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This report of the Program Review Committee appointed by the Secretary of Health, Education, and Welfare and consisting of leaders from the fields of nursing, hospital administration, medical practice, economics, secondary and higher education, and the general public, was undertaken in compliance with a requirement of the Nurse Training Act of 1964. The Committee considered: (1) the increasing complexity of nursing practice and nursing education and implications for change in the future, (2) the joint responsibility of schools, hospitals and health agencies, communities, and government to produce adequate numbers of well prepared personnel, and (3) the accomplishments of the Nurse Training Act and desirable modifications. Major sections of the report are: (1) Nursing Today, (2) Practice, (3) Education, (4) Trends and Issues, (5) Nurse Training Act of 1964, (6) Accreditation, and (7) The Future. Recommendations relate to construction of educational facilities, basic support for new and existing schools of nursing, development and improvement of curriculums and instruction, assistance to students, support for planning and recruitment, support for consultative services and implementation of the Act, support for research, and strengthening of the Division of Nursing. (JK)

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Nurse Training Act OF 1964

Program Review Report

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE ● Public Health Service

APPROVAL OF APPLICATIONS FOR CONSTRUCTION GRANTS

Nurse Training Act of 1964.

Program Review Report.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE *Public Health Service*
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(Public Law 88–581)

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Preface

The Nurse Training Act of 1964 was the response of Congress to some of the recommendations set forth by the Surgeon General's Consultant Group on Nursing in 1963. This Act required that a report be submitted to Congress by January 1, 1968, reviewing the programs authorized by the legislation and making recommendations with respect to the continuation, extension, or modification of the programs. To carry out this statutory requirement, the Secretary of Health, Education, and Welfare appointed a Program Review Committee in the spring of 1967. The Committee consisted of distinguished leaders from the fields of nursing, hospital administration, medical practice, economics, secondary and higher education, and the general public. This document is the report of the Program Review Committee.

The Committee carefully considered the various provisions of the Nurse Training Act and the statistical evidence documenting its accomplishments and shortcomings. The Committee reviewed the criteria established by the Surgeon General's Consultant Group on Nursing in 1963 for determining national needs and goals and made full use of the documentation provided by that Group in evaluating the Nurse Training Act. The Committee also considered the experience of the Division of Nursing, U.S. Public Health Service, in the administration of the Act. Furthermore, the Committee directed its attention to the scientific, technological, and social forces at work in our rapidly changing society as they affect nursing and the delivery of health services in an effort to more adequately forecast future needs and to redefine national goals. In the few short years since the Report of the Surgeon General's Consultant Group on Nursing was published, a great deal has happened to justify such a redefinition.

Nursing education has made considerable progress with the impetus of the Nurse Training Act, but the full impact of the legislation cannot be assessed for some time to come. Schools need a longer period of time to complete new buildings and renovation projects, to develop and implement programs of curriculum improvement, and to graduate students who are receiving financial assistance. The figures indicate, however, that this Federal assistance has stimulated much needed activity for the enlargement and improvement of nursing education programs. In addition, the Act has stimulated cooperative projects and exchange of information among schools, all of which share the benefits. The ultimate accomplishments of the Nurse Training Act will thus be compounded and realized in future years.

In face of the rapidly changing national picture in the demand for and delivery of modern health care, the Program Review Committee was impressed with the accomplishments of the Nurse Training Act. The Committee recommends continuation and a marked expansion of the Act and a number of modifications in order to meet the present and future national needs for nursing.

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Summary and Recommendations

This is a time of historic choice for nursing. On the one hand is emergence into a new and stronger professional role based on modern science; on the other is the static status quo. Major reform is needed if nursing in the modern era is to move from the fragmented, task-oriented service it tends to be today. The traditional view of the nurse, which focuses on personal qualities and intuitive abilities, is no longer sufficient or realistic. Nursing must look more to research and less to the past for relevant definition of roles and discovery of appropriate patterns of care.

The Program Review Committee, with the mandate to evaluate the impact of the Nurse Training Act of 1964, found that it could not do so in isolation without heeding the forces influencing the health care systems of our Nation. For this reason, the Committee found it appropriate to consider:

- the increasing complexity of nursing practice and nursing education, and implications for change in the future;
- the joint responsibility of the schools, hospitals and health agencies, communities, and government to produce adequate numbers of well-prepared personnel;
- the accomplishments of the Nurse Training Act and desirable modifications.

A basic problem confronting the profession is how to provide enough nurses to meet the needs of the population, which has been increasing by approximately 2 million each year since 1960. In addition, the call for nursing service has intensified because of the expanding coverage of our citizens by health and hospitalization insurance, particularly Medicare and Medicaid. Another Federal program, the Comprehensive Health Planning and PHS Amendments of 1966, has placed new emphasis on the exigency of deliberate planning to meet the numerous and diverse health needs in the country. The enactment of these national health programs requires simultaneous legislation that will provide the additional manpower essential to carrying them out. Nursing is pivotal to these programs; if nursing manpower is lacking or limited in quantity and quality, the services that patients receive will be correspondingly inadequate.

The nursing profession is being challenged to keep pace with the phenomenal advances in medical and scientific research that determine patient care. The traditional role of the nurse is being broadened. In hospitals and community agencies, the professional nurse must now lead a team of people consisting of other registered nurses, licensed practical nurses, and nursing aides. Coordination of the delivery of health services is within the nurse's province as well. Many are not prepared for the new responsibilities thrust upon them. The need for nurses with a broader and more scientifically based education has generated changes in their preparation.

The problems created by a growing demand for service and changes in educational patterns cannot be solved by the nursing profession alone. Help must come from the other health professions, higher education, hospitals, and community organizations, as well as from the Federal Government.

In addressing itself to the problems of educating capable people to serve others through nursing, the Committee was well aware of the constellation of considerations that attract people into professions and occupations and keep them in the fields they have chosen. The socioeconomic aspects of nursing—working conditions, salaries, and benefits, in particular—deserve close scrutiny if the public is to receive care of high quality. Such an analysis would have to touch upon all aspects of the organization and management of health care resources as well as the methods and rates of payment and reimbursement for services, which would digress from the scope and intent of the Committee's charge. Complicating the issue is the long tradition of nurses, along with others, subsidizing patient care by providing their services for lower wages and benefits than exist in occupations requiring comparable preparation. The Committee recognized the necessity both for economic improvements and for research on which to base these improvements.

With the enactment of the Nurse Training Act of 1964, Congress recognized the need for financial support in the crucial area of expansion and improvement of nursing education. Other areas, identified by the Surgeon General's Consultant Group on Nursing as needing Federal encouragement and funds, remained without support under the Act. Developments in the ensuing 5 years have emphasized the need to remedy these omissions, particularly the omission of funds for planning, for recruitment, and for research. The Committee concluded, also, that the areas of support provided by the Nurse Training Act must be continued, extended, and expanded if national goals are to be achieved.

In this connection, the Committee marked the need to intensify the Federal focus for nursing found in the Division of Nursing of the Public Health Service. The United States is unique in having such an organizational unit. The Division of Nursing is responsible to the people of the United States, to the profession, and to official and voluntary agencies, and is responsive to the needs of all of these. It is free to consider and plan for nursing, one of the essential health professions, within the framework of national health services. The Division of Nursing provides perspective in bringing together nursing manpower, service, education, and research in the interest of the country as a whole. As issues or needs are recognized, they can be met by program planning and operations and brought to the attention of the profession, the public, the academic community, or the Congress, as appropriate. This national focus should be strengthened and adequately supported.

Throughout the report the Committee has attempted to indicate the major problems to be confronted and solved and the kind of support needed to produce the Nation's nurses. In accordance with the charge, the recommendations in this report are aimed at those areas in which the Committee believes the Federal Government has responsibility and can be of significant assistance.

The Program Review Committee recommends to the Secretary of Health, Education, and Welfare that the program authorized under the Nurse Training Act of 1964 be continued for at least 5 years (1970–1974) and that it be substantially expanded and modified.[1]

Assistance to Schools

CONSTRUCTION OF EDUCATIONAL FACILITIES

It is recommended that:

Construction of educational facilities for diploma, associate degree, baccalaureate and graduate degree nursing programs be continued under a single authorization with increased funds to provide for new construction and renovation of facilities, and to substantially increase first-year places in schools of nursing.

The maximum Federal share be raised to 75 percent for costs of construction of all projects.

Supplemental grants be permitted to meet increased costs of construction.

A loan fund be established to provide Federal monies to be borrowed on a long-term basis to provide a school the matching funds needed for a construction grant.

Support for construction of continuing education facilities be included.

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[1] We, Donald E. Yett and Frank Furstenberg, M.D., dissent from this recommendation for the following reasons:

The Committee was unanimous in its endorsement of all programs designed primarily to improve the *quality* of both the existing and future supplies of nurses (including replacement or remodeling of outdated schools, project grants, aid to schools seeking to improve their teaching, the professional nurse traineeship program, and the expansion of administrative support). However, we take exception to those aspects of the program designed to bring about a substantial increase in the *quantity* of professional nurses by 1975.

We are concerned over the discrepancy between the announced "need" for 125,000 more nurses and the actual job openings for 35,000 nurses reported in a survey of the Department of Labor in 1966. Without a program to translate the Nation's "needs" into *effective* demand, the proposal to greatly increase the *supply* of nurses could cause large relative salary declines. Under such circumstances, nursing will become an even less attractive career than at present; and we will soon be faced with still another request for massive support to remedy the "shortage" of nurses by increasing the supply available. This vicious circle will continue so long as market demand is below the desired goal at existing nurse salary levels.

If the determination of the supply of nurses is an appropriate Federal responsibility, so too is the assurance that effective demand will be sufficiently high to create employment opportunities at salaries attractive enough to eventually eliminate the discrepancy between the number of nurses "needed" and those "demanded." Congress cannot expect to solve the nursing "shortage" problem by enacting a national supply program alone. It must initiate a coordinated program to support demand as well.

BASIC SUPPORT FOR NEW AND EXISTING SCHOOLS OF NURSING

It is recommended that:

Basic support grants be given to all types of accredited nursing programs: diploma, associate degree, baccalaureate and graduate degree, and that these grants include:

- *a fixed sum for each type of program;*
- *additional funds based on full-time enrollment according to type of educational program and its cost to the institution;*
- *assurance that the present level of support allocated to the nursing program by the institution not be reduced.*

Special grants be given to colleges and universities with no medical center to assist them in starting new programs in nursing education.

DEVELOPMENT AND IMPROVEMENT OF CURRICULA AND INSTRUCTION

It is recommended that:

Grants for improvement of nursing education be continued and expanded to cover total cost of projects to public and private nonprofit hospitals, institutions, and agencies, as well as to nursing education programs in universities and senior colleges, junior and community colleges, and hospital schools, for the improvement, expansion, and extension of their educational programs and services.

Such projects would include but not be limited to:

- *curriculum improvement;*
- *exploration, including the expert assistance and planning for comprehensive projects such as those involving multiple agencies;*
- *experimentation and demonstration with new and improved methods of teaching and methods of utilizing nursing skills, particularly as they affect training;*
- *establishment of demonstration centers in selected institutions, with emphasis on innovative approaches to nursing practice, utilization of nursing skills, and nurse training.*

Grants be made to accredited nursing programs for studies to determine the long-range role and goals with regard to nursing education; and to facilitate cooperative agreements among agencies and institutions for orderly transition from one type of nursing education program to another.

Grants be given to nursing programs to assist them to reach high quality standards (i.e., accreditation).

Grants to public and private nonprofit institutions and agencies be made to assist in the planning, development, and establishment of new or modified programs for nursing education.

Such projects would include but not be limited to:

- *acceleration of establishment of sound programs to prepare certain categories of professional nurses that are in short supply;*
- *sharing of faculty and facilities among schools;*
- *establishment of centers where registered nurses could obtain baccalaureate education necessary to professional practice and graduate study;*
- *development of programs by which disadvantaged minority groups of students with potential could realize a career in nursing;*
- *development of programs to update the skills of inactive nurses who wish to return to the field but who feel inadequate because of the changes in nursing practice.*

Grants be made to those universities with medical and health science centers that have programs in health professions to study the feasibility of establishing a nursing program; if such a study reveals the university's ability to finance the program, to recruit qualified faculty and students, and to provide adequate resources and administrative support, then extend the funds over a 5-year period for the establishment of the nursing program.

Assistance to Students

It is recommended that:

The Professional Nurse Traineeship Program be expanded and modified to:

- *provide traineeships for advanced training of professional nurses in administration, supervision, teaching, and clinical nursing practice;*
- *provide traineeships for diploma and associate degree graduates to obtain the baccalaureate preparation prerequisite to advanced training;*
- *provide continuing support of the short-term training program;*
- *include payment of costs to the institution for the administration of the program.*

Administrative policy regarding duration of support under the Professional Nurse Traineeship Program be changed to permit completion of program requirements without regard to previous support.

The Student Loan Program be continued, and that the maximum amount of loans for baccalaureate and graduate degree candidates be increased to $2,500 per academic year; and that for diploma and associate degree candidates the maximum be increased to $1,500 per academic year.

A scholarship program be established to attract highly qualified high school graduates in need of financial assistance into baccalaureate programs in nursing.

Planning and Recruitment

It is recommended that:

Funds and support be made available to private nonprofit or public agencies for Statewide or regional planning for nursing.

Funds be made available to assist private nonprofit and public agencies or institutions for recruitment programs for nursing.

Recruitment funds be used to identify talent for nursing among minority and disadvantaged groups and to provide for remedial and tutorial services.

Administration

It is recommended that:

Sufficient funds be provided the Division of Nursing for adequate staff and travel funds to provide consultative services to schools, institutions, agencies, State and local groups interested in and concerned with nursing and with the development of proposals and programs to meet rising demands for services and to provide support necessary for effective implementation of the provisions of the Nurse Training Act.

Research

It is recommended that:

Federal funds be substantially increased for all mechanisms of support to accelerate and advance:

- *research into all aspects of nursing practice, the organization and delivery of nursing services to the patient, nursing as an occupation, and ways of communicating research findings;*
- *research training, as a necessary adjunct to prepare nurses to do independent research, to collaborate in interdisciplinary research, and to stimulate and guide research important to nursing.*

Federal Focus for Nursing

It is recommended that:

The unit which now provides a Federal focal point for nursing, the Division of Nursing, be strengthened, supported, and that it be given the visibility and organizational placement necessary to develop it into a truly national center for nursing where the essential elements of education, service, research, and practice will be kept together, where total national needs will be reviewed and assessed, and where adequate resources will be available for allocation to assure a balanced program to to meet these needs.

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Nursing Today

The Changing Scene

There are more people than ever before, and the most prominent characteristic of the population growth has been the increase in numbers at each end of the life span. This swelling of population has strained the health care services out of proportion to the increased numbers because the very young and the very old have the greatest needs for services. Nursing is the matrix of these services; it is the most universally used and it is required on a more intensive basis over a longer period of time than any other single kind of health care. Larger numbers of people are better educated and enjoy a higher standard of living than ever before, and they are making greater use of health services and facilities. As the public has become more sophisticated, it has come to regard health care as a right rather than a privilege. With 75 percent of the public covered by some kind of health care insurance, more people are in a position to purchase the care they need and to insist upon the care they want when they want it.

Changes in population and in concepts of health care, accompanied by scientific and medical advances, are breeding new patterns for care and treatment as well as for the delivery of services. As specialization in medical practice has increased, nurses have had to accept responsibility for many new activities and functions, including some that were formerly the responsibilities of the physician. New tools for diagnosis and treatment have accelerated specialization of nursing practice. Treatment has become more concentrated and patients are discharged earlier from hospitals to nursing homes, and the intensity of nursing service required for each patient is correspondingly greater. Health services are no longer limited to institutional settings; they are being brought to people where they work and where they live. Industrial, school, and home nursing services are expanding as industries, physicians, and school health administrators have recognized the contribution that nursing can make to keeping people well and productive.

The 1960's have been years of legislative achievement in the health field. Newly inaugurated programs have made payment for health care available to individuals in a variety of age groups and diagnostic categories; accessibility to service, however, depends on the local availability of health manpower. For example, insurance programs authorized by the Social Security Amendments of 1965 provide for payment for care, but this does not assure that services will be available to the elderly population. Demands for nursing service are being intensified through still other Federal legislation, such as the Comprehensive Community Mental Health Centers Act, the Vocational Rehabilitation Act Amendments, and the programs of the Office of Economic Opportunity.

Additional Federal programs are likely to create demands of another dimension. The Heart Disease, Cancer and Stroke Amendment of 1965, for example, aims to make the latest advances in diagnosis and treatment available to patients through cooperative arrangements among medical schools, research institutions, and hospitals. Nursing is an integral part of the research and training programs as well as the patient care demonstrations provided by the legislation. Demands for more and for improved health services are likely to be further accelerated as States and regions move into comprehensive health planning authorized by Public Health Service Amendments.

Employment conditions for nurses, especially their hours of work and pay, have shown some improvement over the years even though they have not yet achieved parity with occupations requiring a similar level of preparation. As the work day and the work week have been shortened, greater numbers of nurses have been required to provide care around the clock. This, along with the higher salaries, is increasing the cost of nursing services in the United States. The shortages of physicians and the rising costs of health services have created pressures to develop new kinds of health workers with the expectation that they would extend the capabilities of physicians to care for more patients. In a similar way, the use of practical nurses and aides has been promoted for years to extend the capability of the nurse to care for more patients. This increasing use of less skilled personnel compounds the problem of supervision.

In the midst of these social, technical, manpower, and economic changes, nursing is faced with many conflicting pressures. The pressures are not for numbers alone. They are for competent practitioners, for teachers, and for administrators and supervisors of nursing services.

Committee Comments on Changing Scene

The Program Review Committee recognized the many concerns about nursing and nursing education, especially the public concern with the difficulty in securing nursing services. The demand for nursing services has far outstripped the steadily increasing supply. At the same time, nurses must contend with a highly organized, increasingly complex regimen of scientific and technical management of patient care for which many are not adequately prepared. This situation cannot be overcome without a marked increase in the supply of nurses, particularly those with broader based education.

The Committee recognized related issues in service and education which profoundly affect nursing. With nursing's development as a profession, the concept of nurses and physicians as partners on the health care team has not been fully accepted. This partnership is in the patient's interest, and individuals and organizations must be encouraged to work effectively with one another.

The professions of medicine and nursing are rooted in service to individuals. Proper preparation of the nurse, like the physician, requires clinical practice and responsibility for patient care under supervision. It requires teachers who exemplify

what they teach. In some programs, students have too little experience in graded responsibility for patient care and the teachers themselves have no responsibility for nursing service to patients. The middle ground between service and education in nursing is gradually developing as nursing education assumes the responsibilities for nursing service appropriate to the teaching program.

As universities are increasingly called upon to prepare professional and technical workers in applied fields, in addition to their traditional role of preparing scholars and scientists, they must recognize that different kinds of responsibilities require different kinds of skills. The difference between professional and technical practice in nursing is clear in concept and principle but it is not clear in application. The problem is compounded in that all graduate nurses licensed for practice are called "R.N.'s." To many people, a nurse is a nurse; they do not recognize that different kinds of preparation lead to different kinds of competencies. Yet the differences are there.

The confusion is understandable since the profession is hardly a century old and has achieved academic recognition only within the last 25 years. More than any other profession, nursing roles have been changing and the profession has adapted to the increasing demands of society by creating new kinds of nurses to meet new and expanded requirements. More than any other profession, nursing has identified its problems and has charted its future.

The solutions to these problems will not come easily and quickly. They will come much more easily and quickly, however, if the profession receives support from physicians, hospital administrators, educators, the community, and the Federal Government. The recommendations of the Program Review Committee describe the kind of help needed from the Government if national goals are to be achieved.

Supply and Distribution of Nurses

Although the number of active registered nurses has increased each year, the rate of increase has been declining. In 1967 there were approximately 1,200,000 registered nurses in the United States, but only a little more than half, or 640,000 were in practice and of these, approximately one-fourth worked on a part-time basis. In addition to the supply of professional nurses, there were 300,000 licensed practical nurses and 700,000 aides employed in 1967. The rate of increase for practical nurses has been more rapid than that for registered nurses.

Demands for nurses in all fields of practice continue to exceed the supply, and persistent shortages are reported. The nursing shortage stems from many sources, some of which are not readily apparent. For example, the shorter the work week, the greater the number of nurses needed. The extent to which students are used to provide nursing services has declined as training programs have become more academically oriented, and as students pay for education in money rather than in service. The uneven geographic distribution of the nurse population makes the shortage felt more keenly in some areas of the country than in others. Some States produce many more than the number of

nurses needed to staff their own services and schools; other States depend on the migration of nurses for their supply, and one State is wholly dependent on others for its supply of professional nurses.

Over two-thirds of employed registered nurses work in hospitals and related institutions such as nursing homes. The next largest group work in physicians' or dentists' offices or are self-employed as private practitioners. Within this group, the number of private duty nurses has steadily declined while the number in office practice has increased. Nurses working in community settings comprise the third largest group of nurses. Of these, the number employed by boards of education has increased far more rapidly than the number employed by official and voluntary agencies that provide preventive services and bedside care of the sick at home. Schools of nursing of all types employ approximately 4 percent of the nurse supply, and the remaining 3 percent of the nurse population work in occupational health settings.

The effectiveness of nursing ultimately depends as much on the competence of its practitioners as it does on numbers, and competence is customarily measured by type of educational preparation. Of the 640,000 employed registered nurses in 1967, it is estimated that only 13 percent have an academic degree as minimum preparation for professional leadership: teaching, supervision, administration, clinical specialization, and research. These nurses constitute the best prepared leadership available for staff nurses, students, practical nurses, and auxiliary nursing personnel in over 30,000 agencies, institutions, and educational programs (Figure 1, Appendix A).

Although there is an increasing demand for nurses with broad educational preparation, only about one nurse in eight has completed a baccalaureate program. Moreover, the distribution of these nurses among the areas of practice varies widely. For example, of the nurses engaged in teaching, one-fourth lack sufficient educational preparation. Paradoxically, the largest number of inadequately prepared faculty teach in the type of school from which the greatest number of nurses is graduated—the hospital schools. At the same time, the rapid growth of associate degree programs and the expanding baccalaureate programs are creating unprecedented demands for qualified nurse faculty to staff these programs. These demands are intensified by the even more rapidly developing programs that prepare practical nurses. Graduate programs preparing teachers for initial programs are equally short of faculty. In the field of public health nursing, two out of three are not adequately prepared. In hospitals and related institutions, more than half of the directors of nursing and their assistants and more than three-quarters of the supervising nurses lack the minimal desirable preparation. Yet these are the people who bear final responsibility for the kind of care patients receive. Figure 2 and Table 1 show the educational preparation for the various fields of employme.... (See Appendix A.)

The Program Review Committee focused special attention on the preparation of today's nursing educators whose students will be tomorrow's practitioners. Lack of prepared faculty to fill positions in existing programs and in new programs presents an acute problem at a time when greater numbers of students must be taught.

1975 Projections

In light of the foregoing trends and pressures, the Program Review Committee concurs with the projection of nurses needed by 1975 that is based on the criteria used earlier by the Surgeon General's Consultant Group on Nursing.[2]

The goal is not simply a matter of numbers of nurses; it must be expressed in terms of the education achieved as preparation for different kinds of nursing. What the nurse does is dependent on what she is prepared to do. Using the Group's criteria, which were based upon professional judgment for "safe, therapeutically effective, and efficient care" rather than projected budgeted vacancies, the 1975 total need is now seen as approximately one million registered nurses if current patterns of organization for health care continue. While the most urgent goal is to expand the numbers prepared at the graduate level for leadership positions, the largest proportion of the total need will continue to be for the kind of nurses that are presently prepared in associate degree and diploma programs. Of the one million, 40 percent should be prepared at the baccalaureate and higher degree levels to form a nucleus for planning, coordinating, and giving expert care, with the remaining 60 percent prepared to assume nursing responsibilities that are less complex in nature.

The new projection by type of educational preparation and the 1970 projection of the Surgeon General's Consultant Group on Nursing can be compared below and in Figure 3 (Appendix A) with the 1967 supply.

	Master's degree or higher	Baccalaureate degree	Diploma and associate degree	Total
1967 supply	16, 000	67, 600	556, 400	640, 000
1970 need	100, 000	200, 000	550, 000	850, 000
1975 need	120, 000	280, 000	600, 000	1, 000, 000

In appraising the progress made after 3 years with the Nurse Training Act, it appears that the Nation will have made substantial increases in numbers by 1970. However, the numbers prepared at the baccalaureate and higher levels will fall far short of the goal.

The Committee recognized that meeting the 1975 goal for this group will continue to be a major challenge. To secure professional nurses with the background necessary to effect high quality in patient care, graduations from baccalaureate and higher degree programs in 1973–74 would have to increase nearly five times over the number graduated in 1966. The following table compares 1966 graduations from each type of

[2] U.S. Department of Health, Education, and Welfare, *Toward Quality in Nursing: Needs and Goals. Report of the Surgeon General's Consultant Group on Nursing.* Public Health Service Publication No. 992. Washington, U.S. Government Printing Office. 1963.

program with the numbers that would have to be achieved by 1973–74 to assure sufficient numbers of the kinds of nurses needed for differing responsibilities for patient care. The admissions needed to achieve these graduations are shown in Figure 4, Appendix A.

Type of program	Graduations	
	1966	1974
Baccalaureate	5,498	24,000
Associate degree	3,349	22,000
Diploma	26,278	35,000

The Program Review Committee acknowledged a difference between need for nurses and economic demand for nurses. The demand for nurses as measured by the number of positions being offered by employers is much smaller than the number judged by the profession as needed to provide care to patients. Unless hospitals and health agencies have the necessary financial resources, they will not establish the positions that indicate increased demand and will not offer salaries that will induce nurses to fill that demand. And unless salaries and other benefits of employment are at least comparable with other professions or occupations, not enough young people will be attracted to nursing to meet the need for services. In view of the generally low income status of health care institutions, there is a real economic problem to be faced.

The Committee believes that with sufficient Federal assistance its goals for quality care are attainable. If the Nation is to meet the overall challenges for improved health care reflected in recent legislation, nurses to provide quality care must be available.

Practice

The hub around which all deliberations revolved was the nature of nursing practice—what it is today—what it will be tomorrow. The Committee sought to put into perspective the historic consequences that have shaped today's practice and the currents of change that will determine its future character. In the final analysis, the nature of nursing practice and the way in which nursing care services are organized will determine the number of nurses needed and the kinds of educational programs required to prepare them.

The Committee agreed that the heart of nursing practice is the direct care of patients through all stages of illness and health. It is for the care of patients that nursing is accountable to society. "Care" was seen as having dimensions beyond providing comfort and protection, and beyond giving treatments and medications. It includes doing for the patient what he temporarily cannot do for himself, and helping him to develop and use his own physical and emotional resources effectively as he moves toward being well. The giving of care requires more than technical proficiency; it must proceed from understanding of basic science and medical practice as well as a clear perception of therapeutic goals. "Care" means, too, that the disciplined use of self replace intuition as a basis for supporting, teaching, and counseling patients and their families. It includes coordinating and synchronizing all of the medical, professional, and technical services related to the patient's welfare, and mobilizing community resources to provide continuity as he moves from hospital to nursing home, to home, and back to work. Finally, "care" includes collaborating with physicians to achieve the therapeutic, restorative, and rehabilitative goals set for the patient. Nursing practice, then, includes a range of services for the patient and his family and in their behalf which nurses provide themselves or in collaboration with other professions.

Nursing, once the responsibility of the registered nurse alone, has since World War II become the responsibility of a nursing team. A registered nurse, as captain of the team, determines the patient's nursing care requirements and assigns her team members to give care within their levels of competence. The bulk of personal services is provided by an ever-growing number of ancillary personnel. The individual patient's view of nursing practice is influenced more by sustained contact with auxiliary nursing personnel than by his intermittent contact with the competent nurse practitioner. In contrast, the Committee saw nursing practice, not as an aggregate of activities carried out by a variety of nursing service personnel, but rather as a process requiring expert clinical competence.

The influx of auxiliary personnel is not the only circumstance that has diverted nursing from its central responsibility of providing direct patient care. Nursing has been less able to develop a system of professional advancement that rewards clinical competence than have other professions. The path to success, measured by professional recognition and by financial reward, has been advancement to administrative, super-

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visory, or teaching positions, all of which move the nurse farther from direct relationships with patients. Administrators and teachers must be drawn from the ranks of clinically competent practitioners, and their essential contribution to nursing service and nursing education must be rewarded. At the same time, nursing can ill afford to devaluate the contribution of its practitioners by withholding recognition in the form of tangible rewards.

Patterns of nursing service, particularly in institutional settings, have frequently been organized more to serve the convenience of management and of medical and research programs than to serve the needs of patients. This kind of organization militates against bringing expert care to patients in the right amount and at the right time.

In its position paper, *Educational Preparation for Nurse Practitioners and Assistants to Nurses*,[3] the American Nurses' Association set forth the features that distinguish professional from technical nursing practice as well as the kind of educational program for practitioners at each level. In general, the Committee concurred with the position of the profession. At the same time, it recognized that the nursing profession alone could not translate its philosophy into practice.

Professional practice in nursing is theory-oriented rather than technique-oriented and is founded on a body of knowledge derived from scientific investigation. Through research, answers are being found to questions that are fundamental to the improvement of practice: What effect do nursing actions have on patients' behavior? Of what therapeutic significance are nurse-patient relationships? What are the criteria for evaluating the effect of nursing care on patient welfare? How can the quality of nursing intervention be measured? But the answers are not coming quickly enough. Advances that have revolutionized medical practice could not have been achieved without enormous public support for training in basic science and for support of the research itself. Nursing has not attracted the same level of support. As a consequence, advances in nursing practice have not kept pace with those of medicine. Yet when the open heart surgeon removes his gloves and goes home, he leaves his patient's life in the hands of the nurse. It is the nurse who stands guard night and day at the patient's side. If she does not have the knowledge to interpret what she sees, nor the skill to save the life when a crisis occurs, the breakthrough of medical science will do the patient no good.

The development of new knowledge and application of this knowledge to practice can be achieved only through the rapid increase of nurses prepared to conduct research in nursing and patient care and to participate in interdisciplinary research. In 1966, only 291 nurses out of a supply of 621,000 active practitioners had the kind of formal preparation that enabled them to engage in scientific investigation and research activities. For this reason, the Committee urged that programs to support training of nurse researchers be substantially strengthened and extended.

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[3] American Nurses' Association. *A Position Paper. Educational Preparation for Nurse Practitioners and Assistants to Nurses.* New York, The Association. 1965.

Changes that take place in nursing practice as a result of research will inevitably require changes in traditional patterns for the organization and delivery of nursing services. Institutional nursing services, for example, have traditionally been organized around the necessity for providing care to patients for three 8-hour working periods. But the rigidity of this temporal-spatial pattern of organization must adjust to accommodate the specialization of nursing practice that is occurring as a result of research.

Specialization in nursing practice is a logical and necessary extension of specialization in medical practice, for the nurse, like her physician colleague, runs the risk of being "jack of all trades and master of none." The trend toward specialization of practice has also been responsible for a mushrooming of specialty units in which patients with similar types of illness can be placed together so that all the services, equipment, and medication essential to giving the best of modern care are immediately available. It is not enough, however, to provide this kind of nursing expertise to patients during the time they are in specialty units; the same level of expertness must be provided when the patient returns to his hospital room, to the outpatient department, or to his home. The constraints which rigid assignment patterns impose must change to allow the nurse to move freely in response to the patient's needs for care.

If changes in nursing practice and in patterns of nursing service are to have widespread application, there must be concomitant support for demonstration, experimentation, and evaluation of research findings. For example, nursing needs to experiment with alternative staffing patterns for various sizes and types of institutional nursing services in an effort to find the most appropriate combinations of staff. Some of the many factors that affect such a determination are the scope and complexity of medical practice, the presence or absence of resident medical staff, and the availability of other specialized professional services in the hospital and in the community at large. This kind of experimentation cannot be done in a simulated laboratory; it must be carried out in the institutions and in the nursing homes where care is actually given.

Demonstrations aimed at helping nursing services use both the skills and the training of nurses to better advantage are also urgently needed, for misutilization is largely responsible for the "nursing shortage."

In one sense, the virtue of being concerned with the patient's total welfare has proved to be nursing's undoing: Not only can the nurse substitute for other professional personnel who provide specialized services, but nursing can provide all the housekeeping, clerical, and management services which are indirectly related to his care. This "fatal availability" of the nurse, and the fact that nursing, unlike nearly every other hospital service, is provided around the clock, have often brought to nursing service the responsibility for management of all the other hospital departments at the end of the usual work day.

Misuse of training is another dimension of misutilization. The preparation of nurses in the three different types of programs, one leading to a diploma, one to an associate degree, and one to a baccalaureate degree, produces practitioners with different levels and kinds of competencies. Employers use them interchangeably. For example, nurses who work in school health programs should have the special skills that prepare

them for working with individuals and groups toward health maintenance. Yet the overwhelming majority of nurses employed by school systems have been prepared in programs whose focus is the care of individuals who are sick. Conversely, it is wasteful to assign an individual with the breadth and depth of preparation gained in a baccalaureate program to routinized responsibilities in an operating room or in an outpatient department where there is no patient teaching program. These kinds of misutilization of nursing skills are costly for the patient. He pays an excessive price for services that could be provided at lesser cost; yet he fails to get the expert care he needs.

The Committee recommends that:

Federal funds be substantially increased for all mechanisms of support to accelerate and advance:

- *research into all aspects of nursing practice, the organization and delivery of nursing services to the patient, nursing as an occupation, and ways of communicating research findings;*
- *research training, as a necessary adjunct to prepare nurses to do independent research, to collaborate in interdisciplinary research, and to stimulate and guide research important to nursing.*

Education

Nursing education has one purpose: to prepare people to give nursing care to patients. All programs, initial and graduate, exist toward this common goal.

Presently a melange of initial nursing programs prepares individuals to become registered nurses. These programs—diploma, baccalaureate, and associate degree—offer different types of educational programs. The nature of academic content and the amount and kind of clinical practice depend upon the type of practitioner being prepared. The common denominator of all initial programs, however, is emphasis on nursing care; the differences depend on the depth and extent of their objectives.

Diploma Programs

For the first half century of nursing in the United States, training was offered exclusively in hospital schools. Learning was apprenticeship in nature, and the students provided nearly all the nursing care to patients in these institutions. Although students in the hospital schools are no longer the mainstay of staff, this early system has been slow to change with the times and has had a pronounced effect on the continuing development of nursing education. Geared to the formal routine of the hospital, this kind of training tends to limit growth in nursing education that would keep pace with present-day knowledge and the changing health needs of the country. Today, the majority of schools of nursing are diploma programs and these prepare the largest number of nurses.

Diploma programs are generally 3 calendar years in length and are focused primarily on nursing the sick in hospitals. The sciences are taught as applied courses. Clinical courses include medical and surgical nursing, mother and child nursing, and psychiatric nursing. Education for this kind of nursing practice (technical nursing practice) is scientifically based and technically oriented; it is unlimited in depth but limited in scope. Emphasis is on learning by practical application of knowledge. New graduates from diploma programs are qualified for beginning nursing positions in hospitals.

Baccalaureate Programs

As preparation for other professions has moved to the university setting, baccalaureate programs in nursing have slowly emerged as well. Presently, they constitute 17 percent of the initial programs. This is an important trend, not in regard to numbers of nurses with the baccalaureate credential, but rather in terms of improvement in the quality of education for patient care.

Nursing students take courses in physical, social, biological, and behavioral sciences and the humanities along with students enrolled in other departments of the college. Thus, the professional aspects of the curriculum are built on a broad liberal arts background. Public health nursing practice and beginning courses in leadership

are included, in addition to the fundamental clinical nursing areas. In all the professional courses, learning is centered around the nursing problems of patients rather than on disease processes. Students have clinical nursing experience in community health agencies as well as in hospitals. Baccalaureate education, broad in scope, aims to develop professional nurses who give care that is scientifically based, flexible, and planned on an assessment of people's needs that is projected beyond the immediate. Preparation for professional nursing practice is theory-oriented rather than technique-oriented and requires knowledge and skill of high degree.

Graduates of the baccalaureate programs are qualified for beginning professional nursing positions in all fields of employment. Only these graduates, however, are prepared in public health nursing and qualified for community practice. They are also the only nurses initially prepared to embark on graduate study for clinical specialization, teaching, administration, and research.

Associate Degree Programs

The newest development in nursing education parallels trends in general education in America. The number of associate degree programs has soared from 25 in 1957 to 235 in 1967. These programs, usually 2 years in length, are located primarily in community and junior colleges.

The curriculum combines nursing theory and practice with the college's general courses in the humanities, psychology, sociology, biology, and chemistry. Theory and laboratory experience in the clinical setting are provided in medical and surgical nursing, mother and child nursing, and psychiatric nursing.

This type of program is designed to prepare practitioners qualified for beginning nursing positions, usually in hospitals. These graduates have technical nursing knowledge and skill based on an understanding of the scientific principles of the nursing care they give. The focus of instruction is on the relationship between theory and practice rather than on learning by doing. The associate degree program is complete for its own purpose of preparing nurses to give direct patient care and is not equivalent to the first 2 years of baccalaureate study.

Admissions, graduations, and enrollments for all initial nursing programs and the accreditation status of these programs are shown on Tables 2 and 3, Appendix A.

Licensure

All schools must meet minimum State legal requirements before they can operate a nursing program. The State also has responsibility for licensing individual graduates from these programs to practice within its boundaries. Nurses from diploma, baccalaureate, and associate degree programs all take the same national examination, which covers five nursing subject areas: medicine, obstetrics, pediatrics, psychiatry, and surgery. Each State, however, administers this examination and determines the

passing score nurses must achieve to be declared minimally competent for safe practice and licensure in that State. In most instances, the passing score is the same. The title "registered nurse" identifies all those nurses who have become licensed.

Graduate Education

Graduate education in nursing is patterned along the lines of preparation for leadership in all disciplines. Master's and doctoral programs in nursing include specialization, independent study, and research in depths appropriate to the student's goal. Study is concentrated on advanced clinical content in a particular field of nursing. Graduate level preparation is offered in all areas of nursing practice: direct patient care, teaching, supervision, administration, and research.

To be eligible for graduate study, nurses from diploma and associate degree programs must first fulfill a university's baccalaureate degree requirements, which include additional courses in nursing as well as in the sciences and humanities. These students, faced with long personal and financial hardships, are hesitant to proceed without considerable aid. Thus, the number of nurses with baccalaureate degrees, the potential for desperately needed teachers and leaders of nursing, continues in short supply.

Practical Nurse Education

Formal programs of practical nursing came into being during World War II in an effort to extend the skills of the registered nurse. Most programs leading to a certificate or diploma in practical nursing are now administered through public vocational school systems, although some are controlled by hospitals and others by junior colleges. This type of program, usually 1 year in length, is complete and satisfactory for its own purpose, that of preparing workers who will share in giving direct care to patients. It is neither a part of nor the beginning of any other type of educational program in nursing.

The practical nursing curricula relates basic concepts in the biological and behavioral sciences and in nursing to the direct bedside care of selected patients of all age groups. Graduates of these programs who successfully pass licensing examinations as practical or vocational nurses are prepared for two roles. They may, under the supervision of a registered nurse or physician, give nursing care to patients in situations relatively free of scientific complexity, and they may help registered nurses in giving care to patients in more complex situations.

Trends and Issues

The complexities of nursing education with its three types of initial programs preparing individuals to give care relate back to the complexities of nursing practice itself and the lack of differentiation among responsibilities for the graduates of diverse programs. Nursing practice today, caught between the old and the new, is in the process of definition. The changing roles and functions of nurses resulting from changing health needs and scientific advances have increased the pressures to resolve these undefined areas. It is unrealistic to attempt to increase only numbers of professional nurses to meet the new and increasing demands. Nursing, like other professions, requires the help of people trained to give a technical or assisting kind of nursing care. Continuous study of the demands and needs relative to all types of nursing manpower is essential as new technologies, institutions, and patterns of care are developed.

The Nurse as a Member of the Health Team

Nursing is just one of many professions struggling to meet present health needs in a society of rapid and continuous change in medical care, in health service patterns, in preparation of allied health workers, and in general education. These rapid changes are having their effects on nursing practice and functions, and are resulting in a trend toward increased direct patient care by a professional nurse with more highly developed skills and more knowledge, the expert clinical practitioner. Bound neither by hospital routines nor confining job descriptions, this nurse provides more than direct care. Her knowledge about the problems of patients suffering from a particular disease is complemented with leadership and teaching skills. Thus, she can bring to all the staff who work in a nursing unit the knowledge and insight essential to creating a true coordination between what is known and what is done. The number of educational programs preparing clinical specialists and the number of institutions employing them are slowly increasing.

Automation and developments in the administrative structure of hospitals, accompanied by an increase in the services available to patients, are bringing about changes in nursing practice. These necessitate corresponding changes in the training of nurses to work with new kinds of health workers as well as in changing settings. The nurse no longer can practice in isolation, nor are her talents needed exclusively in hospitals. Programs of education are needed where the various members of the health team will begin to work together by first learning together.

Schools of nursing, in aiming to broaden the nurse's concept of health care and her role in providing care, should include clinical practice in all settings that deal with the health of people. If nurses are to give care that is personalized, educational programs should consistently structure students' learning around the care of patients rather than rely on the more traditional time-of-day, task-centered, nursing unit ap-

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proach. Educational programs should also be structured around helping students to see the long-range as well as the immediate needs of patients. Centers should be established where nursing can experiment with new ideas, new methods, and new and different ways of preparing both students and registered nurses to function effectively as nurse practitioners.

Closer Ties Between Nursing Education and Nursing Service

During the years when nursing was learned largely through apprenticeship, teaching and practice existed side by side. The formalized curricula of nursing education brought about the establishment of schools as entities separate from nursing service. Faculty taught the prescribed courses, and nursing service personnel supervised the students' clinical practice. The relationship between theory and practice was often tenuous and students were beset by contradictory values. It is now becoming apparent to educators and practitioners alike that neither education nor practice can thrive in isolation, for theory must feed practice, and practice must enrich theory. Research nourishes both practice and education, for education endeavors to affect practice by applying knowledge gained through research.

Knowledge fundamental to nursing practice can be acquired in the classroom; skills can be learned through demonstration and appropriate practice. But behavior is molded only by emulating the example set by master practitioners who are also teachers. Learning how to think, feel, act, judge, decide, and evaluate like a nurse can be gained only through a kind of apprenticeship system new to nursing. The logical development today must be a closer tie between nursing education and nursing service with shared responsibility for patient care. The trend toward joint appointments of faculty to the nursing service department and of members of nursing service to the faculty of the school of nursing is a positive sign in the improvement of service and education. As greater continuity among practice, education, and research is established, students can develop the patient-centered, problem-solving approach to nursing that works in the real world of caring for patients.

Continuing Education

All professions are recognizing that continuing education is intrinsic to a continuing effectiveness in practice. Changes in total health care system and extension of nursing to preventive and curative and family-care concepts require a constant updating of knowledge. Knowledge that was useful yesterday may be obsolete today; skills that are important today may be outdated by tomorrow. The initial educational programs prepare for entry into nursing. Continuing education is essential throughout the lifetime of the professional practitioner in order to retain professional competence in a scientifically dynamic environment.

Continuing education is different from formal academic study leading to an advanced degree. And it differs from refresher courses for nurses who wish to resume practice after a period of professional inactivity. Continuing education also differs from inservice education offered by employing agencies to develop the knowledge and skills of nurses for service in those institutions. It includes more, too, than the informal reading and study a nurse pursues by herself. The Committee considered continuing education as the formal, organized courses as well as the short-term programs designed to enhance both general and professional knowledge. It is education designed to keep nurses up to date in nursing and to enrich their practice.

Yet in nursing, where it is especially important because the lives of people are in the balance, there are few opportunities for continuing education. Programs are few and far between. The varied structure of initial nursing education also makes it difficult for people to approach further study and updating in a purposeful way. The problem for nurses is compounded by personal financial hardships, including in some instances a temporary loss of income, and the reluctance of employers to allow time off because of the shortage of manpower.

The university, with its educational resources, must provide this kind of continuing education for nurses, making what they need to learn available in convenient locations and at appropriate times. The best that universities can do in present circumstances is to offer unrelated courses to meet specific requests. This affronts the concept of solid building blocks of learning which would constitute true postgraduate type education. Programs must be planned and developed, and financial support such as is available for medicine and dentistry should be made available for programs in nursing, including assistance for the nurses who will be continuing their education.

Recruitment Into Appropriate Programs

Changes in society and in education are profoundly influencing the recruitment into nursing. More and more young people who want to be nurses want college education as well, and nursing might attract more students enrolled in college if majors in nursing were available. The shift to junior and senior colleges is a decision and choice the students themselves are making, one that is reflected not only in the proliferation of nursing programs in junior colleges but also in the decrease in enrollment in diploma schools of nursing.

College education is now a realistic goal for groups of people with low and moderate incomes. For these individuals, education is the way to enhance their self-image and raise their socioeconomic levels.

The distribution of such minority groups enrolled in schools of nursing is disproportionate to their distribution in the population. To recruit successfully from this group, schools of nursing must develop programs flexible enough to adapt to students who learn with difficulty often because of inadequate elementary and high school education. Numerous methods are presently being used, and more are needed, to provide a bridge for entry into nursing for the educationally disadvantaged.

Imaginative ways to interest these young people in nursing, early counseling, remedial and tutorial work that begins in high school and continues throughout the nursing curriculum, all will help to increase the numbers of practicing nurses. Despite their high cost in both money and time, such approaches are necessary.

Recruitment efforts are being directed to draw people from three additional groups: inactive nurses, men, and older women whose family responsibilities have lessened. The Federal Government has recently joined efforts with the nursing profession to attract inactive nurses back to practice. More refresher courses, day care centers, convenient working hours, and better economic reward might bring a very substantial number of people who are already nurses back to caring for patients.

Many mature women see nursing as a way to continue contributing to society. Some are already enrolling in associate degree programs that are structured to favor admission of older people. More men are also showing interest in nursing. However, the potential for men in the profession will essentially remain untapped as long as nursing retains its image as a woman's profession. This can be counteracted by emphasizing the types of nursing positions that can be best filled by men. Young men who are destined to be the major breadwinners in the family must also weigh their interest in nursing as a career against their eventual economic return. There is mounting evidence that prospective earning capacity is an important factor in career selection for women as well. Appropriate rewards are necessary if nursing is to attract enough people, both men and women, and if the estimates of need are to be translated into meaningful events.

Early counseling is an indispensable part of recruitment, particularly with these special groups. If students are to have the chance to develop their own abilities, they must be guided into the kind of program that is right for them. Nurses must intensify their work with high school counselors to help them understand the requirements and objectives of the different types of educational programs.

Social pressures for "upward mobility" in the health occupations have increased as these workers desire more status and want to improve their socioeconomic level. Programs preparing these people and the individuals themselves must learn to what extent career advancement is feasible.

All the plans for recruitment and new ways to help students complete nursing programs will be of little avail in lessening the shortage of practicing nurses if the economics of nursing are not simultaneously improved. The student investing in nursing education today has a right to expect that the economic reward for varying kinds of nursing practice will be attractive in comparison with other occupations requiring equal amounts of training.

Orderly Transition Into New Patterns of Education

The nursing profession itself has the responsibility for deciding upon and working out educational programs needed to provide the best possible nursing care.

Through its professional organization, the American Nurses' Association, the nursing profession in 1965 took the position that all formal nursing education should ultimately take place in academic institutions, within the framework of higher education in America.

The National League for Nursing and the American Nurses' Association have recently established an independent National Commission on Nursing Education, Inc., to carry out the recommendation made to nursing by the Surgeon General's Consultant Group on Nursing that "A study should be made of the present system of nursing education in relation to the responsibilities and skill levels required for high-quality patient care."

While the trend toward academically based education in nursing had been apparent for some time (Figure 5), the position paper of the American Nurses' Association has focused attention on the problems of transition, particularly for hospital-based schools. Diploma schools are moving toward closer affiliation with educational institutions for academic content of curriculum. Some are shortening the length of their programs; others are sharing faculty to strengthen curriculum. Still others are considering means of transferring the administration of the program to an institution of higher learning. More and more schools of all types are examining their resources and facilities and their long-range teaching objectives. The Committee considered this an activity for encouragement and support.

Although it seems certain that diploma programs of nursing education will eventually lose their identity as such, this must not happen too quickly. The majority of graduates come from these programs and the supply must be maintained until future patterns of nursing education are firmly established and the preparation of sufficient numbers is insured. In any case, the contribution that hospitals have made to nursing education will not be lost since educational institutions will continue to use the clinical resources of hospitals.

Nurse Training Act of 1964

In response to a growing severity of the nursing shortage, the President, in the spring of 1961, requested that a Consultant Group on Nursing be appointed by the Surgeon General of the Public Health Service. The group was formed and given the charge to advise the Surgeon General on nursing needs and to identify the appropriate role of the Federal Government in assuring adequate nursing services for the Nation. The Consultant Group's report, *Toward Quality in Nursing: Needs and Goals*, recognized several major problems in nursing and carefully evaluated and projected national needs for nursing service and education. That report, which was submitted in 1963, served as the base upon which the Nurse Training Act of 1964 was built.

Because the quality of care nurses give is dependent upon the quality of their preparation, the Nurse Training Act was developed as a balanced program of aid for nursing education. Provisions for construction, teaching improvement grants, and payments to diploma schools were included to upgrade and expand educational facilities and programs. Loans for nursing students were included to attract more people into this essential health profession, and traineeships for graduate nurses were continued to help prepare the necessary teachers and leaders. The law was designed to help all existing types of nursing education programs work toward these goals.

The intent of the Nurse Training Act was to provide the much needed impetus for upgrading quality and increasing numbers in nursing. The law was not constructed to remedy all the problems recognized by the Surgeon General's Consultant Group on Nursing. Nor were all the Group's recommendations accounted for in the legislation. The Act has helped nursing, but not to the extent that nursing needs to be helped to assure that the people will, in fact, receive the excellence of care that is possible in the modern world. The Program Review Committee, realizing that Federal assistance to nursing education exists to promote nursing care, necessarily considered some of the components of quality of this care. Adequate numbers of people compatible with demand, quality of education, appropriate distribution of schools, appropriate kinds of programs preparing people to give differing kinds of nursing care, and a firm base in nursing research were discussed in dimensions that went beyond the specific provisions of the Nurse Training Act.

The Committee's recommendations for continuation, extension, and modification of the Nurse Training Act are grounded in awareness that the task has grown in size, importance, and urgency; they are directed to meet the challeges of the future for new patterns of care and the education to prepare for this care.

In addition to the increasing demands for quality nursing care, the changes in education, and the rapidity of these changes, certain limitations within the legislation itself require modification of the Nurse Training Act. Some of these limitations have already been recognized by the Congress in amendments to the Act. The loan program has been expanded, and Educational Opportunity Grants have been added to encourage

young people of exceptional financial need with potential for nursing to choose this career. A third amendment has provided for the transfer of construction monies between the categories of educational programs as warranted by utilization of funds.

Administration

Administration of the Nurse Training Act is the responsibility of the Division of Nursing, Bureau of Health Manpower, U.S. Public Health Service, with the advice and counsel of the National Advisory Council on Nurse Training. This Council is composed of 16 members from the fields of nursing, higher and secondary education, hospitals and agencies that provide nursing services, and from the general public. The Committee found the program to be functioning well and had no recommendation for any basic change. In general, funds have been well utilized in view of the newness of the program and the relative inexperience of some schools with the application and administrative procedures associated with Federal programs. In the first 3 years nearly $100 million was awarded. The funds authorized and awarded for the various provisions are shown in Tables 4 and 5, Appendix A.

The Committee noted that, from the beginning, participation in the Nursing Training Act has been characterized by keen interest, support, and cooperation on the part of the faculty and officers of the nursing schools. A major factor in the early and extensive participation in the Nursing Training Act has been the willingness of busy faculty to take on extra administrative responsibilities and to devote time and energies to providing consultation, serving on review committees, and making site visits.

Of the shortcomings that came to the Committee's attention, some stemmed from the legislation, some are common to all Federal programs, and others related to the availability of funds for program operations.

This legislation did not allow schools to be reimbursed for the administrative costs of participation in the provisions, and an inequity between the indirect cost allowance for training grants and projects and that for research grants was noted. The timing of appropriation and the availability of funds for allocation to schools at times suitable for the school to award funds to students have been recurring problems.

The Committee was fully cognizant of the fact that the use schools make of the provisions in the Act depends in large measure on the assistance they receive from the staff responsible for administering the program. Through consultation, conferences, and site visits, the staff helps faculties explore, test, and crystallize new ideas. Availability of consultants and specialists in nursing, education, architecture, and multimedia approaches to learning is essential to the sound development of projects that incorporate the expertise of other disciplines. Consultation provided prior to submission of applications makes a significant difference in their quality, and ultimately reduces the time and cost required for their development and review. Similarly, conferences of school and project directors provide a forum for the direct exchange of information. The Committee expressed concern that insufficient funds were provided to support these

activities and emphasized that the cost of the investment was far outweighed by the dividends yielded.

The most serious inadequacy was the absence of authority and funds for establishment of new schools or new programs in selected areas where training facilities are scarce or nonexistent. The Committee acknowledged that States with a relative abundance of well-established nursing programs would continue to meet the manpower deficit for States with more limited educational resources. Some students who wish to be nurses, however, may be lost to the profession unless they can attend a school reasonably near their homes. The very presence of a school is a means of alerting young people to the opportunities of a career in nursing.

Accreditation as an educational issue is dealt with beginning on page 47 of this report. However, the accreditation requirement as a condition of participation created administrative difficulties. The length of time allowed a school participating on the basis of a finding of reasonable assurance to achieve full accreditation varied from one provision of the legislation to another, and this raised questions in terms of a school's eligibility to continue to receive Federal funds.

Lack of flexibility in the way funds could be used tended to limit the potential of the program. For example, more applications for construction grants were approved than could be funded, while funds appropriated for basic support grants for diploma programs in nursing were not fully utilized. The Committee believed that the best interest of schools would be served if unused funds authorized for one provision could be used to fill unmet needs in others.

The Committee recommends that:

Sufficient funds be provided the Division of Nursing for adequate staff and travel funds to provide consultative services to schools, institutions, agencies, State and local groups interested in and concerned with nursing and with the development of proposals and programs to meet rising demands for services and to provide support necessary for effective implementation of the provisions of the Nurse Training Act.

Educational Facilities To Expand and Improve Nurse Training

The Nurse Training Act of 1964 authorized $90 million over a 4-year period for matching grants to eligible collegiate, associate degree, and diploma programs for new construction, expansion, or renovation of nursing education facilities. The Federal share may be up to two-thirds of the necessary construction cost for a new school or new facilities for an existing school that are essential in providing a major expansion of the training capacity. Major expansion constitutes capacity for a 20-percent increase in enrollment or 20 additional students, whichever is greater. In all other cases, the grant may not exceed one-half of the cost. Applicant schools are required to give assurances concerning the availability of the non-Federal share of construction cost and of funds

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for effective operation of the facility once construction has been completed. The school must also show prospects for increased first-year enrollments after the capacity of an existing school is enlarged.

Since the construction program began in fiscal year 1966, 71 schools in 29 States, Puerto Rico, and the Virgin Islands have received grants totaling $37.7 million. An additional 15 applications were approved but were not funded, primarily because monies appropriated had been completely utilized; a few were pending resolution of administrative details at the respective schools. It is significant that the majority of awards have gone for replacement of obsolete buildings, thus providing settings in which quality education can occur. Over 12,000 student places have been maintained that might otherwise have been lost, and 2,674 new places in which students can study have been created (Tables 6, 7, and 8, App. A).

The construction project at a midwestern State university illustrates the kinds of improvement these funds are making possible. When this building is completed, the college of nursing will have space to increase its enrollment by 100 percent. For the first time, the school will have an identifiable educational unit. Among the many improvements is a room equipped with a one-way viewing mirror which can be used by students for observing the behavior of children and by faculty for observing practice teaching. For the first time, there will be space for faculty to counsel students and space for carrying out research in nursing.

In looking at the accomplishments of the construction program, the Committee was impressed with the ways in which innovations in design reflected innovations in curricula. Throughout, construction is being characterized by a flexibility of plan that promotes efficient and economical use of space and has made possible a number of specific improvements. One, for example, is the equipping of space for autotutorial laboratories in which students can master new knowledge and can perfect technical skills at their own rates of learning. Another improvement gives each student a front-row seat through the use of closed circuit television transmission from hospital rooms. In a third instance, two hospital-based programs and a hospital providing pediatric nursing experience have combined forces to plan and build a new school of nursing building to be used jointly in the teaching of students at a saving to each school.

The Committee took special notice of a report in the May 1967 *Architectural Record*[4] describing trends in design and construction to meet the special needs of nursing education. The report pointed to the vast potential of a supported construction program. Captions from this article indicate the variety and imagination in some of this construction: ". . . four-towered nursing school and residence preserves human scale and provides outdoor space in midtown Manhattan . . . progressive college of nursing is planned around a large auditorium, audiovisual aids and a training laboratory."

An amendment to the Nurse Training Act allowed flexibility in the use of construction grant funds by giving authority to the Surgeon General to transfer amounts

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[4] Anonymous. *Nursing Education Facilities.* Architectural Record. May 1967. pp. 159-166.

appropriated for one category of nursing schools that are not likely to be utilized to the other. Only when funds were not completely used by the designated category was the transfer authorized. This administrative flexibility has made it possible for schools with approved projects to begin construction without delay.

At each step of the way, schools have nursing and architectural consultation within the limits of the resources of the Division of Nursing and the Bureau of Health Manpower. In addition, site visits are made to obtain information in support of all applications. To further extend consultation, planning tools and guides were developed to assist schools with new construction or renovation plans. The first of these, *Nursing Education Facilities: Programing Considerations and Architectural Guide,*[5] was prepared in June 1964 by a Joint Committee on Educational Facilities for Nursing with representation from the Public Health Service and the National League for Nursing. This was followed in 1966 by a second publication, *A Guide for Projecting Space Needs for Schools of Nursing,*[6] which was intended to assist schools of nursing in translating their curricula into space requirements.

Progress has been made. However, many nursing education programs still occupy makeshift buildings, such as barracks, dormitories, former hospitals, and basement areas. Many are unsafe, poorly ventilated, and noisy. Schools cannot consider expansion until such facilities are replaced; indeed, they can scarcely maintain their present enrollments. Students are more inclined to select schools that are attractive and comfortable, and faculty gravitate to schools having the modern equipment that permits utilization of the newer and more effective teaching methods. For these reasons, the construction program is having a profound effect on the improvement of nursing education.

In order to meet the quantitative goals for nursing by 1975, it will be necessary to provide approximately 49,000 new places for first-year students. In light of the great interest in new nursing programs, especially in community colleges, and with appropriate incentive for enlargement of existing programs, the Committee believed that this number of new places can be used.

The Committee recognized that the present construction program is not without inadequacies. For example, preventing decrease in enrollment is as important a manpower consideration as the outright increases. Existing schools have produced the vast majority of registered nurses. In order to keep the students they have, these schools must renovate before they can expand. They warrant the same favorable Federal share as schools that are in position to undertake major construction and expand their enrollments immediately. In view of the critical nursing manpower needs, the Committee felt that the present maximum Federal share should be more generous for all schools.

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[5] U.S. Department of Health, Education, and Welfare. *Nursing Education Facilities: Programing Considerations and Architectural Guide.* Public Health Service Pub. No. 1180–F–1b. Washington, U.S. Government Printing Office. 1964.

[6] U.S. Department of Health, Education, and Welfare. *A Guide for Projecting Space Needs for Schools of Nursing.* Public Health Service Pub. No. 1474. Washington, U.S. Government Printing Office. 1966.

The fact that supplemental funds were not provided in the legislation has presented another problem. Approximately 50 percent of the applicants have found that by the time the grant award is made, the bids are from 5 to 25 percent higher than when the application was filed. The lack of necessary supplemental funds may result in a lowering of quality or a delay in construction that, in turn, precludes increases in student enrollment.

Schools have also experienced considerable difficulty in obtaining funds to meet the matching requirements. At the end of fiscal year 1967, nine approved construction grant applications could not be funded for this reason. Establishment of a loan fund would make it possible for schools of nursing to have matching funds available at the time the Federal grant is awarded. There is precedent for loans for matching in other Federal legislation.

Finally, the Committee indicated that the definition of "eligible programs" in the Nurse Training Act prevents the awarding of construction grants for continuing education although this is a well-recognized responsibility of collegiate nursing education.

The Committee recommends that:

Construction of educational facilities for diploma, associate degree, baccalaureate and graduate degree nursing programs be continued under a single authorization with increased funds to provide for new construction and renovation of facilities, and to substantially increase first-year places in schools of nursing.

The maximum Federal share be raised to 75 percent for costs of construction of all projects.

Supplemental grants be permitted to meet increased costs of construction.

A loan fund be established to provide Federal monies to be borrowed on a long-term basis to provide a school the matching funds needed for a construction grant.

Support for construction of continuing education facilities be included.

Educational Improvement Grants

This is the single provision of the law directed to improving what it is that nursing students learn and how they learn. In a sense, the success of all other provisions hinges upon the forward strides schools make with educational improvement grants.

The Nurse Training Act authorized $17 million over a 5-year period for grants to eligible collegiate, associate degree, and diploma schools of nursing to help meet the

additional costs of projects designed to improve, strengthen, or expand nursing educational programs. Grants have been made to both graduate and undergraduate programs. Projects can be supported for 1 to 5 years depending upon the objectives, the methodology, and the time required to carry out the project and incorporate the educational improvements into the curriculum.

By June 30, 1967, 116 project grants had been awarded to 95 sponsoring schools of nursing in 37 States and Territories. Although a grant is awarded to a single school, any number may take part in a project, including schools that are not accredited. Thus far, an additional 143 programs are sharing in the projects with the benefits reaching over 33,000 students. The amount of funds awarded totaled $7.4 million; funds approved for duration of the projects totaled $11.1 million (Tables 9, 10, and 11).

While most of the projects authorized under this provision of the Nurse Training Act will be of 2 to 5 years' duration, outstanding improvements in nursing education are already evident. Teachers are employing new media and new approaches in their work with students. The ultimate results will have far-reaching effects as the improved quality of students' preparation is reflected in the care they give as practitioners.

The activities supported under this provision vary widely, being limited only by the imagination and creativity of the applicant. Students are being assisted in their study and assimilation of new knowledge by means of independent study with self-instructional materials. Use of these methods and materials allows students to learn at their own pace and releases the teacher to work more closely with individuals. Remedial courses in reading, study skills, and medical mathematics are being designed to help students with poor educational backgrounds remain in nursing school, graduate, and become licensed to practice.

In joint projects focusing on curriculum improvement through faculty development, faculty at one school serves as catalyst to another in experimenting with new teaching methods and technologies to adapt them to nursing education. These newly developed methods allow effective teaching of greater numbers of students.

The Committee was impressed with the projects utilizing the potential for television in nursing education. Video tapes are extending instruction by well-qualified teachers to students in areas where top quality education would not otherwise be available. One grant has enabled 18 schools to experiment with cooperative curriculum planning and subsequent production and telecasting of courses. Another has produced a series of video tape lectures on the public health science essential to the nursing major of baccalaureate programs. Still another school is using the telelecture system to bring expert teachers to more students. With telephones and amplifiers, a lecture can be heard by students on different campuses and their questions in the classroom can be answered by the lecturer. Many of the materials being produced under these kinds of projects are being used by schools throughout the country.

Schools are experimenting with reorganization of curriculum and revision of content and teaching methods in ways that will reduce the length of the nursing program

without jeopardizing quality. For example, one diploma school has realigned its total program to eliminate unnecessary repetition by capitalizing on the building process in learning. The school will also be increasing graduations by an estimated 20 percent.

The Committee found that curriculum improvement grants have made possible fundamental changes in nursing programs to accelerate learning, increase the numbers of students that can be taught, and enhance the quality of education in schools with limited faculty and facilities. While the individual accomplishments of this program are far reaching and exciting, one of its most significant results is the identification of new and different areas that require support. A program that makes possible real improvements in nursing education is obligated to provide for demonstration of these so that all of nursing education can benefit. Isolated improvements are not enough. And education is only "one side of the coin." All settings that provide clinical experience for nursing students must be involved in planning if the most effective learning is to occur. The present legislation does not permit hospitals and other agencies engaged in teaching to apply for project grants. Service and education must work together to identify and develop those among the variety of health facilities that will combine to provide the most suitable programs.

Throughout its discussion, the Committee underscored the interdependency of nursing education and nursing practice. Improving the quality of patient care cannot be accomplished unless strong programs of nursing education graduate larger numbers of qualified practitioners; these practitioners will not remain active unless practice settings are sufficiently flexible and stimulating to allow them to apply what they have learned. Teachers need the opportunity to enrich their clinical competency through practice in nursing services; nurses who care for patients need the stimulation which close contact with the academic community provides. And students must see the values taught in the classroom translated into practice.

The Committee recommends that:

Grants for improvement of nursing education be continued, and expanded to cover total cost of projects to public and private nonprofit hospitals, institutions, and agencies, as well as to nursing education programs in universities and senior colleges, junior and community colleges, and hospital schools, for the improvement, expansion, and extension of their educational programs and services.

Such projects would include but not be limited to:

- *curriculum improvement;*
- *exploration, including the expert assistance and planning for comprehensive projects such as those involving multiple agencies;*

- *experimentation and demonstration with new and improved methods of teaching and methods of utilizing nursing skills, particularly as they affect training;*

- *establishment of demonstration centers in selected institutions, with emphasis on innovative approaches to nursing practice, utilization of nursing skills, and nurse training.*

The Committee foresaw that the trend in nursing to move into the mainstream of education would accelerate. They shared the concern schools have already expressed about determining their roles in contributing to a sufficient supply of well-qualified practicing nurses. It is imperative that schools plan with hospitals and other community agencies toward the best use of their respective resources. Plans must be based on critical examination of educational goals in relation to the changing nature of nursing education and to the nurses needed to care for patients with a variety of health problems in a variety of settings. To insure that the period of transition in nursing education will be a productive time, assistance must be given to schools of nursing to decide their future within the communities they serve.

The Committee recommends that:

Grants be made to accredited nursing programs for studies to determine the long-range role and goals with regard to nursing education; and to facilitate cooperative agreements among agencies and institutions for orderly transition from one type of nursing education program to another.

An individual's likelihood of passing the licensing examination hinges more on the quality of the student's educational preparation than on any other single factor. In 1966 one-quarter of the students were enrolled in 40 percent of the initial programs that either had not sought accreditation or had failed to reach quality standards. Fundamental weaknesses in the curriculum were the principal obstacle to achieving criteria for accreditation. Even if such schools had been eligible under the law for curriculum improvement grants, they would have found it difficult to compete successfully for Federal funds. Programs already in good order are more apt to have the capability for developing sound projects than programs that are in jeopardy. The

more precarious the program is, the more difficult attracting faculty and students becomes. Decisive intervention is needed to assist these schools in improving the quality of their educational programs.

The Committee recommends that:

Grants be given to nursing programs to assist them to reach high quality standards (i.e., accreditation).

Schools of nursing have long recognized opportunities for increasing the supply of nurses through the development of special programs. These opportunities, however, have been unrealized largely because of lack of support to develop programs with a sound foundation of education and practice. The Committee recognized three such opportunities as having special merit.

The first is the development of programs to attract disadvantaged minority groups into nursing. This source of nurse manpower has scarcely been tapped, for educationally and socially deprived youngsters find it almost impossible to meet admission requirements to schools of nursing. Projects designed to identify boys and girls with motivation and potential for nursing early enough to prepare them for admission to schools of nursing, and to provide the tutorial assistance they need to compete successfully with other students once they are admitted would serve the dual purpose of equipping the individual with professional preparation and increasing the number of nurses.

A second program should be aimed at bringing inactive nurses into practice. The nurse who has remained inactive for as little as a year finds that obsolescence has already set in. If nurses who return to practice are to give safe and competent care, both their knowledge and their skills must be updated. This calls for establishment of educational programs that emphasize new developments in medical and in nursing practice and provide supervised clinical practice.

The Committee also urged the development of programs to prepare clinical nurse specialists. The unprecedented growth of specialty units and the accompanying need for nurses to staff them create a temptation to provide technical, job-oriented training rather than scientifically based, problem-oriented training. This is a development that must be avoided at all costs. The Committee urged that new programs be academic in nature and provide sufficient supervised practice to assure clinical competence. Such projects cannot be undertaken without well-qualified faculty. Because teachers are already in critically short supply, the Committee advocated the development of projects to demonstrate new ways for schools to share faculty talent and other resources in the interest of developing sound programs and avoiding needless duplication of effort.

The Committee recommends that:

Grants to public and private nonprofit institutions and agencies be made to assist in the planning, development, and establishment of new or modified programs for nursing education.

Such projects would include but not be limited to:

- *acceleration of establishment of sound programs to prepare certain categories of professional nurses that are in short supply;*
- *sharing of faculty and facilities among schools;*
- *establishment of centers where registered nurses could obtain baccalaureate education necessary to professional practice and graduate study;*
- *development of programs by which disadvantaged minority groups of students with potential could realize a career in nursing;*
- *development of programs to update the skills of inactive nurses who wish to return to the field but who feel inadequate because of the changes in nursing practice.*

In the context of changes that are taking place in health services as well as in nursing, the Committee asserted that the most appropriate setting for the development of new collegiate programs was in universities with medical centers. Yet in 1967, there were 16 such centers without undergraduate nursing programs. The Committee believed that universities have responsibility for using their academic and clinical resources to support collegiate programs in nursing in addition to the programs they presently provide for other health personnel.

Among the advantages a university would realize from the establishment of a collegiate nursing program, two deserve special mention: The objectives of other programs preparing health professionals will be advanced as education for nursing has a similar professional base; and disciplines that learn together have greater likelihood of working effectively together in subsequent practice.

The Committee recommends that:

Grants be made to those universities with medical and health science centers that have programs in health professions to study the feasibility of establishing a nursing program; if such a study reveals the university's ability to finance the program, to recruit qualified faculty and students, and to provide adequate resources and administrative support, then extend the funds over a 5-year period for the establishment of the nursing program.

Payments to Diploma Programs

Payments to diploma programs in nursing constituted the third type of support to schools through the Nurse Training Act. These payments were designed as reimbursement for a portion of the cost of training students whose enrollment could reasonably be attributed to the provisions of the legislation with eligibility limited to fully accredited programs. The amount of a school's annual entitlement was determined by a formula consisting of two factors: the increase in full-time enrollment in the school for the year over its 3-year average for 1962, 1963, and 1964; and the number of federally supported students enrolled for that year. Schools may use these factors singly or in combination to establish their eligibility to receive funds. Of the 910 awards made over the 3-year period (Table 12), 168 were based only on increased enrollments, 290 were based only on the number of federally supported students, and 452 used both factors in the formula. Payments for the first 3 years of the Act amounted to almost $6 million.

In the initial year of program operation, fewer schools than had been anticipated applied for payments; in succeeding years, however, both the number of schools participating and the amount of payments have increased. The hesitancy of some schools to apply could have been rooted in skepticism about their freedom to use the money without Federal control of their programs. However, the formula itself militated against extensive participation: Many fully accredited schools of nursing were already operating at full capacity and were, therefore, unable to increase their enrollments; others that had not chosen to establish loan funds because of the administrative costs involved, had no federally sponsored students. In addition, a number of schools had just accommodated to the increase in the number of young people who reached 17 years of age in 1964 and were unable to increase their enrollments still further.

In general, the impact which the payments could reasonably be expected to have on the cost of educating students was reflected in their amount, which ranges from token payments of $250 to a maximum of $40,000. Over the 3-year period, the average amount of the entitlements increased to $8,000, a sum insufficient to employ one additional qualified faculty member. However, payments eased the way for schools to improve library resources, to purchase up-to-date equipment, and to make modest salary increases. In the face of rising educational costs, improvements of lasting and fundamental significance would have required a more substantial investment than the payments made possible. Paradoxically, nonaccredited nursing programs, whose need for financial support to overcome obstacles to accreditation is greatest, were ineligible for payments.

The Committee endorsed the principle of basic support grants for schools of nursing, but they took serious exceptions to supporting a single segment of nursing education. The Surgeon General's Consultant Group on Nursing recommended that Federal funds be made available to help schools meet the costs of nursing education. The Committee noted that the National Advisory Council on Nurse Training had advocated basic support grants be provided for all types of nursing education programs just as they are for schools offering programs for other health professions.

As a means of increasing the critically short supply of graduates from initial baccalaureate programs, the Committee advocated that special basic support grants be made to colleges and universities wishing to establish such a program. These grants, limited to a period of 5 years, would provide funds for employing the dean or director of the nursing program and key faculty members during the period required for planning and organization. They would also support instructional and operational costs until the time the first class had graduated. Schools with promising plans for developing sound curricula and with an untapped source of nurse supply have not had support because it was not part of the provisions of the present legislation.

The Committee recommends that:

Basic support grants be given to all types of accredited nursing programs: diploma, associate degree, baccalaureate and graduate degree, and that these grants include:

- *a fixed sum for each type of program;*
- *additional funds based on full-time enrollment according to type of educational program and its cost to the institution;*
- *assurance that the present level of support allocated to the nursing program by the institution not be reduced.*

Special grants be given to colleges and universities with no medical center to assist them in starting new programs in nursing education.

Professional Nurse Traineeship Program

The Congress, in 1956, acted to help meet the critical need for nurses well prepared as teachers, administrators, and supervisors of nursing. This action resulted in the establishment of the Professional Nurse Traineeship Program, which has been providing nurses ever since with financial aid to gain the formal education requisite to inspire quality nursing care. From the start, the Program has been characterized by enthusiastic participation and more applicants than available traineeships.

In 1959, the Professional Nurse Traineeship Program was continued for another 5 years and modified to provide short-term training grants for nurses in leadership positions to update their skills. In 1963, the Surgeon General's Consultant Group on Nursing recommended that the Program "be extended and gradually increased to at least double (within a 5-year period) the present number of full-time trainees." The Consultant Group also advised that future legislation include traineeships for clinical specialties in various fields of nursing and that greater emphasis be given to support of candidates for the doctoral degree.

The Nurse Training Act extended the Program and added traineeships for registered nurses to prepare as nursing specialists in clinical fields. The traineeships are

awarded to nurses by the colleges, universities, agencies, and organizations that offer the training, and include tuition and fees. Under the long-term program, a monthly stipend and dependency allowance are provided as well. The total funds awarded for the Professional Nurse Traineeship Program thus far are shown in Table 13. The $27 million appropriated under the Nurse Training Act was completely used.

LONG-TERM TRAINEESHIP PROGRAM

Since 1956, the Professional Nurse Traineeship Program has provided over $65 million to help about 16,000 registered nurses obtain preparation for teaching, administration, supervision, and clinical specialties (Table 14). Very few among this number could have financed advanced education without the Federal traineeships. Previously, the small number of nurses who were studying beyond initial preparation struggled for 5, 10, and 15 years to obtain degrees. Improvements in nursing education over the last decade have been largely due to the efforts of those receiving Federal traineeships. Their positive influence on the nursing care of patients cannot be overestimated.

At the same time, however, it is all too clear that the Professional Nurse Traineeship Program has never approached closing the gap between the nurses necessary for providing adequate leadership and those available. The need is increasing far more rapidly than is the support for expanding the supply. Graduate education takes longer and costs more; the variety and number of facilities and services to be staffed are multiplying rapidly. And more and more nurses are feeling compelled to pursue advanced study in order to cope with the responsibilities of modern nursing.

The maximum length of the traineeship was increased in 1962 from 12 to 24 months. Not more than 12 months may be at the baccalaureate level, not more than 18 months at the master's, and not more than 12 months at the post-master's. This change of policy accommodated the lengthening of master's programs and provided assistance for the prior completion of baccalaureate study. As a result, enrollments increased in the graduate programs of participating colleges and universities. There were 1,000 more candidates for the master's degree in 1966 than in 1962; the numbers studying toward doctoral degrees rose from 116 to 200.

Information about the ages of long-term trainees incidates that the program is preparing younger nurses for leadership positions. In 1959 approximately 40 percent of the trainees were under 30 years of age, while in 1966 close to 60 percent were under 30. The earlier a nurse becomes qualified, the greater the contribution will be to the improvement of patient care and nursing education.

A baccalaureate degree with a major in nursing is the foundation for graduate study; more important, it is becoming essential for the professional practice of nursing in all fields as it has long been in public health. Fewer than one-fifth of practicing nurses graduate from baccalaureate programs today. Only with considerably more

support for baccalaureate education can the number of professionally prepared practitioners be increased.

SHORT-TERM TRAINEESHIP PROGRAM

The short-term traineeship program was designed as a supplement to the long-term traineeship program, to assist graduate nurses who, for a variety of reasons, cannot undertake full-time academic study. Short intensive courses focused on specific skills have made it possible for large numbers of nurses already holding key positions to receive preparation to carry out their present responsibilities more adequately. In the 3 years under the Nurse Training Act, the short-term intensive training program has benefited almost 14,000 trainees through 371 courses offered in 130 sponsoring agencies (Table 1).

While many of the short-term courses have been offered to meet specific shortages and inadequacies of a local or regional area, they typify the intensive study nurses are asking for throughout the country. Courses in rehabilitative nursing and supervision in nursing homes and in school nursing all document the knowledge needed to provide present-day nursing care. Other courses help teachers understand some of the new concepts and methodologies in nursing education.

Over the last 8 years, sponsors have pinpointed the characteristics of courses that are successful in influencing practice. Those offered in a series, with planned experience and problem-solving between sessions, and those involving all nursing service administrators in a community have been particularly productive. For example, one regionally sponsored short-term training program consisting of six 1-week sessions over a 2-year period has enabled some 500 nurses to develop the leadership capabilities central to the positions for which they are already employed. Because the participants are drawn from all types of institutions and agencies, there is opportunity for cross-fertilization of ideas and for testing and applying principles in a variety of settings. Concurrent participation by more than one person from each institution or agency has expedited the rate at which change occurs in the work situation.

In both the long-term and short-term training programs, precise measurement of the impact of accomplishments is tenuous at best. However, empirical evaluation of the training by participants and their employers overwhelmingly supports the conclusion that the outcomes have been more extensive than anticipated. Reports demonstrate that the Professional Nurse Traineeship Program has permitted the trainee to make innovations in her work situation and that there has been a notable change in job performance following training.

The demand for traineeships has always exceeded available funds. With the rapid advance in medical science and development of complex technologies, nurse practitioners will need increasing assistance to keep abreast of new knowledge and its application in patient care. Only through continuous transfer of new discoveries to practice can quality of care be safeguarded, and this requires a sufficient number of nurses well prepared to assume responsibility for leadership.

The Committee recommends that:

The Professional Nurse Traineeship Program be expanded and modified to:

- *provide traineeships for advanced training of professional nurses in administration, supervision, teaching, and clinical nursing practice;*
- *provide traineeships for diploma and associate degree graduates to obtain the baccalaureate preparation prerequisite to advanced training;*
- *provide continuing support of the short-term training program;*
- *include payment of costs to the institution for the administration of the program.*

Administrative policy regarding duration of support under the Professional Nurse Traineeship Program be changed to permit completion of program requirements without regard to previous support.

Student Loan Program

This provision authorized $85 million over a 5-year period for establishing loan funds in all types of eligible schools of nursing to enable them to assist students in need of financial help. A school's loan fund consists of a Federal contribution of nine-tenths of the capital and the school's share of not less than one-tenth, which may be borrowed from the Federal Government. Sums appropriated for Federal capital contributions to student loan funds are allotted among States on the basis of the following formula: one-half of the money in proportion to the number of high school graduates and one-half in proportion to the number of full-time students enrolled in public or private nonprofit schools of nursing. If the sum requested by schools in a State exceeds the amount allotted to the State, the contributions to individual schools are adjusted within the limits of the State allotment. Funds awarded for nursing student loans totaled $21.3 million for the first 3 years.

In 1967, schools were given the choice of participating in the loan program by means of a revolving fund or by Federal capital contribution or a combination of both. Since the new options became available only at the beginning of fiscal year 1968, there has been no experience with their use.

The schools of nursing participating in the loan program have the responsibility for selecting borrowers from students who show real need of financial assistance. The schools also determine the amount loaned to a student and are responsible for the collection of repayments. An individual may borrow up to $1,000 during any 1 year of academic study. Since the academic year is defined as 9 months, students who are

required to attend for a longer period can receive proportionately more. These are low-interest loans repayable over a 10-year period with 50 percent forgiveness for 5 years of full-time employment as a registered nurse. The Committee observed a discrepancy between the interest rate for the Nursing and the Health Professions Loan Programs and that for the National Defense Education Act Loan Program, the former being the "going Federal rate" (currently 4.6 percent), and the latter held at 3 percent.

The Committee recognized that 3 years was too short a time to permit a sound assessment of a loan program, particularly the Nursing Student Loan Program which has a forgiveness feature intended to encourage borrowers to remain in active practice for at least 5 years. They were nevertheless impressed with the accomplishments that are measurable. Thus far, over 32,000 loans have been awarded to nursing students. The number of programs establishing loan funds increased each year, from 402 schools at the start to 614 schools in fiscal year 1967. The number of borrowers also increased each year (Table 16). Tables 17 and 18 show distribution of student loans by State and type of program.

There was some question as to whether the Nurse Training Act Student Loan Program had increased enrollments, since admissions to schools of nursing did not exceed those predicted in 1963 by the Surgeon General's Consultant Group on Nursing. Although there has been no dramatic increase in nursing school enrollments that might be attributed to this loan program, educational costs have risen sharply, and it may be that the program has prevented what otherwise would have been a decrease in enrollments. Loans have also made it possible for nurses graduated from diploma and associate degree programs to begin study on a full-time basis toward the baccalaureate degree.

For a variety of reasons, the monies now available for loans are not being fully utilized. Some schools anticipated that the administrative costs involved in the repayment of loans would be prohibitive; a few schools did not want to borrow the matching requirements. More significant, experience with the National Defense Student Loan Program has demonstrated that this type of program is slow to take hold because of the hesitancy among potential borrowers not yet accustomed to the idea of going into debt for education. As programs become more widely understood, they are more widely used. Students often need more money than the loan ceiling permits. Rather than borrow from more than one source, they tend to seek assistance where the total amount needed is available.

The Committee recommends that:

The Student Loan Program be continued, and that the maximum amount of loans for baccalaureate and graduate degree candidates be increased to $2,500 per academic year; and that for diploma and associate degree candidates the maximum be increased to $1,500 per academic year.

The high cost of baccalaureate nursing education constitutes a major deterrent to talented young people who might otherwise select nursing as a career. The percentage of college-bound young people who select nursing is small because of the increasing attractiveness of competing occupations and the availability of scholarship assistance in these areas. The Committee believed that a limited scholarship program emphasizing academic promise as well as financial need would help meet the goal for registered nurses with baccalaureate preparation for professional practice.

The Committee recommends that:

A scholarship program be established to attract highly qualified high school graduates in need of financial assistance into baccalaureate programs in nursing.

Accreditation

The Congress specified program accreditation as the eligibility requirement for participation in the Nurse Training Act. Because of the controversy regarding this requirement, a brief discussion is included on accreditation, what it means to education, and what it means in relation to Federal funding, particularly for nursing education.

Accreditation is a method of identifying qualified institutions and helping to raise and maintain institutional standards. Through accreditation, institutions that serve the public, such as colleges and universities, elementary and secondary schools, hospitals, clinics, and scientific laboratories, are identified as meeting certain standards of quality.

In this country, accreditation is conducted by educational organizations of different types and composition whose decisions and lists of approved institutions are generally accepted by legal bodies in lieu of lists which some of these legal bodies, such as State licensure boards, are empowered to prepare. Rapid expansion of collegiate and professional education has increased the need for regional and national standards in higher education. This need has led to voluntary accreditation of two types: institutional, or general accreditation, which judges an institution as a whole in terms of its objectives, its integrity, and its competence; and program, or specialized accreditation. The latter is the process by which a voluntary professional agency attempts to assure the public and the practitioner that the purposes and accomplishments of professional programs meet the needs of society and the profession.

Accreditation is of special significance for programs preparing individuals in the health professions where the public safety is at stake, and it has therefore been a requirement for Federal financial assistance. The enactment of the Nurse Training Act of 1964 made available a considerable amount of money for three types of nursing education programs located in three different types of institutions. Not all of these institutions share a common philosophy of program accreditation. This, together with the large number of nursing programs, many of which were not accredited, focused attention on a major educational issue.

The Program Review Committee members considered this of such significance to nursing education—in fact, to education for all health professions—that they felt it necessary to present the issue in some detail.

The recent rapid development of junior colleges throughout the country has been accompanied by an increase in the number and variety of educational programs for an increasing number of occupations in these colleges. The junior colleges, through the American Association of Junior Colleges, hold that institutional accreditation rather than accreditation of specific programs by professional accrediting agencies should be sufficient for participation in Federal grant programs. The Association believes that this requirement has retarded the development of associate degree programs and that program accreditation is too complex, expensive, and slow. In the opinion of the Association, institutional accreditation without program accreditation should be enough to establish eligibility for Federal funds.

This point of view differs from the philosophy of specialized program accreditation by national professional organizations, since accreditation of the entire institution does not assure the attainment of quality in each of its various professional programs. It is the belief of the Program Review Committee that the present requirement for accreditation of nursing programs should be maintained in the law. The rationale for it is sound; the arguments favoring a change are not convincing.

Accreditation has had significant effect in improving nursing education since 1949 when a national program for accrediting schools of nursing was initiated. The number of programs that have achieved the standards required for accreditation has increased steadily, and the procedures themselves have been constantly improved and revised to reflect the thinking of the educational community. Over 74 percent of all nursing education programs have qualified, indicating that the criteria established for accreditation are reasonable.

For the student, accredited programs provide a better educational experience under the direction of better prepared faculty. At least three-fourths of all nursing students are enrolled in accredited programs (Table 19). For the graduate, accredited programs ensure a greater likelihood of passing State Board examinations and being admitted to practice. Faculty select employment in accredited programs.

The philosophy of accreditation in nursing has consistently encouraged experimentation. The accrediting agency has sought policies and procedures that permit maximum freedom to schools, yet are definitive enough to differentiate between a school that has a sound educational program and one that does not. The aim has been to search for ways to make the accreditation process an effective tool for self-improvement. As a result, accreditation is regarded as a decisive mark of distinction in nursing education.

Accreditation and the Nurse Training Act of 1964

If the purpose of the Nurse Training Act—to increase the number of well-prepared nurses—is to be achieved, some assurance is needed that Federal funds will be used to develop and support programs of quality. At the same time, this major source of financial support should be made available to as many schools as possible.

Assurance of quality was included in the Nurse Training Act of 1964 with the requirement for participation that the nursing program be accredited or have reasonable assurance of accreditation by a recognized body or bodies designated by the Commissioner of Education. For this, the Commissioner designated the already recognized national professional accrediting agency for nursing education programs—the National League for Nursing—and reserved the right to approve additional accrediting bodies at the associate degree level at a later date if necessary.

The Office of Education worked with the staff of the National League for Nursing and the Division of Nursing in developing procedures that would enable nonaccredited schools to demonstrate that they could reach accreditation standards and thereby qualify

for Federal funds. To achieve this as quickly as possible, procedures were established for reaching findings of "reasonable assurance" for both new and existing programs of nursing education.

The Nurse Training Act has stimulated schools to improve and show evidence of meeting accreditation standards. The following table shows the number of nursing programs by type and accreditation status as of January 1965 and September 1967.

Type of program	Total	Total eligible	Accredited	Reasonable assurance
Baccalaureate:				
January 1965	188	141	134	7
September 1967	210	175	150	25
Associate degree:				
January 1965	130	16	5	11
September 1967	235	123	32	91
Diploma:				
January 1965	840	619	569	50
September 1967	796	630	595	35

The relatively low proportion of accredited associate degree programs is due largely to their newness and recent rapid increase in the number of schools and programs. Many have not been in existence long enough to seek accreditation.

To accommodate the differing points of view and to increase participation, the Nurse Training Act was amended to permit the Commissioner of Education to accredit programs directly for purposes of this Act. On the general premise that the accreditation function, being closely related to the control of education, is primarily the concern of the appropriate voluntary academic and professional communities, the Commissioner took the position that the Office of Education should enter this area only to the extent necessary for carrying out its statutory responsibilities. The option of direct accreditation by the Commissioner is interpreted as the insurance provided by the Congress that the Commissioner shall have authority to determine eligibility of institutions for funds under the Nurse Training Act of 1964 should there be no workable alternative. In response to concern that junior colleges become eligible to apply for Federal funds as quickly as possible, the Commissioner of Education has recognized an alternative procedure for making the determination of "reasonable assurance" for junior college nursing programs. (See Appendix B.)

Of the associate degree programs eligible, 74 percent were participating in the Nurse Training Act by the end of fiscal year 1967. The participation rate for eligible programs in junior colleges was 65 percent. In view of the newness of many junior college programs, it does not appear that the accreditation problem and the delay in resolving it have seriously retarded the participation of junior colleges in the benefits of the Nurse Training Act.

In discussing accreditation both as a means of recognizing programs of high quality and as a criterion for eligibility for Federal funds, the Program Review Committee was unanimous in agreement that:

- Program accreditation is essential for the maintenance of standards and protection of the public. There are significant local pressures upon junior colleges everywhere to establish associate degree nursing programs, and there is evidence that without the quality controls of program accreditation, many programs may be initiated that will not provide satisfactory education for students. Institutional accreditation and State approval are not adequate substitutes.

- The system of voluntary, nongovernmental accreditation is important to the quality and independence of higher education in the United States. The position adopted by the Commissioner of Education should be maintained. He should enter the area of accreditation only to the extent necessary to carry out his statutory responsibilities, and then only in the absence of a workable alternative. Direct or indirect participation of Federal Government in accreditation would be a break with established policy that has operated successfully for many years, and an intrusion into what is the traditional function and responsibility of the academic community and the professions.

- The principle of program accreditation should be retained in the Nurse Training Act and, in the interest of consistency with other Federal legislation in the field of education for the health professions, it should be extended to other fields as applicable. Once the principle has been fully accepted and satisfactory mechanisms have been developed for implementing program accreditation, it provides major incentives for programs of quality.

- There is need for experimentation on the part of respective accrediting agencies in new methods of program evaluation in order to achieve greater efficiency and economy for professional personnel. The Committee recognized the ongoing efforts of the accrediting agencies to secure an alternate method for access to Federal funds in junior college nursing programs.

The Future

Organized systems of nursing services and nursing education in the United States are not yet 100 years old, but during those years the magnitude, scope, and quality of nursing have grown tremendously. The number of schools has increased from 3 in 1873 to over 1,200. Nursing is becoming a part of higher education, and more nurses are now providing better care in a greater variety of settings than ever before. Licensing laws exist in every State to protect the public from fraudulent practice. The development of a philosophy of accreditation and a mechanism for applying it are meeting the profession's and the public's quest for quality.

If the progress nursing has accomplished is to continue, planning is needed at all levels—local, State, regional, and national. It must take into account immediate and future needs for nurses prepared for various kinds of responsibilities for a wide spectrum of services, and it must be sensitive to the potentialities of each type of program to prepare tomorrow's practitioners.

Sporadic efforts at systematic planning are underway. Often the efforts are spearheaded by responsible professionals and citizens who serve as volunteers and by part-time staff. Too often the scope of the planning must be scaled down to fit whatever a committee can raise in contributions or provide through their own services. The longer the time spent in gathering and analyzing data, the less timely the plans will be and the longer the delay in translating them into action. The complexities of planning and the necessity for capable staff to carry it out require support beyond that which these groups can provide on their own.

An important part of planning is identifying the sources of nurse supply, for new and expanded programs of nursing education must be established where they are needed and where they can flourish. As public attention is drawn to the activities of groups planning specifically for nursing, the importance of nursing as a career will be spotlighted.

Nursing can no longer rely upon conventional sources for its supply of students. Among disadvantaged minority groups there are many young men and women for whom a career in nursing would provide opportunities both for self-fulfillment and for contributing to society.

The Committee recommends that:

Funds and support be made available to private nonprofit or public agencies for Statewide or regional planning for nursing.

Funds be made available to assist private nonprofit and public agencies or institutions for recruitment programs for nursing.

Recruitment funds be used to identify talent for nursing among minority and disadvantaged groups and to provide for remedial and tutorial services.

The example set by the Federal Government in planning its own programs inevitably influences the course that local, State, and regional bodies will follow. The Committee expressed deep concern over the apparent lack of coordination among Federal agencies responsible for training programs for various types of nursing personnel, and to the disproportionate emphasis, as reflected in the allocation of funds, to training technical, practical, and auxiliary nursing personnel as opposed to training professional personnel. Without considerable coordination, there is danger of increasing the numbers of assisting nursing personnel so rapidly that registered nurses will be unable to keep up with their responsibilities. The Committee urgently requested that the Department of Health, Education, and Welfare make every possible effort to coordinate units within the Department and to establish relationships with other departments and agencies to promote maximum coordination of all types of nursing education and training programs.

Institutions, agencies, and professional bodies look to the Federal Government for nursing leadership. It is here that nursing is viewed in its entirety. Only at this level can nursing's contribution to national health objectives be reviewed and assessed. A national center would provide unique access to research and service settings where ideas can be tested and knowledge applied, and where the goals of practice can influence the goals of education.

The Committee recommends that:

The unit which now provides a Federal focal point for nursing, the Division of Nursing, be strengthened, supported, and that it be given the visibility and organizational placement necessary to develop it into a truly national center for nursing where the essential elements of education, service, research, and practice will be kept together, where total national needs will be reviewed and assessed, and where adequate resources will be available for allocation to assure a balanced program to meet these needs.

The Committee has a deep appreciation for the perplexities of all groups—educators, practitioners, providers of service, and consumers—who are intimately involved in this complex and fast-moving health revolution. There is no easy solution to these many problems and Federal support must be matched by:

- the nursing profession that must continue its efforts to define the kinds of education appropriate for each type of practice and to develop identifiable measures of their differences;
- employers of nurses who must make appropriate use of the preparation and skills of each type of personnel and reward them accordingly;
- community agencies at all levels that must be attuned to changing functions and educational requirements for each member of the nursing team, and provide accordingly to recruit and prepare them.

Appendix A

Figures and Tables

Figure 1.—Preparation for administration, supervision, and teaching, 1967

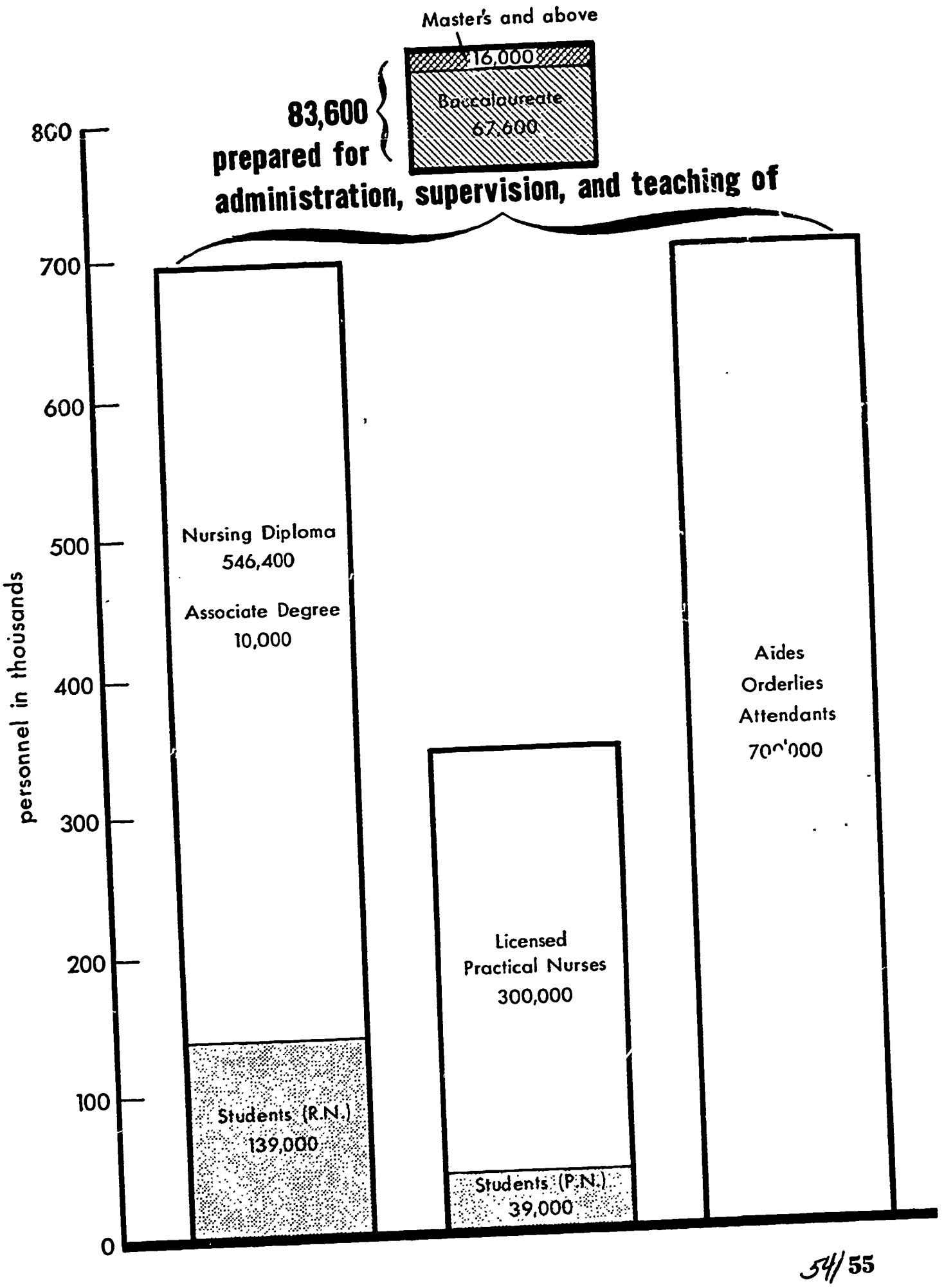

Figure 2.—Percentage distribution of registered nurses in various fields of employment, by educational preparation, 1967

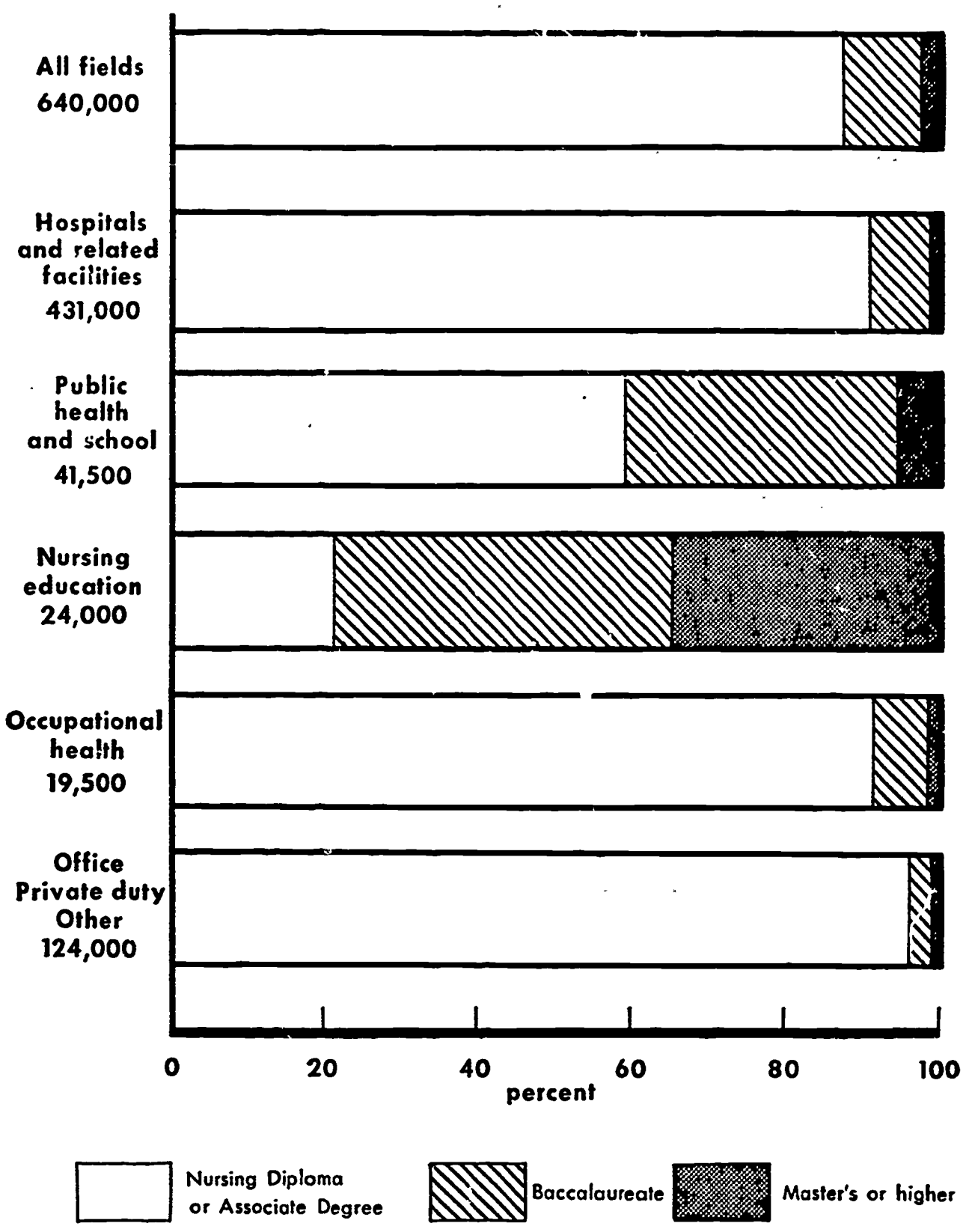

Figure 3.—Supply of nurses in 1967 and projections for 1970 and 1975, by type of educational preparation

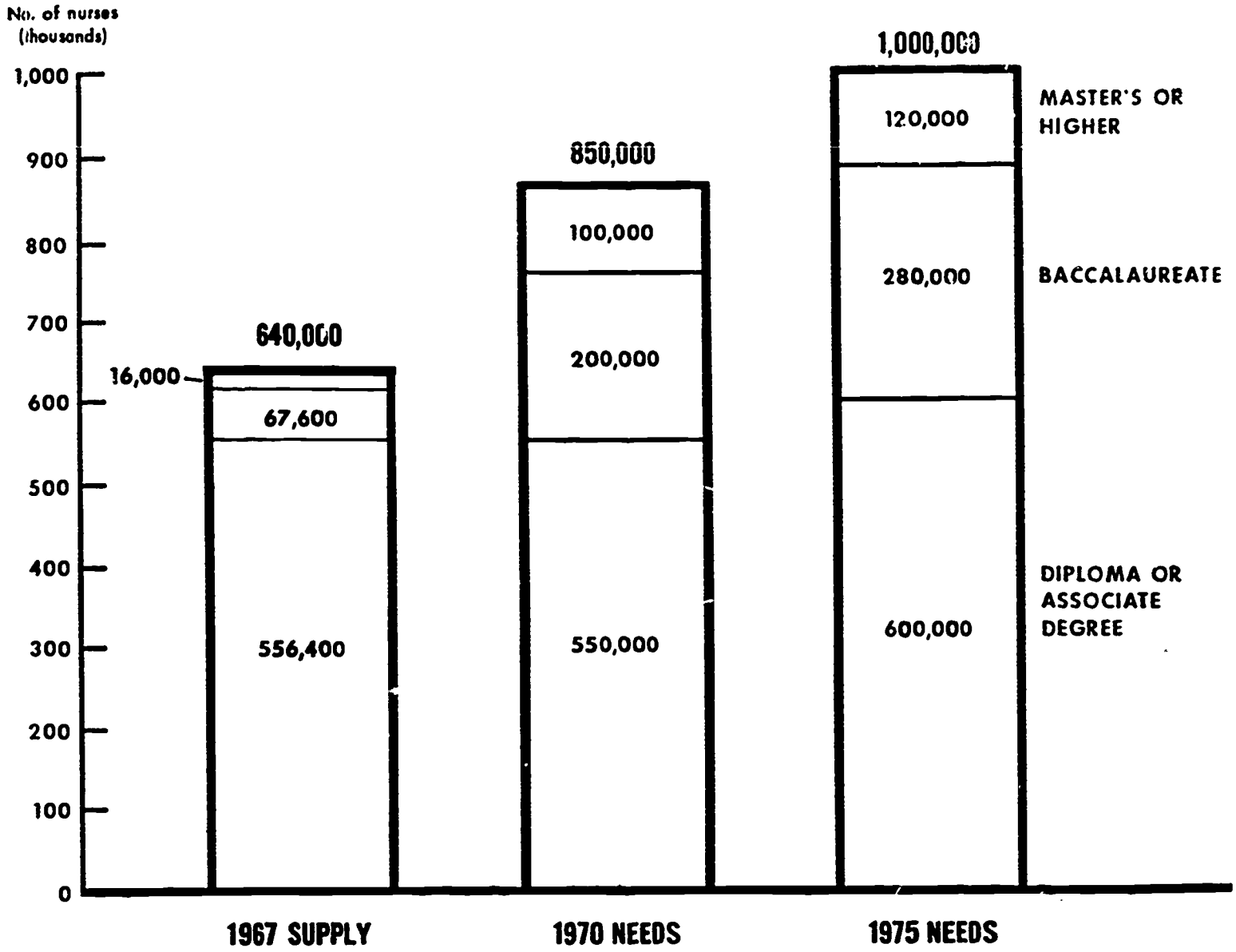

Figure 4.—Admissions to initial nursing education programs

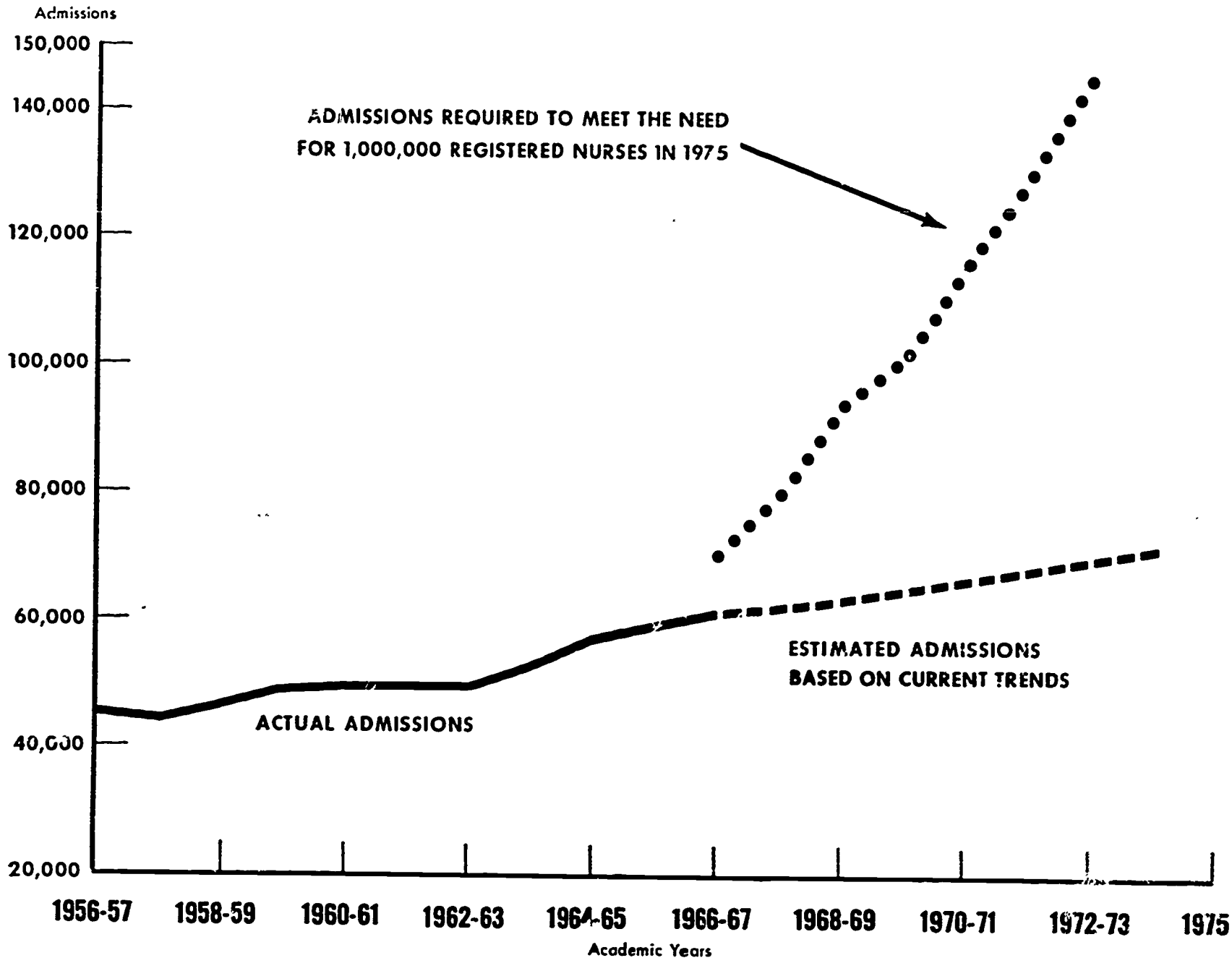

Figure 5.—Total admissions and initial programs of nursing education, 1950–66

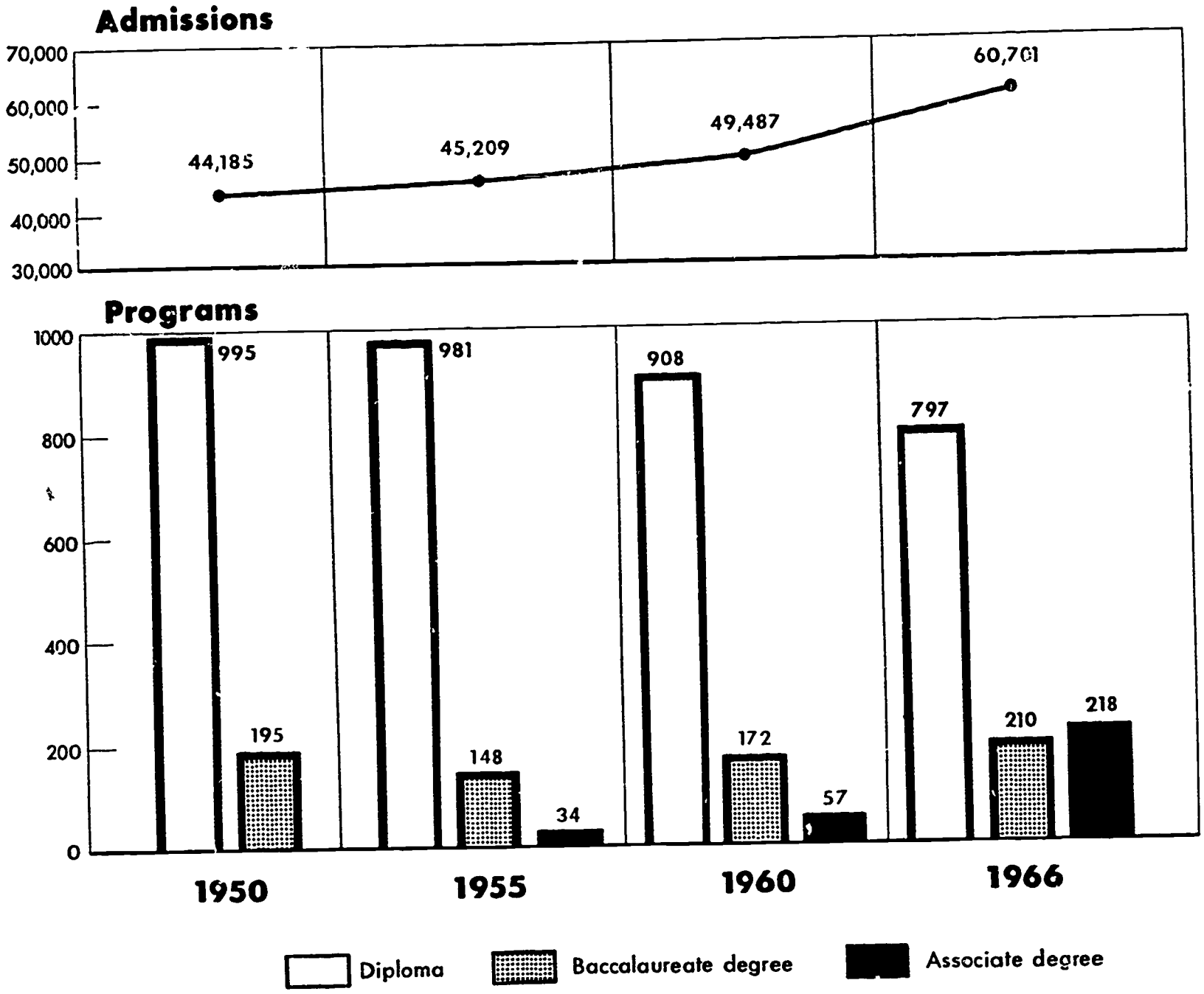

Table 1.—Educational preparation of registered nurses in various fields of employment, 1967

(Includes 50 States and District of Columbia)

Field of employment	Total	Master's or doctoral degree	Baccalaureate	Associate degree	Nursing diploma
			Numbers		
Total	640,000	16,000	67,600	10,000	546,400
Hospitals	400,000	4,000	35,000	7,000	354,000
Nursing homes	31,000	500	2,000	1,000	27,500
Public health and school	41,500	2,500	14,500	300	24,200
Nursing education	24,000	8,400	10,500	200	4,900
Occupational health	19,500	200	1,400	300	17,600
Private duty, office nurse, and other	124,000	400	4,200	1,200	118,200
			Percent		
Total	100.0	2.5	10.6	1.5	85.4
Hospitals	100.0	1.0	8.5	1.7	88.8
Nursing homes	100.0	1.6	6.5	3.2	88.7
Public health and school	100.0	6.0	34.9	0.7	58.4
Nursing education	100.0	35.0	43.8	0.8	20.4
Occupational health	100.0	1.0	7.2	1.5	90.3
Private duty, office nurse, and other	100.0	0.3	3.4	1.0	95.3

Sources: Total number of nurses estimated by the Interagency Conference on Nursing Statistics, Apr. 13, 1967. Field of employment and educational preparation estimated by U.S. Public Health Service, Division of Nursing.

Table 2.—Admissions, graduations, and enrollments in initial programs of nursing education, 1964–66

Program data by academic year	Total	Type of program		
		Baccalaureate [1]	Associate degree	Diploma
Programs:				
1964–65	[2] 1,193	198	174	821
1965–66	[3] 1,225	210	218	797
Admissions:				
1964–65	[4] 57,604	11,835	6,160	39,609
1965–66	[5] 60,701	13,159	8,638	38,904
Graduations:				
1964–65	34,686	5,381	2,510	26,795
1965–66	35,125	5,498	3,349	26,278
Enrollments:				
Oct. 15, 1965	135,702	30,378	11,564	93,760
Oct. 15, 1966	139,070	33,081	15,338	90,651

[1] Includes 1 basic program that gives a master's degree.
[2] In 1,191 schools.
[3] In 1,219 schools.
[4] 3.1% of estimated 17-year-old girls and 4.9% of estimated female high school graduates.
[5] 3.5% of estimated 17-year-old girls and 4.5% of estimated female high school graduates.

Source: National League for Nursing. *State-Approved Schools of Nursing—R.N.*, 1966 and 1967.

Table 3.—Initial programs of nursing education by National League for Nursing accreditation status, January 1965, January 1966, and September 1967

Year and accreditation status	Total	Type of initial nursing program		
		Baccalaureate	Associate degree	Diploma
1965[1]				
Total	1,158	188	130	840
Accredited	708	134	5	569
Reasonable assurance	68	7	11	50
Not accredited	382	47	114	221
1966[2]				
Total	1,193	198	174	821
Accredited	721	141	6	574
Reasonable assurance	137	19	52	66
Not accredited	335	38	116	181
1967[3]				
Total	1,241	210	235	796
Accredited	777	150	32	595
Reasonable assurance	151	25	91	35
Not accredited	313	35	112	166

[1] Data are for 1,153 schools in existence on Oct. 15, 1964. Five schools with 2 programs are counted twice: 2 baccalaureate and diploma, 3 baccalaureate and associate degree.

[2] Data are for 1,191 schools in existence on Oct. 15, 1965. Two schools with 2 programs are counted twice: 1 baccalaureate and diploma, 1 baccalaureate and associate degree.

[3] Data are for 1,235 schools in existence on Sept. 15, 1967. Six schools with 2 programs are counted twice: 1 baccalaureate and diploma, 5 baccalaureate and associate degree.

Table 4.—Funds authorized for the Nurse Training Act of 1964, by provision and fiscal year

Provision	Total	Fiscal years				
		1965	1966	1967	1968	1969
		(*In thousands of dollars*)				
Total	283,000	17,100	42,900	65,800	75,300	81,900
Construction grants	90,000	------	15,000	25,000	25,000	25,000
Project grants	17,000	2,000	3,000	4,000	4,000	4,000
Payments to diploma schools	41,000	4,000	7,000	10,000	10,000	10,000
Traineeships	50,000	8,000	9,000	10,000	11,000	12,000
Student loans	85,000	3,100	8,900	16,800	25,300	30,900

Table 5.—Funds awarded under the Nurse Training Act of 1964, by provision and fiscal year

Provision	Total	Fiscal year		
		1965	1966	1967
Total	$99,442,940	$12,360,738	$31,088,923	$55,993,279
Construction grants	37,733,874	----------	11,052,594	26,681,280
Project grants	7,436,128	1,989,564	1,927,620	3,518,944
Payments to diploma schools	5,997,150	771,900	2,156,350	3,068,900
Traineeships	27,000,000	8,000,000	9,000,000	10,000,000
Student loans	21,275,788	[1] 1,599,274	[1] 6,952,359	[2] 12,724,155

[1] The amount of loans includes the Federal share and the institutional share.
[2] Allocated funds.

Table 6.—Construction grants awarded, costs, increase in first-year places, and places maintained, by type of program, September 7, 1965, to June 30, 1967

Type of program	Number of schools	Cost		Increase in first-year places	Student places maintained
		Total eligible [1]	Federal share		
Total	71	$67,679,996	$37,733,874	2,674	[2] 11,445
Baccalaureate and graduate	26	34,788,022	19,886,045	1,613	[2] 5,518
Associate degree	8	3,677,380	2,353,517	429	585
Diploma	37	29,214,594	15,494,312	632	5,342

[1] Portion of total construction costs to which the formula for Federal funds is applied.
[2] Student places in initial programs only. An estimated 1,000 additional graduate student places were maintained by this construction.

Table 7.—Construction grants awarded, costs, increase in first-year places, and places maintained, by State, September 7, 1965 to June 30, 1967

State and Territory	Grants awarded	Cost		Increase in first-year places	Student places maintained
		Total eligible [1]	Federal share		
Total	71	$67,679,996	$37,733,874	2,674	[2] 11,445
Alabama	2	2,760,262	1,546,451	100	419
Alaska	---	----------	----------	------	---------
Arizona	1	1,230,000	718,014	102	378
Arkansas	---	----------	----------	------	---------
California	6	6,750,063	3,408,852	189	819
Colorado	---	----------	----------	------	---------
Connecticut	---	----------	----------	------	---------
Delaware	---	----------	----------	------	---------
District of Columbia	---	----------	----------	------	---------
Florida	2	657,401	342,138	20	288

See footnotes at end of table.

Table 7.—Construction grants awarded, costs, increase in first-year places, and places maintained, by State, September 7, 1965, to June 30, 1967—*Continued*

State and Territory	Grants awarded	Cost		Increase in first-year places	Student places maintained
		Total eligible [1]	Federal share		
Georgia	1	1, 612, 760	895, 970	45	105
Hawaii	----	----------	----------	------	---------
Idaho	----	----------	----------	------	---------
Illinois	5	7, 181, 632	4, 349, 580	318	733
Indiana	1	580, 000	366, 685	82	93
Iowa	----	----------	----------	------	---------
Kansas	----	----------	----------	------	---------
Kentucky	2	967, 001	510, 027	26	164
Louisiana	2	1, 881, 702	1, 089, 358	200	588
Maine	1	202, 375	134, 917	48	32
Maryland	2	2, 701, 936	1, 428, 972	127	843
Massachusetts	4	4, 193, 063	2, 373, 596	304	1, 095
Michigan	----	----------	----------	------	---------
Minnesota	1	321, 680	160, 839	5	115
Mississippi	1	341, 625	227, 751	30	38
Missouri	2	549, 885	312, 536	53	317
Montana	----	----------	----------	------	---------
Nebraska	1	1, 155, 172	619, 911	20	206
Nevada	----	----------	----------	------	---------
New Hampshire	1	622, 000	353, 949	29	131
New Jersey	4	1, 541, 363	851, 638	50	508
New Mexico	----	----------	----------	------	---------
New York	5	5, 650, 946	3, 192, 165	90	673
North Carolina	2	3, 026, 200	1, 705, 738	110	398
North Dakota	----	----------	----------	------	---------
Ohio	5	4, 575, 550	2, 508, 638	144	820
Oklahoma	----	----------	----------	------	---------
Oregon	2	1, 433, 201	770, 160	41	314
Pennsylvania	7	9, 764, 553	5, 116, 562	112	869
Rhode Island	1	415, 800	207, 900	------	302
South Carolina	----	----------	----------	------	---------
South Dakota	4	2, 165, 155	1, 321, 409	205	516
Tennessee	----	----------	----------	------	---------
Texas	1	62, 808	33, 988	20	135
Utah	1	2, 588, 200	1, 503, 100	47	112
Vermont	----	----------	----------	------	---------
Virginia	----	----------	----------	------	---------
Washington	----	----------	----------	------	---------
West Virginia	1	100, 000	50, 000	------	131
Wisconsin	1	861, 663	574, 470	62	81
Wyoming	----	----------	----------	------	---------
Guam	----	----------	----------	------	---------
Puerto Rico	1	1, 480, 000	854, 550	65	193
Virgin Islands	1	306, 000	204, 010	30	29

[1] Portion of total construction costs to which the formula for Federal funds is applied.

Student places in initial programs only. An estimated 1,000 additional graduate student places were maintained b this construction.

Table 8.—Construction grant applications approved but not funded, costs, increase in first-year places, and student places to be maintained, by State, June 30, 1967

State and Territory	Number of applications	Costs		Increase in first-year places	Places to be maintained [2]
		Total eligible [1]	Federal share		
Total	15	$19,462,520	$11,078,253	598	2,629
District of Columbia	1	275,451	183,634	46	142
Illinois	1	617,000	347,069	21	71
Indiana	1	6,597,650	3,748,133	143	408
Iowa	1	2,295,333	1,295,362	120	352
Kansas	1	401,954	200,977	5	41
Maryland	1	1,196,600	598,300	10	136
Michigan	1	1,780,965	1,047,832	53	180
Mississippi	2	473,935	312,732	24	163
New York	2	3,418,793	1,783,700	24	514
Texas	2	1,636,448	1,048,432	67	502
Wisconsin	1	291,146	193,903	35	93
Guam	1	477,245	318,179	50	27

[1] Portion of total construction costs to which the formula for Federal funds is applied.
[2] Student places in initial programs only.

Table 9.—Project grant applications and amounts approved, by type and accreditation status of programs, February 1, 1965, to June 30, 1967

Type of program and accreditation status	Applications approved	Funds approved [1]
Total	116	$11,163,465
Accredited	103	10,269,033
Reasonable assurance	13	894,432
Diploma	42	2,478,285
Accredited	38	2,114,481
Reasonable assurance	4	363,804
Associate degree	5	517,726
Accredited	2	308,837
Reasonable assurance	3	208,889
Baccalaureate and higher degree	69	8,167,454
Accredited	63	7,845,715
Reasonable assurance	6	321,739

[1] Total funds approved; funds awarded through June 30, 1967 totaled $7,436,128.

Table 10.—Subjects of project grant applications approved

Subject	Applications approved	Funds approved [1]
Total	116	$11,163,465
New course development	13	951,622
Clinical instruction and supervision	24	3,087,880
Classrooms-clinical facilities	5	183,367
Staff and equipment requests	8	572,244
Curriculum study and revision	39	3,654,874
Specialization	6	546,421
Faculty education	13	1,151,470
Selection and retention of students	6	430,405
Recruitment	2	585,182

[1] Total funds approved; funds awarded through June 30, 1967, totaled $7,436,128.

Table 11.—Enrollments in nursing education programs awarded project grants, by State, February 1, 1965, to June 30, 1967

State and Territory	Number of grants	Number of applicant programs awarded grants	Number of nonapplying participating programs	Enrollments [1]		
				Total	Applicant schools	Nonapplying participating schools
Total	116	95	143	33,294	17,084	16,210
Alabama	2	2	--------	68	68	---------
Alaska	----	--------	--------	------	------	---------
Arizona	4	2	--------	655	655	---------
Arkansas	----	--------	--------	------	------	---------
California	10	7	--------	2,063	2,063	---------
Colorado	2	2	[2] 88	11,125	574	10,551
Connecticut	3	3	--------	301	301	---------
Delaware	----	--------	--------	------	------	---------
District of Columbia	1	1	--------	218	218	---------
Florida	5	3	22	2,344	344	2,000
Georgia	3	2	--------	247	247	---------
Hawaii	----	--------	--------	------	------	---------
Idaho	----	--------	--------	------	------	---------
Illinois	3	3	17	2,641	652	1,989
Indiana	6	5	--------	818	818	---------
Iowa	2	2	--------	396	396	---------
Kansas	1	1	--------	143	143	---------
Kentucky	----	--------	--------	------	------	---------
Louisiana	1	1	--------	376	376	---------
Maine	1	1	--------	112	112	---------
Maryland	3	3	--------	258	258	---------
Massachusetts	8	5	--------	1,394	1,394	---------
Michigan	8	8	11	3,227	2,011	1,216
Minnesota	3	2	3	558	348	210
Mississippi	----	--------	--------	------	------	---------

See footnotes at end of table.

Table 11.—Enrollments in nursing education programs awarded project grants, by State, February 1, 1965, to June 30, 1967—*Continued*

State and Territory	Number of grants	Number of applicant programs awarded grants	Number of nonapplying participating programs	Enrollments [1]		
				Total	Applicant schools	Nonapplying participating schools
Missouri	3	3	----	330	330	----
Montana	2	1	----	365	365	----
Nebraska	1	1	----	186	186	----
Nevada	2	1	----	116	116	----
New Hampshire	4	3	----	284	284	----
New Jersey	3	3	2	669	425	244
New Mexico	1	1	----	75	75	----
New York	9	8	----	876	876	----
North Carolina	1	1	----	266	266	----
North Dakota	2	2	----	171	171	----
Ohio	1	1	----	110	110	----
Oklahoma	----	----	----	----	----	----
Oregon	----	----	----	----	----	----
Pennsylvania	1	1	----	194	194	----
Rhode Island	2	2	----	203	203	----
South Carolina	----	----	----	----	----	----
South Dakota	2	1	----	70	70	----
Tennessee	1	1	----	163	163	----
Texas	2	2	----	260	260	----
Utah	----	----	----	----	----	----
Vermont	----	----	----	----	----	----
Virginia	----	----	----	----	----	----
Washington	2	2	----	740	740	----
West Virginia	----	----	----	----	----	----
Wisconsin	9	6	----	1,162	1,162	----
Wyoming	----	----	----	----	----	----
Guam	----	----	----	----	----	----
Puerto Rico	2	2	----	110	110	----
Virgin Islands	----	----	----	----	----	----

[1] Enrollments as of year of application. Enrollments in schools with multiple awards are counted as of application date of the last approved project.

[2] Schools from States in Western Interstate Commission for Higher Education (WICHE).

Table 12.—Payments to diploma schools of nursing under the Nurse Training Act of 1964, by State and basis for amount of grant, fiscal years 1965–67

State and Territory	Number of schools	Number of grants	Basis for amount of grant			Grant limited by maximum allowed [1]
			Increase in enrollments	Students on N.T.A. loans	Increase in enrollments and students on N.T.A. loans	
Total	414	910	168	290	452	128
Alabama	7	14	2	4	8	3
Alaska	----	----	----	----	----	----
Arizona	1	2	----	2	----	1
Arkansas	2	5	----	----	5	1
California	13	27	2	12	13	7

See footnote at end of table.

Table 12.—Payments to diploma schools of nursing under the Nurse Training Act of 1964, by State and basis for amount of grant, fiscal years 1965–67—*Continued*

State and Territory	Number of schools	Number of grants	Basis for amount of grant			Grant limited by maximum allowed [1]
			Increase in enrollments	Students on N.T.A. loans	Increase in enrollments and students on N.T.A. loans	
Colorado	5	10	--------	2	8	4
Connecticut	10	19	3	10	6	1
Delaware	1	2	2	--------	--------	---------
District of Columbia	2	6	1	2	3	1
Florida	5	10	4	6	--------	----------
Georgia	4	8	2	4	2	---------
Hawaii	1	2	1	--------	1	---------
Idaho	----	----	--------	--------	--------	---------
Illinois	28	60	18	19	23	6
Indiana	6	15	1	8	6	---------
Iowa	17	39	--------	13	26	9
Kansas	12	23	1	9	13	7
Kentucky	3	6	1	2	3	3
Louisiana	2	2	2	--------	--------	1
Maine	3	7	2	2	3	1
Maryland	7	12	2	4	6	--------
Massachusetts	28	62	22	21	19	2
Michigan	11	25	4	6	15	4
Minnesota	10	20	--------	10	10	---------
Mississippi	1	2	--------	2	--------	2
Missouri	12	25	4	8	13	5
Montana	2	5	--------	1	4	2
Nebraska	10	28	6	9	13	4
Nevada	----	----	--------	--------	--------	---------
New Hampshire	3	9	2	--------	7	3
New Jersey	16	31	10	9	12	5
New Mexico	1	3	--------	3	--------	1
New York	37	87	16	26	45	13
North Carolina	3	4	4	--------	--------	---------
North Dakota	2	5	--------	2	3	---------
Ohio	36	80	12	26	42	5
Oklahoma	4	8	--------	3	5	1
Oregon	3	9	--------	1	8	1
Pennsylvania	54	123	33	26	64	11
Rhode Island	5	8	2	2	4	---------
South Carolina	1	3	--------	--------	3	---------
South Dakota	5	14	--------	8	6	---------
Tennessee	5	8	3	3	2	1
Texas	6	13	--------	5	8	8
Utah	1	3	--------	3	--------	2
Vermont	2	5	--------	--------	5	3
Virginia	5	9	1	1	7	1
Washington	6	13	1	4	8	2
West Virginia	3	8	1	2	5	2
Wisconsin	11	27	3	9	15	1
Wyoming	----	----	--------	--------	--------	---------

See footnote at end of table.

Table 12.—Payments to diploma schools of nursing under the Nurse Training Act of 1964, by State and basis for amount of grant, fiscal years 1965–67—*Continued*

State and Territory	Number of schools	Number of grants	Basis for amount of grant			Grant limited by maximum allowed[1]
			Increase in enrollments	Students on N.T.A. loans	Increase in enrollments and students on N.T.A. loans	
Guam	----	----	--------	--------	--------	---------
Puerto Rico	2	4	--------	1	3	4
Virgin Islands	----	----	--------	--------	--------	---------

[1] Maximum amount allowed for any program is $100 times the total enrollment in the program.

Table 13.—Federal funds authorized for the Professional Nurse Traineeship Program and allocation of funds, by type of training, fiscal years 1957–67

Fiscal year	Authorization	Allocation by type of training	
		Long-term academic	Short-term intensive
1957	$2,000,000	$2,000,000	----------
1958	3,000,000	3,000,000	----------
1959	6,000,000	6,000,000	----------
1960	6,000,000	5,700,000	$300,000
1961	6,600,000	6,000,000	600,000
1962	6,625,000	5,925,000	700,000
1963	7,325,000	6,325,000	1,000,000
1964	7,325,000	6,325,000	1,000,000
1965[1]	8,000,000	7,000,000	1,000,000
1966[1]	9,000,000	8,000,000	1,000,000
1967[1]	10,000,000	9,000,000	1,000,000

[1] Nurse Training Act of 1964.

Table 14.—Number of long-term trainees,[1] by level of study, fiscal years 1957–66

Fiscal year	Total	Level of study		
		Baccalaureate	Post-baccalaureate	Post-master's
Total	16,162	6,748	9,115	299
1957	862	258	582	22
1958	1,031	207	800	24
1959	1,958	735	1,175	48
1960	1,617	719	873	25
1961	1,747	814	911	22
1962	1,814	840	950	24
1963	1,824	832	962	30
1964	1,745	753	949	43
1965	1,696	757	911	28
1966	1,868	833	1,002	33

[1] Excludes reappointments.

Table 15.—Numbers of short-term traineeship grants, courses, sponsors, and trainees, fiscal years 1960–67

Fiscal year	Grants	Courses	Sponsors	Trainees
Total	540	892	271	32, 432
1960 est	37	76	33	2, 364
1961 est	83	115	20	3, 909
1962 est	80	116	20	3, 911
1963	69	115	39	4, 620
1964	63	99	29	4, 303
1965 [1]	71	125	38	4, 918
1966 [1]	65	106	52	3, 556
1967 [1]	72	140	40	4, 851

[1] Nurse Training Act of 1964.

Table 16.—Summary of the Nursing Student Loan Program, fiscal years 1965–67

Existing schools [1]	Schools	Programs	Enrollments
Total	1, 193	1, 207	141, 001
Eligible for funds	856	903	118, 179

Loan program participants and funds [2]	Fiscal year 1965	Fiscal year 1966	Fiscal year 1967
Schools	402	557	614
Programs—Total	426	589	655
Graduate	23	30	37
Baccalaureate	106	139	149
Associate degree	8	27	55
Diploma	289	393	414
Students:			
Enrollments	62, 485	90, 250	104, 525
Borrowers	3, 640	11, 741	est. 17, 000
Federal funds:			
Requested	$5, 675, 629	$9, 980, 027	$12, 676, 690
Allocated	3, 100, 000	8, 900, 000	[3] 12, 676, 690
Institutional loans requested	6	6	11

[1] Data provided by National League for Nursing March 29, 1966, and April 15, 1966, and based on data as of Oct. 15, 1965.

[2] Based on applications submitted by schools.

[3] Does not include amounts for institutional loans.

Table 17.—Distribution of student loans[1] under Nurse Training Act of 1964, by State and type of program, fiscal year 1965

State and Territory	Total		Type of program							
			Graduate		Baccalaureate		Associate		Diploma	
	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans
Total	3,640	$1,599,274	32	$17,191	1,703	$743,501	36	$14,931	1,869	$823,651
Alabama	135	52,212	----	-------	93	36,674	----	-------	42	15,538
Alaska	-----	----------	----	-------	-----	--------	----	-------	-----	--------
Arizona	52	22,959	----	-------	46	21,399	----	-------	6	1,560
Arkansas	12	2,074	----	-------	-----	--------	----	-------	12	2,074
California	217	118,016	----	-------	101	47,535	----	-------	116	70,481
Colorado	34	17,862	----	-------	8	3,125	----	-------	26	14,737
Connecticut	25	9,493	----	-------	16	6,650	----	-------	9	2,843
Delaware	-----	----------	----	-------	-----	--------	----	-------	-----	--------
District of Columbia	47	20,715	----	-------	24	13,450	----	-------	23	7,265
Florida	13	4,682	----	-------	10	3,642	----	-------	3	1,040
Georgia	13	4,204	----	-------	8	3,300	----	-------	5	904
Hawaii	14	4,471	----	-------	7	3,000	----	-------	7	1,471
Idaho	7	3,050	----	-------	7	3,050	----	-------	-----	--------
Illinois	191	84,395	----	-------	76	29,870	----	-------	115	54,525
Indiana	98	46,776	2	1,800	64	28,498	----	-------	32	16,478
Iowa	107	44,165	----	-------	15	6,275	----	-------	92	37,890
Kansas	97	34,346	----	-------	31	9,862	----	-------	66	24,484
Kentucky	66	22,042	----	-------	21	7,895	----	-------	45	14,147
Louisiana	10	3,506	----	-------	10	3,506	----	-------	-----	--------
Maine	22	9,950	----	-------	-----	--------	----	-------	22	9,950
Maryland	26	11,066	----	-------	15	6,320	----	-------	11	4,746
Massachusetts	166	71,148	19	9,750	78	34,295	----	-------	69	27,103
Michigan	141	48,705	3	1,666	95	33,734	----	-------	43	13,305
Minnesota	162	54,800	1	350	65	22,112	9	3,847	87	28,491
Mississippi	20	18,570	----	-------	-----	--------	----	-------	20	18,570
Missouri	54	24,865	4	1,875	32	13,033	----	-------	18	9,957
Montana	30	14,211	----	-------	26	12,961	----	-------	4	1,250
Nebraska	81	29,375	----	-------	21	9,615	----	-------	60	19,760
Nevada	6	2,000	----	-------	6	2,000	----	-------	-----	--------
New Hampshire	29	10,635	----	-------	20	8,400	----	-------	9	2,235
New Jersey	93	51,950	----	-------	37	13,975	----	-------	56	37,975
New Mexico	18	7,760	----	-------	4	1,800	----	-------	14	5,960
New York	362	147,858	1	1,000	142	62,920	22	6,776	197	77,162
North Carolina	8	1,032	----	-------	8	1,032	----	-------	-----	--------
North Dakota	20	7,488	----	-------	5	1,450	----	-------	15	6,038
Ohio	242	106,251	2	750	99	44,173	----	-------	141	61,328
Oklahoma	44	14,914	----	-------	18	6,582	----	-------	26	8,332
Oregon	81	35,192	----	-------	49	21,545	----	-------	32	13,647
Pennsylvania	278	132,804	----	-------	63	35,800	----	-------	215	97,004
Rhode Island	17	5,830	----	-------	17	5,830	----	-------	-----	--------

See footnote at end of table.

Table 17.—Distribution of student loans[1] under Nurse Training Act of 1964, by State and type of program, fiscal year 1965—*Continued*

State and Territory	Total		Type of program							
			Graduate		Baccalaureate		Associate		Diploma	
	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans
South Carolina	25	10,840	----	-------	15	7,775	----	-------	10	3,065
South Dakota	46	16,010	----	-------	16	7,385	----	-------	30	8,625
Tennessee	36	17,023	----	-------	36	17,023	----	-------	-----	--------
Texas	186	81,464	----	-------	149	62,416	----	-------	37	19,048
Utah	19	11,955	----	-------	6	2,099	----	-------	13	9,856
Vermont	25	9,125	----	-------	13	5,075	----	-------	9	4,050
Virginia	5	2,765	----	-------	-----	--------	----	-------	5	2,765
Washington	94	71,291	----	-------	65	49,840	5	4,308	24	17,143
West Virginia	21	10,661	----	-------	19	8,975	----	-------	2	1,686
Wisconsin	104	50,663	----	-------	41	16,080	----	-------	63	34,583
Wyoming	3	1,525	----	-------	3	1,525	----	-------	-----	--------
Puerto Rico	38	14,580	----	-------	-----	--------	----	-------	38	14,580
Virgin Islands	-----	----------	----	-------	-----	--------	----	-------	-----	--------

[1] The amount of loans includes the Federal share and the institutional share.

Note: Based on Annual Operations Report from 405 programs: Graduate, 8; Baccalaureate, 105; Associate degree, 6; Diploma, 286.

Table 18.—Distribution of student loans[1] under Nurse Training Act of 1964, by State and type of program, fiscal year 1966

State and Territory	Total		Type of program							
			Graduate		Baccalaureate		Associate		Diploma	
	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans
Totals	11,741	$6,952,359	28	$17,637	4,930	$3,212,107	389	$265,177	6,394	$3,457,438
Alabama	255	152,799	----	-------	120	86,730	----	-------	135	66,069
Alaska	------	----------	----	-------	-----	----------	----	-------	-----	----------
Arizona	106	62,316	----	-------	76	50,574	----	-------	30	11,742
Arkansas	63	31,949	----	-------	-----	----------	----	-------	63	31,949
California	578	377,801	9	5,375	292	196,489	8	2,500	269	173,437
Colorado	181	108,734	3	1,500	106	63,949	----	-------	72	43,285
Connecticut	133	80,846	----	-------	26	16,590	18	16,670	89	47,586
Delaware	18	6,075	----	-------	18	6,075	----	-------	-----	----------
District of Columbia	111	71,400	1	360	77	50,725	----	-------	33	20,315
Florida	62	36,286	----	-------	22	17,104	----	-------	40	19,182
Georgia	69	40,612	1	800	33	21,530	----	-------	35	18,282
Hawaii	52	26,900	----	-------	14	8,195	5	1,805	33	16,900
Idaho	14	9,585	----	-------	14	9,585	----	-------	-----	----------
Illinois	497	335,247	----	-------	153	103,900	----	-------	344	231,347
Indiana	351	207,974	----	-------	206	126,725	37	18,205	108	63,044
Iowa	341	186,812	----	-------	62	45,590	----	-------	279	141,222
Kansas	256	133,607	----	-------	84	51,380	----	-------	172	82,227
Kentucky	191	108,558	----	-------	70	43,085	6	1,955	115	63,518
Louisiana	45	25,345	----	-------	30	15,110	15	10,235	-----	----------
Maine	50	25,933	----	-------	-----	----------	----	-------	50	25,933
Maryland	164	94,150	1	1,000	119	65,875	----	-------	44	27,275
Massachusetts	604	366,681	----	-------	233	161,446	41	49,600	330	155,635
Michigan	638	382,201	6	4,999	357	245,885	----	-------	275	131,317
Minnesota	443	235,875	----	-------	185	104,566	14	7,500	244	123,809
Mississippi	53	46,247	----	-------	-----	----------	19	14,925	34	31,322
Missouri	262	181,361	1	400	93	69,528	8	4,610	160	106,823
Montana	97	54,878	----	-------	41	23,898	----	-------	56	30,980
Nebraska	237	129,992	----	-------	74	47,070	----	-------	163	82,922
Nevada	10	4,650	----	-------	10	4,650	----	-------	-----	----------
New Hampshire	68	38,600	----	-------	32	22,250	----	-------	36	16,350
New Jersey	279	177,256	----	-------	87	61,050	22	14,880	170	101,326
New Mexico	42	25,028	----	-------	12	6,100	----	-------	30	18,928
New York	1,277	758,366	2	2,333	423	285,385	155	97,669	697	372,979
North Carolina	63	28,450	----	-------	58	26,500	5	1,950	-----	----------
North Dakota	82	56,879	----	-------	40	32,250	----	-------	42	24,629
Ohio	835	514,664	4	870	234	166,118	----	-------	597	347,676
Oklahoma	136	68,786	----	-------	87	51,508	----	-------	49	17,278
Oregon	194	111,837	----	-------	114	65,485	----	-------	80	46,352
Pennsylvania	828	473,322	----	-------	188	149,250	13	10,750	627	313,322
Rhode Island	77	34,695	----	-------	33	17,000	----	-------	44	17,695

See footnote at end of table.

Table 18.—Distribution of student loans[1] under Nurse Training Act of 1964, by State and type of program, fiscal year 1966—*Continued*

State and Territory	Total		Type of program							
			Graduate		Baccalaureate		Associate		Diploma	
	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans	Number of borrowers	Amount of loans
South Carolina	56	39, 678	----	-------	35	28, 935	----	--------	21	10, 743
South Dakota	154	70, 968	----	-------	76	33, 366	----	--------	78	37, 602
Tennessee	158	94, 476	----	-------	97	75, 129	6	3, 850	55	15, 497
Texas	524	286, 138	----	-------	387	216, 707	----	--------	137	69, 431
Utah	62	43, 526	----	-------	13	9, 206	9	3, 395	40	30, 925
Vermont	87	31, 565	----	-------	24	13, 950	----	--------	63	17, 615
Virginia	148	66, 306	----	-------	57	19, 600	----	--------	91	46, 706
Washington	288	208, 305	----	-------	177	139, 704	8	4, 678	103	63, 923
West Virginia	80	42, 704	----	-------	41	24, 425	----	--------	39	18, 279
Wisconsin	320	188, 806	----	-------	140	91, 535	----	--------	180	97, 271
Wyoming	22	14, 850	----	-------	22	14, 850	----	--------	-----	----------
Puerto Rico	30	52, 340	----	-------	38	25, 550	----	--------	42	26, 790

[1] The amount of loans includes the Federal share and the institutional share.

Note: Based on Annual Operations Report from 592 programs: Graduate, 12; Baccalaureate, 141; Associate degree, 30; Diploma, 390.

Table 19.—Admissions, graduations, and enrollments, initial programs of nursing education, by accreditation status,[1] 1965–66

Type of program	Programs Oct. 1966	Admissions 1965–66	Graduations 1965–66	Enrollments Oct. 1966
Total	1, 225	60, 701	35, 125	139, 070
Accredited	743	44, 584	27, 231	104, 798
Not accredited	482	16, 117	7, 894	34, 272
Baccalaureate	210	13, 159	5, 498	33, 081
Accredited	147	11, 701	5, 050	28, 858
Not accredited	63	1, 458	448	4, 223
Diploma	797	38, 904	26, 278	90, 651
Accredited	577	31, 625	21, 514	73, 858
Not accredited	220	7, 279	4, 764	16, 793
Associate degree	218	8, 638	3, 349	15, 338
Accredited	19	1, 258	667	2, 082
Not accredited	199	7, 380	2, 682	13, 256

[1] Accreditation status as of January 1, 1967.

Source: National League for Nursing. *State-approved Schools of Nursing—R.N.* New York, New York. The League, 1967, pp. 102 and 106.

Appendix B

Proposal of National Commission on Accrediting

Proposal of National Commission on Accrediting

STATEMENT OF PROCEDURE FOR ELIGIBILITY DETERMINATION TO BE EMPLOYED FOR ASSOCIATE DEGREE NURSING PROGRAMS[7]

Purpose

The general purpose of this procedure is to enable the National Commission on Accrediting to implement a policy which affords junior colleges and 4-year institutions having associate degree programs in nursing but no 4-year programs in the same field a satisfactory degree of freedom of choice regarding eligibility for Federal funding, while also stimulating the colleges toward quality program development. Arising out of this policy is a conceived system of optional eligibility determination machinery at the associate degree collegiate level.

Procedures

1. The National League for Nursing will seek recognition from the National Commission on Accrediting by:
   a. submitting its accreditation guidelines, c. ı, and procedures relative to associate degree programs to the National Commission on Accrediting for review and approval;
   b. providing the National Commission on Accrediting with a "letter of intent" stating that the League agrees, in principle, to participate in this optional system of eligibility determination at the associate degree level, and that it will:
      (1) furnish the regional accrediting associations with appropriate guidelines which will be used in the examination of associate degree programs,
      (2) furnish the regional associations with lists of specialists who are qualified to serve on regional association accrediting teams and from which lists representatives will be selected.
2. The regional accrediting associations will agree to engage in this system of eligibility determination by filing a "letter of intent" with the Federation of Regional Accrediting Commissions of Higher Education. Also, the regional associations will issue statements indicating their willingness:
   a. to utilize guidelines submitted to them by the National League for Nursing;

[7] This statement was developed by the National Commission on Accrediting, agreed to and supported by the American Association of Junior Colleges, the Federation of Regional Accrediting Commissions of Higher Education, the National League for Nursing, and the U.S. Office of Education. Sept. 1967.

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b. to appoint, as members of the regional accrediting team, personnel from the lists of specialists provided by the National League for Nursing, whenever relevant programs form a part of the institution to be examined.

3. Following an onsite examination, the regional accrediting assocation will transmit a single report to the Commissioner of Education including relevant findings and recommendations concerning the nursing program. The report shall indicate that, through the institutional accrediting process, special attention—utilizing professional association guidelines and representation—has been given the nursing program. In addition, the report shall recommend to the Commissioner of Education whether or not the quality of the institution, and the nursing program in particular, is considered to be equivalent to institutions and nursing programs designated as holding reasonable assurance of accreditation.

4. It is anticipated that, in by far the majority of cases, recommendations by the regional accrediting associations concerning the overall quality of the institution will coincide with the recommendations of the specialists on the team concerning the quality of the nursing program. In those few cases where the regional accrediting association is willing to certify to the overall quality of the institutions but the professional specialists have reservations regarding the quality of the nursing program, it is anticipated that every effort will be made to resolve those differences between members of the visiting team and officials of the applicant institution.

5. The Commissioner of Education will establish an advisory committee to advise him on all matters relating to institutional and program eligibility and accreditation. In those extremely few instances where despite efforts at resolution the overall institutional report conflicts with the assessment of the nursing program, such cases with all relevant information will be referred to this committee for decision.

6. It is anticipated by the National Commission on Accrediting that some institutions, for their own individual purposes or for purposes of seeking eligibility for Federal funds, may choose to seek specialized accreditation of associate degree level programs in nursing. Such a choice is the recognized prerogative of each institution.

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