

North Dakota Nursing Needs Study: Student Survey Results

**Center for Rural Health
North Dakota Center for Health Workforce Data**

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Table of Contents

Executive Summary	3
North Dakota Nursing Needs Study Introduction	5
Student Survey Results.....	5
Demographics	5
Factors in Choosing a Nursing Career	8
Factors in Choosing Nursing Education Program	9
Clinical Experience.....	10
Areas of Nursing Expertise.....	12
Post-Graduation Plans.....	14
Future Nursing Faculty Role Plans.....	20
Nursing Shortage Solutions	21
Recommendation of Nursing Profession to Relatives	22
Additional Comments about Nursing Education or Practice.....	22
Student Survey References.....	24

EXECUTIVE SUMMARY

Background

The Nursing Needs study was mandated by the North Dakota Century Code Nurse Practice Act 43-12.1-08.2 in which the North Dakota Board of Nursing was directed to address issues of supply and demand including issues of recruitment, retention and utilization of nurses. The North Dakota Board of Nursing then contracted with the Center for Rural Health at the University of North Dakota School of Medicine and Health Sciences to conduct the Nursing Needs study.

This study was designed to collect data in order to present a more accurate picture of nurses in both rural and urban areas of North Dakota and compare these data with existing national data as well as to inform policy. Results from the first year of the study are available at <http://medicine.nodak.edu.crh>. During the second year of the study, data collection includes four projects. The facility survey was developed to provide a comprehensive picture of the nature of nursing employment and potential shortages throughout the state and to enable comparisons to be drawn between health care facilities; rural and urban areas and North Dakota and national data. The second project is a survey of registered nurses (RNs), licensed practical nurses (LPNs) and advanced practice nurses (APNs) throughout North Dakota. The third project is a survey of students, distributed to all nursing programs in the state, inquiring about career plans. The fourth project involves focus groups with nursing program faculty to examine program capacity and recruitment and retention issues of students and faculty.

Student Survey Results

The student survey was designed to examine demographics, reasons for choosing nursing as a career, career preparation, post-graduation plans and plans to work in North Dakota or rural areas. The student survey was sent to all nursing programs in North Dakota. The survey was distributed to all available students by faculty in each program and mailed to the Center for Rural Health. A total of 949 surveys were returned out of an estimated 1,750 students for a response rate of 54%. Surveys were received from all nursing programs in North Dakota and included LPN (250), RN (671) and APN (28) students.

- Most students were Caucasian and female. APN students had an average age of 40 compared to LPN students (29 years) and RN students (25 years). Most APN students were married or living in a committed relationship compared to about one third of RN and LPN students. Most APN students also have children compared with about one half of LPN students and about one fifth of RN students. About half of LPN, RN and APN students are currently employed with about one third of APN students working 40 or more hours per week. The average grade point average (GPA) for LPN students was 3.2, for RN students 3.4 and for APN students 3.7.
- Students indicated the opportunity to make a difference in people's lives and a personal attraction to nursing were the most important factors in choosing a nursing career. Few students indicated the opinion of teachers/counselors or the opinion/experience of a parent as important factors.
- LPN students indicated the location of the program and career ladder opportunity as the most important factors in choosing their education program. RN students indicated the reputation and location of the program and APN students indicated location as important factors.

- The majority of LPN, RN and APN students felt they had or will have adequate clinical experience and will feel prepared to work as a nurse after graduating from their education program.
- Overall, most students felt prepared or well prepared to perform several listed nursing functions. In particular, LPN and RN students felt well prepared for tasks involving respecting client differences, values, preferences and expressed needs. Fewer LPN and RN students felt well prepared for tasks involving leadership and management.
- About one-half of LPN and RN students plan to start working immediately after graduation and pursue more education either immediately or later. Most APN students plan to start working immediately.
- Of those students that plan to pursue additional education, most LPN students plan to pursue a RN bachelor's degree, about one-third of RN students plan to pursue a nurse practitioner degree and over half of APN students plan to pursue a nursing doctoral degree.
- Few students plan to work part-time after graduation. Reasons included planning to attend college, concerns about the physical demands of nursing and financial circumstances that allow them to work part-time.
- Most LPN and RN students plan to work in a hospital setting with many APNs planning to work in a hospital or ambulatory care. Most students also indicated that they would be willing to drive over 10 miles (one-way) to commute to a job with about one-third willing to drive over 30 miles (one-way).
- About one-half of LPN and RN and about two-thirds of APN students plan to work in North Dakota. Most students staying indicated that their families live in North Dakota. Several students planning to leave North Dakota indicated that better pay and benefits and more job opportunities were available outside of the state.
- About one-half of LPN and APN students and one-third of RN students anticipated working in a rural area in the future. Frequent reasons include that rural areas are a safe environment, spouse/significant other has a job in a rural area, they will get to know patients and obtain a broad nursing experience. Students not planning to work in a rural area indicated that pay/benefits are not comparable to urban areas, they only want to work in a large city and there are few social activities.
- Over half of LPN and RN students indicated they do not plan to pursue a faculty role. Most of these students indicated they were not interested in a faculty position.
- Students identified several solutions to the nursing shortage including offering better pay/benefits, increasing the availability and capacity of nursing programs, offering financial incentives such as scholarships or loan repayment, creating a more positive image of nursing, advertising benefits of a nursing career and creating a better work environment.
- Most students indicated that they would recommend a nursing career to a relative and cited that salaries are continually improving, there are many opportunities and nursing is a challenging and rewarding career.

NORTH DAKOTA NURSING NEEDS STUDY INTRODUCTION

The Nursing Needs study was mandated by the North Dakota Century Code Nurse Practice Act 43-12.1-08.2 in which the North Dakota Board of Nursing was directed to address issues of supply and demand including issues of recruitment, retention and utilization of nurses. The North Dakota Board of Nursing then contracted with the Center for Rural Health at the University of North Dakota School of Medicine and Health Sciences to conduct the Nursing Needs study.

This study was designed to collect data in order to present a more accurate picture of nurses in both rural and urban areas of North Dakota and compare these data with existing national data as well as to inform policy. Results from the first year of the study are available at <http://medicine.nodak.edu.crh>. During the second year of the study, data collection includes four projects. The facility survey was developed to provide a comprehensive picture of the nature of nursing employment and potential shortages throughout the state and to enable comparisons to be drawn between health care facilities; rural and urban areas and North Dakota and national data. The second project is a survey of registered nurses (RNs), licensed practical nurses (LPNs) and advanced practice nurses (APNs) throughout North Dakota. The third project is a survey of students, distributed to all nursing programs in the state, inquiring about career plans. The fourth project involves focus groups with nursing program faculty to examine program capacity and recruitment and retention issues of students and faculty.

STUDENT SURVEY RESULTS

The student survey was designed to examine demographics, reasons for choosing nursing as a career, career preparation, post-graduation plans and plans to work in North Dakota or rural areas. The survey was sent to all nursing programs in North Dakota (LPN, RN and APN). APN students included students enrolled in masters and doctoral level nursing education programs. Due to distance learning programs, some APN students were asked to complete and return their survey by email. Faculty at each program distributed the survey in their classes and the surveys were returned in a postage-paid envelope to the Center for Rural Health. An attempt was made to have as many students complete the survey as possible. The survey was sent to all programs in December, 2003 and January, 2004. A total of 949 surveys were returned out of an estimated 1,750 students for a response rate of 54%. Surveys were received from all nursing programs in North Dakota and included LPN (250), RN (671) and APN (28) students. Percentages were calculated using the total number of students that completed each item.

DEMOGRAPHICS

- **RACE**

LPN students: 84% Caucasian, 0.8% African-American, 1.6% Asian/Pacific Islander, 12% American Indian/Alaskan Native, 0.8% multi-racial, and 0.8% other.

RN students: 94% Caucasian, 0.6% Hispanic, 0.4% African-American, 0.9% Asian/Pacific Islander, 2.4% American Indian/Alaskan Native, 0.7% multi-racial and 0.6% other.

APN students: 96.3% Caucasian and 3.7% American Indian/Alaskan Native.

- **GENDER**

LPN students: 5% male and 93% female.

RN students: 7% male and 93% female.

APN students: 100% female.

- **AGE**

LPN student average age: 29 years, 46% age 25 or below and 54% age 26 and above.

RN student average age: 25 years, 76% age 25 or below and 24% age 26 and above. In the Minnesota RN student survey (Minnesota Colleagues in Caring, 1999), 29% of students were above age 25. For comparison, the National Sample Survey of Registered Nurses (Spratley et al., 2000) found an average age upon graduation of 28 years.

APN student average age: 40 years, 100% were age 26 and above.

- **MARITAL STATUS**

LPN students: 34% married, 14% divorced, 40% single and 12% living in a committed relationship.

RN students: 22% married, 4% divorced, 64% single and 10% living in a committed relationship. 36% of RN students in Minnesota were married, 6% were divorced, 48% were single and 10% were living in a committed relationship (Minnesota Colleagues in Caring, 1999).

APN students: 70% married, 15% divorced, 11% single and 4% living in a committed relationship.

- **CHILDREN**

LPN students: 42% no children, 2% currently expecting, 34% one or two children, 17% three or four children, 5% five or more children.

RN students: 80% no children, 1% currently expecting, 15% one or two children, 4% three or four children, .6% five or more children.

APN students: 26% no children, 26% one or two children, 41% three or four children, 7% five or more children.

- **CURRENT EMPLOYMENT**

LPN students: 58% not employed
8% worked 1-9 hours per week
11% worked 10-19 hours per week
12% worked 20-29 hours per week
7% worked 30-39 hours per week
3% worked 40 or more hours per week

RN students: 53% not employed
19% worked 1-9 hours per week
15% worked 10-19 hours per week
9% worked 20-29 hours per week
3% worked 30-39 hours per week
1% worked 40 or more hours per week
The Minnesota RN student survey found 89% of students were employed and 23% of the RN students work 30 or more hours per week (Minnesota Colleagues in Caring, 1999).

APN students: 41% not employed
11% worked 1-9 hours per week
15% worked 20-29 hours per week
7% worked 30-39 hours per week
26% worked 40 or more hours per week

- **YEAR IN PROGRAM**

LPN students: 37% freshman, 36% sophomores, 15% juniors, 11% seniors.

RN students: 0.6% freshmen, 15% sophomores, 45% juniors, 40% seniors.

APN students: 39% first year, 54% second year, 7% fourth or greater year of graduate school.

- **GRADE POINT AVERAGE (GPA)**

LPN student average GPA: 3.2, 34% GPA of 3.0 or less, 62% GPA between 3.0 and 4.0, 5% GPA of 4.0.

RN student average GPA: 3.4, 18% GPA of 3.0 or less, 79% GPA between 3.0 and 4.0, 3% GPA of 4.0.

APN student average GPA: 3.7, 7% GPA of 3.0 or less, 67% GPA between 3.0 and 4.0, 26% GPA of 4.0.

- **GRADUATION**

39% of APN students plan to graduate during the 2003-2004 academic year. 54% of LPN and 27% of RN students plan to graduate during the 2004-2005 year. (see Table 1).

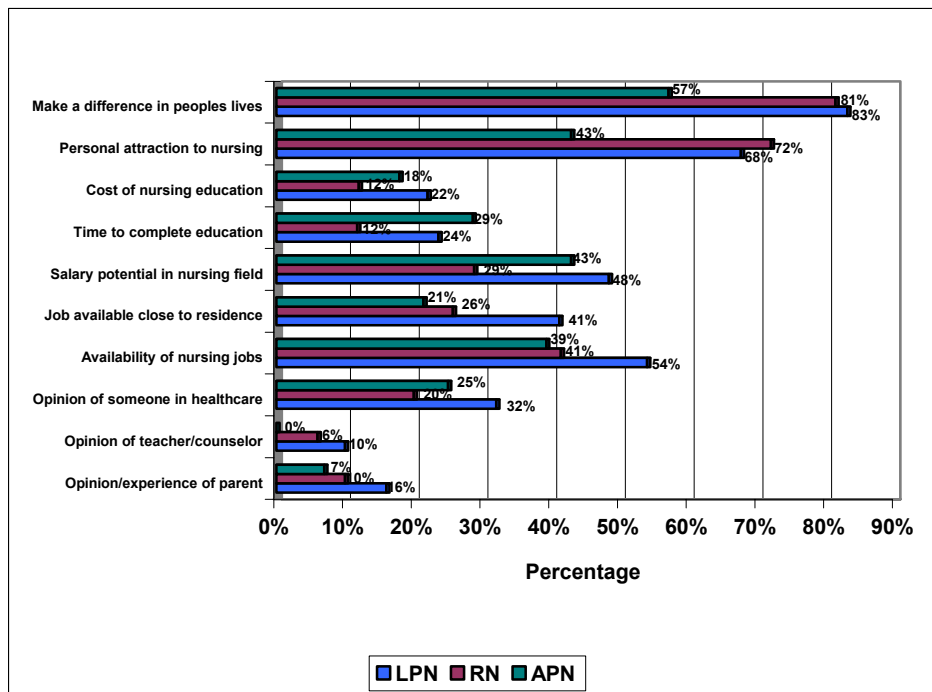
Table 1: Year Planning to Graduate

<i>Year</i>	<i>LPN</i>	<i>RN</i>	<i>APN</i>
2003-2004	30%	28%	39%
2004-2005	54%	37%	35%
2005-2006	11%	28%	23%
2006-2007	5%	6%	4%
2007-2008	.4%	.3%	0%

FACTORS IN CHOOSING A NURSING CAREER

- Students were asked how important several factors were in choosing a nursing career (see Figure 1). LPN, RN and APN students all ranked the opportunity to make a difference in people’s lives as the most important factor in choosing a nursing career. This was followed by a personal attraction to nursing. This question was derived from the North Dakota Healthcare Association Healthcare Career Perceptions study (2002). In this study, high school students ranked personal attraction to the field, opinion or experience of someone in the field, salary potential and availability of jobs as important when considering their career. In both the NRHA and the current study, the opinions and experience of teachers or counselors were ranked least important.

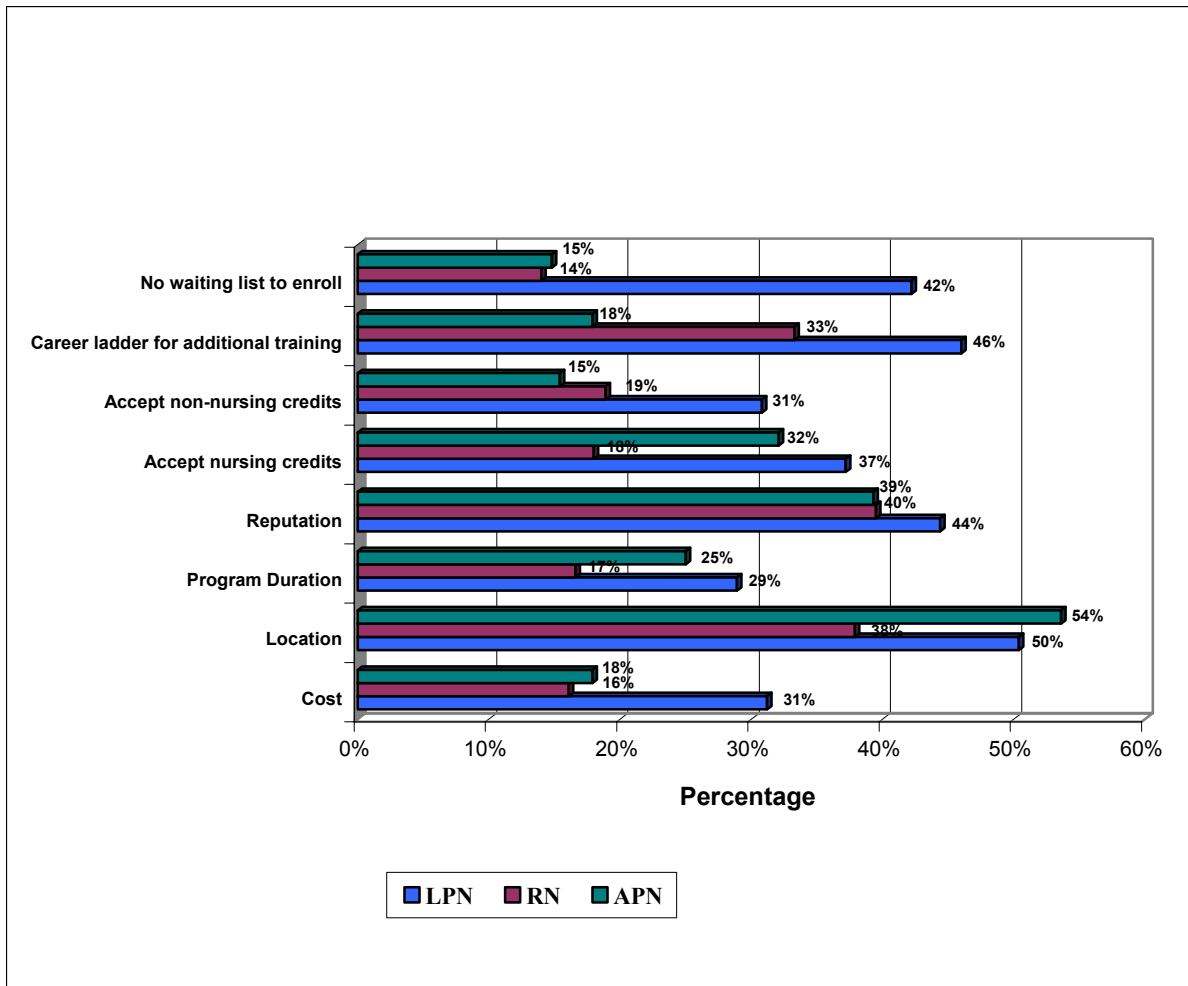
Figure 1: Most Important Factors in Choosing a Nursing Career



FACTORS IN CHOOSING NURSING EDUCATION PROGRAM

- Students were asked how important several factors were when choosing their nursing education program (see Figure 2). LPN students ranked location and career ladder opportunity as the most important factors in choosing their nursing education program. RN students ranked reputation and location of program as most important. In comparison, Minnesota RN students cited the most important factors as location (92%), reputation (90%) and length of program (88%) in choosing a nursing program. North Dakota APN students ranked location as the most important factor.

Figure 2: Most Important Factors in Choosing Nursing Education Program



CLINICAL EXPERIENCE

- Students were asked if they felt they had or will have adequate clinical experience and if they feel prepared to work as a nurse after graduation. Most LPN students (70%) felt their clinical experience will be adequate and they will be prepared to work as a nurse after graduation (see Table 2).

Table 2: LPN Student Clinical Experience

Question	<i>Freshman</i>	<i>Sophomore</i>	<i>Junior</i>	<i>Senior</i>
I feel that I have had/will have adequate clinical experience and feel prepared to work as a nurse after graduation.	71%	66%	77%	65%
I feel that I have had/will have adequate clinical experience but do not feel prepared to work as a nurse after graduation.	6%	24%	3%	15%
I feel that I have not/will not have had adequate clinical experience and do not feel prepared to work as a nurse when after graduation.	2%	1%	0%	8%
I do not know if I will have had adequate clinical experience.	21%	8%	20%	12%

- Most RN students (64%) felt their clinical experience will be adequate and they will be prepared to work as a nurse after graduation (see Table 3).

Table 3: RN Student Clinical Experience

<i>Question</i>	<i>Freshman</i>	<i>Sophomore</i>	<i>Junior</i>	<i>Senior</i>
I feel that I have had/will have adequate clinical experience and feel prepared to work as a nurse after graduation	75%	64%	62%	54%
I feel that I have had/will have adequate clinical experience but do not feel prepared to work as a nurse after graduation	0%	8%	10%	20%
I feel that I have not/will not have had adequate clinical experience and do not feel prepared to work as a nurse when after graduation	0%	2%	10%	16%
I do not know if I will have had adequate clinical experience.	25%	26%	18%	10%

- Most APN students (73%) felt their clinical experience will be adequate and they will be prepared to work as a nurse after graduation (see Table 4).

Table 4: APN Clinical Experience


<i>Question</i>	<i>1st Year</i>	<i>2nd Year</i>	<i>4th Year</i>
I feel that I have had/will have adequate clinical experience and feel prepared to work as a nurse after graduation	27%	93%	100%
I feel that I have had/will have adequate clinical experience but do not feel prepared to work as a nurse after graduation	0%	0%	0%
I feel that I have not/will not have had adequate clinical experience and do not feel prepared to work as a nurse when after graduation	9%	0%	0%
I do not know if I will have had adequate clinical experience.	64%	7%	0%



AREAS OF NURSING EXPERTISE

- LPN students in the final year of their program were asked to indicate how well prepared they feel to perform several functions of nursing expertise (see Table 5). LPN students felt prepared or well prepared for tasks involving knowledge of how to respect client differences, values, preferences and expressed needs based on scientific evidence (93%) and for communication skills (92%). 78% of LPN students indicated they felt they prepared or well prepared for tasks involving leadership, management and professional socialization.

Table 5: LPN Areas of Nursing Expertise

<i>Question</i>	<i>Not Prepared</i>			<i>Well Prepared</i>
Biological, physical, social/behavioral sciences, legal, ethical, historical and nursing trends and professional responsibilities	2%	14%	52%	32%
Nursing process	3%	6%	43%	48%
Communication	0%	9%	33%	59%
Information management and technology	0%	19%	54%	27%
Theory and clinical experience related to promotion, prevention, restoration and maintenance of health in clients across the life span in a variety of clinical settings	2%	14%	49%	36%
Knowledge of how to involve clients in decision making, self-care and healthy lifestyles	0.6%	11%	42%	47%
Knowledge of how to respect client differences, values, preferences and expressed needs based on scientific evidence	0.6%	6%	33%	60%
Experiences that promote leadership, management, and professional socialization consistent with role and scope of practice to function as part of a healthcare team	3%	12%	47%	39%
Experiences that promote leadership, management and professional socialization consistent with role and scope of practice and promotes utilization of quality improvement processes	3%	12%	57%	29%
Experiences that promote leadership, management and professional socialization consistent with role and scope of practice and promotes supervised clinical practice that includes management of care of groups of clients, delegation and supervision of other team members	4%	18%	49%	29%

- RN students felt prepared or well prepared for providing client-centered care that promotes healthy lifestyles for clients (96%) and that respects client differences, values, preferences and expressed needs (95%) (see Table 6). 66% of RN students felt prepared or well prepared for tasks involving supervised clinical practice including management and care of groups of clients, and delegation and supervision of health care providers.

Table 6: RN Areas of Nursing Expertise

<i>Question</i>	<i>Not Prepared</i>	—————▶		<i>Well Prepared</i>
Legal and ethical issues, history and trends in nursing, biological, physical, social/behavioral sciences and professional responsibilities	4%	19%	55%	23%
Nursing process	1%	7%	48%	43%
Experience in the promotion, prevention, restoration and maintenance of health in clients across the life and in a variety of clinical settings	2%	11%	53%	34%
Communicate, manage knowledge and support decision making using information technology	2%	17%	54%	28%
Provide client-centered care that:				
respects client differences, values, preferences and expressed needs	0.8%	4%	39%	56%
involves clients in decision making and care management	2%	7%	39%	53%
coordinates and manages continuous client care	.8%	9%	48%	43%
promotes healthy lifestyles for clients	2%	3%	47%	49%
works in a healthcare team to cooperate, collaborate, communicate and integrate client care and health promotion	1%	5%	49%	45%
employs evidence-based practice to integrate best research with clinical expertise and client values for optimal care	3%	17%	48%	32%
applies quality improvement processes in measurement of quality in terms of structure, process and client outcomes	2%	19%	57%	23%
applies quality improvement processes through participation in development of changes in processes and systems of care, with the objective of improving quality	2%	21%	55%	22%
Experiences which promote the development of leadership and management skills and professional socialization consistent with the level of licensure	5%	22%	47%	27%
Supervised clinical practice to include management and care of groups of clients, and delegation and supervision of health care providers	5%	29%	42%	24%

- 73% of APN students felt prepared or well prepared for advanced nursing practice experience relevant to their nursing specialization (see Table 7).

Table 7: APN Areas of Nursing Expertise

<i>Question</i>	<i>Not Prepared</i>	→		<i>Well Prepared</i>
Advanced theory and research appropriate to your area of nursing specialization	8%	29%	42%	24%
Advanced nursing practice experience relevant to your nursing specialization	7%	20%	44%	29%
Adequate role preparation for advanced nursing practice	8%	29%	41%	20%

POST-GRADUATION PLANS

- Students were also asked what they plan to do after graduation (see Table 8). 45% of LPN students plan to start working and pursue more education immediately after graduation. 55% of RN students plan to start working and then pursue more education later. In the Minnesota RN student survey, 47% of RN students plan to pursue more education within a few years (Minnesota Colleagues in Caring, 1999). 85% of APN students plan to start working immediately.

Table 8: Post-Graduation Plans

<i>Plans</i>	<i>LPN</i>	<i>RN</i>	<i>APN</i>
Start working immediately	12%	31%	85%
Attend more educational training	13%	1%	0%
Start working and pursue more education immediately	45%	10%	4%
Start working and then pursue more education later	27%	55%	4%
Uncertain	3%	3%	7%



- Those students planning to pursue additional education (either immediately or later) were asked to indicate which programs they planned to pursue following graduation (see Table 9). 86% of LPN students plan to pursue a RN bachelor's degree. 36% of RN students plan to pursue a nurse practitioner degree. 60% of APN students plan to pursue a nursing doctoral degree.

Table 9: Education Plans

<i>Program</i>	<i>LPN</i>	<i>RN</i>	<i>APN</i>
RN bachelor's degree	86%	3%	0%
Non-nursing bachelor's degree	1%	2%	0%
Nurse practitioner	5%	36%	20%
Clinical nurse specialist	0.5%	6%	0%
Certified nurse midwife	1%	8%	0%
Certified nurse anesthetist	3%	25%	0%
Nurse educator master's degree	0%	8%	0%
Nursing doctoral degree	0.5%	0.7%	60%
Non-nursing master's or doctoral degree	0.5%	2%	0%
Physician assistant or other medical professional program	2%	10%	0%

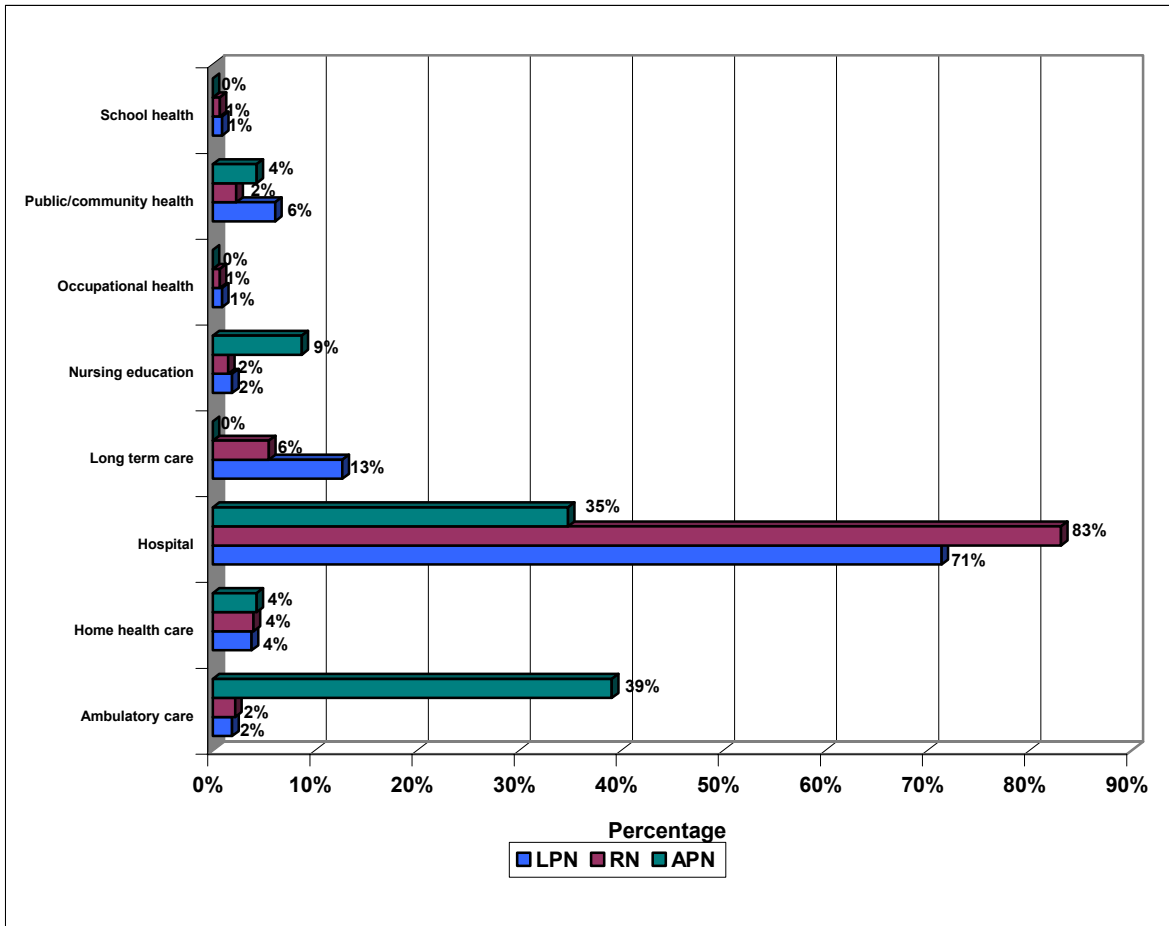
- Those students planning to work were asked if they plan to work full- or part-time. 15% of LPN students, 5% of RN students and 12% of APN students plan to work part-time.
- Those students indicating they would work part-time were asked to indicate reason(s) (see Table 10). 69% of LPN students plan to attend college. 100% of RN students indicated physical demands of nursing. 100% of APN students cited that financial circumstances allow them to work part-time.

Table 10: Reasons Students Plan to Work Part-time

<i>Reason</i>	<i>LPN</i>	<i>RN</i>	<i>APN</i>
Finances allow for part-time work	11%	14%	100%
Opportunities outside nursing	6%	5%	0%
Physical demands of nursing	43%	100%	25%
Plan to attend college	69%	15%	0%
Plan to commute long distances to work	9%	3%	25%
Plan to do volunteer work	6%	12%	0%
Plan to take care of home/family	43%	51%	75%
Schedule flexibility	9%	15%	25%

- Those students planning to work were asked in which employment setting they plan to work (see Figure 3). 71% of LPN students, 83% of RN students and 35% of APN students plan to work in a hospital. 39% of APN students plan to work in ambulatory care. Few students plan to work in school health, public/community health, occupational health, nursing education, home health care or other settings.

Figure 3: Nursing Students Anticipated Employment Setting



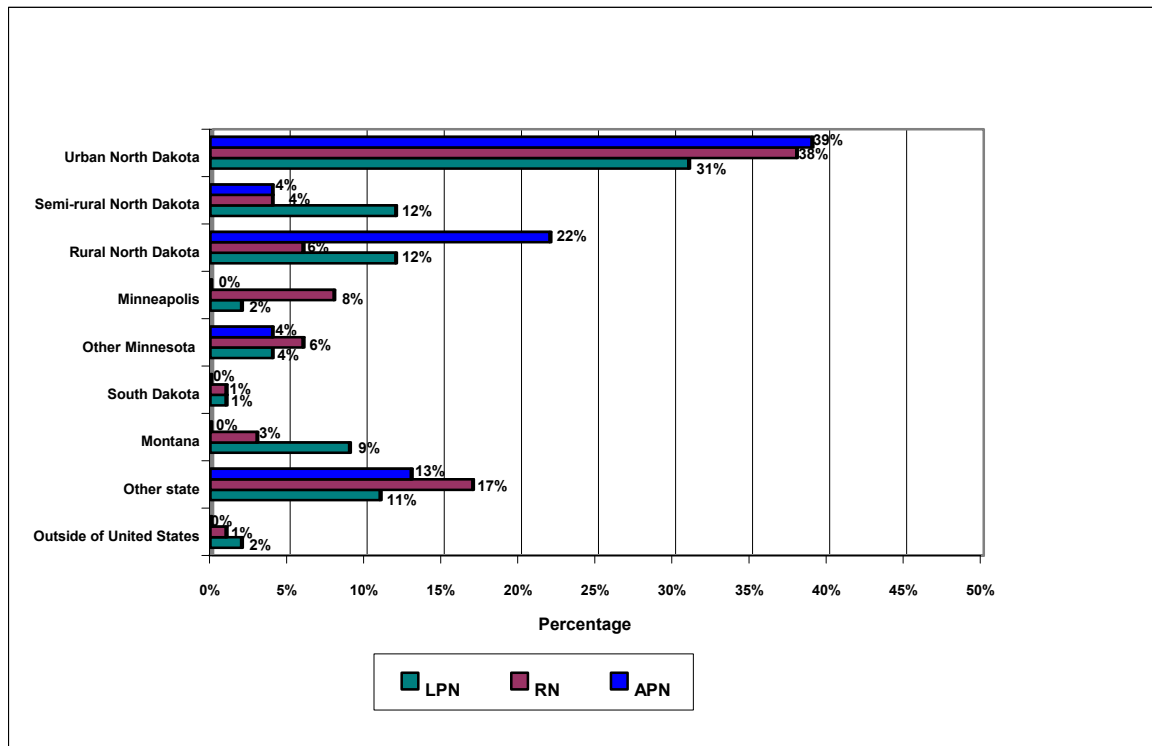
- Students were also asked how far they would be willing to drive to commute to a job (see Table 11). The majority of students (LPN, RN and APN) indicated that they would drive more than 10 miles to commute to a job one-way. About one-third indicated they would be willing to drive over 30 miles.

Table 11: Distance Students are Willing to Commute

<i>Distance</i>	<i>LPN</i>	<i>RN</i>	<i>APN</i>
Less than 5 miles	9%	2%	0%
5-10 miles	10%	14%	4%
11-20 miles	28%	34%	23%
21-30 miles	27%	33%	35%
More than 30 miles	26%	18%	39%

- Those students that plan to begin work immediately after graduation were asked to indicate at what location they plan to work (see Figure 4). 55% of LPN, 48% of RN and 65% of APN students plan to work in North Dakota. 31% of LPN, 38% of RN and 39% of APN students indicated that they plan to work in an urban city in North Dakota (e.g., Fargo, Grand Forks, Bismarck/Mandan, Minot). 12% of LPN, 4% of RN and 4% of APN students plan to work in a semi-rural city in North Dakota (e.g., Dickinson, Williston, Jamestown, Wahpeton). 12% of LPN, 6% of RN and 22% of APN students indicated they plan to work in a rural town in North Dakota (e.g., Hettinger, Belcourt, Langdon, Crosby). 29% of LPNs, 37% of RNs and 17% of APNs plan to work outside of North Dakota. 16% of LPNs, 17% of RNs and 17% of APNs were uncertain where they plan to work.

Figure 4: Work Location



- Students who plan to work in North Dakota were asked to indicate reason(s) (see Table 12). 85% of LPN, 80% of RN and 80% of APN students indicated that their families live in North Dakota.

Table 12: Reasons Students Plan to Work in North Dakota

	<i>LPN</i>	<i>RN</i>	<i>APN</i>
Family lives in North Dakota	85%	80%	80%
Good education programs are available	24%	13%	7%
Good pay and benefits are available	10%	11%	7%
Have scholarship or tuition assistance that requires staying in ND	11%	15%	20%
Low cost of living	36%	33%	7%
More job opportunities	8%	6%	0%
Safe places to live	41%	49%	33%
Safe place to raise a family	43%	49%	33%
Spouse/significant other has a job in North Dakota	41%	42%	73%

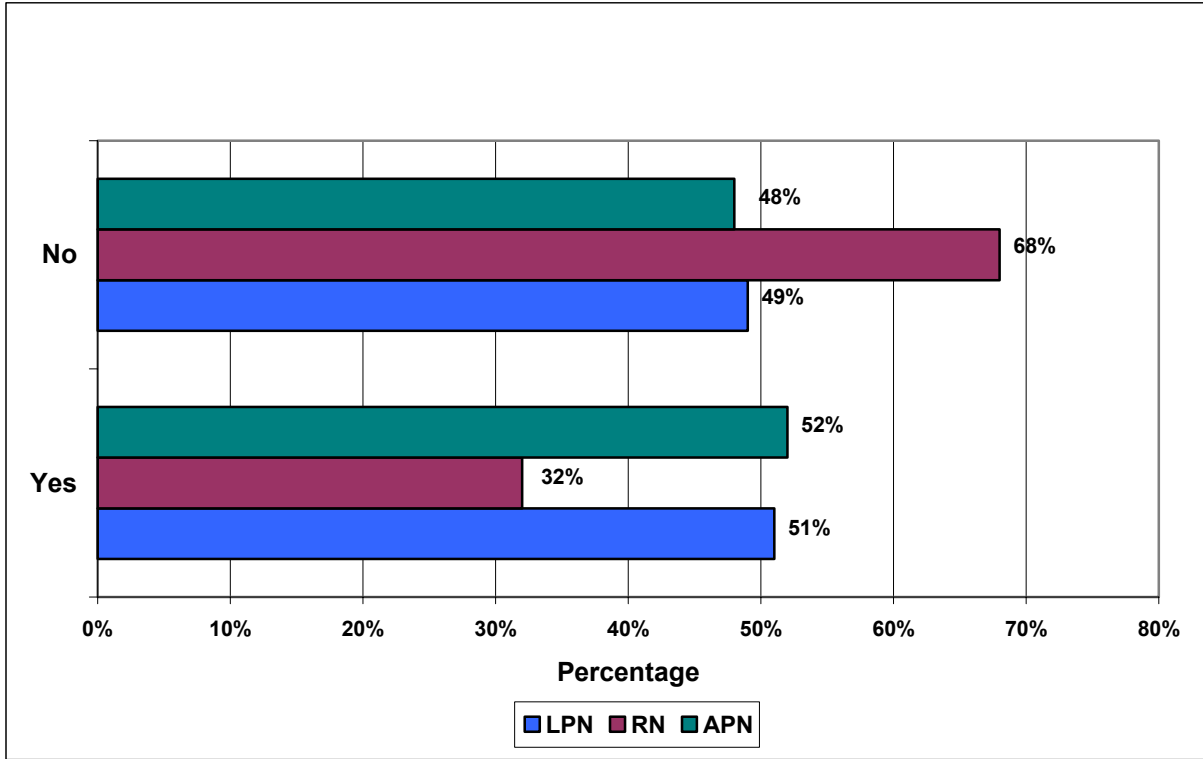
- Those students that plan to work outside of North Dakota were asked to indicate their reason(s) (see Table 13). 46% of LPN, 47% of RN and 25% of APN students indicated that better pay and benefits are available outside of North Dakota. 25% of APN students also indicated that there are more job opportunities. Other reasons not listed in the table include the cold climate, a desire to see another area of the country, military spouse will be re-assigned, specialized career opportunities that are not available in North Dakota and scholarship fulfillment for another state.

Table 13: Reasons Students Plan to Work Outside of North Dakota

	<i>LPN</i>	<i>RN</i>	<i>APN</i>
Better pay/benefits are available	46%	47%	25%
Better working conditions	7%	12%	13%
Family lives outside North Dakota	29%	22%	13%
Lower patient loads	4%	5%	0%
More critical/acute cases available in larger cities outside ND	4%	21%	13%
More cultural diversity	6%	17%	0%
More job opportunities	21%	30%	25%
Newer technology available	5%	13%	0%
Opportunity to work in variety of nursing areas	12%	23%	0%
Spouse/significant other unable to find employment in ND	8%	13%	13%

- 51% of LPN students, 32% of RN students and 52% of APNs students anticipate seeking employment in a rural area in the future (see Figure 5).

Figure 5: Students Planning to Work in Rural Area



- Those students who anticipate seeking employment in a rural area were asked to indicate their reason(s) (see Table 14). 33% of LPN students indicated rural areas are a safe environment or spouse/significant other has a job in a rural area. 33% of RN students indicated they will get to know patients and 32% indicated rural areas are a safe environment or spouse/significant other has a job in a rural area. 54% of APN students indicated they will get a broad nursing experience.

Table 14: Reasons Students Plan to Work in a Rural Area

	<i>LPN</i>	<i>RN</i>	<i>APN</i>
Better working conditions	10%	10%	0%
Better pay and benefits	12%	9%	0%
Get to know patients	25%	33%	31%
Lower patient loads	11%	10%	8%
Low cost of living	26%	28%	15%
More likely to receive student loan reimbursement	10%	19%	31%
More autonomy	7%	20%	39%
Rural areas are a safe environment	33%	32%	23%
Will get a broad nursing experience	26%	28%	54%
Spouse/significant other has a job in a rural area	33%	32%	39%

- Those students who do not anticipate seeking employment in a rural area were asked to indicate their reasons (see Table 15). 39% of LPN students indicated pay/benefits are not comparable to urban areas. 40% of RN students indicated they only want to work in a large city and have no desire to work in a rural area and 39% of RN students indicated there are few social activities in a rural area. 33% of APN students indicated they only want to work in a large city and have no desire to work in a rural area. Other reasons not on the table included military obligations and that they grew up in a rural area and desired to leave.

Table 15: Reasons Students Do Not Plan to Work in a Rural Area

	<i>LPN</i>	<i>RN</i>	<i>APN</i>
Do not feel adequately prepared to practice in a rural area	6%	4%	25%
Few social activities	30%	39%	25%
Lack of new technology in rural areas	19%	25%	25%
Little cultural diversity in rural areas	13%	17%	8%
Not enough critical patients with complex health problems in rural areas	12%	17%	8%
Only want to work in a large city, no desire to work in a rural area	23%	40%	33%
Pay/benefits are not comparable to urban areas	39%	35%	17%
There aren't any jobs for my spouse/significant other in a rural area	27%	22%	17%
Unfamiliar with the rural environment	8%	4%	8%
Want to live close to family who are in an urban area	20%	15%	17%

FUTURE NURSING FACULTY ROLE PLANS

- Students were asked if they planned to pursue a nursing faculty role in the future and if yes to estimate when (see Table 16). 55% of LPN, 65% of RN and 0% of APN students do not plan to pursue a faculty role. 14% of LPN and 19% of RN students plan to pursue a faculty role after 10 years. 28% of APN students plan to pursue a faculty role within one to five years.

Table 16: Plans to Pursue Nursing Faculty Role

	<i>LPN</i>	<i>RN</i>	<i>APN</i>
Currently nursing education is my employment setting	6%	2%	12%
Yes, within the next year	4%	0.5%	0%
Yes, within 1-5 years	11%	6%	28%
Yes, within 6-10 years	10%	8%	4%
Yes, over 10 years	14%	19%	8%
No, I do not plan to pursue a faculty role	55%	65%	0%

- Those students who were not considering a faculty role were asked to indicate what barriers prevented them from considering teaching nursing (see Table 17). 81% of LPN, 84% of RN and 42% of APN students indicated they are not interested in a faculty position.

Table 17: Barriers to Pursuing a Nursing Faculty Role

	<i>LPN</i>	<i>RN</i>	<i>APN</i>
Advanced education programs are unavailable to me	3%	0.9%	0%
Better benefits are available outside education	5%	8%	17%
Better pay is available outside nursing education settings	8%	13%	33%
Jobs in nursing education are not available	0.8%	0.2%	8%
No interest in obtaining required education	17%	16%	0%
Personally not interested in a faculty position	81%	84%	42%

NURSING SHORTAGE SOLUTIONS

When asked to think of possible solutions to address nursing shortages and to identify the solution they think would work the best, suggestions by students fell into six themes:

- **Pay and Benefits**

36% recommended increasing the amount of pay or offering better benefits such as paid vacations, insurance programs or other financial incentives.

- **Nursing programs, faculty or requirements.**

24% recommended creating more nursing programs, allowing more students to enroll in programs, and hiring more faculty or change the program requirements to accommodate more students (lower restrictions or shorten programs).

- **Loan, financial incentives and reimbursements.**

11% recommended lower tuition, loan repayment options or additional grants and scholarships.

- **Respect, autonomy and acknowledgement.**

5% suggested making the nursing program more appealing to the community by developing respect and autonomy for the profession of nursing including creating a more positive image.

- **Advertising to promote benefits and provide more information, high school recruiting.**

12% suggested additional advertising to promote opportunities in the nursing profession. Suggestions included television advertising, promotions at schools especially high schools, and job shadowing to encourage people at a younger age to develop an interest in nursing.

- **Work load, hours, stress and delegation of certain duties to other positions.**

13% suggested creating a better work environment for nurses through a reduction in patient load, decreasing shift length, or re-assigning some of the duties to other staff to reduce workload and job stress.

RECOMENDATION OF NURSING PROFESSION TO RELATIVES

Students were asked if they would recommend the nursing profession to a relative and why. The comments fell into five themes:

- **Pay, benefits and job flexibility**

12% would recommend nursing to a relative because the salary is good and continually improving. They also commented the hours were flexible enough to accommodate various schedules and this profession will provide a good living.

- **Career opportunities, advancement and job interest**

19% would recommend the nursing profession because of the abundance of opportunities in numerous settings, career advancement and job security.

- **Job satisfaction, challenge and school program**

20% would recommend nursing to a relative because the career is challenging, offers variety and the knowledge gained can be useful for their own families. Additional suggestions were to lower tuition, offer more grants, scholarships or aid to students in the nursing program.

- **Rewarding and helping others, right personality for the job**

41% would recommend nursing to a relative because it was a very rewarding and respected career. They felt they could make a difference in people's lives.

- **Unsure or would not recommend profession because of job stress, risks, difficulty and hours**

8% would not recommend the nursing profession to a relative. They stated nurses have a great deal of responsibility, get very little respect, the schooling and the job are extremely stressful and there is no time for oneself.

ADDITIONAL COMMENTS ABOUT NURSING EDUCATION OR PRACTICE

Students were asked if they had other comments regarding nursing or nursing practice. Comments fell into seven themes:

- **Pay and benefits**

3% commented that salaries are low and nurses are not often encouraged to pursue additional education.

- **Lack of clinical experience or lab time**

18% commented that more clinical or 'hands on' time was needed to help in preparing them for their career. Additional clinical sites and less classroom time would give them more experience in a nursing setting.

- **Praise for the nursing profession**

14% are looking forward to starting their career. They were pleased with their faculty and the number of opportunities available to them when they finished their degree.

- **Nursing programs, education or enrollment**

32% do not believe the time required for a degree should be lowered. This included statements such as four years is often not enough time to get all the information needed and to go with less time for a degree may lower the standards of the nursing profession. Comments also suggested the application process (to enter nursing school) and the study curriculum should be reviewed.

- **Location**

2% commented on the need for nurses in rural areas but that they have interests in other areas that cannot be accommodated in a rural setting or they simply do not want to live in a rural area.

- **Difficulty of nursing program, stress, time-consuming, position underappreciated**

31% commented on the difficulty to attain their degree. They believed they were given a lot of busy work and are not given the proper credit for the amount of work required in school and on the job. They also commented that nurses have considerable responsibility on the job so nursing is a very stressful profession.

REFERENCES

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North Dakota Nursing Student Survey

My name is Dr. Patricia Moulton and I am principal investigator for the Nursing Needs Study at the Center for Rural Health, University of North Dakota. The director for the Center for Rural Health is Dr. Mary Wakefield. We are collecting information about the nursing field from nursing students throughout North Dakota. This study has been funded by the North Dakota State Board of Nursing. Results from this study will be used to inform policy makers regarding the nursing field throughout the state and particularly in rural areas of North Dakota.

Below is a survey which includes demographic and post-graduation plan questions. If you have already completed the survey, please do not fill out another one. Return your survey and answer sheets to your instructor. We estimate that the survey will take about 15-30 minutes of your time to complete. You will need to fill in the answer sheet with your answers. Please do not write anything on the survey as it will be used with other students. Many of the questions may not apply to you. Please skip those questions. Please place the answer sheet in the envelope at the front of the classroom and return the survey to the instructor. Thank you in advance for assisting us in this assessment endeavor. Risks may include discomfort with answering a question. You do not have any obligation to complete the survey, and no penalty will be levied for non-participation. You may skip any questions that make you uncomfortable or that you do not wish to answer. Benefits to you include being able to contribute to the nursing field in North Dakota and learn about nursing research.

Confidentiality is an important aspect of this process and your name will not be on the answer sheet and will not appear in any published document. We will make every effort to maintain the confidentiality of information shared on this answer sheet including not sharing any individual responses with education program faculty. Data files derived from this survey will only be accessed by myself, my research assistants and Institutional Review Board auditors. The answer sheet will be kept in a locked filing cabinet in my office for three years. After three years, the answer sheet will be shredded and discarded. If you would like to be informed of the results of this study you may contact the investigators and a report will be mailed to you. Feel free to contact Patricia Moulton, Ph.D. at 701-777-6781 or Kyle Muus, Ph.D. at 701-777-4048, with any questions or comments. You may also contact the Office of Research and Program Development at the University of North Dakota at 701-777-4279.

Completing the survey and turning it in constitutes implied consent. You may terminate your participation in this study at anytime without penalty. Whether or not you choose to complete the survey will not have any bearing on your relationship with your training program.

Please turn your answer sheet to the front side.

- In the student name area on the answer form please put the name of your school and fill in the corresponding bubbles. Do not put your own name.
- For student id number, in the first column please indicate nursing education program where you are currently enrolled. Enter the number below that corresponds to your program. For example if you are enrolled in an RN program enter a 2 and then fill in the corresponding bubble below it.
 1. LPN
 2. RN
 3. Nurse practitioner
 4. Clinical Nurse specialist
 5. Certified nurse midwife
 6. Certified nurse anesthetist
 7. Other nursing Master's degree
 8. Nursing Doctoral program
- For GR. (grade), please indicate which year you are in according to your college/university guidelines (i.e. cumulative number of credits) from the following list by entering the number from the list below that corresponds to your year. For example if you are a senior fill in the bubble with a 4 in it.
 1. Freshman
 2. Sophomore
 3. Junior
 4. Senior
 5. 1st year Graduate School
 6. 2nd year Graduate School
 7. 3rd year Graduate School
 8. 4th year or longer Graduate School
- Please indicate your sex by filling in the bubble for male (m) or female (f).
- Please indicate your date of birth by filling in the oval next to your month and then indicating the day and year filling in the corresponding bubbles.
- For special codes please indicate your cumulative G.P.A. by filling in the first three numbers under A,B,C. For example a 3.45 would be listed as 345 under ABC. Please fill in the corresponding bubbles underneath each column.

Now turn your answer sheet over. You will be using the write-in area later. You will be answering the following questions by using A-J for each item. Please fill in the corresponding bubbles completely. Please do not write on this survey.

1. Please indicate your racial/cultural group.
 - a. White, not of Hispanic origin
 - b. Hispanic
 - c. Black, not of Hispanic origin
 - d. Asian/Pacific Islander
 - e. American Indian/Alaskan Native
 - f. Multi-racial
 - g. Other

2. What is your marital status?
 - a. Married
 - b. Divorced
 - c. Single
 - d. Living in a committed relationship

3. How many children do you have?
 - a. None
 - b. Currently expecting
 - c. 1 or 2
 - d. 3 or 4
 - e. 5+

4. How many hours per week are you currently working in a nursing related job?
 - a. None, I am not currently employed in a nursing related job
 - b. 1-9 hours/week
 - c. 10-19 hours/week
 - d. 20-29 hours/week
 - e. 30-39 hours/week
 - f. 40+ hours/week

How important were the following factors in choosing your career? Please indicate the level of importance by filling in a, b, c, or d.

	Less Important			More Important
	a	b	c	d
5. Opinion / experience of parent	a	b	c	d
6. Opinion/experience of teacher/counselor	a	b	c	d
7. Opinion/experience of someone in healthcare	a	b	c	d
8. Availability of nursing jobs	a	b	c	d
9. Availability of nursing jobs near where I live	a	b	c	d
10. Salary potential in nursing field	a	b	c	d
11. Length of time required to complete education	a	b	c	d
12. Cost of nursing education	a	b	c	d
13. Personal attraction to nursing	a	b	c	d
14. Opportunity to making a difference in people's lives	a	b	c	d

Please rate how important each of these factors were in your decision to attend your current education program? Please indicate the level of importance by filling in a, b, c, or d.

		Less Important			More Important
		a	b	c	d
15.	Cost	a	b	c	d
16.	Location	a	b	c	d
17.	Duration of program	a	b	c	d
18.	Reputation	a	b	c	d
19.	Acceptance of Nursing credits	a	b	c	d
20.	Acceptance of non-nursing credits	a	b	c	d
21.	Career ladder opportunity to pursue additional nurse training	a	b	c	d
22.	No waiting list to enroll	a	b	c	d

23. Please **carefully read each choice below** and select the statement that most reflects how you feel about the amount of clinical experience that you have or will have during your education program.

- a. I feel that I have had/will have **adequate clinical experience** and **feel prepared** to work as a nurse when I graduate.
- b. I feel that I have had/will have **adequate clinical experience** but do **not feel prepared** to work as a nurse when I graduate.
- c. I feel that I have not/will **not have had adequate clinical experience** and **do not feel prepared** to work as a nurse when I graduate.
- d. I **do not know** if I will have adequate clinical experience.



If you are in the **final year of your LPN program** please continue with the following set of questions. If you are not skip to question 34. Below is a list of areas of nursing expertise. Please indicate how well prepared you feel to perform the following functions as a licensed practical nurse. Please rank each answer from not prepared to well prepared.

	Not Prepared		Well Prepared	
	a	b	c	d
24. Biological, physical, social/behavioral sciences, legal, ethical, historical and nursing trends and professional responsibilities.	a	b	c	d
25. Nursing process	a	b	c	d
26. Communication	a	b	c	d
27. Information management and technology	a	b	c	d
28. Theory and clinical experience related to promotion, prevention, restoration and maintenance of health in clients across the life span in a variety of clinical settings	a	b	c	d
29. Knowledge of how to involve clients in decision making, self-care and healthy lifestyles.	a	b	c	d
30. Knowledge of how to respect client differences, values preferences and expressed needs based on scientific evidence.	a	b	c	d
31. Experiences that promote leadership, management, and professional socialization consistent with role and scope of practice to function as part of a healthcare team	a	b	c	d
32. Experiences that promote leadership, management, and professional socialization consistent with role and scope of practice and promotes utilization of quality improvement processes.	a	b	c	d
33. Experiences that promote leadership, management, and professional socialization consistent with role and scope of practice and promotes supervised clinical practice that includes management of care of groups of clients, delegation and supervision of other team members	a	b	c	d

If you are in the **final year of your RN program** please continue with the following set of questions. If you are not skip to question 48. Below is a list of areas of nursing expertise. Please indicate how well prepared you feel to perform the following functions as a registered nurse. Please rank each answer from not prepared to well prepared.

	Not Prepared		Well Prepared	
34. Legal and ethical issues, history and trends in nursing, biological, physical, social/behavioral sciences, and professional responsibilities.	a	b	c	d
35. Nursing process	a	b	c	d
36. Experience in the promotion, prevention, restoration, and maintenance of health in clients across the life and in a variety of clinical settings.	a	b	c	d
37. Communicate, manage knowledge and support decision making using information technology	a	b	c	d
38. Provide client-centered care that respects client differences, values, preferences and expressed needs	a	b	c	d
39. Provide client-centered care that involves clients in decision making and care management.	a	b	c	d
40. Provide client-centered care that coordinates and manages continuous client care.	a	b	c	d
41. Provide client-centered care that promotes healthy lifestyles for clients.	a	b	c	d
42. Provide client-centered care that works in a healthcare team to cooperate, collaborate, communicate and integrate client care and health promotion.	a	b	c	d
43. Provide client-centered care that employs evidence-based practice to integrate best research with clinical expertise and client values for optimal care.	a	b	c	d
44. Provide client-centered care that applies quality improvement processes in measurement of quality in terms of structure, process and client outcomes.	a	b	c	d
45. Provide client-centered care that applies quality improvement processes through participation in development of changes in processes and systems of care, with the objective of improving quality.	a	b	c	d

- | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|
| 46. Experiences which promote the development of leadership and management skills and professional socialization consistent with the level of licensure. | a | b | c | d |
| 47. Supervised clinical practice to include management and care of groups of clients, and delegation and supervision of health care providers. | a | b | c | d |
-

If you are in the **final year of your APN program** please continue with the following set of questions. If you are not skip to question 51. Below is a list of areas of nursing expertise. Please indicate how well prepared you feel to perform the following functions as an advanced practice nurse. Please rank each answer from not prepared to well prepared.

- | | Not
Prepared | | | Well
Prepared |
|--------------------------------------------------------------------------------------|-----------------|---|---|------------------|
| 48. Advanced theory and research appropriate to your area of nursing specialization. | a | b | c | d |
| 49. Advanced nursing practice experience relevant to your nursing specialization | a | b | c | d |
| 50. Adequate role preparation for advanced nursing practice | a | b | c | d |
-

51. During which school year do you plan to graduate?

- a. 2003-2004
- b. 2004-2005
- c. 2005-2006
- d. 2006-2007
- e. 2007-2008

52. What do you plan to do after graduation?

- a. Start working immediately
- b. Attend more educational training
- c. Start working and pursue more education immediately
- d. Start working and then pursue more education later
- e. Uncertain

53. If you indicated that you plan to pursue more education immediately or later, which of the following programs do you plan to pursue following graduation?

- a. RN bachelor's degree
- b. Non-nursing bachelors degree
- c. Nurse practitioner
- d. Clinical Nurse specialist
- e. Certified nurse midwife
- f. Certified nurse anesthetist
- g. Nurse educator Master's Degree
- h. Nursing Doctoral degree
- i. Non-nursing Masters or Doctoral degree
- j. Physician Assistant or other medical professional program

54. If you indicated that you plan to start work immediately after graduation, where do you plan to work?
- An urban city in North Dakota (for example Fargo, Grand Forks, Bismarck/Mandan, Minot)
 - A semi-rural city in North Dakota (for example Dickinson, Williston, Jamestown, Wahpeton)
 - A rural town in North Dakota (for example Hettinger, Belcourt, Langdon, Crosby)
 - Minneapolis/St. Paul, Minnesota
 - Other Minnesota city
 - South Dakota
 - Montana
 - Other state
 - Outside of United States
 - Uncertain
55. If you indicated that you plan to work in North Dakota (question 54), please indicate your reason(s) for working in North Dakota (You may indicate more than one answer).
- Family lives in North Dakota
 - Good education programs are available
 - Good pay and benefits are available
 - Have scholarship or tuition assistance that requires staying in North Dakota
 - Low cost of living.
 - More job opportunities
 - Safe place to live
 - Safe place to raise a family
 - Spouse/significant other has a job in North Dakota
- Other (please write question 55 in the write-in area and indicate your other reasons)
56. If you plan to work outside North Dakota (question 54), please indicate your reason(s) for working outside North Dakota (You may indicate more than one answer)
- Better pay/benefits are available
 - Better working conditions
 - Family lives outside North Dakota
 - Lower patient loads
 - More critical/acute cases available in larger cities outside North Dakota
 - More cultural diversity
 - More job opportunities
 - Newer technology available
 - Opportunity to work in variety of nursing areas
 - Spouse/significant other unable to find employment in North Dakota
- Other (please write question 56 in the write-in area and indicate your other reasons)
57. Do you anticipate seeking employment in a rural area in the future?
- Yes
 - No

58. If you indicated yes to question 57, please indicate your reason(s) for seeking employment in a rural area. (You may indicate more than one answer).
- Better working conditions
 - Better pay and benefits
 - Get to know patients
 - Lower patient loads
 - Low cost of living
 - More likely to receive student loan reimbursement
 - More autonomy
 - Rural areas are a safe environment
 - Will get a broad nursing experience
 - Spouse/significant other has a job in a rural area
- Other (please write question 58 in the write-in area and indicate your other reasons)
59. If you indicated no on question 57, please indicate your reason(s) for not working in a rural area. (You may indicate more than one answer)
- Do not feel adequately prepared to practice in a rural area
 - Few social activities
 - Lack of new technology in rural areas
 - Little cultural diversity in rural areas
 - Not enough critical patients with complex health problems in rural areas
 - Only want to work in a large city, no desire to work in a rural area
 - Pay/benefits are not comparable to urban areas
 - There aren't any jobs for my spouse/significant other in a rural area
 - Unfamiliar with the rural environment
 - Want to live close to family who are in an urban area
- Other (please write question 59 in the write-in area and indicate your other reasons)
60. Do you plan to work full or part-time?
- Full-time
 - Part-time
61. If you indicated that you plan to work part-time (question 60), please indicate your reason(s) why? (You may indicate more than one answer)
- Finances allow for part-time work
 - Opportunities outside nursing
 - Physical demands of nursing
 - Plan to attend college
 - Plan to commute long distances to work
 - Plan to do volunteer work
 - Plan to take care of home/family
 - Schedule flexibility
- Other (please write question 61 in the write-in area and indicate your other reasons)
62. Which best describes the employment setting in which you plan to work.
- Ambulatory care
 - Home health care
 - Hospital
 - Long term care/nursing home
 - Nursing education
 - Occupational health
 - Public/community health
 - School health
- Other (please write question 62 in the write-in area and indicate your other reasons)

63. How far would you be willing to drive to commute to a job?
- Less than 5 miles
 - 5-10 miles
 - 11-20 miles
 - 21-30 miles
 - More than 30 miles
64. Are you interested in pursuing a nursing faculty role sometime in the future?
- Currently nursing education is my employment setting.
 - Yes, within the next year
 - Yes, within 1-5 years
 - Yes, within the 6-10 years
 - Yes, over 10 years
 - No, I do not plan to pursue a faculty role
65. If you answered no (f) on question 64, what barriers are preventing you from considering teaching nursing? (Mark all that apply)
- Advanced education programs are unavailable to me
 - Better benefits are available outside education
 - Better pay is available outside nursing education settings
 - Jobs in nursing education are not available
 - No interest in obtaining required education
 - Personally not interested in a faculty position
- Other (please write question 65 in the write-in area and indicate your other reasons)
-

Please turn the answer sheet back over and use the write-in area on the front of the answer sheet to answer each of the following questions. Please number each answer and leave a line of space between each answer.

1. When you think of the possible solutions for nursing shortages, what is the **one** solution that you think would work the best?
2. Do have any other comments about nursing education or nursing practice?
3. Would you recommend the nursing profession to a relative? Why or why not?

Thank you for your participation! Please bring your answer sheet and survey to the front of the classroom. Place your answer sheet in the envelope and give the survey to the instructor.