse Examiners
Texas Board of Vocational Nurse Examiners
Vermont State Board of Nursing
Washington State Board of Nursing
Wisconsin Bureau of Health Professions

Letters of support were received from the following nursing organizations and associations:

Association of Black Nursing Faculty in Higher Education
American Association of Colleges of Nursing
American Association of Nurse Anesthetists
American Association of Occupational Health Nurses
American Hospital Association
American Nephrology Nurses' Association
American Nurses' Association, Inc.
American Organization of Nurse Executives
American Society of Post Anesthesia Nurses
Association of Community Health Nursing Educators
Colorado Nurses' Association
Dermatology Nurses' Association
Illinois Nurses' Association
Intravenous Nurses Society
Kentucky Nurses' Association
Kentucky Society of Post-Anesthesia Nurses
Maryland Nurses' Association, Inc.
Midwest Alliance in Nursing
Minnesota Nurses Association
NAACOG
National Association of Directors of Nursing Administration in Long Term Care
National Association of Neonatal Nurses
National Association of School Nurses, Inc.
National Consortium of Chemical Dependency Nurses, Inc.
National Nurses Society on Addictions
National Student Nurses' Association, Inc.
Nebraska Nurses' Association
New Jersey State Nurses' Association
New Mexico Nurses' Association
New York State Nurses' Association
North Carolina Nurses' Association
Ohio Nurses' Association
Oncology Nursing Society
South Dakota Nurses' Association, Inc.
Washington State Nurses' Association
Wyoming Nurses' Association, Inc.

Report of the Subcommittee to Study the Regulation of Advanced Nursing Practice

Meeting Dates

The subcommittee met January 31, February 1 and 2, 1991. Two additional meetings are scheduled for May 23 - 25, 1991, and June 20-22, 1991.

Background

The issues regarding the regulation of advanced nursing practice were identified as providing an area of opportunity for the National Council in the next decade by participants in the 1990 Fall Planning Retreat. The Subcommittee to Study the Regulation of Advanced Nursing Practice was appointed to assess the current status of advanced nursing practice, to analyze data and make recommendations, and to develop models for levels of regulation of advanced nursing practice.

Activities

As a new subcommittee appointed for a two year period to study the regulation of advanced practice, the first meeting was largely spent identifying goals and objectives and developing a work plan with approximate timelines. The subcommittee also developed a checklist for use in reviewing statutes and rules.

The subcommittee views an important part of its study to be the assessment of advanced nursing practice as it currently exists. In addition to a survey of Member Boards regarding their regulatory activities and a review of existing statutes and rules, the subcommittee plans to obtain information about professional certification of nurses in advanced roles, and to dialogue with the organizations that provide such certification.

The subcommittee is aware that professional certification and regulation of advanced practice is not without controversy. However, the subcommittee believes that keeping open the lines of communication between organizations and promoting an exchange of ideas will assist not only in developing the subcommittee's work, but in the acceptance of that work in the nursing community.

The subcommittee plans to hold a Leadership Roundtable for Advanced Practice, scheduled for June 20, 1991. The participants in this Roundtable will be a small group of leaders representing organizations that provide professional certification for advanced nursing practice.

The subcommittee plans to use the assessment data to analyze the current regulation of advanced practice. This work will include defining advanced nursing practice terminology, determining factors that facilitate interstate mobility, considering implications for continued competence, studying economic factors related to regulation and identifying areas of potential risk to the public. The subcommittee will then determine recommendations to present to the 1992 Delegate Assembly, including models for levels of regulation of advanced practice.

Committee Members

Corinne Dorsey, VA, Area III, *Chair*
Iva Boardman, DE, Area IV
Judy Colligan, OR, Area I
Perlilure Jackson, MI, Area II
Gail Stewart, AK, Area I

Board Liaison
Helen Kelley

Staff
Vickie R. Sheets, *Director for Public Policy, Nursing Practice and Education*

Report of the Subcommittee to Study Regulatory Implications of Changing Models of Nursing Education

Background

Participants in the National Council's 1990 Fall Planning Retreat and members of the Nursing Practice and Education Committee identified concerns regarding the regulatory implications of non-traditional models of nursing education. National Council staff had also received correspondence and phone calls raising similar concerns. In November, 1990, the Board of Directors appointed a subcommittee charged to study the regulatory implications of non-traditional nursing education.

The subcommittee, representing Member Boards and composed of an Executive Director, two Nurse Education Consultants and a Board member who is Dean of a baccalaureate nursing program, devoted much of its first meeting to identification of issues related to the subcommittee's charge. It became apparent that what one member perceived to be "non-traditional" was viewed by others to be an example of flexibility. Rather than struggle with assigning the label of non-traditional, the subcommittee decided to focus on changing nursing education models, and how these changes affect regulation.

The subcommittee determined that its goal would be to make a report to the Delegate Assembly of the National Council of State Boards of Nursing regarding regulatory issues inherent in changing models of nursing education. To achieve this goal, the subcommittee set the following objectives:

1. Review the current literature, including National Council publications, on changing models of nursing education.
2. Collect data relevant to changing models of nursing education by reviewing representative program requirements, surveying Member Boards and surveying nursing education programs.
3. Analyze data and define terms.
4. Identify issues relevant to regulation, including licensure by examination and licensure by endorsement.
5. Develop possible guidelines/responses pertinent to regulatory issues inherent in changing models of nursing education.
6. Create a format for reporting of findings and presentation of recommendations.

In early discussions, the subcommittee members observed that in the subcommittee's experience, there seemed to be confusion regarding the differences between licensure and educational preparation. It was also observed that there may be faculty, students and licensees unaware that licensure requirements vary from state to state.

Meeting Dates

The subcommittee met two times: March 19-20, 1991, and May 11-13, 1991.

Activities

The subcommittee accomplished the following activities:

1. Reviewed the literature related to changing models of nursing education.

2. Conducted two surveys.

3. Analyzed data and defined terms.

4. Identified issues relevant to regulation.

5. Prepared final report and recommendations.

Purpose

The purpose of this report is to describe the subcommittee's study of changes in nursing education models, the regulatory implications of these changes, and to make recommendations to the National Council.

Premises

1. The public has the right to receive safe, competent nursing care.

2. Boards of Nursing have the responsibility to protect the public health, safety and welfare.

3. Boards have statutory responsibility and authority to establish criteria for licensure.

4. A majority of Boards have statutory responsibility and authority to approve nursing education programs.

5. States vary in their statutes and regulations regarding licensure.

6. States vary in their statutes and regulations regarding criteria for approval of nursing programs.

7. Controlling institutions of educational programs have a right to establish criteria for graduation.

8. Nurses currently practice in multiple jurisdictions.

9. The interstate mobility of nurses influenced the movement toward use of common licensing examinations for nursing, nationwide.

10. The National Council acts as a clearinghouse for information pertinent to nursing regulation.

Data Collection

Review of Literature

Subcommittee members extensively searched and reviewed the literature for relevant published material related to changing models; less than 50 citations were found and 32 articles were reviewed. Although no direct references to regulation emerged, subcommittee members identified several issues such as program structure and length, sequence, content, and time of graduation which have potential regulatory implications. A striking finding was the multiplicity of educational models. For example, in addition to the traditional models to achieve a nursing diploma or degree, there were accelerated, advanced placement, and articulation models for non-nurses and licensed nurses which allowed individuals to complete a course of nursing study. A consistent theme was educational mobility with varying program entry and exit points along a continuum from nursing assistant to doctoral preparation.

Survey Results

Current information was obtained through two national 1991 surveys. One questionnaire went to nursing programs; a separate questionnaire was sent to Member Boards. The questionnaires were developed by the subcommittee and focused on changing models of nursing education and relevant regulatory information.

Summary of Nursing Program Survey Results

The survey instrument was sent to the nursing program contact persons (most were Deans or Directors of programs) identified in the National League for Nursing's 1990 listing of state approved nursing programs. 2573 surveys were sent. 1606 (62%) nursing programs responded.

Table I (on page 62) lists difficulties that were identified on the nursing program surveys as having been experienced by graduates seeking licensure by examination. The difficulties are listed by the number and type of nursing program which identified the concern. It is noteworthy that given the large number of respondents, a large range of problems were identified by only a very few respondents for applicants for licensure by examination. The most frequent difficulty reported involved the length of nursing programs, both in clinical and classroom hours. This was reported most often by practical nursing programs.

Table II (on page 64) lists difficulties that were identified on the nursing program surveys as having been experienced by graduates seeking licensure by endorsement. The difficulties are listed by the number and type of nursing program which identified the concern. Again, a large range of problems were identified by a few respondents for applicants for licensure by endorsement. The most frequent difficulty reported involved the length of the nursing programs, both in clinical and classroom hours. Again, this was most often reported by practical nursing programs. Several respondents commented that educators may not know all the difficulties encountered when seeking licensure by endorsement, because they do not learn of them from former students.

Summary of Member Board Survey Results

Survey questionnaires were sent to all 62 Member Boards. Forty boards responded to the survey.

Member Boards were asked what types of educational models preparing individuals for nursing licensure were operating in their jurisdictions. The identified models are stated below with the numbers of responding boards that listed that particular type of model (n=40):

Model	Boards
Practical Nursing Program	38
Associate Degree Nursing Program	38
Baccalaureate Nursing Program	39
Diploma Nursing Program	22
Generic Masters Nursing Program	14
Generic Doctoral Nursing Program	5

Additionally, 12 states indicated programs which only accepted individuals already licensed as LPNs, and 25 states had programs which only admit RNs. Seven states indicated generic masters programs which admit RNs without baccalaureate, ten states with programs which admit RNs with a baccalaureate in another field, and five states indicated programs which admit non-nurses who have baccalaureates in another field. Only two of the responding boards indicated that generic doctoral programs operate in their state which admit non-nurses who have baccalaureates in another field.

Other nursing program models identified by Member Boards include: two tracked associate degree programs (one track practical, one track generic); a common model masters; the external degree program; accelerated BS/MS programs: LPN to BSN programs; the ladder concept; multiple exit programs and BSN completion programs.

Seventeen boards required graduation from an approved practical nursing program for licensure as LPN/VNs. Eighteen jurisdictions reported two or more educational tracks which would qualify an individual to take the NCLEX-PN. These variations are summarized below:

Variation	Jurisdictions
Applicants who completed an RN program (would include foreign graduates)	14
Applicants who failed NCLEX-RN	17
Applicants who completed a specified portion of an RN program	11
U.S. Army 91-C graduates	5
Applicants who completed comparable coursework	2

The survey identified a variety of health care practitioners (military corpsman, physician, medical student, EMT, paramedic, psychiatric technician, physician assistant, nurse aide) and asked boards if any of these groups were allowed to apply for licensure on the basis of equivalency. Only military medical corpsman (five states) and psychiatric technician (one state) could be licensed as LPN/VN by examination. Eight states would allow corpsman to be licensed as LPN/VN by endorsement. No states indicated that psychiatric technicians could become licensed as LPN/VN by endorsement.

The following educational preparation for RN licensure by examination were reported by Boards (N=40):

Diploma	36
Associate Degree	36
Baccalaureate	37
Generic Masters	28
Generic Doctorate	24

Six boards indicated that individuals could apply for licensure by examination after a specified portion of a baccalaureate program. Four states allowed licensure after completion of a specified portion of a generic masters program, and two states allowed licensure after completion of a specified portion of a generic doctoral program.

The following educational preparation for RN licensure by endorsement was reported by boards responding to the survey:

Diploma	36
Associate Degree	36
Baccalaureate	37
Generic Masters	31
Generic Doctorate	28

Some states commented that no applicants with generic masters or doctoral degrees had applied in their jurisdictions. Several states commented that they would expect programs to be state approved or NLN approved.

Graduation prior to completion of NCLEX-RN would be required in 11 states. Fourteen states would allow licensure by endorsement regardless of sequence, but emphasized that the nurse must have graduated from an approved program. Two states would license by endorsement on the basis of passing NCLEX-RN or the State Board Test Pool Examination. One other state would allow an applicant to petition for waiver of graduation requirement.

No other approach to licensure as an RN was reported.

The last series of questions on the survey were an attempt to identify the rationale for various requirements. Most boards responded that the requirements were based on statutes and rules. One board responded that individuals should be licensed to practice the level of nursing for which they are educated. Other boards stated that graduation from an approved nursing program is one indication of a minimum level of competence. Another board stated that the graduation requirement is based on belief that a program is a total learning experience that qualifies a graduate for licensure, that the whole is more than the sum of the parts; that role orientation, expectations and socialization are important, not just clinical content. Some boards observed that a graduation requirement is an approach to assuring the public health and safety.

Other Information

In addition, the subcommittee reviewed correspondence and results of a university sponsored national survey regarding non-traditional educational programs and licensure. Catalogs from ten schools identified as having different educational models were reviewed. The schools represented all geographic regions and several of the educational models identified in the literature. After reviewing all written material, some telephone contact was made to further clarify information.

Analysis
From the collected data and information, the subcommittee formulated a schemata of educational options, diagrammed relationships between these options and obtaining licensure, and listed the educational avenues to licensure. The subcommitee concluded that there are implications for regulation due to the numerous educational models leading to practical nurse and registered nurse licensure.

Some of the identified avenues to licensed practical nurse licensure, depending upon each jurisdiction's requirements, were by completion of a practical nurse program (either a certificate or associate degree program), completion of a specified portion of a registered nurse program or completion of a registered nurse program, being a graduate of a registered nurse program who failed the licensure examination (NCLEX-RN), completion of a psychiatric technician program, completion of a portion of a nursing program and having related nursing work experience, being a military corpsman and having completed a comparable curriculum. Some boards with waiver power could exempt applicants from one or more licensure requirements.

In addition to graduation from traditional nursing programs (associate degree, diploma or baccalaureate), other identified avenues for registered nurse licensure, depending upon the jurisdiction, were by partial or full completion of a baccalaureate, masters, or doctoral nursing program, having completed comparable curriculum or being exempted from requirements as determined by a board.

Compared to the number of responses, the number of nursing programs which reported knowledge of graduates experiencing difficulties in obtaining licensure by either examination or endorsement are quite small. As more nursing programs offer different educational options, articulated models and integrated curricula, the currently identified concerns are worth noting and may have predictive value so that boards can identify requirements to monitor and review.

Discussion
Changes in nursing education reflect changes in the educational environment at large. All types of educational programs are faced with changes in the focus and structure of controlling institutions; a reduction in financial resources; increased costs and pressure to be "cost effective;" changes in national accrediting criteria; and less financial aid for students. In addition, nursing programs are affected by the nursing shortage, the demand for flexibility in education, the needs of the non-traditional student, a decreased applicant pool and a shortage of faculty. The evolution of nursing practice, increasing needs of the public for access to health care, political influences and public policy changes also impact nursing education.

Today, many nursing students are different from the nursing student of the past. Today's student may be married; a parent, perhaps a single parent; an adult learner; an individual seeking a career change; an individual with multiple responsibilities such as working while in school; and/or an individual with limited fiscal resources. These non-traditional students seek a variety of educational options.

The nursing shortage, the crisis in health care, the shortage of applicants and faculty, a decrease in available funds and an increase in federal regulation have created pressures upon educational administrators to develop different models for preparing health care providers. Boards of nursing have also been pressured to modify standards. Potential licensees, legislators and the health care system have challenged some boards to review their purpose and provide rationale for their regulations.

Mindful of their regulatory responsibility to protect the public health, safety and welfare, boards need to be responsive to educational changes, societal expectations, student needs and evolving nursing practice when promulgating regulation.

Conclusions
1. Changes in nursing education are ongoing and reflect changes in nursing practice, health care, and economic and public policy.

2. These changes have regulatory implications.

3. Multiple educational models exist for preparing nurses for licensure.

4. Currently regulatory criteria for licensure vary widely and may impede interstate mobility for some nurses.

5. Interstate mobility of nurses would be enhanced by more uniform licensure criteria.

Definitions

Accelerated - decreasing the time required to complete a course of study.

Advanced Placement - controlling institution's acceptance of qualifications or demonstrated mastery (by way of challenge, validation, transfer of previous education, and/or experience) to meet a course of nursing study.

Articulation - curricular arrangement between two or more educational institutions providing for a smooth progression from one educational level to another.

Approved program - program reviewed and accepted by a legally authorized board or agency.

Comparability - similarity.

Competence - the ability to demonstrate integration of the knowledge, judgment and skill required to provide safe nursing care.

Curriculum - sequence of studies, activities and/or courses designed by a nursing program.

Early exit - an option within an educational model designed to enable a student to leave prior to the completion of the course of study.

Equivalency - equal; the same.

Generic - initial; first.

Graduation - the conferring of a certificate, diploma or degree upon completion of a course of study.

Model - design; plan.

Non-traditional - less common and/or not usual practices or standards.

Nursing program - resources structured and managed to provide a course of nursing study leading to a certificate, diploma or degree.

Traditional - common and/or usual practices or standards.

Transferability - acceptance of units of study by the recipient controlling institution.

Waiver - the exemption from a requirement.

Recommendations

The subcommittee has made the following recommendations to the Board of Directors:

1. That the National Council review the Model Nurse Practice Act and Model Nursing Administrative Rules for possible revision based upon this study.

2. That the National Council refine and expand its licensure, nursing practice and education databases to enhance the Council's role as a clearinghouse for information regarding nursing regulation.

3. That the National Council determine a need to develop and distribute educational literature/media regarding the difference between educational preparation and licensure.

Dependent upon actions that may be taken on the above recommendations, the subcommittee further recommends that, 1) assuming the Council expands its databases and develops educational materials, Member Boards be encouraged to use these resources; and, 2) Member Boards, as appropriate in their respective jurisdictions review nurse practice acts and rules/regulations to assure that they are as free as possible from unduly restrictive requirements. Review may include requirements for educational program approval; criteria and process for licensure by both examination and endorsement; and the impact of these regulations on candidates from other jurisdictions.

Subcommittee Members
Sheila M. Exstrom, NE Area II, *Chair*
Doris Nuttelman, NH, Area IV
Cathleen M. Shultz, AR, Area III
Mildred "Mickey" Wade, NV, Area I

Staff
Vickie R. Sheets, *Director for Public Policy, Nursing Practice and Education*

DIFFICULTIES IDENTIFIED - LICENSURE BY EXAMINATION
TABLE I

Requirements at Issue	Baccal.	AD	Diploma	Pract.
Program Length				
Clinical hours		5	1	26
Class hours		2	1	20
Specific Content				
Specific hours of Curriculum		1		3
Additional hours Pharmacology	1			3
Additional OB	1		1	1
AIDS course	2	1		
Sociology and/or Psychology		2		
Additional Peds		1		
Emergency Room				1
Personal Criteria				
Health issues		1		1
Psychiatric issues		1		
Criminal record		1		7
History Substance Abuse/CD		2		2
Minimum age			1	
Testing Issues				
Testing Enivron.	1			
Changes in Test Plan	2			

DIFFICULTIES IDENTIFIED - LICENSURE BY EXAMINATION CONTINUED
TABLE I

Requirements at Issue	**Baccal.**	**A.D.**	**Diploma**	**Pract.**
Specific State P/P, Requirements				
Sequencing of NCLEX and graduation	2			
Curriculum break-down required				1
Timelines vary	2	4		1
Logistics		1		1
Not allowing NCLEX-PN after portion RN program	2			
Require evidence H.S. grad/ equivalency		2		
Require months, not hours				1
Require full-time employment			1	
Foreign/minority issues	3		2	2
Total Table I	16	24	7	70

TOTAL NUMBER OF RESPONSES = 1606

DIFFICULTIES IDENTIFIED - LICENSURE BY ENDORSEMENT
TABLE II

Requirements at Issue	Baccal.	A.D.	Diploma	Pract.
Program Length				
Clinical hours	2	16		32
Class hours		4		11
Total hours	1	4	1	29
Specific Content				
Specific Content Areas				2
Specific hours of Curriculum				7
Specific sciences	1	1	1	1
Microbiology		3		1
Sociology	1	4		1
Additional hours Pharmacology	1	1		13
Psych. clinical				3
Additional OB				4
IV course				2
AIDS course		4		
Personal criteria				
No problems ID'd				

DIFFICULTIES IDENTIFIED - LICENSURE BY ENDORSEMENT CONTINUED
TABLE II

Requirements at Issue	Baccal.	AD	Diploma	Pract.
Specific State P/P Requirements				
Clinical identified by specialty	2	6		2
Former curriculum content			1	3
Verification from all states licensed				1
C.E. requirements			1	
Baccal. required for RN		1	1	
Sequencing of NCLEX and graduation	4			
Require months not hours				2
Require hours rather than courses		1		
Require hours rather than competencies	1			
Not allowing NCLEX-PN after portion RN program		2		
Costs, excessive paperwork, bureaucracy		1		2
Length of time to process	2			
Foreign issues			1	
Total Table II	15	48	6	116

TOTAL NUMBER OF RESPONSES = 1606

19 NACEP COMMITTEE

Report of the Ad Hoc Nurse Aide Competency Evaluation Program (NACEP) Committee

Introduction

Initiated in 1988 to assist states to meet the provisions of the Omnibus Budget Reconciliation Act of 1987, and subsequently the 1989, and 1990, technical amendments, the Nurse Aide Competency Evaluation Program Committee continued activities to oversee the ongoing development and implementation of the Nurse Aide Competency Evaluation Program (NACEP).™ The NACEP is owned by the National Council and developed in conjunction with The Psychological Corporation (TPC) as the test service. Currently being used in 23 states, the NACEP meets federal mandates for nursing home nurse aide and home health aide competency evaluation as required for services covered by Medicare/Medicaid reimbursement. This program is placed within the National Council programmatic functions under the following goal, objective, and strategy statements:

Goal I:

Develop, promote and provide relevant and innovative services.

Objective C:

Provide consultative services for National Council members, groups, agencies, and individuals regarding the safe and effective practice of nursing.

Strategy 7:

Develop Nurse Aide Competency Evaluation Program (NACEP).

Activities for Fiscal Year 1991

1. Indepth reports and recommendations were submitted to the Board of Directors for each meeting of the NACEP Committee. In addition, informal updates on the program were given at each of the four National Council Area Meetings held in Spring 1991.

Meetings of the committee were held as follows:

October 8-10, 1990, in Oakbrook, Illinois
January 28-30, 1991, in San Antonio, Texas
February 5, 1991, (telephone conference)
February 12, 1991, (telephone conference)
April 8-10, 1991, in San Antonio, Texas
May 3, 1991, (telephone conference)
June 3-4, 1991, scheduled for Chicago, Illinois

2. Activities related to overseeing the ongoing development of the Nurse Aide Competency Evaluation Program included revision of the *NACEP Evaluation Blueprint* and the *NACEP Expanded Evaluation Blueprint* documents for publication by the National Council; monitoring of administration instructions and processes and implementation of security measures; study of evaluation form and item statistics and results of the administration for both the written/oral and manual skills evaluation components; and, continuing policy development for program implementation. (All NACEP policies were compiled for review by the Board of Directors during 1990, with additional policies and procedures written and/or revised this year.)

While prior year activities included as a priority the approval of final forms for the evaluation components and item bank maintenance, the current year focused on evaluation of items and review of item and form statistics. This review indicates that currently there is not only an adequate pool of evaluation items for maintaining a sound evaluation program but that the items are performing in a manner consistent with the objectives of the program.

Implementation of the manual skills component continues to create challenges particularly in view of no final rules being issued by the Health Care Financing Administration (HCFA) for either nurse aides employed in nursing homes or in home health settings. Until rules are finalized by HCFA, a decision has been made to continue using the five situations as originally developed. One situation, which was removed from use for evaluating manual skills, has been redesigned into two new situations which are to be implemented as part of the manual skills component of the evaluation. Again, the release of the performance criteria was discussed; however, the committee reaffirmed that the performance criteria for the manual skills component of the evaluation should remain as confidential information.

Considerable time was spent in reviewing and discussing concerns reported by user state agencies on implementation and delivery of services. Changes in operations instituted by the test service for resolution of these concerns are being closely monitored both by the National Council Board of Directors and staff and the committee.

A major undertaking for the year was receipt and study of the results of the incumbent job analysis survey conducted by National Council staff. This job analysis included study of nurse aides working in three health care settings--nursing home, acute care, and home health. The committee carefully reviewed the results of the job analysis survey report, and the Board of Directors approved revisions made to the *NACEP Evaluation Blueprint* by the committee. (Test forms constructed according to the revised blueprint will be administered beginning in May 1992.)

The blueprint categories and weights for the revised *NACEP Evaluation Blueprint* are as follows:

Basic Nursing Skills	40-48%
Basic Restorative Services	17-21%
Personal Care Skills	9-13%
Mental Health and Social Needs	8-12%
Patient/Resident Rights	13-17%

The *NACEP Expanded Evaluation Blueprint* is being revised and will be submitted to the Board of Directors for final approval in the Fall of 1991.

Further, after an indepth exploration by the National Council and TPC staff on psychometrics for providing diagnostic information to unsuccessful candidates, the committee adopted a policy that such diagnostic information be provided to unsuccessful candidates on all five categories of the *NACEP Evaluation Blueprint.*

After several situations involving the need for investigation, the committee determined the NACEP remains a secure and accurate assessment of nurse aides based on the results of the investigative reports and statistical analyses performed.

3. Member Boards were kept apprised of matters related to the NACEP on an ongoing basis via fact sheets and updates on federal and state competency evaluation activities provided by the National Council staff. The National Council staff continued to update a listing of state agencies responsible for nurse aide registries as initiated last year. This listing assists states to obtain information on nurse aides who have met training and competency evaluation requirements in other states. Also, data on state agencies responsible for the evaluation of nurse aides in both nursing home and home health settings were collected from Member Boards in an effort to obtain information on the agencies responsible for implementing OBRA requirements and for projecting the number of nurse aides employed in various settings.

4. Both the NACEP Committee and National Council staff members promoted efforts for working with constituent members and other organizations to safeguard the public health and welfare by preserving the integrity of the 1987, Nursing Home Reform Act and related laws. As indicated above, fact sheets and updates on federal legislative activity were provided on an ongoing basis to Member Boards. Along with these informational reports, analyses of the technical amendments and proposed rules were widely distributed to concerned parties, groups and organizations as well as to Member Boards. Letters commenting on proposed changes have been and continue to be sent to federal legislators and officials of the Health Care Financing Administration urging changes to ensure an effective program. In addition, exchanges have occurred between staff of the National Council and HCFA.

   A second national Conference on Nurse Aides/Assistants was held in Baltimore, Maryland. Representatives from HCFA spoke to interested parties from state agencies and Member Boards regarding interpretation of regulations relating to nurse aide training, competency evaluation and registry.

5. Marketing efforts for the NACEP concentrated on home health settings along with current states using the program. As indicated above, the job analysis survey was completed. These results indicated that there is a high degree of correlation among the activities that aides perform across the three settings--nursing homes, home health care agencies, and hospitals. Revisions to the *NACEP Evaluation Blueprint* were carefully constructed based on the results of the job analysis survey data while also bearing in mind that the evaluation is valid for use in evaluating aides working in all three health care settings.

6. A two-member NACEP subcommittee, Mary Tyrrell, chair, and Sarah Burger, reviewed the *NACEP Expanded Evaluation Blueprint* and submitted proposed revisions to the committee.

7. Three focus groups were convened to address viability of a new product specifically designed for the evaluation of aides working in home health and/or acute care settings. Based on the results of the focus group reports, a decision was made not to change the use of the supplemental checklist for evaluation of manual skills for aides working in home health care settings.

8. Other matters discussed by the committee included unbundling of manual skill tasks; the number of manual skill situations to be administered by all centers; education/articulation issues relating to nurse aides; review of implementation and marketing reports; need for an open forum or educational session on regulation of nurse aides at a National Council Annual Meeting; and the American Nurses' Association (ANA) Task Force on Unlicensed Assistive Personnel to the Registered Nurse.

Summary

The implementation of the NACEP has been fraught with the complexity of individual state requirements and needs, and complicated by the technical amendments of OBRA 1989 and 1990 and the lack of final rules at the writing of this report. Nonetheless, the concerted efforts of the Board of Directors, members of the NACEP Committee, The Psychological Corporation and National Council staff, along with the user state agencies, have produced and implemented a sound evaluation program. This past year's activities continued development and enhancement of the NACEP to ensure it is a valid, reliable, and secure evaluation. The program is widely used in the country by a significant number of states and territories. Lastly, as a self supporting program from a cost perspective, it is one that has contributed substantially to sound regulation of nurse aides in the public interest along with implementing both the spirit and letter of the OBRA requirements.

The members of the NACEP Committee wish to thank the staff of The Psychological Corporation for their continued efforts in producing the NACEP; the Delegate Assembly for the opportunity to participate in the provision of a legally defensible and psychometrically sound competency evaluation program; the Board of Directors, staff and legal counsel of the National Council for their continued assistance and support; and in particular, appreciation is expressed to Barbara Halsey, NACEP Program Manager, whose expertise and diligence have facilitated the deliberation and work of the committee and promotion of the program.

Committee Members
Sharon Weisenbeck, KY, Area III, *Chair*
Caroline Ace, PA, Area IV
Nelwyn Broussard, LA, Area III
Sarah Burger, DC, Area IV
Ted Day, WA, Area I
Linda Fleming, CO, Area I
Etta Johnson-Foster, MD, Area IV
Janette Pucci, KS, Area II
Fran Roberts, AZ, Area I
Carol Ruby, NY, Area IV
Wanda Ryan, IL, Area II
Mary Tyrrell, MN, Area II

Board Liaison
Donna Dorsey

Staff
Barbara Halsey, *Program Manager, Nurse Aide Competency Evaluation Program*

NATIONAL COUNCIL OF STATE BOARDS OF NURSING, INC.
NURSE AIDE COMPETENCY EVALUATION PROGRAM
MAY 1991 USER STATE AGENCY SURVEY—CUMULATIVE RESULTS

N = 19

		SA	A	D	SD	Other*
1.	The Nurse Aide Competency Evaluation Program (NACEP) is a psychometrically sound and legally defensible evaluation of nurse aide competence.	7	11	0	0	1
2.	The NACEP written evaluation is a valid measure of the knowledge, skills and abilities a nurse aide needs to perform competently on the job.	3	15	0	0	1
3.	The NACEP manual skill evaluation is a valid measure of the knowledge, skills and abilities a nurse aide needs to perform competently on the job.	2	16	0	0	1
4.	NACEP meets all the legal requirements in this jurisdiction:					
	a. for aides employed in long-term care.	5	12	0	0	2
	b. for aides employed in home health (when used with the Home Health Aide Supplemental Checklist).	2	9	1	0	7
	c. for aides employed in acute care settings (hospitals).	3	5	4	0	7
5.	The quality of the NACEP as an evaluation of nurse aide competence is high.	3	14	0	0	2
6.	The contractual relationship between The Psychological Corporation and this agency is satisfactory.	1	13	3	0	2
7.	The test service provides accurate and necessary information regarding the NACEP.	3	10	3	2	1
8.	The test service answers inquiries from this agency in a reasonable amount of time.	3	9	5	1	1
9.	Evaluation materials from the test service arrive on time at test sites.	1	11	3	0	4
10.	Candidates receive score reports within the time period specified by your contract.	0	10	4	4	1

SA = Strongly Agree
A = Agree
D = Disagree
SD = Strongly Disagree
**Other includes responses such as no answer given, not applicable, perhaps, etc.*

		SA	A	D	SD	Other*
11.	The state agency score reports have been received in a timely manner.	1	10	4	2	2
12.	Any implementation problems which occurred were resolved satisfactorily with the test service.	0	13	3	1	2
13.	NACEP security measures are effective.	2	14	0	1	2
14.	Feedback on the NACEP from nurse aides has been positive.	0	11	6	1	1
15.	Feedback on the NACEP from facilities has been positive.	0	11	7	1	0
16.	The application process is easy for candidates and sponsors to complete.	1	9	8	1	0
17.	NACEP is an effective evaluation for <u>home health aides</u> (when used in conjunction with the Home Health Aide Supplemental Checklist) as well as <u>long-term care aides</u>.	1	9	2	0	7
18.	The Nurse Aide Practice Test has been useful.	7	11	0	0	1

		Yes	No	Other
22.	In your jurisdiction, are you currently using NACEP to evaluate:			
	a. aides employed in long-term care settings	18	0	1
	b. aides employed in home health settings	12	5	2
	c. aides employed in acute care (hospital) settings	9	8	2

		Very Low 1	Low 2	Med 3	High 4	Very High 5	Other*
26.	Overall, how satisfied is this agency with the Nurse Aide Competency Evaluation Program (NACEP) offered by the National Council of State Boards of Nursing and The Psychological Corporation. Please respond on a scale of 1 to 5, with 1 indicating a very low level of satisfaction.	0	2	10	4	1	2

Responses to open-ended questions (19-21 and 23-25) are available upon request.

** Other includes responses such as no answer given, not applicable, perhaps, etc.*

**NATIONAL COUNCIL OF STATE BOARDS OF NURSING, INC.
NURSE AIDE COMPETENCY EVALUATION PROGRAM
USER STATE AGENCY QUESTIONNAIRE
COMPARISON OF CUMULATIVE RESULTS**

		1991	7/90	3/90
1.	The Nurse Aide Competency Evaluation Program (NACEP) is a psychometrically sound and legally defensible evaluation of nurse aide competence.	3.38	3.18	3.11
2.	The NACEP written evaluation is a valid measure of the knowledge, skills and abilities a nurse aide needs to perform competently on the job.	3.16	3.61	3.05
3.	The NACEP manual skill evaluation is a valid measure of the knowledge, skills and abilities a nurse aide needs to perform competently on the job.	3.11	2.82	2.6
4.	NACEP meets all the legal requirements in this jurisdiction:			
	a. for aides employed in long-term care.	3.29	3.05	3.05
	b. for aides employed in home health (when used with the Home Health Aide Supplemental Checklist).	3.08		
	c. for aides employed in acute care settings (hospitals).	2.91		
5.	The quality of the NACEP as an evaluation of nurse aide competence is high.	3.17	2.94	2.77
6.	The contractual relationship between The Psychological Corporation and this agency is satisfactory.	2.88	3.05	2.52
7.	The test service provides accurate and necessary information regarding the NACEP.	2.77	2.68	2.78
8.	The test service answers inquiries from this agency in a reasonable amount of time.	2.83	3.00	2.95
9.	Evaluation materials from the test service arrive on time at test sites.	2.86	2.77	2.55
10.	Candidates receive score reports within the time period specified by your contract.	2.33	2.05	2.14
11.	The state agency score reports have been received in a timely manner.	2.58	2.23	2.05

Averages calculated - highest possible score = 4.00, lowest possible score = 1.00

		1991	7/90	3/90
12.	Any implementation problems which occurred were resolved satisfactorily with the test service.	2.70	2.81	2.52
13.	NACEP security measures are effective.	3.00	3.37	2.92
14.	Feedback on the NACEP from nurse aides has been positive.	2.55	2.77	2.61
15.	Feedback on the NACEP from facilities has been positive.	2.52	2.42	2.17
16.	The application process is easy for candidates and sponsors to complete.	2.52	2.44	2.36
17.	NACEP is an effective evaluation for <u>home health aides</u> (when used in conjunction with the Home Health Aide Supplemental Checklist) as well as <u>long-term care aides</u>.	2.91	2.23	2.58
18.	The Nurse Aide Practice Test has been useful.	3.38	3.55	3.41

		Very Low	Low	Med	High	Very High	Other*
		1	2	3	4	5	
26.	Overall, how satisfied is this agency with the Nurse Aide Competency Evaluation Program (NACEP) offered by the National Council of State Boards of Nursing and The Psychological Corporation. Please respond on a scale of 1 to 5, with 1 indicating a very low level of satisfaction.	0	2	10	4	1	2

		YES	NO	OTHER*
26.	This agency is satisfied overall with the Nurse Aide Competency Evaluation Program (NACEP) offered by the National Council of State Boards of Nursing and The Psychological Corporation (7/90 / 3/90).	12/10	6/5	1/6

**Other includes reponses such as no answer given, not applicable, perhaps, etc. This type of response was not used in calculating the results for questions 1 through 18.*

20

SUMMARY OF 1990
D.A. ACTIONS

Summary of Major Actions of 1990 Delegate Assembly

Action	**Implementation**
Based on the results provided by the Third NCLEX Survey Study, the National Council will not pursue a third annual administration of NCLEX-RN or NCLEX-PN.	(none)
Based on the results of the 1989 Job Analysis Study, there will be no change in the present NCLEX-RN test plan, and evaluation of the passing standard will occur per the established schedule prior to the July 1992 examination.	(none)
The Washington-PN Board was given approval to administer the NCLEX-PN in Germany from April 1991 through April 1996.	*(See letter from WA-PN Board on page 6 of the Resolutions Committee report.)*
Examination dates and alternate dates for 2000 were adopted.	Dates were published and circulated to Member Boards for insertion in the National Council manual.
The "Concept Paper on Delegation" and the "Statement on Endorsement Issues Related to Peer Assistance/ Alternative Programs," prepared by the Nursing Practice and Education Committee, were adopted.	Published with *Newsletter.*
In addition, the "Statement on Assistive Personnel to the Registered Nurse" developed by the Tri-Council for Nursing was adopted.	Endorsement communicated to Tri-Council.
The *Model Nurse Aide Regulation Act* and the *Model Nurse Aide Administrative Rules,* prepared and submitted by the Subcommittee on Nurse Aide Language, were adopted.	Published and disseminated to Member Boards; included in communications department publications brochure/ order form.
A Bylaws amendment that included a change in the National Council's fiscal year from a July 1 start to an October 1 start as well as minor modifications in wording regarding 1) candidate forum and guidelines and 2) open meetings were adopted.	Fifteen-month audit performed October 1990, with twelve-month statements (July - June and October - September) provided for comparison.
Guidelines were adopted for use by the Board of Directors in responding to requests for endorsement of position statements.	Replied to one request from the HRSA Nursing Consortium on Alcohol and Other Drug Abuse that all nursing organizations sanction the position statement "National Consortium Conference on Alcohol and Other Drug Abuse." *(See Board of Directors' Report)*
The National Council shall explore removal of restrictions on qualifications for the office of President.	*(See Committee on Nominations and Bylaws Committee reports.)*

Action	Implementation
The National Council will study the practice and roles of LPN/VNs, RNs and nurses in advanced practice, as well as the functions performed by unlicensed personnel, and will report the results of the three-year effort to the 1993 Delegate Assembly.	Study plans publicized March 1991; instrument revision initiated by research department.
The National Council's disciplinary data bank will be maintained, with conversion of the database structure and reports to be congruent with National Practitioner Data Bank (NPDB) report forms.	Conversion underway but slowed somewhat due to "hold" on opening of NPDB for nursing; anticipate completion during FY92.
The Board of Directors will implement a pilot study accessing NCNET (National Council's electronic communications network) for disciplinary data and report back to the 1991 Delegate Assembly.	Pilot underway; results to be reported at Delegate Assembly.
The Communications Committee was directed to develop a defined plan for development and use of audiovisual materials for presentation to the 1991 Delegate Assembly.	*(See Communications Committee report.)*
A resolution was adopted directing the National Council to study issues concerning foreign nurse credentialing, and to develop strategies to assist Member Boards in maintaining standards for public protection through the licensure process, and report results of the study to the 1991 Delegate Assembly.	*(See Foreign Nurse Issues Committee report.)*

21
RESOLUTIONS COMMITTEE
& NEW BUSINESS

Report of the Resolutions Committee

The committee held a conference call on May 7, 1991, to review the three resolutions received. Following the policies and procedures established by the Board of Directors, the committee prepared the three resolutions for inclusion in the *Book of Reports*.

The committee will meet during the 1991 Delegate Assembly to review any resolutions received by 5:00 p.m. on Wednesday, July 31, 1991. The committee will conduct the Resolutions Forum at 1:30 p.m. on Thursday, August 1, 1991.

Committee Members
Sulinda Moffett, OK, Area II, *Chair*
Debra Brady, NM, Area I
Jeannine Hayduk, IL, Area II
Sr. Teresa Harris, NJ, Area IV

Finance Committee Liaison
Charlene Kelly, NE, Area II

Staff
William J. Lauf, *Director of Operations*

Resolution on Administering NCLEX-PN to USAR 91C's in Germany

WHEREAS the U.S. Army Nurse Corps requested that the Delaware Board of Nursing negotiate a second contract beginning October 1991, and

WHEREAS the Delaware Board of Nursing (the Board) is committed to programs which prepare U.S. Army 91C Practical Nurses, and

WHEREAS the Board is committed to mandatory licensure for all nurses, and

WHEREAS examinations have been previously provided by the Delaware Board of Nursing on six occasions in Landstuhl, Germany to U.S. Army 91C Practical Nurses, and

WHEREAS the ability of the Army to keep 91C personnel in the United States is severely limited by the contingency nature of military service and the cost of returning eligible 91Cs to the U.S. for the exam is prohibitive, therefore be it

RESOLVED that the Delaware Board of Nursing be authorized to administer NCLEX-PN in Germany to qualified 91Cs in October 1991, October 1992 and October 1993.

Submitted by
Delaware Board of Nursing

Resolution Committee Action
Recommendation: Adoption

The Fiscal Impact Statement follows on pages 4 and 5.

NATIONAL COUNCIL OF STATE BOARDS OF NURSING, INC.

FISCAL IMPACT STATEMENT - DESCRIPTION

TITLE OF PROPOSAL: Resolution to Administer NCLEX-PN in Germany

Proposed by: Delaware Board of Nursing Name ______

Date ______ Committee ______

Will this proposal generate revenue? ______ Please describe below:

______

______

______

EXPENSES

1. Does this proposal require a committee? No

   How many members are anticipated including the chairperson? ______

   How often would the committee meet? ______

2. How many mailings would this proposal require? ______

   To whom? ______

3. Printing (surveys, special reports, etc.) Please describe:
   None

4. Other than committee meetings, is travel required? Yes*

   Please describe: ______

5. What type of consultation is required (i.e., legal, computer, etc.)?

   None

6. Other. Please describe:

   ______

7. Projected beginning date: October, 1991

   Projected completion date: October, 1993

KJH/mct/021291 * All paid by Army

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NATIONAL COUNCIL OF STATE BOARDS OF NURSING, INC.

FISCAL IMPACT STATEMENT - DESCRIPTION

TITLE OF PROPOSAL: Resolution to Administer NCLEX-PN in Germany

Proposed by: Delaware Board of Nursing **Name** ______

Date ______ **Committee** ______

Will this proposal generate revenue? ______ **Please describe below:**

EXPENSES

1. Does this proposal require a committee? No

   How many members are anticipated including the chairperson? ______

   How often would the committee meet? ______

2. How many mailings would this proposal require? ______

   To whom? ______

3. Printing (surveys, special reports, etc.) Please describe:

   None

4. Other than committee meetings, is travel required? Yes*

   Please describe: ______

5. What type of consultation is required (i.e., legal, computer, etc.)?

   None

6. Other. Please describe:

7. Projected beginning date: October, 1991

   Projected completion date: October, 1993

KJH/mct/021291 * All paid by Army

TITLE OF PROPOSAL: Resolution to Administer NCLEX-PN in Germany

FISCAL IMPACT - SUMMARY

REVENUE

________________ $________________

________________ $________________

EXPENSES

A. DIRECT COST None to National Council or Delaware Board of Nursing

1. Committee Meetings

$775 per member airfare x ________ (# of members) x ________ (# of meetings) = $________

$200 per day per diem x ________ (# of members) x ________ (# of days) = $________

$225 per telephone conference x ________ (# of Telephone Conferences) = $________

2. Mailings

$0.32 per letter x ________ (# of mailings) x ________ (# mailed) = $________

$2.50 per 9 x 12 manila envelope (First Class) x ________ (# of mailings) x ________ (# mailed) = $________

$9.75 per Overnight Mail x ________ (# of mailings) x ________ (# mailed) = $________

3. Printing and Copying

A. ________ (# of reports) x ________ (# of pages) = Total pages

B. ________ (total # of pages) x $0.05 = $________

4. Other Travel

$775 per person airfare x ________ (# of persons) x ________ (# of meetings) = $________

$200 per day per diem x ________ (# of persons) x ________ (# of days) = $________

5. Consultation

A. Legal Fees

$225 per hour x ________ (# of hours) x ________ (# of meetings) = $________

B. Other Consultation

$________ per hour x ________ (# of hours) x ________ (# of meetings) = $________

6. Other

$________ per ________ x ________ = $________

B. INDIRECT COST

1. Professional and support time required:

Total ________ hours = $________

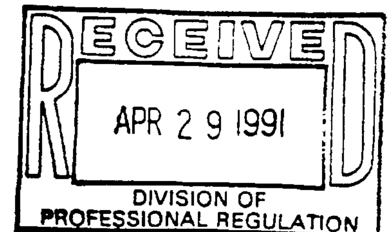
Total Revenue: $ 25,200

Total Expenses: $ None

Net: $ 12,600 each National Council of State Boards of Nursing and Delaware Board of Nursing

Indirect Cost: $ None

KJH/mct/021291



STATE OF WASHINGTON

DEPARTMENT OF HEALTH

Eastside Plaza, 1300 S.E. Quince St. • Olympia, Washington 98504

Professional Licensing Services

April 26, 1991

Sheila McMahon, Chairman
Delaware Board of Nursing
Margaret O'Neill Building
P.O. Box 1401
Dover, Delaware 19901

Dear Ms. McMahon:

This letter is being written in response to notification from the National Council office that the Delaware Board of Nursing will be submitting a resolution to the Delegate Assembly in August, 1991 to begin administering the NCLEX-PN in Germany.

Due to delays and obstacles in implementation of the Washington State Practical Nursing Board's administration of NCLEX-PN in Germany, the Board has determined that it would not be in their best interest to proceed with administration. This decision was made at their April, 1991 meeting.

The members emphatically agreed that administration of NCLEX-PN in Germany is a necessary service to provide to the U.S. Army practical nurses (MOS 91C) and they support administration of the examination by the Delaware Board of Nursing based upon continuity of service and your successful implementation of the examination from 1987-1990.

Please contact me if you need further clarification.

Sincerely,

Susan L. Boots

Susan L. Boots, R.N., M.N., Executive Secretary
Washington State Board of Practical Nursing
1300 Quince Street, EY-28
Olympia, Washington 98504
(206) 753-2807

Resolution Requesting Field Tests to Determine the Effect of Time on Candidates' Performance on the NCLEX-RN Examination Under Either Paper-and-Pencil or CAT Administration

WHEREAS the number of exam candidates with English as a second language (ESL) has increased to over half the candidates tested in some states, and

WHEREAS the proportion of NCLEX-RN foreign educated candidates is also increasing; in seven jurisdictions (CA, FL, GU, HI, MD, NJ, and NY) over half the NCLEX-RN candidates tested in 1990 were foreign educated, and

WHEREAS the proportion of ESL students enrolled in nursing programs in several states continues to increase, and

WHEREAS the number of limited English proficient students in California schools, as an example, has increased 43.2% from 1984-88; within the next two decades that number will become one in three students with English as a second language, and

WHEREAS ESL students and candidates have somewhat slower reading scores when they are reading in the second language; a slower reading score does not necessarily reflect a lower level of comprehension, and

WHEREAS most ESL students or candidates have many unmet needs with regard to performance on standardized tests and performance in language dependent course work, and

WHEREAS other providers of standardized tests are also considering that the additional time it takes to read in the second language may result in penalties on the basis of time rather than ability, e.g., CBEST - California Basic Educational Skills Tests for credentialed teachers; Graduate Record Exam; SAT-Verbal, and

WHEREAS the National Council of State Boards of Nursing already has a policy that candidates with demonstrated dyslexia or other learning disabilities may have special consideration related to test administration, and

WHEREAS preliminary data from an analysis of ESL candidates who participated in CAT indicate that they took an average of 19 seconds longer per test item than native English speakers, therefore be it

RESOLVED that the National Council of State Boards of Nursing, through its Administration of Exam Committee, conduct field tests to determine the effect of time on candidates' performance on the NCLEX-RN under either paper-and-pencil or CAT administration. The sample to be studied should include a diverse group of candidates who have English as their second language.

Submitted by
Area I

Resolution Committee Action
Submitted without recommendation

A Study Plan and Fiscal Impact Statement for paper-and-pencil administration follows on pages 9 through 13. A Study Plan and Fiscal Impact Statement for CAT administration will be presented in a subsequent mailing prior to the Delegate Assembly.

The following study design and fiscal impact statement would be appropriate for continued paper-and-pencil administration of the NCLEX-RN. Another study design pursuant to this resolution is being developed for assessing the effects of time under computerized adaptive testing (CAT) in the event CAT is implemented.

Purpose

The purpose of the ESL study is to determine whether the time allotted to complete the NCLEX examination is a factor in candidates' performance, and if so, whether it is a more significant factor for ESL (English as second language) candidates than for NES (native English speaking) candidates.

This study is not intended to determine whether the time needed to attain a given level of performance is related to capacity for safe and effective practice. It may, however, help to determine what the passing rate would be for ESL and NES candidates, if additional time were given to complete the NCLEX examination.

Background

Concern with the NCLEX passing rate of ESL candidates is growing due to the increasing number of ESL enrollments in U.S. nursing education programs and ESL candidates who take the NCLEX examination. The passing rate of these students in reported to be low.

One possible explanation for the low passing rate among ESL candidates is that they read slowly and cannot complete the examination in the allotted amount of time. Preliminary data from the CAT field test shows that ESL candidates took longer to read items, on average, than other candidates.

It has been assumed that the NCLEX is a power test, as opposed to a speed test. A study recently completed by the NCLEX testing service shows that the response rate to items near the end of an NCLEX booklet is as high as to items in any other part of the booklet.

More recently, it has been suggested that the possible effects of time on NCLEX performance needs to be investigated more specifically with regard to ESL candidates. The above mentioned study of response rates to items was based on all candidates, rather than just ESL candidates. Significant effects among ESL candidates could have been "washed out" by the large number of non-ESL candidates in the study, if time was not a factor for the non-ESL candidates.

Method

The proposed method of study is a field test in which ESL and NES volunteers take NCLEX test items, not for licensure, under two conditions of time as shown below. A total of approximately 200 ESL and 200 NES participants would be randomly assigned into the conditions of time-order, with each participant taking items under both conditions of time. The order of the time-conditions is counterbalanced within ESL and NES groups to control for order effects.

	Examination Time		
Group	**Number**	**Booklet A**	**Booklet B**
ESL	100	90 min	135 min
ESL	100	135 min	90 min
NES	100	90 min	135 min
NES	100	135 min	90 min

The field test could be conducted approximately two to three weeks before the regularly scheduled February NCLEX-RN examination. Volunteers would be recruited from the pool of first time candidates scheduled to take that examination. An incentive of $100 would be offered to each participant. ESL participants would be so classified

on the basis of their self report. Additional documentation of being ESL might be required, such as school records of needing assistance with English or evidence of having lived in a foreign country in which the native language is not English.

The study could be conducted in four states, one state from each Area of the National Council. There would be approximately 50 ESL and 50 NES participants per state. Two testing rooms would be required per state. Booklet A would be administered in the morning, and Booklet B in the afternoon. ESL and NES participants receiving the same amount of time would be tested together.

Booklet A and Booklet B would each consist of ninety items. The items would be legitimate, "real" items, but would not appear on the 292 or 792 NCLEX-RN examination. The 90-minute condition would be equivalent to the time allotment for the NCLEX--approximately one minute per item. The 135-minute condition would represent one and one-half the presently allowed amount of time per item.

In addition, data will be collected about variables that might help explain the results of the study and help increase the precision with which the effects of time can be estimated. These "covariables" would include "TIME," which is the amount of time candidates take to complete the examination, and THETA, which is the performance of the candidate on the licensure examination.

More specific notation for variables in this study is:

TIME-90 .... Time taken to complete a booklet in the 90-minute condition.

TIME-135 .... Time taken to complete a booklet in the 135-minute condition.

THETA-RN ...... Rasch estimate of competence from performance on the licensure examination.

THETA-90 .... Rasch estimate of competence from performance in the 90-minute condition.

THETA-135 ...... Rasch estimate of competence from performance in the 135-minute condition.

Analysis of Data

The dependent variable, DIFF, is the difference in performance within subjects under the two conditions of time:

DIFF = THETA-135 - THETA-90

The data would be analyzed to determine if the performance of either group (NES or ESL) was better in the 135 minute condition compared to the 90 minute condition. This would be determined by two t-tests:

$$t(\text{ESL}) = \frac{\text{Mean ESL DIFF}}{\text{std error of ESL DIFF}}$$

$$t(\text{NES}) = \frac{\text{Mean NES DIFF}}{\text{std error of NES DIFF}}$$

Next, the data would be analyzed to determine if the difference in performance between the two conditions of time was greater for ESL participants than for NES participants. This would call for a t-test comparison between two independent means.

$$t = \frac{\text{MEAN ESL DIFF - MEAN NES DIFF}}{\text{Standard error of difference}}$$

Further study could be performed using the covariables, TIME-90, TIME-135, and THETA-RN. For example, a measure of motivation might be obtained by taking the difference between candidates' performance on the licensure examination and their performance on the 90-minute time condition of the field test:

MOTIV = THETA-RN - THETA-90

By performing appropriate analyses using MOTIV, one could not only tell whether the two groups were differentially motivated, but could control for differential motivation, if it exists, in the data analysis.

Discussion

This study allows the effects of time to be studied without changing the conditions of licensure for any group. No group can argue that they were unfairly treated or weren't assigned to the group that got more time. Even if time is shown to be a significant factor in this study, the question of whether or not additional time should be granted for any or all candidates on the NCLEX is a separate issue.

One limitation of this study is that time effects are measured under conditions in which candidates know their performance is not being used to determine licensure. It is expected that the effects of time under these conditions will generalize to the actual administration of the licensure exam. The CAT field test results indicate that NES participants might be more inclined to rush through the test when performance does not count toward licensure. If this is generally the case, the effects of time for ESL candidates could be overestimated.

However, the analysis of covariables including the comparison of performance on the licensure examination (THETA-RN) to performance on the field test with comparable time allotment (THETA-90) would not only help determine whether differential motivation is a problem, but also help control for its effects if it existed.

NATIONAL COUNCIL OF STATE BOARDS OF NURSING, INC.

FISCAL IMPACT STATEMENT - DESCRIPTION

TITLE OF PROPOSAL: Field Test: ESL Candidates

Proposed by: Area I **Name** Gail McGuill & Catherine Puri

Date April 24, 1991 **Committee** Administration of Examination Committee

Will this proposal generate revenue? No **Please describe below:**

This proposal would direct the NCSBN to conduct field tests on the influence of extending the time per item on the NCLEX-RN for candidates with English as a Second Language (ESL).

EXPENSES

1. **Does this proposal require a committee?** Requires 2 extra days by AEC Committee at their regular meeting times.

   How many members are anticipated including the chairperson? 6

   How often would the committee meet? At regular scheduled meeting(s)

2. **How many mailings would this proposal require?** Added to regular meeting material for two (2) meetings

   To whom? All committee members

3. **Printing (surveys, special reports, etc.) Please describe:**
   Committee materials for two meetings - Field test materials per study design

4. **Other than committee meetings, is travel required?** Yes

   Please describe: Council staff would have travel expenses estimates at $3,900. Participating boards may also have some travel expenses. Please see attached budget for field tests of ESL candidates

5. **What type of consultation is required (i.e., legal, computer, etc.)?**

   Field tests to be done by NCSBN - please see attached budget

6. **Other. Please describe:**

   Expenses would include: 1. Costs for Field Tests; 2. Costs for two extra days for AEC Committee; 3. May be travel costs for participating boards, depending upon test site(s).

7. **Projected beginning date:** February or July, 1992

   Projected completion date: September - December, 1992

KJH/mct/021291

TITLE OF PROPOSAL: Field Tests: ESL Candidates

FISCAL IMPACT - SUMMARY

REVENUE

$ 0.00

$ 0.00

EXPENSES

A. DIRECT COST

1. Committee Meetings

$775 per member airfare x ______ (# of members) x ______ (# of meetings) = $ 0.00

$200 per day per diem x 6 (# of members) x 2 (# of days) = $ 2,400.00

$225 per telephone conference x 1 (# of Telephone Conferences) = $225.00

2. Mailings

$0.32 per letter x ______ (# of mailings) x ______ (# mailed) = $______

$2.50 per 9 x 12 manila envelope (First Class) x ______ (# of mailings) x ______ (# mailed) = $______

$9.75 per Overnight Mail x ______ (# of mailings) x ______ (# mailed) = $______

3. Printing and Copying

A. ______ (# of reports) x ______ (# of pages) = Total pages

B. ______ (total # of pages) x $0.05 = $ 7,200.00 for study design

4. Other Travel

$775 per person airfare x 1 (# of persons) x 4 (# of meetings) = $ 3,100.00

$200 per day per diem x 200 (# of persons) x 4 (# of days) = $ 800.00

5. Consultation

A. Legal Fees

$225 per hour x 10 (# of hours) x ______ (# of meetings) = $ 2,250.00

B. Other Consultation

$______ per hour x ______ (# of hours) x ______ (# of meetings) = $ 0.00

6. Other

$ 100.00 per Candidate x 400 = $ 40,000.00

B. INDIRECT COST

1. Professional and support time required:

Total ______ hours = $ 16,875.00 (please see attached estimate)

Total Revenue: $ 0.00

Total Expenses: $ 78,450.00

Net: $ 0.00

Indirect Cost: $ 16,875.00 (included in total expenses)

KJH/mct/021291

Resolution on Increased NCLEX Testing Time to Accommodate Candidates Whose Primary Language Is Not English

WHEREAS	candidates whose primary language is not English have consistently identified the need for additional time to complete the NCLEX, and
WHEREAS	the foreign-educated candidates had a higher passing rate on the July 1990 CAT field test than on the NCLEX, and
WHEREAS	the combination of the use of the English language and current time limits in the NCLEX is viewed by a portion of the nursing public as a barrier for candidates whose primary language is not English, and
WHEREAS	there is no definitive data that relates time to write the NCLEX to the safety of practice, therefore be it
RESOLVED	that the time permitted for all candidates to write each section of the NCLEX-RN be increased immediately by 30 minutes, and
RESOLVED	that the time for all candidates to write each section of the NCLEX-PN be increased immediately by 40 minutes, and
RESOLVED	that future NCLEX administrations be analyzed for relationship between English proficiency and time/performance on the examinations.
RATIONALE	Member Boards have received communication from candidates, educators, advocates, and employers that a perception of unfairness exists for those candidates for whom English is not a primary language. Increasing the amount of time on each section of the NCLEX is fairly easy to implement and should not significantly increase each Member Board's cost for administration of the exam since space is usually rented by the day. Increasing the time by 33% can be viewed as a positive response by Member Boards and the National Council to the needs of a diverse exam population. The identification of those candidates whose primary language is not English is data that should be analyzed in relationship to time and performance on the examination.

Submitted by
Area II

Resolution Committee Action
Submitted without recommendation

A Fiscal Impact Statement will be presented in a subsequent mailing prior to the Delegate Assembly.

Data Collection Procedure to Implement Part of the Resolution on Increased NCLEX Testing Time to Accommodate Candidates Whose Primary Language Is Not English

Analyzing the relationship between English proficiency and time/performance on the NCLEX examinations will require placement of the following questions on the NCLEX booklet covers:

Is English the first language you learned to speak? ___Yes ___No

Starting time: Hour _____ Minute _____

Ending time: Hour _____ Minute _____

Candidates will be required to bubble in the correct information. The administration manual will be modified accordingly. Proctors will announce the starting time for each test booklet. Proctors may check the answers for accuracy as the booklets are turned in by candidates. The booklet covers will be scanned and the data added to the general database that is maintained for research as well as for recordkeeping purposes.

Data from these questions, along with other information about candidates, will be analyzed to assess demographic groups with respect to overall level of performance, amount of time needed, and whether additional time is associated with improved performance on the NCLEX. One will not be able to determine from these data whether or not the additional time affects the validity of measures of competence for safe, effective, entry-level nursing practice.

Depending on the implementation date of the new time allotments, baseline data may be collected under the current time allotment for the NCLEX examinations.

NATIONAL COUNCIL OF STATE BOARDS OF NURSING, INC.

FISCAL IMPACT STATEMENT - DESCRIPTION

TITLE OF PROPOSAL: Increased NCLEX Testing Time

Proposed by: Area II Name ________

Date ________ Committee ________

Will this proposal generate revenue? ________ Please describe below:

EXPENSES

1. Does this proposal require a committee? No

   How many members are anticipated including the chairperson? ________

   How often would the committee meet? ________

2. How many mailings would this proposal require? ________

   To whom? ________

3. Printing (surveys, special reports, etc.) Please describe: Addition of questions to test booklet co[illegible]rs

4. Other than committee meetings, is travel required? ________

   Please describe: ________

5. What type of consultation is required (i.e., legal, computer, etc.)?

6. Other. Please describe:

   Analysis of relationship between English proficiency and time/performance on examinations

7. Projected beginning date: October 1991 or February 1992

   Projected completion date: Ongoing per examination cycle

KJH/mct/021291

TITLE OF PROPOSAL: Increased NCLEX Testing Time

FISCAL IMPACT - SUMMARY

REVENUE

______________ $ 0.00

______________ $ 0.00

EXPENSES

A. DIRECT COST

1. Committee Meetings

$775 per member airfare x ______ (# of members) x ______ (# of meetings) = $______

$200 per day per diem x ______ (# of members) x ______ (# of days) = $______

$225 per telephone conference x ______ (# of Telephone Conferences) = $______

2. Mailings

$0.32 per letter x ______ (# of mailings) x ______ (# mailed) = $______

$2.50 per 9 x 12 manila envelope (First Class) x ______ (# of mailings) x ______ (# mailed) = $______

$9.75 per Overnight Mail x ______ (# of mailings) x ______ (# mailed) = $______

3. Printing and Copying

A. ______ (# of reports) x ______ (# of pages) = Total pages

B. ______ (total # of pages) x $0.05 = $580.00 for printing questions on booklet covers (start-up cost only)

4. Other Travel

75 per person airfare x ______ (# of persons) x ______ (# of meetings) = $______

0 per day per diem x ______ (# of persons) x ______ (# of days) = $______

onsultation

A. Legal Fees

$225 per hour x ______ (# of hours) x ______ (# of meetings) = $______

B. Other Consultation

$______ per hour x ______ (# of hours) x ______ (# of meetings) = $______

6. Other

$______ per ______ x ______ = $ 7,085.00 programming and data analysis start-up costs
1,135.00 per cycle costs

B. INDIRECT COST

1. Professional and support time required:

Total ______ hours = $______

Total Revenue: $ 0.00

Total Expenses: $ 7665.00 start-up plus $1,135.00 per cycle

Net: $ ______

Indirect Cost: $ ______

/mct/021291

Resolution to Study the Issues Related to the Administration of Licensure Examinations in Manitoba and Other Similarly Situated Countries/Provinces

WHEREAS	the Manitoba Association of Licensed Practical Nurses (MALPN) has requested to purchase the NCLEX-PN examination for Manitoba practical nursing graduates, and
WHEREAS	the State Board Test Pool Examination was previously administered in various Canadian provinces between 1949 and 1970, and
WHEREAS	the Examination Committee has encouraged the Board of Directors to enter into a dialogue with Canada regarding testing issues, and
WHEREAS	a Free Trade Agreement was signed in 1987 between the United States and Canada, and
WHEREAS	visitors from other countries such as Canada, England, Ireland, Nigeria, Australia, New Zealand and others have contacted the National Council to discuss common concerns and methods of working together, and
WHEREAS	the National Council has maintained a liaison relationship with the International Council of Nurses, and
WHEREAS	the Foreign Nurse Issues Ad Hoc Committee recommends the development of criteria to be used by Member Boards as a guide for evaluating foreign nursing programs to facilitate comparison with jurisdictional requirements, and
WHEREAS	the National Council has a mission to provide guidance and services to its members in performing their functions, therefore be it
RESOLVED	that the National Council study the issues related to the administration of licensure examinations in Manitoba and other similarly situated countries/provinces, and
RESOLVED	that a report describing options be presented to the 1992 Delegate Assembly.

Submitted by
Board of Directors

The Fiscal Impact Statement follows on pages 22 and 23.

NATIONAL COUNCIL OF STATE BOARDS OF NURSING, INC.

FISCAL IMPACT STATEMENT - DESCRIPTION

TITLE OF PROPOSAL: Resolution to Study Administration NCLEX Outside the U.S.

Proposed by: Board of Directors **Name** ______

Date June 21, 1991 **Committee** Administration of Examination Committee

Will this proposal generate revenue? No **Please describe below:**

______

EXPENSES

1. **Does this proposal require a committee?** Requires extra day to two AEC meetings.

   How many members are anticipated including the chairperson? 6

   How often would the committee meet? At regular scheduled meetings.

2. **How many mailings would this proposal require?** 2

   To whom? All committee members

3. **Printing (surveys, special reports, etc.) Please describe:**

4. **Other than committee meetings, is travel required?** ______

   Please describe: ______

5. **What type of consultation is required (i.e., legal, computer, etc.)?**

   Legal

6. **Other. Please describe:**

7. **Projected beginning date:** October 1991

   Projected completion date: June 1992

KJH/mct/021291

TITLE OF PROPOSAL: Resolutions to Study Administration of NCLEX Outside the U.S.

FISCAL IMPACT - SUMMARY

ENUE

______ $ 0.00

______ $ 0.00

EXPENSES

A. DIRECT COST

1. Committee Meetings

$775 per member airfare x ______ (# of members) x ______ (# of meetings) = $ 0.00

$200 per day per diem x 6 (# of members) x 2 (# of days) = $ 2400.00

$225 per telephone conference x 2 (# of Telephone Conferences) = $ 450.00

2. Mailings

$0.32 per letter x ______ (# of mailings) x ______ (# mailed) = $______

$2.50 per 9 x 12 manila envelope (First Class) x ______ (# of mailings) x ______ (# mailed) = $______

$9.75 per Overnight Mail x 2 (# of mailings) x 6 (# mailed) = $ 117.00

3. Printing and Copying

A. ______ (# of reports) x ______ (# of pages) = Total pages

B. ______ (total # of pages) x $0.05 = $______

4. Other Travel

'5 per person airfare x ______ (# of persons) x ______ (# of meetings) = $______

$200 per day per diem x ______ (# of persons) x ______ (# of days) = $______

5. Consultation

A. Legal Fees

$225 per hour x 2 (# of hours) x ______ (# of meetings) = $ 450.00

B. Other Consultation

$______ per hour x ______ (# of hours) x ______ (# of meetings) = $______

6. Other

$______ per ______ x ______ = $______

B. INDIRECT COST

1. Professional and support time required:

Total 15 hours = $ 630

Total Revenue: $ 0.00

Total Expenses: $ 3417.00

Net: $ ______

Direct Cost: $ 630

RJH/mct/021291

LPN
ASSOCIATION

Manitoba Association of Licensed Practical Nurses

May 29, 1991

Jennifer Bosma
Executive Director
National State Board of Nursing
676 North St. Clair Street
Suite 550
Chicago, Illinois
60611-2921

Dear Ms. Bosma:

Based on a resolution adopted by the Board of the Manitoba Association of Licensed Practical Nurses, on their behalf, I am formally applying to your agency for approval to purchase the NCLEX-PN examination for Manitoba practical nursing graduates.

The Association's contract with it's current agency will expire in June, 1992, therefore we would appreciate discussions being completed by December 31, 1991.

Please advise what additional steps are required to initiate further action on our request.

Sincerely,

Verna Holgate

Verna Holgate, LPN
Executive Director/Registrar
MALPN

VH/cv

Your Association Working With You.
Box 249, Tuxedo, 615 Kernaghan Avenue, Winnipeg, Manitoba R2C 2Z9
Telephone: (204) 222-6743 Fax: (204) 224-0166

CAT-based Study Plan for Resolution Requesting Field Tests to Determine the Effect of Time on Candidates' Performance on the NCLEX-RN Examination Under Either Paper-and-Pencil or CAT Administration

The proposed CAT-based study for the Area I resolution is very similar to the proposal based on paper-and-pencil testing. The same number of volunteers, 200 ESL (English as a second language) and 200 NES (native English speaking), will be used. Each volunteer will receive two sets of ninety test items each. One set will be administered in a baseline session that is ninety minutes in length. The baseline session provides on average the minimum time-per-item (one minute) that is expected to be in effect for CAT. The other set will be administered in a session that is one and one-half times as long (135 minutes) as the baseline session. These parameters are conditional on CAT policies concerning the maximum number of items and the maximum session length, which determine the minimum time-per-item.

The test items in this study will be presented on computers via the CAT software. Each of the four participating states will need a testing site with eight computer terminals. Each candidate will need access to a computer testing station for one day. The sites must be operated for approximately fifteen days in order to test 100 volunteers each. Site and equipment costs are estimated at $100 per participant. CAT proctor costs are estimated at $100 per day per proctor. Proctor coverage will be provided at the level recommended for CAT by the Administration of Examination Committee. This study will not entail the cost of printing test booklets.

The item-sets presented in the CAT-based study will be unique for each candidate, being targeted on the candidate's level of performance. If this study is conducted in conjunction with a paper-and-pencil examination, which is reasonable if information from this study is needed prior to implementing CAT, the items on the paper-and-pencil examination can be removed from the CAT item bank used for this study.

The data will be analyzed to compare the performance of the two groups (ESL and NES) under the two conditions of time. It is expected that both groups will answer fewer items on average in the baseline condition than in the extended time condition, but that this difference will be greater for the ESL group. In essence, measures of the ability of slower readers will be based on fewer items in the baseline condition. The null hypothesis is that measures of ability will be the same in the two conditions--that they will be independent of the number of items taken, and therefore that slow readers and ESL candidates as a group will do as well in the baseline condition as they do in the extended time condition.

Fiscal Impact

All costs for the CAT-based study are estimated to be the same as the paper-and-pencil, with the exception of site/equipment rental ($40,000 for CAT versus $4,000 for paper-and-pencil), proctors ($12,000 for CAT versus $1,600 for paper-and-pencil, and printing ($0 for CAT versus $7,200 for paper-and-pencil). These differences amount to an additional $39,200 for the CAT-based study, which when added to the paper-and-pencil based estimate of $78,450, totals $117,650. As with paper-and-pencil testing, indirect costs to participating Member Boards are not included, but are expected to be the same.

NATIONAL COUNCIL OF STATE BOARDS OF NURSING, INC.

FISCAL IMPACT STATEMENT - DESCRIPTION

TITLE OF PROPOSAL: CAT-based Field Test: ESL Candidates

Proposed by: Area I Name

Date June 26, 1991 Committee Administration of Examination Committee

Will this proposal generate revenue? No Please describe below:

This proposal would direct the National Council to conduct field tests on the influence of extending the time-per-item on the NCLEX-RN for candidates with English as a second language (ESL).

EXPENSES

1. Does this proposal require a committee? Requires 2 extra days by AEC Committee at their regular meeting times.

   How many members are anticipated including the chairperson? 6

   How often would the committee meet? At regular scheduled meeting(s)

2. How many mailings would this proposal require? Added to regular meeting material for two (2) meetings.

   To whom? All committee members

3. Printing (surveys, special reports, etc.) Please describe:
   Committee materials for two meetings - Field test materials per study de

4. Other than committee meetings, is travel required? Yes

   Please describe: Council staff would have travel expenses estimated at $3,900. Participating boards may also have some travel expenses. Please see attached budget for field tests of ESL candidates.

5. What type of consultation is required (i.e., legal, computer, etc.)?
   Field tests to be done by National Council - please see attached budget.

6. Other. Please describe:
   Expenses would include: 1. Costs for Field Tests; 2. Costs for two extra days for AEC; and 3. May be travel costs for participating boards, depending upon test site(s).

7. Projected beginning date: February or July 1992

   Projected completion date: September - December 1992

KJH/mct/021291

TITLE OF PROPOSAL: Field Tests: ESL Candidates

FISCAL IMPACT - SUMMARY

REVENUE

$ 0.00

$ 0.00

EXPENSES

A. DIRECT COST

1. Committee Meetings

$775 per member airfare x ____ (# of members) x ____ (# of meetings) = $ 0.00

$200 per day per diem x 6 (# of members) x 2 (# of days) = $ 2,400.00

$225 per telephone conference x 1 (# of Telephone Conferences) = $ 225.00

2. Mailings

$0.32 per letter x ____ (# of mailings) x ____ (# mailed) = $____

$2.50 per 9 x 12 manila envelope (First Class) x ____ (# of mailings) x ____ (# mailed) = $____

$9.75 per Overnight Mail x ____ (# of mailings) x ____ (# mailed) = $____

3. Printing and Copying

A. ____ (# of reports) x ____ (# of pages) = Total pages

B. ____ (total # of pages) x $0.05 = $____

4. Other Travel

775 per person airfare x 1 (# of persons) x 4 (# of meetings) = $3100.00

00 per day per diem x 200 (# of persons) x 4 (# of days) = $ 800.00

5. Consultation

A. Legal Fees

$225 per hour x 10 (# of hours) x ____ (# of meetings) = $ 2,250.00

B. Other Consultation

$____ per hour x ____ (# of hours) x ____ (# of meetings) = $ 0.00

6. Other

$ 100.00 per Candidate x 400 = $ 40,000.00

B. INDIRECT COST Site rental: $40,000 Proctors: $12,000

1. Professional and support time required:

Total ____ hours = $____

Total Revenue: $ 0.00

Total Expenses: $ 117,650.00

Net: $ 0.00

Indirect Cost: $ 16,875.00 (included in total expenses)

)/mct/021291

22 ORIENTATION MANUAL

National Council of State Boards of Nursing, Inc.

Orientation Manual

Purpose

The purpose of the Orientation Manual is to provide information about the functions and operations of the National Council. It is hoped that this manual will facilitate the active participation of all Delegate Assembly participants as well as Board and Committee members.

Following a brief discussion of the National Council's history, this manual will describe the organizational structure, functions, policies, and procedures. Committee-specific policies, procedures, and forms may be found in the green and white National Council Manual. Each Member Board has its own copy of the National Council Manual which is periodically updated.

History

The concept of an organization such as the National Council had its roots as far back as August 1912 when a special conference on state registration laws was held during the American Nurses' Association (ANA) convention. At that time, participants voted to create a committee that would arrange an annual conference for persons involved with state boards of nursing to meet during the ANA convention. It soon became evident that the committee required a stronger structure to deal with the scope of its concerns. However, for various reasons, the committee decided to remain within the ANA.

Boards of Nursing also worked with the National League for Nursing Education (NLNE) which, in 1932, became the ANA's Department of Education. In 1933, by agreement with the ANA, the NLNE accepted responsibility for advisory services to the State Boards of Nurse Examiners (SBNE) in all education and examination-related matters. Through its Committee on Education, the NLNE set up a subcommittee that would address, over the following decade, state board examination issues and problems. In 1937, NLNE published A Curriculum Guide for Schools of Nursing. Two years later, the NLNE initiated the first testing service through its Committee on Nursing Tests.

Soon after the beginning of World War II, nurse examiners began to face mounting pressures to hasten licensing and to schedule examinations more frequently. In response, participants at a 1942 NLNE conference suggested a "pooling of tests" whereby each state would prepare and contribute examinations in one or more subjects that could provide a reservoir of test items. They recommended that the Committee on Nursing Tests, in consultation with representative nurse examiners, compile the tests in machine scorable form. In 1943, the NLNE Board endorsed the action and authorized its Committee on Nursing Tests to operate a pooling of licensing tests for interested states (the "State Board Test Pool Examination" or SBTPE). This effort soon demonstrated the need for a clearinghouse whereby state boards could obtain information needed to produce their test items. Shortly thereafter, a Bureau of State Boards of Nursing began operating out of ANA headquarters.

The bureau was incorporated into the ANA bylaws and became an official body within that organization in 1945. Two years later, the ANA Board appointed the Committee for the Bureau of State Boards of Nurse Examiners which was comprised of full-time professional employees of state boards.

In 1961, after reviewing the structure and function of the ANA and its relation to state boards of nursing, the committee recommended that it be replaced by a council. Although council status was achieved, many persons continued to be concerned about potential conflicts of interest and recognized the often heard criticism that professional boards serve primarily the interests of the profession they purport to regulate.

In 1970, following a period of financial crisis for the ANA, a council member recommended that a free-standing federation of state boards be established. After a year of study by the state boards, this proposal was overwhelmingly defeated when the council adopted a resolution to remain with the ANA. However, an ad hoc committee was appointed later to examine the feasibility of the council becoming a self-governing incorporated body.

At the council's 1977 meeting, a task force was elected and charged with the responsibility of proposing a specific plan for the formation of a new independent organization. On June 5, 1978, the Delegate Assembly of the ANA's Council of State Boards of Nursing voted 83 to 8 to withdraw from the ANA to form the National Council of State Boards of Nursing.

Today, the National Council consists of 62 Member Boards including those from the Virgin Islands, Puerto Rico, Guam, American Samoa, and the Northern Mariana Islands. An organizational chart depicting the relationship between the National Council and the Member Boards is attached (Appendix A).

Organizational Mission, Objectives, and Goals

The mission of the National Council of State Boards of Nursing is to promote public policy related to the safe and effective practice of nursing in the interest of public welfare. It strives to accomplish this mission by acting in accordance with the decisions of its Member Boards of nursing on matters of common interest and concern affecting public health, safety and welfare. To accomplish its aims, the National Council provides services and guidance to its members in performing their functions which regulate entry to nursing practice, continuing safe nursing practice and nursing education programs.

The National Council has several objectives, one of which is to develop and establish policy and procedure regarding the use of licensing examinations in nursing. Another is to identify and promote desirable uniformity in standards and expected outcomes in nursing education and practice as they relate to the public interest. The National Council also seeks to assess trends and issues that affect nursing, disseminate data relating to nurse licensure, and promote continued competence in nursing. To achieve these objectives, it plans and promotes educational programs; it provides consultative services for Member Boards and others; and conducts research that addresses education, practice, and policy-related issues. Strategies for achieving these goals are developed in accordance with organizational objectives and reflect the National Council's mission. The National Council's operational plan adds short-term activities and resources designed to accomplish the long-range goals, objectives and strategies. Activities to implement goals are developed, assessed, and refined each fiscal year and provide the organization with a flexible plan within a disciplined focus. Annually, the Board of Directors and committees participate in evaluating the accomplishment of goals and objectives and the directives of the Delegate Assembly.

Organizational Structure and Function

Membership

Membership in the National Council is extended to those boards of nursing that agree to use, under specified terms and conditions, one or more types of licensing examinations developed by the National Council. At the present time, there are 62 Member Boards including those from the Virgin Islands, Puerto Rico, Guam, American Samoa, and the Northern Mariana Islands. Boards of nursing may become Member Boards upon approval of the Delegate Assembly, payment of the required fees, and execution of a contract for using NCLEX-RN and/or NCLEX-PN.

Member Boards maintain their good standing through remittance of fees and compliance with all contract provisions and bylaws. In return, they receive the privilege of participating in the development and use of the National Council's licensing examinations. Member Boards also receive information services, public policy analyses, and research services. Member Boards who fail to adhere to the conditions of membership may have delinquent fees assessed or their membership terminated by the Board of Directors. They may then choose to appeal the Board's decision to the Delegate Assembly.

Areas

The National Council's membership is presently divided into four geographic areas. The purpose of this division is to facilitate communication, encourage regional dialogue on relevant issues, and provide diversity of board and committee representation. Area Directors are elected by delegates from their respective areas through a majority vote of the Delegate Assembly. In addition, there is a Director-at-Large who is elected by all delegates voting at convention. (See Glossary for list of jurisdictions by area.)

Delegate Assembly

The Delegate Assembly is the major policy-making body of the National Council that comprises delegates designated by the Member Boards. Each Member Board has two votes and may name two delegates and alternates.

The Delegate Assembly meets at the National Council's annual meeting, traditionally in August. Special sessions can be called under certain circumstances. Regularly scheduled sessions take place in Chicago every third year. In the years between, sessions are held in other cities on a rotation basis among areas.

At the annual meeting, delegates elect officers and members of the Committee on Nominations by majority and plurality vote respectively. They also receive and respond to reports from officers and committees and approve the annual audit report. They may revise and amend the bylaws by a two-thirds vote, providing the proposed changes have been submitted at least 45 days before the session. In addition, the Delegate Assembly approves most test-related decisions, including changes in examination fees and test plans.

Officers

Officers of the National Council include the president, vice president, secretary, treasurer, area directors, and director-at-large. Only members or staff of Member Boards may hold office, subject to exclusion from holding office if other professional obligations result in an actual or perceived conflict of interest.

No person may hold more than one elected office at the same time. The president shall have served at least one year on the Board of Directors prior to being elected to office. An officer shall serve no more than six consecutive years on the Board of Directors in addition to filling an unexpired term.

The president, vice president, secretary, and treasurer shall be elected for a term of two years or until their successors are elected. The president and vice president are elected in even-numbered years. The secretary and treasurer are elected in odd-numbered years.

The directors are elected for a term of two years or until their successors are elected. Directors from odd-numbered areas are elected in odd-numbered years. Directors from even-numbered areas and the director-at-large are elected in even-numbered years.

Officers are elected by ballot during the annual session of the Delegate Assembly. Area directors are elected by delegates from their respective areas.

Election is by a majority vote. When a majority is not established by an initial ballot, re-balloting takes place between the two nominees with the highest number of votes. In case of a tie on the re-balloting, the choice is determined by lot.

Officers assume their duties at the close of the session at which they were elected. A vacancy in the office of president is filled by the vice-president. Other officer vacancies are filled by Board appointees until the term expires.

Board of Directors

The Board of Directors, the administrative body of the National Council, consists of the nine elected officers. Its primary function is to conduct the business of the National Council between sessions of the Delegate Assembly. The Board authorizes the signing of all contracts including those between the National Council and its Member Boards. It also engages the services of legal counsel, approves and adopts an annual budget, reviews membership status of noncompliant Member Boards, and renders opinions, when needed, about actual or perceived conflicts of interest.

Additional duties include the adoption of personnel policies for all staff, appointment of committees, monitoring of committee progress, approval of studies and research pertinent to the National Council's purpose, and provision for the establishment and maintenance of the administrative offices.

The work of the Board is currently organized into three committees: Coordinating, Personnel, and a Projects Committee.

The purposes of the Coordinating Committee are to plan for efficient organization of Board business, advise and counsel the President and Executive Director on corporate matters, approve contracts, and serve as a review body

for urgent issues requiring National Council response. The Personnel Committee reviews personnel policies and proposals for staff changes. The Projects Committee directs the conduct of special projects requested by the Delegate Assembly or Board of Directors.

Meetings of the Board of Directors

Meeting dates for the year are scheduled by the Board of Directors during its post-annual meeting Board meeting. All Board meetings are held in Chicago with the exception of the pre- and post-annual meeting Board meetings in those years when the annual meeting is conducted outside of Chicago.

Board members are asked to submit reports and other materials for the meeting at least three weeks prior to each meeting so that they can be copied and distributed with other meeting materials. The call to meeting, agenda and related materials are mailed to Board members two weeks before the meeting. The agenda is prepared by the Coordinating Committee.

Activities and materials generated during the two week interval before the meeting are reported or distributed at the next meeting. This limits the flood of last minute paper to be read and considered during the Board meeting.

The agenda is generally organized around committee and staff reports in the various program areas. Items for Board discussion and action are accompanied by a memo or report which describes the item's background and indicates the Board action needed. Motion papers are available during the meeting and are used so that an accurate record will result. Staff take minutes of the meeting and later draft a complete set in conjunction with the secretary. A summary of the Board's major decisions is also prepared, reviewed by the Secretary, and mailed to Member Boards for their information prior to the release of approved minutes following the next Board meeting.

Resource materials are available to each Board member for use during Board meetings. These materials, which are updated periodically throughout the year, are kept at the National Council offices and include copies of the articles of incorporation and bylaws, policies and procedures, contracts, operational plans, budget, test plan, committee rosters, minutes, and personnel manual.

Communications with the Board of Directors

Communication between Board meetings takes place in several different ways. The Executive Director communicates weekly with the President, regarding major activities and confers as needed with the Treasurer about financial matters. The Executive Director and Treasurer also discuss the budget on a quarterly basis after the accountant has had the opportunity to compile the necessary financial data. Monthly reports of major activities are prepared by the Executive Director and mailed to Board members.

In most instances, the Executive Director is the person responsible for communicating with National Council consultants about legal, financial, and accounting concerns. This practice was adopted primarily as a way to monitor and control the costs of consultant services.

Conference calls can be scheduled, if so desired by the President. Written materials are generally forwarded to Board members in advance of the call. These materials include staff memos detailing the issue's background as well as Board action required. Staff prepare minutes of the call to assist the Secretary who submits them at the next regularly scheduled Board meeting.

Board members use the National Council letterhead when communicating as officers of the National Council.

Committee on Nominations

National Council delegates elect representatives to the Committee on Nominations. The Committee consists of four persons, one from each area, who may be either Member Board staff or Board members. Committee members are elected to one year terms and may not serve more than two consecutive terms. They are elected by ballot with a plurality vote. The chair is that person who receives the highest number of votes.

The Committee on Nominations' function is to consider the qualifications of all candidates for Board of Director office and for the committee itself. The committee then prepares a slate with the names of at least two persons for each position to be filled. At Delegate Assembly additional nominations can be received from the floor.

Committees

Most of the National Council's objectives are accomplished through the committee process. Every year, the committees report on their activities and make recommendations to the Delegate Assembly. At the present time, the National Council has seven standing committees: Examination, Administration of Examination, Finance, Bylaws, Nursing Practice and Education, Communications, and Long Range Planning.

Ad hoc committees or task forces are appointed by either the Delegate Assembly or the Board of Directors and to address special issues and concerns. Examples include the Nurse Aide Competency Evaluation Program Committee, the Committee for Special Projects, the Nurse Information System Committee and the Foreign Nurse Credentialing Committee.

Committees are governed by specific policies and procedures which may be found in the National Council Manual. The manual is updated, whenever necessary, through mailings from the National Council to Member Boards. Committee membership is extended to all current members and staff of Member Boards. An effort is made to achieve balanced representation whenever possible, including Area, staff and Board members, registered and practical nurses, and consumers. Consultants provide outside expertise to committees as needed, on a one-time or ongoing basis.

No individual may serve more than six consecutive years on the same committee. Vacancies, including those resulting from a failure to attend two consecutive meetings, may be filled by the Board of Directors upon recommendation by the committee chair.

A National Council staff member is assigned to serve each committee. Staff works closely with the committee chairs to facilitate committee work and provide support and expertise to committee members, but they have no formal decision-making role. Agendas for the committee meetings are established by the chair. With staff assistance, the chair prepares the agenda, the call to meeting, and any other documents that must be reviewed prior to committee meetings. Staff supervises the mailing of these materials, which are sent to committee members no less than two weeks before the committee meeting.

At the request of committee members, staff will analyze issues and make recommendations in accordance with committee objectives and assumptions.

Finance Committee

The Finance Committee consists of at least three persons. One of the three is the Treasurer who serves as the committee chair. The committee's primary purpose is to supervise National Council finances, subject to the Board of Directors' approval. It also reviews financial status on a quarterly basis and provides the Board with a proposed annual budget prior to each new fiscal year.

Examination Committee

The Examination Committee consists of at least six persons. One of these persons must represent a separate board for practical/vocational nursing. The committee chair must have served on the committee prior to being appointed chair. Alternates to the Examination Committee are generally individuals with prior experience on a testing related committee. The alternates are called upon to substitute for a regular committee member who is unable to attend a meeting, as well as to assist the committee in other capacities, including representation at Panels of Content Experts and Bias Sensitivity Review Panel sessions.

The purpose of the Examination Committee is to develop the licensure examinations and evaluate procedures needed to produce the licensure examinations. Toward this end, it recommends test plans to the Delegate Assembly and suggests research important to the development of licensure examinations.

The Examination Committee is responsible for directing all aspects of examination development. Other duties include the selection of appropriate item writers, test service evaluation, and preparation of written information about the examinations for Member Boards and other interested parties. The committee also evaluates the licensing examinations following their administration through means of item analysis, person-fit analysis, and test and candidate statistics.

One of the National Council's major objectives is to provide psychometrically sound and legally defensible nursing licensure examinations to Member Boards. Establishing examination validity is key to this objective. Users of examinations have certain expectations about what an examination measures and what its results mean; a valid examination is simply one that legitimately fulfills these expectations.

Validating a licensure examination is an evidence-gathering process to determine two things: 1) whether the examination actually measures competencies required for safe and effective job performance, and 2) whether it can distinguish between candidates who do and do not possess those competencies. An analysis of the job for which the license is given is essential to validation. There are several methods for analyzing jobs, including compilation of job descriptions, opinions of experts, and surveys of job incumbents. Regardless of the method used, the outcome of the job analysis is a description of those tasks that are most important for safe and effective practice.

The results of the job analysis can be used to devise a framework describing the job, which can then be used as a basis for a test plan and for a set of instructions for item writers. The test plan is the blueprint for assembling forms of the test, and usually specifies major content or process dimensions and percentages of questions that will be allotted to each category within the dimension. The instructions for item writers may take the form of a detailed set of knowledge, skills, and abilities (KSA) statements or competency statements which the writers will use as the basis for developing individual test items. By way of the test plan and KSA statements, the examination is closely linked to the important job functions revealed through the job analysis. This fulfills the first validation criterion: a test that measures important job-related competencies.

The second criterion, related to the examination's ability to distinguish between candidates who do and do not possess the important competencies, is most frequently addressed in licensure examinations through a criterion-referenced standard setting process. Such a process involves the selection of a cut score to determine which candidates pass and which fail. Expert judges with first-hand knowledge of what constitutes safe and effective practice for entry-level nurses are selected for this process. They are trained in conceptualizing the minimally competent candidate (performing at the lowest acceptable level), and they go through a structured process of judging success rates on each individual item of the test. Their pooled judgments result in identification of a cut score. Taking this outcome along with other data relevant to identification of the level of minimum competence, the Board of Directors sets a passing standard which distinguishes between candidates who do and do not possess the essential competencies, thus fulfilling the second validation criterion.

Having validation evidence based on job analysis and criterion-referenced standard setting processes is the best legal defense available for licensing examinations. For most of the possible challenges that candidates might bring against an examination, if the test demonstrably measures the possession of important job-related skills, its use in the licensure process is likely to be upheld in a court of law.

Administration of Examination Committee

The Administration of Examination Committee consists of at least six persons. Its purpose is to recommend criteria and procedures needed to maintain examination security and evaluate Member Board and Test Service compliance with the established criteria and procedures. It is the committee's duty to report security-related violations of contracts between the National Council and its Member Boards to the Board of Directors. The committee recommends dates for the administration of examinations to the Delegate Assembly. The committee chair is contacted in regard to crisis management plan implementation and investigation of security breaks. The committee also reviews National Council staff authorizations for handicapped NCLEX candidates and examination reviews.

Nursing Practice and Education Committee

The Nursing Practice and Education Committee consists of at least six persons. The committee's purpose is to provide data regarding aspects of nursing regulation to Member Boards. It periodically reviews and revises the *Model Nursing Practice Act* and the *Model Administrative Rules,* and prepares other position statements and guidelines occasionally for presentation to the Delegate Assembly. It also prepares written information about the legal definitions and standards of nursing practice and education which it disseminates to Member Boards and other interested parties. In the recent past, the committee has had a number of subcommittees to study various issues, e.g., chemically dependent nurses, advanced practice and changing trends in nursing education.

Bylaws Committee

The Bylaws Committee consists of at least three members. Its primary duties are to receive, edit, and correlate proposed amendments to the articles of incorporation and bylaws. Such amendments may be originated in the Bylaws Committee or submitted by Member Boards, the Board of Directors, or committees. Following the Bylaws Committee's review, the proposed amendments are submitted by the Committee to the Delegate Assembly together with the committee's recommendation for action.

Long Range Planning Committee

The Long Range Planning Committee consists of at least five members. Its purpose is to review the structure of the National Council and its effectiveness in meeting the National Council's purpose; review the mission statement, goals, and objectives and propose revisions, if necessary; and prepare information about the National Council goals, objectives, and strategies for dissemination.

Communications Committee

The Communications Committee consists of at least five members. Its purpose is to provide recommendations regarding National Council publications and communications; monitor the effectiveness of publications and information systems; plan the annual meeting and administer an awards program; and coordinate conferences as authorized by the Delegate Assembly or the Board of Directors.

National Council Staff

National Council staff members are hired by the Executive Director to whom they report. Their primary role is to implement the Delegate Assembly's policy directives and provide assistance to the Board of Directors and committees.

The National Council staff is organized into departments for the purpose of meeting the organizational objectives. The Testing Services Department exists to accomplish the National Council's primary objective which is to develop and establish examination-related policy and procedure. Several staff members are assigned to this department. Other staff members are assigned to the Departments of Research Services; Communications; Public Policy, Nursing Practice and Education; and Administration Services to assist the National Council to meet its other objectives. A list of staff and their respective responsibilities is attached (Appendix B).

General Delegate Assembly Information

Agendas for each session are prepared by the President in consultation with the Board of Directors and Executive Director and approved by the Board of Directors. At least 45 days before the annual convention, Member Boards are sent copies of the *Book of Reports.* This document contains annual reports and recommendations from the standing and ad hoc committees, Board of Directors, officers, and Executive Director as well as new business submitted by any member or the Board. It also contains the agenda and operating budget, as well as proposed rules for the conduct of Delegate Assembly business.

Prior to the annual session of the Delegate Assembly, the President appoints the Rules, Registration, Election, and Resolutions Committees as well as the Committee to Approve Minutes. Prior to any special session, the President appoints at least the Rules and Registration Committees. In either case, the President must also appoint a timekeeper, a parliamentarian, and pages.

The purpose of the Rules Committee is to draft, in consultation with the parliamentarian, rules for the conduct of the specific Delegate Assembly. The Registration Committee's function is to accept registration fees and provide delegates and alternates with identification bearing the number of votes to which the individual is entitled. It also presents oral and written reports at the opening session of the Delegate Assembly and immediately preceding the election of officers and Committee on Nominations.

The Elections Committee conducts all elections that are decided by ballot in accordance with the bylaws and standing rules. The Resolutions Committee initiates resolutions if deemed necessary and receives, edits, and evaluates all others in terms of their relationship to council goals and fiscal impact. At a time designated by the President, it reports its recommendations to the Delegate Assembly.

Minutes of the Delegate Assembly are kept by the Secretary, with the support of National Council staff. These minutes are then reviewed by the Committee to Approve Minutes. Discrepancies are resolved by reviewing the Delegate Assembly transcript and arriving at a consensus.

The duties of the Delegate Assembly, as specified in the bylaws, are to:

- approve new National Council memberships;
- elect officers and members of the Committee on Nominations;
- receive reports of officers and committees and take action as appropriate;
- approve any examination fee to be charged by the National Council;
- approve the auditor's report;
- approve policy and position statements and strategies that give direction to the National Council;
- approve the substance of all contracts between the National Council and Member Boards and the Council and test services;
- establish the criteria for and select the test service to be utilized by the National Council unless the National Council provides such services itself;
- adopt test plans to be used for the development of licensing examinations in nursing;
- transact any other business as may come before it.

General Committee Information

Committee Appointments

The appointment of representatives of Member Boards to committees of the National Council is a responsibility delegated to the Board of Directors by the bylaws. In order to facilitate this process and to ensure a wide representation of Member Boards, board staff and board members, the following procedure is used.

Each spring, individuals who wish to be considered for appointment or reappointment to a National Council committee submit a Committee Volunteer Form. All information from this form, along with information about the number of positions available on each committee, is forwarded to the respective Area Director for recommendations for appointment or reappointment. Concurrently, committee chairs are asked to provide input as to whether individuals currently serving on committees should be reappointed. In June, the Area Directors recommend the appointment/reappointment of individuals to vacant committee positions. The Area Directors' decisions are based on input received from committee chairs, as well as information obtained from the individuals' information form.

Immediately following Delegate Assembly, the Board of Directors evaluates the qualifications of existing and potential committee chairs, makes the appropriate appointments for committee chairs, and reviews and approves the committee appointments which were recommended by Area Directors in June. Also during this meeting, appointments are made to any additional subcommittees, special committees, and task forces required to accomplish the directives of the Delegate Assembly.

Committee Minutes

Minutes are taken at every committee meeting including telephone conferences. Minute-taking is an extremely important responsibility because minutes serve as records of what took place at the meeting. Although minutes can be opposed by oral testimony, they are, in the vast majority of cases, legally binding once they have been adopted and certified. Thus, it is critical that they accurately reflect the committee's process and outcomes.

Committee minutes are taken by committee members or staff. If no one volunteers to take the minutes, the committee chair may appoint someone to serve as secretary. Whomever takes the minutes should remember to:

- record the date, place, and time of the meeting
- include a statement that the meeting was duly called
- indicate the presiding officer, chair, or committee member
- indicate who served as secretary
- record names of persons present and quorum statistics
- record the reading, correction, and adoption of minutes from the previous meeting
- record the adjournment time
- keep them clear and concise
- not include every routine document
- make amendments to the minutes only with the committee's approval
- initial any amendments

Minutes from National Council Board and committee meetings follow a specific format. With rare exception, they should reflect the topic discussed and the comments and/or actions that followed.

On the advice of legal counsel, the minutes of the discussion should not be laden with unnecessary detail or use a "he said/she said" approach. In other words, it is not desirable for the secretary to transcribe verbatim statements. Only in special circumstances is it necessary to identify individual speakers since the minutes should reflect committee discussion as well as committee action.

Whenever possible, the secretary should leave a handwritten copy of the minutes with the staff person assigned to the committee meeting. The staff person will then have the minutes typed and forwarded to the committee members with the next meeting's agenda. This procedure not only relieves the committee member of an additional burden; it also safeguards the minutes from loss. It also provides the committee chair with information to prepare the next meeting's agenda. In the event that the minutes cannot be left with the staff person, they should be forwarded to the National Council offices within two weeks.

Committee Reports

Committee reports are sent to the National Council offices no later than three weeks prior to each Board of Directors' meeting. The reports are written by the committee chair who is assisted by the committee staff person. Staff process the reports and supervise their mailing.

The first page of the report contains an abstract of the report, followed by any committee recommendation(s). Subsequent pages document the committee's activities in either narrative or outline format. Background and rationale for the committee's recommendation(s) should be clearly stated. The report concludes with a reiteration of the committee's recommendation(s).

National Council of State Boards of Nursing, Inc.

Organization

As of May 15,1991

Member Boards

Delegate Assembly

Committee on Nominations

Ad Hoc Committees

Board of Directors

Board of Directors' Committees

Coordinating

Personnel

Projects

Committees of the National Council

Administration of Examination

Bylaws

Communications

Examination

Finance

Long Range Planning

Nursing Practice & Education

NATIONAL COUNCIL OF STATE BOARDS OF NURSING
1991 STAFF RESOURCE REFERENCE LIST

Voice mail extension numbers are listed in parentheses after the staff person's name.

COMMUNICATIONS

SUSAN WOODWARD (21), *Director of Communications*
- National Council communications services & policies
- Reprint permission
- Media contacts
- Resource Network (tailored services for Member Boards)

KERRY NOWICKI (20), *Publications Manager*
- *State Nursing Legislation Quarterly (SNLQ) Issues*
- *Newsletter* to Member Boards

SUE DAVIDS (17), *Manager of Meetings and Convention Services*
- Convention and conferences
- Meeting planning assistance
- Hotel reservations while on National Council business

YVONNE BROWN (19), *Communications Program Assistant*
- All National Council publications: orders, payments and invoices

PUBLIC POLICY, NURSING PRACTICE AND EDUCATION

VICKIE SHEETS (47), *Director for Public Policy, Nursing Practice and Education*
- Nursing practice and education
- Nursing trends and issues affecting regulation
- Disciplinary Data Bank
- National Practitioner Data Bank (NPDB)

DONNA MASIULEWICZ (45), *Secretary*
- Disciplinary Data Bank inquiries

RESEARCH

CAROLYN YOCOM (41), *Director of Research Services*
- Job analysis studies
- Licensure statistics
- Member Board characteristics (as included in "Profile" survey forms)
- Research study about regulatory management of chemically dependent nurses
- Computerized clinical simulation testing project (backup to Anna Bersky)
- Research design, statistical analysis and survey preparation (consultation)
- Feasibility study
- Plans for FY92 Role Delineation Study

BETH CAYIA (46), *Research Assistant*

JERRY JACOBSON (46), *Research Assistant*

CYNDI BENTEL (40), *Research Program Assistant*
- Surveys to Member Boards
- Member Board Profile data

CATHY STREETER (39), *Research Services Secretary*

ANNA BERSKY (35), *CST Project Director*
- Computerized Clinical Simulation Testing
- CST case and database development
- CST field test activities
- CST scoring and measurement
- CST interactive video

HAIBA HAMILTON (33), *CST/Research Services Secretary*

MELANIE NEAL (25), *Project Manager*
- Nurse Information System feasibility study

TESTING

MATTHEW SCHULZ (30), *Director of Testing Services*
- Psychometrics
- Test service contract issues
- Research and evaluation projects involving test services

NANCY MILLER (31), *NCLEX Program Manager*
- Item Writers & Panel of Content Experts
- Bias Sensitivity Review Panel
- Standard Setting (Panel of Judges)
- General NCLEX security & Crisis Management Plan
- General NCLEX questions

LOUISE PETER (32), *Secretary*
- Program code changes
- Examination summary reports (green sheets)

ELLEN GLEASON (34), *NCLEX Administrative Assistant*
- Security measures and procedures to implement
- NCLEX failure candidate review
- NCLEX handicapped modification requests

TONY ZARA (26), *CAT Project Director*
- General questions about computerized adaptive testing (CAT)
- CAT field testing planning and results
- CAT software

SANDY RHODES (29), *Secretary*
- General questions about CAT field testing
- NCLEX handscoring

BARBARA HALSEY (27), *NACEP Program Manager*
- NACEP Committee activities
- General NACEP program questions
- NACEP implementation and administration issues

JODI BORGER (28), *NACEP Program Assistant*
- Nurse aide registry information
- NACEP item writers, task developers, content experts

OPERATIONS

BILL LAUF (50), *Director of Operations*
- Member Board contracts

WANDA ANDERSON (49), *Operations Secretary*

KATHY HAYDEN (51), *Financial Manager*
- Expense reports
- Financial statements
- Travel policy

MARY TRUCKSA (52), *Accounting Assistant*

MARCO HUERCA (53), *Financial Assistant*

KEITH WILLIAMS (54), *Information Resource Manager*
- NCNET

ADMINISTRATION

JENNIFER BOSMA (42), *Executive Director*
- Board of Directors meetings/agenda
- Delegate Assembly meetings/agenda
- Media and interorganizational relations
- Staff speaker requests

DORIS NAY (12), *Associate Executive Director*
- Member Board liaison
- Committee membership
- Liaison with nursing, healthcare & regulatory groups

ANN WATKINS (43), *Executive Secretary/ Office Manager*

FLEURETTE WORKMAN (10), *Receptionist*

BEVERLY HOWARD (15), *Secretary*

23
GLOSSARY

Glossary

AACN
American Association of Colleges of Nursing.

ABOS
American Board of Orthopaedic Surgery. (A CAT research partner)

ACT Study
1986 and 1988 Job Analysis Studies as performed by the American College Testing Program, Iowa City, Iowa.

AEC
Administration of Examination Committee.

ANA
American Nurses' Association.

AONE
American Organization of Nurse Executives.

Area
Designated regions of National Council Member Boards.

Area I	Area II	Area III	Area IV
Alaska	Illinois	Alabama	Connecticut
American Samoa	Indiana	Arkansas	Delaware
Arizona	Iowa	Florida	District of Columbia
California	Kansas	Georgia	Maine
Colorado	Michigan	Kentucky	Maryland
Guam	Minnesota	Louisiana	Massachusetts
Hawaii	Missouri	Mississippi	New Hampshire
Idaho	Nebraska	North Carolina	New Jersey
Montana	North Dakota	Oklahoma	New York
Nevada	Ohio	South Carolina	Vermont
New Mexico	South Dakota	Tennessee	Pennsylvania
N. Mariana Islands	West Virginia	Texas	Rhode Island
Oregon	Wisconsin	Virginia	Virgin Islands
Utah			Puerto Rico
Washington			
Wyoming			

ASCP
American Society of Clinical Pathologists. (A CAT research partner)

Batch Processing
A method of submitting candidate applications for NCLEX. Applications are submitted directly to the Board of Nursing, then forwarded to the Data Center on a regular basis with the appropriate funds.

Blueprint
The organizing framework for NACEP which includes the percentage of items allocated to various categories.

Board Member
An individual who serves on a board of directors (national level) or a board of nursing (state level).

Board Processing
A method of submitting candidate applications for NCLEX. Applications are submitted directly to the Board of Nursing, then forwarded to the Data Center on a regular basis without money. The Board is billed for the total number of processed applications at a later date.

BOD
Board of Directors of the National Council of State Boards of Nursing.

Bylaws
The laws which govern the internal affairs of an organization.

Case Development Committee
A committee of twelve (12) clinical experts which has the responsibility of developing cases for the Computerized Clinical Simulation Testing (CST) project.

CAT
Computerized Adaptive Testing.

CGFNS
The Commission on Graduates of Foreign Nursing Schools.

CLEAR
National Clearinghouse on Licensure, Enforcement and Regulation (an organization of regulatory boards and agencies).

CMP
See Crisis Management Plan.

CNATS
Canadian Nurses Association Testing Service.

Competency Statements
Statements of future-oriented nursing competencies synthesized by the Task Force on Examinations for the Future in 1988 and the Subcommittee on PN/VN Competencies in 1989.

Crisis Management Plan (formerly Disaster Plan)
A plan developed for NCLEX administration to be implemented in the event of emergency or natural disaster.

CSP
Committee for Special Projects (CAT Committee).

CST
Computerized Clinical Simulation Testing.

CTB Macmillan/McGraw-Hill
The National Council's test service for NCLEX.

Data Center
The unit at CTB which receives and processes direct NCLEX applications.

Delegate Assembly
The policy-making body of the National Council comprises 62 Member Boards. Each Member Board is entitled to two (2) votes.

Diagnostic Profile
The document sent to failing candidates reflecting their performance on various aspects of the NCLEX test plan.

Direct Application
A method of submitting candidate applications for NCLEX. Applications are submitted by candidates, with appropriate fee, directly to the Data Center.

Disciplinary Data Bank
A National Council data management system that serves as a conduit and resource for disciplinary actions from Member Boards.

EC
Examination Committee.

Experimental Items
Newly written test questions placed into examinations for the purpose of gathering statistics. Experimental items or "tryouts" are not used in determining the pass/fail result.

ESL
English as a second language

FARB
Federation of Associations of Regulatory Boards.

Fiscal Year
October 1 to September 30 at the National Council.

FY
See Fiscal Year.

HCFA
Health Care Financing Administration.

ICN
International Council of Nurses.

ICONS
The Interagency Conference on Nursing Statistics. Members include the American Association of Colleges of Nursing, the American Association of Critical Care Nurses, the American Hospital Association's Center for Nursing and its Data Center, the American Nurses' Association, the Bureau of Labor Statistics, the Division of Nursing (BHPR, HRSA), the National Center for Health Statistics, the National Council of State Boards of Nursing, and the National League for Nursing.

Issues
A quarterly newsletter published and nationally distributed by the National Council.

Item
A test question.

Item Response Theory (IRT)
A family of psychometric measurement models based on characteristics of examinees' item responses. Their use enables many measurement benefits (see Rasch Model).

Item Writers
Individuals who write test questions for NCLEX RN/PN and NACEP.

KSA
Knowledge, Skill and Ability Statements.

Logit
The natural logrithem of an odds ratio, such as p/q or q/p where p is an odds (probability) value between 0 and 1, and q equals 1-p. For items, the ratio is q/p and p represents the item p-value. For persons, the ratio is p/q and p represents proportion of items an examinee gets correct on an examination. The log transformation of an odds ratio creates an equal interval, logit scale on which item difficulty and person ability may be jointly represented.

LRP
Long Range Planning (a committee of the National Council)

MAR
Model Administrative Rules.

Mantel-Haenszel
A well-accepted statistical procedure used to estimate the differential item functioning or potential bias of test items.

Member Board
A jurisdiction having a contract with the National Council to administer NCLEX-RN and/or NCLEX-PN.

MNPA
Model Nurse Practice Act.

NACEP
Nurse Aide Competency Evaluation Program (also a committee of the National Council).

NAPNES
The National Association for Practical Nurse Education and Service.

National Council Operational Plan
Goals, objectives and strategies of the National Council's long range plan as adopted by the Delegate Assembly. The plan includes activities and funding sources for current and future years as planned by the Board of Directors and committees.

National Licensure Verification Form
A compilation of data taken from all licensure verification forms used in every state to develop a single national licensure verification form available for common use.

NBME
National Board of Medical Examiners. NBME programmed the National Council's Computerized Adaptive Testing (CAT) software and is currently modifying its computerized clinical simulation testing (CST) software for application to nursing.

NC or NCSBN
Abbreviated form of National Council of State Boards of Nursing, Inc.

NCLEX-RN/PN
National Council Licensure Examination-Registered Nurse/Practical Nurse. Test dates are designated by month and year. NCLEX-RN is administered in February and July (e.g. 291 and 791). NCLEX-PN is administered in April and October (e.g. 491 and O91).

NCNET
National Council's electronic mail network, available to each Member Board and used by subscription.

NCNIP
National Commission on Nursing Implementation Project.

Newsletter
A biweekly publication produced by the National Council staff and distributed to each Member Board. Items included on a regular basis: committee reports; Board of Directors agendas, major actions and minutes; Disciplinary Data Bank reports; analyses of federal legislation; examination statistics; notice of upcoming events; updates to the National Council Manual; and solicitations for persons to serve in various capacities.

NFLPN
National Federation of Licensed Practical Nurses.

NIMH
National Institute of Mental Health.

NIS
Nurse Information System (a committee of the National Council).

NLN
National League for Nursing.

NP&E
Nursing Practice and Education (a committee of the National Council's Delegate Assembly).

NPDB
National Practitioner Data Bank. A federally-mandated program for collecting disciplinary data regarding health-care practitioners. The NPDB began operation in September, 1990, receiving required medical malpractice payment reports for all health care practitioners, and required reports of discipline and clinical privilege/society actions regarding physicians and dentists. Mandatory reporting of licensure actions regarding other health care practitioners, including nurses, is required by P.L. 100-93, section five. Implementation of section five is on hold until the NPDB has gained sufficient experience under Title IV to extend services.

OBRA 1987
Omnibus Budget Reconciliation Act of 1987 (contains requirements for nurse aide training and competency evaluation).

Panel of Content Experts
Individuals who review newly written items developed for NCLEX-RN/PN.

PCE
See Panel of Content Experts.

Person-fit Analysis
A statistical procedure conducted to determine whether items from a previously-administered examination may have been exposed to any group(s) of candidates.

PL 100-203
A public law which institutes the Nursing Home Reform Act and is part of the Omnibus Budget Reconciliation Act (OBRA) of 1987.

PL 99-660
A public law which institutes the Health Care Quality Assurance Act and establishes a national practitioners databank (See NPDB).

Psych Corp
The Psychological Corporation. The Psychological Corporation is the test service contracted by the National Council and guided by the Nurse Aide Competency Evaluation Program (NACEP) Committee to develop and maintain an evaluation for nurse aide competency as mandated by federal legislation (OBRA).

Psychometrics
The scientific field concerned with all aspects of psychological measurement (or testing), specifically achievement, aptitude, and mastery as measured by testing instruments.

Rasch Measurement Model
A psychometric item response theory model used to create the NCLEX measurement scale. Its use allows person-free item calibration and item-free person measurement.

Reliability
A test statistic that indicates the expected consistency of a person's test scores across different administrations or test forms. Reliability indicates the extent to which a test score is repeatable over time. That is, it reflects the degree to which a test score reflects the examinee's true standing on the trait being measured. The National Council uses the Kuder-Richardson Formula 20 (KR20) statistic to measure the reliability of NCLEX and NACEP.

RFP
Request for Proposals.

SNLQ
State Nursing Legislation Quarterly. A quarterly journal publication reviewing nursing legislation throughout the country. The journal is published by the National Council and mailed by subscription.

Standard Setting
The process used to set the passing standard for an examination. The passing standard is the performance level (in terms of number of correct answers) at and above which examinees are classified as passing the examination and below which they are classified as failing. For the National Council, the standard setting sessions are used to determine the minimum level of entry-level nursing knowledge, skills and abilities that candidates must demonstrate to pass. The National Council uses a criterion-referenced procedure for standard setting and conducts a standard setting session every time the NCLEX test plan or NACEP blueprint changes.

State Summary Profiles
A prototype of state-level examination performance data that were developed for discussion at the spring 1990 Area meetings. The proposed reports were designed in the format of the summary reports ("green sheets") and included performance information related to areas of the test plan by school and by program type.

Summary Profiles
Published by CTB, the NCLEX Summary Profiles are a concise report of the performance of a nursing program's graduates on the National Council Licensure Examination. A subscription to this service provides a nursing program with percent of candidates passing, test plan profiles, diagnostic profiles, and content dimension reports that may help program administrators and educators to monitor the effectiveness of the curriculum and identify areas of strength and weakness.

Summary Reports
After all phases of a scoring cycle have been completed for an administration, CTB prepares a set of summary reports for each state or jurisdiction. The reports include a variety of data summarizing the test performance of all candidates. The reports also include summaries of test performance for candidates who were educated in that state.

TAA
Test Administration Agency. The organization contracted by a Member Board to administer the NCLEX or NACEP examination.

Tape States
A method of submitting candidate applications for NCLEX. The states develop their own applications, enter the information on to a computer tape, and forward that tape to the Data Center following the examination.

Test Plan
The organizing framework for NCLEX-RN/PN which includes the percentage of items allocated to various categories.

Test Service
The organization which provides test services to the National Council, including test scoring and reporting. CTB is the test service for NCLEX, and The Psychological Corporation is the test service for NACEP.

Upfront
Software used with NCNET.

Validity
The extent to which inferences made using test scores are appropriate and justified by evidence; an indication that the test is measuring what it purports to measure. The National Council assures the content validity of its examinations by basing each test strictly on the appropriate test plan (RN or PN) or blueprint (NACEP). Each test plan or blueprint is developed from a current job analysis of entry-level practitioners.