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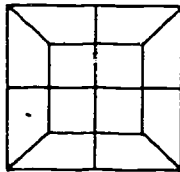
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## ABSTRACT

In order to provide all eligible nursing school applicants with equal access to careers in professional nursing and to assure an adequate supply of professional nurses, a study was conducted to identify factors that contribute to the successful recruitment, selection, and retention of students by nursing schools. A questionnaire was sent to all 1,439 nursing schools in the country to obtain a picture of their admission policies and practices. To facilitate analysis of this data, a sample of twenty schools, representing various types of programs and different geographical locations, was selected for site visits and in-depth interviews with administrators and faculty. Another questionnaire was mailed to the more than 2,400 1974 applicants to these twenty schools. The following recommendations were made at the conclusion of the study: (1) to gain wider and more comprehensive recruitment, pool manpower resources with local schools and expand the geographic scope of recruitment coverage; (2) find methods of dealing with insufficient funding; for instance, incorporate the nursing school information into the school's general catalog rather than publish it separately; (3) develop recruitment of minority students, providing them with special brochures and encouraging them to apply early; (4) canvas the community for alternative sources of financial assistance to students; and (5) increase efforts to redirect applicants to other programs. (ELG)

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# STUDENT SELECTION AND RETENTION IN NURSING SCHOOLS



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December 1977

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

Health Manpower References

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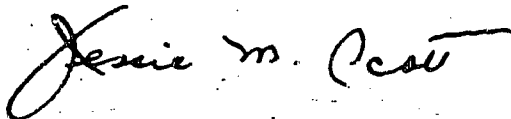
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## FOREWORD

In order to provide all eligible nursing school applicants with equal access to careers in professional nursing and to assure an adequate supply of professional nurses at a reasonable cost, it is necessary to identify successful recruitment, selection, and retention practices in the various types of nursing education programs. These processes, while always important to nursing, have in recent years become high priority areas for investigation. This occurred because of conflicting pressures due to reduction in available financial resources, efforts to obtain quality applicants, and the need to pursue programs to aid disadvantaged students.

To identify the policies that contribute to growth in quality admissions to and the number of graduations from nursing education programs, the Division of Nursing asked the National League for Nursing to conduct three questionnaire surveys of diploma, associate degree, and baccalaureate programs. The results of these surveys are reported in this publication.

We hope this report will aid schools in improving their admissions and retention practices, thereby reducing their costs, and will enhance applicant access to nursing careers.



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## INTRODUCTION

The aim of the Study to Evaluate the Student Selection Processes in Schools of Nursing is to identify factors that contribute to the growth rate in numbers of graduates of nursing programs—both prior to entry at the recruitment and selection stage, and later, once the student is in the program. In designing this study, three foci were established.

The first was to obtain a picture of the policies, practices, and procedures affecting entry into schools of nursing throughout the country. This was accomplished from the data collected by a questionnaire mailed to all 1,439 schools of nursing in the country with a program to prepare registered nurses (Phase I).

In order to facilitate the analysis of these data and to comprehend nuances not otherwise apparent, a sample, stratified by type of nursing program and geographic location, was selected. Site visits were made to 20 schools and in-depth interviews were conducted with the administrators and faculty involved in student selection processes (Phase II).

To complement the information obtained from institutional sources and to complete the picture of student selection processes, a questionnaire was mailed to applicants to schools of nursing (Phase III).

The names and addresses of applicants who applied for admission to the fall 1974 class were supplied by the schools of nursing that had participated in the second phase of the study. Additionally, the schools classified each of the applicants according to one of the four following groups: (1) applicants who applied but were not accepted; (2) applicants who were accepted but did not enroll; (3) applicants who were accepted and enrolled, but withdrew; and (4) applicants who were accepted and were currently enrolled in the nursing program.

Two separate questionnaires were prepared. One was sent to those who were enrolled in the program of nursing at the time the study was conducted. The second questionnaire was sent to all other applicants. (The survey instruments are available to interested researchers from the Division of Nursing.) The instruments differed only insofar as the one sent to the second group included a section on the alternatives considered and action taken by those applicants. Over 2,400 applicants participated in the study.

The data contained in this report are based on the responses received from deans, faculty, program directors, and other administrators and from the applicants themselves—all of whom gave so generously of their time to provide information about their experiences with student selection processes in schools of nursing today.<sup>1</sup>

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<sup>1</sup> For a complete summary of the response rate on this study, see appendix B.

## PART I: INSTITUTIONAL PERSPECTIVES

### Recruitment

The process of recruiting applicants to schools of nursing involves considerably more than "seeing who's out there and interested in becoming a nurse." The institution must first decide if, indeed, it wants to (or can) recruit and if so, what type of applicant it prefers (or is able) to attract and how large a geographic area it wishes to recruit from. Not all schools of nursing have the same degree of control over or flexibility in determining these factors. Some are guided by restrictions built into their charter, while others must respond to the financial and political climate of the time. In essence, to understand recruiting activities at schools of nursing today, one must first analyze the structure of recruitment. That is, one must have a clear understanding of the kinds of activities the schools have instigated and are carrying out for the purpose of recruiting potential students. How are these activities implemented? What methods are employed? Who is responsible for administering and coordinating these activities? In general, how is recruitment conducted?

Similarly, one must comprehend the functions of recruitment activities. That is, to what extent is the function of the recruitment activity primarily one of public relations, e.g., promoting the image of the school? To what extent is the function of recruitment one of upgrading the caliber of the student body at the institution, and to what extent is the recruitment effort directed at benefiting or servicing the community, e.g., offering opportunities to the disadvantaged?

Recently, higher education in general has been faced with a dilemma—the conditions for which have been brewing for well over a decade. With the World War II baby cohort entering into the higher education system in the mid-1960's, colleges had to expand rapidly in order to accommodate them. To assist in this expansion many Government programs were initiated (e.g., Basic Education Opportunity Grants). By the early 1970's, however, the situation had changed considerably. The national economy was undergoing a recession and cutbacks became the norm in program after program. In some cases, innovations which seemed promising had to be terminated or substantially scaled down (e.g., ODWIN—Open

the Doors Wider in Nursing). Jobs were hard to find particularly for new entrants into the labor market. Employment opportunities varied among the professions. For example, teachers were experiencing excessively high rates of unemployment, while the unemployment rate of newly licensed nurses was one of the Nation's lowest; at 3 percent it was lower by half than the national rate of unemployment.<sup>1</sup> As a consequence, many students altered their career aspirations and sought entry into nursing programs.

During the early 1970's, schools of nursing began to experience considerable increases in the numbers of applications they received. Consequently, the goals of their recruitment activities had to be redefined. On the one hand, talented candidates who were discouraged from career potential in other fields, redirected their career aspirations to nursing. At the same time, schools were being encouraged (through programs such as Affirmative Action) to establish programs for the educationally disadvantaged student. As a result, three main factors played a large role in determining the direction schools of nursing would take in recruiting, screening, and selecting those candidates for admission into the program: (1) a large increase in the number of applicants; (2) a reduction in available financial resources; and (3) increasing pressure for programs to aid disadvantaged students. The impact of a large number of candidates applying for entry into nursing programs resulted in some cases in a cessation of recruiting activities. For other institutions it meant a redirection of their energy from focusing on recruitment per se to preadmission counseling.

### Structure of Recruitment Activities

The type of recruitment activity that predominates at the different schools of nursing varies considerably and is somewhat reflective of the type of nursing program offered (i.e., baccalaureate, AD, diploma). An examination of what precisely is done in the process of recruitment reveals the following diverse patterns:

- Some schools of nursing do absolutely no recruiting whatsoever. The recent overflow of applicants to these schools provided a momentum to carry them through the next several years. Some of these schools maintain waiting lists, while others require applicants to renew their applications each term.
- Some schools of nursing that are part of a college or university do not become directly involved in recruitment activities.

<sup>1</sup> Patricia M. Nash, *Evaluation of Employment Opportunities for Newly Licensed Nurses* (Bethesda, Maryland: DHEW Publication No. (HRA) 75-12) May 1975.

In such cases the admissions office typically sends recruiters into the field to furnish information on all the departments of the college. Larger institutions may have a division of labor that permits recruiters to specialize their recruiting activities. One recruiter might concentrate on accounting, business and economics majors, while another recruits for the health professions, etc. Notwithstanding, the most frequent pattern is for the recruiter to represent all departments. However, the guidelines for the type of applicant that the school of nursing wishes to attract is established by the school of nursing itself.

- A faculty member from the school of nursing will accompany the recruiting officer from university admissions.
- The school of nursing merely provides brochures for the university recruiter to distribute.
- The type of recruitment effort to be made by the representative from university admissions is left to his own discretion.
- Some schools of nursing have found it more economical and efficient to pool their recruiting activities. This is particularly functional in areas in which schools of nursing are not necessarily in direct competition with one another. For example, three schools of nursing in northwest Texas—each offering a different type of nursing program (baccalaureate, AD, diploma)—pool their recruitment activities by taking turns making the rounds of the local high schools. Each recruiter takes descriptive materials on the other two nursing programs available in the area.
- Some schools are using a computer. They build into their computer program a number of variables to help in the selection of prime recruiting targets. Such variables as identification of the schools from which students have previously been recruited, the socioeconomic status of the recruited community, the geographic scope, etc., are programmed to provide computer output on which high schools will provide optimum return on their recruitment efforts. Most often this method of identifying recruitment sites is found in schools of nursing affiliated with colleges and universities where there is access to an on-campus computer center.
- The recruitment activities of some schools of nursing are restricted geographically by their charter. This is more likely to occur among the associate degree programs of community colleges than among other types of nursing programs.
- At the other end of the recruitment spectrum are the schools that maintain a policy of open enrollment. Here, any student desiring to attend the school of nursing may do so. In effect, the student "has the right to flunk out." These schools tend

to be part of a college or university offering other (nonnursing) types of programs. Consequently, students who perform poorly in the nursing program can be advised to redirect their career aspirations to one of the other programs on campus.

### **Function of Recruitment Activities**

In addition to the great diversity found in the structure of recruitment activities of schools of nursing, the function of recruitment activities also varies from school to school. Some of these differences will be examined. First, it is not uncommon for schools, lacking available space or facilities to accommodate additional students and already holding extensive waiting lists, to nevertheless continue their recruitment endeavors primarily as a matter of good public relations. Second, some schools continue to recruit in order to upgrade the caliber of the student it is attracting to its program. A third pattern is one in which schools recruit the kind of student who will add characteristic diversity to their student body. They may set aside a certain proportion of available space for out-of-State students, minority students, disadvantaged students, etc. In addition, schools of nursing with a strong sense of community service focus their attention on attracting students from within their community who might not otherwise apply.

The large number of candidates applying for entry into nursing schools, coupled with fiscal cutbacks and pressure to provide opportunities to disadvantaged students, created a new dilemma for schools of nursing. On the one hand, there is a large number of applicants to choose from, including talented applicants from other fields who have redirected their career aspirations. Consequently, schools have an opportunity to be very selective in their screening process, selecting those applicants with the greatest potential for successful completion of the nursing program and a career in the nursing profession. An additional stimulus for adopting and following such a policy was erosion of funds for supportive programs for students who are educationally disadvantaged. On the other hand, schools were expected to respond to the growing needs of other segments of society. The issue revolved around the question of how to motivate schools to seek out those students who were indeed educationally, financially, and culturally disadvantaged (given a large pool of qualified applicants and the limited amount of financial resources). Notwithstanding Affirmative Action programs, an overwhelming majority of schools of nursing recognized their responsibility not only to educate those applicants who would have little difficulty in successfully completing the program, but also to those who would not otherwise have been given an opportunity to enter a nursing program. Most schools of nursing have

been faced with moderating between the opportunity to upgrade the caliber of their student body and their responsibility to provide opportunities to disadvantaged students. Factors bearing on the direction taken by an institution include: the extent to which it controls the number and caliber of its entering students, the community in which it is located, various pressures on both the local and national level, and institutional resources—both human and financial.

### Current Recruitment Activities in Schools of Nursing

In order to ascertain the type of recruitment activities carried out by schools of nursing throughout the country, a battery of activities was included on the survey questionnaire. Respondents were asked to check those activities specifically engaged in by their institution during the preceding academic year (1974-75). Overall, certain types of activities tended to emerge as most frequently used (see table 1). For example, most schools indicated use of the following recruitment activities: having a catalogue available upon request (95% of all respondent schools mentioned this as part of their recruitment activities); having a recruiter talk at high school career day meetings or before future nurse clubs (84%); having separate brochures on nursing (79%); and having a recruiter hold conferences with high school guidance counselors (71%).

Table 1.—Recruitment activities, by type of nursing program (in percentages)

Recruitment activities	Type of program			
	Total	Bacc.	AD	Dipl.
Catalogue was available upon request	95	94	95	95
Other brochures on nursing program	79	86	82	71
Brochures directed to minority groups	9	15	6	10
Newspaper ads and other local media	40	33	40	45
Ads in college handbook	22	33	18	20
Ads in minority media	8	9	6	11
Recruiter conferences with high school counselors	71	75	70	69
Recruiter presentation on career day	84	81	80	93
No specific recruitment activities	8	6	13	3

A comparison of the recruitment activities engaged in by the three different nursing programs shows a similar pattern. The overwhelming majority of baccalaureate (94%), AD (95%), and diploma (95%) programs indicated that a catalogue was available upon request. Sending out recruiters and making brochures on nursing available were also prevalent recruitment activities among

the three types of programs. However, there were some minor differences. For example, diploma programs (93%) were more likely to report sending a recruiter to talk at high school career day meetings or before future nurse clubs than were baccalaureate (81%) and AD (80%) programs. One factor contributing to this difference is the fact that baccalaureate and AD programs are located on college campuses and recruiters from the admissions office represent all the programs offered by the college, not just nursing. This is also partially reflected in the fact that baccalaureate and AD programs are slightly more likely to have separate brochures on nursing which the recruiter can distribute when calling on the local high schools. Eighty-six percent of baccalaureate and 82 percent of AD programs compared to 71 percent of diploma programs had separate brochures available describing their nursing programs.

Schools were asked to indicate whether they had a recruitment team at their institution. As shown in table 2, 7 out of every 10 nursing schools in the country reported that they did have a recruiting team. This was more likely to hold true, however, for baccalaureate (85%) than for AD (68%) and for diploma (63%) programs.

Table 2.—Existence and composition of recruitment team, by type of nursing program (in percentages)

Recruitment team	Type of program			
	Total	Bacc.	AD	Dipl.
There is a recruitment team for the nursing program	70	85	68	63
There is a nurse-faculty member on the team	36	27	22	61

The composition of the recruitment team also varies by type of program. Diploma (61%) programs were far more likely to have a nurse faculty member on the recruitment team than either baccalaureate (27%) or associate degree (22%) programs. This is, of course, reflective of the structure of recruitment activities at these various institutions. As indicated earlier, it is not unusual to find that the recruitment activities of the baccalaureate and AD programs are administered through the university admissions office and, as table 2 indicates, in these cases, the recruiter works without the benefit of a representative from the school of nursing.



## Screening and Selection

### Types of Screening Processes

The terms "screening" and "selection" are often used synonymously by schools of nursing. Conceptually, however, there is justification for some distinction to be made between these terms. Accordingly, in this report, the term "screening," refers to those activities engaged in by a school of nursing to sift out applicants prior to having their folder reviewed for admission. The term "selection" refers to the process of determining which of the candidates whose applications are reviewed will be invited to enroll in the program of nursing. In essence, then, according to one set of activities, the candidate is "screened out" while in the other set of activities the candidate is "selected into" the program.

For most institutions, the screening activities are limited to those candidates who have not completed the application procedure. In other words, if the candidate's file is not complete (i.e., grades, test results, letters of recommendations, forms completed and fees paid), the file is not reviewed. In cases where the university or college admissions office prepares these files, only completed files are usually forwarded to the dean or admissions committee of the school of nursing. Consequently, the candidate is screened out before the file has a chance to get to the school of nursing.

There are cases where potential candidates are screened out prior to commencing the application procedure. This can occur at the high school level where the guidance counselor discourages a student from applying to a school of nursing. The reasons for this practice may vary from a legitimate concern for the effect upon the student should he or she be rejected, to concern for how rejection of their students would reflect upon the image of the high school. Schools of nursing generally look upon this practice with disfavor. They would prefer the opportunity of reviewing the candidate's potential themselves. As one dean stated:

High school counselors in the area screen students and do not encourage students to apply if they think they will not be accepted. I do not favor this policy. I believe students should be encouraged to apply to a college of their choice. Let us make the decision.

Deans, directors, faculty and counselors of the nursing school, however, have also tried to dissuade candidates from submitting applications. Although this is not an uncommon procedure in the case of an underqualified applicant, it is somewhat surprising to find it applied to the overqualified applicant. A number of schools reportedly took the initiative to redirect candidates into other programs (both nursing and nonnursing)—programs which, in their

judgment, would best meet the career aspirations of the candidate, given the ability, time, and resources (financial and otherwise) he had at his disposal.

### Patterns of Selection

Once the screening mechanism is established, then the selection processes are activated. Some schools of nursing have minimal selection procedures in that they accept all those who apply for admission. Some of these programs are limited by their charter to the type of student they may accept. The charter may stipulate service to a particular type of student body, e.g., American Indians; students who reside in the immediate community of the school; students who are from the immediate community but who have not been accepted by any other school in the area—as was the case with at least one of the schools in our study).

Programs having minimal selection procedures may simply accept all those who apply on a first-come-first-served basis. Here the number of applicants is limited only by the classroom space, personnel, and facilities available. Some schools of nursing that are part of a State university system and maintain an open admissions policy are also often flexible in the numbers of students admitted. Potential limitations with regard to classroom space or personnel, may be compensated for and rectified by the provision of State funds granted to the school on the basis of the number of students they are accommodating.

Nevertheless, certain restrictions will still prevail for schools with open admissions policies. Such restrictions occur when a shortage of clinical facilities is the causative factor limiting the number of students who can be reasonably accommodated.

Selection is frustrating. Many well-qualified, well-motivated, applicants. Few (relatively speaking) spaces available. No significant increase in program size contemplated due to cost and clinical facility limitations.

One method used to compensate for limited clinical facilities is to have students enroll in other nonclinical and even nonnursing courses while waiting for space to open up. This procedure can be more readily implemented in baccalaureate and AD programs in community colleges and 4-year colleges and universities than in diploma programs where limited clinical facilities may be a problem. Once clinical facilities become available, the student nurse can complete this part of the education process. In effect, this means that the selection process is often "deferred." In other words, the student is admitted to the program of nursing and takes general courses for the first year or two but then is subjected to further evaluation prior to admission into the nursing program.

In recent years other criteria have become increasingly important in the selection process. Most notable among these is the focus on certain demographic characteristics, namely, race and ethnicity, and the establishment of designated percentages in each of the various groups in the entering class. This is done for several reasons, including: compliance with Affirmative Action programs; proportional representation of the ethnic and racial composition of the community in which the college is located; or to improve representation of minority and disadvantaged students among the ranks of graduating registered nurses. To accomplish this latter goal, colleges often direct their admissions committee to provide for an overrepresentation of minority and disadvantaged students at the outset in order to compensate for their relatively high attrition rate during the course of the program. Other criteria taken into account in the selection process—proportion of transfer students accepted into the program and geographical representation of the student body—will be discussed in the subsequent section on admissions policies.

### **Determinants of Selection**

The most universal selection criteria for admission to schools of nursing is some measure of a candidate's performance, such as grade point average, achievement tests, aptitude tests, etc., as an indicator of probable success in the program. Schools vary in the degree of selectivity they employ. Candidates may be required to rank in the top third or at least the top half of their high school graduating class. In addition to class rank or grade point average, the overwhelming majority of schools require that the student's scholastic ability be supported by additional data emanating from the scores students make on a battery of exams they are expected to take prior to admission to the school of nursing.

As noted earlier, some schools approach recruitment on a cooperative basis, that is, they pool their resources with other neighboring schools. Schools also tend to cooperate in their selection procedures, especially if the programs in a particular area are noncompetitive, i.e., offering a different type of program (baccalaureate, AD, diploma). On more than one occasion, highly talented applicants had been referred to the baccalaureate program in the area and, in turn, applicants to the baccalaureate program who appeared to require remedial work but who were highly motivated, were directed to another type of program in the area. The most typical pattern of relationships among schools of nursing serving the same community was engaging in friendly competition. On the other hand, the school of nursing may have essentially no compe-

tion, that is, it may be the only program available in a large geographic area. Such cases have proven to be more of a disadvantage than an advantage to that particular program. As reported by one school of nursing who found itself in this position: "Since we are the only program of its type in the State and since we are not a State-supported school, we find ourselves losing our better students to out-of-State schools of nursing."

The recent increase in the number of applicants to schools of nursing are currently stimulating additional changes. For example, schools which previously maintained an open enrollment policy have been forced to institute some methods for making distinctions among applicants; in effect, they have had to formulate some selection procedures. Many have thereby (re)instituted the use of grade point average or test scores as their main criteria. In other schools of nursing where the applicant's grade point average or test results have determined his eligibility for admission into the program, additional changes have been instituted. These include: increasing the grade point average required and/or increasing the minimum acceptable score on the various exams that an applicant is required to pass.

### Selection Criteria

The selection of most applicants to schools of nursing often rests, at least initially, on some measure of their academic competency. Additional criteria are utilized by schools in the actual selection of those students who will be invited to enroll in the program. In order to ascertain the importance of various criterion of selection, schools of nursing were provided with a checklist and asked to indicate whether or not the criterion, as an element in the selection process, was of great importance, of some importance, of little importance, of no importance, or was not used by the school.

Table 3.—Importance of selection processes, by type of nursing program (in percentages)

Selection processes	Type of program			
	Total	Bacc.	AD	Dipl.
Application form -----	85	86	82	90
Statement of motivation -----	62	63	47	81
High school class standing -----	79	70	70	95
Biographical inventory -----	47	47	32	67
Health form -----	82	70	80	92
Statement of financial ability -----	23	21	19	27
Interview -----	72	53	65	94
References -----	54	48	36	81
Exams -----	72	65	68	84

The item indicated as most important in their selection processes was the use of the school's own application form. Eighty-five percent of all schools of nursing indicated its importance. Since this application form generally requests the kinds of information most pertinent to the school in making its decision, it is not surprising that schools consider this to be the most important criterion. In addition to providing the basic demographic characteristics of the applicant, class rank and financial need, the application forms frequently require a statement of motivation on the part of the applicant. In essence, the form may well be a consolidation of the various items on the checklist on which they reported. In addition to their own application form, schools of nursing on the whole reported that they considered a health form of next importance (82%), followed by class rank at 79 percent, entrance exams and interview both at 72 percent.

A comparison of the three types of programs with respect to the relative importance of selection processes reveals some differences. Of the items listed, the application form emerged as the one considered most important by baccalaureate (86%) and AD programs (82%). Although an even higher proportion of diploma programs (90%) reported the application as important, they indicated that a number of items were considered even more important, for example, class standing (95%), the interview (94%), and the health form (92%). Table 3 shows diploma programs were more likely than were baccalaureate or AD programs to rate the items on the checklist in higher degrees of importance.

The underlying rationale behind establishing selection criteria is the optimum use of the talent and facilities available at the school of nursing for the most productive and successful education of its students. While most schools rely on the grade point average or class standing of their applicants as an indication of potential success, many reinforce this data base by additional information. Some schools have a broader knowledge of the applicant based on the impression made during an interview. Other schools supplement their information by administering a variety of different types of tests to the applicant. Some schools stipulate certain prerequisite courses (e.g., chemistry) as a requirement for admission. All these criteria are used to measure the potential success of candidates for admission. Tests and grade point averages measure the potential for academic success, while interviews and other tests attempt to measure the applicant's responsibility, maturity, and personality adjustment. In the words of the deans, themselves:

Each applicant's record is looked at individually without bias as to race, sex, or other considerations as far as humanly possible. If the committee feels the applicant can function adequately as far as health, academic, and

interpersonal relating abilities are concerned, he/she is accepted. If any weak areas are noted, the applicant is placed on a 'hold list' and asked to take remedial action before acceptance is considered in order that all incoming students are as equally prepared as possible to do the required work.

The Admissions Committee has conducted several empirical studies and found the admissions criteria to be such that those admitted under the present policies should be capable of completing the academic program successfully. One problem remains, however, we still cannot measure motivation except to look for evidence of goal-directed behavior prior to admission (e.g., candy striper, Volunteer Nurses' Association, etc.)

## **Admission and Advancement**

### **Time Element in the Processing of Applications**

Just as there are variations among the schools of nursing with regard to their recruiting, screening, and selection processes, so too, different patterns can be observed with regard to their policies and practices on the admission and advancement of students. One of the areas focused on was the extent to which a time lag prevailed between submission of an application and notification of acceptance or rejection. If the lag were of considerable duration, it could have implications for the potential nurse candidate. If applications must be filed considerably before admission, some candidates could fail to meet the deadline. Although some would reapply, others could get discouraged, or become diverted to some other field, or accept a job. Furthermore, if the school delays notifying applicants, they may apply elsewhere for fear of not getting into some program.

In order to ascertain the practices of schools of nursing with regard to their deadlines for submission of applications and the time lag between submission and notification of acceptance, the schools were asked to provide information on the date of their official cutoff for fall admissions, the number of months prior to their admission date that applications were to be submitted, and the number of months prior to their admission date that applicants were notified of their acceptance or rejection.

The majority of schools of nursing have an official cutoff date for the submission of applications to their fall classes. As can be seen in figure 1, a similar pattern is exhibited by all three types of programs (baccalaureate, associate degree, and diploma). There are two peak periods, one in March, the other in August. A major proportion of schools of nursing indicated their cutoff date for fall admissions as these 2 months.

Some schools who accept students on a first-come-first-served basis face a different problem with regard to the submission of applications. As can be seen from the following quotations, appli-

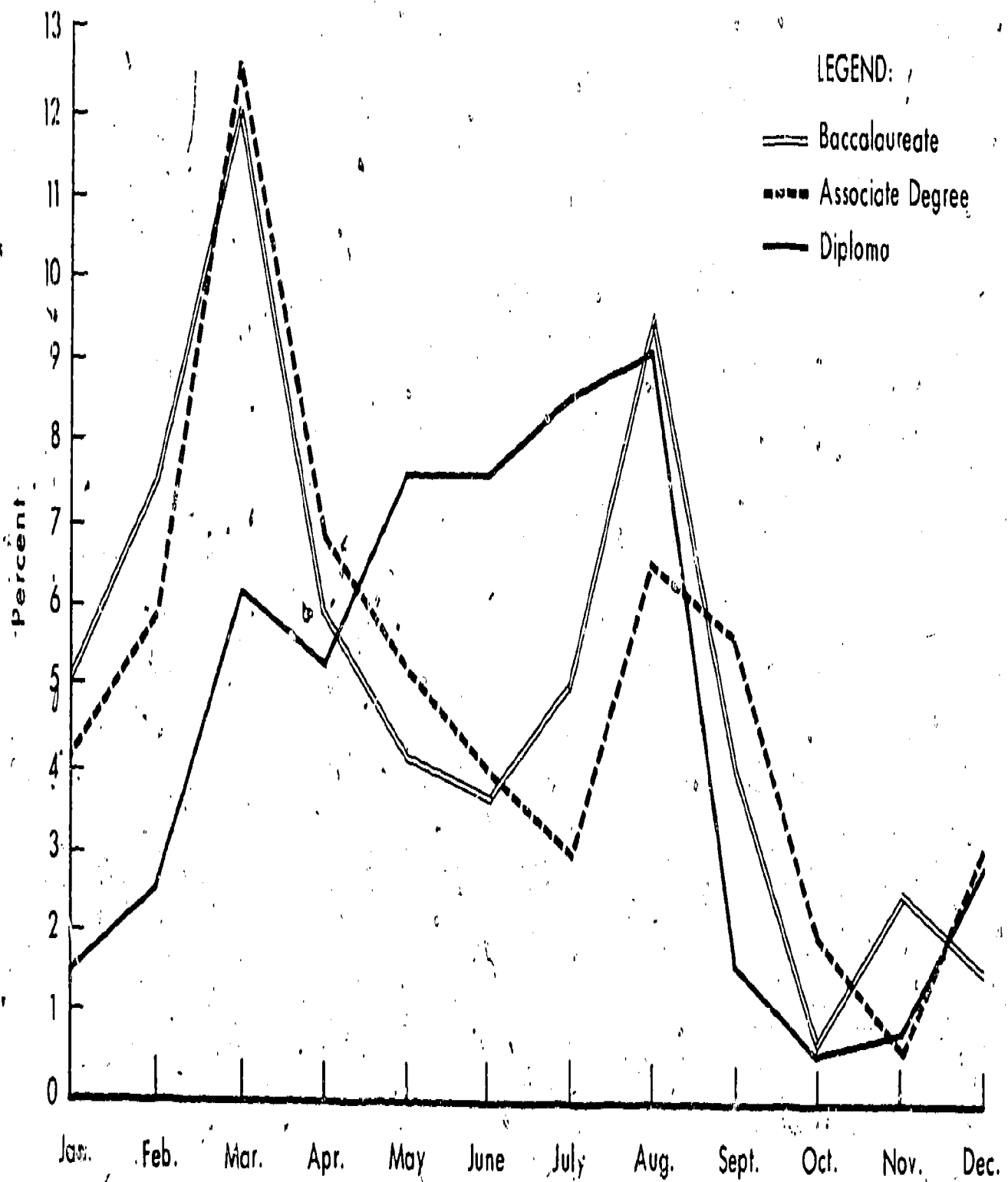


Figure 1.—Official cut-off date for submission of application, by type of nursing program.



cants virtually stampede the admissions office to insure their admission into the program.

Because we had students lining up outside the building 18 hours before we began accepting applications at 8:00 a.m. on October 1st, we are considering a lottery for next year.

It is first come, first served. Applicants can apply beginning October 1st and are given a number in order of application. They are reviewed and accepted or rejected in order of receipt of application. Consequently, applicants camp out all night to try to be first in line.

Although most schools stipulate a specific cutoff date for fall admissions, a sizeable proportion (47%, as shown in table 4) have rolling admissions. This means that the student may apply at any time during the year and within a reasonable amount of time will be notified whether or not he/she is accepted. Rolling admissions,

Table 4.—Deadline for submission of application, by type of nursing program (in percentages)

Deadline for submission of application	Type of program			
	Total	Bacc.	AD	Dipl.
6 + months before admission	21	26	23	16
3-6 months before admission	21	22	25	16
— 3 months before admission	8	9	8	8
Rolling admissions	47	41	42	58
No answer	3	2	2	2
Total	100	100	100	100

as can be seen from table 4, is more characteristic of diploma programs (58%) than of baccalaureate (41%) and associate degree (42%) programs. These latter two programs tend to establish a specific cutoff date. Undoubtedly this facilitates the processing of applications sent to the university admissions office, and in some instances are then forwarded to the school or department of nursing for further screening.

Table 5.—Deadline for notification of acceptance, by type of nursing program (in percentages)

Deadline for notification of acceptance	Type of program			
	Total	Bacc.	AD	Dipl.
6 + months before admission	8	7	9	7
3-6 months before admission	23	28	33	8
— 3 months before admission	9	9	14	1
Continuous procedure	58	54	42	83
No answer	2	2	2	1
Total	100	100	100	100



Schools of nursing are far more likely to employ the rolling admissions (continuous) procedure with regard to notifying the applicant of his acceptance or rejection. As shown in table 5, 58 percent of the schools of nursing notified the applicant in this manner. Again, this was much more characteristic of diploma program (83%) than baccalaureate (54%) or associate degree (42%) programs.

### The Admissions Committee

The size, composition, and influence of the admissions committee can vary on several factors. A typical admissions committee will consist of more than five members.

Table 6.—Size of admissions committee, by type of nursing program (in percentages)

Size of admissions committee	Type of program			
	Total	Bacc.	AD	Dipl.
Small (1-4)	17	12	23	13
Medium (5-6)	31	24	26	41
Large (7+)	36	46	26	43
No answer	16	18	25	3
Total	100	100	100	100

As can be seen in table 6, the admissions committees of baccalaureate and diploma programs tend to consist of a larger number of members than found in the admissions committees of associate degree programs. Also the composition of these admissions committees are likely to vary. Thirty percent of all the schools of nursing participating in the study reported at least one member of a minority group serving on the admissions committee. This was true for 41 percent of baccalaureate programs, 28 percent of the associate degree programs and 25 percent of the diploma programs.

Table 7.—Number of nursing faculty on admissions committee, by type of nursing program (in percentages)

Number of nursing faculty on admissions committee	Type of program			
	Total	Bacc.	AD	Dipl.
One	15	24	23	1
Two or more	59	37	44	93
None or no answer	26	39	33	6
Total	100	100	100	100

As shown in table 7, a clear distinction can be made in regard to the composition of the admissions committee at diploma programs compared to those at baccalaureate and AD programs. Although most (74%) schools of nursing have at least one (usually more than one) nurse faculty member on their admissions committee, nurse faculty members are far more likely to be found on the admissions committee of diploma programs than on those of associate degree or baccalaureate programs. For example, 93 percent of the diploma programs reported having two or more nurse faculty on their admissions committee compared to 44 percent of the AD and 37 percent of the baccalaureate programs. Upon closer examination, the typical baccalaureate program was likely to have only one nurse faculty member on the admissions committee and the associate degree program one or two members. These figures contrast dramatically when viewed in light of the number of nurse faculty on the typical admissions committee of diploma programs where it is not unusual to find five to seven nurses reviewing the applications for admission.

Because the admissions procedure for the baccalaureate and associate degree programs are usually handled by the university admissions office and, therefore, outside the college or department of nursing, the schools of nursing were asked to indicate the extent to which they had the final say on the acceptability of an applicant. There are several ways in which the procedure can be handled. Sometimes the admissions office merely processes the applications and sends them over to the school of nursing for screening. In other cases, the admissions office meets with the school of nursing and agrees upon the criteria for admission to the nursing program. In this case, it is the responsibility of the admissions office to prescreen the applications.

Table 8 shows the comparison between the three types of nursing programs with regard to their making the final decision on applications.

**Table 8.—Comparison of ultimate decision on applications, by type of nursing program (in percentages)**

School makes final decision on applications	Type of program			
	Total	Bacc.	AD	Dipl.
Always	67	62	48	96
Mostly	16	13	26	3
Some	7	9	11	—
Rarely	8	13	12	—
No answer	2	3	3	1
Total	100	100	100	100

Two out of every three schools of nursing throughout the country reported that they always have the final say on the acceptability of an applicant. In only a very small percentage does this decision rest outside the school or department of nursing. Comparisons between the three types of programs, again, reflect the different organizational structure, particularly in contrasting diploma programs with baccalaureate and associate degree programs. For example, just about all diploma programs (96%) reported always making the final determination on applicants; this compares with 62 percent of the baccalaureate programs and 48 percent of the associate degree programs.

It should be pointed out that very few school's relinquish their control (direct or indirect) of applicant selection. In cases where the school reported having only "some" or "rare" say in the selection of applicants, prior arrangements have frequently been made and agreed upon by the school or department of nursing and the admissions office of the college. As one dean noted:

Originally the entire faculty approved all admissions. With faculty shortages and absences during the summer months, this responsibility now falls largely on the director of the program. Before acceptance to the nursing program, the applicant must be accepted by the Director of Admissions of the college. To date, he has been guided by the recommendations of the Director of the Department of Nursing. These exceptions are made to accommodate the nursing program's policy of assistance to disadvantaged students.

In essence, then, schools of nursing ultimately determine the criteria to be used in evaluating the acceptability of candidates who apply for admission.

### **Policies Pertaining to Admission and Advancement**

The policies adhered to by schools of nursing are also found to vary among the different types of programs. These variations are shown in table 9.

The three admissions policies most frequently found in schools of nursing are:

1. Stated minimum admissions requirements for all first-year nontransfer students (79%). A greater proportion of diploma programs (85%) and associate degree programs (80%) were more likely to report this as their admission policy than were baccalaureate programs (69%).
2. Advanced standing to students with prior nursing preparation (71%). Again we find this more typically found at diploma (75%) and associate degree (71%) programs as compared to baccalaureate programs (64%).
3. Highly individualized admissions decisions based on appraisal of student's total dossier (56%). Diploma programs (73%) were substantially more likely than were baccalaureate programs (48%) and associate degree programs (46%) to indicate this policy.

Table 9.—Admission policies, by type of nursing program (in percentages)

Admissions policies	Total	Type of program		
		Bacc.	AD	Dipl.
Stated minimum admissions requirements for all first-year nontransfer students	79	69	80	85
Special selection standards to recruit male students	5	8	4	4
Special selection standards to recruit minority group students	14	28	9	10
Advanced standing to students with prior nursing preparation	71	64	71	75
Special admissions policies to control proportion of students by geographic region	9	6	15	3
Highly individualized admissions decisions based on appraisal of student's total dossier	56	48	46	73
Open admission to any high school graduate	15	15	20	8
Provisional admissions	23	28	22	22

Some other distinctions can be made between the programs with regard to admissions policies. Baccalaureate programs (8%), for example, were twice as likely as were associate degree (4%) or diploma (4%) programs to have as policy special selection standards to recruit male students. Associate degree programs (15%) to a much greater extent than either baccalaureate (6%) or diploma (3%) have geographic restrictions applied to the applications they accepted. Since many associate degree programs are located within community colleges, this geographic restriction is often written into the bylaws of the college. Often the community college's stated purpose is to serve its specific community. Consequently, all the divisions within the college adhere to the overall bylaws. Associate degree programs located at such colleges will, therefore, give priority to or restrict the applications it accepts to those individuals who reside in the local community which the college serves.

In addition to those students who apply to a school of nursing as beginning students in that particular program, many others having previously attended some other school of nursing will apply as transfer students. Table 10 shows the extent to which transfer students make application to nursing programs.

Overall, 66 percent of the schools of nursing participating in the study reported that they had received applications from students with previous preparation as a registered nurse. This was more likely to be true for baccalaureate programs (78%) than for associate degree programs (67%) or diploma programs (56%).

As noted previously in table 9, a sizeable proportion of schools

**Table 10.—Applications from transfer students, by type of nursing program  
(in percentages)**

From transfer students	Type of program			
	Total	Bacc.	AD	Dipl.
With previous RN preparation -----	66	78	67	56
With previous LPN preparation -----	72	67	85	60

(71%) have instituted an admissions policy with regard to transfer students. However, a comparison between tables 9 and 10 reveals a negative correlation between receipt of applications from transfer students with previous RN preparation and a school having a policy to accommodate transfer students. For example, a higher proportion of baccalaureate programs (78%) reported receiving applications from students with previous RN preparation compared to that reported by associate degree (67%) or diploma (56%) programs; yet a higher proportion of diploma programs (75%) reported having an admissions policy to grant advanced standing to students with prior nursing preparation compared to that reported by associate degree (71%) or baccalaureate (64%) programs. In short, although diploma programs were least likely to receive applications from students with previous RN or LPN preparation, they were more likely to have an admissions policy to accommodate these students when they requested a transfer into the diploma program.

## PART II. APPLICANT PERSPECTIVES

### The Study Sample

How representative are the 2,390 applicants who participated in the study of the body of nursing school applicants throughout the country? The answer to this question necessitates data on the characteristics of this latter group. Unfortunately no such data exist nor are they currently being collected by the professional organizations concerned with nursing statistics. For example, the American Nurses' Association (ANA) confines its data collection to licensed nurses. The last two issues of *Facts About Nursing* (1974-75) and 1972-73) contain no data on student nurses. The National League for Nursing (NLN) in their annual survey of schools of nursing, collects institutional data pertaining to the nursing student body (e.g., number of students enrolled) but does not systematically record their demographic characteristics. The National Student Nurses' Association (NSNA) collects certain information from members upon their application to the Association (e.g., sex and age). However, there is no way to verify how representative the NSNA members are in relation to the total number of student nurses throughout the country. Although the NSNA reports 40,000 members, there are approximately 250,000 student nurses in the country (according to the most recent 1975 figures). Lacking such comparative data, the study investigators were in need of finding alternative sources for the computation of comparative statistics, and decided to use the data gathered in the previously mentioned NLN study, *Employment Opportunities for Newly Licensed Nurses*. Here demographic characteristics of a national sample of newly licensed nurses were obtained. The shortcoming of using these data was that they represent the students who successfully completed their nursing program. Consequently, there was still the lack of comparable data on those applicants who applied to schools of nursing but who did not complete the program either because they were not accepted, or who after being accepted failed to enroll, or who subsequently withdrew from the program. Since the appropriate data do not exist, the demographic characteristics obtained on the sample of students who successfully completed their nursing program and were reported on in the employment opportunities study will be used as a first approximation in the com-

parison of similarities between the study sample of applicants and the body of nursing students throughout the country.

Table 11.—Comparison of applicant sample to national sample of newly licensed nurses (in percentages)

Demographic characteristics	Newly licensed nurses (RN only)	Applicant sample
Age:		
Under 25 years -----	73	73
25 years or older -----	27	27
Sex:		
Female -----	96	94
Male -----	4	6
Racial/ethnic:		
White -----	95	77
Black -----	3	15
Spanish -----	1	6
Oriental -----	—	1
Other -----	1	1
Marital status:		
Never married -----	45	67
Married -----	50	25
Separated/divorced -----	4	7
Widowed -----	1	1

Table 11 provides the data for such a comparison. The two samples (i.e., the sample of applicants to schools of nursing and the sample of newly licensed nurses) are quite similar in regard to their age and sex distributions. In each case 73 percent are under the age of 25 and the overwhelming majority are female. (The slight increase in male applicants (6%) as compared to the proportion of male newly licensed nurses (4%) undoubtedly reflects the increased number of men coming into the nursing profession.) Differences found in terms of ethnic distribution between the two samples is due to the fact that the investigators specifically sampled some schools with a predominance of minority group students. Consequently, there is a relatively high representation of minority groups in the applicant sample which is not reflected in the sample of newly licensed nurses.

The differences found between these two samples regarding their marital status is a direct reflection of the period of time in the student's life cycle in which they were interviewed. Two out of every three of those in the applicant sample reported marital status as never married. This compares to 45 percent of the newly licensed nurses. Very often 3 to 4 years will pass between the time a nurse applied for admission into a program of nursing and the time they become a newly licensed nurse, (In the case of those who leave

school, raise a family, and later return to complete their education, the time span is even longer). Another factor which influences the high proportion of married students among the newly licensed nurses is that they are very often newly married (i.e., many married upon graduation from the school of nursing).

Notwithstanding the above mentioned characteristic differences between the two samples, there is evidence to suggest that the sample of applicants is characteristically (if not statistically) representative of the student body attending schools of nursing throughout the country today.

Having obtained the basic demographic characteristics on a sample of applicants to the fall 1974 class of a variety of nursing schools (stratified by type of program and geographic location) and having the institution provide information on the disposition of the applicants' application (whether or not they were accepted, enrolled, withdrew or are currently in the program), it was possible to compare differences that prevail between these four types of applicants. Table 12 organizes these data for analysis.

Table 12.—Comparative demographic characteristics, by type of applicant (in percentages)

Demographic characteristics	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	Withdrew	Currently enrolled
N	(2,390)	(600)	(439)	(156)	(1,195)
Age:					
Under 20 years	100	18	21	5	56
20-25	100	27	18	6	49
Over 25	100	31	17	7	45
Sex:					
Female	100	25	18	7	50
Male	100	30	16	7	47
Racial/ethnic:					
White	100	22	20	7	51
Black	100	41	13	2	44
Mexican American/ Chicano	100	26	10	16	48
Mainland Puerto Rican/ Boricua	—	—	—	—	—
American Indian	100	4	35	13	48
Japanese/Chinese	100	20	25	5	50
Other (Filipino, Cuban)	100	33	15	4	48
Marital status:					
Never married	100	22	19	5	54
Married	100	28	19	10	43
Separated/divorced	100	36	16	5	43
Widowed	100	32	21	15	32



Regardless of which age classification the applicant falls under, there will be a 50-50 chance that the applicant is currently enrolled in the program. This tends to hold true to a greater extent for nurses in the younger age classification. While 56 percent of the applicants who are under the age of 20 are currently enrolled, this is true for 49 percent of those between the ages of 20 and 25 and for 45 percent of those who are over 25. The three-age groups are similar in terms of their withdrawal from the nursing program and the extent to which, though accepted, they fail to follow through and enroll. There does, however, appear to be a noticeable difference with respect to the relative proportions not accepted into the nursing program: the older the age group, the less likely are they to be accepted into the nursing program. While only 18 percent of applicants under the age of 20 years were not accepted, this held true for 27 percent of the applicants between the ages of 20 and 25 and 31 percent of the applicants over the age of 25 years. From these data, it is noted that not only are applicants over the age of 25 less likely to be accepted by schools of nursing (31%) but they are also slightly more likely to withdraw (7%) from the program. This undoubtedly reflects the greater probability of this group having family responsibilities interfere with their course of work.

When comparison is made of the distribution of the females between the four types of applicants, only slight differences are found. Males are only slightly more likely than females to be classified as not accepted to the schools of nursing (30% compared to 25%). However, the overall outcome in terms of their current enrollment tends to be quite similar. While 50 percent of all the females who applied to the school of nursing in our sample for the fall 1974 class were currently enrolled in that program, it was true for 47 percent of the males.

Comparison of the racial distribution between these four types of applicants shows that, with the exception of blacks, approximately half of those who applied are currently enrolled in the program. Fifty-one percent of the white applicants are currently enrolled in the program compared to 44 percent of the blacks, 48 percent of the Mexican American/Chicano, 48 percent of the American Indians, 50 percent of the Japanese/Chinese and 48 percent of those classifying themselves in some other racial or ethnic group. However a number of differences exist in the other four types of applicant groups in regard to racial and ethnical distribution within their ranks. For example, Mexican American/Chicano (16%) and American Indians (13%) tend to have a higher rate of withdrawal than other groups. Blacks (2%), on the other hand, show the smallest representation. American Indians (35%),

Oriental (25%) and whites (20%) tend to be accepted but do not enroll in programs in higher proportions than those found among other groups. The greatest discrepancy is found in the group of applicants classified as not accepted. The proportion of blacks (41%) not accepted into programs of nursing is almost twice that of whites (22%). This difference, as observable from table 12, narrows by the time the process evolves and the proportion of applicants who are currently enrolled is examined. This is mainly due to the fact that black students, once accepted into a program of nursing, are more likely than are white students to enroll in that program and maintain their commitment to it (not withdraw). (Note: Selective screening might account for this. How did these groups rank themselves on how well they were doing in their course work? Relatively brighter black applicants may have been accepted into the program. If this is the case, it can be expected that a relatively larger proportion ranked themselves high on academic achievement in nursing school. Comparison will be made on their class standing during their last year in high school to see if there are differences there. Numerous studies have pointed out that as a screening mechanism many schools rely solely on the applicant's grade point average or a test score to automatically screen out certain students. Since black students do not tend to fare as well on these examinations, it is very likely that the disproportionate number of blacks not accepted is reflective of this phenomenon. It will be seen later that a large portion of applicants who were not accepted had never been interviewed. In other words, they were rejected on the basis of some criteria other than a personal interview. This is usually done by an evaluation of their academic attainment.)

A comparison of the four types of applicants based on their marital status also reveals some differences. While the majority (54%) of the applicants who were never married are currently enrolled, this holds true to a lesser extent for those who are married. For example, 43 percent of those who are married are currently enrolled in the program, 43 percent of those who are separated or divorced are currently enrolled in the program, while only 32 percent of the widows are currently enrolled in the program. One interesting note emerges from the comparison of these four groups on marital status. Despite the fact that a higher proportion of separated and divorced (35%) compared to married (28%) applicants are not accepted into schools, a similar proportion evolve as currently enrolled. It appears that the separated/divorced applicants compared to married ones have a greater determination to stay in the program once accepted. On examination of those who were accepted but did not enroll or who enrolled

but withdrew, it was found that married applicants are more likely than those who are separated/divorced to be among the ranks of the no-shows (i.e., those who were accepted but did not enroll) and dropouts (i.e., those who enrolled in the nursing program but subsequently withdrew). Here again is reflected demands made upon the married applicant by family responsibilities and, consequently, one of the factors that acts as a barrier to the successful completion of the nursing program by the applicant. In light of these figures it might be suggested that schools reevaluate their admissions policies with regard to the separated and divorced applicants who, it would seem, offer greater potential in following through on their commitment to a nursing career than might have heretofore appeared on the surface. Two out of every three widows who applied to a nursing program were admitted but only one of the two were currently enrolled in the program. The other either failed to complete the process of enrolling or enrolled but withdrew from the program. As a matter of fact, a higher proportion of widows (15%) compared to all other applicants withdrew from the nursing program. It is quite possible that they had lost the skill of studying and found the work too overwhelming. (Note: the study analysis will be controlled by this variable, marital status, for those who withdrew in order to shed light on some of the reasons why they withdrew from the program. The status, widow, will be controlled by age. If they are young widows, exploration will be made of the similarities of their problems to those of the married group, such as responsibility to their children.)

Married applicants were asked to indicate whether or not their husband worked. They were also asked to indicate if their husband's occupation was a medically oriented or related profession. Based on their responses, approximately 12 percent of the married applicants in the sample reported that their spouse was either working in a medically oriented profession or was working in a nonmedical capacity in a health setting. Twenty-four percent reported that their spouse was currently attending school. (Note: the two variables will be run: spouse attendance at school, and spouse in a medically oriented profession, to see to what extent the spouse may be attending school exclusively and not currently active in a profession. We will also control the variable marital status, by the presence of children to examine whether divorced or widowed women are more likely than currently married women to have children under the age of 6 years. The implications of these findings will be explored insofar as family responsibilities may condition one's successful completion of the nursing program.)

## Prior Educational Preparation and Attainment of Applicants

As already indicated, one of the primary determining factors employed by schools of nursing to distinguish between those applicants who will be accepted and those who will not be accepted is the use of grades, class rank, tests or some other measure of academic competency. Incorporated into the questionnaire to applicants were several questions designed to elicit the extent to which they were prepared for entry into nursing school. It was hypothesized that the better prepared applicants were academically, the more likely were their chances of being admitted into the nursing school and the more likely were they to be classified as currently enrolled students. Two indicators were used to measure the quality of preparedness. One was the amount of formal education that the applicant had received and the second measure was the applicant's self-reported class standing during his last year in high school.

Table 13.—Extent of formal education, by type of applicant (in percentages)

Extent of formal education	Status of applicant					
	Total		Accepted			
	N.	Percent	Not ac- cepted	but not enrolled	With- drew	Currently enrolled
Less than high school	4	100	75	—	—	25
High school equivalency	31	100	29	6	23	42
High school graduate	1,075	100	16	18	6	60
Some college	727	100	29	16	7	48
Some nursing without college	274	100	44	22	4	30
Some nursing with college	137	100	25	18	8	49
Other	87	100	38	29	4	29
No answer	55	100	36	15	16	33

As shown in table 13, the typical applicant to a school of nursing is a high school graduate (1,075 out of 2,390 applicants or 45% of all the applicants in the sample reported their highest educational attainment at the high school graduate level). A sizeable proportion of the applicants (727 + 137 = 864 out of 2,390 or 36%) reported attending college prior to making application to nursing school. Table 13 also shows that almost one in five (274 + 137 = 411 out of 2,390 or 18%) of the applicants already had some preparation in nursing education.

<sup>1</sup> Since many of the applicants were applying to a nursing school at a college and may have been transferring out of another program into nursing or taking remedial courses as a required preparation or condition for their admission to nursing school, these facts were taken into account in the coding.

If a positive correlation did, indeed, exist between educational attainment and disposition of application, then one would expect the rejection rate among applicants with prior college or nursing background to be relatively lower by comparison to the other types of applicants. Conversely, one would expect a relatively high proportion of these students (i.e., students with some college and/or some nursing background) among those currently enrolled in a nursing program. Analysis of the data presented in table 13, however, does not support this hypothesis. Contrary to an impression that some applicants were rejected because of insufficient credentials, the findings showed a greater likelihood for overqualified applicants (i.e., those having some college or some nursing background prior to making application to the school of nursing) to be rejected. To illustrate, while the rejection rate of those applicants whose highest level of formal education was high school graduation was 16 percent, it was higher among those applicants who already had some exposure to nursing (25%), those who had accumulated some college credits (29%) and those who had both prior exposure to nursing and some college credits (44% of these applicants were rejected). The fact that prior nursing and/or college does not necessarily enhance one's chances for admission to nursing school is further demonstrated by the fact that a higher proportion of high school graduates (60%) were enrolled in the nursing program when this study was conducted compared to applicants who had had prior nursing education (30%) or college (48%) or had both nursing and college credits (49%).

A subordinate hypothesis with regard to educational attainment and type of applicant had also been posited concerning applicants who had been accepted and enrolled into a nursing program but who subsequently withdrew. It was hypothesized that their inability to keep up with the workload (which is often characterized by underdeveloped study skills) would cause the applicants' eventual withdrawal. This hypothesis does appear to be supported by the data presented in table 13. Applicants whose highest educational attainment was a high school equivalency were about four times as likely to withdraw from the nursing program (23%) compared to applicants with a higher degree of educational attainment. Since the pattern of withdrawal or that of being accepted but not enrolling is relatively similar among the comparatively more qualified applicants (i.e., with prior nursing and/or college background), the question arises as to why these apparently more qualified applicants are less likely than high school graduates to be

However, the investigators were not in all cases able to decipher whether the college education was clear and distinct and in no way a part of their preparation for nursing school.

accepted. If this additional education had been acquired sometime earlier, there might be some concern that study skills had become rusty and would consequently result in a higher withdrawal rate among those applicants. This was not found to be the case, however.

Table 14.—Year graduated from high school, by type of applicant (in percentages)

Year graduated from high school	Type of applicant					
	Total		Accepted			
	N	Percent	Not ac- cepted	but not enrolled	With- drew	Currently enrolled
Prior to 1973 -----	898	100	30	20	5	45
1973-1975 -----	1,113	100	18	18	7	57

Keeping in mind that the participants in the study of the applicant population consisted of those who applied for admission to the fall 1974 class of the schools of nursing, it was expected that the overwhelming proportion of applicants would be recent high school graduates (i.e., graduates of the class of 1974 or even 1975). As a matter of fact, many of the 1,113 applicants who graduated from high school during the 1973-1975 period had been out of school over a year. Table 14 shows a very sizeable proportion of applications made to schools of nursing are from those who graduated from high school prior to 1973 (898 out of 2,011 or 45%). In other words, almost half of the applicants had been at least 3 years out of high school when they made their application. (Whether or not this happened to be the first application they made to a nursing school would be subject for further study.) Table 14 shows that recent high school graduates (82%) are more likely to have their applications accepted by the school of nursing than those who had graduated a number of years earlier (70%). Furthermore, while 57 percent of recent high school graduates were enrolled in the nursing program at the time of the study, this was true for only 45 percent of those who had graduated 3 or more years earlier. As shown in table 14, the rusty skills hypothesis is not supported. As a matter of fact, recent graduates are somewhat more likely to withdraw from the nursing program. Again, there is a question as to why potentially more competent candidates are not admitted. Perhaps admissions officers prefer to start with an unbiased and clean slate and question the commitment of applicants who may have already tried one or more programs or who had additional family responsibilities.

Academic competence as a crucial variable in determining the disposition of one's application has already been alluded to a number of times. Finding a common denominator against which to

measure the various applicants was no easy task. The respondent schools could not be imposed upon by asking them to further divulge personal information on their applicants such as their academic rank. In order to obtain some approximation of their academic competence, applicants were asked to rank themselves in terms of their class standing during their last year in high school. This method was by no means perfect; for one thing it lumps together recent graduates with those who have been out of school for some time. Furthermore, there is no way of determining the comparability of two applicants reportedly being in the upper quarter of their graduating high school class. One may have attended a school offering keener academic competition than the other. In other words, an "A" average in one context may be tantamount to a "C" in another school. Notwithstanding the shortcomings of this measure, there is still benefit from an analysis of the different types of responses given by the four different types of applicants. Reference is made to table 15.

Table 15.—Self-reported class standing during applicant's last year in high school, by type of applicant (In percentages)

Self-reported class standing during applicant's last year in high school	Type of applicant				
	Total	Not accepted	Accepted but not enrolled	Withdrew	Currently enrolled
Upper quarter -----	41	25	49	35	47
Upper middle quarter ----	42	51	35	42	40
Lower middle quarter ----	14	21	12	17	10
Lower quarter -----	1	1	2	2	1
No answer -----	2	2	2	4	2
Total -----	100	100	100	100	100
N -----	(2,390)	(600)	(439)	(156)	(1,195)

Overall, applicants to schools of nursing tend to report themselves in the upper (41%) or at least upper middle (42%) quarter of their graduating class. (It might be interesting to run this table 15 by type of nursing program to see if, for example, baccalaureate compared to AD or diploma programs are more likely to attract students in the upper quarter.) The data provided in table 15 should quash any temptation one might have in questioning the objectivity of respondents reporting their class standing. Clearly, applicants who were not accepted (25%) and those who withdrew (35%) were less likely to report themselves in the upper quarter of their high-school graduating class than were either of the other two groups. While 47 percent of the applicants who are currently enrolled as students in the program reported themselves in the upper quarter of their high school graduating class, this was true



for 49 percent of those applicants who were accepted but were never enrolled. This latter finding also provides some indication that the no-shows, i.e., those who were accepted but who did not enroll, may, indeed, be highly qualified students who applied and were accepted to more than one school of nursing. This possibility could be further examined by running it against the variables: "Was this school your first choice?" and "Number of schools applied to."

### Summary

By examining the educational preparation of the four different types of applicants to schools of nursing, some interesting distinctions were found. Contrary to expectation, the group of applicants who were not accepted were found to have been more likely exposed to some college education and/or some nursing education. Applicants in this group also tended to have been graduated from high school a number of years before applicants in the other three groups. Furthermore, and based on their own self-reports, applicants who were not accepted into the nursing program tended to have lower class ranking than applicants who were accepted by the nursing programs.

Applicants who were accepted into programs but never enrolled appeared to be an amalgam of several different types of individuals. Roughly half had been graduated from high school some years earlier, but still the slight majority of this group were recent high school graduates. It is quite possible that these two different subgroups have different reasons for not enrolling. One might hypothesize that the recent graduates were students who tended to rank in the top quarter of their graduating class and had made application and been accepted to a number of schools of nursing, and they selected a school of nursing other than the one that supplied their name and address. On the other hand, one might hypothesize that the applicants who had been graduated some time ago from high school, failed to enroll because some other commitment took precedence. (Investigation might find among this group a higher proportion who report that family or work considerations altered their decision to attend the school of nursing.)

Applicants who enrolled in the program but subsequently withdrew, were found to be somewhat more likely than the students who remained in the program to have some college and/or nursing background. Similar to the applicants who remained in the program, they tended to be recent high school graduates, although there is a clear distinction made between these groups in terms of their self-reported class standing. While 35 percent of the applicants



who subsequently withdrew from the program reported themselves in the upper quarter of their high school graduating class, a substantially higher proportion of the currently enrolled students (47%) reported being in the top quarter.

For a thumbnail impression of the type of applicants who are accepted, enroll, and remain in the program, one might draw the following characterization: They are recent high school graduates and tend to be in the upper quarter of their graduating class. The underlying variables which seem to characterize the other groups of applicants (excluding currently enrolled students) are as follows: They are more likely to have had some college and/or nursing education. This means that there are additional options available to them in terms of pursuing other careers or in terms of job opportunities based on experience. They are more likely to have been graduated a number of years earlier from high school. This has the added possibility that they have since married and taken on family responsibilities. Finally, there is less frequency among these applicants, in contrast to the currently enrolled student, to report themselves in the upper quarter of their graduating class.

### **Attempts of Applicants to Gain Entrance to a School of Nursing**

The extent to which applicants apply themselves to the task of getting into a school of nursing should be reflected in the degree to which they are successful in their venture. One might hypothesize that the more schools of nursing one applies to, the more likely is one to be accepted by one of these schools. Furthermore, the broader the geographic scope of schools to which one applies, the greater is the possibility of being accepted into a school of nursing. In addition, the amount of exposure to the nursing community—in previously making an application to a nursing school, having some previous course work in nursing, or work experience in the field—may influence the success of an applicant's being admitted into a school of nursing.

The four types of applicants studied will be examined with respect to the number of schools applied to. It will be seen whether or not applicants who were rejected (by the school of nursing that supplied their name and address) applied to more than one program and thereby had a contingency plan in the event of application denial. To be seen also is the extent to which no-shows (i.e., those who applied and were accepted but did not enroll) made multiple applications at other schools of nursing. (The likelihood of a high proportion of no-shows opting for some other choice rather than the school of nursing that supplied their name had been suggested.) Table 16 presents data on these areas of interest.

Table 16.—Number of schools applied to by type of applicant (in percentages)

Number of schools applied to:	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	Withdrew	Currently enrolled
One -----	56	49	36	66	65
Two -----	23	25	30	19	19
Three + -----	21	26	34	15	16
Total -----	100	100	100	100	100
N -----	(2,390)	(600)	(439)	(156)	(1,195)

Despite the fact that many high school counselors recommend that their students apply to more than one professional school or college, it is interesting to note that the majority of applicants to schools of nursing applied to one and only one school of nursing (56%). The figures are even more dramatic when distinguished among the four types of applicants. For example, approximately half of the applicants who were not accepted to the school that supplied their name had applied only to that school; the other half (51%) had made application to two or more schools of nursing. It was not surprising, however, to find that no-show applicants were more likely than any other applicant group to apply to more than one school of nursing. Only one out of three of the applicants who were accepted but did not enroll indicated that that was the only school to which they had applied. (There seems to be further evidence of the fact that the applicants in this group tend to be those who have applied to numerous schools of nursing and have opted for another school as their primary choice.)

In contrast to the applicants who were accepted but did not enroll are students who did enroll in the program. Here, two out of every three students reported that the school of nursing that supplied their name was the only school of nursing that they made application to. The consequences of failing to maintain one's student status becomes dramatically heightened for the group who withdrew. For having considered only one school of nursing initially, they may be reluctant to weigh other possibilities should they wish, at some later date, to continue with their nursing career.

In addition to the number of schools applied to, the willingness and ability to travel some length to the school of nursing will also bear on an applicant's eventual success in finding a school of nursing. Clearly, the greater flexibility applicants have in the selection of a school of nursing, the greater will be their chances of enrolling in and successfully completing the program of nursing. Table 17 shows the comparison of the four types of applicants with

regard to their general pattern of applying to schools of nursing throughout the country.

Table 17.—Geographic scope of applications filed, by type of applicant (in percentages)

Geographic scope of applications filed:	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	Withdrew	Currently enrolled
Same city	61	69	49	58	59
Not same city but same State	31	24	38	32	32
Not same State but same region (adjoining State)	4	4	7	6	4
Out of geographic home region	4	3	6	4	5
Total	100	100	100	100	100
N	(2,390)	(600)	(439)	(156)	(1,195)

For most young people the completion of high school signals a milestone in their life, for now they also graduate to the adult responsibilities that they have been socialized to handle during their formative years. Since more and more young people are going to college than ever before, and since the American public, as a whole, has become more and more mobile, it might be expected that a considerably higher proportion of applicants would file applications with schools of nursing at a considerable distance from their home. As can be seen in table 17, this is simply just not the case. The overwhelming majority, 61 percent of all applicants to schools of nursing, tend to apply to schools of nursing in their same general locale (i.e., city). This finding is based on information provided by applicants when they listed all the schools of nursing to which they submitted a complete application for admission to the fall 1974 class. Although the categories for classifying the geographic distance between the school to which they applied and their home are a bit broad, they still can provide valuable information for relevant distinctions between the four groups. The responses to this question were coded in two different ways. One was the general pattern, that is, if the applicant applied only to one school and that school was in the same general vicinity or same city as their residence, the general pattern was coded accordingly. If the applicant had applied to two or more schools of nursing, an attempt was made to discern whether the candidate was more likely to apply to a school in the same city or perhaps in the same State or in the same region (i.e., adjoining State), or perhaps out of the geographic region in which

he resides. The data provided in table 17 are based on the general pattern of filing applications, as opposed to the secondary coding in which the applicants were classified according to the school of nursing farthest from their home to which they had applied. Only 8 percent of all the applicants who participated in the study indicated that they had applied to a school out of the geographic region in which they lived. Further analysis of geographic data would benefit from an index construction of distances.

The group most likely to apply to schools close to home are the applicants who were not accepted by the school of nursing supplying their name. Additional evidence to support the contention that no-shows (i.e., applicants who are accepted but do not enroll) tend to apply to several schools again emerges in table 17. This group is the only one in which the minority applied to schools in the same city and also had the highest proportion (51%) applying to schools away from their home base. Not infrequently will high school guidance counselors advise their better students to apply to several schools and, as a safeguard, to also apply to the local school in the event they are not accepted into the school of their first choice, which may be farther away from home. Again, we see a strong similarity in the patterns between the applicants who enroll but in one case withdraw and in the other case remain in the program. In each case, approximately 6 out of every 10 applicants have applied to a school in the same city in which they live. Overall, only 31 percent have applied to a school, not in the same city, but in the same State in which they live. In other words, 92 percent of all applicants to schools of nursing who participated in the study, had applied to a school of nursing within the State in which they lived. The overwhelming majority, two out of every three of these applicants, furthermore, had applied to a school of nursing within the very city in which they lived.

As noted earlier (in table 16) most (56%) of the applicants to schools of nursing applied to only one school. Consequently, the pattern of disposition of their applications to the schools of nursing, should be reflected within the different types of applicants. In other words, the highest proportion of applicants in the group who were not accepted should show a general pattern of nonacceptance, while applicants in the other three groups (i.e., those who were accepted) should show a pattern of being accepted without conditions into the school of nursing. This pattern is borne out in table 18.

The general pattern of the disposition of applications completed by those who participated in the study, shows that 60 percent had been accepted to the school of nursing without conditions, 14 percent had been accepted with some conditions, 24 percent had not been accepted, and only 2 percent overall had never heard from the

Table 18.—Pattern of disposition of applications, by type of applicant  
(in percentages)

Pattern of disposition of application	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	With- drew	Currently enrolled
Accepted without conditions	60	20	67	72	75
Accepted with conditions --	14	13	16	18	14
Not accepted -----	24	62	14	7	9
Never heard from school---	2	5	3	3	2
Total -----	100	100	100	100	100
N -----	(2,313)	(594)	(433)	(151)	(1,135)

school to which they had applied. The overwhelming majority of applicants who were accepted (i.e., 67% of acceptees who did not enroll, 72% of those who withdrew, and 75% of those who are currently enrolled) exhibited the same general pattern of being accepted without conditions into schools to which they had applied. The converse is true for applicants who were not accepted. Here the overwhelming proportion (62%) reflect the overall pattern of not being accepted into schools to which they applied.

The advantage of having prior exposure to some school of nursing may be viewed from two points of view: one positive, one negative. On the positive side, one might hypothesize that an applicant who already had shown interest in a nursing career and had demonstrated some interest and ability in a nursing course might make a more attractive applicant insofar as a school of nursing is concerned than someone who had no prior exposure to nursing. On the negative side, one might hypothesize that prior exposure to a nursing program is more of a handicap than an advantage to the applicant. Admissions committees tend to give secondary priority to transfer students. Another factor influencing the relative advantage or disadvantage of exposure is the fact that frequently an applicant who has accumulated credit toward a nursing degree at some other institution is likely to lose some of those credits in transferring to a new program.

As seen in table 19, one in every four applicants who participated in the study (24%) had either previously applied to or attended a school of nursing. This was more likely to be the case for those applicants who were classified as not accepted into the responding school. To a lesser extent, students who were accepted but did not enroll (27%) or enrolled but subsequently withdrew (25%) had previous exposure to some other school of nursing. This exposure is substantially lower for the group of applicants who are currently enrolled as students in the nursing program that supplied their

Table 19.—Previous exposure to a school of nursing, by type of applicant  
(in percentages)

Previously applied to or attended a school of nursing	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	With- drew	Currently enrolled
Yes -----	24	31	27	25	19
No -----	76	69	73	75	81
Total -----	100	100	100	100	100
N -----	(2,341)	(595)	(433)	(153)	(1,160)

names (19%). Since table 19 combines two aspects of exposure (i.e., making application and attendance—two rather different elements of exposure), it is important to try to distinguish between these two aspects. If the overwhelming majority of the respondents tended to make application but not enroll, table 19 would be a direct reflection of the data shown in table 16. However, respondents were asked to provide information about the school they had applied to or attended. Since they were asked to give the dates they had attended the school, it is possible to distinguish between those applicants who applied, as opposed to those who actually attended another school of nursing. Table 20 therefore, allows us to refine the data provided in table 19.

Table 20.—Length of previous attendance at another school of nursing, by type  
of applicant (in percentages)

Length of previous attendance at another school of nursing	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	With- drew	Currently enrolled
Less than 6 months -----	12	12	8	23	12
6 months -- 1 year -----	55	61	66	40	47
1 year + -----	33	27	26	37	41
Total -----	100	100	100	100	100
N -----	(425)	(151)	(83)	(30)	(161)

A comparison of the total number of applicants who responded affirmatively that they had previously applied to or attended a school of nursing (table 19, N = 561) to those responding to the question on the length of time they attended the school of nursing (shown in table 20, N = 425) indicates that better than three out of every four (76%) had, indeed, attended a school of nursing prior to the application made to the responding school. As can be seen from table 20, the predominant pattern of attendance appears to be

between 6 months and a year. Fifty-five percent of all respondents reported attending another school of nursing for at least 6 months but less than a year; an additional 33 percent reported having attended a school of nursing for more than a year. It is interesting to note that the one group that emerges as having spent the least amount of time at another school are the students who withdrew from the program. They were twice as likely as any other group to report spending fewer than 6 months at the previous school. In other words, compared to other applicants, they were twice as likely to have withdrawn from a previous program. Respondents were also asked to indicate whether their prior attendance at a school of nursing was on a full-time or part-time basis. The overwhelming majority (93%) reported that their prior attendance at a school of nursing had been on a full-time basis. This proportion held across all groups.

Another factor that might influence the extent to which an applicant with prior exposure succeeds as an applicant to a nursing school is the length of time elapsed since his prior exposure. One might hypothesize that the more recent the exposure, the more desirable that applicant. Table 21 provides information helpful in assessing this assumption.

Table 21.—Time elapsed since previous attendance at a school of nursing, by type of applicant (in percentages)

Time elapsed since previous attendance at a school of nursing	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	Withdrew	Currently enrolled
Less than 1 year	6	7	5	18	4
1 year	24	25	30	33	19
2 years	16	15	19	15	16
3 years +	54	53	46	34	61
Total	100	100	100	100	100
N	(416)	(139)	(86)	(33)	(158)

Table 21 shows that the majority of applicants who previously attended a school of nursing did so more than 3 years ago (54%). Less than a third (6% + 24% = 30%) had attended a school of nursing within the past year. The group of applicants who were more likely to have had relatively recent exposure to another school of nursing was the group who had withdrawn from the program of nursing (18% + 33% = 51%). Although this might tend to support the hypothesis that the students who had more recent exposure to schools of nursing might be more attractive candidates insofar as an admissions committee is concerned, the hypothesis



does not hold up when the comparable figures for those students who are currently enrolled in the program are examined. Here, less than one in four ( $4\% + 19\% = 23\%$ ) had recently attended another school of nursing.

To summarize the efforts made by applicants in getting admitted to a school of nursing, it was found that applicants tended to apply only to one school, a school close to home. About one in four had attended a school of nursing previously—generally 3 or more years ago.

### Factors Influencing Individual Choice in Making Application to a Nursing School

A factor crucial in determining whether an applicant will eventually attend and successfully complete a program of nursing is the extent to which a particular school of nursing is their first choice. The applicants who participated in the study were asked the following question: "Was the school who furnished us with your name your first choice?" Respondents were to check either "Yes" or "No."

Table 22.—Responding school as first choice of student, by type of applicant (in percentages)

Responding school as first choice	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	Withdrew	Currently enrolled
Yes	70	68	53	72	78
No	28	30	45	26	20
No answer	2	2	2	2	2
Total	100	100	100	100	100
N	(2,390)	(600)	(439)	(156)	(1,195)

As shown in table 22, 7 out of every 10 of the participants in the study responded in the affirmative. The differences between the four groups, however, are noteworthy. The group most likely to indicate that the school that furnished their name (the responding school) was their first choice, was the group of applicants currently enrolled in that program (78%). The next largest group was those who were enrolled but subsequently withdrew (72%). The group least likely to report the responding school as their first choice, was the group of applicants who were accepted but never enrolled in the program (53% reported that school as their first choice). In other words, of the applicants who were accepted, those



who actually enrolled were more likely to indicate that the school was their first choice. Conversely, when the negative responses for the accepted applicants are compared, no-shows (45%), compared to those who withdrew (26%) and those who are currently enrolled (20%), were twice as likely to state that the school was not their first choice.

Sources of information about a school of nursing can stem from several areas. The investigators were curious about whether the pattern among these four different types of applicants was similar or different. The applicants were asked how they heard about the school of nursing, and their responses were calculated and are presented in table 23.

Table 23.—Source of information on school of nursing, by type of applicant (in percentages)

Source of information on school of nursing	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	Withdrew	Currently enrolled
High school teacher/advisor	28	23	22	23	24
Friends/relatives	58	51	62	50	62
Recruiter (career day conference)	8	6	8	10	9
Poster/literature at high school	11	11	14	15	10
Advertisement	9	11	8	10	9
Knew school was in community	9	8	7	8	11
Self-initiated investigation	9	14	10	10	6

Clearly the most frequently reported source of information on a school of nursing is friends and relatives of the applicant (58%). The next is the applicant's high school teacher or advisor (23%). Other sources of information are posters or literature at the high school (11%), newspaper advertisements or ads in college or professional journals (9%), applicant's knowledge of the existence of the school when the school is in the community in which he resides (9%), or the applicant's initiative in investigating available schools (9%). Eight percent of the respondents reported they learned of the school through a recruiter or a presentation by a representative at a career day conference held in the school. The pattern among the four types of applicants is quite similar. There is perhaps only one distinction that emerges, and that is in regard to learning about a school of nursing from friends and relatives. Sixty-two percent of the applicants who are currently enrolled and those who had applied but never enrolled in the program reported hearing about

the school of nursing from friends or relatives. This contrasts with 50 percent of those who had enrolled but withdrew and 51 percent of those who had not been accepted into the program. Table 24 presents further data on this factor.

Table 24.—Applicants already knowing students in the program, by type of applicant (in percentages)

Already knowing students in the program.	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	Withdrew	Currently enrolled
Yes .....	36	33	35	42	38
No .....	64	67	65	58	62
Total .....	100	100	100	100	100
N .....	(2,364)	(596)	(438)	(154)	(1,176)

Table 24 shows that one in every three applicants to a particular school of nursing already knows someone else attending the program. Despite the fact that table 24 shows that applicants who withdrew from the program were relatively less likely than others to learn of the program through friends, it nevertheless shows that a larger proportion (42%) of this group reported having a friend already attending the program prior to his own enrollment in it than that reported by any other group.

Table 25.—Distance between home and school, by type of applicant (in percentages)

Distance between home and school	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	Withdrew	Currently enrolled
Within local community .....	68	78	63	66	65
Relocation .....	32	22	37	34	35
Total .....	100	100	100	100	100
N .....	(2,371)	(595)	(435)	(155)	(1,186)

Earlier the effect of geographic distance between the applicant's home and the schools of nursing to which applications were made was examined. That analysis will be refined with a focus not on the schools of nursing applicants apply to in general, but the specific school of nursing that supplied the investigators with the applicant's name. The applicant was asked, "Approximately how far away from your permanent address (home at the time you made application) was the school?" Applicants were given two options and asked to check the one which most closely applied to their

situation. The categories were: (1) within local commuting distance, and (2) a distance which would (or did) require the applicant to move.

More than two out of every three applicants reported that the school which supplied their name was within local commuting distance to their home. The proportions were relatively similar for applicants who were accepted into the program, in that 63 percent of those who were accepted but did not enroll had applied to a school within local commuting distance, 66 percent of those who enrolled but withdrew from the program were at a program which was within local commuting distance, and 65 percent of those who were currently enrolled were in a program which was within local commuting distance from their home. These proportions differ, however, for applicants who were not accepted into the program of nursing to which they applied. A considerably higher proportion in this group (78%) had reported applying to a school which was located within local commuting distance.

Another factor that might influence an applicant's eventually attending a school of nursing, would be the need for and granting of financial aid. In order to compare the influence of this factor upon each of the four groups, all of the applicants were asked to indicate whether they filed an application for financial aid at the school of nursing, and if so, whether the request for aid was granted, and finally, whether their ability or inability to obtain financial aid influenced their decision to attend or not to attend the school of nursing.

First of all, let's examine the difference between the four groups in regard to filing an application for financial aid at the school of nursing.

Approximately one out of every three applicants applied for financial assistance. Curiously, the group most likely to have filed for financial aid were those who were currently enrolled in the program (40%); the next most likely group were also those who were in the program but who had subsequently withdrawn from the program (35%). Only 17 percent of those applicants who were not accepted by schools of nursing reportedly filed for financial assistance. This is less than half the proportion of those who enrolled in the program. It is known from information gathered during Phase II (site visits), that because of administrative procedures at some institutions, an applicant must first be admitted before applying for student financial aid. Consequently, this practice may have influenced the data distribution presented in table 26.

Nevertheless, as table 27 shows, two out of every three applicants to a school of nursing who applied for financial aid received it. This holds true for applicants who enrolled in the program. Seventy-

Table 26.—Application for financial aid, by type of applicant (in percentages)

Applied for financial aid	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	Withdrew	Currently enrolled
Yes -----	31	17	26	35	40
No -----	67	82	71	65	58
No answer -----	2	1	3	—	2
Total -----	100	100	100	100	100
N -----	(2,390)	(600)	(439)	(156)	(1,195)

five percent of the applicants who enrolled but subsequently withdraw who had requested financial aid received it; 73 percent of the currently enrolled students who had applied for financial aid received it. These figures contrast dramatically with the figures for those who were not accepted into the program of nursing. Here only 42 percent of those who had applied for financial aid had that request granted.

Table 27.—Request for aid granted, by type of applicant (in percentages)

Aid granted	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	Withdrew	Currently enrolled
Yes -----	67	42	56	75	73
No -----	33	58	44	25	27
Total -----	100	100	100	100	100
N -----	(690)	(92)	(91)	(48)	(459)

In order to evaluate the overall impact of the need for and wanting of financial aid, insofar as it may serve as a barrier to entrance or continuation at the school of nursing, applicants were asked: "Did your ability (or inability) to obtain financial aid influence your decision to attend (or not to attend) the school of nursing?" The responses to this inquiry are presented in table 28.

Approximately one in four of the applicants who reportedly filed for financial aid said that the school's decision distinctly influenced their ability to attend the program. (Figures in this table are based on whether or not the applicant's request was granted, in order to distinguish how the respondent is answering the question. That is, whether the 24 percent said, "Yes, because they gave me financial aid I was able to attend.") The main distinction which can be made between students who were accepted and those who were not accepted, is with regard to their response to this question. Twice as many of the applicants who were accepted (26%), as

**Table 28.—Impact of school's financial aid decision on applicant's attendance, by type of applicant (in percentages)**

Financial aid influenced attendance	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	Withdrew	Currently enrolled
Yes	24	13	25	28	28
No	76	87	75	72	72
Total	100	100	100	100	100
N	(1,919)	(472)	(355)	(129)	(963)

compared to applicants not accepted, reported that the school's decision concerning their financial aid request distinctly influenced their attendance at the school of nursing.

### Summary

An examination of all the factors that might determine or influence an applicant's deciding to apply to a particular school of nursing or to accept an invitation to enroll was made. A comparison of the four types of applicants shows that applicants who had been accepted but never enrolled tended to be less likely to indicate that the school of nursing had, indeed, been their first choice. The four groups did, however, reflect similar patterns regarding the source of information informing them about the school of nursing and knowing some one who was in attendance at the school of nursing to which they had applied. This latter point was especially applicable for the applicants who eventually withdrew from the program, although the opposite would have been expected, given the fact that peer support was higher for this group than any other group. A distinction was also made between applicants who were accepted and those who were not. Namely, that a higher proportion of applicants who were not accepted were those from the local community. This would seem to reflect upon the possibility that applicants who were not accepted, tended to do less well academically than other applicants—which, as shown in table 15, was the case. As stated earlier, applicants who were not accepted tended to be less likely to report themselves in the upper quarter of their high school graduating class. Because of administrative practices at schools of nursing requiring the applicant to wait for an acceptance notice before he can apply for financial aid, the ability to obtain financial aid does not appear initially as a major factor in determining whether an applicant attends the school of nursing. One in three applicants had applied for financial aid and of those who had applied, two out of three were able to obtain

financial aid. One in four said that the decision to grant financial aid influenced their ability to attend the school of nursing. When a comparison was made between the four groups, however, it was found that those who were in the group of applicants who were not accepted, were less likely to have applied for financial aid in the first place and half as likely as applicants who were accepted to the program to state that the school's decision pertaining to their financial aid application was an important consideration in their ability to attend the school.

The next section will further distinguish between the four types of applicants. A series of individual questions was prepared for each of the four groups that was relevant only to its particular situation. For example, students who were currently enrolled in the program were asked if they considered dropping out at any time during the year, and, if so, what were some of the factors influencing their decision to remain. A separate series of questions was addressed to the students who withdrew from the program that attempted to find out what they did once they dropped out of the responding school. The investigators were curious as to whether or not they had enrolled in another type of nursing program or whether they were currently employed. They also were interested in knowing whether those applicants who had been accepted but never enrolled in the responding school, had, indeed, enrolled in some other program of nursing. The next section addresses these specific questions and further distinguishes between the four different types of applicants to schools of nursing.

### Comparisons of Various Types of Applicants

In order to focus on the factors that contribute to an overall rate of increase in graduates from nursing programs, it is not only necessary to examine those factors which occur prior to entry (at the recruiting, screening, and selection stages) but also the supportive programs available to the applicants once they have been accepted and enrolled in the program. It is also important to identify the unique variables and situations confronting applicants by virtue of the particular group into which they were classified. For example, in analyzing the data pertaining to applicants who were not accepted into the nursing program to which they applied, the focus will be on the question of whether these applicants were lost to nursing. Did they apply to one school only and when not accepted, fail to make application elsewhere? How could they be recruited? Did they tend to apply to fewer schools than the other groups? Did they tend to apply to only those schools within commuting distance from their residence? Were they in greater need of financial aid? Were their grades lower? Would remedial courses

be of assistance to them? Are applicants in this group more likely to be older, married, have children, have prior nursing experience? What distinguishes them from the other three groups?

A different series of questions will be addressed to those applicants who, although making application and being accepted, failed to enroll in the program. What happened to these applicants? Were they more likely than others to make multiple applications and choose some other program to which they were accepted? Did they tend to be brighter students? What are they doing now? Are they enrolled in another program of nursing or engaged in some other educational pursuit? Did they change career goal? Are they working?

A comparison of the applicants who enrolled in the program will be made and those factors that appear to influence whether or not the student remained in the program will be identified. Other questions to be addressed to this group are: Why did some students withdraw? What effect do grades, finances, and family commitment have upon their withdrawal from the nursing program? Once they withdraw from the program, what do they do? Do they remain at home, seek employment, transfer to another nursing program? Do they intend returning to nursing? If so, what might motivate them to return?

Particular notice will be taken of the different responses given by students who were in the program with respect to their awareness of the existence of supportive services and the degree to which they found these services useful. Also to be explored is the extent to which students currently enrolled in a program of nursing were tempted during their first year of attendance to drop out of the program, and why they were able to remain in the program.

### **Comparison of Applicants Who were not Accepted, Those Who were Accepted but did not Enroll, and Those Who Enrolled but Subsequently Withdrew from the Nursing Program**

Some information has already emerged on applicants who were not accepted into the nursing program to which they applied. Although they bear some similarity to applicants who were accepted, in terms of their age and sex, they were more likely to have gone beyond high school, although less likely to have been in the upper quarter of their graduating high school class. They were also less likely than students who enrolled in the program of nursing to have initially applied to more than one school of nursing. In addition, this group was less likely to have applied to a school of nursing that was beyond daily commuting distance of their home.

A question to be focused on in analyzing the responses from this



group (applicants who were not accepted into a nursing program) is what it is they do as an alternative. This same question will also be addressed to applicants who were accepted but either failed to enroll in the program or after having enrolled in the program subsequently withdrew. Other questions to be investigated are: were applicants who were accepted but failed to enroll more likely than others to make multiple applications and to choose some other program to which they were accepted? Whether they, as a group, tended to be brighter students, and also what alternative to their entry into the program did they select. Did they enter another program of nursing? Did they enter some other educational program, that is, change their career choice to something other than nursing? Did they go directly into the labor force? Did they decide to devote their time to their family? From previous analysis, it was learned that applicants who were accepted but failed to enroll, did, indeed, make application to more than one school of nursing (see table 16). Also based on self-reports of their class standing in their last year of high school, these applicants were more likely than those in the other three groups to report being in the upper quarter of their class (see table 15). Why did they decide not to enroll in the nursing program that had accepted them? What alternative paths did they take?

Also to be examined are the reasons why applicants who, though enrolled in the program, found it necessary to subsequently withdraw. What are they doing now and what are their intentions of eventually returning to nursing? Finally, to be examined are the responses of currently enrolled students to a question on whether or not they considered withdrawing from the nursing program and if they did, the reasons for it.

Table 29 provides a comparison between the three types of applicants who were accepted into the nursing program with regard to the reasons why they either failed to enroll, eventually withdrew, or considered withdrawing from the program of nursing. Overall, the two main reasons for withdrawal (or for considering withdrawal) were due to the applicant's decision to change to a different type of nursing program (24%) and because of academic difficulty (23%). These two reasons may, upon further investigation, be found to be related to each other. Financial reasons (16%) and making a change in career choice (15%) were two other frequently mentioned reasons for withdrawal. Comparisons between the three types of applicants who had been accepted by the program shows some interesting differences. For example, applicants who failed to enroll in the nursing program were far more likely than any other group to report that their reasons were based on decisions to enroll in a different type of nursing program. This seems to



**Table 29.—Reasons for withdrawal or considering withdrawal from the nursing program, by type of applicant (in percentages)**

Reason for withdrawal	Total	Type of Applicant		
		Accepted but not enrolled	Withdrew	Currently enrolled
Change to different type of nursing program -----	24	39	20	19
Change in career choice -----	15	17	12	14
Financial assistance from another school -----	2	6	4	—
Other financial reasons -----	16	28	13	12
Ill health -----	4	1	13	4
Devote time to family -----	7	6	12	6
Academic difficulty -----	23	—	22	32
Nonacceptance by faculty -----	8	3	4	11
Nonacceptance by students -----	1	—	—	2
Total -----	100	100	100	100
N -----	(737)	(202)	(104)	(431)

are brighter students who tend to make multiple applications and support the contention that very often applicants within this group then make their selection from among the schools who invite them to enroll. Not infrequently will guidance counselors advise these students to apply not only to their first choice program but, as a safeguard, to also apply to a school where they are almost guaranteed acceptance. In a followup study the schools to which these applicants did eventually enroll will be looked at in terms of the type of program and its geographic location. The possibility that no-show applicants elected to enroll in another school because that school had granted them financial aid was alluded to earlier. The fact that 27 percent of these applicants reportedly did not enroll because of financial reasons seems to support this contention.

The reason for exiting from a program of nursing is somewhat different, however, for the applicants who did enroll but who subsequently found it necessary to withdraw from the program. The largest proportion of these applicants withdrew from the program because of academic difficulty (22%). The second largest reason for withdrawing was to change to a different type of nursing program (20%). Again, these two reasons may be related. It will be interesting to determine in a later phase of this study the extent to which the school in which they initially enrolled in a nursing program was their first choice. It is quite possible that these students made multiple applications and when the school of their choice had an opening, they transferred into that program. Consequently, this resulted in withdrawing from the responding pro-

gram. It will also be interesting to examine the type of program and geographic location of the schools to which the students transferred.

The same battery of questions on withdrawal was put to applicants who were currently enrolled in the program of nursing. These students were asked to indicate the most likely reason why they considered withdrawing from the nursing program. A third of these students indicated academic difficulty (32%). The second most frequently mentioned reason was a change to a different type of nursing program (19%).

Approximately half of the applicants to the schools of nursing who participated in Phase III of the study were not currently enrolled in the program of nursing to which they had applied. What happened to them? Were they lost to nursing? These applicants were asked: "Are you currently enrolled in a school of nursing?" Their responses are shown in table 30.

Table 30.—Current enrollment in a school of nursing, by type of applicant (in percentages)

Status of enrollment	Type of applicant		
	Not accepted	Accepted but not enrolled	Withdrew
Full time .....	30	44	25
Part time .....	2	3	2
No .....	63	52	72
No answer .....	5	1	1
Total .....	100	100	100
N .....	(600)	(439)	(156)

A comparison between the three types of applicants who were not currently enrolled in the program to which they had initially applied (i.e., the responding program), reveals that a notable proportion are, indeed, currently enrolled as full-time students in some nursing program. The proportion for applicants who were accepted but never enrolled was 44 percent, somewhat lower for those applicants who were not accepted (30%), and 25 percent for those students who withdrew. Nevertheless, a distinct majority of these applicants are not enrolled in a program of nursing—the greatest loss being among the group of applicants who withdrew. Of this group, 72 percent were not currently enrolled in a school of nursing compared to 53 percent of the applicants who were not accepted into a nursing program, and 52 percent of those who were accepted but did not enroll in the program.

**Table 31.—Employment status of applicants who subsequently enrolled in a school of nursing, by type of applicant (in percentages)**

Current work status	Type of applicant		
	Not accepted	Accepted but not enrolled	Withdrew
Full time -----	7	5	5
Part time -----	47	42	26
Not working -----	46	53	69
Total -----	100	100	100
N -----	(195)	(204)	(39)

A little less than half of the applicants who subsequently enrolled in a nursing program were also working (mostly part time) in addition to attending school. The percentage of those working among the applicants who were initially not accepted into the nursing program is higher (54%) than for either of the other groups (47% for applicants who never enrolled and 31% for applicants who withdrew).

Those applicants who reported that they were not currently enrolled in any program of nursing were asked to indicate the main reason for this fact. Table 32 shows the two main reasons that consistently emerged from among the three different types of

**Table 32.—Reason for not enrolling in a nursing program, by type of applicant (in percentages)**

Reason for nonenrollment	Type of applicant		
	Not accepted	Accepted but not enrolled	Withdrew
Financial -----	17	32	28
Distance to travel -----	8	4	11
Family -----	6	13	19
Health -----	2	—	6
Change in career choice -----	27	41	34
Not accepted in nursing school -----	40	10	2
Total -----	100	100	100
N -----	(253)	(135)	(79)

applicants in response to the question. For the most part the reason given was a change in career choice, and the second most frequently mentioned reason was financial considerations. A third reason (the one most frequently mentioned by applicants who were not accepted) was that they simply were not accepted by a nursing school. As seen earlier, this group was the most likely, by compari-

son with the other three, to have applied to only one school of nursing and as a consequence of not being accepted, failed to apply to another school of nursing. The net result seems to be that they are lost, at least at this time, to the nursing profession. This group should be further studied for potential sources of encouragement. Perhaps these applicants could be encouraged to apply to more than one school of nursing and, thereby, enhance their chances of being accepted. Another interesting fact that emerges in table 32 is that applicants who were forced to withdraw from the program into which they had enrolled and had attended, tended to be far more likely than the other groups to state that their reason for withdrawal was related to their family responsibilities (19% compared to 13% and 6%). Again, this supports a notion earlier suggested that respondents in the group of applicants who withdrew might very well have withdrawn because of their family responsibilities.

Applicants who were not currently enrolled in a school of nursing were asked what their present activity was. Their responses are calculated in table 33.

Table 33.—Current activity of applicants not accepted, accepted but not enrolled, and enrolled but withdrew from responding schools, by type of applicant (in percentages)

Current activity	Total	Type of applicant		
		Not accepted	Accepted but not enrolled	Withdrew
In School <sup>1</sup> .....	58	56	65	44
Employed .....	31	33	27	35
Seeking employment .....	3	3	1	8
Housewife .....	5	3	4	13
Other .....	3	5	3	—
Total .....	100	100	100	100
N .....	(1,192)	(604)	(431)	(157)

<sup>1</sup> This category includes all applicants who were not currently enrolled in the nursing program of the responding school but who were, nevertheless, enrolled full time in some other educational program. It also includes applicants who have changed their career goals and are pursuing their education in such fields as teaching, business, biology, medical technology, political science, pre-medicine or liberal arts. It also includes those applicants who have selected a different school of nursing or different type of nursing program. (RN or PN). In addition, those applicants who were taking pre-nursing courses at the responding school are also included. (Technically these students are not considered enrolled in the nursing program until they have completed their nursing prerequisites.)

Fifty-eight percent of all those who applied to a school of nursing but were not currently enrolled at the time the study was conducted were found to be pursuing some educational course. Some of these applicants had changed their career choice and were engaged in

an educational pursuit other than nursing. Others had enrolled in another school of nursing (or program) while others were accumulating the necessary credits to satisfy the nursing prerequisites of schools of nursing to which they would be applying. Approximately one-third of these applicants were working full time (31% employed + 3% seeking employment). Nevertheless, a number of applicants who reported working full time also indicated that they were taking some educational courses (in either nursing or some other field). Only 5 percent reported that their main focus was on their home and family responsibilities.

There are further differences that emerged from a comparison of the three different types of applicants not currently enrolled (i.e., those who were not accepted, those who were accepted but did not enroll, and those who had enrolled but subsequently withdrew). Two out of three applicants who had been accepted but did not enroll in the schools of nursing which supplied their name, reported being enrolled in some school. By comparison to the other two types of applicants, this group was far the most likely to have continued with their educational pursuits. As pointed out earlier, it is highly likely that a large proportion of applicants in this group were those who had applied to some other school of nursing and had elected to attend that school rather than the one that supplied their name. The majority (56%) of applicants who were rejected by the responding school did find acceptance at some educational institution, while a minority (44%) of those who withdrew were enrolled at some other educational institution. In order to get a rough estimation of the proportion of applicants not currently in the responding nursing program but who are enrolled in a school of nursing, the data in table 30 are compared to those in table 33. By reconverting the percentages in table 30 to numbers and recalculating the proportions, it was found that 35 percent (413 out of the 1,195) were currently enrolled in a school of nursing on a full-time basis. Consequently, by comparing table 30 with table 33, roughly 60 percent, or 6 out of every 10, of the applicants who reported being in school are in a school of nursing (35% : 58%).

In examining the differences between these three types of applicants with regard to their labor force status, findings showed that applicants who were accepted but did not enroll were less likely to be in the labor market (27% + 1% = 28%) than either of the other two groups. On the other hand, applicants who had been enrolled in the school of nursing but subsequently withdrew, were the most likely to report their current activity as either working or seeking employment (35% + 8% = 43%). This same group (i.e., those who were enrolled but subsequently withdrew from the program) also distinguished themselves from the other two

groups by the high proportion of applicants who reported their main activity as housewife.

Again, the data provided by table 33 lend additional support to distinctions consistently made between these three types of applicants who were not currently enrolled in the responding program. Namely, the majority of applicants who were not accepted by the program were able to enroll in some educational pursuit; although, a sizeable proportion (approximately one out of three) went to work after being rejected by the school of nursing. In the applicant group of those who were accepted but did not enroll, the overwhelming majority, two out of three, were in some educational program. This group had comparatively the smallest proportion opting to work as an alternative to attending a school of nursing. The pattern for those applicants who enrolled but subsequently withdrew is quite different from the other two: although a sizeable proportion continued their education elsewhere, an equal number went into the labor force. A small but significant proportion of those who withdrew reportedly did so in order to take care of their family responsibilities.

Even more crucial than the question of not currently being enrolled in the school of nursing, is the question of the intention of these applicants to return to the pursuit of a nursing career. They were asked, "If you are not presently enrolled in the nursing program, are you interested in pursuing nursing as a career?" The responses to this question are found in table 34.

Table 34.—Intention of pursuing a career in nursing, of applicants not currently enrolled in a school of nursing, by type of applicant (in percentages)

Pursuing career in nursing	Type of applicant		
	Not accepted	Accepted but not enrolled	Withdrew
Yes	83	74	78
No	15	22	19
Undecided	2	4	3
Total	100	100	100
N	(361)	(205)	(109)

The desire to pursue a nursing career is, indeed, a deep one—one that is not easily frustrated. As can be seen from responses presented in table 34, more than 8 out of 10 applicants who were not accepted into a school of nursing still intended to pursue a career in nursing. A similar proportion (78%) of those applicants who were forced to withdraw from their program of nursing also reported an intention of continuing their career in nursing. The

overwhelming majority (74%) of those applicants who were accepted into a nursing program but did not enroll and are not currently enrolled in a school of nursing also indicated a desire to continue pursuing a career in nursing.

Given this strong desire of these applicants, the investigators were interested in eliciting from them some indication of the conditions that would lead to their enrollment in a school of nursing. They were sent a list of questions and asked to check all the boxes which applied. Responses to this inquiry are found in table 35.

Table 35.—Comparative motivation for reentry into a school of nursing, by type of applicant (in percentages)

Conditions for enrollment	Type of applicant		
	Not accepted	Accepted but not enrolled	Withdrew
Financial assistance .....	22	20	32
Could attend part time (days) .....	12	9	18
Could attend part time (nights) .....	10	10	13
Could live at home .....	19	13	21
School located closer to home .....	8	7	15
School program shorter .....	9	7	13
School had different entrance requirement .....	22	6	8

Note: The columns in this table do not add up to 100 percent because respondents were permitted to give multiple responses.

Two of the most frequently mentioned conditions reported by applicants as possibly influencing their decision to again enroll in a school of nursing were obtaining financial assistance and being able to live at home. The various reasons, however, do differ between the three groups. For example, applicants who were not accepted into the program were far more likely than either of the other two groups to indicate that they would be motivated by different entrance requirements. Again, this seems to support the earlier notion that perhaps these applicants were not as academically qualified as the other applicant groups. Schools of nursing, as earlier noted, regard academic qualifications as important criteria for admission. On the other hand, those applicants who withdrew from the program were more likely than the other groups to report as conditions for reentry to nursing school: the school located closer to home, and a shorter school program. This gives more support to the suggestion that their home responsibilities might very well act as a barrier to their maintaining student status.

### Comparison of Students Who Withdrew and those who Remained in the Program of Nursing

Several questions were specifically designed to elicit information that would enable a comparison of those applicants who were accepted and maintained enrollment in the program and those who found it necessary to withdraw. Two aspects will be focused on: one, the basic differences in terms of the characteristics brought by these two different types of applicants to the program of nursing (academic qualifications, financial need, family responsibility) and, two, the extent to which the knowledge and use of supportive services at the school of nursing influenced their decision to remain within the program or to withdraw from it.

As noted earlier, applicants who withdrew from the program of nursing were less likely than were applicants who remained in the program to report being in the upper quarter of their high school graduating class (35% compared to 47%). This difference between the two groups in terms of academic aptitude was also reflected in their performance in the school of nursing. Those who had enrolled in a program of nursing, were asked "How well were (are) you doing in your course work?" The results are presented in table 36.

Table 36.—Comparison of withdrawn and currently enrolled students regarding academic performance (in percentages)

Estimate of academic performance	Type of applicant	
	Withdrawn	Currently enrolled
Very well	23	38
Average	51	57
Not very well	16	4
Probably failing	10	1
Total	100	100
N	(97)	(1,130)

A substantially higher proportion of currently enrolled students (95%) reported doing from very well to average work in their school of nursing as compared to 74 percent reported by those students who withdrew from the program. Conversely, 26 percent of the students who withdrew reported not doing very well or probably failing the subjects they were taking in the school of nursing. This is more than five times the number reported by students who remained in the program. There is one other point worth mentioning with regard to the responses to this question. Since it has the potential of being a sensitive subject, especially for those students who were not doing well in their course work,



the basic response rate to the question was examined. Five percent of the students who were currently enrolled in a program of nursing failed to answer this question and 38 percent of the students who withdrew from the program failed to answer. The implication is that had the additional 38 percent responded to the question, the proportion reporting not doing very well or probably failing, might have been even higher than that found in the data reported in table 36.

Since the possibility existed that students who withdrew from the program were not only less qualified academically but possibly had family responsibilities that affected their ability to devote full energies to their study, there was also interest in comparing these two types of students (those enrolled and those who withdrew), with regard to their other characteristics. Students who were enrolled in a program of nursing, whether or not they maintained their student status or eventually withdrew from the program, were asked if they worked during the time they were enrolled. The responses to this inquiry are reported in table 37.

Table 37.—Comparison of withdrawn and currently enrolled students regarding work status while enrolled as a student (in percentages)

Work status	Type of applicant	
	Withdrew	Currently enrolled
Full time	14	8
Part time	33	44
Not working	53	48
Total	100	100
N	(103)	(1,171)

Contrary to anticipations, the students who withdrew were less likely than those who stayed to report holding a job of any type while they were enrolled as a student in the program (53% compared to 48%). However, of the students who did report working while they were enrolled in a school of nursing, those who eventually withdrew from the program were twice as likely to report working full time when compared to those who remained in the program of nursing. That is, 14 percent of the applicants who withdrew reported that they were working at a full-time job while enrolled, compared to 8 percent of those who remained in the program of nursing. It is quite possible that one of the reasons why students who withdrew were less likely to work while in school was due to their having academic difficulties. Time which might have been spent on a job was instead directed to study or remedial courses.

The second main focus of comparison between those students who withdrew and those who maintained their student's status was an examination of their knowledge of the availability of and their use of supportive services provided by the program of nursing. Inquiry was made about both academic and personal supportive services. Students were provided with a check list and asked to indicate the extent to which they found the particular service useful. One question explored was whether applicants who withdrew from the program were less likely than were students who remained in the program to be aware of the existence of the supportive service at the institution. The comparison of students who remained in the program with those who withdrew with respect to their knowledge and use of supportive services, is provided in table 38.

Comparison reveals that, contrary to what was anticipated, students who withdrew were more likely than students who were currently enrolled to report an awareness of supportive services at the school of nursing. (This held true for every type of support listed, with the exception of the tutorial program.) In assessing this finding, it became evident that students having difficulty would be more likely to seek out or be advised of academic and personal supports available at the school of nursing. Consequently, they would be more aware of the existence of supportive services.

When the two types of students were compared in terms of knowing the service was available but not using it, findings showed a higher proportion of currently enrolled students reporting that they did not use the service although they were aware of its existence. Here again is evidence that the students who were having more difficulty (i.e., those with a higher probability of withdrawing) would be more likely to seek out or be directed to services available to help them.

Of all the supportive services, both academic and personal, provided by the schools of nursing, students, both those who remained in the program and those who subsequently withdrew, reported personal counseling as the most useful type of support provided. Forty-five percent of the students who withdrew and 37 percent of the students enrolled in the program reported personal counseling as useful. Counseling on study habits was also mentioned as a useful supportive service. Forty-six percent of the students who withdrew said this type of counseling was useful and 28 percent of those who remained in the program said so. Two other services more likely reported as useful by students who withdrew from the program than those who remained were: (1) decreased academic workload and/or lengthened time for course completion, (37%

Table 38.—Comparison of withdrawn and currently enrolled students regarding the use of supportive services (in percentages)

Supporting services	N	Degree of utility				Avail-ability un-known
		Very useful	Some-what useful	Not useful	Available but not used	
<b>Academic supports</b>						
Reinforcement or remedial courses <i>before</i> regular courses begin:						
Withdrawn .....	(92)	12	9	1	25	53
Currently enrolled ..	(1,044)	6	6	2	19	67
Reinforcement or remedial courses <i>concurrent</i> with regular courses:						
Withdrawn .....	(90)	8	18	8	24	42
Currently enrolled ..	(1,031)	12	10	2	25	51
Decreased academic workload and/or lengthened time for course completion:						
Withdrawn .....	(90)	26	11	9	9	45
Currently enrolled ..	(1,011)	15	8	3	23	51
Tutorial program:						
Withdrawn .....	(92)	21	11	3	30	35
Currently enrolled ..	(1,051)	12	11	2	46	29
Counseling on study habits:						
Withdrawn .....	(92)	22	24	5	21	28
Currently enrolled ..	(1,043)	13	15	4	39	29
<b>Social supports</b>						
Family counseling:						
Withdrawn .....	(79)	9	15	5	18	53
Currently enrolled ..	(978)	7	5	2	24	62
Personal counseling:						
Withdrawn .....	(91)	24	21	10	26	19
Currently enrolled ..	(1,020)	19	18	3	41	19

and 23%); (2) tutorial services (32% and 23%); and (3) family counseling (24% and 12%).

Counseling that generally required a one-to-one, personal interaction between the student and some faculty member or staff advisor had more relevance for students than such things as decreasing their workload or offering remedial courses. In terms of effectiveness, the personal contact was very important and even

more effective when it was done on a teacher-student basis than on a student-student basis, which occurs with tutorial programs. Since most of the students were relatively young and still being socialized to their adult roles, it appears that an adult role model is not only important, but is probably the most effective support that schools of nursing can provide to their students.

## PART III. FACTORS RELEVANT TO AN EFFECTIVE STUDENT SELECTION PROGRAM

### Support Programs for Students

The extent to which students enrolled in nursing programs utilized the various academic and social supports available to them have been noted, as well as some of the work done by recruiters to guide potential candidates into the type of support program that can best serve their career aspirations. In some cases, the schools of nursing have formalized their policies into support programs and in other cases, guidance offered to applicants and/or students is accomplished through informal practices. For this report, the term support programs takes into account both the formal and informal activities carried out by schools of nursing to facilitate the student's progression through his/her educational preparation. This aid to students can be provided both prior to their entry into the nursing program (at the recruitment and selection stages) and after they have been admitted into the program.

Schools were provided with a checklist suggesting types of assistance that might be offered to high risk or educationally disadvantaged students. They were asked to indicate whether or not such assistance existed for the students in their nursing programs. Table 39 shows the results of this inquiry.

**Table 39.—Assistance for disadvantaged students, by type of nursing program  
(in percentages)**

Assistance for disadvantaged students	Type of program			
	Total	Bacc.	AD	Dipl.
Reinforcement or remedial courses before regular courses begin -----	53	42	72	36
Reinforcement or remedial courses concurrent with regular courses -----	45	58	55	25
Counseling programs -----	78	84	88	62
Decreased academic workload and/or lengthened time for program completion -----	55	71	71	24
Tutorial program -----	51	67	60	29
No program for "educationally dis- advantaged" students are offered -----	16	12	5	32

The type of assistance that was available in all three types of programs was counseling high risk and disadvantaged students (78%). This assistance was available at a very high proportion of associate degree (88%) and baccalaureate programs (84%) and to a somewhat lesser extent at diploma programs (62%). The majority of programs permitted students to decrease their academic workload and/or lengthen the time for program completion (55%); had reinforcement or remedial courses for students before their regular courses began (53%); and offered tutorial assistance (51%). There are, however, some rather clear distinctions with regard to the assistance available to educationally disadvantaged students in baccalaureate and associate degree programs in contrast to those in diploma programs. For example, while a clear majority of baccalaureate and associate degree programs allowed students to decrease their workload or lengthen the time for completion of program (71% in each case), only 24 percent of the diploma schools allowed a decreased workload. Similarly the majority of baccalaureate (67%) and AD (60%) programs offered tutorial assistance. This contrasts with the 29 percent of diploma programs offering tutorial assistance. As suggested earlier, diploma programs are single purpose schools and do not have the availability of other college departments to assist students with their deficiencies. For this reason, diploma programs (32%) were far more likely to report that they offered no support programs for educationally disadvantaged students. (This was true for only 12% of the baccalaureate programs and 5% of the associate degree programs.)

### **Barriers to an Effective Student Selection Program**

From a foregoing discussion of the processes, policies, practices, and procedures followed by schools of nursing throughout the country, some of the barriers to an effective student selection program have already been alluded to in this report. At each stage of a process whether it be recruitment, screening, selection, or services to students, it is possible to identify shortcomings that inhibit an effective and efficient program of student selection in schools of nursing.

Financial cutbacks experienced by most schools have directly affected their recruitment endeavors. They have been unable to send out workers for extensive geographic coverage to recruit students. Furthermore, limited finances in colleges and universities has prevented the printing of separate brochures on nursing and brochures designed to attract minority and disadvantaged students. As a consequence, many talented nursing students have been lured

away by opportunities or assistance offered by programs in other fields where the financial cutbacks have been less severe.

Barriers confronted at the screening and selection stage are different. Schools are experiencing a characteristic change in the students who are applying for admission. As one dean noted,

Selection is becoming more difficult because of: (1) variations in quality of high school program, and (2) more applicants who have had 2 years college work in prenursing programs.

From another school:

We feel some concern because of the increase of applicants with college background. Evaluation indicates that attrition in this group is not as great as among students with a high school background.

Another problem voiced by one dean is also noteworthy:

To provide opportunity for everyone who wishes to enter nursing, we try not to use restrictive criteria. We are pressured by community and academic groups to give special consideration to those with good scholarships, minorities, men, veterans, previous nursing education, high school students, persons on welfare, persons who have been vocationally rehabilitated, middle class whites, and foreign born. We have an obligation to nursing education and to the student community and no method of admission is acceptable to those who are not admitted.

Decreased financial resources have not only affected recruitment but have also directly affected programs to assist students. Some programs have been cut back while others have been eliminated entirely.

Unfortunately, Federal criteria for loans and grants exclude the student who shows more academic promise and is from a middle-income family. It pays the minority student without academic ability and employable skills to enroll in college. Why can't Federal money be available either for remedial studies and/or be based on satisfactory academic performance too? These (minority) students are an exception, but they use too much money. Minority middle-class students are especially caught in this web of restricted Federal criteria.

In-depth studies suggested and supported by school administration over the last 5 years in student retention, prenursing preparation in remedial work, and concurrent college work in other colleges yielded very poor results. Disillusioning experiences tended to destroy faculty willingness to intensify effort on 'borderline' students when stresses to increase knowledge in clinical experience of all other students is so great in the comprehensive medical center setting.

The nursing program is newly established under an autonomous division. Our difficulty is filling faculty positions in the rural area encompassing the school's mandate that class size be held to 30 students at upper division level. Until full complement of faculty is met, remedial work for disadvantaged students and extra help for 'borderline' students must be deferred.

Special support programs for students, such as financial aid and tutorial assistance, are faced with unique problems. Several schools noted the problem of not knowing until September of any year what Federal funds will be given to the school despite the fact that the application for these funds had to be filed with the Office of Education in April. Since most financial aid to students must be packaged, it is difficult to assess what proportion of the package will be constituted from Federal funds. One consequence is that students, fearing they may not be able to get financial support and therefore be unable to attend the school, may seek out another school in an attempt to alleviate their anxiety—a school where the financial assistance available is made known to them in sufficient time prior to their enrolling for the semester.

Another problem exists with regard to tutorial programs. One dean noted that the tutor's competency was not much greater than those being tutored. The reason for this was that the tutors take the job because they need the money and are often from among the disadvantaged students.

Another dean reported that the barrier that confronted her school regarding student selection processes pertained to its graduates. Successful minority students were lured away from the community by higher Federal salaries—a particular frustration to community colleges trying to serve their community. They feel this allows them to do only half the job. They educate community residents but get no feed-back into the community.

Some barriers to an effective student selection program are quite beyond the control of the school:

Our attrition rate is quite high but the attrition doesn't seem to be directly related to the established criteria. The greatest influences upon attrition seem to be those over which we, as a faculty, have no control—family problems, personal problems, etc.

Schools were asked to provide information on the number of applicants who had applied for the fall 1974 class, had been accepted, enrolled but withdrew during that academic year. Fifty-six percent of the schools of nursing participating in the study reported that they had some withdrawals. More associate degree programs (63%) reported withdrawal of some students than diploma programs (52%) or baccalaureate programs (46%). Withdrawal from the nursing program was academic failure. Thirty-one percent of all schools participating in the study reported this as the main reason (diploma, 32%; AD, 32%; baccalaureate, 27%). Another frequent reason for withdrawal was career change. This was reported by 17 percent of the schools of nursing. Of this group, 24 percent were baccalaureate programs, 18 percent diploma pro-



Table 40.—Reasons for withdrawal, by type of nursing program (in percentages)

Reasons for withdrawal	Type of program			
	Total	Bacc.	AD	Dipl.
Academic failure -----	31	27	32	32
Marriage/family -----	11	5	15	10
Feelings or nonacceptance -----	0.2	—	—	—
Financial -----	5	10	6	1
Ill health -----	2	2	3	1
Change to different nursing program -----	3	3	2	3
Career change -----	17	24	12	18

Table 40 shows the most frequently reported reason for withdrawals, and 12 percent associate degree. Additional reasons why students withdrew from the various programs include the fact that students in the associate degree (15%) and diploma (10%) programs were more likely to withdraw because of responsibilities of marriage and family than was true for students in the baccalaureate (5%) programs. On the other hand, students in the baccalaureate (10%) and the associate degree (6%) programs were more likely to withdraw because of financial reasons than were students in diploma (1%) programs.

The extent to which any school of nursing can intercede and help the student resolve a problem that could cause withdrawal is difficult to ascertain. Many of these problems are interrelated. For example, problems at home (a new child or domestic quarreling) may be reflected in poor academic work. To institute remedial work for a student who is withdrawing because of "academic failure" may not, in fact, be addressing the source of the problem—which may be a problem at home and beyond the control of the school. In a similar fashion, financial problems may result in the need for the student to go to work and consequently change his career goal . . . and so on through the list.

### Recommendations

Recommendations include:

- Where possible, pool manpower resources with local schools in order to gain wider and more comprehensive recruitment coverage.
- Alter the geographic scope of recruitment coverage.
- Try to anticipate the effect of insufficient funds on such things as publications. Know what other printing sources are available. It might be expedient to incorporate the school of nursing information into the general catalog of the school of allied health.

- If funds are available, provide special brochures to minority applicants.
- Where possible, recruitment of minority students should be strengthened by having a minority group faculty member or recruiting officer available to answer questions from these students.
- Recruiters should contact professionals from the minority community and advise them to stress to potential applicants the importance of making early application to the school of their choice. Some schools have noted a tendency on the part of minority students to make late application, which hinders their admission to nursing school, especially to those schools that accept students on a first-come, first-served basis.
- Increase efforts to redirect applicants to other programs—programs that may or may not be less demanding on the applicants, but would, in any case, benefit them.
- Canvas the community for alternative sources of assistance to students. Church groups and philanthropic organizations often have community centers with educational opportunity services; the local nursing league may sponsor a program for opportunities in nursing; and minority groups within the community may have special programs for their young people. Also motivate existing community groups to enlarge their scope of interest to aid the school of nursing in terms of funds for scholarships or provision of tutors for students having academic difficulties.

## Appendix A

### SURVEY DESIGN AND METHODOLOGICAL PROCEDURES

The three-phase study was designed to obtain data both from schools of nursing and the applicants themselves. Phase I consisted of a questionnaire survey of all schools of nursing in the country with a program to graduate registered nurses. Phase II consisted of site visits to 20 of those schools to conduct in-depth interviews with program administrators. Phase III consisted of mailing a questionnaire to the applicants for admission to the fall 1974 semester of the 20 schools.

#### Phase I

Phase I was designed to obtain information on recruitment practices, selection procedures, admissions policies, admissions data, and a profile of the fall 1974 entering class by way of a survey questionnaire. Questions focusing on determination of borderline cases and information on changes in selection procedures over the past 5 years were also included in the questionnaire.

After several revisions of the initial instrument and pretesting of the final version, the questionnaire was mailed to all 1,439 schools of nursing in the country with programs to graduate registered nurses. The questionnaire was mailed September 30, 1974. The first followup, consisting of a postcard reminder to the schools that had not yet returned the questionnaire, was mailed November 8, 1974. On January 14, 1975, a second followup was sent to all nonresponding schools. This second followup consisted of a cover letter, questionnaire and return envelope (similar to the original mailing sent in September). As of the official cut-off date of the study, February 4, 1975, 91 percent of the schools of nursing had responded. The response rate was:

Responding schools:		
Completed questionnaires -----	1,173	
Schools closed -----	127	
Total -----		91%
Nonresponding schools -----	139	
Total -----		9%

A followup study was conducted on nonresponding schools. A

10-percent, random subsample was selected from among these schools. A short questionnaire was prepared to obtain information as to whether or not the school had received the questionnaire and if so, whether they had returned it. These followups were conducted by a telephone survey (from February 25th through March 11th, 1975). The results of this followup showed that three out of every four of the nonresponding schools had received the questionnaire. Of those receiving it, 30 percent had returned it to the National League for Nursing and it evidently had gotten lost in the mail since it was not received. An additional 15 percent reported being uncertain of receiving the questionnaire, and the balance of 55 percent had not (yet) returned the questionnaire to NLN.

## Phase II

Phase II consisted of in-depth interviews with relevant administrators and staff members of 20 schools of nursing across the country selected because of their representativeness on several criteria. These criteria include: type of program, geographic distribution, size of school, type of program available to disadvantaged students, characteristics of the student body, and interest on the part of the school in the subject under study. This latter point was indicated by the manner in which they responded to the questionnaire sent to them as part of Phase I of the study.

In addition to the above criteria, the Directors of each of the educational programs at the National League for Nursing were individually consulted and asked to recommend schools they thought would be good to include. Dr. Dorothy Ozimek provided a list of baccalaureate schools. Dr. Gerry Griffin provided a list of schools granting an associate degree in nursing. Miss Katherine Brim provided a list of diploma schools. In addition, consultation was made with the Director of the National Student Nurses Association's Breakthrough to Nursing Project and asked for recommendations on schools that had programs specifically directed to attracting the disadvantaged student. Particular attention was paid to those schools that indicated in their questionnaire responses to Phase I that they had some programs for the disadvantaged. Noted also was the number and type of disadvantaged students reported in their freshmen profile. The quality of the returned questionnaire was also taken into account (i.e., the date on which the questionnaire was received by NLN and the marginal comments and clarifications written on the questionnaire were reviewed as indicators of interest on the part of the school and of a high probability of cooperation in a second phase of the study—the site visits).

The final determination of the 20 sites to be included in Phase II was based on the following criteria:

At least one school representing each of the three types of program (baccalaureate, associate degree and diploma) was selected in each of the four regions (North Atlantic, Mid-West, South, and West). This accounted for 12 sites. Since the proportion of each of the three types of programs in the four regions varies from region to region, an extra school was selected in each of the three programs depending on the region in which they predominated. For example, since there were a disproportionate number of AD programs in the West, an additional program located in the West region was included as a site for visitation. This accounted for three more programs (for a total of 15).

An additional three programs (bringing the total to 18) were selected by focusing exclusively on the three main minority groups: Blacks, Spanish Americans, and American Indians. We selected three schools in which at least one of the minority groups predominated in the student body. An additional two programs (for a total count of 20) were selected as particularly interesting for inclusion in Phase II, based on the criteria of a high proportion of male students and the mixture of disadvantaged types among their student body at approximately 20 percent Spanish, 20 percent Indian, 60 percent Caucasian.

Prior to commencing Phase II, the model for this phase was pretested on one of each of the three types of programs in the Northeast region. One important criterion for including a particular program in Phase II was the willingness and capability of the school to furnish a list of the names and addresses of all applicants to their fall 1974 class identified as:

1. Not accepted,
2. Accepted but not enrolled,
3. Accepted, enrolled, but withdrew,
4. Accepted and currently enrolled in the program.

### Phase III

The names and addresses of the applicants to the fall 1974 class were provided by the schools of nursing during the site visits. Questionnaires were mailed to all applicants in order to determine what they did if they were not accepted, or did not enroll, or withdrew from the program and for those enrolled, to learn about their experiences with and their opinions of programs that were particularly helpful to them in the pursuit of their nursing education.

## Appendix B RESPONSE RATES

### Response Rate from the Schools

The data contained in this report were collected by means of a mailed questionnaire to the 1,439 schools of nursing in the country with programs to graduate registered nurses. As of the cut-off date for returns, February 1975, 90 percent of the schools of nursing had responded. This included 82 percent of all operating schools and 8 percent of schools that had either closed, was in the process of closing, or had just opened and was too new to be able to provide some of the information requested. Ten percent of the schools did not respond to the questionnaire. The response rate for the three different types of registered nurse programs is shown in table B-1.

Table B-1.—Response rate, by type of nursing program (in percentages)

Response rate	Type of program			
	Total	Bacc.	AD	Dipl.
Responding schools				
Completed questionnaires .....	82	87	85	75
Schools closed (closing or just opened) ..	8	2	2	20
Nonresponding schools .....	10	11	13	6
Total .....	100	100	100	100
N .....	(1,439)	(319)	(602)	(518)

Although baccalaureate and AD programs (87% and 85%, respectively) were more likely to have completed the questionnaire pertaining to their student selection processes, the best overall response rate was from the diploma programs. Ninety-four percent of these programs responded, compared to 89 percent of the baccalaureate programs and 87 percent of the AD programs. The reason for this, (see table B-1), is the high proportion of diploma programs that had closed or were in the process of closing during the time the study was being conducted. Notwithstanding the different pattern of responses found between diploma programs and

<sup>1</sup> A followup study of nonrespondents revealed that 30 percent had returned their completed questionnaire, 55 percent had not (yet) returned it, and 15 percent did not recall receiving the questionnaire.

the other two types of programs, there is a sufficiently high rate of return of completed questionnaires for all three programs to outweigh any potential bias resulting from the disproportional number of diploma programs that closed.<sup>2</sup> In other words, the comparisons between the three types of programs is based on an unbiased sampling of each of these programs.

*Response Rate from Applicants*

The overall response rate from applicants (63%) was better than had initially been predicted (see table B-2). Also a lower response rate had been anticipated from applicants who were not enrolled compared to those who were. This was indeed the case: 55 percent versus 73 percent.

Table B-2.—Response rate, by type of applicant

Response rate	Total	Type of applicant			
		Not accepted	Accepted but not enrolled	Withdrew	Currently enrolled
Number of questionnaires originally mailed .....	4,381	1,322	904	332	1,823
Number of questionnaires returned without address correction and considered undeliverable .....	534	205	102	45	182
Number of questionnaires presumably deliverable .....	3,847	1,117	802	287	1,641
Number of questionnaires completed and returned .....	2,409	604	444	159	1,202
Rate of response .....	63	54	55	55	73

<sup>2</sup> A followup was made on those questionnaires returned by the post office. Two subsamples were selected from this group of questionnaires. One group consisted of the names and addresses of applicants including a zip code and the other group consisted of names and addresses without a zip code. Since these addresses, as provided by the school, were apparently incorrect and the post office was unable to supply corrected addresses, attempts were made to reach these applicants by telephone. Telephone numbers were obtained for 21 of the 60 applicants in the followup sample. However, all attempts failed in reaching any of these applicants by phone, despite the fact that calls were made to them during the week and on the weekend and various hours during the day (in the morning, afternoon, and evening). The fact that a telephone listing will survive a considerable time after a residence change may well account for the failure to reach even the 21 applicants whose telephone numbers were obtained. The initial concern was that a response bias would be built into the sample if schools were more likely to have zip codes for those who were currently enrolled than for those applicants who were not. This was not the case however, the check found just the opposite: 63 percent of the questionnaires returned by the post office for applicants listed as currently enrolled,

Due to basic differences between the three types of nursing programs, not only insofar as their curriculum is concerned but also in terms of their size, geographic location, and other factors, the number and kinds of people who apply also vary. As a consequence, the disposition of admissions applications shows differential patterns between the three types of programs. To illustrate, table B-3, which compares baccalaureate, associate degree, and diploma programs with respect to the disposition of applications received, shows fluctuations in the proportion of these applicants who were not accepted, who were accepted but did not enroll, who enrolled but subsequently withdrew, and who are currently enrolled in the program.

Table B-3.—Questionnaires mailed, by type of program (in percentages)

Type of applicant	Type of program			
	Total	Bacc.	AD	Dipl.
Not accepted	30	23	27	39
Accepted but not enrolled	21	16	24	21
Enrolled but withdrew	7	3	10	9
Currently enrolled	42	58	39	31
Total	100	100	100	100
N	(4,381)	(1,277)	(1,469)	(1,635)

Table B-3 reveals that 42 percent of all the applicants to the schools of nursing that participated in Phase II were currently enrolled in the programs. An additional 7 percent of the applicants had enrolled but subsequently withdrew, 21 percent had been accepted but had not enrolled, and 30 percent of the applicants had been rejected by the schools of nursing. When the three types of programs are compared, baccalaureate programs (58%) were more likely than were AD (39%) and diploma programs (31%) to have a majority of their applicants currently enrolled in the schools of nursing.

As previously indicated, a differential response rate had been anticipated from those applicants who were currently enrolled in the program compared to those who were not. Of interest also was the possibility of any biases which might be introduced into the sample because of differential response rates among the applicants to different types of programs. Table B-4 provides the data to examine these possibilities.

did not have zip codes, compared to 46 percent for all other applicants. Since enrolled students tend to have a higher response rate (as shown in table B-2, the distribution of undeliverable questionnaires did not bias the sample in any way.)



Table B-4.—Applicant response rate, by type of nursing program (in percentages)

Type of applicant	Type of program			
	Total	Bacc.	AD	Dipl.
Not accepted -----	25	20	25	29
Accepted but not enrolled -----	18	15	18	22
Enrolled but withdrew -----	7	2	9	9
Currently enrolled -----	50	63	48	40
Total -----	100	100	100	100
N -----	(2,380)	(729)	(744)	(907)

Table B-4 shows that of all the questionnaires returned from applicants, 50 percent were returned from applicants who were currently enrolled in the nursing program in responding schools, 7 percent from applicants who had enrolled but subsequently withdrew, 18 percent from applicants accepted but not enrolled, and 25 percent from applicants not accepted by the school of nursing.

By comparing the total columns from tables B-3 and B-4 additional evidence is found to support the fact that currently enrolled applicants were more likely to respond to the questionnaire than those not enrolled. Forty-two percent of the total number of questionnaires mailed were sent to applicants currently enrolled, whereas 50 percent of the responses came from applicants who were currently enrolled: an increase of 8 percentage points. This contrasts to a decrease in the relative proportions for the other three types of applicants. For example, while 30 percent of the questionnaires were mailed to applicants who were not accepted, only 25 percent of the questionnaires that were returned came from applicants who were not accepted. Twenty-one percent of the questionnaires were mailed to applicants who were accepted but did not enroll, however, they constituted only 18 percent of the response rate. The only group to hold a consistent proportion within each group (questionnaires mailed: questionnaires returned) were those applicants who withdrew from the program. They constituted 7 percent of the questionnaires that were mailed and 7 percent of the questionnaire responses returned.

Biases caused by differential response rates among the applicants to the different types of programs can be further explored by a comparison of the percentage distributions within tables B-3 and B-4. As already indicated, applicants currently enrolled in the program were proportionately more likely to respond to the questionnaire than the other three types of applicants. While they constituted 42 percent of the sample mailed, they were 50 percent of the response rate, an increase of 8 percentage points. Table B-5 provides a comparison of the information already provided in

table B-3 (distribution of the questionnaires mailed) to table B-4 (distribution of questionnaires returned).

Table B-5.—A comparison of percentage differences between table B-3. and table B-4.

Type of applicant	Total	Type of program		
		Bacc.	AD	Dipl.
Not accepted .....	-5	-3	-2	-10
Accepted but not enrolled .....	-3	-1	-6	+1
Enrolled but withdrew .....		-1	-1	
Currently enrolled .....	+8	+5	+9	+9

Note: Read: Comparison of the total number of questionnaires mailed to applicants who were not accepted (table B-3. = 30%) to the response rate from this group (table B-4. = 25%) shows a decrease of 5 percentage points (table B-5. = 5%). Had each group responded proportionately, the percentage differences in table B-5. would be zero. Minus figures in table B-5. indicate the group was comparatively less likely to respond. Plus figures indicate that the group was comparatively more likely to respond to the questionnaire.

The information provided in table B-5 supports the contention that the response rate from applicants in the three different types of nursing programs is unbiased. Although applicants who are currently enrolled in associate degree (+9%) and diploma (+9%) programs were slightly more likely to respond than their counterparts in the baccalaureate (+5%) programs, the proportion is too small to generate any statistical significance. The only finding provided by table B-5 worth noting is the fact that applicants not accepted into diploma programs (-10%) were less likely to respond to the questionnaire than those applicants who were not accepted into the baccalaureate programs (-3%), or those not accepted into associate degree programs (-2%).

Since much of the data in this report compares the four different types of applicants to schools of nursing, it was desirable to perform certain tests to insure the unbiased representation of these groups in the sample. Based on the information reviewed above, the investigators are assured that the information provided by those applicants who responded to the inquiry accurately represents a true sample of the types of applicants who applied to schools of nursing in the fall of 1974. Bear in mind that the applicants' sample was drawn from a sample of schools of nursing stratified by type of program and geographic location.