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THE NEW YORK STATE ASSOCIATE DEGREE NURSING PROJECT--A FINAL
REPORT TO THE W.K. KELLOGG FOUNDATION.

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NEW YORK STATE EDUCATION DEPT., ALBANY

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FROM DETAILED ANALYSES OF 16 ASSOCIATE DEGREE NURSING PROGRAMS, EFFORTS WERE MADE TO COORDINATE THE DEVELOPMENT AND IMPROVEMENT OF A.A. DEGREE NURSING EDUCATION. NO ATTEMPT WAS MADE TO RELATE THE INFORMATION TO BACCALAUREATE AND DIPLOMA SCHOOLS OF NURSING. FROM QUESTIONNAIRES, INTERVIEWS, AND COLLEGE CATALOG DATA, SIMILARITIES AND DIFFERENCES IN ASSOCIATE DEGREE NURSING PROGRAMS WERE IDENTIFIED, SUCH AS THE COEDUCATIONAL, 2-YEAR NONRESIDENTIAL NATURE OF MOST SPONSORING INSTITUTIONS, AND SIMILAR ADMISSION AND GRADUATION REQUIREMENTS (SUCH AS THE CUMULATIVE SCHOLASTIC INDEX OF 2.0 FOR A DEGREE). THERE IS A WIDE VARIATION IN ENROLLMENT PATTERNS, CLASS-LABORATORY HOURS, STUDENT-FACULTY RATIOS, TEACHING LOADS, AND CURRICULUM BALANCE BETWEEN GENERAL EDUCATION AND NURSING COURSES. PROPONENTS OF STRONG GENERAL EDUCATION FOUNDATIONS BELIEVE IN ALTERING CURRICULUMS TO INCLUDE 50 PERCENT GENERAL EDUCATION, 25 PERCENT NURSING, AND 25 PERCENT SUPPORTIVE COURSES. A DISTRIBUTION TABLE OF REQUIRED SUBJECTS AND ELECTIVES IS USEFUL IN ASSESSING THE PRESENT EMPHASIS. SOME FAVORABLE OUTCOMES OF THE PROJECT WERE IMPROVED COORDINATION AND TEACHER PREPARATION, A RESOURCE CENTER, DEMONSTRATION CENTERS, AND PRELIMINARY PLANNING SURVEYS. A DIRECTORY AND BIBLIOGRAPHY ARE INCLUDED. SUCCESS OF THE PROGRAMS IS INDICATED BY THE 80 PERCENT HOSPITAL EMPLOYMENT RATE OF GRADUATES. (DE)

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***The New York State
Associate Degree Nursing Project***

A FINAL REPORT TO THE W. K. KELLOGG FOUNDATION

**U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION**

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**The University of the State of New York
The State Education Department**

The Associate Degree Nursing Project

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***The New York State
Associate Degree Nursing Project***

A FINAL REPORT TO THE W. K. KELLOGG FOUNDATION

JULY 1, 1964

The University of the State of New York
The State Education Department

The Associate Degree Nursing Project

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K1003—D64—2000

LETTER OF TRANSMITTAL

December 1, 1964

Miss Mildred Tuttle
Director, Division of Nursing
W. K. Kellogg Foundation
Battle Creek, Michigan

Dear Miss Tuttle:

I take great satisfaction in presenting to you the printed version of the fifth and final report on Part I of the Associate Degree Nursing Project, for which the State Education Department assumed responsibility.

May I use this occasion to again thank the Foundation for its generous support, which not only made this project in nursing education possible but also has stimulated our Department to undertake the study and further development of other health related programs in the community colleges. These programs will be concerned with a variety of health technicians and assistants who are not now available or are in short supply.

The report on Part II of the Associate Degree Nursing Project, devoted to the preparation of teachers and instructional materials, has been submitted separately by Teachers College, Columbia University.

Sincerely,



James E. Allen, Jr.

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***The University of the State of New York
The State Education Department
Albany 12224***

Frank R. Kille
Associate Commissioner

October 1, 1964

To: Commissioner Allen
*Subject: Final Report of the New York State Associate Degree
Nursing Project*

The following report covering the five years of the New York State Associate Degree Nursing Project speaks for itself. It is obvious that in this short time an important contribution has been made to the field of nurse education. Looking ahead provision has been made to assist the community colleges to improve and expand these programs through the appointment by the State Education Department of a special consultant in the office of the State Board of Nurse Examiners.

Less obvious but of great importance for all of higher education in the State is the value of this project as an example of what can be accomplished by marshalling all available resources on a community and statewide basis.

The project was a joint public-private undertaking from the start. The proposal was developed by the State Education Department and Teachers College, Columbia University, and was financed in large part by a grant from the W. K. Kellogg Foundation. In the course of operation contributions of staff, facilities, money, and a wide variety of services were made by the communities involved, public and private hospitals, the United States Public Health Service, the State Education Department and State University. Furthermore, all major policy decisions were made by a small coordinating council consisting of representatives of Teachers College, State University and the State Education Department. The project was also assisted by a larger advisory committee with representatives from all interested groups, including the general public.

Funds from any one of these sources would have been inadequate. Furthermore, while the use of some of the funds was restricted to special purposes, other grants were not. As a result, the project as a whole could be advanced with maximum flexibility.

Credit for much of the success of the project should go to Dr. Robert E. Kinsinger, Director of the Project and author of this report. Cooperation, direction, and close liaison on this level can be achieved only when a project has the full-time services of an imaginative and able administrator.

In these days of great shortages of personnel, facilities and money to meet the rapidly mounting needs of our society for higher education, this report provides an encouraging illustration of what can be accomplished through an association of colleges and related agencies.

Sincerely yours,

Frank R. Kille

Frank R. Kille

The New York State Associate Degree Nursing Project

FOREWORD

This report is the fifth and final publication of a five-year project (1959-64) to promote the sound development of associate degree nursing programs in New York State.

This brief overview of the project as it was conceived and executed is not intended as a substitute for the detailed annual reports published in preceding years. Only the highlights of the project are included in this narration. Previous reports are available from the New York State Education Department, Albany, New York.

The detailed analysis of associate degree nursing programs in New York State found in Section X should provide convenient reference for nurse educators wishing to study associate degree nursing education as it has developed in New York. The comparative study is the result of a program of data collection which extended over the last two years of the project. It was made possible by the wholehearted cooperation of administrative officers, faculty members, students, and nurse graduates of each of the colleges offering associate degree nursing education in New York State. In addition, the Research Office of the State University of New York, the Office of Research in Higher Education, and the Office of the Assistant Commissioner for Professional Education of the State Education Department provided essential assistance in gathering materials on which the tables and analysis are based.

I Historical Development

The New York State Associate Degree Nursing Project grew out of a report titled, *A Survey of Nursing Personnel Resources in Hospitals in New York State*, closely followed by a sequel, *Needs and Facilities in Professional Nursing Education in New York*. Out of the findings and recommendations of these studies, completed in 1959 by The Nurse Resources Study Group¹, grew an educational partnership that eventually involved a complex interplay of at least eleven major categories of agencies and institutions: a private foundation, the New York State Education Department, the State University, a private university, voluntary hospitals, government hospitals (federal, state, and local), the United States Public Health Service, community colleges, private colleges, national professional organizations, and private business and industry.

The New York State Education Department took its cue from a key conclusion of the Nurse Resources Study Group:

The Nurse Resources Study Group, after thinking, extended consultation, and debate, has concluded that a large-scale development of professional nurse programs in community colleges offers the most promising solution of providing additional educational facilities.

The recommendation coincided with the interest of the W. K. Kellogg Foundation in the development of associate degree nursing education. The Foundation had been studying the development of this new type of nursing education since the pioneer Cooperative Research Project in Junior and Community College Education in Nursing. In 1953, the Trustees of the Foundation decided to assist in strengthening associate degree nursing education in California, Florida, New York, and Texas. In New York this decision was implemented by a foundation grant for the five-year project jointly developed by the New York State Education Department and Teachers College, Columbia University.

II Project Objectives

The New York State Associate Degree Nursing Project was based on the premise that, "The constantly increasing discrepancy between the need for nursing services and the supply of nurses makes it imperative that more students be enrolled in schools that prepare for nursing. The burden which now falls so heavily upon hospital schools of nurs-

1. Appointed by the Board of Regents of The University of the State of New York in June 1954.

ing must be shared, and perhaps eventually reduced. This can be accomplished by establishing new programs in the new type of educational institution in which an increasing proportion of the youth of America are enrolling, namely the junior or community college."² The immediate task was one of initiating and coordinating the efforts of many individuals, groups, and institutions to assure sound development of programs of study in nursing leading to an associate degree. In addition, new approaches to old educational problems needed exploration.

The formal objectives for the project were set forth as follows:

- 1 To develop a program for the preparation of nursing faculty for associate degree nursing education.*
- 2 To assist in the planning and activation of new associate degree programs in community colleges.*
- 3 To establish and to operate a demonstration center in a community college.*
- 4 To provide statewide leadership, consultation, and coordination for the development and improvement of associate degree nursing education.*

To carry out the project objectives a whole series of activities was developed to interact, each with the other, in pursuit of the goal: sound programs of nursing education in New York State community colleges (see Figure 1).

III Teacher Education

The Nurse Resources Study Group had noted that "there is a genuine shortage of appropriately educated and otherwise competent instructional personnel to staff nursing education." The existing supply of nursing instructors should not, it was reasoned, be spread even thinner because of the development of new nursing programs. Therefore, it was imperative to develop a program of instructor preparation for teaching in associate degree nursing programs. All were agreed that the results of an educational program can be no better than the quality of its teachers. Even veteran nursing instructors need specific preparation for the new approach to nursing instruction employed in associate degree nursing programs, so, as one of the first steps in implementing the project, a special program of teacher preparation was developed by Teachers College, Columbia University. Over the five-year period approximately 156 students completed the one-year

2. Mildred L. Montag, *Community College Education for Nursing*. New York: McGraw-Hill Book Company, Inc. 1959. p. 370.

COORDINATING COUNCIL

Project Director Chairman

The State Education Department

Project Office

- 1 Clearinghouse for information on associate degree nursing education.
- 2 Relationships with professional groups, medical, hospital, nursing.
- 3 Preparation of educational materials.
- 4 Professional library for educators.
- 5 Fiscal control.
- 6 Coordination of State Advisory Committee and Council of Associate Degree Nursing Programs.

Teachers College Columbia University

Preparation of Teachers and Administrators of Nursing Education in Community Colleges

- Classroom and field experiences in the area of:
- 1 Fundamentals of nursing.
 - 2 Nursing of mothers, infants and children.
 - 3 Nursing in physical and mental illness.
 - 4 Program administration.

Consultation

- Free consultation for administration and faculty of colleges on associate degree nursing education on:
- 1 Administration.
 - 2 Costs.
 - 3 Selection of faculty.
 - 4 Clinical use and contractual.
 - 5 Student selection and recruitment.
 - 6 Curriculum development.
 - 7 Evaluation.
 - 8 Teaching methods.

Demonstration Centers

- 1 Provision of observational opportunities for visiting teachers and administrators.
- 2 Off-campus laboratory for student teachers from Teachers College and other universities.
- 3 Development of curriculum materials and teaching aids.
- 4 Experimentation with instruction and curriculum problems.

Planning and Activation of New Programs

- 1 Screening college applications for financial assistance during planning year.
- 2 Financial grants for college for nursing faculty during planning period.
- 3 Assistance in planning new associate degree nursing programs.

Curriculum Conferences

Short term discussions and workshops for large groups of educators and nursing service personnel on associate degree nursing education.

Curriculum Consultations

Consultation and advice on nursing curriculum problems to nursing faculties of associate degree nursing programs.

Figure 1

master's level course of teacher preparation. Another 302 participated in in-service conferences on teaching nursing in the community college. Practice teaching took place at the Demonstration Centers at Bronx Community College and Rockland Community College, or in other nearby colleges offering associate degree nursing education. In addition, several conferences included nursing service personnel involved with associate degree programs, either because their hospital served as a practice field for associate degree programs or because they were employing a substantial number of graduates of the program.

IV Development of New Programs

Over the five-year period of the project, consultation was provided to over forty educational institutions. One of the major tasks was to identify those institutions that had adequate physical facilities; faculties in the humanities, physical, biological, and behavioral sciences; and more important, that had satisfactory clinical facilities nearby. Priority was placed on those geographical areas in the state where the need for more nursing education was most pressing.

Financial assistance for planning new programs was given to selected colleges to make it possible for nursing faculties to be on campus several months before the arrival of students. This provision was a strong factor in establishing sound programs.

In most instances, clinical surveys were made for colleges by the nursing staff of the project to assist the college administration in deciding whether or not to inaugurate a nursing program. For these clinical surveys a special publication was prepared and has been widely used throughout the United States and several foreign countries.³

Locally sponsored two-year colleges under the program of the State University developed the majority of the new programs, but two private colleges also inaugurated new associate degree nursing programs. In each case detailed arrangements for the use of general hospitals, clinics, specialized hospitals, public health units, doctors' offices, nurseries, and many other facilities had to precede establishment of the college nursing program. At the start of the project in 1959 four associate degree nursing programs were in operation in New York State. By the fall of 1964 that number had grown to nineteen.

3. New York State Associate Degree Nursing Project, *Guide to the Selection of Clinical Facilities for an Associate Degree Nursing Program*. New York: The Project, 1960.

V Demonstration Centers

A Demonstration Center, initially developed at Bronx Community College, was charged with giving attention to: 1) the development and evaluation of curricula and teaching methods; 2) the preparation of educational materials and reports; 3) the provision of services for visiting teachers, administrators, and graduate students seeking information and experience in the field of junior college nursing programs related to their respective interests.

In an average year the Demonstration Center in the Bronx had about 400 visitors, including representatives from five or six foreign countries in addition to its regular quota of practice teachers.

Some of the most successful activities included 1) the development of a broadly conceived fundamentals of nursing course based on the 21 nursing problems of Abdellah⁴, Beland, Martin, and Matheney; 2) a series of verbally annotated sound tape recordings of pre- and post-clinical student conferences; 3) extensive pioneering research in the use of closed circuit television and videotape recording in the hospital as an aid to clinical teaching (in conjunction with The Research Grants Branch, U. S. Public Health Service).

During the course of the project the requests for visitation and practice teaching privileges became so great that a second Demonstration Center was established at Rockland Community College in Suffern, New York.

VI Projects Within Projects

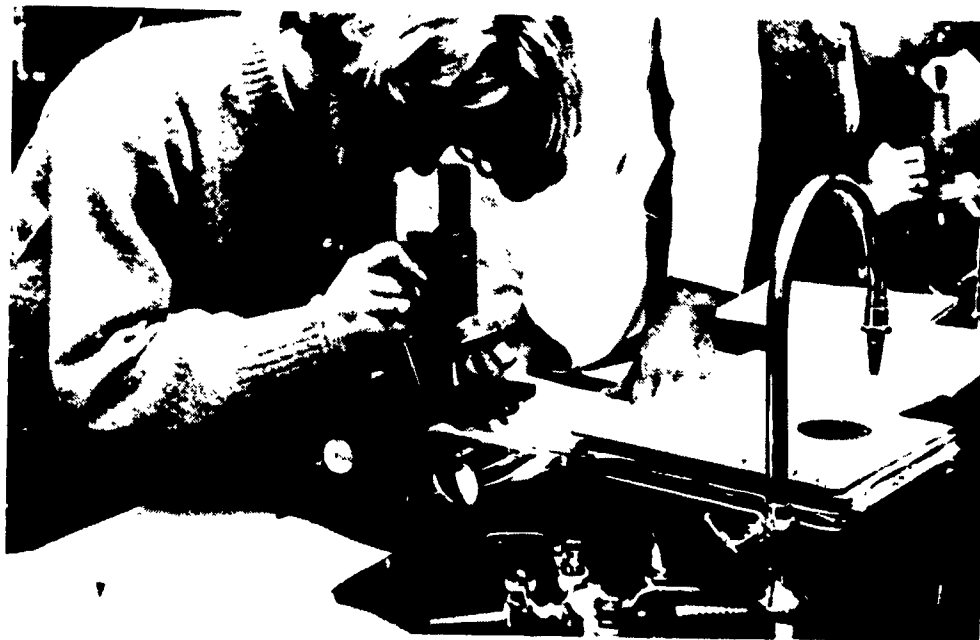
Some of the most rewarding activities and accomplishments stemming from developmental projects in education are only vaguely anticipated at the time a project is originally conceived. Many of the programs, undertaken only after the project objectives came into sharper focus, may be of the greatest significance.

A Resource Center

Almost from the start of the project an obvious need was recognized for a depository of conveniently catalogued and readily obtainable books, catalogs, reports, pamphlets, and other materials on associate degree nursing education. A Resource Center was established at the project office.

4. Faye G. Abdellah, et al, *Patient Centered Approaches to Nursing*. New York: The Macmillan Company, 1960. p. 205.

Planning discussions lead to . . . the classroom . . . the laboratory



... the library ... patients.



B *Interpretative motion picture*

The need for an interpretative motion picture on associate degree nursing education was posed by a national council serving the W. K. Kellogg Foundation. The film *Idea with a Future* was made for national use under the auspices of the New York State project, with the close cooperation of diverse groups already working together within the framework of the project. Over forty prints of the film are in regular use throughout the country. Rental prints have been booked four months in advance for almost two years.⁵

C *Programed instruction*

The first complete programed instruction unit in the field of nursing was written and field tested under project auspices.⁶ In addition, a second educational problem, involving remedial work in mathematics for nursing science, was identified. The project also encouraged the preparation of a program in this area.⁷ It is hoped that the impact of this pioneering work will spread across the entire field of nursing education.

D *Interaction with allied groups*

Efforts to carry out the objectives of the project called for interaction with many allied groups in addition to the basic organizational partnership noted (page 13). Close working relationships were established with the New York State League for Nursing, Empire State Health Council, New York State Association of Junior Colleges, Nursing Division of the U. S. Public Health Service, State University of New York, closed circuit television engineers and manufacturers, Council on Medical Television, Audio-Visual Conference on Medical and Allied Sciences, National League for Nursing Interdivisional Council on Research in Nursing, Center for Programed Instruction, United Hospital Fund of New York, City University of New York, and many more institutions and agencies.

E *State Council of Associate Degree Nursing Programs*

A short-term project should be judged by its contributions that continue beyond the project termination. In addition to preparing teachers, developing programs and new teaching methods, and initiating

5. *Idea with a Future, The Associate Degree Nursing Program*. Available for rental or purchase from the ANA-NLN Film Library, 267 West 25th Street, New York 1, New York.

6. Marie M. Seedor, *Programed Instruction for Nursing in the Community College*. New York: Teachers College, Bureau of Publications, Columbia University, 1963. 117 pp.

7. Sally Lipsey, *Mathematics for Nursing Science*. New York: John Wiley and Sons, Inc., 1964. 196 pp.

ing experimentation in the use of closed circuit television and programmed instruction, the project aimed to develop close working relationships between institutions and study methods that will long outlast the project.

A mechanism for professional interchange between associate degree nursing programs in the state was created through the establishment of the New York State Council of Associate Degree Nursing Programs under project auspices. The council met quarterly and was responsible for developing the *Proposed Minimum Standards for Associate Degree Nursing Programs in New York State* and for compiling detailed comparisons of associate degree nursing curriculums. In addition, the council gathered for staff analysis comprehensive and detailed information on college physical facilities, students, student personnel services, faculty and administration, curriculum patterns, and employment of graduates (see Section XI of this report).

Members of the council were helpful in planning a statewide conference on science teaching and its relation to nursing, and council members collaborated on the development of a student recruitment flyer.

Council members worked with members of the New York State Department of Health, representatives of baccalaureate nursing programs, and nursing representatives of the State Education Department on the project publication, *Guide to the Selection of Clinical Facilities for an Associate Degree Nursing Program*.

F Increasing size of programs

During the course of the project a new trend in the size of associate degree nursing program enrollments began to emerge. Enrollment in associate degree nursing programs during the first ten years of development tended to remain relatively small. The limiting factor, which is operative when all nearby clinical facilities are used to capacity, will continue to restrict enrollments in many programs. However, a movement toward large-scale expansion of individual associate degree nursing programs, particularly in metropolitan areas where adequate clinical facilities are available, was paced by Bronx Community College.

Early in 1963 the nursing program at Bronx Community College entered into an agreement with the Department of Hospitals of the City of New York for a gradual but extensive expansion of the Bronx Community College nursing department. A total annual enrollment of six hundred nursing students is being planned within the next few years. When the expansion is completed the nursing program will have an enrollment equaled by only two other nursing programs in the United States.

VII Factors Inhibiting Program Development

When a project starts with a directive reading in part "to provide statewide leadership . . . for the development and improvement of associate degree programs in nursing" it becomes of particular concern to identify those factors that stand in the way of the establishment of new associate degree nursing programs.

The Regent's Nurse Resources Study Group stated that:

The two-year community or junior colleges hold promise as the institutions that can expand rapidly to provide educational opportunity for the increasing crops of young people ready for post-secondary school training. The ability of such institutions to educate professional nurses has been demonstrated. Therefore, every competent, degree-granting, two-year post-secondary institution in the State should be encouraged to explore the desirability and possibility of offering a two-year, associate degree professional nurse program.

In addition, the State University Executive Dean for Institutes and Community Colleges frequently counseled the two-year college presidents as a group to consider the development of nursing education in their college.

Over the five-year span of the project an average of three new programs were inaugurated each year, but there were several community colleges that considered and rejected or deferred the inclusion of nursing in the curriculum.

In most instances the decision to reject or defer the development of a nursing program in a particular college was in the best interest of the community and the college. However, the project staff saw a need to analyze what constitutes in the words of the Regent's Nurse Resources Study Group, "desirability" and "possibility" when applied to the establishment of new programs.

The project staff identified the following factors as considerations which at one time or another inhibited program development:

- 1 *Inadequate general college base upon which to build a nursing program (crowded classrooms, laboratories used to capacity, restricted courses in biological sciences, etc.).*
- 2 *Inadequate clinical facilities available to the college for clinical teaching and practice.*
- 3 *Financial restrictions which prevent the inauguration of any new curriculum.*
- 4 *Possible competition of an associate degree nursing program with existing nursing education programs in the community in regard to students and use of clinical facilities.*
- 5 *Lack of understanding and acceptance of associate degree nursing education by community health personnel.*

6 *Inability of the college to employ qualified nursing instructors.*

7 *College participation in an existing practical nurse program.*

Only two reasons for rejecting nursing education at a community college seemed insuperable: 1) If the available clinical facilities were inadequate to provide the necessary learning experience for students, this was considered a positive barrier; 2) if it was impossible to attract adequately prepared nursing faculty, it would be unwise to start a program. A broader college science and general education base, increased financial support, additional classroom and laboratory space, and a better understanding of the operation and objectives of associate degree nursing education could be, and in many cases were, developed.

Competition with existing nursing education programs, either practical nurse or hospital school, is a matter for local consideration by community groups. It could be a deciding factor if the community determines that it is satisfied with the existing system for nursing education and that an adequate supply of registered nurses is available to meet the health needs of the community. The responsibility of the community college educator in this situation is merely to make sure that the community leaders are aware of the ramifications of the decision that they are making and that they have had access to all the facts that should govern the decision.

VIII The Bronx Community College Nursing Program As an Experimental Laboratory

Designation as the project Demonstration Center meant four major things to the Department of Nursing at Bronx Community College:

- 1 Curriculum development
- 2 New teaching techniques
- 3 Attempts to help other associate degree nursing programs
- 4 The care of visitors and people who came for demonstrations

The area of curriculum development provided a stimulating educational experience. The faculty members were like-minded people with an idea. They had time, energy, money, and that important ingredient of non-interference provided by the Demonstration Center to develop a new nursing curriculum. The faculty treated the opportunity as a challenge to develop a curriculum that they felt was devoted solely to nursing. They were not interested in medical-surgical specialists, psychiatric specialists, or the training of junior intern or medical laboratory technicians. They viewed the curriculum as the personal formulation of what a nurse does or is. It provided a chance to break away completely from the traditional curriculum pattern in nursing,

i.e., to stop concentrating on disease and systems, and to try to focus on what was uniquely nursing in relation to a particular patient, an attempt to come to grips with the content of nursing.

A New teaching techniques

In the area of new teaching techniques, the faculty attempted to develop objective behavioral evaluation devices to be used in the clinical area. Attempts were made to avoid teacher bias and subjectivity in evaluating student performance in the hospital.

Tape recordings of pre- and post-clinical conferences were used as additional instruments for the preparation of teachers and as resource materials for in-service education. The tapes were also used to analyze the methodology of conducting large group conferences; to improve faculty teaching skills; and as a guide to student development and group growth. The magnetic tapes were borrowed extensively across the country, not only to demonstrate a method of teaching, but to illustrate the curriculum concept and vicarious learning.

Faculty and students also participated in early field testing of nursing units in programed instruction.

The faculty experimented with the combinations of students from more than one unit into large stimulating conference groups. They found that some conferences with large groups were appropriate and some were not. Recovery room, operating room, labor and delivery seemed to be learning experiences that best lent themselves to isolated post-conferences in small groups.

Attempts were made, in conjunction with Teachers College faculty members, to identify how and when specific things could best be taught and learned. New instructors, and many old instructors, found it difficult to think in terms of the clinical area as a teaching situation. The teacher in the classroom at the college is frequently accorded all academic prestige. New instructors are likely to confuse supervision with instruction. Allowing the time and help needed to develop competent clinical instructors was considered vital to the success of a nursing program.

Closed circuit television as a method of clinical instruction and a method of stretching instructional talent was explored (see Section IX of this report) and an additional grant was awarded to the Department of Nursing by the United States Public Health Service for further experimentation in using videotape with closed circuit television. This activity will continue after the official termination of the Demonstration Center. The grant is threefold and includes: a) the development of objective criteria to evaluate clinical experience, b) the taping of actual student-patient care to be evaluated, and c) the development

of a film library of actual clinical situations showing the effectiveness, or ineffectiveness, of nurse intervention.

B *Helping other associate degree programs*

During the five-year operation of the Demonstration Center visitors included many directors, prospective directors, faculty, and prospective faculty members, as well as administrative personnel. They spent hours, days, and weeks at the center for a variety of reasons: curriculum planning, specific problems of course planning, how to deal with top administration, information on policy regarding faculty preparation, health standards, admission criteria, selection of clinical facilities. Many times they came just to talk and to seek support and reassurance. Students and faculty participated in nine research projects. Some were on the doctoral level, others on the master's level, and several were undertaken by interested researchers to expand the horizon of education.

Large groups of visitors who used the Demonstration Center were field students or apprentice college teachers. In a single typical semester, sixteen such students worked or taught with the Department of Nursing. Thirteen were in the area of physical and mental illness, two were in administration of associate degree programs, and there were three in the area of fundamentals of nursing. In addition, a group of about thirty students observed the program. These students came from Teachers College, Columbia University; New York University; St. John's University; and Hunter College.

Another category of visitors was one which expressed general interest in associate degree nursing education. Other visitors included those from abroad sent by the W. K. Kellogg Foundation, International Congress of Nurses, American Nurses' Association, National League for Nursing, and, occasionally, one of the cooperating clinical agencies. During the last academic year of the project, this number totaled about four hundred.

The faculty felt that facing visitors asking "why" forced them to work harder in preparing the curriculum, lecture plans, lecture quality, and other aspects of the program. Visitors brought enriching information on what was going on in other areas. They were offered chances to go to conferences and exchange ideas. The faculty had the opportunity to meet nursing leaders in many fields such as public health, psychiatric nursing, and education.

The visitors during a sample week in February 1964, in addition to the New York State Associate Degree Nursing Project Advisory Council, included:

The Provost and Dean of Nursing from Northeastern University

The Nursing Consultant for Associate Degree Programs from New Brunswick, Canada

Three representatives of The Nursing Service and Administration of Presbyterian Hospital, Philadelphia, Pennsylvania

A representative from the British Isles, to complete a survey of nursing education in North America

An Associate Professor from St. John's University

Head of the Associate Degree Nursing Program at Purdue University

An all-day Orientation of Nursing in Community Colleges for graduate students from all the major colleges and universities in New York City area, involving about sixty people.

C Practice teachers

The most useful group to the center was the apprentice teachers, who offered new ideas and stimulated discussion among the faculty on what was current, such as new literature, films, and books. In addition to supplying up-to-date bibliographies, the practice teachers forced a sharpening of content. They helped the regular faculty to improve teaching skills because each instructor knew she was being watched critically. The apprentice teachers contributed to evaluations, and they worked with problem students in all areas: intellectual, social, and emotional. Sometimes the visitors were already skilled teachers and demonstrated expertise in the classroom. Through apprentice teachers the center was enabled to work with many instructors from major universities in the New York area.

D Contributions to associate degree nursing education stemming from the Demonstration Center

Several broad contributions to associate degree nursing education stemmed from the Demonstration Center.

At the beginning of the program, the main interest was in the program of curriculum development which attracted many of the nursing educators and nurse visitors. The approach was based on a previous study, *Patient Centered Approaches to Nursing*.⁸ The curriculum proposals in that study were further explored at Bronx Community College by the nursing faculty. Many of the concepts that were used by the Demonstration Center are incorporated in the textbook, *Fundamentals of Patient Centered Nursing*.⁹ The authors of the book were all at one time members of the Department of Nursing at Bronx Community College.

8. Op cit. Abdellah, *Patient Centered Approaches to Nursing*.

9. Ruth V. Matheney, Breda Nolan, Gerald J. Griffin, Joanne Griffin, Alice Ehrhart, *Fundamentals of Patient Centered Nursing*. St. Louis: C. V. Mosby Co., 1964. 345 pp.

Evaluation devices developed at the center have been adopted and are being further refined by several other nursing programs.

Tape recordings of the pre- and post-clinical conferences are still in use.

The closed circuit television experimentation caught the imagination and interest of many people who would have remained unaware of, or uninterested in, associate degree nursing programs.

The research finding that closed circuit television can be used in the clinical setting to teach students is, in itself, a contribution to general knowledge about nurse education. Closed circuit television is potentially a partial solution to the scarcity of instructors in the clinical area.

The effort to define nursing content continues. The curriculum that was originally developed at the center has not been discarded, but it has changed as each new faculty member has made his unique contribution.

E Relation to other activities of the New York State Associate Degree Nursing Project

The Demonstration Center was part of the total program of the New York State Associate Degree Nursing Project, which provided continuous association with colleagues in other nursing programs working together to solve difficult common problems. This involvement also made available a complete reference and information service about associate degree nursing programs across the nation.

The collaboration of the state project staff and the Bronx faculty contributed to nursing research in regard to new teaching methodology. The two groups shared observations, study, travel, conferences, and experimentation.

Because of the work done on the special projects and in connection with the state project, the name of Bronx Community College became well known in the field of associate degree nursing education.

The center staff had an opportunity to present the results of its work to two national groups: the National League for Nursing Convention at Atlantic City, New Jersey, and the Council on Medical Television at Bethesda, Maryland.

In a final public statement, the chairman of the Nursing Department at Bronx Community College commented on the personal advantages that accrued to the faculty as a result of the Demonstration Center:

"It has given us the opportunity to work closely with 334 young and not so young men and women interested in and motivated toward nursing.

"It has given us the opportunity to work closely with the college president in a relationship unique in the college.

"It has expanded horizons for many of the departmental faculty members beyond the narrow confines of the hospital and traditional nurse education. Working with people from other disciplines and other geographic areas has been an enriching experience for all of us."

IX Stretching Instructional Talent: a New Approach

Instructional difficulties facing clinical instructors are particularly acute. For this reason the project Demonstration Center selected this area of concern for concentrated study. Experimentation designed to test ways of using instructional talent more effectively was granted financial support by the United States Public Health Service.

Education for the practice of all of the health professions and technologies depends upon a system of instruction that enables students to practice developing skills and apply knowledge in the clinical setting, i.e., by giving personal care to patients in hospitals, at clinics, and in other community health agencies. Therefore, the dilemma is self-evident. Students are often widely dispersed because the patients with whom they work are situated in rooms some distance from each other. However, it is frequently necessary to maintain an almost tutorial relationship between the student and instructor to assure the safety of the patients and to provide the necessary support and on-the-spot instruction for students. These controlling factors have necessarily limited the number of students that a single instructor can teach during a clinical class period. Compounding these inherent instructional problems has been a steady increase in the demand for more graduates of programs in nursing and other health sciences. This growth in demand for graduates has not been matched by a corresponding increase in the number of prepared teachers. The Demonstration Center staff turned to closed circuit television in a search for solutions to the problem.

In the past, both closed circuit television and broadcast television have been used primarily to provide a "front row seat" for increased numbers of students who benefit by simultaneous viewing of the master teacher.

Television has been used by the teacher for:

- 1** Viewing where a very small visual field is involved and where magnification is essential
- 2** Demonstrations requiring very complicated or very expensive techniques and equipment

- 3 Demonstrations of techniques which involve manipulations difficult to describe in words
- 4 Transmission of experiments for which student equipment is not available
- 5 Viewing of various kinds of situations (e.g., psychotherapy) where it is undesirable to intrude the viewer in person

A *Instructional television role reversed*

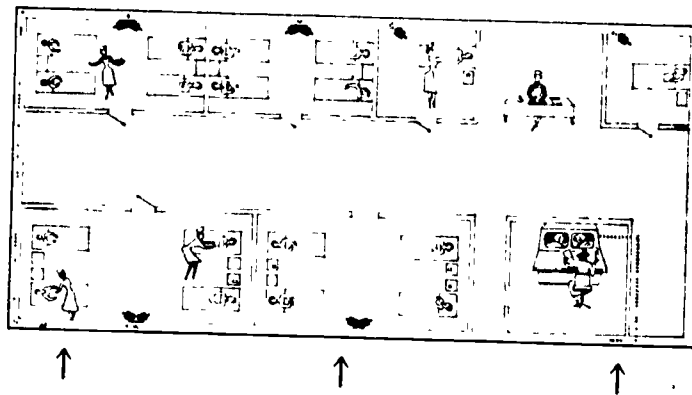
A radical reversal of the use of instructional television was employed by nursing faculty at Bronx Community College. The teacher became the viewer with a "front row seat" rather than the students, even though the students were physically separated in patients' rooms on a hospital floor. The advantages of tutorial teaching were embodied in a modern system of electronic transmission which intensifies the teacher's role but retains the realism of on-the-job instruction. Simply stated (see box on page 30 for a detailed description of the VVCT system and its operation), fifteen TV cameras in patient rooms feed into a teaching center. From this center a nurse instructor can figuratively move, electronically and instantly, from one student to another. She can easily observe nursing skills and, when indicated, give instruction through a wireless receiver worn in the ear of each student.

The first round of experimentation at Montefiore Hospital (where Bronx Community College students have their clinical practice) called for an increase of 50 per cent in the usual size of student sections taught by a clinical instructor. The findings of the two-year study supported the original hypothesis: "The use of closed circuit television in the hospital will enable an existing number of nursing instructors to teach an increased number of students effectively while using the same clinical facilities." Continuing experimentation will determine if it is possible to increase, to an even greater extent, the number of students in the clinical area that can be taught successfully by this method. However, the major expansion in the size of student sections, already proved possible, is significant. CCTV may enable community college nursing programs to teach sections increased from ten students to fifteen students in the clinical setting without increasing the number of nursing faculty.

The increase in the size of the student sections, made possible when using CCTV for clinical instruction, is exciting. Even more significant is the qualitative improvement in instruction made possible by utilizing this medium. The teacher can spend more time giving instruction when released from the task of going from room to room. She can quickly determine which students are most in need of instruction at a

What Equipment Was Used and How Does It Work?

A closed circuit TV system was installed on a medical floor of the hospital to enable an instructor to have immediate visual and verbal contact with 15 practicing students. The switching system permits the instructor to concentrate her time on those students most in need of assistance at a particular moment. However, the instructor remains instantly accessible to any other student. The cameras send picture and sound from the patient rooms to an instructor receiving station (monitor room).



Nursing student
who has two-way
communication
with her instructor
in monitor room

Automatic TV
cameras
mounted on
wall with wide
angle lens

Monitor room with
nursing instructor
watching students and
teaching as necessary
by means of wireless
receivers worn by
students

Fifteen cameras are tied to a central station

The instructor may observe either of two monitors. The pictures on the screen of the monitor on the right automatically change every 12 seconds, thus permitting the instructor to observe each student twice every 6½ minutes. The instructor can operate the monitor on the left manually so that she can do individual teaching or respond to a call from a student. The instructor may leave the monitor to go to a patient's room when necessary. No television technicians or auxiliary personnel are necessary to operate the equipment.

given time. In addition, she is free from the usual ambient distractions present on a hospital floor. She can completely focus her attention on the activity of the student and patient and the instructional task of the moment.

B Use of the portable tape recorder

The recent advent of the portable videotape recorder has opened up new vistas for the teaching-learning process. This new teaching aid is being studied extensively as an adjunct to the CCTV system described above. For the first time, sound and picture recording and immediate playback is within financial reach of many colleges. Teachers can record the clinical practice of nursing students in a patient's room and play it back in the classroom for analysis and discussion at a student post-clinical conference. This technique has broad implications for many other areas of instruction. It is predicted that objectivity will be greatly improved when both student self-criticism and instructor analysis of student activities are based on actual visual and audio recording. In addition, there is a strong feeling on the part of the faculty involved in the study that both reliability and validity of student grading will be increased when videotape recordings are used by teachers to jointly evaluate student performance.

Videotape also holds great promise for use in developing new teaching materials. The videotape recorder is particularly useful in capturing the elusive flavor of the clinical setting. To be most meaningful, a teaching film must enable the student, as nearly as possible, to experience vicariously an actual clinical experience. The artificiality of clinical teaching films can now be replaced by kinescopes obtained from normal clinical situations. The sight and sound is captured by a videotape recorder monitoring continuously during practice sessions. The recording is transferred to film and edited to enhance its educational value. Unlike the motion picture camera with its accompanying operators, noise, and special lighting, the silent, unobtrusive camera in the corner of the patient's room requires no operator or special lighting, and it is soon taken for granted. Normal relationships of nurses and patients are recorded faithfully.

The convenience and economy of recording continuously, and then erasing the superfluous footage, makes it possible to preserve all of the activity of the clinical setting without the limitation of preconceived selectivity. On review, that portion considered most meaningful is selected for transfer to film. The entire videotape can then be reused.



Nursing care is given in full view of camera



... while the instructor observes and teaches from the monitor room.



Instructors study ways to use TV in teaching clinical nursing . . .



Clinical experiences are permanently captured for student-faculty analysis

C Implications

How can community colleges benefit from the Demonstration Center experimentation with CCTV for teaching clinical nursing? First, the application to other existing community college nursing programs is direct. Substantial financial savings are possible (see box on cost).

What About Cost?

Recent improvements in closed circuit television have brought the cost of purchase and installation within reach of the average nursing education budget. A brief summary of cost considerations may provide the reader with some guidelines for economic evaluation of the use of closed circuit TV in teaching clinical nursing. The expenditure cited below is for a prototype which demanded some engineering experimentation with switching components, sound pick-ups and other units of the system. Therefore, the cost was higher for this experimentation than could be expected for a second installation.

The entire cost of the fifteen camera system including two monitors, manual and automatic switching system, cables and plugs, wireless audio communication system and complete installation was \$30,956.

The potential benefits of closed circuit TV envisioned by nursing instructors who experimented with this method of clinical instruction include a minimum increase in student capacity of five students per instructor.

The often frustrating search for more nursing instructors can be alleviated to some degree, and the quality of instruction can be improved. Second, the same engineering and television techniques can be applied to any area of instruction requiring students to practice skills and apply knowledge in separated laboratory or practice areas. Third, employing videotape to provide a new approach to student self-analysis, and for grading of student performance by faculty members, is applicable to many areas of the college curriculum. Finally, the new possibilities for college instructors to develop their own unique library of instructional materials through the use of videotape recorders is limited only by the imagination of the faculty.

Pioneering experimentation with closed circuit television for clinical instruction has opened up a limitless field for innovation and improvement of the teaching-learning process. It is up to the college faculties and administrative staff to capitalize on these first efforts and to bring the vast potential to fruition.

X Analysis of Associate Degree Nursing Programs in New York State

During the early years of the project, the need was apparent for comprehensive data on the initiation, planning, physical facilities, students, faculty, administration, curriculum patterns, and graduates of New York's Associate Degree Nursing Programs. Materials were collected and made available in mimeographed form to college administrators, faculty members, and graduate nursing students. These materials proved particularly helpful to graduate nursing students using the project resource center for study of the structure and operation of associate degree nursing programs.

The data below is descriptive of the sixteen programs that accepted nursing students in the fall of 1963. Four of the programs were in existence in the summer of 1959 when the state project got under way. The others were developed with varying assistance from the project as follows: fall of 1959—two; fall 1961—two; fall 1962—four; fall 1963—four. Three more programs will open in the fall of 1964. Twelve of the programs received financial assistance in the form of project planning grants to enable the college to employ nursing faculty in advance of student enrollment.

Bronx Community College, designated by the project Coordinating Council as the project Demonstration Center, received yearly grants over the entire period of the project to enable the college to carry out the center functions in addition to operating a large nursing program. In 1963 the volume of visitors, practice teachers, and student observers at Bronx Community College had become so great that a second demonstration center was opened at Rockland Community College.

A The planning process

The initiative for new associate degree nursing programs generally came from college administrators who recognized a community educational need and undertook a preliminary study to determine the feasibility of inaugurating a nursing curriculum. Local hospitals, health groups, and civic organizations frequently were instrumental in per-

suading college authorities that programs should be launched. These groups often helped the college in undertaking early surveys of potential students and available clinical facilities.

A college contemplating a nursing program generally was visited at the outset of the planning period by a member of the project staff. The college staff was provided with an overview of factors that generally govern the planning and operation of an associate degree nursing program. This discussion was supplemented with project planning materials that were left with the college administration. The planning packet included guidelines for selecting nursing faculty, organizing the program, and for curriculum development. During the following months the usual planning pattern was as follows:

- 1 Meetings with college board and sometimes local hospital boards and key staff members to discuss associate degree nursing education with project staff.
- 2 Survey of clinical teaching facilities of hospitals and other local health agencies by project staff member using the project *Guide to the Selection of Clinical Facilities for an Associate Degree Nursing Program*.
- 3 Agreement of hospital authorities to make clinical facilities available to college for teaching.
- 4 Decision of college authorities to offer a nursing program dependent on state approval.
- 5 Consideration by the project Coordinating Council of applications for a planning grant to the college.
- 6 Employment of nursing department chairman and faculty.
- 7 Planning for new nursing program with project staff consultation. During the program planning period, the nursing department chairman and nursing faculty (in most cases employed with project grants) were engaged in a variety of activities which generally fell into the following categories:
 - a Public relations—interpreting the program to professional and lay groups.
 - b Planning for utilization of clinical facilities.
 - c Preparing a statement of philosophy and objectives.
 - d Developing a curriculum.
 - e Preparing materials to secure official approval from the State Education Department.
 - f Interviewing additional faculty candidates.
 - g Working with the college nursing advisory committee.
 - h Student recruitment and admissions.
 - i Student uniform selection.

- j Writing recruitment flyers and college catalog program and course descriptions.
- k Development of contracts between hospitals and college for use of clinical facilities.
- l Planning nursing classroom-laboratory.
- m Arranging for student physical examinations and malpractice insurance.
- n Working with other college faculty on integration of science and general education courses with nursing.

B *Comparative data*

From 1962 to 1964, the project staff conducted a comparative study of all associate degree nursing programs in New York State. Through questionnaires and personal interviews, information was obtained from nurse administrators, freshman nursing students (1962 and 1963) and graduates of these nursing programs. College catalogs were also utilized. Data were collected on the nature and organization of institutions offering associate degree nursing programs, admission policies, student services and graduation requirements. Pertinent information was gathered about the students, faculty, clinical facilities, and the curriculum in each program.

Every effort was made to obtain data that would provide a comprehensive comparative study of the programs. Certain limitations, however, became apparent as the survey progressed. These will be discussed and clarified in appropriate areas of this section.

Readers are reminded that the present status of some of the nursing programs in the study may differ slightly from the data provided herein. This is to be expected in any dynamic new movement constantly undergoing experimentation and change.

It is hoped that the significance of the study's findings will be useful for the future direction and development of associate degree nursing education.

1. *Nature of the Program*

Considerable homogeneity exists in the nature and organization of colleges offering associate degree nursing education in New York State. In Table 1, the similarities are particularly evident in the type and control of these institutions and the kind of accreditation they are granted. For example, all associate degree nursing programs but one are located in coeducational public colleges that come under local (municipal or community) or state sponsorship. In New York, state agricultural and technical institutes are branches of the State Univer-

sity of New York and community colleges are under its supervision as associated colleges. There are thirteen associate degree nursing programs currently situated in two-year institutions, two in four-year institutions, and one in a medical school.

In the various educational settings, students are enrolled in nursing programs leading to an Associate in Applied Science degree. The length of the course is two academic years (four semesters), with the exception of one program which requires an additional short summer session.

In New York State, accreditation procedures are implemented in two ways—through regional or state agencies. A college is not eligible for regional accreditation—such as Middle States Association of Colleges and Secondary Schools—until it has produced its first graduating class. As noted in Table 1, the older established schools have this accreditation. It is anticipated that the newer institutions, currently operating with State accreditation, will apply to the regional body at the appropriate time.

In the sixteen colleges with associate degree nursing programs, there is a wide range in the total student enrollment (see Table 1).

Enrollment figures of associate degree nursing students, in 1962 and 1963, are indicated in Table 2. With the exception of Cazenovia College, Queens College, and Upstate Medical Center, the rise in nursing enrollments during 1963 is pronounced. At Nassau Community College, the number of students tripled; at Agricultural and Technical Institute at Farmingdale and Corning Community College, the enrollment doubled; and at community colleges—Bronx, Dutchess, New York City, Orange County, and Rockland—there was an appreciable increase in students.

2. Admission Requirements

In the programs surveyed, information was requested from nurse administrators concerning admission policies. Table 3 shows that in most institutions high-school or other references are required from prospective nursing students. Two of the sixteen institutions consider applicants without any references. Of the thirteen colleges requesting high school references, two require additional statements from other sources.

College policy regarding personal interviews with prospective nursing students is also described in Table 3. The pattern is not consistent among the various institutions. For the most part, however, student interviews are conducted by the Admissions Office, or by the Department of Nursing, but rarely by both. Some schools meet personally

TABLE 1 Institutions Offering Associate Degree Nursing Programs in New York State 1962-1964

Colleges	Location	Association or Accreditation	Type	Control or Affiliation	Organized as Jr. College	Year ADNP Opened	Enrollment Totals	
							1962	October , 1963
Adirondack CC	Hudson Falls	State	C	Public	1961	1963	464	575
A & TI at Farmingdale	Farmingdale	MS	C	Public	1935	1962	5,582	5,835
Bronx CC	New York	MS	C	Public	1959	1959	4,117	4,778
Brooklyn College*	Brooklyn	MS	C	Public	—	1954	19,678	19,999
Cazenovia College	Cazenovia	MS	W	Ind. NP	1934	1962	356	363
Corning CC	Corning	State	C	Public	1958	1963	1,013	1,268
Dutchess CC	Poughkeepsie	MS	C	Public	1958	1959	1,738	2,063
Jamestown CC	Jamestown	MS	C	Public	1950	1963	974	916
Monroe CC	Rochester	State	C	Public	1962	1963	751	1,453
Nassau CC	Garden City	State	C	Public	1960	1962	3,104	4,462
New York City CC	Brooklyn	MS	C	Public	1947	1961	8,722	8,994
Orange County CC	Middletown	MS	C	Public	1950	1952	2,310	2,969
Queens College*	Flushing	MS	C	Public	—	1952	11,516	17,860
Rockland CC	Suffern	State	C	Public	1959	1961	1,000	1,626
Suffolk County CC	Selden	State	C	Public	1960	1963	2,188	2,815
Upstate Medical Center*	Syracuse	MS	C	Public	1950	1958	428	434

* Two-year Associate Degree Nursing Programs in four-year institutions. ** Part-time and full-time students.
Key to abbreviations and terms.

C = coeducational.

MS = Accreditation by Middle States Association of Colleges and Secondary Schools.

State = Accreditation, approval or recognition as a junior college by a state department of education.
W = women.

with candidates only when it is considered advisable. Nurse administrators report that they would like to interview applicants more frequently but this becomes an unrealistic expectation in view of the increasing numbers of students applying to associate degree nursing programs.

Qualified candidates to all associate degree nursing programs in New York State take entrance examinations prior to admission. The various tests and accompanying minimum scores are shown in Table 3.

A certificate of health is required of all candidates for associate degree nursing programs. In most instances, the physical examination may be performed by a private or family physician.

3. *Graduation Requirements*

Most associate degree nursing programs in New York State specify a cumulative scholastic index of 2.0 as the minimum requirement for the degree of Associate in Applied Science (see Table 4). In each college, the achievement point average required of nursing students applied to the entire student body. A cumulative index of 2.0 is considered an average or satisfactory achievement level, comparable to Grade C; an index of 1.0, or Grade D, is minimum passing but below average. In two institutions, a grade point average of 1.0 and 1.75 is acceptable to meet graduation requirements.

Table 4 indicates the total credits required for the completion of the Associate in Applied Science degree in the colleges surveyed. It also includes the total credits required for completion of the associate degree nursing program. Credit points range from 60-78 in the colleges and from 61 to 74 in the nursing programs.

During 1963, an Associate in Applied Science degree was awarded to 245 graduates of eight associate degree nursing programs in New York State (see Table 5). In 1964, eleven colleges granted degrees to 345 nursing graduates.

4. *Student Services*

A catalog-survey reveals a comprehensive program of student services in sixteen institutions with associate degree nursing programs. Pre-registration academic counseling is followed by vocational, personal and educational guidance throughout the course of study. In each institution, counseling is conducted by specially designated officials, who may be faculty advisers, guidance personnel or in some instances, the dean of students. A placement office is available to assist students with job-seeking techniques and work opportunities. Many

**TABLE 2 Full Time Enrollment in Sixteen Associate Degree
Nursing Programs in New York State, 1962-1964**

Colleges	1962-1963	1963-1964
Adirondack CC*	—	42
A & TI at Farmingdale	42	96
Bronx CC	101	164
Brooklyn College	125	140
Cazenovia College	7	8
Corning CC	40	80
Dutchess CC	66	86
Jamestown CC*	—	47
Monroe CC*	—	66
Nassau CC	29	85
New York City CC	73	108
Orange County CC	54	94
Queens College	137	135
Rockland CC	50	72
Suffolk County CC*	—	72
Upstate Medical Center	52	49

* Opened fall 1963.

TABLE 3 Summary of Admission Requirements for Sixteen Associate Degree Nursing Programs in New York State, 1962-1964*

Colleges	References			Interviews		Tests and Examinations		
	HS	Other	Admission Office	Dept. of Nursing	Test	Admission		Physical Exam.
						Min. Score		
Adirondack CC	Yes	None	No	No	SU Exam	Not stated		Private physician
A & TI at Farmingdale	Yes	None	No	Yes	Regents or SU Exam	Not stated		Private physician
Bronx CC	None	None	When nec.	When nec.	SCAT	Composite score with HS average		Private physician
Brooklyn College	None	Yes	Counseling Office	When nec.	Psychological Corp.	Composite score with HS average		College physician
Cazenovia College	Yes	Yes	Yes	Yes	CEEB or Psychol. Corp.	Not stated		Private physician
Corning CC	Yes	None	Yes	When nec.	PNG or ACE and CEEB	45th percentile below median		Private physician
Dutchess CC	Yes	Yes	Yes	When nec.	SU Exam and CEEB	Evaluated with HS average		Private physician

Colleges	References		Interviews		Tests and Examinations		
	HS	Other	Admission Office	Dept. of Nursing	Admission		Physical Exam.
					Test	Min. Score	
Jamestown CC	Yes	None	No	No	American College Testing Program	20th percentile	Private physician
Monroe CC	Yes	None	When nec.	When nec.	SU Exam	Approx. 100	Private physician
Nassau CC	Yes	None	No	When nec.	CEEB	450	Private physician
New York City CC	Yes	None	When nec.	When nec.	Regents Exam	Not stated	Hospital
Orange County CC	Yes	None	When nec.	When nec.	ACE English Placement	Not stated	Private physician
Queens College	None	None	When nec.	When nec.	NLN Pre-Nursing Guidance Test	50-60% on each part	Private
Suffolk County CC	Yes	Yes	No	Yes	SU or Regents Exam	Not stated	Private physician
Upstate Medical Center	Yes	Yes	Yes	Yes	Psychological Corp.	Not stated	Private physician

* These requirements are in addition to those set by New York State.

colleges have an active program of vocational testing for career selection.

A distinctive service of institutions with associate degree nursing programs is the impressive number of campus student activities. Students have the opportunity to participate in athletics, music, dramatics, various social, curricular and religious clubs, organizations, and student publications. Each college has a student government or council, composed of elected representatives from the student body who serve as the liaison between administration and students. (The findings of a study on the extra-curricular activities of freshman nursing students is reported later in this section of the report.)

Medical care on campus is another service provided by some of the colleges studied. Most institutions have first-aid facilities, but only five (generally resident colleges) report employment of a physician or nurse on the premises or on call. Compulsory accident insurance is required of students in four colleges. In two schools, students must have an annual physical examination and chest X ray.

In New York State, more than half of the colleges with associate degree nursing programs are nonresidential institutions. As a service to students who are unable or reluctant to live at home, six colleges maintain a file of available off-campus apartments, residence halls, and rooms in private homes. Rental facilities, however, are not always inspected. Some colleges report that they will not assume the responsibility for students' living quarters. When a student under 21 years of age wishes to rent an apartment, most schools require a statement of approval, signed by the parent or guardian.

Among the colleges studied, there exists a uniform pattern of financial aid. Each school has faculty members serving in an advisory capacity on a committee or program on student aid. Information is available concerning scholarships, loans, grants, and special awards. (A report on types and amounts of financial aid available to nursing students is presented later in this section.)

5. *The Students*

From 1962-1964, freshman nursing students in associate degree programs provided information about their personal background, socioeconomic status, reasons for selecting the program, living arrangements, classification in college, financial assistance, and participation in extra-curricular activities. From the data, it was possible to determine the similarities and differences of students in the various colleges.

TABLE 4 Graduation Requirements from Fifteen Associate Degree Nursing Programs in New York State 1962-1964 Compared with College Graduation Requirements

Colleges	Grade Point Average		Total Credits	
	College	Nursing Programs	College	Nursing Programs
Adirondack CC	2.0	2.0	64	64
A & TI at Farmingdale	2.0	2.0	60-70	68
Bronx CC	2.0	2.0	63 ⁵ -67	64
Brooklyn College	2.0	2.0	64	64
Corning CC	2.0	2.0	66-78	68
Dutchess CC	2.0	2.0	61-72	63
Jamestown CC	1.0	1.0	60-76	68
Monroe CC	2.0	2.0	60-76	74
Nassau CC	2.0	2.0	64-68	68
New York City CC	2.0	2.0	64	66
Orange County CC	2.0	2.0	60	64
Queens College	1.75	1.75	64	67
Rockland CC	2.0	2.0	60	61
Suffolk County CC	2.0	2.0	64-75	69
Upstate Medical Center	Not applicable	2.0	Not applicable	70

TABLE 5 Degrees Granted in Eleven Associate Degree Nursing Programs in New York State, 1962-1964

Colleges	1963	1964
A & TI at Farmingdale	—	31
Bronx CC	27	38
Brooklyn College	54	49
Corning CC	—	29
Dutchess CC	27	25
Nassau CC	—	16
New York City CC	27	43
Orange County CC	21	27
Queens College	48	44
Rockland CC	24	23
Upstate Medical Center	17	20
Totals	245	345

a) Personal Data

Freshman nursing students, polled in nine community colleges during 1962 and 1963, show a remarkable homogeneity in age range, sex, and marital status. For this reason only totals of the responses are reported in Tables 6 through 9. In Table 6, which deals with age range, the figures show a consistency in the types of responses elicited for the two consecutive years. For example, in 1962 and 1963, 71 per cent of the 402 respondents are from 16 to 25 years of age. An examination of the individual programs reveals that in all colleges but two the majority of nursing students fall into this age group.

Faculty members report that there is a tendency to attract many students over 25 years of age during the first five years of a new program. This is partly due to the considerable number of practical nurses and of housewives, who have raised their families, who express interest in associate degree education. As programs become more established, however, the enrollment of older students decreases and the proportion of younger students increases. Nevertheless, as indicated in Table 6, these programs have a special appeal to the more mature person. In nine colleges surveyed, 29 per cent of freshman students are from 26 to 55 years old. Since associate degree programs in New York State place no ceiling on age (except for one institution which sets the age limit at 48 years), these findings can be anticipated. The data relating to age appears to be consistent with Fields' observation that the age of the student body in community colleges covers a wide range.¹⁰

b) Ratio of Women to Men

Women greatly outnumber men in associate degree nursing programs (see Table 7). In the 1962 entering class of five community colleges, the ratio of women to men is ten to one; in four new programs in 1963, the ratio is approximately fifteen to one. The predominance of women in associate degree nursing programs is in accord with the traditional view of nursing as a woman's occupation.

c) Marital Status

An index of the marital status of nursing students is presented in Table 8. Of the freshman students polled in 1962, 19.3 per cent are married. In 1963, 27.8 per cent are married, 26.6 per cent being female students (see Table 9). In individual programs, the proportion

10. Ralph R. Fields, *The Community College Movement*. New York: McGraw-Hill Book Company, Inc., 1962. p. 250.

TABLE 6 Age Range of Freshman Students in Nine Community College Nursing Programs in New York State, 1962-1964

Years	Number of Colleges	Range in Years										Students Polled
		16-25		26-35		36-45		46-55		Not Indicated		
		No.	%	No.	%	No.	%	No.	%	No.	%	
1962-63	5	164	71.0	32	13.0	27	12.0	10	4.0	—	—	233
1963-64	4	120	71.0	24	14.2	19	11.2	5	3.0	1	0.6	169

TABLE 7 Sex of Freshman Students in Nine Community College Nursing Programs in New York State, 1962-1964

Year	Number of Colleges	Male		Female		Students Polled
		Number	Per Cent	Number	Per Cent	
1962-1963	5	22	9.4	211	90.6	233
1963-1964	4	11	6.5	158	93.5	169

TABLE 8 Marital Status of Freshman Students in Nine Community College Nursing Programs in New York State, 1962-1964

Year	Number of Colleges	Single *		Married		Students Polled
		Number	Per Cent	Number	Per Cent	
1962-1963	5	188	80.7	45	19.3	233
1963-1964	4	122	72.2	47	27.8	169

TABLE 9 Marital Status of Freshman Students in Four Community College Nursing Programs in New York State, 1963-1964

	Number	Per Cent
Single*		
Male	9	5.3
Female	113	66.9
Married		
Male	2	1.2
Female	45	26.6
Students polled	169	

* Includes divorced, widowed, or separated in Tables 8 and 9.

of married students ranges from 11 to 40 per cent. In general, the data concerning marital status validates Medsker's findings in his nationwide study of public junior colleges in the 1950's. In the institutions studied, he found that nearly one-fourth of the students were married.¹¹

During 1962 and 1963, over 800 freshmen in fifteen associate degree nursing programs were queried about their status as parent. (see Table 10). With the exception of one program, the responses show marked similarities. More than half of all respondents indicate that they have no children. A total of 18.6 per cent have one or two children, 5.5 per cent have three children, and 4.3 per cent have four or more children.

Students were also polled about the number of brothers and sisters in the immediate family (see Table 11). The fairly wide distribution of siblings represents a uniform pattern in all the programs, indicating that associate degree students come from families of various sizes.

d) Socio-economic Background

Freshman students in fifteen nursing programs provided information about the work status of their fathers. As shown in Table 12, 73.3 per cent report their fathers working, 6 per cent retired, 1.4 per cent seeking work, 17.7 per cent decreased, and 1.1 per cent did not reply. A small number of respondents stated that their parent was either disabled or that his job status was unknown.

In the fall 1963, almost 700 freshman students in thirteen associate degree nursing programs were queried about the type of work in which their fathers were engaged. Table 13 classifies these occupations according to the Roe Level of Function.¹²

To obtain an accurate description of the parent's occupation, it was necessary to ask students to identify both the job title and the nature of the work. Providing this information helped to avoid improper classification. It was found that numerous occupations had the same designation but varied considerably according to the levels of function and responsibility. For example, the occupational title of farmer could be misleading if the type of work was not described. A farmer who is an individual entrepreneur belongs to Level 3 (Semi-professional and Small Business). Other individual farmers are classi-

11. Leland L. Medsker. *The Junior College*. New York: McGraw-Hill Book Company Inc., 1969. p. 45.

12. Anne Roe. *The Psychology of Occupations*. New York: John Wiley and Sons, 1956. pp. 149-150.

Roe classifies occupations according to six levels. She offers the following criteria for each level:

**TABLE 10 Distribution of Children Among Freshmen
Students Who Are Parents in Fifteen Associate
Degree Nursing Programs in New York State,
1962-1964**

Number of Children	Number of Students	Per Cent
None	456	56.7
One	71	8.8
Two	79	9.8
Three	44	5.5
Four	17	2.1
Five or more	18	2.2
Not indicated	119	14.8
Students polled	804	

**TABLE 11 Distribution of Brothers and Sisters Among
Freshman Students in Fifteen Associate Degree
Nursing Programs in New York State, 1962-1964**

Distribution of Children	Number of Students	Per Cent
None	92	11.4
One	239	29.7
Two	185	23.0
Three	130	16.2
Four	65	8.1
Five or more	87	10.8
Not indicated	6	0.7
Students polled	804	

fied at Level 4 (Skilled). Farm tenants and sharecroppers belong to Level 5 (Semi-skilled), while farmhands go in Level 6 (Unskilled). As indicated in Table 13, the majority of fathers are classified at Level 3 or in semi-professional and small business occupations. A large number also belong to Level 4 or the category of skilled workers. In community colleges located in metropolitan industrial areas, more of the fathers are employed as skilled workers than in semi-professional and small business occupations.

In addition to supplying data about the occupational status of their fathers, students also reported on their own work experience prior to entering associate degree nursing programs (see Table 14). A total of 62 per cent of 744 students stated that they held jobs following graduation from high school. Among the individual programs, the proportion ranges from 55 per cent to 83 per cent. Table 15 includes the various jobs held by students.

The same group was also queried about previous nursing experience. As indicated in Table 16, 9 per cent were enrolled in registered nurse programs and 17 per cent in practical nurse programs. It was not determined what proportion of the latter group had completed the course and were licensed.

- 1 Professional and Managerial I
 - (a) Important, independent and varied responsibilities
 - (b) Policy making
 - (c) Education: When high-level education is relevant, it is at the doctoral level or equivalent
- 2 Professional and Managerial II
 - (a) Medium-level responsibilities for self and others, both with regard to importance and variety
 - (b) Policy interpretation
 - (c) Education at or above the bachelor level, but below the doctoral or its equivalent
- 3 Semi-Professional and Small Business
 - (a) Low-level responsibility for others
 - (b) Application of policy, or determination for self only (as in managing a small business)
 - (c) Education: high school plus technical school or equivalent
- 4 Skilled

This and the following levels are classical subdivisions. Skilled occupations require apprenticeship or other special training or experience.
- 5 Semi-skilled

These occupations require some training and experience but markedly less than the occupations in Level 4. There is much less autonomy and initiative permitted in these occupations.
- 6 Unskilled

These occupations require no special training or education and not much more ability than is needed to follow simple directions and to engage in simple repetitive actions.

**TABLE 12 Work Status of Fathers of Freshman Students
Enrolled in Fifteen Associate Degree Nursing
Programs in New York State, 1962-1964**

Work Status of Fathers	Number	Per Cent
Working	589	73.3
Retired	48	6.0
Seeking work	11	1.4
Deceased	142	17.9
Not indicated	9	1.1
Other	5	0.6
Students polled	804	

**TABLE 13 Occupations of Fathers of Freshman Students
Enrolled in Thirteen Associate Degree Nursing
Programs in New York State, Fall 1963**

Occupations of Fathers	Number	Per Cent
Professional and Managerial I	17	2.0
Professional and Managerial II	77	11.0
Semi-professional and Small Business	213	31.0
Skilled	201	29.0
Semi-skilled	106	15.0
Unskilled	29	4.0
Not indicated	55	8.0
Students polled	698	

e) Reasons for Selecting the Associate Degree Program

Over 800 freshman nursing students in 1962 and 1963 offered their reasons for selecting the associate degree program (see Table 17). The responses, however, are not rated according to the order of importance. Table 17 shows that the location of the college, the length of the program, the cost, and the opportunity to take college courses are the decisive factors in determining selection.

Would students have entered other nursing programs if the college in which they are enrolled did not offer associate degree nursing education? According to Table 18, 81 per cent replied in the affirmative. Two reasons may explain this response: 1) a strong motivation for entering nursing, and 2) the availability of other nursing programs in the community. In or near metropolitan areas, where there are usually several schools of nursing, students, in most instances, would have no difficulty in being accepted by these programs.¹³ In rural communities, however, the situation is different. If it were not for the establishment of an associate degree program, prospective students would frequently be denied the opportunity of going into nursing. The inaccessibility of nursing schools in the rural areas may explain why 46 per cent of freshman students at Adirondack Community College report that they would have *not* entered another nursing program (see Table 18).

f) Living Arrangements

In nine community colleges surveyed, the majority of freshman nursing students live at home with their families (see Tables 19 and 20). Of the students polled in 1962, 61.8 per cent are in this category. The proportion for the 1963 group is considerably higher—80.5 per cent.

Variations are apparent among the individual programs, as shown in Table 19. For example, at Dutchess Community College, only 38 per cent of the students live with their families, whereas 59 per cent are housed in private residencies or in facilities provided by the student organization program of the college. At Orange County Community College, more than half the students have living quarters away from home.

13. Concurrent surveys by The State Education Department do not indicate a drop in enrollment in other nearby programs in nursing education. This finding would seem to indicate that, at least in part, a new group of students is being attracted to nursing by these programs.

TABLE 14 Number and Percentage of Freshman Students Gainfully Employed Following Graduation From High School and Before Admission to Eleven Associate Degree Nursing Programs in New York State, 1962-1963

Colleges	Total Enrollment in Nursing Program	Employed between High School and College	
		Number	Per Cent
A & T at Farmingdale	42	14	33
Bronx CC	101	84	83
Brooklyn College	125	80	64
Cazenovia College	7	2	28
Corning CC	40	31	77
Dutchess CC	64	51	80
New York City CC	72	59	82
Orange County CC	54	30	55
Queens College	137	84	61
Rockland CC	50	29	58
Upstate Medical Center	52	9	17
Totals	744	473	63.6

TABLE 15 Occupations in Which Freshman Students Were Employed Following Graduation From High School and Before Admission to Twelve Associate Degree Nursing Programs in New York State, 1962-1963

BUSINESS AND INDUSTRY

Telephone Operator	Accountant	Ice Cream Packer
Office Receptionist	Airline Reservation Clerk	Investment Counselor
Factory Worker	Bookkeeper	Purchasing Agent
Secretary	Cashier	Statistician
Salesgirl	Clerk; file, remittance, mail order, post office	Structural Assembler
Window Decorator	IBM Operator	Commercial Artist
Grocery Checker		Elevator Operator
Bank Teller		Store Owner
Engineering Aide		

HEALTH—RELATED ORGANIZATIONS

Practical Nurse	Occupational Therapy Instructor	Health Claims Adjuster
Medical Secretary	Dental Assistant	Operating Room Technician
Nurses Aide	Dietary Aide	Hospital Ward Clerk
Corpsman, U. S. Navy	Doctor's Office Receptionist	X-Ray Technician
Hospital Attendant		Baby Nurse
Medical Laboratory Technician		

MISCELLANEOUS

Waitress	Farmhand	Photo Artist
Camp Counselor	Farmer	Medical Library, Assistant
Border Patrol Officer	Recreational Director	Welfare Department, Special Officer
Airline Stewardess	Set Designer, Assistant	
Cook	Teacher, Elementary School	
Darkroom Technician		

**TABLE 16 Previous Nursing Experience of Freshman
Students Enrolled in Eleven Associate Degree
Nursing Programs in New York State, 1962-1963**

Colleges	Total Enrollment	Previous Experience			
		R. N. Program		P. N. Program	
		No.	Per Cent	No.	Per Cent
A & TI at Farmingdale	42	5	12.0	4	9.0
Bronx CC	101	4	4.0	35	35.0
Brooklyn College	125	4	3.0	20	16.0
Cazenovia College	7	0	0	0	0
Corning CC	40	8	20.0	1	2.5
Dutchess CC	64	10	16.0	8	12.0
New York City CC	72	6	8.0	21	29.0
Orange County CC	54	6	11.0	15	28.0
Queens College	137	10	7.0	15	11.0
Rockland CC	50	5	10.0	4	8.0
Upstate Medical Center	52	7	13.0	5	9.0
Totals	744	65	9.0	128	17.0

TABLE 17 Reasons Given for Selecting Nursing Program by Freshman Students in Fifteen Associate Degree Nursing Programs in New York State, 1962-1964

Colleges	Location		Cost		Opportunity to Combine College and Nursing Courses				Opportunity for College Social Life				Program Length				Other		Number of Responses	Students Polled
					No.	%	No.	%	No.	%	No.	%	No.	%	No.	%				
Adirondack CC*	35	31.0	23	20.0	21	18.0	2	2.0	29	25.0	4	4.0	114						114	39
A & TI at Farmingdale	42	24.0	36	20.0	40	22.0	14	8.0	43	24.0	3	2.0	178						178	48
Bronx CC	65	22.0	45	15.0	77	26.0	9	3.0	85	28.0	18	6.0	299						299	99
Brooklyn College	25	16.0	32	20.0	35	22.0	11	7.0	38	24.0	17	11.0	158						158	46
Corning CC	30	21.0	18	12.0	34	24.0	14	10.0	41	28.0	7	5.0	144						144	44
Dutchess CC	44	25.0	46	26.0	27	16.0	9	5.5	40	23.0	8	4.5	174						174	58
Jamestown CC*	41	28.0	34	23.0	19	13.0	9	6.0	36	25.0	7	5.0	146						146	47
Monroe CC*	50	22.0	50	22.0	44	19.0	15	7.0	54	24.0	14	6.0	227						227	64
Nassau CC	45	23.0	41	21.0	46	24.0	12	6.0	42	22.0	7	4.0	193						193	61
New York City CC	34	19.0	34	18.0	50	27.5	8	4.5	47	25.0	9	5.0	182						182	63
Orange County CC	42	20.0	36	18.0	50	24.0	23	11.0	44	21.0	12	6.0	207						207	65
Queens College	41	23.0	37	21.0	38	22.0	11	6.0	38	22.0	11	6.0	176						176	47
Rockland CC	30	26.0	24	21.0	26	22.0	5	4.0	25	22.0	6	5.0	116						116	38
Suffolk County CC*	23	26.0	20	23.0	15	17.0	1	1.0	21	24.0	7	9.0	87						87	27
Upstate Medical Center	48	24.0	35	17.0	50	25.0	11	5.0	54	70.0	4	2.0	202						202	58
Totals	595	22.9	511	19.6	572	22.0	154	5.9	637	24.5	134	5.1	2,603						2,603	804

* October 1963 figures.

TABLE 18 Number of Freshman Students Who Would Have Entered Another Type of Nursing Program If The College in Which They Are Enrolled Did Not Offer a Program. Responses From Students in Fifteen Associate Degree Programs in New York State, 1962-1964

Colleges	Yes		No		Not Indicated		Students Polled
	No.	%	No.	%	No.	%	
Adirondack CC*	21	54.0	18	46.0	—	—	39
A & TI at Farmingdale	45	94.0	3	6.0	—	—	48
Bronx CC	84	85.0	15	15.0	—	—	99
Brooklyn College	37	80.0	8	18.0	1	2.0	46
Corning CC	37	84.0	6	14.0	1	2.0	44
Dutchess CC	48	83.0	10	17.0	—	—	58
Jamestown CC*	35	74.0	12	26.0	—	—	47
Monroe CC*	54	84.0	10	16.0	—	—	64
Nassau CC	45	74.0	16	26.0	—	—	61
New York City CC	54	86.0	8	13.0	1	1.0	63
Orange County CC	51	78.0	14	22.0	—	—	65
Rockland CC	24	63.0	14	37.0	—	—	38
Suffolk County CC*	20	74.0	7	26.0	—	—	27
Queens College	43	91.0	4	9.0	—	—	47
Upstate Medical Center	53	91.0	5	9.0	—	—	58
Totals	651	81.0	150	18.7	3	0.4	804

* October 1963 figures.

g) Classification in College

Of 233 freshman students polled in 1962, 80.3 per cent report no previous college experience (see Table 21). A total of 67.5 per cent of the 1963 group also fall into this category. The remaining students are classified as follows: transfer freshman; transfer sophomore; unclassified transfer; re-entry freshman; re-entry above freshman; unclassified re-entry; and students with part-time college experience. The type of college previously attended by students in the nine community colleges studied is included in Table 22.

h) Financial Aid

Low-cost education with free or minimal tuition fees is undoubtedly one of the attractive features of community college nursing programs. However, many students, married and single, have family and other responsibilities that necessitate some form of financial assistance.

As mentioned previously, a survey in 1962 of freshmen in eleven associate degree nursing programs revealed that more than half the students held jobs following high school graduation and before admission to college. How much of this income was utilized toward college expenses was not determined.

A more recent study in 1963, of 169 students in four community colleges, shows that 73 per cent were employed during the vacation period prior to entering the nursing program (see Table 23). One-fourth of the students had earned from \$101. to \$300. during that time. When queried about their job status and expected earnings while attending college, 84.8 per cent reported holding part-time jobs (see Table 24). However, 59.2 per cent of these indicated an expected income of only \$100. or less. The length of part-time employment of freshman students enrolled in five community college nursing programs is indicated in Table 25.

The only figures in the study dealing with the full-time employment of nursing students are included under the next topic of extracurricular activities. In Table 33, 10.1 per cent of freshman students reported that full-time jobs deterred their participation in college events. However, respondents were not queried specifically about their full-time working status.

The employment patterns of associate degree nursing students require further investigation, not only because of their bearing on extracurricular activities, but more importantly on their relationship to the academic program. The time spent in classroom, laboratory and clinical experience demands a high degree of concentration and productivity. This is precisely why in some institutions with nursing programs

TABLE 19 Living Arrangements of Freshman Students in Five Community College Nursing Programs in New York State, 1962-1963

Colleges	Permanent Home		Relative's Home		Dormitory		Student Organization Housing		Private Housing Other than Own Home or Relative's		Students Polled
	No.	%	No.	%	No.	%	No.	%	No.	%	
Bronx CC	64	82.0	3	4.0	—	—	—	—	11	14.0	78
Dutchess CC	15	38.0	1	3.0	—	—	11	28.0	12	31.0	39
New York City CC	34	69.0	2	4.0	—	—	1	2.0	12	24.0	49
Orange County CC	13	37.0	—	—	1	3.0	19	51.0	3	9.0	35
Rockland CC	18	56.0	—	—	—	—	3	9.0	11	34.0	32
Totals	144	61.8	6	2.6	1	0.4	33	14.2	49	21.0	233

TABLE 20 Living Arrangements of Freshman Students in Four Community College Nursing Programs in New York State, 1963-1964

Colleges	Permanent Home		Relative's Home		Private Home Other than Family		College Dormitory		Other		Not Indicated		Students Polled
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Adirondack CC	33	84.6	1	2.6	5	12.8	—	—	—	—	—	—	39
Jamestown CC	29	76.3	1	2.6	6	15.8	—	—	2	5.3	—	—	38
Monroe CC	42	71.2	2	3.4	5	8.5	1	1.7	7	11.9	2	3.4	59
Suffolk County CC	32	97.0	—	—	1	3.0	—	—	—	—	—	—	33
Totals	136	80.5	4	2.4	17	10.1	1	0.6	9	5.3	2	1.2	169

TABLE 22 Type of College Last Attended by Freshman Students in Nine Community College Nursing Programs in New York State, 1962-1964

No. of Colleges	Freshman			Sophomore*			Unclassified			Students Polled
	No Previous College Experience	Transfer	Re-entry	Transfer	Re-entry above Freshman		Transfer	Re-entry	Part-time College Experience	
	No. %	No. %	No. %	No. %	No. %		No. %	No. %	No. %	
1962-1963										
5 colleges	187 80.3	22 9.4	2 0.9	1 0.4	1 0.4		1 0.4	2 0.9	17 7.3	233
1963-1964										
4 colleges	114 67.5	26 15.4	2 1.2	—	—	—	6 3.6	—	21 12.4	169

*1963-1964 New programs.

TABLE 22 Type of College Last Attended by Freshman Students in Nine Community College Nursing Programs in New York State, 1962-1964

No. of Colleges	State University of N. Y. 2-Year College			City University of New York College			Federal College in New York State			Private College in New York State			Out-of-State Public College			Out-of-State Private College			No Previous College Attendance			Students Polled
	No.	%		No.	%		No.	%		No.	%		No.	%		No.	%		No.	%		
	No.	%		No.	%		No.	%		No.	%		No.	%		No.	%		No.	%		
1962-1963																						
5 colleges	23	9.9	—	6	2.6	1	0.4	6	2.6	1	0.4	6	2.6	1	0.4	9	3.7	187	80.3			233
1963-1964																						
4 colleges	15	8.9	13	7.7	1	0.6	—	15	8.9	6	3.6	5	2.9	114	67.5							169

TABLE 23 Vacation Earnings Received by Freshman Students Prior to Entering Four Community College Nursing Programs in New York State, Fall 1963

Vacation Earnings	Number of Students	Per Cent
Less than \$100.	38	22.0
\$101. - \$300.	42	25.0
\$301. - \$500.	24	14.0
\$501. - \$700.	10	6.0
\$701. - \$900.	5	3.0
Over \$900.	3	2.0
Not indicated	47	28.0
Students polled	169	

TABLE 24 Expected Earnings* of Freshman Students in Four Community College Nursing Programs in New York State, 1963-1964

Earnings	Number of Students	Per Cent
Less than \$100.	100	59.2
\$101. - \$300.	17	10.1
\$301. - \$500.	11	6.5
\$501. - \$700.	5	3.0
\$701. - \$900.	4	2.4
Over \$900.	6	3.6
Not indicated	26	15.4
Students polled	169	

* Exclusive of jobs during extended vacation period.

**TABLE 25 Length of Part-Time Jobs of Freshman Students
Enrolled in Five Community College Nursing
Programs in New York State, 1962-1963**

Hours per Week	Number of Students	Per Cent
1 - 5 hours	14	6.0
6 - 15 hours	45	19.3
16 - 25 hours	20	8.6
26 hours or more	12	5.2
Students not working	119	51.1
Not indicated	23	9.9
Students polled	233	

TABLE 26 Freshman Students Expecting Scholarships* in Four Community College Nursing Programs in New York State, 1963-1964

Expecting Scholarship	Number of Students	Per Cent
Yes	29	17.2
No	118	69.8
Not indicated	22	13.0
Students polled	169	

* Exclusive of subsidies, rehabilitation aids, veteran's benefits and Scholar Incentive Program.

TABLE 27 Freshman Students Expecting Loans in Four Community College Programs in New York State, 1963-1964

Expecting Loans	Number of Students	Per Cent
Yes	23	13.6
No	122	72.2
Not indicated	24	14.2
Students polled	169	

TABLE 28 Type of Scholarship* Expected by Freshman Students in Nine Community College Nursing Programs in New York State, 1962-1964

No. of Colleges	State of New York		College		Other Type of Scholarship		State of New York Plus Other		Not Expecting Scholarship		Not Indicated		Students Polled
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
1962-1963													
5 colleges	8	3.4	10	4.3	7	3.0	3	1.3	204	87.6	1	0.4	233
1963-1964													
4 colleges	11	6.5	10	5.9	4	2.4	4	2.4	118	59.8	22	13.0	169

* Exclusive of subsidies, rehabilitation aids, veterans' benefits, and Scholar Incentive Awards.

TABLE 29 Types of Loans Expected by Freshman Students in Nine Community College Nursing Programs in New York State, 1962-1964

No. of Colleges	National Defense Student Loan		N. Y. Higher Education Assistance Corp.		College Loan		Other Loan Program		Not Expecting Loan		Not Indicated		Students Polled
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
1962-1963													
5 colleges	1	0.4	16	6.5	3	1.3	1	0.4	212	91.4	—	—	233
1963-1964													
4 colleges	1	0.6	16	2.5	—	—	6	3.6	122	72.2	24	14.2	169

their is an official policy prohibiting all students from full-time employment.

Do many associate degree nursing students seek financial aid in the form of scholarships and loans? (See Tables 26 and 27.) A study of four new nursing programs in 1963 reveals that only 17.2 per cent of the freshman class applied for scholarship aid (exclusive of Scholar Incentive Award) and 13.6 per cent for loans. Tables 28 and 29 give a breakdown in the types of scholarships and loans requested by students in nine community colleges in 1962-1963. In Table 28, under the column titled State of New York there is evidence that Regents Scholarships were sought by a number of students.

Many associate degree nursing students took advantage of the Scholar Incentive Award Program which was established in New York State in 1961. As indicated in Table 30, 54.4 per cent of 169 freshmen in four community colleges expected financial aid from this particular source. It is difficult to understand why more nursing students in associate degree education did not seek Scholar Incentive funds. The fact that a means test (indicating financial need) is required may account in part for some of the reluctance to apply to this program. The amount of financial assistance expected is included in Table 31.

i) Participation in Extra-curricular Activities

A survey to determine the extent of participation of freshman nursing students in extra-curricular activities was made in fifteen associate degree programs covering 1962 and 1963 (see Table 32). There are marked similarities in the responses from the various colleges. Of the 804 students queried, 69 per cent revealed very little or no participation; 21.6 per cent were involved moderately; and 2.1 per cent participated a great deal.

The respondents also indicated the extent to which they would like to participate, as shown in Table 32. A total of 45.5 per cent expressed the desire to become active in extra-curricular activities, but over one-fourth of the students showed very little or no interest in participating in these activities.

The factors restricting the involvement of students in college activities are shown in Table 33, which includes the responses of freshmen in thirteen colleges. The factor of time appears as a separate item although it overlaps the other categories. When the students identified lack of time due to such factors as study or work, the response appears in the appropriate column under study or work; where the reply merely states lack of time, it is categorized separately.

TABLE 30 Freshman Students Expecting Scholar Incentive Award in Four Community College Nursing Programs in New York State, 1963-1964

Expecting Scholar Incentive Award	Number of Students	Per Cent
Yes	92	54.4
No	57	33.7
Not indicated	20	11.8
Students polled	169	

TABLE 31 Amounts of Scholar Incentive Program Award Expected by Freshman Students in Four Community College Nursing Programs in New York State, 1963-1964

Amount of Scholar Incentive Award	Number of Students	Per Cent
\$100. or less	85	50.4
\$101. - \$200.	6	3.5
\$201. - \$300.	1	1.1
Number of students expecting S. I. Award	92	
Students polled	169	

TABLE 32 Participation in Extra-Curricular Activities by Freshman Students in Fifteen Associate Degree Nursing Programs in New York State, 1962-1964

	None or Very Little		Moderately		Very Much		Not Indicated		Students Polled
	No.	%	No.	%	No.	%	No.	%	
Participated	555	69.0	174	21.6	17	2.1	58	7.2	804
Would have liked to participate	227	28.2	366	45.5	153	19.0	58	7.2	804

The principal reason given by students to explain their lack of participation in extra-curricular activities was "study" (32.5 per cent). The remaining responses are distributed among factors relating to time, family, work, and travel. Other factors include personal reasons such as age, social life and church activities. Students also indicated that classes frequently conflict with the scheduling of college events. Some mentioned a desire to participate but stated that the activities available were not appealing.

It must be remembered that the students polled were enrolled in the colleges only a short time. It is possible that as they progress in the academic program their interest in college activities may increase.

6. *The Faculty*

In the nursing programs surveyed, data was collected on student-faculty ratios, teaching load, size of classes of nursing and non-nursing students, basis for salary differentials and nursing representations on college faculty committees.

a) *Student-Faculty Ratios*

Associate degree nursing programs in New York State show a considerable variations in student-faculty ratios. A study covering 1962 and 1963 indicates that these ratios range from 9:1 to 20:1, or even higher (see Tables 34 and 35). In the fifteen programs studied, the average was 14:1. The figures are automatically reduced, however, when nurse administrators participate in the instructional program. It should be noted that the shortage of a nursing faculty is often compensated by having the administrator carry a full-time teaching load in addition to coordinating and administrative responsibilities.

A dearth of nurse teachers is sometimes apparent in rural communities. Administrators report that it is often difficult to attract competent instructors away from the metropolitan areas.

b) *Teaching Load*

In a study of fourteen colleges, the number of teaching hours per week, including class and laboratory contact, varied from 15 to 30 for the nursing faculty (see Table 36). The median was 19.5. In the same institutions, the faculty load for instructors in general education and technical programs ranged from 15 to 24 hours, with a median of 15.5 for the former and 18 for the latter group. According to these figures, nursing faculty spend approximately four hours more per week in teaching assignments than the general education faculty. They also carry a slightly heavier teaching load than instructors in technical programs.

**TABLE 33 Factors Restricting Extra-Curricular Activities
As Identified by Freshman Students in Thirteen
Associate Degree Nursing Programs in New
York State, 1963-1964**

Restrictions	Number of Students	Per Cent
Time	88	12.0
Family	109	14.9
Work		
Full-time	74	10.1
Part-time	29	4.0
Study	238	32.5
Travel	61	8.3
No factor	42	5.7
Other	91	12.4
Total	732*	

* More than one contributing factor in several cases.
Note: Number of student replies—623.
Number of students polled—698.

TABLE 34 Student-Faculty Ratio in Eleven Associate Degree Nursing Programs in New York State, Fall 1962

Colleges	Number of Faculty Exclusive of Directors of Programs			Total Enrollment Fall 1962	Approximate Student-Faculty Ratio
	Full Time	Part Time Reported as Full Time Equivalent	Total		
A & TI at Farmingdale	2	—	2	42	21:1
Bronx CC	11	—	11	101	9:1
Brooklyn College	12	—	12	125	10:1
Corning CC	2	—	2	40	20:1
Dutchess CC	6	1/2	6.5	66	11:1
Nassau CC	3	—	3	29	10:1
New York City CC	4	—	4	73	18:1
Orange County CC	4	1/2	4.5	54	12:1
Queens College	13	—	13	137	10:1
Rockland CC	4	—	4	50	13:1
Upstate Medical	4	1/2	4.5	63	12:1

TABLE 35 Student-Faculty Ratio in Four Associate Degree Nursing Programs in New York State, Fall 1963

Colleges	Number of Faculty Exclusive of Directors of Programs			Total Enrollment Fall 1962	Approximate Student-Faculty Ratio
	Full Time	Part Time Reported as Full Time Equivalent	Total		
Adirondack CC	3	—	3	42	14:1
Jamestown CC	2	—	2	47	23:1
Monroe CC	6	—	6	80	13:1
Suffolk County CC	3	—	3	35	12:1

TABLE 36 Comparison of Average Faculty Load for Nursing and Other Faculty in Fifteen Colleges in New York State, 1962-1964

Colleges	Hours								
	Nursing			General Education			Technical Program		
	Semester	Class	Laboratory Contact	Semester	Class	Laboratory Contact	Semester	Class	Laboratory Contact
Adirondack CC	—	4	16	—	16	—	—	9*	10
A & TI at Farmingdale	4 8	2 3	12 24	—	18	—	—	—	18
Bronx CC	14	4	12-14	14-15	14-15	Incl.	—	—	15-16
Brooklyn College	10	8	8	—	12-15	—	—	12-15	—
Corning CC	8-10	3-6	24	12	15	—	12	15	—
Dutchess CC	10	3	21	—	—	—	7-12	3-6	12-18
Jamestown CC	6	4	12-16	15-20 Max.	15-20 Max.	—	15-20	4-6	15 Max.
Monroe CC	5 8	3 4	12 24	14	14	4	13	12	8
Nassau CC	—	15	Incl.	—	15	Incl.	—	—	—
Orange County CC	9	4	15	12-15	—	19-24	—	—	—
Queens College	8	4	12	8+	15	Incl.	—	—	—
Rockland CC	10	9	14	15	15	—	—	—	—
Suffolk County CC	7	2	10	15	10	10	8	4	12
Upstate Medical Center	8	4	12	3	3	3**	—	—	—

* Science faculty.

** Science only.

All faculty do not teach in classroom.

c) Basis for Salary Differentials

In a survey of fifteen associate degree programs, educational preparation, teaching experience and academic rank were considered the major factors determining faculty salary differentials (see Table 37). The academic ranking system was in effect in all but two of the institutions. With but a single exception, nursing and non-nursing faculty were on a par in rank or salary.

d) Representation on College Faculty Committees

Does the nursing faculty serve on all-college committees in the institutions where they are employed? In nine colleges of the thirteen surveyed, nurses were represented on a majority of these committees (see Table 38). Members of the nursing faculty and nurse administrators served on from one to eight committees.

7. *Resources for Clinical Experience*

In New York State, a variety of community resources is utilized by colleges with associate degree nursing programs. As shown in Table 39, students use the facilities of one to four hospitals to obtain learning experiences in the clinical area. Some hospitals are located a short distance from the college so that throughout the entire program minimal traveling is required of the student. In other associate degree nursing programs, where more than one clinical agency is employed, one institution may be near the campus whereas another is situated several miles away. Where considerable distance or time is involved for a specific clinical experience (such as psychiatric nursing), students sometimes spend several weeks away from the college campus. In this respect—unlike non-nursing students—they are isolated for a period of time from the academic environment.

TABLE 37 Basis for Determining Salary Differentials for Faculty in Fifteen Associate Degree Nursing Programs in New York State, 1962-1964

Colleges	Academic Ranking System in Use		Factors Used to Determine Salary Differentials	Difference in Rank or Salary between Comparable Nursing and Non-Nursing Faculty	
	Yes	No		Yes	No
1962-1963 A & TI at Farmingdale	x		Rank Educational preparation Occupational experience in technical fields		x
Bronx CC	x		Rank		
Brooklyn College		x	Educational preparation Experience in teaching		x x
Corning CC	x		Academic preparation Experience Student satisfaction Merit Unusual contributions Publications	x (higher)	
Dutchess CC	x		Rank Experience		x
Nassau CC	x		Educational preparation Teaching experience Publications Research		x
New York City CC	x		Rank Educational background		x
Orange County CC	x		Salary Scale Rank Experience and educational background Time on college faculty Merit		x

TABLE 37 CONT.

Colleges	Academic Ranking System in Use		Factors Used to Determine Salary Differentials	Difference in Rank or Salary between Comparable Nursing and Non-Nursing Faculty	
	Yes	No		Yes	No
Queens College		x	Yearly salary increments		x
Rockland CC	x		Rank Experience Educational background		x
Upstate Medical Center	x		Rank Experience Educational background		
1963-1964 Adirondack CC	x		Academic preparation Teaching experience Extra-curricular contributions		x
Jamestown CC	x		Teaching competence Scholarly ability Continuing growth		x
Monroe CC	x		Academic preparation Teaching experience Related professional experience		x
Suffolk County CC	x		Educational preparation Professional experience		x

TABLE 38 Number of College Faculty Committees on Which There Are Representative From Nursing Departments in Thirteen Colleges in New York State, 1962-1964

Colleges	Number of All College Faculty Committees	Number of Committees	
		On Which Nurse Faculty Serve	On Which Nurse Administrator Serves
<u>1962-1963</u> <u>(Academic Year)</u>			
A & TI at Farmingdale	9	1 (other)	1 (other)
Bronx CC	9	6	4
Brooklyn College	11	—	4
Corning CC	7	—	3
Dutchess CC	5	2	1 (other)
Nassau CC	3	1	3
New York City CC	7	3	3
Orange County CC	10	8 (other)	8 (other)
Queens College	2	2	1
Rockland CC	5	4	1 (other)
<u>October 1963</u>			
Adirondack CC	10	3	1
Jamestown CC	13	6	3
Suffolk County CC	7	4	4

TABLE 39 Numbers and Characteristics of Hospitals Used by Colleges for the Teaching of Nursing in Fifteen Associate Degree Nursing Programs in New York State for the Years 1962-1964

Colleges	Numbers of Hospitals Used for Clinical Experience	Types of Control	Types of Services	Range of Average Daily Census *	Range of Miles between College and Hospital
Adirondack CC	1	Private	General	81	6
A & T ¹ at Farmingdale	2	Voluntary—1 Federal—1	General Psychiatric	250-2488	12-17
Bronx CC	4	Voluntary—1 Federal—1 City—1	General Psychiatric	225-1373	1
Brooklyn College	4	Voluntary—1 City—2 State—1	General Psychiatric	418-2569	10-23
Corning CC	2	Voluntary—1 State—1	General Psychiatric	110-2100	1-50
Dutchess CC	3	Voluntary—1 Church—1 State—1	General Psychiatric	280-5151	4-6
Jamestown CC	4	Voluntary—1 City—1 State—2	General Psychiatric	140-149	2-35

* Census of 1000 and over usually indicates psychiatric hospital.

TABLE 39 CONT.

Colleges	Numbers of Hospitals Used for Clinical Experience	Types of Control	Types of Services	Range of Average Daily Census *	Range of Miles between College and Hospital
Monroe CC	4	Voluntary—3 State—1	General Psychiatric	247-3501	5
Nassau CC	1	County—1	General	680	5
New York City CC	3	Voluntary—2 State—1	Chronic General Psychiatric	289-2960	5-10
Orange County CC	3	Voluntary—2 State—1	General Psychiatric	185-3328	1-10
Queens College	4	Voluntary—3 City—1	General Cancer Psychiatric	250-350	1/2-18
Rockland CC	4	Church—1 County—1	General Tuberculosis Psychiatric Rehabilitation	60-5372	5-30
Suffolk County CC	2	Voluntary	General	110-125	7-9
Upstate Medical Center	3	Voluntary—1 State—1 Private—1	General Psychiatric	50-250	On premises to 1/4 mile

* Census of 1000 and over usually indicates psychiatric hospital.

Hospitals used by associate degree nursing programs vary according to the types of control and services. Most colleges utilize voluntary institutions that provide general service. For clinical experience in psychiatric nursing, the resources of county, state, and federal institutions are most frequently used.

The total bed capacity in public psychiatric hospitals is considerably larger than in private, voluntary or church-supported institutions. This accounts for the wide range in the average daily census of hospitals, as shown in Table 39.

Most of the programs use various health facilities in the community, such as nursery schools, out-patient departments and clinics, physicians' offices, and many others which are included in Table 40.

8. *The Curriculum*

In educational institutions, the objectives of the courses of study evolve from a statement of philosophy. These objectives are the *sine qua non* of all curriculum development. Although no attempts were made in the present survey to compare the philosophies and objectives of the various associate degree nursing programs, significant data were collected on their curriculum patterns. In the institutions studied, considerable flexibility was apparent in course-planning. It must be remembered, however, that the development of curriculum to a varying extent depends on courses required of all students seeking an associate in applied science degree in the individual colleges.

Frequently mentioned as a prominent characteristic of associate degree nursing education is the extent to which general education courses are incorporated into the curriculum.¹⁴ This fact is substantiated in a study of sixteen nursing programs (see Table 41). In all but one college, a fairly even balance is maintained between nursing and non-nursing subjects.

Some nurse educators, however, dispute the appropriateness of placing courses considered supportive to nursing—such as the physical, biological and behavioral sciences—within the general education segment of the curriculum. As proponents of a strong general education foundation, they believe that supportive or related courses belong in the nursing part of the curriculum and that more humanities and electives should be included under general education. Implementation of this policy would automatically reduce the number of credit hours currently accorded to nursing subjects. The model for the proportion of courses within the curriculum would be altered to include 50 per

14. National League for Nursing. *Report on Associate Degree Programs in Nursing*. New York: National League for Nursing, 1961, p. 27.

**TABLE 40 Community Resources Other Than Hospitals
Used by Colleges for Teaching Nursing in New
York State, 1962-1964**

Community Resources	No. Colleges Using Resources
Nursery Schools	6
Out Patient Departments and Clinics	4
Public Health Service	4
Departments of Welfare	3
Doctors' Offices	3
City Schools	2
Special Schools	
Mentally Retarded	2
Cerebral Palsy	2
Infirmaries for Aged	2
Planned Parenthood Classes	2
Nursing Home	1
Visiting Nurse Service	1
Workshop for Disabled	1
Home for Aged and Infirm	1
Deaf Mutes Institution	1
Meetings of Alcoholics Anonymous	1
County Health Association	1
Red Cross Chapter	1
Maternity Center	1
Rehabilitation Center	1

TABLE 41 Comparison of Credits in Nursing and Non-Nursing Courses in Sixteen Associate Degree Nursing Programs in New York State, 1962-1964

College	Credits				
	Total in Program	Nursing		Non-Nursing	
		Number	Per Cent	Number	Per Cent
Adirondack CC	64	31	48	33	52
A & TI at Farmingdale	68	32	46	36	54
Bronx CC	64	33	52	31	48
Brooklyn College	64	39	61	25	39
Cazenovia College	70	36	51	34	49
Corning CC	68	35	51	33	49
Dutchess CC	63	32	51	31	49
Jamestown CC	68	32	47	36	53
Monroe CC	74	36	48	38	52
Nassau CC	68	32	47	36	53
New York City CC	66	33	50	33	50
Orange Co. CC	64	34	53	30	47
Queens College	67	31	46	36	54
Rockland CC	61	30	49	31	51
Suffolk Co. CC	69	32	46	37	54
Upstate Medical Center	70	36	51	34	49

cent general education, 25 per cent nursing, and 25 per cent supportive to nursing.

On the other hand, there are educators who prefer to maintain the present balance of nursing and non-nursing courses. Some find it difficult to accept the concept of supportive courses as separate from the general education area. Many also feel that any further decrease in nursing credit hours would be unwise or contrary to the objectives of the program. Some even suggest that these hours be increased.

The disparity of thinking concerning the course content of general education and nursing in the curriculum suggests an underlying disagreement about what constitutes the most adequate preparation for the associate degree student. It is, therefore, important for these programs to constantly study precisely what skills and abilities are required of their graduates, and then to plan their curricula accordingly.

a) General education courses

In sixteen programs studied, the largest distribution of credits required for courses in general education occurred in the physical and biological sciences (see Table 42). Credit hours varied from 9 to 13. In the behavioral and social sciences, the range was from 4 to 12; in communication skills, from 3 to 9; and the humanities, from 3 to 14. The humanities were included in the prescribed curricula of eight programs and stipulated as electives in three. Less than half the colleges made provisions for electives.

Twelve programs required nursing students to take courses in health or physical education. All but two granted credits for physical education ranging from 1 to 4, as shown in Table 42 under the category of other courses.

Table 43 indicates the distribution of required subjects and electives, exclusive of courses in nursing and the physical and biological sciences. Analysis of the data revealed an increased emphasis on the behavioral sciences and English composition in associate degree nursing education. In contrast, there was a dearth of subject matter required in the areas of history, economics, philosophy, and art or music appreciation.

In the physical and biological sciences, the amount of time required of nursing students during the academic program is included in Table 44. A study of sixteen colleges showed a range of 96 to 144 clock hours spent in lecture. The number of hours allocated to laboratory experience varied from 56 to 144. Half the programs reported a requirement of 96 hours for laboratory. Totals for both lecture and laboratory ranged from 192 to 288, with a median of 232 hours.

TABLE 42 Distribution of Credit Hours in Sixteen Associate Degree Nursing Programs in New York State, 1963-1964

Colleges	Nursing Courses	General Education Courses							Total Program	
		Humanities	Communi- cations Skills	Behavioral and Social Sciences	Physical & Biological Sciences	Electives		Other		
						Non- Specified	Humani- ties			Soc. Sci.
Adirondack CC	31	—	6	9	13	3-6	—	—	2	64
A & TI at Farmingdale	33	3	3	6	13	3	—	6	1	68
Bronx CC	33	7	8	6	9	—	—	—	1	64
Brooklyn College	39	—	6	4	9	—	4	—	2	64
Cazenovia College	36	6	6	12	10	—	—	—	—	70
Corning CC	34	—	6	6	12	—	—	—6—	4*	68
Dutchess CC	32	—	6	12	11	—	—	—	2	63
Jamestown CC	32	—	6	12	11	3	—	—	4	68
Monroe CC	36	6	6	12	10	—	—	—	4	74
Nassau CC	32	—	6	12	12	—	6	—	—	68
New York City CC	33	—	9	9	12	—	—	—	3*	66
Orange County CC	34	—	6	6	10	3	—	3	2	64
Queens College	31	14	5	5	12	—	—	—	—	67
Rockland CC	30	6	6	9	10	—	—	—	—	61
Suffolk County CC	32	3	6	12	12	—	—	—	4	69
Upstate Medical Center	36	6	6	12	10	—	—	—	—	70

* Including mathematics 3 credit hours.

TABLE 43 Required Courses and Electives (Other Than Nursing and Physical and Biological Sciences) in Curriculum of Sixteen Associate Degree Nursing Programs in New York State, 1962-1964

	Adirondack CC	A & Tl-Farmingdale	Bronx CC	Brooklyn College	Cazenovia College	Corning CC	Dutchess CC	Jamestown CC	Monroe CC	Nassau CC	New York City CC	Orange County CC	Queens College	Rockland CC	Suffolk County CC	Upstate Medical Ctr.
Art or Music																
Appreciation			x													
English Composition	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Health Education																
(Physical Education)	x	x	x		x	x	x	x	x			x	x		x	x
History			x	x												
Literature		x	x	x	x				x				x	x	x	x
Mathematics						x					x					
Nutrition													x			
Philosophy													x			
Psychology	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Sociology		x	x	x	x	x	x	x	x	x	x		x	x	x	x
Speech		x	x	x							x		x			
Electives																
Non-specified	x	x						x				x				
Humanities				x		x										
Social Sciences	x									x		x				

TABLE 44 Credit Hours and Clock Hours in Physical and Biological Sciences for Sixteen Associate Degree Nursing Programs in New York State, 1962-1964

Colleges	Credit Hours		Clock Hours in Basic Sciences		
	Entire Program	Basic Sciences	Lecture	Laboratory	Lecture and Laboratory
Adirondack CC	64	13	112	112	224
A & TI at Farmingdale	68	13	144	96	240
Bronx CC	64	9	96	96	192
Brooklyn College	64	9	96	128	224
Cazenovia College	70	10	112	96	208
Corning CC	68	12	144	96	240
Dutchess CC	63	11	128	96	224
Jamestown CC	68	11	128	144	272
Monroe CC	74	10	96	144	240
Nassau CC	68	12	144	144	288
New York City CC	66	12	144	96	240
Orange County CC	64	10	133	144	277
Queens College	67	12	96	96	192
Rockland CC	61	10	144	56	200
Suffolk County CC	69	12	144	144	288
Upstate Medical Center	70	10	112	96	208

b) Nursing courses

The wide range in the allocation of clock hours in the nursing major seems to indicate that no uniform pattern exists in the programs studied. As shown in Table 45, clock hours required for lecture were from 248 to 496. In spite of this wide span, almost half the programs indicated 320 hours. In the laboratory, clock hours were from 576 to 792. This included the time spent at the college and in the clinical area. Nine programs stated that 572 hours were required for laboratory experience. The combined number of hours spent in lecture and laboratory varied from 920 to 1128, with a median of 960.

Table 45 also includes the number of credits required for the nursing major. This information would have had more significance if data had been collected on the various nursing specialties, to show the relative concentration on such areas as fundamentals of nursing, physical and mental illness, and maternal and child health. This would have made it possible to determine the trend of instructional emphasis.

9. *The Graduates*

For two consecutive years, data was collected on the performance on state board examinations of graduates of associate degree programs. In New York State the passing score for each segment of the examination was 350. The findings revealed that candidates for licensure scored slightly lower in 1962-1963 than in 1961-1962. As shown in Table 46, the median scores in three of the subtests were the same in both years but the 1961-1962 group did better in pediatric and psychiatric nursing. This group also had higher mean scores in the five subtests (see Table 47). Some educators feel that lower state board scores are to be expected in view of the rapid expansion of community college nursing programs and their "open door" policy of admissions. In many public junior colleges every effort is made to carry the student through to the end of the course of study. In the nursing program, this practice also prevails, and not infrequently the academically weak student completes the course but can't pass the licensing examination. There is considerable feeling among some educators about the wisdom of encouraging the borderline student, in view of the trauma he experiences in failure and the expense incurred by the college and public in maintaining him. Proponents of the philosophy of "operation second chance", however, differ with this point of view. They argue that there are always students from this borderline group who can be salvaged for nursing, and it is, therefore, the institution's responsibility to give every student the opportunity to complete his program.

**TABLE 45 Credit Hours and Clock Hours in Nursing Major
for Sixteen Associate Degree Nursing Programs
in New York State, 1962-1964**

Colleges	Entire Program	Nursing Only	Lecture	Labora- tory	Lecture and Laboratory
Adirondack CC	64	31	372	672	944
A & TI at Farmingdale	68	33	288	672	960
Bronx CC	64	33	288	672	960
Brooklyn College	64	39	496	632	1128
Cazenovia College	70	36	320	792	1112
Corning CC	68	34	335	621	956
Dutchess CC	63	32	288	672	960
Jamestown CC	68	32	320	676	996
Monroe CC	74	36	272	720	992
Nassau CC	68	32	288	672	960
New York City CC	66	33	320	624	944
Orange County CC	64	34	320	672	992
Queens College	67	31	320	672	992
Rockland CC	61	30	248	672	920
Suffolk County CC	69	32	320	672	992
Upstate Medical	70	36	320	792	1112

TABLE 46 Range, Median and Quartile Standard Scores, by Subtest, for First Time New York State Candidates on the Professional Nurse Licensing Examination, Series 162

Subtest	Associate Degree Graduates, November 1961-June 1962				
	Low	Q1	Median	Q3	High
Medical Nursing AAS (N = 230)	273	469	520	580	716
Surgical Nursing	230	469	514	567	799
Obstetric Nursing	150	432	515	587	781
Pediatric Nursing	300	448	513	570	766
Psychiatric Nursing	341	488	569	618	780

Associate Degree Graduates, November 1962-June 1963

Subtest	Associate Degree Graduates, November 1962-June 1963				
	Low	Q1	Median	Q3	High
Medical Nursing AAS (N = 246)	188	443	520	588	741
Surgical Nursing	140	439	514	589	747
Obstetric Nursing	200	424	515	582	731
Pediatric Nursing	104	415	497	570	783
Psychiatric Nursing	195	471	536	610	772

TABLE 47 Standard Score Means and Standard Deviations by Subtest for First Time New York State Candidates on the Professional Nurse Licensing Examination, Series 162

Type of Preparation	Year of Examination	Medical		Surgical		Obstetric		Pediatric		Psychiatric	
		Mean	S. D.	Mean	S. D.	Mean	S. D.	Mean	S. D.	Mean	S. D.
AAS (N = 230)	Nov. '61-										
	Jun. '62	519.62	89.10	516.88	93.10	506.11	104.94	510.56	100.30	556.20	88.21
AAS (N = 246)	Nov. '62-										
	Jun. '63	511.88*	101.13*	510.18	108.29	498.18	107.87	490.79	110.29	533.63	97.17

* N = 245.

The University of the State of New York, the State Education Department (information Tables 46 and 47).

The situation is quite different in associate degree nursing programs where higher standards of admission are enforced. The student who fails to maintain the high academic requirements of the institution is dropped long before reaching the graduation stage. The graduates of nursing programs are those who have met demanding educational standards. Almost invariably they achieve a satisfactory level of performance on the licensing examination.

The higher scores on state board examinations in previous years can undoubtedly be attributed to the more selective admission standards in the institutions preparing associate degree nurses. As community college programs expand, however, scores might be expected to decline as a consequence of the open door policy. At the same time, as counseling and nursing personnel become more experienced in their advisement of prospective students, there will be a more skillful channeling of students into other appropriate occupational training. This would reduce the number of acceptances of nursing applicants who might be better suited to other programs.

In colleges that enforce lower standards of admission, student attrition rates tend to increase. The number of dropouts in associate degree nursing programs is closely related to the philosophy of the college and the selectivity of its admission standards.

a) Current status

Are graduates of associate degree programs filling positions for which they have been prepared? To determine the type of employment of associate degree nurses approximately six months after graduation, a questionnaire was sent to each member of the 1963 graduating class of eight nursing programs in New York State. About 60 per cent of the nurses surveyed responded to the query.

The returns showed that 80 per cent of the new graduates were employed in hospital nursing (see Table 48). Of these, 57 per cent held staff positions (general duty), 46 per cent full time and 7 per cent part time. In the position of head nurse or assistant head nurse, 11 per cent were working full time and 1.5 per cent part time. Five per cent of the respondents reported doing full-time private duty in the hospital, while 3.5 per cent were engaged full time on a per diem basis. Two per cent worked as operating room nurses.

Of the new graduates employed in other nursing positions, 3 per cent were in public health agencies, 1.5 per cent in doctors' offices, and 0.5 per cent were assistant clinical instructors. Four per cent of the respondents stated that they were enrolled as students in schools of anesthesiology.

**TABLE 48 Employment of Graduates (Class of 1963) of
Eight Associate Degree Nursing Programs in
New York State**

	Percentages		
	Full Time	Part Time	Totals
<u>Working in Hospitals</u>			
Staff Nurse	50.0	7.0	57.0
Head or Assistant Head Nurse	11.0	1.5	12.5
Private Duty	5.0	—	5.0
Per Diem	3.5	—	3.5
Operating Room Staff	2.0	—	2.0
			80%
<u>Other Nursing Positions</u>			
Public Health Agency	3.0	—	3.0
Physician's Office	1.5	—	1.5
Assistant Clinical Instructor	.5	—	.5
			5%
<u>Miscellaneous</u>			
Enrolled in Programs of Anesthesiology	4.0	—	— 4%
<u>Not Working</u>	11.0	—	— 11%
			100%

Enrolled for Additional Collegiate Education—Either full or part time 8%.

Eleven per cent of the nurses reported that they were not working. Two per cent of these were full-time candidates for the baccalaureate degree in nursing; another 2 per cent retired for reasons of health, marriage and pregnancy. Seven per cent were not working, for reasons unstated.

Of the graduates polled, 8 per cent were enrolled for additional college education. Four per cent of these were part-time and full-time general duty nurses; 2 per cent, part-time assistant head nurses or head nurses; and 2 per cent, non-working nurses. From these findings, it appears that the number of associate degree graduates matriculating to baccalaureate programs is not significant at the present time. This fact would seem to lend support to the concept of associate degree nursing education as a program of study that is complete in itself. It should be noted, however, that the respondents in the study were new graduates who after a year or longer in practice might wish to continue their education.

In the survey, four per cent of the nurses reported that they were full-time students in schools of anesthesiology. All the respondents but one were males enrolled in the same program of post-graduate study. It has been informally observed in some situations, that associate degree male nurses are frequently placed in positions of leadership. Two reasons may account for this: 1) a work experience as a practical nurse or psychiatric aide in hospital nursing, prior to entering the associate degree program, and 2) the leadership role ascribed to men in the health field. The expressed interest in anesthesiology by the participants in the study may be attributed to these factors.

The overall findings seem to indicate that associate degree graduates, to a moderate degree (over 50 per cent), are engaged in positions for which they have been prepared. This is evident by the number of nurses employed on a full-time, part-time, and per diem basis in positions of general duty, private duty, and office nursing. There is some significance, however, to the figure of 12.5 per cent of new graduates holding positions for which they have *not* been prepared. It is of interest that this group became head nurses or assistant head nurses within a period of six months after graduation. An increasing number of associate degree nurses may be assigned to positions of leadership after they have been employed for a longer period.

The respondents were asked to submit general comments pertinent to their working experience after graduation. Of the 72 per cent returns in this category, most replies came from full-time general duty nurses—who also represented the largest group of associate degree practitioners. Their comments reflected satisfaction with the job and with the educational program.

Typical replies were:

I enjoy my work, feel confident that I am doing my work well, and that I was properly prepared.

We adjust easily to any situation and our education was quite adequate.

Even though the first few weeks I felt "lost", I soon found myself relaxing and enjoying my work.

From the small response elicited from head nurses or of assistant head nurses came the following mixed comments:

Enjoying my work tremendously. (assistant head nurse)

The ideal is very hard to achieve. (head nurse)

Formerly employed at _____ Hospital. I felt I was not ready to assume the responsibilities of leadership. Left after a seven-week period. (head nurse)

Although a large percentage of respondents commented on the working experience, many of the remarks were descriptive rather than judgmental. For example, nurses identified the service where employed, the particular duties on the service, and the work schedule. Those who expressed their feeling toward the job generally reacted favorably. Most of their remarks revealed satisfaction with their education and employment. Some graduates, however, indicated that they were not completely accepted by nursing colleagues.

10. *Conclusions*

The findings of this two-year study have provided interesting insights into associate degree nursing education. There were no attempts to relate the information to baccalaureate and diploma schools of nursing. In appropriate areas, however, comparisons were made with the non-nursing programs in the institutions surveyed.

From the data, it was possible to identify similarities and differences in associate degree nursing programs. The individuality of each program was reflected in the nature of the student body, the faculty, and in the various approaches to curriculum development. Although the findings indicated that the colleges were preparing nursing students for the same occupational goal, the method of implementation largely depended upon the philosophy of each institution.

It is hoped that the present study has contributed to a fuller understanding of associate degree nursing education. As programs develop and expand, it can be anticipated that further experimentation and change will result in continued improvement.

XI Evaluating the Graduates

In 1963 the Administrator and Director of the hospital used as a principal clinical facility by the project's second Demonstration Center (Rockland Community College) volunteered to undertake a three-year study of the performance of the nurses graduated from the college and employed by Good Samaritan Hospital. They were encouraged in this undertaking with the understanding that the study would be conducted as an independent activity without direct connection with the college or the New York State Associate Degree Nursing Project.

After consultation with research consultants a research design was developed. The study was to be carried out by the nursing service staff under the direction of a project director. The study was designed to be small, because only the graduates of one community college were to be evaluated when employed by one community hospital. One of the basic assumptions was that the head nurse is in a strategic position to know the service needs of the hospital and the nursing care needs of the patients. Ten head nurses of the hospital were asked to design an evaluation instrument based on nursing care needs as they saw them. The head nurses reached unanimous agreement after about seven weeks of meetings and an evaluation form was developed and validated.

Sixteen graduates were employed by Good Samaritan Hospital after the first graduation (fall 1963) and twenty were employed by the hospital after the second graduation (fall 1964). The study was in its second year when the New York State Associate Degree Nursing Project terminated. As planned, there was interim feedback to the college and to the hospital resulting in some modification of college and hospital procedure regarding the students and graduates. Based on the first year of the study, the orientation program under the direction of the hospital In-Service Coordinator was modified to meet the needs of the graduates. It is anticipated that, as a result of this study, valid information will be available to nursing service personnel of other hospitals which will enable them to modify traditional hospital employment practices when graduates of associate degree nursing programs are employed in increasingly larger numbers in hospitals throughout the state and nation.

Associate degree nursing education is based on the assumption that the graduate of the program is capable of performing well as a bedside nurse if given proper orientation and if properly utilized. It is hoped that the Good Samaritan study will contribute to the future development of associate degree nursing education by supplying addi-

tional knowledge regarding the performance of the graduates based on sound observation and evaluation.

XII Summary

The educational legacy of the New York State Associate Degree Nursing Project falls into several broad categories.

Teacher education

The success of future expansion of nursing education will depend in large measure on the quality of the nursing instructors who carry out the program. A program tailored for teachers in associate degree nursing programs was developed and will continue as a permanent educational program. Practice teaching and administrative practice, carried out in the actual community college setting in which the teacher will function, proved to be an important part of the preparation of nursing teachers and administrators.

Resource Center

The central depository for educational materials developed by the project was conveniently catalogued, continuously maintained, and readily available for study by all nursing faculties engaged in programs of teaching and curriculum improvement. The library and tape recordings will be maintained after the termination of the project, and their availability will be continued. Other sections of the country could benefit from similar centers.

Demonstration Centers

There is a continuing need in each region of the country for demonstration centers; that is, nursing education programs with some additional faculty members free to pursue new ideas in teaching methods and curriculum organization, to receive visitors and to work with practice teachers. Practice teaching and experimentation will continue as an important part of the nursing programs at the colleges designated by the project as demonstration centers.

Planning new programs

The presence of nursing faculty on the campus several months before the arrival of students was proven to be of utmost importance in the sound development of new programs. A carefully conducted and written preliminary survey of community clinical facilities (hos-

pitals, public health service, etc.) and how they can be used for the prospective nursing education program is another prerequisite for all new programs.

Stretching instructional talent

The project developed ways in which available instructional manpower can be used more effectively by applying current developments in technology and educational psychology. In particular, it proved possible to increase the number of students that can be taught by a single instructor in the clinical setting using closed circuit television.¹⁵ It was also possible to provide for more self-teaching on the part of students through the medium of programmed instruction.

Larger enrollments

The major factor limiting enrollment is generally the facilities available for clinical practice.

In metropolitan areas, where clinical facilities are not so limited, it was possible for community colleges to develop extremely large student enrollments in nursing by using a number of large hospitals.

Cooperation between programs

Regular but informal meetings of representatives of similar nursing programs in a region are extremely productive in developing standards and cooperating on broad studies of instruction, curriculum, and administration.

Nursing education benefits when nursing leaders utilize many groups provided they are helped to see the importance of their particular contribution. A complex relationship with many organizations and agencies such as the following is suggested. State League for Nursing, National League for Nursing, hospitals (State), hospitals (voluntary), State Nurses Association, hospitals (municipal), U. S. Public Health Service, hospitals (Federal), Audio-Visual Conference on Medical and Allied Sciences, Council on Medical TV, private foundations, State University, State Education Department, private business and industry, The Center for Programed Instruction, American Association of Junior Colleges, private universities, commercial publishers, public community colleges, private colleges. The importance of these relationships lies not in the identification of the groups themselves, but in the knowledge that the end result was of greater

15. Gerald J. Griffin, Robert E. Kinsinger, and Avis Pitman, "Clinical Nursing Instruction and Closed Circuit TV," *Nursing Research*, summer 1964.

magnitude and significance than would have been the case if the groups had worked independently toward the same goals. It must also be remembered that each group was willing in various degrees to contribute not only time but a portion of their financial and human resources to the common objective. Other states are engaged in or are planning similar coordinated ventures. The New York State Associate Degree Nursing Project has developed some guidelines as reported in this review. It is hoped that the experience in New York will help point the way.

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