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To secure information about the characteristics of the practical nurse population and their opinions about registered nurse preparation, questionnaires were distributed to 2,923 practical nurses employed by the New York City Municipal Hospitals. Usable questionnaires numbered 2,361 or 81 percent of the employed PN population. Approximately 9 percent of the practical nurses were already studying to become registered nurses and at least 66.5 percent were interested in so doing. The practical nurses considered basic training in nursing theory and clinical practice important, and rated practical nurse experience more important than academic courses in the preparation of the RN. Recommendations resulting from the study included a half-time work, half-time study, full income plan to upgrade nurse aides to practical nurses and practical nurses to registered nurses, financed, except for tuition, by cost of salaries represented by position vacancies; and reduction of training time through such approaches as proficiency testing and coverage of required clinical experience during working hours. (JK)

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**HEALTH SERVICES
MOBILITY
STUDY**

Research Foundation, City University of New York

TRAIN PRACTICAL NURSES TO BECOME
REGISTERED NURSES: A SURVEY OF THE PN POINT OF VIEW

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Research Report No. 1
CG 8783 A/O June 1968

Room 628/125 Worth Street/New York City, New York 10013

**TRAIN PRACTICAL NURSES TO BECOME REGISTERED NURSES:
A SURVEY OF THE PN POINT OF VIEW**

Research Report Number 1
by
Dr. Eleanor Gilpatrick, Director
Health Services Mobility Study

Sponsored By
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June 1968

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BY Dr. Eleanor
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CHAPTER I
INTRODUCTION

BACKGROUND

When the Health Services Mobility Study began its operations in October, 1967, discussions were underway between the City University of New York, the New York City Health Services Administration and the New York City Department of Hospitals. The question was this: given the great chronic shortage of registered nurses in the Municipal hospitals, what can be done to provide a solution to the shortage and at the same time provide upward mobility for employees in the Municipal hospitals?

The general form of this question lies at the heart of the Health Services Mobility Study (HSMS). The HSMS plan of work involves the development of a careful methodology based on job analysis of the vast occupational structure of the hospitals. However, it did not seem to be too much of a digression for the HSMS to examine the step from practical nurse to registered nurse without a thorough examination of job content or the relationship to other job titles. The organic, hierarchical relationship between the two job levels is self-evident. The credentials required for entry to both involve special approved schooling and a licensing examination, both administered by the New York State Education Department.

The problems to consider in the move from PN to RN involve the following: can PN's be trained to be RN's on a release-time basis so as to conserve hospital employment and finances? Can PN's be exempted from some formal study normally required of RN candidates -- based on prior education and their current job experience?

Could a program incorporating such an approach meet with State and professional group approval? It has been evident that official professional groups favor the academic base in the two-year, full-time, associate degree program over the hospital-based, three-year diploma program. Also approved is the four-year Baccalaureate program based in a college. On a 50 percent release-time basis, how long would PN's have to work and study to become RN's? No official position has been taken objecting to crediting PN experience or education.

It was agreed that everyone concerned would be much benefited by a look at the characteristics of the Municipal PN population, and by a knowledge of their opinions about study to become RN's, their willingness to provide extra time on their own, and knowledge of what they consider to be important in the way of preparation to become good RN's. The Health Services Mobility Study undertook to explore these questions in cooperation with the New York City Department of Hospitals.

COLLECTION OF THE DATA

This report is based on the responses of 2,361 practical nurses employed by New York City Municipal Hospitals to a questionnaire designed by the Health Services Mobility Study. The questionnaire and its cover letters are presented in Appendix A.

The method of distribution of the questionnaire was as follows:

- 1) Copies were sent to the Directors of Nursing in each of the nineteen Municipal Hospitals. A cover letter, signed by Dorothy Weddige, Director of Nursing Education and Nursing Service of the Department of Hospitals, requested that group meetings be held in the hospitals for the distribution, filling out and collection of the questionnaires. The cover letter to the

practical nurses indicated that the names of the respondents were not requested. The answers would be anonymous. (See Appendix A.)

2) Distribution began in January, 1968, and collection was completed by mid March, 1968. The population covered was practical nurses on the employment rolls of Municipal hospitals as of February 15, 1968. (See Appendix A for more details.)

The questionnaires were returned by the Directors of Nursing to Miss Weddige's office and were subsequently sent to the Health Services Mobility Study. There, the questionnaires were edited for completeness and identification codes. Unusable questionnaires were eliminated, and the usable ones were coded. A 100 percent quality check was made on coding. Key punching and verification were performed by the Service Bureau Corporation. Subsequently, the computer programs used for analysis of the data were also used to identify remaining coding errors. There is every reason to believe that any remaining, undetected errors are not statistically significant.

Response Coverage

As Table 1.1 indicates, the Directors of Nursing reported that 2,923 practical nurses were employed by Municipal hospitals on February 15, 1968. Of these, 84 percent filled out and returned questionnaires. The coverage rate in individual hospitals was below the 84 percent mark in only six of the nineteen Municipal hospitals.¹

It was possible to limit the reject rate on the returned questionnaires by grouping the responses into four categories, each of which had different requirements for which questions could be unanswered without the questionnaire

¹These are Elmhurst, Coney Island, Fordham, Harlem, Lincoln and Bird S. Coler.

TABLE 1.1

RESPONSE COVERAGE ON LPN QUESTIONNAIRE DISTRIBUTED AND RETURNED JANUARY-MARCH 1968.

Hospital	Practical Nurses Employed as of 2/15/68	Returned		Usable	
		Questionnaires Number	Percent of Employ- ment	Questionnaires Number	Percent of Employ- ment
1. Bellevue	250	215	86.0	203	81.2
2. Bronx Municipal	182	180	98.9	173	95.1
3. City, Elmhurst	251	158	62.9	148	59.0
4. Coney Island	69	40	58.0	39	56.5
5. Cumberland	112	109	97.3	106	94.6
6. Fordham	63	38	60.3	38	60.3
7. Greenpoint	96	89	92.7	87	90.6
8. Harlem	191	139	72.8	125	65.4
9. Kings County	468	438	93.6	425	90.8
10. Lincoln	79	55	69.6	54	68.4
11. Metropolitan	252	213	84.5	203	80.6
12. Morrisania	102	101	99.0	101	99.0
13. Queens	188	160	85.1	156	83.0
14. Sydenham	83	81	97.6	80	96.4
15. Francis Delafield	55	47	85.5	47	85.5
16. James Ewing	36	36	100.0	36	100.0
17. Bird S. Coler	160	102	63.8	91	56.9
18. Goldwater	207	188	90.8	174	84.1
19. Seaview	79	75	94.9	75	94.9
Total Municipal Hospitals	2,923	2,464	84.4	2,361	80.8

Note: Employment figures come from Directors of Nursing in the respective hospitals.

being rejected. All subjects were required to answer questions 1, 2, 3, 10, 11, 13, 14 and 17. Failure to respond to these resulted in a rejection.²

Analysis of sets of variables required 100 percent responses to the relevant questions on the questionnaires thus being studied. This was made possible by grouping questionnaires by ID numbers which indicated which questions were properly completed. The questions involved were 16, 18, 19 and 20. All other questions were subjected only to distributional analysis and unequal coverage did not matter.

Usable questionnaires number 2,361, as Table 1.1 indicates. This represents 81 percent of the employed PN population. Only the six hospitals mentioned above failed to reach this level of coverage. The lowest coverage rate was 56 percent, for Coney Island Hospital. James Ewing had 100 percent coverage.

Table 1.2 presents the response rate for individual questions, with 2,361 equal to 100 percent of the questionnaires. The lowest response rate was for question 4, the kind of high school course taken (if any). Response rates were generally higher among those interested in training to become RN's than for others. For the crucial questions 18 to 20, addressed only to this group, the response rate was 95 percent.

MUNICIPAL NURSING JOBS

The remainder of this chapter is devoted to a description of the practical nurse job and related jobs and provides other background information

²In a fractional percentage of cases, answers to questions 1, 2, 10, 13 or 14 could be inferred from other responses and filled in by the Director or staff members of the HSMS.

TABLE 1.2

RESPONSE RATES ON INDIVIDUAL QUESTIONS, LPN QUESTIONNAIRE, JANUARY-MARCH 1968.

No.	Question Content	All Respondents		Respondents Interested in Training	
		Total Respond- ing	Percent of Total Respondents	Total Respond- ing	Percent of Interested Respondents
	<u>Total:</u>	<u>2,361</u>	<u>100.0</u>	<u>1,571</u>	<u>100.0</u>
1.	Years as PN	2,361	100.0	1,571	100.0
2.	Years as PN in NYC	2,361	100.0	1,571	100.0
3.	Education	2,361	100.0	1,571	100.0
4.	Kind of HS	1,625	68.8	1,180	75.1
5.	Licensure	2,357	99.8	1,569	99.9
6.	Year of License	2,282	96.7	1,526	97.1
7.	Type of Training	2,332	98.8	1,554	98.9
8.	Current Study	2,342	99.2	1,559	99.2
9.	Sex	2,361	100.0	1,571	100.0
10.	Age	2,361	100.0	1,571	100.0
11.	Dependents	2,361	100.0	1,571	100.0
12.	Marital Status	2,356	99.8	1,569	99.9
13.	Second Job	2,361	100.0	1,571	100.0
14.	Kind of Second Job	2,361	100.0	1,571	100.0
15.	Language	2,357	99.8	1,570	99.9
16.	Rank Order for RN	2,054	87.0	1,358	86.4
17.	Interest in RN Training	2,361	100.0	1,571	100.0
18.	Time Off for Study	-	-	1,488	94.7
19.	Study-Work Preference	-	-	1,488	94.7
20.	Extra Study Time	-	-	1,488	94.7
20a	Not Able	-	-	1,488	94.7
20b	Not Willing	-	-	1,488	94.7
20c	One of Days Off	-	-	1,488	94.7
20d	One Hr. per Day	-	-	1,488	94.7
20e	Two Hrs. per Day	-	-	1,488	94.7
20f	Three Hrs. per Day	-	-	1,488	94.7
20g	Four Hrs. per Day	-	-	1,488	94.7

Note: (-) Dash means not applicable.

about the three basic nursing jobs: nurse aide, practical nurse and staff nurse.

Job Descriptions

The following job descriptions relate to the three basic nursing jobs. They are quoted directly from the New York City Department of Hospital's records and are the latest available descriptions.

NURSE'S AIDE

General Statement of Duties and Responsibilities

Under immediate supervision, performs work of ordinary difficulty and responsibility in the personal care and nursing of hospital and clinic patients.

Examples of Typical Tasks

Serves meals, helps feed patients, and returns unserved food.

Changes linen and makes beds.

Assists with physical care of selected patients.

Keeps wards, utility and treatment rooms in an airy and orderly condition.

Assists in clinic and admission procedures and in the regulation of visitors.

Cares for patients' clothing and property on the ward.

When assigned to an inhalation therapy unit, maintains therapy equipment and supplies, prepares for and carries out administration of oxygen.

When assigned to a blood bank, requisitions, receives, stores and sets up blood bank equipment and supplies, prepares donor and donor room, and handles storage and dispensing of blood.

In an operating room, may assist with patient care and routine aspects of operation, change linen on operating tables, and prepare case records and reports.

When assigned to ambulance service, may act as ambulance attendant.

Performs related work as required.

PRACTICAL NURSE

General Statement of Duties and Responsibilities

Under immediate supervision, performs routine nursing services of a semi-professional nature in a hospital, clinic, institution or other public place administering to the sick, performs related work.

Examples of Typical Tasks

Assists physician and/or professional nurse with examinations, diagnostic tests and treatments.

Administers simple medications and treatments as directed.

Observes and reports symptoms and reactions.

Takes and charts temperatures, pulse and respiration; may serve meals, give baths, and make beds.

Assists with admission and discharge of patients.

Provides suitable environment and makes patients comfortable, cares for their personal needs.

Cleans and sterilizes hospital equipment and instruments.

STAFF NURSE

General Statement of Duties and Responsibilities

Under supervision, performs professional nursing duties within an assigned unit in a hospital, clinic, institution or other public place administering to the sick, performs related work.

Examples of Typical Tasks

Provides nursing care according to physicians' orders and in conformance with recognized nursing techniques and procedures and established standards and administrative policies.

Administers medications and treatments as prescribed by physicians. Gives first-aid in emergencies.

Assists physicians with examinations, treatments and diagnostic tests. Sets up treatment trays, prepares instruments and other equipment.

Observes and reports symptoms, reactions and conditions of patients. Maintains records reflecting patient's condition, medication and treatments.

Instructs patients in health measures and self-care.

Instructs, supervises and assigns duties to non-professional personnel of unit engaged in routine attending and nursing tasks.

May bathe and feed acutely ill patients.

The hierarchical relationship among these jobs is evident, although there are no promotional lines between these jobs. They are not open to competitive examination, since State licensing ensures examination.

Pre-employment Requirements

The practical nurse currently must be licensed by the New York State Education Department. In order to take the licensing examination (the license fee is \$15), the candidate must be more than eighteen years of age, and of "good moral character." Prior to certification by a State-registered school offering PN training, the candidate is expected to have completed the 8th grade or an equivalent. The subsequent PN training at the approved school must have covered a period of nine months or more.

The nurse aide is merely required to have completed elementary school.

In contrast, the staff nurse, who must be licensed by the New York State Education Department, must hold a diploma from a Department-registered school of nursing. Prior to entry into the school, the candidate is expected to have completed four years of work at an approved high school or an equivalent. The licensing examination must have a written part, but this may be supplemented by an oral or practical examination. (The fee for the license is \$30.)

Shortages

Shortages in nursing personnel have played havoc with budget staffing figures. A total requirement figure for a title comes from the number of authorized jobs in a budget line and reflects close to full capacity use of hospitals. As of January 31, 1968, the Department of Hospitals employed 3,388 full-time RN's. Of these, 1,200 filled staff nurse lines. There were 995 staff nurse lines being filled by LPN's, and 2,499 being filled by nurse aides.³ There still remained 737 staff nurse vacancies; thus, the figure for staff nurse vacancies would have had to be raised to 4,414 if all persons filling budgeted staff nurse lines out-of-title were counted as staff nurse vacancies.

At the same time, 172 vacancies were reported for practical nurses. There were 1,049 PN lines being filled by nurse aides and others. The total vacancy figure for PN's would thus have been 1,221 if persons filling budgeted PN lines out-of-title were counted as PN vacancies. However, if the staff nurse vacancies had been filled by RN's, this would then have released the 995 PN's working out-of-title, and the PN vacancies would have been 226, a relatively small figure.

There is no indication that there is any serious problem in finding adequate numbers of nurse aides. For the same period, only 279 vacancies were reported for nurse aides. There were 2,499 nurse aides filling staff nurse lines and an additional 960 filling PN lines. Thus, 3,459 nurse aides were working out-of-title as nurse aides on lines where other occupations were apparently needed.

These and the PN's working on lines planned for higher skill functions could be trained to fill those functions. Nurse aides could be trained to be

³Figures in this section were furnished by the Nursing Education and Nursing Service Department of the New York City Department of Hospitals. In addition to the 3,494 out-of-title uses of staff nurse lines by other nursing titles, 183 staff nurse lines were filled by non-nursing personnel.

PN's, with PN's trained to be RN's. There would be no major problem in finding persons to serve as release-time replacements and eventually replace trainees at the entry, nurse aide level.

The PN's could be replaced and relieved by the new PN's while they were trained and licensed as RN's. Of course, we are talking about the training of thousands -- a massive undertaking. It is legitimate to ask why the movement from PN to RN is not taking place spontaneously. We suggest an economic reason below. Chapter 3 describes the strategy to accomplish the moves.

Relative Rewards in Nursing Jobs

If an individual nurse aide wished to invest in herself and train to become a practical nurse, she would, aside from tuition costs, be foregoing about one year of income while she received about one year's specialized full-time study. The same number of years of schooling before training are involved for both jobs. Once she was a PN, her income differential could be represented as a return on the investment of a year's foregone income. As with any investment, the question is how soon is the investment paid for so that net returns are derived. Table 1.3 provides data which indicate that the PN job offers an annual differential over the nurse aide job of \$1,290 to \$1,590, depending on which point in time is considered (February 1967 or March 1968) and which shift is considered. The difference is based on maximum salaries, somewhat inflating the difference.

The nurse aide could recover the loss of income in about four years if tuition is not counted. As line c in Table 1.3 suggests, the alternative for higher-skill performance by a nurse aide who does not take the PN route is \$240 per year, but there is no title change.

If the practical nurse is not a high school graduate, she must not only invest in two years of foregone income for full-time RN study, she may have

TABLE 1.3

SELECTED CHARACTERISTICS OF FULL-TIME NURSING JOBS IN NEW YORK MUNICIPAL HOSPITALS.

Characteristic	Registered Nurse (Staff Nurse)	Licensed Practical Nurse	Nurse Aide
Maximum Salary as of 2/10/67	\$ 7,490	\$ 5,330	\$ 5,080
<u>Later Maximum Salaries</u> ^a			
Date effective	3/1/68	1/1/68	7/1/68
Amount	\$ 8,200	\$ 6,530	\$ 5,980
<u>Additional Benefits</u> (Per Annum)			
a) Shift: 4 p.m. to midnight midnight to 8 a.m.	\$ 900 720	\$ 720 575	b b
b) Continuing patient care involving tubercu- losis, narcotics, psychiatric care; com- municable, venereal or contagious diseases.	240	240	\$ 240
c) Greater responsibilities involving tech- nical or supervisory skills.	-	360	240
d) Uniform allowance	100	100	50
e) Educational increment	B.S.: 200 M.S.: 350		
f) Educational allowance for satisfactory completion of one or more courses of job-related education or training ap- proved by Department of Hospitals.	150	150	-

a. Minimum salaries for the dates indicated are \$4,600 for Nurse Aide (7/1/68); \$5,450 for Practical Nurse (1/1/68); and \$7,000 for Staff Nurse (3/1/68).

b. As of 4/1/68, up to \$368 per year is payable to cover work during the hours of 6 p.m. to 8 a.m.

Source: City of New York Department of Hospitals, Bureau of Personnel Management.

to add as much as three years of high school study for an equivalency diploma. In any case, two years of full-time RN study are a minimum.

The annual pay differential, also based on Table 1.3, would be from \$1,855 to \$2,340 per year, depending on the period used for comparison and the shift worked. The investment could not be recovered in less than five years, and could take as long as fifteen, again excluding tuition costs. The differential for PN's who do out-of-title technical work or supervision is \$360 per annum.

The incentive for the young person to invest in departure from the work force into full-time study, thence to return, is clearly weak. It is weaker for the move from PN to RN than from nurse aide to PN. For a married person or one with financial obligations, the self propelled move is almost beyond consideration, especially since special skill differentials exist as an alternative (Table 1.3).

The move from PN to RN is to the advantage of both the hospital and the individual, but it cannot be financed by the employee. Maintenance of current income during the study period is a necessity. It can perhaps be combined with a shortening of training time.

Ethnicity of the Nursing Population

The importance of training PN's to become RN's is not merely a question of upward mobility in social or economic terms. Here, as elsewhere in our society, the educational barriers have racial implications. As Table 1.4 indicates, the nurse aide and the practical nurse is likely to be black or Puerto Rican about nine times out of ten, while the registered nurse will be black or Puerto Rican only four times out of ten.

The movement from PN to RN means a challenge to the ethnic patterns

TABLE 1.4

THE COMPOSITION OF THE MUNICIPAL NURSING
POPULATION AS OF FEBRUARY 10, 1967.

Employment Group	Registered Nurse (Staff Nurse)	Licensed Practical Nurse	Nurse Aide
Total	<u>1,363</u>	<u>2,731</u>	<u>8,039</u>
Negro	502	2,320	6,655
Puerto Rican	57	129	461
Other	804	282	923
Minorities as percent of total	41.0%	89.7%	88.5%

Source: City of New York Department of Hospitals,
Bureau of Personnel Management.

in the educational system which supplies health services manpower. The requirement for entrance to RN schools is generally a high school diploma and full-time attendance for matriculation. In the community colleges, tuition is free only to matriculated students. The loss of income and the cost of education are effective barriers to minority group members.

Organizations

In the Municipal hospitals, the three basic nursing jobs are represented by three different collective bargaining organizations. These are District Council 37 of the American Federation of State, County and Municipal Employees, AFL-CIO, representing the nurse aides; the Licensed Practical Nurses of New York, Inc.; and the New York State Nurses' Association, representing the registered nurses. The diversity does not present a major barrier. District Council 37 has already embarked on a successful joint venture with the city to train nurse aides to become LPN's. The LPN's of New York, Inc., gave full approval of the study reported here, and the Nurses' Association is in agreement that working RN's would benefit if their numbers increased to provide hands to share the heavy work loads in hospitals, provided that the new "hands" reflected qualified, trained personnel.

CHAPTER 2

RESPONSES TO THE QUESTIONNAIRE

This chapter reports on the responses to the questionnaire. Twenty questions were asked; everyone was expected to answer questions 1 through 17, while only those interested in study to become an RN were asked to answer questions 18 to 20.

GENERAL CHARACTERISTICS OF THE PRACTICAL NURSE POPULATION

Appendix B provides a breakdown by hospital of total responses to all but questions 16 to 20. This section will chiefly discuss the overall figures. The text of the questions and the codes used for the responses may be found in Appendixes A and B.

Length of Service

The average practical nurse in Municipal hospitals has over five years of service both in the job of practical nurse and in Municipal hospitals. Over 46 percent of the PN's have ten or more years of experience; close to 43 percent have been PN's in Municipal hospitals for ten or more years. At the other extreme, 12 percent have been PN's in Municipal hospitals for less than one year.

Education and Sex

The average educational attainment among PN's is above the minimum required for the job. The average is almost at the high school graduate level. About 70 percent have graduated from high school or have equivalency diplomas. Fewer than one percent have had less than an elementary school education. Almost 14 percent report that they have had one year of college or more, and almost

one percent have had four years of college or more.

The high figures for education probably reflect two factors. First, there is growing evidence that Negroes in any given job show greater educational attainment than their white counterparts, and PN's are primarily Negro. Second, secondary income earners, particularly working wives, tend to have a higher educational attainment than their counterparts in the male labor force. Ninety five percent of the PN's are female; 44 percent are married and living with their spouses.

Of those who attended high school, 43 percent took academic courses. The academic program is most likely to have included the course work required for entrance to associate degree RN programs.

Licensure

Over 91 percent of the PN's received their training in a special course run by a school or hospital. The others probably include the older incumbents who functioned as PN's prior to legislation requiring licensing. They were able to "pick up" their training informally. Subsequently, they were given in-service training which enabled them to be duly licensed by the State.

Forty three percent of the PN's have been licensed in New York for over ten years. Three percent have been licensed for less than one year. Fewer than one percent of the practical nurses are without licenses. Graduate PN's are issued temporary licenses until they can take the exams, accounting for the latter group. However, at Harlem Hospital a larger proportion than typical of the other hospitals report no license, together with substantial numbers of years of experience as practical nurses. This finding has not been explained except for the suggestion that they may have forgotten being licensed under the waiver provisions of the law.

Current Study

There were 207 PN's who replied "yes" to question 8, asking if they were currently studying to become RN's and an additional two uncovered by the response to question 17. The nature of this study is unknown. It could include preparation for admission to RN school, single courses, or evening enrollments.

Age and Marital Status

The PN population is not only very experienced, but it is also a mature group, reflected by the married, divorced and widowed marital categories. (Only 21 percent are single, never married). The average age is 41 years. Seaview Hospital has an average age of 50 years. The youngest average for a hospital is that at Fordham: 36 years.

In compliance with the law, no PN's are under 18 years. Those 25 years or less represent nine percent of the total. There are none over 65 years, but four percent are between the ages of 60 to 65, with 20 percent 50 years or over. At Seaview Hospital, 16 percent are 60 to 65 years of age, with 47 percent 50 years or more.

Dependents and Second Job Responsibilities

The number of dependents supported by the respondents was expected to indicate something about financial obligations (need) and responsibilities at home (lack of time for extra study). The average number of dependents was two, however, and less than four percent have 5 or more dependents. Those with three or more dependents number 25 percent; but 75 percent have two or less.

We rated the answers to questions 13 and 14 so that a second job, unrelated to nursing, would score highest; a second, nursing job, would score next highest; with no second job scoring least for these questions. The results show 94 percent with no other job, and less than one percent with an unrelated second job. Thus, there seem to be few serious impediments to interest in a training program.

Languages

Question 15 was asked to identify those with fluent Spanish, since this would be an important asset in many Municipal hospitals. Close to nine percent, or 201 respondents, indicated they were fluent in Spanish. This contrasts with the ethnicity census of Table 1.4 which indicates 129 Puerto Rican PN's. Clearly, other than Puerto Rican Spanish speakers are employed by the hospitals.¹

INTEREST IN STUDY TO BECOME RN'S

Table 2.1 reports the responses to question 17. The question does not specify whether there would be release-time payment or paid tuition. It only asks, "Would you like to study to become a registered nurse?" In coding the response, those who said they were already studying in answer to question 8 were classed as already studying even if they answered "yes" to question 17.

As the reader can see, over 66 percent were not studying and wished to do so. Only 11 percent did not wish to study to become an RN. The lowest "yes" rate is at Seaview, which we have seen has the oldest group of PN's. The highest "yes" rate is at Metropolitan:² 77 percent.

The "already studying" response averaged nine percent, and was highest at Fordham, followed by Cumberland and Lincoln hospitals. Coding for this question was arranged to provide an incremented variable related

¹On the other hand, this may also exemplify the difficulty of collecting figures which break down into Negro, Puerto Rican and "other". Black Puerto Ricans are invariably classed as Negro in such cases. Information about language is lost if black Puerto Ricans are lumped this way. As a matter of fact, the whole area of census reporting is so fraught with self-consciousness and confusion that consistent counting is hard to find.

²Coincidentally, this hospital is the one in which the project will collect its research data. This was not known at the time of the survey.

TABLE 2.1

RESPONSE TO QUESTION 17: WOULD YOU LIKE TO STUDY TO BECOME A REGISTERED NURSE?

Hospital	Code:	Responses Checked							
		(6)		(4)		(2)		(0)	
		Already Studying	Percent of Total	Yes	Percent of Total	Not Sure	Percent of Total	No	Percent of Total
Total Responding	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
1. Bellevue	203	22	10.8	130	64.0	26	12.8	25	12.3
2. Bronx Municipal	173	22	12.7	126	72.8	15	8.7	10	5.8
3. City, Elmhurst	148	15	10.1	112	75.7	13	8.8	8	5.4
4. Coney Island	39	4	10.3	29	74.4	4	10.3	2	5.1
5. Cumberland	106	16	15.1	70	66.0	12	11.3	8	7.6
6. Fordham	38	7	18.4	27	71.0	3	7.9	1	2.6
7. Greenpoint	87	3	3.4	52	59.8	20	23.0	12	13.8
8. Harlem	125	8	6.4	86	68.8	19	15.2	12	9.6
9. Kings County	425	41	9.6	277	65.2	47	11.1	60	14.1
10. Lincoln	54	8	14.8	37	68.5	7	13.0	2	3.7
11. Metropolitan	203	9	4.4	157	77.3	19	9.4	18	8.9
12. Morrisania	101	9	8.9	59	58.4	24	23.8	9	8.9
13. Queens	156	15	9.6	114	73.1	14	9.0	13	8.3
14. Sydenham	80	3	3.8	41	51.2	24	30.0	12	15.0
15. Francis Delafield	47	4	8.5	27	57.4	9	19.2	7	14.9
16. James Ewing	36	3	8.3	25	69.4	6	16.7	2	5.6
17. Bird S. Coler	91	8	8.8	62	68.1	14	15.4	7	7.7
18. Goldwater	174	11	6.3	104	59.8	29	16.7	30	17.2
19. Seaview	75	1	1.3	36	48.0	17	22.7	21	28.0
Total	2,361	209	8.9	1,571	66.5	322	13.6	259	11.0

Note: Percentages sum to 100 across answer categories by hospital and for the total.

to interest. Those studying rank highest, having acted, followed by "yes", "not sure" and "no".

Differential Responses

It was possible to contrast the responses of those who were interested in study to become RN's with those who were not. The responses of those interested were broken down by hospital for selected questions, and the tables appear in Appendix C.

Length of service, both in the job of practical nurse and within Municipal hospitals is shorter, on average, for the "yes" respondents than for the "no" respondents, as indicated in Table 2.2. This reflects the marked age differences between the two. The average age of the "yes" respondent is 39 years (see Table 2.3). The "no" respondents average 53 years of age. The "yes" PN's had heavier proportions among the lower age groupings and lighter proportions among the older age groupings than did the "no" PN's.

Table 2.3 also shows differences in the number of dependents. The averages are not markedly different. However, those with one or less dependents represent 60 percent of the "no" respondents, but only 41 percent of the "yes" respondents. Thus, the number of dependents did not seem to be a deterrent to a "yes" response to question 17; the contrary was true.

The second-job responses in Table 2.4 show a higher percentage with a second job among the "yes" respondents: seven percent. The "no's" show only two percent. Thus, second job commitments also did not act as deterrents to interest in RN study.

Those with interest in study had a higher percentage of female respondents. Table 2.5 shows that males were relatively more represented among the "no's". Table 2.5 also indicates that Spanish speakers were

TABLE 2.2

SUMMARY OF RESPONSES: LENGTH OF SERVICE AND EXPERIENCE AS PRACTICAL NURSES.

Code	Response	Percentage Distribution of Responses	
		Those Interested in Training	Those Not Interested in Training
1. For how many years have you worked as a practical nurse? (If you stopped working for any period of time, give total number of years you actually worked as a practical nurse. Check item that applies to you.)			
1	Less than one year	13.2	1.9
2	One to two years	8.3	1.5
3	More than two but less than five years	18.4	1.9
4	Five years or more but less than ten years	21.6	8.9
5	Ten years or more	38.4	85.7
	Average Response (by code)	3.6	4.7
	Total Responding	1,571	259
2. For how many years have you worked as a practical nurse in New York City Municipal hospitals? (Check one)			
1	Less than one year	15.0	2.7
2	One to two years	8.9	1.5
3	More than two but less than five years	19.9	1.9
4	Five years or more but less than ten years	21.9	10.4
5	Ten years or more	34.2	83.4
	Average Response (by code)	3.5	4.7
	Total Responding	1,571	259

Note: Percentages sum to 100 by answer categories within sample populations.

TABLE 2.3

SUMMARY OF RESPONSES: AGE AND DEPENDENTS.

Code	Response	Percentage Distribution of Responses	
		Those Interested In Training	Those Not Interested In Training
10.	How old are you? (Fill in years) Grouped for analysis as follows:		
1	Less than 18 years	0.0	.4
2	At least 18; less than 20	1.5	.4
3	At least 20; less than 25	8.7	1.5
4	At least 25; less than 30	12.4	.4
5	At least 30; less than 40	33.7	8.1
6	At least 40; less than 50	31.9	23.6
7	At least 50; less than 60	10.5	38.6
8	At least 60; less than 65	1.2	27.0
9	65 or over	0.0	0.0
	Ungrouped, True Average (in years)	38.9	53.1
	Total Responding	1571	259
11.	How many people do you help support? Count yourself if you support yourself.		
0	None	3.4	3.1
1	One	37.5	57.1
2	Two	31.4	26.6
3	Three	17.6	8.6
4	Four	5.9	1.5
5	Five	2.9	1.9
6	Six	1.0	.8
7	Seven	.3	0.0
8	Eight	0.0	.4
9	Nine or more	.1	0.0
	Average Response (Coded)	2.0	1.6
	Total Responding	1571	259

Note: Percentages sum to 100 across answer categories.

TABLE 2.4**SUMMARY OF RESPONSES: SECOND JOB.**

Code	Response	Percentage Distribution of Responses	
		Those Interested in Training	Those Not Interested in Training
	13. Do you work at another job besides the one you hold as practical nurse in a city hospital? (Check one)		
	14. Is your second job also a nursing job? (Check one)		
2	No Second Job	92.8	98.1
3	Second Job is a Nursing Job	6.4	1.5
4	Second Job is not a Nursing Job	.8	.4
	Average Response (coded)	2.1	2.0
	Total Responding		1,571

Note: Percentages sum to 100 across answer categories.

TABLE 2.5

SUMMARY OF RESPONSES: SEX, MARITAL STATUS AND LANGUAGE.

Code	Response	Percentage Distribution of Responses	
		Those Interested in Training	Those Not Interested in Training
<u>9. What is your sex? (Check one)</u>			
8	Male	4.6	8.1
4	Female	95.4	91.9
Total Responding		1,571	259
<u>12. What is your marital status? (Check one)</u>			
1	Married, living with spouse	45.1	37.2
2	Married, living apart from spouse	19.6	15.1
3	Divorced	8.7	5.0
4	Widowed	6.3	22.5
5	Single, never married	20.3	20.2
Total Responding		1,569	258
<u>15. Which languages, other than English do you speak well? (Fill in)</u>			
3	Spanish	8.9	5.4
1	Any other than Spanish	3.1	6.6
0	None or blank	88.0	87.9
Total Responding		1,570	257

Note: Percentages sum to 100 across answer categories.

proportionately more represented among those interested in study than among those not interested.

Educational differences also appear. The average level of attainment for "yes" respondents, according to Table 2.6, is 5.7 (or close to four years of high school). It is 4.3 (or two years of high school) for the "no" respondents. Among the "yes" respondents 12.5 percent had one year of college or more. Only 5.1 percent of the "no"s had the same attainment.

Table 2.7 indicates that academic course work is more likely among the "yes" respondents than the "no"s. The licensing rate is slightly lower for "yes"s, probably reflecting temporary licenses of new LPN's. On the other hand, 96 percent of the "yes"s compared with 66 percent of the "no"s had their training in a formal course.

The impression given by these differential responses is that those interested in study are better qualified for study and more suitable candidates.

Determinants of Interest in RN Study

Since we coded the answers to question 17 as a four-point scale, we were able to use other scaled variables to help answer the question: "Can we predict an individual's response to the interest question from other indicators reflected on the questionnaire?" The variables considered were six:

- a. Years of experience as practical nurse (q.1).
- b. Years of experience as a PN in New York Municipal hospitals (q.2).
- c. Educational attainment (q.3).
- d. Age in years (q.10).
- e. Number of dependents (q.11).
- f. Second-job (q. 13 and 14).

TABLE 2.6

SUMMARY OF RESPONSES: EDUCATIONAL ATTAINMENT.

Code	Response	Percentage Distribution of Responses	
		Those Interested in Training	Those Not Interested in Training
3. How much education have you completed? (Check the item which describes the total years of school you completed.)			
<u>Elementary & Jr. High School</u>			
1	Less than 8 years.	0.0	6.2
2	Eight years.	2.2	20.1
<u>Jr. High & High School</u>			
3	One year High School (or 3 years Jr. High).	3.7	10.8
4	Two years High School	7.3	14.7
5	Three years High School	11.3	10.8
6	Have a High School Equivalency Diploma		
	or		
6	High School Graduate	63.1	32.4
<u>College</u>			
7	One year.	7.3	1.2
8	Two years	3.5	1.2
9	Three years . . . . .	.6	2.3
10	Four years	1.0	.4
11	More than four years . . . . .	.1	0.0
	Sum (7) to (11)	12.5	5.1
	Average Response (by code)	5.7	4.3
	Total Responding	1,571	259

Note: Percentages sum to 100 across answer categories.

TABLE 2.7

SUMMARY OF RESPONSES: TRAINING BACKGROUND.

Code	Response	Percentage Distribution of Responses	
		Those Interested in Training	Those Not Interested in Training
4. If you have attended High School, what kind of program did you take? (Check one)			
1	Academic	44.6	38.2
4	General	35.9	40.4
2	Commercial	8.5	6.7
3	Vocational	11.0	14.6
Total Responding		1,180	89
5. Are you licensed in the State of New York? (Check one)			
3	Yes	99.0	99.6
1	No	1.0	.4
Total Responding		1,569	258
7. Where did you receive your training to be a practical nurse? (Check one)			
3	In a special course run by a school or hospital	96.1	65.6
1	No special course, but on-the-job experience	3.9	34.4
Total Responding		1,554	253

Note: Percentages sum to 100 across answer categories.

Table 2.8 presents the coefficients of simple correlation of all seven variables with each of the others. Only those statistically significant at the 99 percent level of confidence are shown. A coefficient of .9 means that 81 percent of the fluctuations (variance) present in one variable is accounted for by the other. That is, the two variables fluctuate together. A coefficient of .55 means that thirty percent of the variance is thus explained.

The reader will note that column 7 represents the correlation of the interest variable with each of the others. The highest coefficient (-.45) is that for age. It is a negative relationship. As we already noted, the older the person, the less likely the interest. Education correlates at .36, indicating, as we have seen, the more the educational attainment, the higher the likelihood of interest in RN study. Years of PN experience (variables 1 and 2) are negatively correlated at -.28 or -.27 because of their high correlation with age (.53 and .55). Age and education are negatively related at -.32.

The number of dependents and the existence of an unrelated second job or a second job, instead of lessening interest, have a weak but positive correlation, suggesting the ambition of such people to better themselves.

The importance of age as a negative influence on interest was poignantly displayed through the occasional appearance of hand-written comments on the margins of the questionnaires returned to us. On the questionnaire of a fifty-five year old who did not answer question 17 we read, "too late." Other comments next to "no" answers were, "too old", "feel 65 is too old", "interested but too old." One "yes" answer had appended, "if my age limit is not against me."

Many of the questionnaires were rejected because the age question often showed the traditional female response to "how old are you?" We often

TABLE 2.8

SIMPLE CROSS CORRELATIONS OF SEVEN VARIABLES BASED ON ALL RESPONDENTS. ^a

No. Variable	Variable: Years as PN No.: 1	Years as PN (NYC) 2	Edu- cation 3	Age 4	Depen- dents 5	Second Job 6	Inte- rest 7
1	Years as PN	.95	-.13	.53	-.14		-.27
2	Years as PN in NYC Hospitals		-.13	.55	-.14		-.28
3	Education Completed			-.32			.36
4	Age				-.11		-.45
5	Dependents						.09
6	Second Job						.08
7	Interest in RN Study						

a. Sample: 2,361 answered all the questions represented by the seven variables.

All coefficients of correlation shown are significant at the .01 level.

Questions represented: 1-3, 10, 11, 13, 14, 17.

found the answer "21 plus," even though names were not solicited.

Table 2.8 shows the relationship between any two variables taken at a time. Multiple correlation analysis, however, used in a step-wise program, permits one to select the best combination of variables which, when taken in combination, explains the variable under examination. Age, taken alone, accounted for 20 percent of the variance. Step-wise regression analysis, with the interest variable as the dependent variable, produced an equation which accounts for 25 percent of the variance in the responses to question 17 (interest). The adjusted coefficient of correlation is .50.³

$$X_{17} = 4.2 + .25 (X_3) - .05 (X_{10}).$$

The equation says that X_{17} , which is a score of 6, 4, 2 or 0 in answer to question 17, is equal to 4.2, plus .25 of the score on the education variable (X_3 = from 1 to 11), minus .05 of the score on the age variable (X_{10} = the age in years). Thus, the interaction of age and education, taken together, indicates the nature of the response one can expect.

The standard error of estimate is 1.3. Two standard errors would be about 2.6 and include the most probable range. This means that it is likely that an estimated answer of 4, "yes", could be in reality "not sure" or "already studying", but probably not "no." Someone with a high school diploma would be generally estimated to say "yes" in answer to question 17, unless he was about 100 years old. On the other hand, someone who was 60 years old and only had an elementary school education would have an estimated response of 1.7, meaning "not sure" in answer to question 17.

³The coefficient of correlation and the regression coefficients are significant at the .001 level.

COMMITMENT TO STUDY: QUESTIONS 18-20

The last three questions in the questionnaire were only for those interested in study to become RN's. The breakdown of the responses by hospital appear in Appendix C. A summary of the responses to questions 18 and 19 appear in Table 2.9.

Question 18 checked on the willingness to invest in full-time study, the benefits of which were mentioned in Chapter 1. As we expected of an adult population, over 57 percent of the respondents saying "yes" to question 17 could not afford to take any time off without pay, even if tuition were paid. However, 43 percent were willing to give from six months to two years. Of the three responses for time (six months, one year or two years), the greatest percentage, 18 percent, chose the full two years needed to go straight through to the RN license.

Question 19 was scored so that a study-work preference for more study and less pay coded highest (3), and full pay, full work with extra hours of study came next (2), followed by the acceptance of neither (0). The largest response group chose half-time pay and study, 48 percent, with an almost even number choosing full-time work and pay and extra study. Only 10 percent indicated that neither is acceptable.

As Table 2.10 indicates, the answers to these two questions (variables 7 and 8) have a weak, positive correlation with each other (.18). Experience and age are negatively but weakly related to the response to question 18. So is the number of dependents, as expected. The answer to question 19 does not correlate significantly with any variable except the answer to question 18.

Question 20 was considered to be our crucial "sacrifice" question. It tells us how much extra time the PN is willing to add to a tuition-free, release-time study plan. The results, presented in summary in Table 2.11, are very impressive. Only 5.6 percent of those interested in study would not or

TABLE 2.9

SUMMARY FOR RESPONDENTS INTERESTED IN TRAINING: TIME AWAY FROM WORK AND WORK-STUDY PREFERENCES.

Code	Response (Total = 1,488)	Number	Percent Distribution
18. If your tuition in a registered nurse training program were paid for, how much time off from work without pay could you afford? (Check one)			
3	Two years	271	18.2%
2	One year	240	16.1
1	Six months	123	8.3
0	Could not afford any time off without pay	854	57.4
	Sum of those willing to give six months or more to study	634	42.6
	Average Response (by code)		1
19. If your tuition were paid for part-time study, and you were paid only for the time you actually worked, which would you prefer? Choice (a) would take less time to complete the training, but choice (b) would provide a full-time income. (Check one)			
3 ^a	(a) To work half time at half pay and study half time	721	48.4
2	(b) To work full time at full pay and study after hours and on days off	614	41.3
0	(c) Neither is acceptable	153	10.3
	Sum of those interested in some study	1,335	89.7

Note: Percentages sum to 100 across answer categories.

a. Scale is in the direction of speed, and inverse with financial need.

TABLE 2.10

SIMPLE CROSS CORRELATIONS OF NINE VARIABLES BASED ON 95 PERCENT SAMPLE OF RESPONDENTS INTERESTED IN TRAINING.^a

No. Variable	Variable: Years as PN No: 1	Years as PN (NYC) 2	Edu- cation 3	Age 4	Depen- dents 5	Second Job 6	Time Off 7	Study- Work 8	Extra Time 9
1	Years as PN	.95		.48	-.13				-.08
2	Years as PN in NYC Hospitals			.50	-.13		-.09		-.09
3	Education Completed			-.16			.09		
4	Age				-.08		-.17		
5	Dependents						-.19		
6	Second Job							.18	
7	Time off for Study								
8	Study-work Preference								
9	Extra Study Time								

a. Sample: 1,488 answering yes to Question 17, who answered all the questions represented by the nine variables.

All coefficients of correlation shown are significant at the .01 level.

Questions represented: 1-3, 10, 11, 13, 14, 18-20.

TABLE 2.11

SUMMARY FOR RESPONDENTS INTERESTED IN TRAINING: WILLINGNESS TO GIVE EXTRA TIME OFF IN ADDITION TO RELIEF TIME STUDY.

Code	Response (Total = 1,488)	Number	Percent Distribution
20.	A training program might be given in which you worked part time and studied part time, at your full, regular pay. Would you be willing to put in <u>extra</u> study time of your own, to get through more quickly? (Check the item(s) that applies to you.)		
1	a. I would not be able to give extra time	63	4.2
0	b. I am not willing to give extra time	21	1.4
3	c. I would give one of my days off a week	661	44.4
2	d. I would give one extra hour a day	40	2.7
4	e. I would give two extra hours a day	123	8.3
5	f. I would give three extra hours a day	116	7.8
6	g. I would give four extra hours a day	332	22.3
7	One day off (c) and one hour a day (d) checked	12	.8
8	One day off (c) and two hours a day (e) checked	47	3.2
9	One day off (c) and three hours a day (f) checked	20	1.3
10	One day off (c) and four hours a day (g) checked	53	3.6
	Willing to give at least one hour a day (excluding day off)	743	50.0
	Willing to give a day off (excluding extra hours per day)	793	53.3
	Willing to give at least a day off and one hour a day	132	8.9
	Not willing or able to give extra time	84	5.6
	Average response (coded)	4.3	

could not contribute extra time.

Of all the combinations open, the greatest bulk of the PN's seem to prefer one of their days off (44 percent). The next most important group is that offering an extra four hours per day, which suggests some possible under-estimation of what a 12-hour day would mean. In any case, over 53 percent offered some sacrifice involving a day off, and 50 percent offered some combination including one extra hour per day.

Table 2.10 indicates that the willingness to offer extra hours of study is not strongly tied to any other variable encountered thus far. Only the two experience variables seem to have any significance. Thus, long years of service seems to suggest exhaustion and a drain on the amount of time to be offered.

Stepwise, multiple correlation analysis produced nothing better than an adjusted coefficient of correlation of .097, explaining only .01 percent of the variance in question 20 (X_{20}).⁴ This is just about useless, and can only be used to describe weak tendencies.

$$X_{20} = 3.8 - .13 (X_2) + .43 (X_{13-14}).$$

The negative effect of experience (X_2) seems to be somewhat overcome by the ambition represented in the existence of a second job (X_{13-14}), especially a non-nursing second job. The standard error of estimate is 2.1.

The significance of the fact that one cannot explain or predict the response to question 20 is this. Once the person expresses interest in study, no objective conditions such as age, education, experience or dependents have much to do with the amount of sacrifice she will make. The response is based on other, personal differences, probably reflecting ambition, expectation of results, hope, and a sense of what is proper to give or get.

⁴The coefficient of correlation and the regression coefficients are significant at the .01 level.

CRITERIA FOR WHAT A GOOD RN NEEDS

Question 16 was answered by 87 percent of all respondents and 86 percent of those interested in RN study. It asked the respondents to list in rank order which areas make for good performance as a registered nurse. The nine items included three kinds of academic courses (c, d and i), two kinds of courses specifically for nursing (b,g), training in human relations (a), experience as a nurse aide (h), experience as a PN (e) and dedication (f). We were interested in the ranking of the parts of the required RN curriculum compared with the practical experience of a nurse aide or a practical nurse. We also wished to see whether the idealism usually associated with the RN, dedication, was also accepted by the PN who has day-to-day experiences in the hospital environment.

Because of the needs of other statistical techniques, we had two split samples available for the total responses and the "yes" response population. Table 2.12 presents the two-sample mean rank scores for each of the 9 variables -- for the two populations. The split samples show exactly the same results; the two populations differ only with respect to the second and third positions.

Dedication proved to be the most important attribute, wiping away any prior notion that PN's might be hard-boiled in their response. PN experience ranks only 5th, with nurse aid experience ranking in 8th position. After dedication, the total group selects training in human relations, another ideals or people-oriented area (i.e., tender loving care). The "yes" response people are a little more geared to the learning needed, and rank nursing theory in second place. Clinical nursing practice comes fourth. The need for science is reflected in the sixth position. But liberal arts courses rank 7th and 9th. The last position is held by literature and art.

TABLE 2.12

RANK ORDERING OF ASPECTS AFFECTING RN PERFORMANCE.
(Averages Based on Split Samples)

Item	All Those Responding		Those Interested In Training Responding	
	Sample 1 Rank Score	Sample 2 Rank Score	Sample 3 Rank Score	Sample 4 Rank Score
16. People may have different opinions about the areas which make for good performance as a registered nurse. The following is a list of nine items. Number these according to your opinion as to their order of importance for being a good registered nurse. The most important should be marked "1", the next "2", and so on, with the least important marked "9".				
Number in Sample	999	999	675	683
f. Dedication to helping people	1 2.3	1 2.4	1 2.3	1 2.3
b. Classroom training in nursing theory	3 3.2	3 3.2	2 3.1	2 3.1
a. Training in human relations	2 3.1	2 3.1	3 3.2	3 3.3
g. Clinical practice in nursing skills	4 3.7	4 3.6	4 3.6	4 3.5
e. Practical-nurse work experience	5 4.9	5 4.8	5 4.9	5 4.8
i. Training in natural sciences	6 6.5	6 6.5	6 6.5	6 6.5
d. Training in history and social science	7 6.6	7 6.7	7 6.7	7 6.8
h. Nurse-aid work experience	8 7.0	8 7.0	8 7.0	8 7.0
c. Training in literature and art	9 7.6	9 7.7	9 7.6	9 7.7

Note: Samples 1 and 2 together represent 85 percent of the total usable questionnaires, and are those questionnaires in which question 16 was properly completed. These were split into two samples on the basis of odd or even last digits in their identification numbers. Samples 3 and 4 together represent 86 percent of those who answered "yes" to question 17 and include questionnaires in which question 16 was properly completed. This group was also split into two samples on the basis of odd or even identification numbers.

From the PN point of view, the concern with people comes first in the making of a good RN, and then training in caring for people's physical and personal needs. After that, academic education and experience vie for importance.

FACTOR ANALYSIS

It is possible to probe even deeper into the responses with the help of factor analysis. Factor analysis is a technique used to take account of the clustering of variables even when coefficients of correlation between pairs of variables are relatively low. We may ask, for example, how do the responses to rank ordering cluster, taking the ranking of every respondent on all nine rankings into account; how do these relate to other variables?

The program used here for factor analysis makes use of the simple coefficients of correlation of each variable with every other variable. The matrixes (see Appendix D) are too complex to be comprehended by visual inspection. Varimax rotation of eight principal axis factors resulted in a set of "factors" each of which represents a quality which is uniquely different from those represented by other factors. Each variable has a "loading" on each factor, but factor analysis usually results in a selection of factors such that a variable has a high loading on only one factor. Its appearance there with other high-loading variables indicates to the observer the quality being isolated. The number of factors "extracted" by the process cannot be greater than the number of variables, but, beyond this, the number is up to the discretion of the researcher.

Two samples were used for each of the factor analyses performed. These were introduced in Table 2.12. The factor solutions chosen were based on the following criteria:

- (1) The solution which showed the greatest congruence with its counterpart on the other sample (stability).
- (2) The solution which showed a factor structure echoed by other solutions. That is, the clustering on the factor was not unique to that factor solution alone, but appeared on factor solutions involving a greater or lesser number of factors.

The tables which follow list variables by the factors on which they load at .40 or higher. Loadings up to .99 are possible. Loadings measure the extent to which a variable partakes of the quality represented by the factor. The signs attached to the factor loadings have no intrinsic significance. However, a minus sign within a given factor's loadings indicates an inverse relationship with variables with a positive sign on that factor.

Tables 2.13 and 2.14 represent the factors extracted from analyses of sixteen and eighteen variables, respectively. Table 2.13 includes the seven variables represented in Table 2.8, including the interest variable (question 17), and the nine rank orders of question 16. Table 2.14 excludes question 17 and includes answers to questions 18 through 20. Thus, Table 2.13 reflects the entire set of respondents and Table 2.14 represents only "yes" respondents.

In Table 2.13 we find three clear, stable factors which reinforce much of what has already been described. There is a negative relationship between age and experience on one hand, and interest in study on the other. These variables are largely independent of any others, except that education's positive effect appears in a possible fourth factor in which variables 1 and 2 (experience) are replaced by variable 3 (education).

The second and third factors in Table 2.13 indicate that the rank ordering of the nine variables are independent of other variables, but two aspects of criteria choice are involved. In factor two there is a polarization in choosing experience as important or choosing academically based subjects as important. The variables which appear here all have an average rank of 5 through 9 in Table 2.12. Their rank appears to reflect both a dichotomy and interdependence in their selection.

Factor three, the second criteria factor, covers the remaining four rank variables. Here there is a dichotomy between clinically based skills and

TABLE 2.13

FACTOR ANALYSIS OF SIXTEEN VARIABLES BASED ON FIFTY PERCENT
SAMPLE OF ALL RESPONDENTS.^a

Variable	Fac- tor Load- ings ^b	Per- cent Vari- ance	Cumula- tive Percent Variance	Factor Name
<u>Factor One</u>				
1 Years as Practical Nurse	.88			Age Effect on Interest in Study
2 Years as Practical Nurse in NYC Hospitals	.89			
4 Age	.78			
16 Interest in Study to become RN	-.54	17.1	17.1	
<u>Factor Two</u>				
9 Rank: Training in Literature and Art	.71			Work Experi- ence vs. Aca- demic Subjects as Criteria
10 Rank: Training in History and Social Science	.72			
11 Rank: Practical Nurse Work Experience	-.72			
14 Rank: Nurse Aid Work Experience	-.80			
15 Rank: Training in Natural Sciences	.41	16.0	33.1	
<u>Factor Three</u>				
7 Rank: Training in Human Relations	.48			Clinical Skills vs. People-Orien- tation as Criteria
8 Rank: Classroom Training in Nursing Theory	-.66			
12 Rank: Dedication to Helping People	.48			
13 Rank: Clinical Practice in Nursing Skills	-.68	10.5	43.6	
<u>Possible Fourth Factor (From Alternative Solution)</u>				
3 Education Completed	.73			
4 Age	-.45			
16 Interest in Study to become RN	.68	-	-	
<u>Variables Not Loading At .40 Or Higher On Factors</u>				
5 Dependents				
6 Second Job				

a. Sample: 999, answering question 16 and all others represented by the 16 variables, with odd ID numbers.

b. Plus or minus signs differentiate the direction of the relationship relative to other variables only within the factor. Factor loadings below .40 were not considered.

Note: For correlation matrix see Appendix D, Table D.1.

TABLE 2.14

FACTOR ANALYSIS OF EIGHTEEN VARIABLES BASED ON FIFTY PERCENT SAMPLE
OF RESPONDENTS INTERESTED IN TRAINING.^a

Variable	Fac- tor Load- ings ^b	Per- cent Vari- ance	Cumula- tive Percent Variance	Factor Name
<u>Factor One</u>				
1 Years as Practical Nurse	-.92			Age Relation- ship to Experi- ence
2 Years as Practical Nurse in NYC Hospitals	-.93			
4 Age	-.69	13.3	13.3	
<u>Factor Two</u>				
9 Rank: Training in Literature and Art	.65			Work Experience vs. Academic Subjects as Criteria
10 Rank: Training in History and Social Science	.75			
11 Rank: Practical Nurse Work Experience	-.71			
14 Rank: Nurse Aid Work Experience	-.72			
15 Rank: Training in Natural Sciences	.40	13.6	26.9	
<u>Factor Three</u>				
7 Rank: Training in Human Relations	.64			Clinical vs. People-Based Subjects as Criteria
8 Rank: Classroom Training in Nursing Theory	-.51			
13 Rank: Clinical Practice in Nursing Skills	-.77	8.7	35.6	
<u>Factor Four</u>				
5 Dependents	.50			Work Obligation vs. Study Time
16 Time Off for Study	-.64			
17 Study-Work Preference	-.52	7.7	43.3	
<u>Possible Fifth Factor (From Alternate Sample)</u>				
6 Second Job	-.53			Sacrifice and Ambition
18 Extra Study Time	-.62	-	-	
<u>Variables Not Loading At .40 Or Higher On Factors</u>				
3 Education				
12 Rank: Dedication to Helping People				

a. Sample: 675 answering yes to question 17, with even ID numbers, who answered all the questions represented by the 18 variables.

b. Plus or minus signs differentiate the direction of the relationship relative to other variables only within the factor. Factor loadings below .40 were not considered.

Note: For correlation matrix see Appendix D, Table D.2.

knowledge, the physical side of nursing; and the people-oriented side of nursing, dedication and human relations.

Table 2.14 indicates that our factors are notably stable. Factors one, two and three appear again; with question 17 omitted from factor one, since it was not examined. Dedication drops away from factor three with little change in the meaning of the factor.

The fourth and possible fifth factors show a subtle interplay of the sacrifice items with other characteristics. Factor four indicates something which was alluded to in earlier inspection of the data. Time off for study and study-work preferences will tend to co-vary, and are negatively affected by the number of dependents. This means that financial obligations will keep a person from choosing a course which leads to any reduction in income.

On the other hand, the ambition which leads a person to take on a second job will lead her to offer extra study time on her own, once her base income is assured.

CONCLUSIONS

1. An overwhelming percentage of practical nurses are interested in study to become RN's.
2. Those interested are generally more qualified and promising candidates in terms of age and education than those without interest. A process of self-screening appears to be involved.
3. Many interested practical nurses may have had some of the college subjects which are currently part of approved RN courses of study.

4. Interested candidates display a great willingness to contribute to the training process by giving of their own time.
5. For the most part, however, financial obligations do not permit study without maintenance of current income.
6. There is a substantial group which might be interested in full-time study at reduced income if tuition costs were covered.
7. The bulk of interested PN's can be expected to contribute one hour a day or one day off a week to a release-time, work-study program.
8. Practical nurses put great emphasis on dedication and attention to people's needs as criteria for RN performance. They also consider basic training in nursing theory and clinical practice to be important. After these considerations, they rate practical nurse experience as more important than academic courses.

CHAPTER 3

IMPLEMENTATION OF A PN TO RN PROGRAM

One of the respondents at Bellevue Hospital wrote, "I had been accepted at Bronx C.C. Pre-Nursing Program for R.N. I am now cancelling pending this course." She has assumed that a program will be forthcoming from the Department of Hospitals. It is now up to the author of this report to show the Department of Hospitals how it can deliver. We start with the assumption that it must deliver, both in its own interests and in the interests of its current employees.

A COORDINATED APPROACH TO UPWARD MOBILITY

The shortage of nursing personnel in hospitals has long been acknowledged. The vacancies exist side by side with a profusion of dead-end jobs at the lower skill levels. The obvious problem is that the demand for qualified and trained nurses is not being met by the market (or being satisfied by the educational system), while experience in low level health jobs has not been a mechanism for upward mobility. The external labor market has not provided the supply where it is needed, and the internal labor market has not been working as an allocator of scarce resources.

That this problem is so chronic is related to the fact that nursing theory and skills are not easily "picked up" by simple proximity of workers as was the case in traditional, factory upgrading experiences. In addition, nursing occupations are surrounded by certification and credentialing requirements. Workers are forced to leave employment in order to take the full-time academic training needed in order to qualify for licenses.

The hospital employer, already faced with shortages and rising costs, faces a related problem. While the factory employer may receive productive output from a worker learning a higher job while he remains on the job, the hospital must lose the worker-in-training because his training needs are largely academically based and, therefore, he is not productive during the training period.

One answer to these problems is a multi-staged, coordinated system of training positions and replacements involving half-time study and full-time income. Multi-staging can provide training at minimum cost with no loss in production. For the trainees, it provides the maintenance of income and job security they require, while guaranteeing maximum upward mobility.

This promise sounds like a simple-minded dream, but it will be shown that training costs, aside from tuition, need never go beyond the cost of staffing the job whose vacancies are to be filled. In point of fact, the training period has lower wage costs than after the vacancies are filled and training ceases.

A Prototype Plan For A Three Level Nursing Sequence

The plan offered here is a truncated prototype based on the idea of creation of training positions for every job in a career-ladder sequence. The plan is truncated because, though it recognizes the sequence of nurse aide, practical nurse and staff nurse, there are clearly other jobs which can feed into the nurse aide line or lie above the staff nurse line, and thus the "ladder" should have additional rungs. The plan provides for funding for release time and for replacement workers out of the salary lines of the vacancy jobs to be filled or their dollar equivalents.

Table 3.1 presents a plan for filling 500 staff nurse positions in the length of time needed for training PN's to become RN's, plus that for training nurse aides to become practical nurses in a half-time, work-study program. The salary figures used are those in effect as of July, 1968. The net cost figure above the salary bill for current employees is never above \$2,167,500 per year, and will turn out to be considerably less than this. (See footnote b for Table 3.1.) The annual cost to employ 500 new RN's would lie between \$3,500,000 and \$4,100,000.

The phasing starts at the lowest level, so that the workers needed to carry the half-time work burden while others are studying are always provided, and no later redundancies occur. In Phase I, we have employment figures roughly approximating current in-title employment. The 500 staff nurse vacancies are a modest assessment of true staffing needs.

In Phase II, the first training step takes place. We hire and train new nurse aides in a number (125), equal to one quarter of the total number of vacancies to be filled at the staff nurse level (500). Training nurse aides would take a brief period of time. The new nurse aides are then able to provide release-time relief for 250 nurse aide trainees who would study to become practical nurses.

In Phase III, the second training step takes place. The 125 new nurse aides now relieve 250 nurse aides who will study to become PN's. An additional 250 new nurse aides are hired and trained near the end of this phase. Their training period's end is geared to coincide with the end of the PN program. This phase would take the length of time needed to prepare nurse aides to pass the practical nurse licensing examination. It could take from one to two years, depending on the design of the program

TABLE 3.1

A THREE-STEP PLAN FOR UPGRADING PRACTICAL NURSES TO REGISTERED NURSES ON A HALF-TIME STUDY, RELEASE-TIME BASIS.^a

Job Title	Employment by Salary Level			Employment by Function				Wage Bill (Annual Rate)
	Total	No. at Maximum	No. at Minimum	Normal Work	Upward Trainee	Relief Work	Entry Trainee	
Phase I. Initial period with 500 staff nurse vacancies.								
Staff Nurse	1,200	1,200	-	1,200	-	-	-	\$ 9,840,000
Prac. Nurse	1,900	1,900	-	1,900	-	-	-	12,407,000
Nurse Aide	4,300	4,300	-	4,300	-	-	-	25,714,000
Total	7,400							\$ 47,961,000
Phase II. New nurse aide trainees hired to fill nurse aide lines. ^b								
Staff Nurse	1,200	1,200	-	1,200	-	-	-	\$ 9,840,000
Prac. Nurse	1,900	1,900	-	1,900	-	-	-	12,407,000
Nurse Aide	4,425	4,300	125	4,300	-	-	125	26,289,000
Total	7,525							\$ 48,536,000
Phase III. Phase II training completed. Nurse aides training to be PN's. More nurse aide trainees hired to fill nurse aide lines. ^b								
Staff Nurse	1,200	1,200	-	1,200	-	-	-	\$ 9,840,000
Prac. Nurse	1,900	1,900	-	1,900	-	-	-	12,407,000
Nurse Aide	4,675	4,300	375	4,050	250	125	250	27,439,000
Total	7,650							\$ 49,686,000
Phase IV. Phase III training completed. More nurse aides training to be PN's. PN's training to be RN's. More nurse aide trainees hired to fill nurse aide lines. ^b								
Staff Nurse	1,200	1,200	-	1,200	-	-	-	\$ 9,840,000
Prac. Nurse	2,150	1,900	250	1,400	500	250	-	13,769,500
Nurse Aide	4,550	4,050	500	4,050	250	125	125	26,519,000
Total	7,900							\$ 50,128,500
Phase V. Phase IV training completed. No training in progress.								
Staff Nurse	1,700	1,200	500	1,700	-	-	-	\$ 13,340,000
Prac. Nurse	1,900	1,400	500	1,900	-	-	-	11,867,000
Nurse Aide	4,300	3,800	500	4,300	-	-	-	25,024,000
Total	7,900							\$ 50,231,000
Phase VI. All employees at maximum salaries.								
Staff Nurse	1,700	1,700	-	1,700	-	-	-	\$ 13,940,000
Prac. Nurse	1,900	1,900	-	1,900	-	-	-	12,407,000
Nurse Aide	4,300	4,300	-	4,300	-	-	-	25,714,000
Total	7,900							\$ 52,061,000

- a. Based on the following assumptions: Trainees study half time but receive full-time salaries. Current incumbents, including trainees for upgrading, are at maximum salaries for their lines and receive current wages until upgraded. New incumbents start at minimum rates. Plan results in 500 vacancies filled, 1,000 workers upgraded and 500 new employees.

Salaries as of 7/1/68	Staff Nurse	Practical Nurse	Nurse Aide
Minimum	\$ 7,000	\$ 5,450	\$ 4,600
Maximum	8,200	6,530	5,980

- b. Costs are actually much lower. Wages are here represented at an annual rate, but some training programs involve weeks or months. Thus, proper staging within each phase will reduce costs.

and the amount of extra study time given by the trainees.

In Phase IV, the third training step, the 250 new PN's are now able to relieve 500 PN's who would be enrolled in a RN program. An additional 250 nurse aides embark on a second PN training program. The 500 total new PN's will replace the new RN's. The 250 newly trained nurse aides replace the upgraded nurse aides of Phase III, and the 125 new nurse aides of Phase II again are available to relieve the new batch of 250 nurse aides studying to become PN's. An additional 125 nurse aides are hired so that they can, combined with the 125 relief aides, take the places of the new PN's who emerge at the end of the Phase IV PN program. Again, in Phase IV, the three training programs are phased over time so that their endings coincide. The PN to RN program could take from two to four years, depending on the arrangements for exemption credits and extra study time.

It will be noted that in Phase V, with all the new trainees in place and the 500 RN slots filled, the wage bill is higher than at any stage in the training. This is because the staff nurse line is at the highest rate of pay. The program to fill 500 RN vacancies will have upgraded 1,000 workers and offered new nurse aide employment to another 500. It is interesting to note that a continuous cycle of this sort could keep wage costs down, since Phase V, with 1,500 working at the minimum wages for their lines, is cheaper than after all have reached their maximum salaries in Phase VI.

Money For Release Time Salaries And Replacements

This analysis suggests that money for training positions should be viewed as an additional cost only in the way expansion of output involves additional cost. The point is that medical-care output can increase with total employment and total wages if proper planning and organization occurs.

Even 500 staff nurse vacancies in Municipal hospitals could probably not be filled if 500 RN's were available tomorrow. This is because vacancy salaries are not carried in the budget. Yet the social costs in terms of inadequate patient care are very real.

Four possible financial solutions are presented here. First, the Department of Hospitals can demand and win budget funds for "real" vacancies when a training sequence or training positions exist to fill them. "Real" would mean that the positions would be filled on completion of training. Second, training positions could be approved and budgeted at every line, but the total budget for training positions would be equal to the total salary cost of all "real" vacancies. This would be like the creation of a training fund and provide adequate funds to upgrade in sequence. The titles and sequences would vary over time as vacancies appeared. With sequences, the dollars fund would cover, as we have seen, the cost of replacements for release-time study as well as the release time itself. The longer the career ladder, the greater the number of people who could be upgraded with the same dollar expenditure.

A third solution would be to declare that the costs of training cannot be borne by the trainee nor the hospitals, nor the City. Since the costs can be viewed as social costs (the public suffers for lack of adequate staffing and upgrading), then the public at large must share in carrying the burden. The answer would be legislative funding from the State or Federal government, aside from tuition. Such funding for release time study and replacements would be as appropriate in an education bill as in a health manpower training bill. Below the RN level some funding already exists, but the relevant acts are overly rigid in application and could not be used to cover replacement costs for release time study. Any proposed legislation must be

able to provide funds to qualifying hospitals to cover a pool such as described above if there is not to be a further curtailment in the delivery of patient care during training.

The fourth solution is collective bargaining. The unions representing the nursing occupations have the power to demand a training fund as described above. The burden of arguing for budget funds would then be shared by the employee organizations and the City administration. Such an approach requires, however, that the organizations recognize that sequential upgrading would benefit workers at all levels and in all organizations. A common pool is an absolute necessity. A cooperative effort is demanded of the organizations to obtain it.

All of the solutions require planning by hospital administrators and proper timing if they are to succeed in practice. All require the decision to at least make vacancy salary funds available.¹

TRAINING TIME AND EDUCATIONAL REQUIREMENTS

The costs of an upgrading program could be considerably reduced if the time required for study were reduced. Existing legislation for RN licensing requires that a State-registered school approve the candidate before she sits for the licensing examination. At the same time, general practice in the RN schools indicates a rather rigid standard of required course work. However,

¹It should be noted that District Council 37 (State, County and Municipal Employees), representing nurse aides, has co-sponsored a nurse aide-to-practical nurse training program with the Department of Hospitals. It is currently underway. It will run three cycles of 150 trainees each, with the first starting in October, 1967. This is a 14 month cycle, including 25 class hours per week, spread over five days per week and five hours per day. An additional 20 hours per week in clinical practice is required of the trainees. Workers are compensated only for their clinical practice if they are not heads of households. They qualify for MDTA funds if they are heads of households.

Though this is a fine program, it would seem to be more appropriate to adopt a total package such as that described in this report, since the problem of release time costs are not met in such a one-step program.

the RN schools, in cooperation with the State College Proficiency Examination Program, could provide exemption for academic course work where candidates have had such college-level courses; they could also offer exemption examinations for clinical skills already learned by PN's during their working lives.

It is very much up to the schools to provide such exemptions or recognize proficiency exams. If they were willing, they could provide courses of study which would eliminate, for selected candidates, subjects commonly exempted-- and thus shorten the time needed for completion.

Exemptions and Credits

In Table 3.2 a list of New York City schools offering RN programs and registered by the State Education Department is presented. The diploma schools are hospital based. Harlem and Kings County are Municipal hospitals, and may be able to arrange some transfer of personnel with other Municipal hospitals so that replacement costs and the newly trained personnel in the plan for 500 RN's could be shared. The diploma schools might be willing to consider accelerated study or exemptions. The hospitals seem likely places to expect credit for prior clinical skills and experience once proficiency tests are developed, since diploma programs emphasize practical application in their training. However, it would be important not to cut diploma school graduates off from a pathway leading to advanced study.

The associate degree programs are generally the shortest available. They are geared to take two years of full-time study, compared with the usual three for diploma programs. The six associate degree programs listed in Table 3.2 are in community colleges.

TABLE 3.2

PROFESSIONAL NURSING PROGRAMS OFFERED IN NEW YORK CITY AND REGISTERED BY THE STATE EDUCATION DEPARTMENT.

Type of Program ^e	Name of School	Part-time Possibilities ^a
Master's*	New York Medical College	No
Master's	New York University	-
Baccalaureate*	Adelphi College, Garden City	Yes
Baccalaureate	Columbia University	No
Baccalaureate*	Cornell University (N.Y. Hospital)	No
Baccalaureate*	Hunter College #	No
Baccalaureate*	Wagner College	Yes
Associate Degree*	Bronx Community College #	Yes ^b
Associate Degree*	Kingsborough Community College #	b
Associate Degree	Manhattan Community College #	No ^c
Associate Degree	New York City Community College #	Yes ^d
Associate Degree*	Queensborough Community College #	Yes ^b
Associate Degree*	Staten Island Community College #	Yes ^b
Diploma	Beth Israel Medical Center	
Diploma*	Brooklyn State Hospital	
Diploma*	Creedmore State Hospital, Queens Village	
Diploma	Flushing Hospital and Medical Center, Flushing	
Diploma	Harlem Hospital	
Diploma	Hospital for Joint Diseases (for LPN's only)	
Diploma	Jewish Hospital of Brooklyn	
Diploma*	Kings County Hospital	
Diploma	Lenox Hill Hospital	
Diploma*	Long Island College Hospital	
Diploma	Lutheran Medical Center	
Diploma*	Manhattan State Hospital	
Diploma	Mary Immaculate Hospital, Jamaica	
Diploma	Methodist Hospital	
Diploma	Misericordia Hospital	
Diploma	Queens Hospital Center, Jamaica	
Diploma	Roosevelt Hospital	
Diploma	Mt. Sinai Hospital	
Diploma	St. Clare's Hospital	
Diploma	St. John's Episcopal Hospital	
Diploma	St. John's Queens Hospital	
Diploma	St. John's Riverdale Hospital, Yonkers	
Diploma*	St. Luke's Hospital	
Diploma	St. Mary's Hospital	
Diploma	St. Vincent's Hospital, New York	
Diploma	St. Vincent's Hospital, Staten Island	

- * Admits males. # Part of City University of New York (CUNY).
- a. Information available for M.S. and B.S. programs and community colleges only.
- b. Matriculation entitles student to free tuition. Part-time students or students with advanced standing can be matriculated if they meet qualifications set by the school.
- c. Matriculation entitles student to free tuition. Part-time study is not available; full-time is necessary for matriculation.
- d. Matriculation entitles student to free tuition. After one year of study a student can matriculate part-time in the evening session.
- e. The Associate Degree program at Queens College, part of CUNY, is to become a Baccalaureate program.

We have examined the requirements for entry to the community college programs. Table 3.3 indicates that all six require a high school diploma or an equivalency, and, in addition, require certain specific course work in high school. English, history or social studies, math and science are required by all in varying amounts. The academic diploma would probably automatically meet these requirements.

On the basis of Table C.1 in Appendix C, we find that 1,187 PN's who want the training have a high school equivalency diploma or better. More detailed information indicates that, of these, 526 have taken an academic program. Probably another 300 would qualify for entrance. Thus, there is no doubt that 500 qualified candidates could be found for the program.

But, in addition, there is no reason why remedial work could not be offered to candidates who wish to make up the deficiencies and take the necessary regents examinations.

Once in the program, the question is whether exemptions would be available for large enough numbers of candidates in common subjects so as to warrant a tailor-made program. Table 3.4 presents the course work required in the six RN programs in community colleges.

No more than 52 percent of the course work is in nursing courses. The remainder of the work is in traditional liberal arts courses at the college level. English, sociology, physical education and some science are commonly courses taken by college students in their first two years. Table C.1 indicates that 195 interested PN's declare that they have had one year of college or more. One could expect that up to 16 credits, or 23 percent of all class time needed for the RN program, might be exempted or credited, based on prior education, for 100 out of the 195 candidates. This estimate provides a sufficiently large number to warrant a tailor-made course

TABLE 3.3

REQUIREMENTS FOR ADMISSION TO NEW YORK COMMUNITY COLLEGES' ASSOCIATE
DEGREE PROGRAMS IN NURSING.

Community College	Academic Units ^a					Total
	English	History & Social Studies	Language	Math	Science	
Bronx	4	1		2	2	9
Kingsborough	4	2		1	2	9
New York City	- - - - -	Not specified, but within these subjects - -				10
Staten Island	4	1		2 1/2	1	8 1/2
Manhattan		2		1	2	5
Queensborough	4	1		2		7
Planned ^b	4	1		1	1	7

- a. High School diploma or an equivalency is required. Within this, certain special course work is required. The total refers to the total of specific course-work requirements.
- b. As of September 1969, uniform requirements will be adopted by the community colleges.

TABLE 3.4

ACADEMIC COURSE WORK REQUIRED FOR SUCCESSFUL COMPLETION OF ASSOCIATE DEGREE PROGRAMS IN NURSING, NEW YORK CITY COMMUNITY COLLEGES. (IN ACADEMIC CREDITS)

Academic Subjects	Community College					
	Bronx	Kings- borough	New York City	Staten Island	Manhattan	Queens- borough
Nursing ^a	35	30	33	33	30	30
Percent of Total	52%	45%	49%	48%	44%	44%
Natural Science and Math. Science					3	
Anatomy, Physiology or Biology	7	12	10	12	10	12
Biochemistry	4		2			4
Mathematics			3		3	
Percent of Total	16%	18%	23%	18%	23%	23%
Social Science		6				
Psychology	3	6	6	3	3	6
History	6					
Sociology	3	3	3	3	3	3
Percent of Total	18%	22%	14%	9%	9%	13%
English, Literature and Art						
Speech and English	8	6	9	6	12	9
Music or Art	1				2	
Percent of Total	13%	9%	14%	9%	20%	13%
Other					2	
Language					1	
Physical Education	1	2		2		2
Electives		2		9		3
Percent of Total	1%	6%	0	16%	4%	7%
Total Credits	68	67	66	68	69	69

a. Breakdown of subject matter appears in Table 3.5.

based on a survey of the credits held by the 195 PN's. The bulk of these PN's are at Bronx Municipal, Kings County and Metropolitan Hospitals.

It might be noted that, aside from sociology and psychology courses, which presumably are introductory-type undergraduate courses, the training in human relations so highly valued by the PN's is not stressed in the RN curricula. Unless the nursing courses in Table 3.5 provide adequate coverage, a substitute might be warranted between special training in nursing human relations and a college survey course such as in the arts. The emphasis in four of the six colleges in this latter field seems unwarranted, particularly when it is at the expense of nursing or psychology courses or human relations.

If the academic courses required are, indeed, at the undergraduate level, they are probably survey lecture courses. It would be hard to justify a refusal to accept transfer credits or exemptions for them based on prior education.

Exemption credit based on previously acquired credits is only one possibility for shortened programs of study. Another route would be acceptance of college proficiency examination scores. While the State Education Department cannot itself grant college credit, equivalency credits can be granted by the schools. The Department recognizes a grade of "C" or above on its proficiency examinations as credit towards a teaching certificate. The examinations are designed to require performance above minimum standards expected of on-campus students.

The examinations currently available are in general academic as well as in specialized subjects. Examinations in Freshman English, Sociology, American and European History, Biology, Chemistry, American Literature, Calculus, Music (various instruments), and four languages cover only those most closely related to Table 3.4.

Exemptions or credits based on proficiency need not be limited to academic subjects. Proficiency examinations are also available in Maternal-

TABLE 3.5

COURSE WORK IN NURSING REQUIRED FOR SUCCESSFUL COMPLETION OF ASSOCIATE DEGREE PROGRAMS IN NURSING, NEW YORK CITY COMMUNITY COLLEGES. (IN ACADEMIC CREDITS.)

Nursing Subjects	Community College					
	Bronx	Kings- borough	New York City	Staten Island	Manhattan	Queens- borough
Fundamentals	5	6	5	4	5	7
Maternal & Child Care	10	6	10	10	9	7
Medical, Surgical, Psychiatric	<u>20</u>	<u>18</u>	<u>18</u>	<u>19</u>	<u>16</u>	<u>16</u>
Total	35	30	33	33	30	30

Child Nursing, Medical-Surgical Nursing and Psychiatric-Mental Health Nursing. The nursing courses indicated in Table 3.5 are too broadly titled to indicate whether or not they overlap with PN study or experience and thus permit exemptions. However, one is intrigued by the fact that 995 PN's are filling staff nurse lines. Though they work as PN's in those lines, a wage differential was created for PN's who "are assigned as Nurse-in-Charge or to an Operating Room on a regular and continuing basis." Much out-of-title work does go on. Where do the PN's learn to perform, and what overlap is there with the RN program? This is a subject worth exploring by the State College Proficiency Examination Program and the RN schools. The Health Services Mobility Study will be doing this kind of analysis.

Training time can also be reduced in the area of the clinical practice required in RN programs. The clinical work required of students in the RN course of study might be performed during the working half of a work-study program if proper teaching supervision were supplied and selected learning experiences became the work experiences.

The evidence justifies a serious consideration of both exemptions for prior college-level work (transfer credits) and exemptions for prior work experience and skill (proficiency examinations to determine already mastered skills).

One way in which to test the merit of this argument would be to test the potential trainees with an examination of the sort used for licensure. The licensing examination is considered to be a measure of fitness to practice safely as a registered nurse. It can also be used as a diagnostic device. We do not suggest that all areas of required knowledge are covered by any one test; we do suggest, however, that credit for prior knowledge, training or experience is not the same as a "lowering of standards." The maintenance of appropriate quality standards is not at issue here.

An additional interesting avenue of departure would be experimentation with new teaching methods. The Draft Master Plan developed

by the City University of New York proposes a new community college which, unfortunately, will not be able to receive large numbers of RN candidates until 1970 or 1971. This college is expected to provide leadership in experimentation with proficiency credits for the currently employed. A close articulation with the certification agencies in Albany, however, will be crucial.

For currently employed PN's without at least high school equivalency diplomas, the problem is one of providing time for them to qualify for the high school equivalency diploma and those courses required for admission to the RN programs.

At the level of the nurse aide, however, more can be done within the framework of the 3-step plan. It was noted that Phase IV (Table 3.1) involved nurse aide training and PN training while RN training was in progress. The cost of Phase IV assumes that all three programs are of the same length. Since this is actually not the case, the same dollar cost for half-time study and replacements can provide preparation for the high school diploma equivalency examination at no extra cost to the total plan. There is adequate time, considering that the length of the RN program will probably take two years.

Extra Study Time

The practical nurses surveyed indicated a willingness to give extra study time of their own towards RN training. One of their days off per week could be shifted to a week-day, since PN tours of duty can be so shifted.

This might make it possible for accelerated programs, providing the schools cooperated. Another possibility is to use Saturday as the

day off, so that community colleges might offer certain courses on Saturday to the PN's, while other courses were taken in the normal 5-day period. This would accelerate the process even more. The extra day of study was volunteered by 793 PN's. (See Table C.5, Appendix C.)

Leaves of Absence

There is a valid argument which recommends that persons should be permitted to leave the hospital to study without interruption. Replacements for the PN's from the nurse aide population could be trained on a one-to-one basis. Those PN's who wished to take time off to study without income, if tuition costs were paid, might be counseled to follow that course. Many might qualify to enter RN programs in community colleges. There were 271 willing to give two years, and 240 willing to give one year.

Guarantees could be made to place them on their return once they were licensed, or to accept them in their old lines if they were not able to pass the licensing examination. An academic leave of absence with full protection of seniority and fringe benefits (insurance coverage would be continued, for example) would be a reasonable request and would provide an alternate route of training. New legislation would be required only to continue insurance coverage. The plan for academic leaves would probably have a high attrition rate, however. The problems of one to two years without income may have been underestimated by the respondents.

TUITION COSTS

This study has not included a thorough review of the financing available for tuition in RN programs. MDTA funds and other manpower training funds are usable for nurse aide and practical nurse training. However, funds are not applicable for the more professional levels such as RN training.

New York City Municipal Hospitals provide a maximum of \$150 per year for tuition expenses for practical nurses who study on their own. At \$15 per credit, this allows for 10 credits per year. At that rate, it would take close to seven years to get through an associate degree program at a community college. However, this money is committed, and may be usable in a broader plan.

The Federal Nurse Training Act of 1964 does not provide traineeship funds for students enrolled in RN programs. The traineeships are for RN's taking advanced study. However, RN schools are enabled to apply for and administer loan and scholarship money. Student eligibility (need) is determined by the schools. Although full-time student status is required, students who work part-time are not barred. This avenue is worth exploring because, with the proposed amendments, from 50 to 100 percent of the loans can be cancelled at rates of 10 or 15 percent per year, if the graduated student enters and remains in nursing service. A cooperative effort at planning by the schools and the Department of Hospitals could result in a substantial source of funding for the PN to RN step in the nursing ladder.²

Community Colleges

Community colleges currently offer free tuition only for matriculated students. Matriculation, for the most part, means full-time study. (See footnotes b, c, and d in Table 3.2.) Happily, a half-time, work-study program would provide 20 hours of classroom-based study and homework time per week, plus 20 hours of work in the hospitals in the current job. This does not mean part-time study, it means full-time study, since a student is required to be enrolled for 12 credit hours in order to qualify

²Up to \$1,500 per year per student will be available if the new provisions are passed. Scholarship funds are to be allocated on the basis of total enrollments. Thus, a centralized request, such as by the City University, could result in large sums going to a program such as proposed here.

as a full-time student at a community college. Thus, if the colleges can provide the space and the proper timing of the courses to fit the PN's needs, they can qualify for tuition-free study in RN programs.

The main problem is that, if the PN potential enrollees successfully compete with new high school graduates for entrance to the limited number of student RN places,³ they are not truly full-time, in that they have half-time work commitments.

One possible solution is to tailor-fit the timing of their courses. With limited and fully used facilities, this would be difficult without the cooperation of the New York City Bureau of the Budget. Cooperation could enable (1) expansion of tuition-free enrollments, (2) enlargement of staff, and (3) utilization of educational facilities on Saturdays or Sundays for special course programming.

3

Enrollment of Matriculated Day Session
Students in Associate Degree Nursing Programs
at New York City Community Colleges, 1968.

<u>College</u>	<u>Estimated Enrollment</u>
Bronx	600
Borough of Manhattan	177
Kingsborough	200
Queensborough	300
Staten Island	200
New York City	<u>210</u>
Total	1,687

Source: Administrative Council of the City University of New York.

The reader will note that placement of 500 PN trainees in RN programs at community colleges means an increase of 30 percent over current enrollments.

Diploma Schools

It is possible that additional student enrollments could be underwritten by existing RN schools which have vacant student lines. This possibility should also be explored.

Federal Funds

The Nurse Training Act of 1964 has been reviewed by the U.S. Department of Health, Education, and Welfare, Public Health Service. The report of the Review Committee appeared in December of 1967.⁴ The content of the report ignores the needs of employed nursing personnel for upward mobility and the needs of hospitals for more nursing staff. The philosophy of the Act and of the Committee does not allow either for natural articulation between nursing jobs or for articulation of the educational programs which prepare for the jobs. The following quotations describing different educational programs dramatize this denial of step-wise possibilities:

Practical Nurse Education: "This type of program, usually 1 year in length, is complete and satisfactory for its own purpose, that of preparing workers who will share in giving direct care to patients. It is neither a part of nor the beginning of any other type of educational program in nursing. (Our italics.)

The practical nursing curricula relates basic concepts in the biological and behavioral sciences and in nursing to the direct bedside care of selected patients of all age groups."⁵

Diploma (RN) Programs: "Diploma programs are generally 3 calendar years in length and are focused primarily on

⁴U.S. Department of Health, Education and Welfare, Public Health Service, Nurse Training Act of 1964, Program Review Report, Public Health Service Publication No. 1740, U.S. GPO, December 1967 (55 cents).

⁵Ibid., p. 21.

nursing the sick in hospitals. The sciences are taught as applied courses. Clinical courses include medical and surgical nursing, mother and child nursing, and psychiatric nursing. Education for this kind of nursing practice (technical nursing practice) is scientifically based and technically oriented; it is unlimited in depth but limited in scope. Emphasis is on learning by practical application of knowledge."⁶

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

...graduates have technical nursing knowledge and skill based on an understanding of the scientific principles of the nursing care they give. The focus of instruction is on the relationship between theory and practice rather than on learning by doing. The associate degree program is complete for its own purpose of preparing nurses to give direct patient care and is not equivalent to the first 2 years of baccalaureate study."⁷ (Our italics.)

Baccalaureate Programs: "Nursing students take courses in physical, social, biological and behavioral sciences and the humanities along with students enrolled in other departments of the college.... Public health nursing practice and beginning courses in leadership are included, in addition to the fundamental clinical nursing areas.... learning is centered around the nursing problems of patients rather than on disease processes. Students have clinical nursing experience in community health agencies as well as in hospitals....Preparation for professional nursing practice is theory-oriented rather than technique-oriented and requires knowledge and skill of high degree."⁸

The reader will note that the emphasis on the part of the Committee is on the inability of one course of study to lead into another. On the other hand, the movement from basic concepts, to practical application, to

⁶Ibid., p. 19.

⁷Ibid., p. 20.

⁸Ibid., pp. 19-20.

technical knowledge and understanding of principles, to theory seems a logical development in the educational process. In addition, the gradual expansion outward to related liberal arts courses also appears to be fitted for a logical and continuous educational sequence. The Committee itself seems vaguely aware of "the building process in learning and the need to eliminate unnecessary repetition,"⁹ -- but in another context.

This illogic leads to the inability of the Committee to see that a major gap in the Act is the need for funds to permit working nurses below the RN level to move up in education and job title. They recommend that funds be made available to assist in an "orderly transition from one type of nursing education [diploma school] to another,"¹⁰ but not to aid students to move from one level to another. They recommended the "development of programs by which disadvantaged minority groups of students with potential could realize a career in nursing,"¹¹ but they never notice that potential students are working in hospitals as nurse aides and practical nurses.

Sequential education is not encouraged, and, thereby, dead-end jobs become inevitable once a student becomes employed. The practical nurse may "under the supervision of a registered nurse or physician, give nursing care to patients in situations relatively free of scientific complexity, and they may help registered nurses in giving care to patients in more complex situations."¹²

⁹Ibid., p. 36.

¹⁰Ibid., p. 37.

¹¹Ibid., p. 39.

¹²Ibid., p. 21.

The diploma school graduate becomes an RN and is judged to be "qualified for beginning nursing positions in hospitals."¹³ The associate degree graduate, who has passed the same licensing exam, is also judged to be fit for "beginning nursing positions, usually in hospitals."¹⁴ The baccalaureate degree holder also takes the same license, but is judged to be prepared for "beginning professional nursing positions in all fields of employment."¹⁵ These are the only nurses prepared for public health nursing and community practice.

There is no real difference among the graduates who are licensed as RN's, because the term "professional" nurse is applied to all holders of an RN license; there is only a euphemistic difference between "beginning nursing position" and "beginning professional nursing position." The magic of the baccalaureate lies in the fact that holders are considered to be "the only nurses initially prepared to embark on graduate study for clinical specialization, teaching, administration, and research."¹⁶

Why, one asks, cannot the LPN be initially prepared to embark on a professional nurse program, and the associate degree holder be initially prepared to embark on the second two years of a baccalaureate program?

We recommend the following:

1) That, under the terms of the Nurse Training Act of 1964, the New York City Department of Hospitals and the City University apply for matching funds to develop new associate degree programs in nursing especially geared to build on LPN training and experience, and based on release-time training.

2) That, under the terms of the Nurse Training Act, the New York City Department of Hospitals and the City University apply for additional student loan and scholarship funds to cover the income and tuition needs of adult PN students in RN programs.

¹³Ibid., p. 19.

¹⁴Ibid., p. 20.

¹⁵Ibid..

¹⁶Ibid..

3) That, under the terms of the Nurse Training Act of 1964, the New York City Community Colleges and the Diploma Schools apply for matching funds to expand nurse training; that the expansion be based on admission of qualified, employed LPN's who would not be forced to compete with new high school graduates. Such expansion programs would be tailored for the time requirements of full-time students, but students with a common commitment to half-time employment in hospitals.

4) That, in accordance with the Committee's recommendations for the Nurse Training Act of 1964, the New York City Community Colleges and the Department of Hospitals apply for matching funds for the development of a program which develops the career potential of "disadvantaged minority group students." This is premised on the existence of an 80-90 percent minority group composition of currently employed LPN's.

5) That part of the matching funds to be contributed by the City, either through the colleges or the Municipal Hospitals, could be taken from the commitment of the hospitals to payment of \$150 per year per LPN for related education. These funds in a tuition-free City University college program could be paid on behalf of the LPN enrollees in the new programs.

TRAINEE SELECTION

The selection of trainees for a program to train PN's to become RN's must meet the needs of (1) the training institution (2) the employee organization and (3) the hospital employer. There is no doubt that the educational institution will have the final veto power through its admissions standards. However, these can be made realistic within a framework of required excellence. The licensing examination itself, as well as course grades, will screen the trainees at the completion of the program.

Within these limits, some combination of seniority and successful performance in the current job seem to be warranted criteria. A seniority

criterion permits the rewarding of long and faithful service. Since, as has been noted, very old workers tend to exclude themselves from consideration, posting and ranking of interested candidates by seniority may be an acceptable starting point.

Within such a roster it would seem to be appropriate to use ratings of workers in their current jobs for rank ordering of applicants at each seniority level. If a performance rating criterion is used, it is of utmost importance that supervisors or evaluating personnel rate employees independently from any knowledge of the use of the ratings. Supervisors may be biased towards retaining existing staff, not being willing to loose good performers to training.

Another method of selection could be a percentage division of candidates selected by the unions and by management. The two lists would be limited by the entry standards of the training institution, and candidates appearing on both could receive first priority.

Special programs, of course, should take account of prior educational (college) background or willingness to offer extra study time. Such special programs, if they are not to be discriminatory, must be developed with, and not to the exclusion of, a regular plan open to most PN's.

SUMMARY OF RECOMMENDATIONS

1. Practical nurses should be upgraded to fill staff nurse vacancy positions through a coordinated and sequential overall plan. This would involve upgrading nurse aides to practical nurses.

2. The upgrading training should be based on a half-time work, half-time study program with current income fully maintained. Excluding tuition costs, a sequential release-time program, covering the annual costs of maintained income and replacements, could be financed for less than the annual cost of the salaries represented by the vacancies. This would include

remedial education to prepare nurse aides and practical nurses for eventual admission to RN schools.

3. Training positions should be developed at each level to carry the employee during training.

4. Untied funds equal to vacancy salaries for training and release time costs should be obtained:

- (a) Through budgeted training positions.
- (b) Through budgeted "real" vacancy positions.
- (c) Through legislative funding.
- (d) Through collective bargaining enforcement.

5. Training time should be reduced through the separation of trainees into programs appropriate to their backgrounds. The following means, common to all in a program, should be devised:

- (a) Exemptions from academic courses already taken and credited in the past. (Transfer credits for courses already credited to all in a program would eliminate common blocks of time.)
- (b) Proficiency examinations for exemption from technical or clinical requirements on the basis of ability to show performance equal to or better than minimal student standards. (Exemption credits for work already being performed or skills learned by all in the program would eliminate common blocks of time.)
- (c) Assignment of working part of release-time study to staff nurse tasks so that required clinical training experience, if properly planned and supervised, can be covered during working hours.
- (d) Use of volunteered extra study time on days off to accelerate completion rates for course work. (Use of additional common blocks of time.)

- (e) Leaves of absence for accelerated study when students volunteer waiver of some income, but with protection of job rights and protection for those who drop out due to economic need.

6. Tuition costs should be covered by cooperative efforts on the part of the Department of Hospitals, Community Colleges, Diploma Schools and the Bureau of the Budget to:

- (a) Enroll Practical Nurses in tuition-free community college programs, providing new student places or more intensive use of facilities.
- (b) Use tuition allowances as a partial contribution towards making available community college places, diploma school places, or for matching funds in Federally supported programs.
- (c) Make use of scholarship and cancellable loan funds, available to RN schools under the Nurse Training Act, to cover working PN's enrolled as full-time students in RN programs.

7. Efforts should be made to utilize funds available under the Nurse Training Act of 1964 on the following counts:

- (a) Development of new programs (work-study).
- (b) Expansion of current programs (community colleges).
- (c) Develop career potentials of "disadvantaged minority group" students (practical nurses).

8. Trainee selection should group candidates by the requirements of any special programs developed (education and performance of RN-level tasks). Beyond this, seniority, current job performance and ability to meet entry requirements should be criteria, representing the collective bargaining groups, management, and the educational institutions.

9. The City University should pay particular attention to providing nursing education in time sequences and blocks which permit the working adult in a hospital to articulate his educational progress and his occupational progress without needless redundancies.

10. Nurse aides, practical nurses, associate degree holders, baccalaureate degree holders and master's degree holders in nursing should have no overlaps in courses, but the courses should be additive. The nursing jobs open at each of these junctures should be different in the level of skill and knowledge required and in the extent of responsibility exercised.

APPENDIX A: LICENSED PRACTICAL NURSE QUESTIONNAIRE

1. COVER LETTERS
2. LPN QUESTIONNAIRE
3. CODE BOOK
4. CODE SHEET

TO: Director of Nursing

FROM: Dorothy Weddize, R. N., Director
Nursing Education & Nursing Service

DATE: January 12 1968

SUBJECT: Questionnaire
Practical Nurses

A survey is being made by the Department of Hospitals in cooperation with the Licensed Practical Nurses of New York, Inc. It is to determine the interest of employed practical nurses in pursuing an education program leading to licensure as registered professional nurses.

The enclosed questionnaire should be filled in by every practical nurse on the staff as of January 15, 1968 and by subsequent appointees up to March 15, 1968 including those on vacation, limited leaves of absence etc. Practical nurses with regular and waiver licenses and with licenses pending are to be included in the survey.

The completed questionnaire should be submitted to this office by February 15, 1968. Those for employees not available by that date should be submitted by March 15, 1968. The survey terminates on March 15, 1968.

The following procedure should be followed:

1. Group meetings should be held with practical nurses where questionnaires are distributed, filled in and returned.
2. The purpose of the questionnaire should be explained and employees assured that the name of the individual filling in the questionnaire will not be known. Assistance may be given in interpreting the questions, but, no attempt should be made to suggest responses.
3. The group should be reminded to enter the name of the hospital and to answer all questions except the last three, which are to be answered only by those interested in studying to become registered nurses.
4. All blanks distributed to practical nurses should be accounted for and the following report submitted to the office of Nursing Education and Nursing Service on February 15, 1968, together with the completed questionnaires.
 - a. Number of practical nurses on staff as of January 15, 1968 _____
 - b. Number of new appointees January 16, 1968 to February 15, 1968 _____
 - c. Number of blanks distributed _____

- 2 -

- d. Number filled in _____
- e. Number returned not filled in _____
- f. Number of practical nurses not reached
by February 15, 1968 _____

Reasons _____

- 5. Questionnaires for those not reached by the February 15, 1968 deadline and new appointees following that date should be submitted by March 15, 1968 together with information on the number of questionnaires distributed during this period and the number filled in.

Please call this office if you have any questions about the survey.

MEMORANDUM

TO: All Practical Nurses Employed
by the New York City Department
of Hospitals

January 1968

FROM: New York City Department of Hospitals
Room 532, 125 Worth Street

SUBJECT: Practical Nurse Questionnaire

The attached questionnaire is being distributed to all practical nurses now working in the municipal hospitals with the approval of the Licensed Practical Nurses of New York, Inc. Every practical nurse is asked to fill one out and return it. As you will notice, you are not asked to sign your name; therefore, your answers will be confidential.

The questions are designed to help the Department of Hospitals plan a program in which practical nurses may receive training to become registered nurses.

Please answer each question honestly, since the answers will be seriously considered. You are asked not to discuss your answers so that everyone will be free to express his own opinion.

QUESTIONNAIRE FOR PRACTICAL NURSES

January 1968

Please fill in the name of the hospital in which you work:

1. For how many years have you worked as a practical nurse? (If you stopped working for any period of time, give total number of years you actually worked as a practical nurse. Check item that applies to you.)

- Less than one year. []
- One to two years []
- More than two but less than five years []
- Five years or more but less than ten years []
- Ten years or more []

2. For how many years have you worked as a practical nurse in New York City Municipal hospitals? (Check one)

- Less than one year []
- One to two years []
- More than two but less than five years []
- Five years or more but less than ten years []
- Ten years or more []

3. How much education have you completed? (Check the item which describes the total years of school you completed.)

<u>Elementary & Jr. High School</u>	<u>Jr. High & High School</u>	<u>College</u>
Less than 8 years. . . . []	One year High School (or 3 years Jr. High). . . . []	One year. []
Eight years. []	Two years High School. . . . []	Two years. []
	Three years High School. . . []	Three years. []
	Have a High School Equivalency Diploma . . . []	Four years. []
	High School Graduate. . . . []	More than four years []

4. If you have attended High School, what kind of program did you take? (Check one)

- Academic. [] Commercial []
- General. [] Vocational. []
- Other (Specify) _____ []

5. Are you licensed in the State of New York? (Check one)

- Yes. [] No. []

6. If you are licensed in New York, in what year were you licensed?

(Fill in) _____

7. Where did you receive your training to be a practical nurse? (Check one)

- In a special course run by a school or hospital. []
- No special course, but on-the-job experience. []

8. Are you currently studying in any school or program to prepare you to be a registered nurse? (Check one)

- Yes. [] No. []

9. What is your sex? (Check one)

- Male. [] Female. []

10. How old are you? (Fill in years) _____

11. How many people do you help support? Count yourself if you support yourself.

(Fill in) _____

12. What is your marital status? (Check one)

- Married, living with spouse. []
- Married, living apart from spouse. []
- Divorced. []
- Widowed. []
- Single, never married. []

13. Do you work at another job besides the one you hold as practical nurse in a city hospital? (Check one)

- Yes. [] No. []

14. Is your second job also a nursing job? (Check one)

- Yes. [] No. [] No second job. []

15. Which languages, other than English do you speak well? (Fill in)

16. People may have different opinions about the areas which make for good performance as a registered nurse. The following is a list of nine items. Number these according to your opinion as to their order of importance for being a good registered nurse. The most important should be marked "1", the next "2", and so on, with the least important marked "9".

- a. Training in human relations. []
- b. Classroom training in nursing theory. []
- c. Training in literature and art. []
- d. Training in history and social science. []
- e. Practical-nurse work experience. []
- f. Dedication to helping people. []
- g. Clinical practice in nursing skills. []
- h. Nurse-aid work experience. []
- i. Training in natural sciences. []

17. Would you like to study to become a registered nurse? (Check one)

- Yes. [] No. []
- Not sure. [] Already studying. . . []

The following questions are to be filled out only by people interested in becoming registered nurses:

18. If your tuition in a registered nurse training program were paid for, how much time off from work without pay could you afford? (Check one)

- Two years. []
- One year. []
- Six months. []
- Could not afford any time off without pay. []

19. If your tuition were paid for part-time study, and you were paid only for the time you actually worked, which would you prefer? Choice (a) would take less time to complete the training, but choice (b) would provide a full-time income. (Check one)

- (a) To work half time at half pay and study half time. . . . []
- (b) To work full time at full pay and study after hours and on days off. []
- (c) Neither is acceptable. []

20. A training program might be given in which you worked part time and studied part time, at your full, regular pay. Would you be willing to put in extra study time of your own, to get through more quickly? (Check the item(s) that applies to you.)

- a. I would not be able to give extra time. []
- b. I am not willing to give extra time. []
- c. I would give one of my days off a week. []
- d. I would give one extra hour a day. []
- e. I would give two extra hours a day. []
- f. I would give three extra hours a day []
- g. I would give four extra hours a day. []

Code Book QQuestionnaire For Practical Nurses

<u>Column(s)</u>	<u>Question</u>	<u>Code</u>	<u>Condition</u>
1	Blank		
2	Identity of LPN Questionnaire	Q	Precoded
3	Blank		
4-5	Hospital	01	Bellevue
		02	Bronx Municipal
		03	Elmhurst
		04	Coney Island
		05	Cumberland
		06	Fordham
		07	Greenpoint
		08	Harlem
		09	Kings County
		10	Lincoln
		11	Metropolitan
		12	Morrisania
		13	Queens
		14	Sydenham
		15	Francis Delafield
		16	James Ewing
		17	Bird S. Coler
		18	Goldwater
		19	Seaview

Note: Designate by separate reporting entities recognized by Nursing Services.

6	Blank		
7-9	Subject ID number	001-299	A. Consecutively by hospital if answer to question 17 is yes, and all other questions were answered.
		300-499	B. Consecutively by hospital if answer to question 17 is yes, but only question 16 is unusable.
		500-699	C. Consecutively by hospital if answer to question 17 was anything but yes and question 16 is usable, or if yes to question 17 but 18-20 not filled in and question 16 is usable.
		700-899	D. Same as in C, but question 16 not usable.

10

Blank

Code Book Q (continued)

<u>Column(s)</u>	<u>Question</u>	<u>Code</u>	<u>Condition</u>
11	1. Years as a practical nurse.	1	Less than one year
		2	One to two years
		3	Two to five years
		4	Five to ten years
		5	Ten or more years
12	Blank		
13	2. Years as a practical nurse in New York City Municipal hospitals.	1	Less than one year
		2	One to two years
		3	Two to five years
		4	Five to ten years
		5	Ten or more years
14	Blank		
15-16	3. Education completed.	01	Less than 8 elementary
		02	Eight elementary
		03	One yr. H.S. or 3 yrs. Jr. H.S.
		04	Two years H.S.
		05	Three years H.S.
		06	H.S. Equivalency or H.S. Graduate
		07	One year college
		08	Two years college
		09	Three years college
		10	Four years college
		11	More than 4 years college
17	Blank		
18	4. Kind of H.S. program.	1	Academic
		2	Commercial
		3	Vocational
		4	General
19	Blank		
20	5. Licensed in New York.	3	Yes
		1	No
21	Blank		
22-23	6. Year licensed.	00-68	Last two digits of year as given
24	Blank		
25	7. Where received PN training.	3	Special course
		1	Experience

Code Book Q (continued)

<u>Column(s)</u>	<u>Question</u>	<u>Code</u>	<u>Condition</u>
26	Blank		
27	8. Currently studying.	<u>3</u>	<u>Yes</u>
		<u>1</u>	<u>No</u>
Note: 3 in col. 27 should show 3 in col. 53			
28	Blank		
29	9. Sex	<u>8</u>	<u>Male</u>
		<u>4</u>	<u>Female</u>
30	Blank		
31-32	10. Age	01-99	Age in years as given
33	Blank		
34-35	11. Number of people supported.	<u>0-8</u>	<u>Number of people up to 8 as given</u>
		<u>9</u>	<u>Nine or more</u>
36	Blank		
37	12. Marital status.	<u>1</u>	<u>Married, with spouse</u>
		<u>2</u>	<u>Married, living apart</u>
		<u>3</u>	<u>Divorced</u>
		<u>4</u>	<u>Widowed</u>
		<u>5</u>	<u>Single, never married</u>
38	Blank		
39	13 & 14. Work at another job and is second job nursing.	<u>4</u>	<u>Yes to 13 and no to 14</u>
		<u>3</u>	<u>Yes to 13 and yes to 14</u>
		<u>2</u>	<u>No to 13 and no second job to 14</u>
40	Blank		
41	15. Languages	<u>3</u>	<u>Spanish</u>
		<u>1</u>	<u>Any other languages</u>
		<u>0</u>	<u>None or blank</u>
42	Blank		
43-51	16. Rank order of importance.		
43	(a)human relations	<u>1-9</u>	<u>As given</u>
44	(b)nursing theory	<u>1-9</u>	<u>As given</u>
45	(c)lit. & art	<u>1-9</u>	<u>As given</u>
46	(d)hist. & social sci.	<u>1-9</u>	<u>As given</u>
47	(e)PN experience	<u>1-9</u>	<u>As given</u>

Code Book Q (continued)

<u>Column(s)</u>	<u>Question</u>	<u>Code</u>	<u>Condition</u>
	16. Rank order of importance (continued)		
48	(f)dedication	1-9	As given
49	(g)clinical practice	1-9	As given
50	(h)NA experience	1-9	As given
51	(i)natural sciences	1-9	As given
Note: Check for redundancies			
52	Blank		
53	17. Like to study to be RN.	6	Already studying
		4	Yes
		2	Not sure
		0	No
54	Blank		
Note: Questions 18-20 should be blank for 0 code in col. 53			
55	18. Time off from work without pay.	3	Two years
		2	One year
		1	Six months
		0	None
56	Blank		
57	19. Work-study preference.	3	Half pay, half study
		2	Full pay, extra study
		0	Neither
58	Blank		
59-60	20. Extra study time.		Checked:
		01	a only
		00	b only
		03	c only
		02	d only
		04	e only
		05	f only
		06	g only
		07	c & d
		08	c & e
		09	c & f
		10	c & g

Note: Invalid if a and b is combined with others. Where more than one is checked from d through g, choose highest one for coding.

Code Book Q (continued)

<u>Column(s)</u>	<u>Question</u>	<u>Code</u>	<u>Condition</u>
61	Blank		
	20. Extra study time		
62	(a) not able	1 0	If checked If not checked
63	(b) not willing		
64	(c) day off		
65	(d) 1 hour		
66	(e) 2 hours		
67	(f) 3 hours		
68	(g) 4 hours		

Note: If more than one from d through g is checked, count only highest one and treat others as blank.

69 Blank

Health Services Mobility Study, Research Foundation, City University of New York

Col. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Content		Card ID		Hospital			Subject ID No.			Yrs. worked q.1		In N.Y. q.2		Education q.3		Pro-gram q.4		Li- cense q.5		
Code		Q																		

Col. No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Content		Year of license q.6		Train- ing q.7		Current Study q.8		Sex q.9		Age (years) q.10		Depen- dents q.11		Mari- tal q.12		Second job q.13, 14				
Code																				

Col. No.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Content	Language q.15		q.16a	b	c	d	e	f	g	h	i		In- terest q.17		Time off q.18		Work- Study q.19		Study score q.20	
Code																				

Col. No.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
Content		Individual study time choices q.20a	b	c	d	e	f	g												
Code																				

Eleanor Gilpatrick, Project Director Check when completed [] Coded by _____
 125 Worth Street Room 628 [X] indicates blank Checked by _____

STATISTICAL APPENDIXES

APPENDIX B:	SUMMARY OF ALL RESPONDENTS
APPENDIX C:	SUMMARY FOR RESPONDENTS INTERESTED IN TRAINING
APPENDIX D:	CORRELATION MATRIXES

Identification Key for Hospitals Covered in Study

<u>Code</u>	<u>Hospital Name</u>
01	Bellevue
02	Bronx Municipal
03	Elmhurst
04	Coney Island
05	Cumberland
06	Fordham
07	Greenpoint
08	Harlem
09	Kings County
10	Lincoln
11	Metropolitan
12	Morrisania
13	Queens
14	Sydenham
15	Francis Delafield
16	James Ewing
17	Bird S. Coler
18	Goldwater
19	Seaview

Numbers at the far left in all Tables refer to the Hospital Code. Percentages are based on the number responding by group. One hundred percent equals all those in the group who answered the question.

Table B.1

QUESTION NUMBER= 1 SUMMARY OF ALL RESPONDENTS

1. For how many years have you worked as a practical nurse? (If you stopped working for any period of time, give total number of years you actually worked as a practical nurse. Check item that applies to you.)

Code	Condition
1	Less than one year
2	One to two years
3	Two to five years
4	Five to ten years
5	Ten or more years

HOSPITAL	ANS= 1		2		3		4		5		TOTAL RESPONDING	AVERAGE ANSWER	
	NO.	PCI.	NO.	PCI.	NO.	PCI.	NO.	PCI.	NO.	PCI.			
1	12	5.9	8	3.9	30	14.8	42	20.7	111	54.7	203	4.1	
2	26	15.0	14	8.1	30	17.3	47	27.2	56	32.4	173	3.5	
3	15	10.1	8	5.4	20	13.5	36	24.3	69	46.6	148	3.9	
4	10	25.6	4	10.3	14	35.9	1	2.6	10	25.6	39	2.9	
5	11	10.4	10	9.4	10	9.4	30	28.3	45	42.5	106	3.8	
6	6	15.8	5	13.2	6	15.8	9	23.7	12	31.6	38	3.4	
7	6	6.9	4	4.6	8	9.2	14	16.1	55	63.2	87	4.2	
8	18	14.4	12	9.6	15	12.0	19	15.2	61	48.8	125	3.7	
9	49	11.5	41	9.6	96	22.6	63	14.8	176	41.4	425	3.6	
10	3	5.6	5	9.3	7	13.0	21	38.9	18	33.3	54	3.9	
11	33	16.3	26	12.8	26	12.8	32	15.8	86	42.4	203	3.6	
12	7	6.9	5	5.0	25	24.8	26	25.7	38	37.6	101	3.8	
13	23	14.7	8	5.1	31	19.9	31	19.9	63	40.4	156	3.7	
14	5	6.3	2	2.5	7	8.8	18	22.5	48	60.0	80	4.3	
15	4	8.5	2	4.3	3	6.4	1	2.1	37	78.7	67	4.4	
16	3	8.3	1	2.8	4	11.1	8	22.2	20	55.6	36	4.1	
17	10	11.0	4	4.4	13	14.3	25	27.5	39	42.9	91	3.9	
18	13	7.5	3	1.7	26	14.9	37	21.3	95	54.6	174	4.1	
19	3	4.0	0	0	3	4.0	10	13.3	59	78.7	75	4.6	
TOTALS													
												257	10.9
												162	6.9
												376	15.8
												470	19.9
												1098	46.5
TOTAL RESPONSES TO QUESTION=												2361	
AVERAGE ANSWER=												3.8	

Table B.2

QUESTION NUMBER= 2 SUMMARY OF ALL RESPONDENTS

- 1 Less than one year
- 2 One to two years
- 3 Two to five years
- 4 Five to ten years
- 5 Ten or more years

2. For how many years have you worked as a practical nurse in New York City Municipal hospitals? (Check one)

HOSPITAL	ANS= 1		2		3		4		5		TOTAL RESPONDING	AVERAGE ANSWER
	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT		
1	14	6.9	8	3.9	32	15.8	40	19.7	109	53.7	203	4.1
2	27	15.6	17	9.8	33	19.1	44	25.4	52	30.1	173	3.4
3	18	12.2	8	5.4	24	16.2	38	25.7	60	40.5	148	3.8
4	12	30.8	7	17.9	11	28.2	1	2.6	8	20.5	39	2.6
5	12	11.3	11	10.4	16	15.1	28	26.4	39	36.8	106	3.7
6	7	18.4	4	10.5	10	26.3	6	15.8	11	28.9	38	3.3
7	9	10.3	5	5.7	9	10.3	16	18.4	48	55.2	87	4.0
8	21	16.8	8	6.4	18	14.4	19	15.2	59	47.2	125	3.7
9	58	13.6	41	9.6	97	22.8	64	15.1	165	38.8	425	3.6
10	5	9.3	7	13.0	9	16.7	19	35.2	14	25.9	54	3.6
11	36	17.7	29	14.3	28	13.8	32	15.8	78	38.4	203	3.4
12	9	8.9	6	5.9	28	27.7	30	29.7	28	27.7	101	3.6
13	26	16.7	10	6.4	30	19.2	31	19.9	59	37.8	156	3.6
14	8	10.0	2	2.5	10	12.5	17	21.3	43	53.8	80	4.1
15	4	8.5	2	4.3	3	6.4	6	12.8	32	68.1	47	4.3
16	3	8.3	1	2.8	5	13.9	8	22.2	19	52.8	36	4.1
17	10	11.0	4	4.4	15	16.5	24	26.4	38	41.8	91	3.8
18	13	7.5	3	1.7	26	14.9	38	21.8	94	54.0	174	4.1
19	4	5.3	0	0	7	9.3	13	17.3	51	68.0	75	4.4
TOTALS	296	12.5	173	7.3	411	17.4	474	20.1	1007	42.7		

TOTAL RESPONSES TO QUESTION= 2361

AVERAGE ANSWER= 3.7

Table B.3 QUESTION NUMBER 3

SUMMARY OF ALL RESPONDENTS

3. How much education have you completed? (Check the item which describes the total years of school you completed.)

- | | | |
|------------------------------------|--------------------------------------|------------------------------|
| 01 Less than 8 elementary | 04 Two years H.S. | 07 One year college |
| 02 Eight elementary | 05 Three years H.S. | 08 Two years college |
| 03 One yr. H.S. or 3 yrs. Jr. H.S. | 06 H.S. Equivalency or H.S. Graduate | 09 Three years college |
| | | 10 Four years college |
| | | 11 More than 4 years college |

HOSPITAL	TOTAL RESPONDING	AVERAGE	ANS= 1		2		3		4		5	
			NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT
1	203	5.7	1	.5	7	3.4	8	3.9	14	6.9	27	13.3
2	173	5.8	0	0	2	1.2	5	2.9	15	8.7	20	11.6
3	148	5.6	1	.7	6	4.1	4	2.7	16	10.8	8	5.4
4	39	5.5	0	0	1	2.6	3	7.7	4	10.3	6	15.4
5	106	6.0	1	.9	2	1.9	2	1.9	3	2.8	15	14.2
6	38	5.9	0	0	1	2.6	2	5.3	1	2.6	4	10.5
7	87	5.4	1	1.1	8	9.2	3	3.4	5	5.7	11	12.6
8	125	5.7	0	0	6	4.8	8	6.4	12	9.6	5	4.0
9	425	5.4	5	1.2	23	5.4	24	5.6	38	8.9	47	11.1
10	54	5.7	0	0	4	7.4	0	0	3	5.6	10	18.5
11	203	5.7	3	1.5	2	1.0	10	4.9	16	7.9	22	10.8
12	101	5.5	0	0	4	4.0	6	5.9	14	13.9	12	11.9
13	156	5.6	0	0	6	3.8	11	7.1	19	12.2	17	10.9
14	80	5.8	0	0	3	3.8	1	1.3	6	7.5	11	13.8
15	47	5.5	0	0	2	4.3	1	2.1	5	10.6	7	14.9
16	36	5.9	0	0	0	0	1	2.8	3	8.3	6	16.7
17	91	5.6	0	0	5	5.5	2	2.2	8	8.8	10	11.0
18	174	5.5	1	.6	8	4.6	12	6.9	18	10.3	21	12.1
19	75	4.3	7	9.3	11	14.7	8	10.7	11	14.7	11	14.7
TOTAL	2361											
AVERAGE ANSWER=	5.5		20	.8	101	4.3	111	4.7	211	8.9	270	11.4

HOSPITAL	6		7		8		9		10		11	
	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT
1	122	60.1	14	6.9	6	3.0	0	0	4	2.0	0	0
2	109	63.0	15	8.7	5	2.9	1	.6	0	0	1	.6
3	97	65.5	10	6.8	3	2.0	2	1.4	1	.7	0	0
4	21	53.8	1	2.6	2	5.1	1	2.6	0	0	0	0
5	62	58.5	10	9.4	8	7.5	1	.9	2	1.9	0	0
6	20	52.6	6	15.8	4	10.5	0	0	0	0	0	0
7	51	58.6	5	5.7	2	2.3	1	1.1	0	0	0	0
8	72	57.6	11	8.8	6	4.8	3	2.4	2	1.6	0	0
9	233	54.8	39	9.2	12	2.8	1	.2	3	.7	0	0
10	25	46.3	7	13.0	4	7.4	1	1.9	0	0	0	0
11	121	59.6	17	8.4	8	3.9	3	1.5	1	.5	0	0
12	49	48.5	10	9.9	5	5.0	0	0	1	1.0	0	0
13	79	50.6	13	8.3	5	3.2	2	1.3	4	2.6	0	0
14	43	53.8	9	11.3	6	7.5	1	1.3	0	0	0	0
15	28	59.6	3	6.4	0	0	1	2.1	0	0	0	0
16	21	58.3	3	8.3	0	0	0	0	0	0	2	5.6
17	54	59.3	5	5.5	6	6.6	1	1.1	0	0	0	0
18	92	52.9	10	5.7	8	4.6	2	1.1	2	1.1	0	0
19	19	25.3	6	8.0	2	2.7	0	0	0	0	0	0
TOTALS	1318	55.8	194	8.2	92	3.9	21	.9	20	.8	3	.1

Table B.4

SUMMARY OF ALL RESPONDENTS

QUESTION NUMBER= 4

- 1 Academic
- 2 Commercial
- 3 Vocational
- 4 General

4. If you have attended High School, what kind of program did you take? (Check one)

HOSPITAL	1		2		3		4		TOTAL RESPONDING
	NO.	PCT.	NO.	PCT.	NO.	PCT.	NO.	PCT.	
1	62	42.2	10	6.9	25	17.2	48	33.1	145
2	51	40.2	16	12.6	18	14.2	42	33.1	127
3	46	43.8	13	12.4	14	13.3	32	30.5	105
4	13	52.0	1	4.0	1	4.0	10	40.0	25
5	31	37.8	4	4.9	11	13.4	36	43.9	82
6	12	40.0	2	6.7	6	20.0	10	33.3	30
7	30	50.8	2	3.4	9	15.3	18	30.5	59
8	54	60.0	8	8.9	3	3.3	25	27.8	90
9	114	40.7	26	9.3	33	11.8	107	38.2	280
10	15	42.9	3	8.6	5	14.3	12	34.3	35
11	58	36.0	11	6.8	17	10.6	75	45.6	161
12	24	37.5	5	7.8	8	12.5	27	42.2	64
13	42	41.6	10	9.9	12	11.9	37	36.6	101
14	33	54.1	2	3.3	2	3.3	24	39.3	61
15	9	32.1	2	7.1	3	10.7	14	50.0	28
16	7	29.2	6	25.0	1	4.2	10	41.7	24
17	29	42.0	3	4.3	9	13.0	28	40.6	69
18	56	49.6	9	8.0	11	9.7	37	32.7	113
19	15	57.7	0	0	3	11.5	8	30.8	26

TOTALS

0 0 701 43.1 133 8.2 191 11.8 600 36.9

TOTAL RESPONSES TO QUESTION= 1625

AVERAGE ANSWER= 2.4

Table B.5

QUESTION NUMBER= 5 SUMMARY OF ALL RESPONDENTS

5. Are you licensed in the State of New York? (Check one) 3 Yes
1 No

HOSPITAL	TOTAL RESPONDING		NO.		PCT		NO.	PCT
			1	3	1	3		
1	202		1		.5		201	99.5
2	173		2		1.2		171	98.8
3	148		0		0		148	100.0
4	39		1		2.6		38	97.4
5	106		2		1.9		104	98.1
6	38		0		0		38	100.0
7	87		1		1.1		86	98.9
8	125		5		4.0		120	96.0
9	422		2		.5		420	99.5
10	54		0		0		54	100.0
11	203		4		2.0		199	98.0
12	101		0		0		101	100.0
13	156		1		.6		155	99.4
14	80		0		0		80	100.0
15	47		0		0		47	100.0
16	36		0		0		36	100.0
17	91		1		1.1		90	98.9
18	174		2		1.1		172	98.9
19	75		0		0		75	100.0
TOTALS			22		.9		2335	99.1
TOTAL RESPONSES TO QUESTION=		2357						

Table B.6

QUESTION NUMBER= 6 SUMMARY OF ALL RESPONDENTS

6. If you are licensed in New York, in what year were you licensed?

NO. OF YRS. LICENSED

1: LESS THAN 1 YR, 2: UP TO 2 YR, 3: UP TO 5 YR, 4: UP TO 10 YR,
5: UP TO 15 YR, 6: UP TO 20 YR, 7: OVER 20 YEARS

HOSPITAL	ANS=1		2		3		4		5		6		7		TOTAL RESPONDING
	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	
1	6	3.1	19	9.9	34	17.7	43	22.4	48	25.0	38	19.8	4	2.1	192
2	9	5.3	34	19.9	30	17.5	40	23.4	32	18.7	20	11.7	6	3.5	111
3	4	2.7	23	15.6	20	13.6	36	24.5	29	19.7	23	15.6	12	8.2	147
4	1	2.8	14	38.9	9	25.0	2	5.6	2	5.6	7	19.4	1	2.8	36
5	1	1.0	20	19.6	17	16.7	23	22.5	9	8.8	28	27.5	4	3.9	102
6	2	5.6	9	25.0	11	30.6	5	13.9	1	2.8	4	11.1	4	11.1	36
7	0	0	10	11.8	8	9.4	16	18.8	13	15.3	26	30.6	12	14.1	85
8	4	3.4	22	18.5	20	16.8	17	14.3	25	21.0	25	21.0	6	5.0	119
9	12	2.9	92	22.3	90	21.8	58	14.1	36	8.7	107	26.0	17	4.1	412
10	0	0	8	15.1	15	28.3	11	20.8	9	17.0	8	15.1	2	3.3	53
11	4	2.1	54	27.8	29	14.9	34	17.5	32	16.5	28	14.4	13	6.7	194
12	4	4.0	14	14.0	22	22.0	29	29.0	18	18.0	11	11.0	2	2.0	100
13	8	5.3	27	17.9	31	20.5	26	17.2	17	11.3	35	23.2	7	4.6	151
14	2	2.6	2	2.6	11	14.1	18	23.1	18	23.1	18	23.1	9	11.5	78
15	3	6.4	3	6.4	3	6.4	4	8.5	9	19.1	15	31.9	10	21.3	47
16	2	5.6	5	13.9	3	8.3	7	19.4	10	27.8	5	13.9	4	11.1	36
17	3	3.4	9	10.3	19	21.8	20	23.0	8	9.2	15	17.2	13	14.9	87
18	7	4.2	11	6.7	26	15.8	43	26.1	22	13.3	45	27.3	11	6.7	165
19	2	2.8	2	2.8	4	5.6	8	11.3	10	14.1	41	57.7	4	5.6	71
TOTALS	74	3.2	378	16.6	402	17.6	440	19.3	348	15.2	499	21.9	141	6.2	

TOTAL RESPONSES TO QUESTION= 2282

Table B.7

QUESTION NUMBER= 7 • SUMMARY OF ALL RESPONDENTS

7. Where did you receive your training to be a practical nurse? (Check one)
 In a special course run by a school or hospital. . . . [] No special course, but on-the-job experience. []
 3 Special course
 1 Experience

HOSPITAL	TOTAL RESPONDING		1		3	
	NO.	PCI	NO.	PCI	NO.	PCI
1	201		8	4.0	193	96.0
2	173		3	1.7	170	98.3
3	146		6	4.1	140	95.9
4	39		1	2.6	38	97.4
5	106		8	7.5	98	92.5
6	37		0	0.0	37	100.0
7	86		6	7.0	80	93.0
8	121		15	12.4	106	87.6
9	418		72	17.2	346	82.8
10	54		5	9.3	49	90.7
11	201		14	7.0	187	93.0
12	191		11	10.9	90	49.1
13	153		13	8.5	140	91.5
14	79		1	1.3	78	98.7
15	47		1	2.1	46	97.9
16	36		0	0	36	100.0
17	87		8	9.2	79	90.8
18	174		13	7.5	161	92.5
19	73		18	24.7	55	75.3
TOTALS			203	8.7	2129	91.3

TOTAL RESPONSES TO QUESTION= 2332

Table B.8

QUESTION NUMBER= 9 SUMMARY OF ALL RESPONDENTS

3. Are you currently studying in any school or program to prepare you to be a registered nurse? (Check one)

3 Yes
1 No

HOSPITAL	TOTAL RESPONDING		1		3	
	NO.	PCI.	NO.	PCI.	NO.	PCI.
1	200		178	89.0	22	11.0
2	173		151	87.3	22	12.7
3	142		127	89.4	15	10.6
4	38		34	89.5	4	10.5
5	106		90	84.9	16	15.1
6	38		31	81.6	7	18.4
7	87		84	96.6	3	3.4
8	125		117	93.6	8	6.4
9	424		384	90.6	40	9.4
10	54		46	85.2	8	14.8
11	200		191	95.5	9	4.5
12	109		91	91.0	9	9.0
13	155		141	91.0	14	9.0
14	80		77	96.3	3	3.8
15	47		43	91.5	4	8.5
16	36		33	91.7	3	8.3
17	88		80	90.9	8	9.1
18	174		163	93.7	11	6.3
19	75		74	98.7	1	1.3
			TOTALS			
TOTAL RESPONSES TO QUESTION=			2342		207	8.8

Table B.9

QUESTION NUMBER= 9 SUMMARY OF ALL RESPONDENTS

9. What is your sex? (Check one).

4: FEMALE

8: MALE

HOSPITAL	TOTAL RESPONDING	4		8	
		NO.	PCI	NO.	PCI
1	203	187	92.1	16	7.9
2	173	169	97.7	4	2.3
3	148	143	96.6	5	3.4
4	39	39	100.0	0	0
5	106	97	91.5	9	8.5
6	38	35	92.1	3	7.9
7	87	83	95.4	4	4.6
8	125	118	94.4	7	5.6
9	425	403	94.8	22	5.2
10	54	51	94.4	3	5.6
11	203	195	96.1	8	3.9
12	101	99	98.0	2	2.0
13	156	153	98.1	3	1.9
14	80	78	97.5	2	2.5
15	47	43	91.5	4	8.5
16	36	32	88.9	4	11.1
17	91	83	91.2	8	8.8
18	174	161	92.5	13	7.5
19	75	72	96.0	3	4.0

TOTAL RESPONSES TO QUESTION= 2961 TOTALS 2241 94.9 120 5.1

Table B.10 QUESTION NUMBER= 10 SUMMARY OF ALL RESPONDENTS

10. How old are you? (Fill in years)

1: LESS THAN 18 YR, 2: UP TO 20 YR, 3: UP TO 25 YR, 4: UP TO 30 YR, 5: UP TO 40 YR, 6: UP TO 50 YR, 7: UP TO 60 YR, 8: UP TO 65 YR, 9: OVER 65 YR

HOSPITAL	1		2		3		4		5		6	
	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT
1	0	0	3	1.5	16	7.9	19	9.4	55	27.1	68	33.5
2	0	0	3	1.7	21	12.1	20	11.6	49	28.3	54	31.2
3	0	0	2	1.4	13	8.8	19	12.8	50	33.8	40	27.0
4	0	0	0	0	4	10.3	7	17.9	10	25.6	10	25.6
5	0	0	1	.9	14	13.2	7	6.6	42	39.6	32	30.2
6	0	0	3	7.9	4	10.5	8	21.1	10	26.3	9	23.7
7	0	0	1	1.1	4	4.6	5	5.7	25	28.7	35	40.2
8	0	0	2	1.6	7	5.6	18	14.4	38	30.4	29	23.2
9	1	.2	0	0	30	7.1	49	11.5	128	30.1	133	31.3
10	0	0	1	1.9	8	14.8	7	13.0	15	27.8	19	35.2
11	0	0	8	3.9	28	13.8	20	9.9	56	27.6	54	26.6
12	0	0	3	3.0	5	5.0	12	11.9	25	24.8	36	35.6
13	0	0	1	.6	9	5.8	16	10.3	47	30.1	51	32.7
14	0	0	1	1.3	4	5.0	9	11.3	26	32.5	29	36.3
15	0	0	1	2.1	1	2.1	3	6.4	10	21.3	16	34.0
16	0	0	0	0	0	0	2	5.6	13	36.1	14	38.9
17	0	0	1	1.1	2	2.2	4	4.4	30	33.0	37	40.7
18	0	0	2	1.1	18	10.3	13	7.5	34	19.5	58	33.3
19	0	0	0	0	1	1.3	1	1.3	12	16.0	26	34.7
TOTALS	1	.0	33	1.4	189	8.0	239	10.1	675	28.6	750	31.8

HOSPITAL	7		8		9		AVERAGE ANSWER (Age in years as given)	TOTAL RESPONDING
	NO.	PCT	NO.	PCT	NO.	PCT		
1	34	16.7	8	3.9	0	0	41.1	203
2	18	10.4	8	4.6	0	0	39.1	173
3	20	13.5	4	2.7	0	0	39.8	148
4	6	15.4	2	5.1	0	0	40.6	39
5	8	7.5	2	1.9	0	0	38.2	106
6	4	10.5	0	0	0	0	35.9	38
7	13	14.9	4	4.6	0	0	43.1	87
8	25	20.0	6	4.8	0	0	41.2	125
9	61	14.4	23	5.4	0	0	41.1	425
10	3	5.6	1	1.9	0	0	37.7	54
11	32	15.8	5	2.5	0	0	38.8	203
12	18	17.8	2	2.0	0	0	41.4	101
13	24	15.4	8	5.1	0	0	41.6	156
14	8	10.0	3	3.8	0	0	40.8	80
15	14	29.8	2	4.3	0	0	45.6	47
16	4	11.1	3	5.3	0	0	44.0	36
17	15	16.5	2	2.2	0	0	43.6	91
18	39	22.4	10	5.7	0	0	43.2	174
19	23	30.7	12	16.0	0	0	50.2	75
TOTALS							AVERAGE ANSWER = 41.2	
	369	15.6	105	4.4	0	0	TOTAL RESPONSES =	2361

Table B.11 QUESTION NUMBER= 11 SUMMARY OF ALL RESPONDENTS

11. How many people do you help support? Count yourself if you support yourself.

0 TO 8 AS GIVEN
9 NINE OR MORE

HOSPITAL	ANS= 0		1		2		3		4		5	
	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT
1	9	4.4	84	41.4	60	29.6	36	17.7	11	5.4	3	1.5
2	6	3.5	69	34.9	53	30.6	30	17.3	11	6.4	4	2.3
3	6	4.1	66	44.6	42	28.4	20	13.5	8	5.4	5	3.4
4	1	2.6	13	33.3	13	33.3	6	15.4	4	10.3	1	2.6
5	4	3.9	34	32.1	32	30.2	21	19.8	8	7.5	6	5.7
6	2	5.3	15	39.5	14	36.8	2	5.3	4	10.5	1	2.6
7	0	0	37	42.5	28	32.2	12	13.8	2	2.3	5	5.7
8	1	.8	54	43.2	37	29.6	25	20.0	6	4.8	1	.8
9	8	1.9	163	38.4	128	30.1	78	18.4	25	5.9	13	3.1
10	3	5.6	23	42.6	12	22.2	12	22.2	4	7.4	0	0
11	4	2.0	82	40.4	72	35.5	26	12.8	10	4.9	3	1.5
12	6	5.9	38	37.6	31	30.7	18	17.8	7	6.9	1	1.0
13	11	7.1	64	41.0	39	25.0	25	16.0	10	6.4	6	3.8
14	3	3.8	32	40.0	31	38.8	11	13.8	3	3.8	0	0
15	0	0	20	42.6	18	38.3	4	8.5	4	8.5	0	0
16	0	0	18	50.0	9	25.0	6	16.7	1	2.8	2	5.6
17	3	3.3	35	38.5	28	30.8	17	18.7	4	4.4	2	2.2
18	7	4.0	79	45.4	50	28.7	20	11.5	10	5.7	6	3.4
19	3	4.0	47	62.7	18	24.0	4	5.3	2	2.7	1	1.3
TOTALS												
	77	3.3	973	41.2	715	30.3	373	15.8	134	5.7	60	2.5

HOSPITAL	6		7		8		9		AVERAGE ANSWER TOTAL RESPONDING	
	NO.	PCT.	NO.	PCT.	NO.	PCT.	NO.	PCT.		
1	0	0	0	0	0	0	0	0	1.8	203
2	0	0	0	0	0	0	0	0	1.9	173
3	1	.7	0	0	0	0	0	0	1.8	148
4	1	2.6	0	0	0	0	0	0	2.2	39
5	1	.9	0	0	0	0	0	0	2.2	106
6	0	0	0	0	0	0	0	0	1.8	38
7	2	2.3	1	1.1	0	0	0	0	2.1	87
8	1	.8	0	0	0	0	0	0	1.9	125
9	7	1.6	2	.5	1	.2	0	0	2.1	425
10	0	0	0	0	0	0	0	0	1.8	54
11	2	1.0	3	1.5	1	.5	0	0	2.0	203
12	0	0	0	0	0	0	0	0	1.9	101
13	1	.6	0	0	0	0	0	0	1.9	156
14	0	0	0	0	0	0	0	0	1.7	80
15	1	2.1	0	0	0	0	0	0	1.9	47
16	0	0	0	0	0	0	0	0	1.9	36
17	1	1.1	0	0	0	0	1	1.1	2.0	41
18	1	.6	1	.6	0	0	0	0	1.9	174
19	0	0	0	0	0	0	0	0	1.4	75
TOTALS										2361
	19	.8	7	.3	2	.1	1	.0	AVERAGE ANSWER= 1.9	

Table B.12

QUESTION NUMBER= 12 SUMMARY OF ALL RESPONDENTS

- 1 Married, with spouse
- 2 Married, living apart
- 3 Divorced
- 4 Widowed
- 5 Single, never married

12. What is your marital status? (Check one)

ANS=	HOSPITAL TOTAL RESPONDING							
	1	2	3	4	5			
	NO.	PCI	NO.	PCI	NO.	PCI	NO.	PCI
1	203	69 34.0	34 16.7	19 9.4	33 16.3	48 23.6		
2	173	65 37.6	31 17.9	12 6.9	17 9.8	48 27.7		
3	146	68 46.6	21 14.4	15 10.3	9 6.2	33 22.6		
4	39	19 48.7	7 17.9	4 10.3	3 7.7	6 15.4		
5	106	52 49.1	25 23.6	7 6.6	3 2.8	19 17.9		
6	38	16 42.1	7 18.4	4 15.8	1 2.6	8 21.1		
7	87	39 44.9	19 21.8	7 8.0	3 3.4	19 21.8		
8	125	61 48.8	27 21.6	10 8.0	8 6.4	19 15.2		
9	424	194 45.8	80 18.9	39 9.2	43 10.1	68 16.0		
10	53	32 60.4	3 5.7	6 11.3	5 9.4	7 13.2		
11	202	68 33.7	37 18.3	19 9.4	15 7.4	63 31.2		
12	101	45 44.6	24 23.8	5 5.0	7 6.9	20 19.8		
13	156	80 51.3	33 21.2	13 8.3	12 7.7	18 11.5		
14	80	43 53.8	9 11.3	7 8.8	3 3.8	18 22.5		
15	47	21 44.7	7 14.9	3 6.4	6 12.8	10 21.3		
16	36	11 30.6	5 13.9	3 8.3	5 13.9	12 33.3		
17	91	38 41.8	24 26.4	5 5.5	9 9.9	15 16.5		
18	174	73 42.0	28 16.1	10 5.7	19 10.9	44 25.3		
19	75	38 50.7	7 9.3	5 6.7	15 20.0	10 13.3		
TOTALS		1032 43.8	428 18.2	195 8.3	216 9.2	485 20.6		

TOTAL RESPONSES TO QUESTION= 2356

Table B.13

QUESTION NUMBER= 13-14 SUMMARY OF ALL RESPONDENTS

13. Do you work at another job besides the one you hold as practical nurse in a city hospital? (Check one)
14. Is your second job also a nursing job? (Check one)
- 2 No second job
3 Second job is nursing
4 Second job not nursing

HOSPITAL	ANS= 2		3		4		TOTAL RESPONDING
	NO.	PCT	NO.	PCT	NO.	PCT	
1	181	89.2	18	8.9	4	2.0	203
2	159	91.9	13	7.5	1	.6	173
3	138	93.2	8	5.4	2	1.4	148
4	39	100.0	0	0	0	0	39
5	99	93.4	5	4.7	2	1.9	106
6	34	89.5	4	10.5	0	0	38
7	83	95.4	4	4.6	0	0	87
8	121	96.8	4	3.2	0	0	125
9	404	95.1	19	4.5	2	.5	425
10	53	98.1	1	1.9	0	0	54
11	197	97.0	5	2.5	1	.5	203
12	97	96.0	4	4.0	0	0	101
13	141	90.4	13	8.3	2	1.3	156
14	79	98.8	1	1.3	0	0	80
15	42	89.4	5	10.6	0	0	47
16	31	86.1	5	13.9	0	0	36
17	79	86.8	11	12.1	1	1.1	91
18	166	95.4	7	4.0	1	.6	174
19	72	96.0	3	4.0	0	0	75
TOTALS	2215	93.8	130	5.5	16	.7	2361

TOTAL RESPONSES TO QUESTION= 2361

Table B.14

QUESTION NUMBER= 15 SUMMARY OF ALL RESPONDENTS

15. Which languages, other than English do you speak well? (Fill in) 3 Spanish
 1 Any other languages
 0 None or blank

HOSPITAL	ANS= 0			1			3			TOTAL RESPONDING
	NO.	PCI.	NO.	PCI.	NO.	PCI.	NO.	PCI.		
1	179	88.2	4	2.0	20	9.9	203			
2	154	89.0	6	3.5	13	7.5	173			
3	132	89.2	6	4.1	10	6.8	148			
4	30	76.9	6	15.4	3	7.7	39			
5	90	84.9	3	2.8	13	12.3	106			
6	30	78.9	1	2.6	7	18.4	38			
7	79	90.8	2	2.3	6	6.9	87			
8	119	95.2	1	.8	5	4.0	125			
9	383	90.5	16	3.8	24	5.7	423			
10	40	74.1	1	1.9	13	24.1	54			
11	164	80.8	7	3.4	32	15.8	203			
12	84	83.2	3	3.0	14	13.9	101			
13	147	94.2	5	3.2	4	2.6	156			
14	74	92.5	1	1.3	5	6.3	80			
15	37	80.4	2	4.3	7	15.2	46			
16	32	88.9	2	5.6	2	5.6	36			
17	79	86.8	2	2.2	10	11.0	91			
18	157	90.2	6	3.4	11	6.3	174			
19	64	86.5	8	10.8	2	2.7	74			
TOTALS										
2074 88.0 82 3.5 201 8.5										

TOTAL RESPONSES TO QUESTION= 2357

APPENDIX C

STATISTICAL TABLES BY QUESTION NUMBER, HOSPITAL AND
RESPONSE CATEGORY: SUMMARY FOR RESPONDENTS INTERESTED
IN TRAINING

<u>TABLE NO.</u>	<u>TITLE</u>
C.1	Question Number 3
C.2	Question Number 18
C.3	Question Number 19
C.4	Question Number 20
C.5	Question Number 20-A through 20-G

3. How much education have you completed? (Check the item which describes the total years of school you completed.)

- 01 Less than 8 elementary
- 02 Eight elementary
- 03 One yr. H.S. or 3 yrs. Jr. H.S.
- 04 Two years H.S.
- 05 Three years H.S.
- 06 H.S. Equivalency or H.S. Graduate

- 07 One year college
- 08 Two years college
- 09 Three years college
- 10 Four years college
- 11 More than 4 years college

HOSPITAL	2		3		4		5		6		7		8	
	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT
1	2	1.5	3	2.3	7	5.4	16	12.3	90	69.2	5	3.8	4	3.0
2	1	.8	4	3.2	10	7.9	14	11.1	82	65.1	13	10.3	2	1.6
3	3	2.7	3	2.7	10	8.9	6	5.4	79	70.5	8	7.1	2	1.6
4	1	3.4	2	6.9	4	13.8	4	13.8	15	51.7	0	0	2	6.9
5	0	0	1	1.4	2	2.9	14	20.0	43	61.4	5	7.1	3	4.3
6	1	3.7	2	7.4	1	3.7	2	7.4	17	63.0	2	7.4	2	7.4
7	3	5.8	1	1.9	3	5.8	5	9.6	35	67.3	3	5.8	1	1.9
8	2	2.3	6	7.0	7	8.1	4	4.7	53	61.6	7	8.1	4	4.7
9	7	2.5	8	2.9	17	6.1	35	12.6	182	65.7	21	7.6	6	2.2
10	1	2.7	0	0	2	5.4	8	21.6	21	56.8	3	8.1	2	5.4
11	0	0	8	5.1	12	7.6	14	8.9	100	63.7	15	9.6	5	3.2
12	2	3.4	2	3.4	5	8.5	5	8.5	37	62.7	5	8.5	2	3.4
13	2	1.8	7	6.1	11	9.6	12	10.5	65	57.0	8	7.0	2	2.0
14	2	4.9	0	0	1	2.4	5	12.2	24	58.5	4	9.8	5	12.2
15	1	3.7	1	3.7	4	14.8	2	7.4	17	63.0	2	7.4	0	0
16	0	0	1	4.0	2	8.0	5	20.0	14	56.0	1	4.0	0	0
17	1	1.6	1	1.6	6	9.7	8	12.9	36	58.1	3	4.8	6	9.7
18	2	1.9	6	5.8	6	5.8	14	13.5	66	63.5	5	4.8	4	3.0
19	3	8.3	2	5.6	5	13.9	4	11.1	16	44.4	4	11.1	2	5.6
TOTALS	34	2.2	58	3.7	115	7.3	177	11.3	992	63.1	114	7.3	55	3.0

HOSPITAL	9		10		11		AVERAGE ANSWER TOTAL RESPONDING	
	NO.	PCT	NO.	PCT	NO.	PCT		
1	0	0	3	2.3	0	0	5.8	130
2	0	0	0	0	0	0	5.7	126
3	1	.9	0	0	0	0	5.7	112
4	1	3.4	0	0	0	0	5.5	29
5	0	0	2	2.9	0	0	6.0	70
6	0	0	0	0	0	0	5.7	27
7	1	1.9	0	0	0	0	5.7	52
8	1	1.2	2	2.3	0	0	5.8	86
9	0	0	1	.4	0	0	5.7	277
10	0	0	0	0	0	0	5.8	37
11	2	1.3	1	.6	0	0	5.8	157
12	0	0	1	1.7	0	0	5.7	59
13	2	1.8	4	3.5	0	0	5.8	114
14	0	0	0	0	0	0	6.0	41
15	0	0	0	0	0	0	5.4	27
16	0	0	0	0	2	8.0	6.0	25
17	1	1.6	0	0	0	0	5.9	62
18	0	0	1	1.0	0	0	5.7	104
19	0	0	0	0	0	0	5.3	36
TOTALS	9	.6	15	1.0	2	.1	AVERAGE ANSWER= 5.7	TOTAL RESPONSES= 1571

Table C.2

SUMMARY FOR RESPONDENTS INTERESTED IN TRAINING

QUESTION NUMBER= 1A

18. If your tuition in a registered nurse training program were paid for, how much time off from work without pay could you afford? (Check one)

3 Two years
 2 One year
 1 Six months
 0 None

HOSPITAL	ANS= 0		1		2		3		AVERAGE ANSWER	TOTAL RESPONDING
	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT		
1	78	61.4	8	6.3	21	16.5	20	15.7	.9	127
2	66	55.0	12	10.0	20	16.7	22	18.3	1.0	120
3	52	49.1	14	13.2	18	17.0	22	20.8	1.1	106
4	22	78.6	1	3.6	2	7.1	3	10.7	.5	28
5	25	37.9	6	9.1	13	19.7	22	33.3	1.5	66
6	13	50.0	2	7.7	3	11.5	8	30.8	1.2	26
7	22	44.9	4	8.2	13	26.5	10	20.4	1.2	49
8	43	53.1	7	8.6	21	25.9	10	12.3	1.0	81
9	174	64.9	20	7.5	34	12.7	40	14.9	.8	268
10	20	55.6	2	5.6	8	22.2	6	16.7	1.0	36
11	93	62.8	12	8.1	22	14.9	21	14.2	.8	148
12	34	60.7	5	8.9	6	10.7	11	19.6	.9	56
13	42	40.8	6	5.8	21	20.4	34	33.0	1.5	103
14	16	40.0	6	15.0	10	25.0	8	20.0	1.3	40
15	20	74.1	1	3.7	2	7.4	4	14.8	.6	27
16	13	52.0	2	8.0	6	24.0	4	16.0	1.0	25
17	42	72.4	3	5.2	6	10.3	7	12.1	.6	58
18	57	61.3	11	11.8	9	9.7	16	17.2	.8	93
19	22	71.0	1	3.2	5	16.1	3	9.7	.6	31
TOTALS										
854 57.4 123 8.3 240 16.1 271 18.2										
TOTAL RESPONSES TO QUESTION= 1488										
AVERAGE ANSWER= 1.0										

Table C.3

QUESTION NUMBER= 19 SUMMARY FOR RESPONDENTS INTERESTED IN TRAINING

19. If your tuition were paid for part-time study, and you were paid only for the time you actually worked, which would you prefer? Choice (a) would take less time to complete the training, but choice (b) would provide a full-time income. (Check one)

- (a) To work half time at half pay and study half time.
- (b) To work full time at full pay and study after hours and on days off.
- (c) Neither is acceptable.

3 Half pay, half study
2 Full pay, extra study
0 Neither

HOSPITAL	ANS=			TOTAL RESPONDING		
	0	2	3			
	NO.	PCI	NO.	PCI	NO.	PCI
1	16	12.6	53	41.7	58	45.7
2	14	11.7	48	40.0	58	48.3
3	12	11.3	36	34.0	58	54.7
4	6	21.4	10	35.7	12	42.9
5	7	10.6	21	31.8	38	57.6
6	6	23.1	11	42.3	9	34.6
7	4	8.2	19	38.8	26	53.1
8	1	1.2	37	45.7	43	53.1
9	28	10.4	109	40.7	131	48.9
10	5	13.9	17	47.2	14	38.9
11	13	8.8	54	36.5	81	54.7
12	5	8.9	23	41.1	28	50.0
13	10	9.7	43	41.7	50	48.5
14	4	10.0	18	45.0	18	45.0
15	6	22.2	14	51.9	7	25.9
16	2	8.0	9	36.0	14	56.0
17	3	5.2	26	44.8	29	50.0
18	8	8.6	47	50.5	38	40.9
19	3	9.7	19	61.3	9	29.0
TOTALS						
	153	10.3	614	41.3	721	48.5

TOTAL RESPONSES TO QUESTION= 1488

Table C.4 QUESTION NUMBER= 20 SUMMARY FOR RESPONDENTS INTERESTED IN TRAINING

20. A training program might be given in which you worked part time and studied part time, at your full, regular pay. Would you be willing to put in extra study time of your own, to get through more quickly? (Check the item(s) that applies to you.)

- a. I would not be able to give extra time.
- b. I am not willing to give extra time.
- c. I would give one of my days off a week.
- d. I would give one extra hour a day.
- e. I would give two extra hours a day.
- f. I would give three extra hours a day
- g. I would give four extra hours a day.

Checked:
 1 a only
 0 b only
 3 c only
 2 d only
 4 e only
 5 f only
 6 g only
 07 c & d
 08 c & e
 09 c & f
 10 c & g

HOSPITAL	ANS= 0		1		2		3		4		5		6	
	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT
1	0	0	2	1.6	1	.8	51	40.2	16	12.6	12	9.4	31	24.4
2	2	1.7	7	5.8	2	1.7	52	43.3	8	6.7	11	9.2	25	20.8
3	1	.9	5	4.7	3	2.8	59	55.7	9	8.5	7	6.6	20	18.9
4	0	0	3	10.7	2	7.1	12	42.9	0	0	2	7.1	8	28.6
5	3	4.5	4	6.1	0	0	27	40.9	2	3.0	2	3.0	19	28.6
6	0	0	0	0	1	3.8	12	46.2	2	7.7	0	0	9	34.6
7	0	0	5	10.2	2	4.1	19	38.8	4	8.2	2	4.1	8	16.0
8	2	2.5	1	1.2	4	4.9	41	50.6	6	7.4	7	8.6	10	12.0
9	5	1.9	10	3.7	8	3.0	113	42.2	25	9.3	25	9.3	64	23.9
10	0	0	0	0	1	2.8	17	47.2	4	11.1	2	5.6	12	33.3
11	3	2.0	5	3.4	5	3.4	61	41.2	12	8.1	14	9.5	29	19.0
12	2	3.6	3	5.4	0	0	28	50.0	3	5.4	2	3.6	12	21.0
13	1	1.0	4	3.9	4	3.9	46	44.7	9	8.7	10	9.7	21	20.0
14	1	2.5	5	12.5	0	0	15	37.5	4	10.0	3	7.5	10	25.0
15	1	3.7	0	0	1	3.7	13	48.1	0	0	3	11.1	6	22.0
16	0	0	0	0	3	12.0	15	60.0	1	4.0	2	8.0	4	16.0
17	0	0	2	3.4	0	0	21	36.2	5	8.6	5	8.6	17	29.0
18	0	0	6	6.5	1	1.1	41	44.1	10	10.8	6	6.5	23	24.0
19	0	0	1	3.2	2	6.5	18	58.1	3	9.7	1	3.2	4	12.0
TOTALS	21	1.4	63	4.2	40	2.7	661	44.4	123	8.3	116	7.8	332	22.0

HOSPITAL	7		8		9		10		AVERAGE ANSWER	TOTAL RESPONDING
	NO.	PCT	NO.	PCT	NO.	PCT	NO.	PCT		
1	1	.8	3	2.4	3	2.4	7	5.5	4.7	127
2	0	0	1	.8	3	2.5	9	7.5	4.4	120
3	0	0	1	.9	1	.9	0	0	3.7	104
4	0	0	1	3.6	0	0	0	0	3.9	28
5	2	3.0	4	6.1	1	1.5	2	3.0	4.4	66
6	0	0	1	3.8	0	0	1	3.8	4.5	26
7	3	6.1	3	6.1	2	4.1	1	2.0	4.3	49
8	1	1.2	4	4.9	1	1.2	4	4.9	4.2	81
9	2	.7	8	3.0	2	.7	6	2.2	4.2	268
10	0	0	0	0	0	0	0	0	4.2	36
11	0	0	11	7.4	3	2.0	5	3.4	4.4	148
12	0	0	3	5.4	2	3.6	1	1.8	4.2	56
13	1	1.0	1	1.0	1	1.0	5	4.9	4.2	103
14	1	2.5	0	0	0	0	1	2.5	4.0	40
15	0	0	0	0	1	3.7	2	7.4	4.5	27
16	0	0	0	0	0	0	0	0	3.6	25
17	1	1.7	4	6.9	0	0	3	5.2	4.8	58
18	0	0	2	2.2	0	0	4	4.3	4.2	93
19	0	0	0	0	0	0	2	6.5	3.9	31
TOTALS	12	.8	47	3.2	20	1.3	53	3.6		TOTAL RESPONSES 1488

AVERAGE ANSWER= 4.3

Table C.5

SUMMARY FOR RESPONDENTS INTERESTED IN TRAINING

QUESTION NUMBER=	20-A		20-B		20-C	
	NO.	PCT.	NO.	PCT.	NO.	PCT.
NOT ABLE TO GIVE EXTRA STUDY TIME						
0 NOT CHECKED	125	98.4	2	1.6	62	48.8
1 CHECKED	113	94.2	7	5.8	55	45.8
TOTALS	101	95.3	5	4.7	45	42.5
NOT WILLING TO GIVE EXTRA STIMF						
0 NOT CHECKED	25	89.3	3	10.7	15	53.6
1 CHECKED	62	93.9	4	6.1	30	45.5
TOTALS	261	100.0	0	0	12	46.2
WOULD GIVE ONE DAY OFF PER WEEK						
0 NOT CHECKED	44	89.8	5	10.2	21	42.9
1 CHECKED	80	98.8	1	1.2	30	37.0
TOTALS	258	96.3	10	3.7	137	51.1
ANS=	0		1		0	
HOSPITAL	NO.	PCT.	NO.	PCT.	NO.	PCT.
1	125	98.4	2	1.6	62	48.8
2	113	94.2	7	5.8	55	45.8
3	101	95.3	5	4.7	45	42.5
4	25	89.3	3	10.7	15	53.6
5	62	93.9	4	6.1	30	45.5
6	261	100.0	0	0	12	46.2
7	44	89.8	5	10.2	21	42.9
8	80	98.8	1	1.2	30	37.0
9	258	96.3	10	3.7	137	51.1
10	361	100.0	0	0	19	52.8
11	143	96.6	5	3.4	68	45.9
12	53	94.6	3	5.6	22	39.3
13	99	96.1	4	3.9	49	47.6
14	35	87.5	5	12.5	23	57.5
15	271	100.0	0	0	11	40.7
16	251	100.0	0	0	10	40.0
17	56	96.6	2	3.4	29	50.0
18	87	93.5	6	6.5	46	49.5
19	30	96.8	1	3.2	11	35.5
TOTALS	1425	95.8	63	4.2	695	46.7

TOTALS 1468 98.7 20 1.3 793 53.3

TOTAL RESPONSES TO QUESTION= 1488

APPENDIX D
CORRELATION MATRIXES

<u>TABLE NO.</u>	<u>TITLE</u>
D.1	Simple Cross Correlations of Sixteen Variables Based on Fifty Percent Sample of All Respondents
D.2	Simple Cross Correlations of Eighteen Variables Based on Fifty Percent Sample of Respondents Interested in Training

TABLE D.1

SIMPLE CROSS CORRELATIONS OF SIXTEEN VARIABLES BASED ON FIFTY PERCENT SAMPLE OF ALL RESPONDENTS.^a

No.	Variable	Rank Order:															
		No.: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Variable:	Years PN	Years PN NYC	Edu- cation	Age	De- pen- dents	Sec- ond Job	Human Rel.	Nurse The- ory	Lit. & Art	Hist. & Soc. Sci.	PN Expe- ri- ence	Ded- ica- tion	Clin- ical Prac- tice	NA Expe- ri- ence	Nat. Sci.	Inter- est RN Study
1	Years as PN . . . . .		.95	-.11	.52	-.13						-.14		.08			-.26
2	Years as PN in NYC Hospitals.			-.12	.55	-.12						-.12		-.08	.08		-.27
3	Education completed.				-.31	-.12			-.14			.10		.09	-.08	.11	.32
4	Age . . . . .							.08				-.15					-.44
5	Dependents. . . . .						.08										.09
6	Second job . . . . .																.09
7	Rank: Training in human relations.							-.16		.09							.09
8	Rank: Classroom training in nursing theory. . . . .										.40						.12
9	Rank: Training in literature and art.											-.37				.09	.12
10	Rank: Training in history and social science											-.44				-.36	.12
11	Rank: Practical-nurse work experience.															-.14	.12
12	Rank: Dedication to helping people . . . . .																.12
13	Rank: Clinical practice in nursing skills . . . . .																.12
14	Rank: Nurse-aid work experience . . . . .																.12
15	Rank: Training in natural sciences. . . . .																.12
16	Interest in RN Study . . . . .																.12

a. Sample: 999, answering question 16 and all others represented by the 16 variables, with odd ID numbers.

All coefficients of correlation shown are significant at the .01 level.

Questions represented: 1-3, 10, 11, 13, 14, 16, 17.

TABLE D.2

SIMPLE CROSS CORRELATIONS OF EIGHTEEN VARIABLES BASED ON FIFTY PERCENT SAMPLE OF RESPONDENTS INTERESTED IN TRAINING.^a

Variable:	Rank Order:																		
	No. Variable No.: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
	Years PN	Years PN NYC	Edu- tion Age	Age	De- pen- dents	Sec- ond Job	Hum. Rel.	Nurse The- ory	Lit. & Art	Hist. & Soc. Sci.	Expe- ri- ence	Ded- ica- tion	Clin- ical Prac- tice	Expe- ri- ence NA	Nat. Sci.	Time Off Work	Study Work	Extra Time	
1	Years as PN . . . . .	.95																	
2	Years as PN in NYC Hospitals		.45		-.14														-.13
3	Education completed . . . . .		.48		-.15														-.14
4	Age		-.14								-.13								-.13
5	Dependents																		
6	Second job																		
7	Rank: Training in human relations																		
8	Rank: Classroom training in nursing theory																		
9	Rank: Training in literature and art																		
10	Rank: Training in history and social science																		
11	Rank: Practical-nurse work experience																		
12	Rank: Dedication to helping people																		
13	Rank: Clinical practice in nursing skills																		
14	Rank: Nurse-aid work experience																		
15	Rank: Training in natural sciences																		
16	Time off for study																		
17	Study-work preference																		
18	Extra study time																		

a. Sample: 675 answering yes to question 17, with even ID numbers, who answered all the questions represented by the 18 variables.
 All coefficients of correlation shown are significant at the .01 level.
 Questions represented: 1-3, 10, 11, 13, 14, 16, 18-20.