Healthcare Workforce Outlook

The Nursing Shortage in New Jersey and the United States: Suggestions for Future Research and Policy

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Overview

In 2002, the New Jersey Council on Gender Parity in Labor and Education issued the report "Women at Work: Achieving Parity on the Job" to highlight barriers to gender parity in five areas: building trades, financial services, health care, law and technology. The Council is currently working on initiatives in each of these areas. This report explores issues surrounding gender parity in health care, particularly in regard to the current nursing shortage. Since nursing is a heavily female-dominated occupation, the shortage has implications not only for the nation's health care system but also for women's experiences in the nursing labor force and the ability to increase the number of men in nursing. As an initial step in recognizing and defining workforce issues and barriers to gender parity in New Jersey's health care system, this report was developed as an extension of the New Jersey State Employment & Training Commission's (SETC) *A Unified State Plan for New Jersey's Workplace Readiness System.* The *Unified State Plan*, first introduced in 1992, is an effort to address the complexities of creating a unified high quality workforce investment system. The Council strongly believes that this report will aid New Jersey in meeting one of the core principles of the *Unified State Plan*: there must be full utilization of all potential workers.

Introduction

The current nursing shortage, both in New Jersey and nationally, is anticipated to be longer in duration and more severe than previous shortages. By 2020, it is predicted that there will be at least 20 percent fewer registered nurses nationally than needed. Further, the demand for registered nurses over the next few decades will continue to rise due to both the impending retirement of the baby boomer generation[1[1]] and changes in health care:

> Cost containment has shifted care from the traditional acute care hospital setting to ambulatory care centers, community clinics, and nursing homes. Changes in technology have further encouraged these shifts, leading to a decline in hospital beds and stays. As a result, the level of hospital acuity for hospital patients has increased. The combination of these changes has led to an upsurge in job opportunities and demand for nurses (Minnesota Department of Health 2002).

[1[1]] The baby boomer generation includes people born between 1946 and 1964.

The nursing shortage is not limited to registered nurses, but also includes nursing faculty, licensed practical nurses, nursing assistants and home health aides. Appendix 1 provides an overview of the related but distinct nursing professions covered in this report. As evident from Appendix 1, these occupations are different in terms of training, educational requirements and advancement opportunities.

This report addresses the massive and complicated problem of the nursing shortage by reviewing the current state of the shortage across nursing and related professions, both in New Jersey and nationally, and by examining the estimated future supply and demand for these occupations as well as the gender parity issues associated with the nursing labor force. Additionally, this report looks at the reasons for the shortage in these related health care occupations. Finally, we will discuss policy implications including suggested research topics that will aid policymakers and the health care industry to better understand the scope, causes and possible solutions for the impending crisis.

Registered Nursing Shortage

Registered nurses (RNs) are the largest group of health care providers in the United States. RNs held more than 2.2 million jobs in 2000 (BLS 2002). While RNs work in a variety of settings, about three out of five are employed in hospitals both nationally and in New Jersey (see Table 1) (BLS 2002). According to the American Hospital Association (AHA), vacancy rates for RNs currently average around fifteen percent for hospitals (Center for Rural Health 2003).[2[2]] However, the nursing shortage is not uniform across the United States or specialties. Rural areas and specialty units such as intensive care units (ICUs) and operating rooms (ORs) are experiencing even more acute shortages than other areas (Buerhaus, Staiger and Auerbach 2000b; Center for Rural Health 2003). Further, this nursing shortage is expected to be long-term: "federal projections indicate that by approximately 2010, demand for registered nurses will begin

[2[2]] A vacancy rate of less than five percent is considered normal for any occupation and a vacancy rate of more than ten percent is considered to be a severe shortage (McKibbin 1990 as cited in Brewer and Kovner 2001, pg. 22).

to outstrip the anticipated supply, and that by 2020, demand will grow nearly twice as fast as the expected increase in the RN workforce" (AACN 2000).[3[3]]

Table 1.
Employment Settings of RNs
New Jersey
2002

	New Jersey
Hospital	55.9%
Long -Term Care	7.5
Home Care	7.4
Student Health	5.6
MD/AVN Practice	5.0
Nursing Education	1.9
Other	16.6

Data from the New Jersey Collaborating Center for Nursing (2003a).

New Jersey is experiencing a shortage of registered nurses that is even more severe than the national average. In 2000, there was a thirteen percent shortage for full-time equivalent registered nurses compared to a six percent shortage nationally (HRSA 2002, pg. 14). From 1996 to 2000, the ratio of employed RNs per 100,000 people dropped 5.2 percent in New Jersey compared to only two percent nationally (RWJ 2002). Like the national shortage, New Jersey's shortage is anticipated to be long-term. By 2010, New Jersey is estimated to have a 25 percent shortage of full-time equivalent registered nurses compared to a twelve percent shortage nationally (HRSA 2002, pg. 16).

This nursing shortage is characterized by a decreased supply of nurses coupled with an increased need for more nursing professionals. Demand for nurses in part will increase due to the inevitable aging of the baby boomer generation. According to Buerhaus, Staiger and Auerbach (2000a): "the impending decline in the supply of RNs will come at a time when the first of 78 million baby boomers begins to retire and enroll in the Medicare program in 2010."

[3[3]] The actual RN workforce in 2020 is expected to be roughly the same size as today. However, that will be 20 percent below the additional demand and needs in 2020 (Buerhaus, Staiger and Auerbach 2000a).

Further, there is a significant shortage of RNs with Bachelor's degrees. Registered nurses can become licensed through 2-year (Associate's Degree), 3-year (Diploma) or 4-year (Bachelor's of Science in Nursing Degree) programs (see Appendix 1). Unlike past shortages, employers are not simply reporting a lack of nurses, but a lack of Bachelor-trained nurses (Keating and Sechrist 2001). According to the American Association of Colleges of Nursing (AACN) (2000), "To meet the more complex demands of today's health care environment, a federal advisory panel has recommended that at least two-thirds of the basic nurse workforce hold baccalaureate or higher degrees in nursing by 2010." In fact, Aiken, Clarke, Cheung, Sloane and Silber (2003) find that a ten percent increase in the percentage of nurses with Bachelor's degrees on a hospital's staff is "associated with a 5% decrease in both the likelihood of patients dying within 30 days of admission and the odds of failure to rescue" (pg. 1617). These researchers find that the percentage of RNs with a Bachelor's degree within a hospital was more important for patient outcomes than the nurses' years of experience.

Although the percentage of Bachelor-trained RNs has increased from 22 percent in 1980 (AACN 2001) to 32.7 percent in 2000 (see Table 2), the percentage of Bachelor-trained RNs still falls well under the federal guideline. In New Jersey, the level of RNs with Bachelor's degrees also falls well below the federal guideline and is less than the national average (see Table 2).

Table 2.
Highest Level of Educational Attainment of RNs
U.S. and New Jersey
2000 [a]

	U.S. [b]	**New Jersey** [c]
Associate's degree (2-year)	34.3%	31.7%
Diploma (3-year)	22.3	40.7
Bachelor's degree (4-year)	32.7	27.2
Master's/ Doctorate degree	10.2	9.0 [d]

[a] Data from 2000 unless otherwise noted.
[b] Data from Health Resources and Services Administration (2001b), U.S. Department of Health and Human Services, page 6. Data for 2000.
[c] Data from the New Jersey Collaborating Center for Nursing (2003b). Data for 2002.
[d] Data from Health Resources and Services Administration (2000), U.S. Department of Health and Human Services, page 36. Data for 1996.

In fact, the enrollments in Bachelor's degree nursing programs have been declining over the past decade. "Since 1995, enrollments in entry-level baccalaureate

programmes in nursing have declined by 21.1 percent and the numbers of graduating nurses who took the national licensure examination decreased by 20 percent from 1995 to 2001" (Goodin 2003). The lack of RNs with Bachelor's degrees is important because a Bachelor's degree is the prerequisite for many advanced specialties that require graduate-level training including clinical nursing specialist, nurse practioner, midwife and certified anesthetist.[4][4] On a positive note, enrollments in Bachelor's degree nursing programs did climb in 2001 due to increased funding for nursing students and improved recruitment efforts by schools (AACN 2001). Yet, Master's degree nursing programs are struggling to maintain current levels and programs that allow non-Bachelor RNs to obtain a Bachelor's degree are reporting decreased enrollments (Goodin 2003, AACN 2001).

Reasons for the Registered Nurse Shortage

The Aging of the Registered Nurse Workforce

The changing age composition of the RN workforce is the primary reason cited by many researchers for the impending health care crisis (Buerhaus, Staiger and Auerbach 2000a). Over the last few decades, the RN workforce has aged more rapidly than most other occupations. The mean age of RNs increased 4.5 years between 1983 and 1998 from 37.4 to 41.9 years of age (Buerhaus, Staiger and Auerbach 2000a). Also, during this time period, the percentage of RNs under 30 years of age fell by 41 percent compared to only a one percent decline for all other occupations (Buerhaus, Staiger and Auerbach 2000a). This trend is expected to continue, with the predicted average age of a RN in 2010 of 45.4 years of age (Buerhaus, Staiger and Auerbach 2000a). Nationally, in 2002 only 31.7 percent of RNs were under 40 years of age and only 18.3 percent were under 35 years of age (NJCCN 2003a) (see Table 3).

Table 3.
Age Composition of RNs
U.S. and New Jersey
2002 [a]

	U.S.[b]	New Jersey
RNs less than 30 years of age	9.1%	5.5%
RNs less than 35 years of age	18.3	12.3
RNs less than 40 years of age	31.7	23.9

[a] Data from 2002 unless otherwise noted. Data from the New Jersey Collaborating Center for

[4][4] Generally, advanced specialties require one to two years of graduate-level education often resulting in a Master's degree (BLS 2002).

Nursing (2003a).
[b] Data from the New Jersey Collaborating Center for Nursing (2003a). Data for 2000.

Furthermore, many current RNs are reaching retirement age. In 1996, 49 percent of RNs nationally were baby boomers (Minnick 2000, pg. 211). As this cohort retires, the effect on the supply of nurses will be devastating. By 2005, baby boomer nurses will begin to retire at age 55— the age at which RNs historically begin to reduce their participation in the labor market (Minnick 2000, pg. 211). And by 2010, almost all of the baby boomer generation will be in their retirement years (Minnick 2000, pg. 211).

Like the rest of the nation, New Jersey is facing a health care crisis due in part to the aging RN workforce. In fact, New Jersey's RN workforce is older than the national average (see Table 3). Only 12 percent of nurses in New Jersey are currently under 35 years of age compared to 18.3 percent nationally and only 23.9 percent of New Jersey nurses are under 40 years of age compared to 31.7 percent nationally. Currently, 40.2 percent of employed RNs are over 50 years of age in New Jersey (NJCCN 200b). By 2006, it is predicted that there will be 18 percent fewer nurses than the demand in New Jersey (RWJ 2003). According to the New Jersey Collaborating Center for Nursing (NJCCN 2003a), a conservative estimate is that there will be a 30 percent shortage of RNs in New Jersey and 20 percent nationally by 2020. Less conservative estimates are 39 percent and 43 percent, respectively (NJCCN 2003a).

Gender Socialization

The aging of the workforce results in part due to younger women and men not choosing nursing as a career. Although men and women still largely remain in gender-segregated occupations, opportunities in male-dominated industries have begun to open up to women. As a result, younger women are less likely to choose nursing (Staiger, Auerbach and Buerhaus 2000). Women graduating from high school in the late 1980s and 1990s were 30 to 40 percent less likely to become RNs compared to those who graduated in the 1960s and 1970s (Staiger, Auerbach and Buerhaus 2000). In addition, the lack of interest in nursing, particularly among younger women, can be attributed to the poor image of nursing presented in the media. Although the media's impact has not been systematically studied, the media's portrayal of nurses as doctors' handmaidens has reinforced myths of job instability and presented nursing as "dirty work" (Nevidjon and Erickson 2001). These negative images may keep younger people from choosing nursing

as a profession.[5[5]] In addition, some researchers find that guidance counselors dissuade young people, both men and women, from entering nursing or encourage high-achieving students to become doctors instead (Boughn 2001; Gabriel 2001; Goodin 2003).

The image of nursing as a female occupation also contributes to the very small proportion of men in the nursing workforce. Although the percentage of men choosing nursing has increased from 4.9 percent in 1996 to 5.4 percent in 2000 (HRSA 2001b), the percentage of men still remains staggeringly low (see Table 4). Nursing is considered to be "women's work" which dissuades men from choosing nursing as a career (Hemsley-Brown and Foskett 1999; *Male Nurse Magazine* 2003). In addition, male nurses are often stereotyped to be homosexual or overly feminine (Farella 2003; *Male Nurse Magazine* 2003) which also discourages men from choosing nursing as a career.

Table 4.
Gender Composition of Nursing Professions
U.S. and New Jersey
2000 [a]

	U.S. **Percentage Female**	**New Jersey** **Percentage Female**
RNs	94.1% [b]	96.6% [c]
LPNs	94.9 [d]	96.2 [c]
Nursing Assistants (includes orderlies and attendants)	90.0 [d]	no data available
Home Health Aides	79.0 [d]	no data available

[a] Data for 2000 unless otherwise noted
[b] Data from the Health Resources and Services Administration, Bureau of Health Professions, U.S. Department of Health and Human Services (2001b), page 4. Data for 2000.
[c] Data from the New Jersey Collaboration Center for Nursing (2003b). Data for 2002.
[d] Data from the Health Resources and Services Administration, Bureau of Health Professions, U.S. Department of Health and Human Services (2000), pages 42, 93-4. Data for 1998.

Researchers have also found instances of gender discrimination in the recruitment of male nurses into nursing programs such as the lack of men being used in recruitment materials by schools. For those men who do decide to enter a nursing education program,

[5[5]] Hemlsey-Brown and Foskett (1999) studied young people's perceptions of the nursing profession. Although the research was done in the United Kingdom, this study sheds light on why students do not choose nursing as a profession. The researchers do not find that pay is a major concern for students as they consider potential career choices. Instead, researchers found that while nurses were revered, students associated their caring work with a working class occupation, a dirty job, and most had little idea of what nurses did. In addition, boys considered nursing to be "women's work." While there is survey data in the U.S. showing that today's young people are less likely to choose nursing than in the past, this research adds to our understanding of why.

gender discrimination can begin almost immediately from both peers and teachers. Even the textbooks required for nursing courses often make no mention of male nurses, only male patients (*Male Nurse Magazine* 2003). While men make up approximately thirteen percent of nursing students, they have a higher dropout rate then female students—eight percent for male nursing students and four percent for female nursing students (*Male Nurse Magazine* 2003). Men who become nurses may face resistance in the workplace from other nurses, administrators and patients (Farella 2000; Hilton 2001; *Male Nurse Magazine* 2003). While some have noted that gender discrimination against men in nursing is weakening (Hilton 2001), it is still an issue that affects the retention rates of male nurses, as male nurses leave the nursing profession at a rate double that of their female counterparts (*Male Nurse Magazine* 2003). Further, job satisfaction is far lower for male nurses than for female nurses. For newer nurses, the job satisfaction rate is 67 percent for men compared to 75 percent for women. For nurses who have more established careers, job satisfaction rates decline to 60 percent for men and 69 percent for women (*Male Nurse Magazine* 2003).

A Shrinking Labor Pool

In addition to gender socialization, which discourages potential workers from choosing nursing as a career, post-baby boomer cohorts are significantly smaller, creating a relatively smaller pool of applicants. Nursing has often been a popular career choice for those wanting to switch or start a career later in life.[6[6]] While women under 25 years of age are less likely to choose nursing than their predecessors, older women are as likely to choose nursing as earlier generations. Since, post-baby boomer cohorts are smaller than previous generations (Auerbach, Buerhaus and Staiger 2000), increasing the supply of nurses by drawing on people choosing nursing later in life is unlikely. "As of the 1990 census, there were 77 million American baby boomers compared with just 44 million Generation Xers, creating the smallest pool of entry-level workers since the 1930s" (Nurses for a Healthier Tomorrow 2001).

[6[6]] There has been concern that one of the reasons that the RN workforce has aged is due to an increase in 2-year RN Associate's degree programs. Traditionally, younger women have been attracted to Bachelor's programs and older women to Associate's degree programs. Whereas the percentage of Bachelor's trained RNs has remained constant in recent years, the percentage of Associate's degree RNs has increased. However, Auerbach, Buerhaus and Staiger (2000) find that the aging of the workforce has not been the consequence of the proliferation of Associate's degree programs but rather the fact that women under twenty-five born after 1965 have been less likely to choose nursing as a career.

Retention of Registered Nurses

As evident in the previous section, the reasons for the nursing shortage are complex including demographic shifts in the population, expanding career opportunities for women, continued lack of recruitment of men, feminized stereotypes of nursing, the poor public image of nursing and the impending aging and retirement of the baby boomer generation. Yet, recruitment is only part of the equation. Since the ranks of RNs are shrinking, job satisfaction and retention among currently employed RNs are becoming increasingly important. The rise of managed care leading to shorter hospital stays for patients and the reality of fewer nurses have led to intensified work loads and RNs spending more time doing administrative tasks and supervising other types of health care personnel. RNs are spending less time caring for people (ANA 2001)—the reason many entered nursing. Although most licensed RNs (81.7 percent) work in health care, retention is an increasingly important concern (HRSA 2001a). Studies have linked RNs' intentions to leave a current position to increased patient loads (Aiken, Clarke, Sloane, and Silber 2002). A national survey by the American Nurses Association (ANA) finds that nurses are reporting increased patient loads along with what nurses perceive to be "a dramatic decrease in the quality of patient care"(ANA 2001, pg. 5). Seventy-five percent of nurses in this study "feel the quality of nursing care has declined in their work setting in the last two years" (pg. 6). A major reason for this decline in nursing care is "inadequate staffing." Many nurses who responded to this survey report skipping breaks to care for patients, working mandatory overtime and feeling exhausted and discouraged at the end of the day. An alarming 41.5 percent would not feel confident having someone close to them being cared for at the place they work (pg. 11). As the shortage further increases, as it is predicted to do, turnover rates among employed nurses due to increased workloads, decreased job satisfaction and forced overtime,[7][7] the RN shortage could become even more acute. In addition, many current nurses who could be a potential source of information and mentors for prospective nurses do not consider nursing to be a good career choice. According to the ANA (2001) survey, 54.8 percent of respondents would not recommend nursing as a career to friends or their children (pg. 12).

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[7][7] On January 2, 2002, New Jersey passed a law that bans hospitals from making nurses work mandatory overtime. Nurses are allowed to do voluntary overtime. The law went into effect in January of 2003.

Nursing Faculty

In addition to the shortage of RNs, there is also a nursing faculty shortage. At a time when more RNs are desperately needed, there are fewer faculty members. A 2000 survey by the American Association of Colleges of Nursing (AACN) found a 7.4 percent faculty vacancy rate (Trossman 2002). According to an AACN survey in 2002, 5,283 qualified applicants were not accepted into Bachelor's, Master's and Ph.D. programs. Almost 42 percent of schools reported that not enough faculty members was a main reason for not accepting qualified applicants (AACN 2003).

The aging of the RN workforce clearly impacts nursing faculty. From 1993 to 2001, the percent of faculty over 50 years of age increased from 50.7 percent to 70.3 percent (Berlin and Sechrist 2002, pg. 52). Like the general RN population, there has been a sharp increase in the percentage of nursing faculty over 50 years of age in recent years and nursing faculty will also be retiring in mass numbers in the coming years (AACN 2003; Berlin and Sechrist 2002). Similar to the RN population in general, there are not enough younger faculty members to meet the demand. Younger Ph.D.s are either leaving academia or not entering teaching (AACN 2003). In a 1998 survey by AACN, only 43 percent of Ph.D. graduates intend to take teaching positions (Trossman 2002). Reasons for a lack of younger faculty at nursing schools include: the higher salaries that are available in non-academic settings for advanced trained nurses, a lack of interest in teaching, and lower job satisfaction among younger faculty members (AACN 2003; Trossman 2002). As with the general RN workforce, older RNs will be retiring in the coming years and are not being replaced by younger RNs. Compounding the problem of the faculty shortage is the large number of nursing faculty without Ph.D.s (Hinshaw 2001). Although the standard for college-level teaching is a Ph.D., only 49.4 percent of nursing faculty in Bachelor's degree nursing programs have this degree (Berlin and Sechrist 2002, pg. 50). As a result, the nursing shortage is in the midst of a vicious cycle—fewer younger women (and very few men) choosing nursing as a career and even fewer choosing to enter teaching resulting in fewer Ph.D. faculty to teach potentially interested students.

Licensed Practical Nurses

Although the shortage of RNs, particularly those with Bachelor's degrees, has received the most scholarly, policy and public attention, a shortage among Licensed Practical Nurses (LPNs) is also occurring. However, less research on these fundamental care providers exists. They provide bedside care and in some states can administer prescription drugs and start IVs (BLS 2002). In 2000, there were 700,000 LPNs (BLS 2002) making LPNs the second largest health care occupation in the United States (Minnesota Department of Health 2002). The American Health Care Association (ACHA) reports a 14.6 percent vacancy rate for LPNs in nursing facilities in 2001 (Minnesota Department of Health 2002). As with RNs, this vacancy rate exceeds the crisis threshold of ten percent.[8[8]]

While the RN shortage is more acute, the LPN shortage is also anticipated to persist long-term. As with the RN shortage, the reasons for this shortage are complex. Some reasons undoubtedly contribute to the shortages of both LPNs and RNs such as the poor image of nursing. Similarly, men, a potential source of nurses, do not choose nursing as a career either as a RN or LPN. In New Jersey, men comprise only 3.8 percent of LPNs (see Table 4). Similar to registered nurses, the stereotype of nursing as a feminine occupation may dissuade men from choosing licensed practical nursing as a career.

Table 5.
Age Composition of LPNs
New Jersey
2002

	LPN's in New Jersey
LPNs less than 30 years of age	5.1%
LPNs less than 40 years of age	21.8
LPNs less than 50 years of age	55.0
LPNs over 50 years of age	45.0

Data from the New Jersey Collaborating Center for Nursing (2003b). Data for 2002.

The effect of the age composition of the LPN workforce on the LPN shortage has not been as systematically studied as the consequences of the aging of the RN workforce. However, like the RN workforce, LPNs in New Jersey are older (see Table 5). In New Jersey, the average age is 47.8 years and only five percent of LPNs are under 30 years old

[8[8]] See Footnote 2.

and only 21.8 percent are under 40 years old (NJCCN 2003a; NJCCN 2003b). It is possible that the older LPN workforce will suffer the same consequences as the RN workforce. As baby boomer LPNs retire, there may be fewer replacements at a time when there will be an increased need for LPNs. In New Jersey, the demand for LPNs is expected to increase 17 percent (or 11,000 additional jobs) from 1996 to 2006 (NJCCN 2003a).

Also, there has been less systematic attention to enrollment figures for LPN training programs. LPNs must complete a one-year degree program and pass a certification examination. Data is not readily available on these enrollments. These enrollment figures are important because they help to estimate the future supply of LPNs. Furthermore, the high turnover of LPNs also contributes to the shortage. According to the American Health Care Association (AHCA), the annualized turnover rate for LPNs is 54 percent (Minnesota Department of Health 2002). However, more systematic study is needed to determine the impact of high turnover rates on the shortage. As the second largest health care occupation, the continuing shortage of LPNs could cause a crisis in health care as baby boomers enter retirement and Medicare programs. Currently, 48 percent of LPNs in New Jersey care for geriatric and chronically ill patients (NJCCN 2003a).

Nursing Assistants and Home Health Aides

Nursing assistants (NAs) and home health aides are the front lines of the health care system providing many vital caring services including changing linens, bathing and assisting patients. According to the Bureau of Labor Statistics (2002), in 2000 there were 2.1 million health care aides including 1.4 million nursing assistants, 615,000 home health aides and 65,000 psychiatric aides. However, these numbers may be underreported since many assistants, particularly home health aides, are privately hired and they may not appear in federal statistics (Stone 2001, pg. 11). As Appendix 1 depicts, experience, training or education credentials are not often required to perform such work, although some employers do require certified or trained nursing assistants. Along with RNs and LPNs, long-term health care facilities are reporting shortages of these paraprofessionals (Stone 2001, pg. 13). An AHCA report found that in 2001, the

vacancy rate for nursing assistants was 12 percent (Minnesota Department of Health 2002, pg. vii).

The demand for nursing assistants is expected to grow particularly for home health aides (BLS 2002) partly due to the higher retirement incomes of baby boomers. Due to increased incomes, those facing long-term care will have greater options including hiring home health aides (Manchester 1997 as cited in Stone 2001, pg. 15). Also, due to smaller numbers of children and more women in the labor force, informal forms of family care may be harder to come by resulting in the need for paid health care providers (Stone 2001, pg. 15-16). As a result, the demand for home care providers is predicted to increase 74.6 percent between 1996 and 2006 and 25.4 percent for nursing home aides during the same time period (Stone 2001, pg. 16).

The increased demand for nursing assistants is further exacerbated by high turnover rates.[9[9]] Turnover rates range from ten percent to over 140 percent depending on the health care setting (e.g., home care, nursing home) and region (Stone 2001). Research also suggests that these rates do not reflect people simply switching jobs. For example, the Department of Elder Care in Florida found that only 53 percent of trained NAs worked in a health related field one year after certification (Bucher 2000 cited in Stone 2001, pg. 13).

High turnover rates are partly the result of the poor image of the nursing assistant occupation and very low wages (Stone 2003). Some suggest that the supply of nursing assistants is very vulnerable to swings in the economy. When jobs are plentiful people may look outside of these low-skill health care jobs (Stone 2003). Similar to the RN and LPN shortages, the NA shortage is the result of a complex set of factors including job satisfaction, other available opportunities, and the changing age composition of the population increasing the demand for these paraprofessionals. New Jersey Health Initiatives estimates that between 1998 and 2008 New Jersey will experience a 20 percent shortage of nursing assistants and aides and a 61 percent shortage of home health aides (RWJ 2003).

[9[9]] In fact, turnover rates are higher for nursing assistants than other nursing occupations.

Research and Policy Directions for the Future

The nursing shortage, if not curtailed, will reach epidemic proportions both nationally and in New Jersey. Consequences of a nursing shortage and increased patient loads are potentially disastrous. Higher patient loads for RNs have been linked to increased job dissatisfaction and burnout among RNs as well as increased patient mortality and failure-to-rescue rates (Aiken, Clarke, Sloane, Sochalski and Silber 2002). Fifty-three percent of physicians surveyed in 2002 said that the leading cause of medical errors is the shortage of nurses (Harvard School of Public Health 2002). Also, the nursing shortage has led to increased health costs due to additional training and recruitment efforts (First Consulting Group 2001; Stone 2001).

Many proposed solutions have been suggested and implemented including expanded recruitment efforts by nursing education programs; increased funding of nursing programs; and media campaigns to improve the image of nursing. In 2002, the Federal Government passed the "Nurse Reinvestment Act." The Act outlines a comprehensive program to increase the supply of nurses in the long-term including the development of a national public service campaign to improve the image of nursing, educational loan repayment programs, and the development of career ladders within the nursing profession. Although there have been many policies suggested and enacted at the organizational, local, state and national levels, most of these efforts have not been systematically evaluated.

Most experts agree that two types of policies will be needed to handle the expanding crisis: one, ways of dealing with the crisis that allow for the realties of a reduced nursing staff particularly among RNs and, two, policies that seek to expand the supply of nurses and related professions. Undoubtedly, both types of strategies will be needed to counteract the consequences of understaffed health care facilities. The final section of this report focuses on strategies to increase the supply of RNs and related nursing occupations, specifically long-term strategies, to encourage more people to enter the nursing profession. This final section combines policy suggestions with proposed research agendas. The proposed research agendas will help to determine the best way that policies and programs can be enacted as well as evaluated.

Capacity Building for Nursing Educators

The existing need for faculty members in the nursing professions has been documented and raised earlier in this report with over 5,200 qualified applicants not accepted into Bachelor's, Master's and Ph.D. programs and nearly 40 percent of schools reporting that the lack of faculty is the main reasons for not accepting these applicants (AACN 2003). Research are strategies are needed to address the diminished capacity in the teaching profession as well as to identify pools of individuals who may be interested in pursuing graduate studies and teaching careers.

Career Ladders

As evident from Appendix 1, nursing occupations differ immensely in the training required. Requisite education ranges from no training or even a high school diploma for some nursing assistants to doctorate degrees for nursing faculty. If there is lack of nurses, particularly at the RN level, it may make sense to recruit from within the health care industry. Nationally, 83 percent of licensed RNs work as nurses (Minnick 2000). Within New Jersey, 79.7 percent of all RNs are employed as RNs and 88.6 percent of RNs under 30 years old have jobs where their primary responsibility is direct patient care (NJCCN 2003a). Since the vast majority of RNs work as nurses, the nursing shortage is not going to end by recruiting from those who left the nursing field (Minnick 2000). However, the development and strengthening of career ladders could be a way to increase the supply of RNs and related professions. There is data to suggest that internal career ladders would encourage more RNs. Approximately 37 percent of people who became a registered nurse as a second career had previously worked in health care - 51 percent had been nursing assistants and 26 percent had been licensed practical nurses (ANA 2003).

Certified Nursing Assistant to Licensed Practical Nurse Most people enter nursing because they want to help others. The potential income is not is the primary reason that women enter nursing (Boughn 2001). However, other researchers suggest that the supply of nursing assistants is very much tied to swings in the economy that influence the availability of other types of jobs (Stone 2001). If entry-level nursing assistants saw the potential for upward mobility would that increase people entering this position or at least help to retain those who are nursing assistants? More research, including national surveys of CNAs (certified nursing assistants) and on-site interviews with home health aides, is needed to understand if nursing assistants would take

advantage of LPN training, if available, as well as the needs of this population for such programs in terms of flexibility, financial assistance, job placement, ESL training and so forth. In addition, these interviews and surveys could be used to gain a more nuanced understanding of the workplace concerns and job satisfaction of nursing assistants. This is vital because the shortage of nursing assistants has been strongly linked to high turnover rates among nursing assistants and home health aides.

Licensed Practical Nurse to Registered Nurse A second important career ladder would be the transition of LPNs to RNs. The expansion and increased flexibility (such as flexible hours or the combination of work and school) of programs geared toward LPNs wanting to become registered nurses could help these nurses obtain an RN license. The RN population has been better studied in terms of why they chose nursing as a career. More research is needed to understand the career perceptions of LPNs as well as their satisfaction on the job. Do individuals become LPNs with the intention of becoming RNs? What factors encourage or discourage this transition? Of New Jersey RNs surveyed in 2001, only 7.1 percent had completed an LPN program (NJCCN 2003b). Although 71 percent of actively licensed LPNs in New Jersey work as LPNs (NJCCN 2003a), others have cited that high turnover rates among LPNs nationally is a concern. Looking more closely at this potential source of RNs is important to understand why some leave health care and whether or not more would stay if there were greater advancement opportunities.

Career ladders as the ones proposed above would serve a dual purpose. One, the ladders would increase the supply of RNs because of upward mobility from within the health care profession. Two, career ladders would encourage higher retention rates among all types of nurses because of increased job satisfaction due to the opportunity to expand job skills and responsibilities.

Recruitment of Male and Minority Nurses

Most nurses are Caucasian and the overwhelming majority are women. Although Caucasians were 71.8 percent of the U.S. population in 2000, they were 86.6 percent of RNs nationally (see Table 6). In New Jersey, 82.5 percent of the RN workforce is Caucasian. Recruiting from within through the career ladders described above could be a way to increase the diversity of RNs by tapping into other nursing professions that have a

higher percentage of minorities. In New Jersey, blacks constitute 17.6 percent of all LPNs, but only 4.9 percent of RNs. Similarly, Hispanics make up 11.4 percent of the U.S. population and only 1.7 percent of RNs in New Jersey, but 3.6 percent of LPNs. Moreover, these two groups historically are well represented among nursing assistants and home health care professionals. Nationally, 25 percent of home health aides are black and ten percent are Hispanic. This could be a conservative estimate because it may not include all privately hired aides. Career ladders would allow minorities to climb through the ranks which would hopefully result in a more diverse and representative RN population. Concerted efforts should also be made to encourage minority women after becoming RNs to pursue graduate studies and teaching careers.

Table 6.
Racial and Ethnic Composition of Nursing Professions
U.S. and New Jersey
2000 [a]

	Non-Hispanic White	Black	Hispanic	Asian and Pacific Islander	Native American
U.S. Population [c]	71.8%	12.2%	11.4%	3.9%	0.7%
RNs - U.S. [c]	86.6	4.9	2.0	3.7	0.5
RNs - New Jersey [d]	82.5	4.9	1.7	9.6	0.3
LPNs - U.S. [b]	73.0	18.0	5.0	3.0	1.0
LPNs - New Jersey [d]	73.3	17.6	3.6	3.5	0.1
NAs - U.S. [b] **(includes orderlies and attendants)**	51.0	35.0	10.0	3.0	1.0
Home Health Aides - U.S. [b]	60.0	25.0	10.0	4.0	1.0

[a] Data for 2000 unless otherwise noted.
[b] Data from Health Resources and Services Administration (2000), U.S. Department of Health and Human Services, pages 43, 93-4. Data for 1999.
[c] Data from the New Jersey Collaborating Center for Nursing (2003a). Data for 2000.
[d] Data from the New Jersey Collaborating Center for Nursing (2003a). Data for 2002.

Although there is much demographic information available on the percentage of minorities within nursing as well as the increase in minority representation over the last 20 years (Buerhaus and Auerbach 1999), there needs to be more research examining the experiences and perceptions of minority nurses as well as potential nurses. Researchers should not assume that all minority groups have the same experiences in choosing careers, within education programs or on the job. For example, most African-American nurses are older, Hispanic nurses are more likely to be male than other groups, and Native American nurses have the lowest incomes (Buerhaus and Auerbach 1999). While

demographic characteristics are readily available, the reasons behind these various groups' choices and their experiences are not known. Focus groups with both current nurses and young people deciding on their future careers would shed light on the career decision-making process of these underrepresented groups as well as illuminating the forces that encourage and discourage minority women, and men, from pursuing nursing as a career. In addition, as the issue of nursing retention becomes increasingly important, these focus groups could highlight minority nurses' concerns over workplace climate and job satisfaction.

In addition to be overwhelmingly Caucasian, most nurses are female. In New Jersey, 96.6 percent of RNs and 96.2 percent of LPNs are female (see Table 4). Research has shown that men who enter nursing are more interested in both increasing their professional power (e.g., becoming a manager) and the professional status of nursing more generally (Boughn 2001). Men are also much more likely to cite salary expectations in their desire to become a nurse (Boughn 2001). Increasing the awareness and possibility of internal career ladders could be a way to attract more men to the profession. For example, while men make up less than six percent of registered nurses, they are 30 to 35 percent of military nurses (Boivin 2002). One reason that has been suggested is that the military offers very well defined career ladders (Boivin 2002). Unlike civilian nursing, opportunities for increased responsibility and leadership happen earlier in someone's career.[10[10]] The end goal of career ladders should not be for men to increasingly fill management positions at the expense of female nurses as has been documented with men in female-dominated occupations (Williams 1992). However, nursing should not be presented as a dead-end career path, particularly at the LPN and NA levels, but as a career with the opportunity for advancement.

Focus groups with male RNs and LPNs would be important in understanding why they chose nursing as a career and ways to recruit other male nurses. In addition, as noted above, male nurses still face discrimination in schooling and while on the job. However, not much research on this population of nurses exists. Focus groups with

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[10[10]] Well-supported career ladders are not the only reason that men in the military are more likely to choose nursing. More men in the nursing field gives greater opportunity for camaraderie, men could be drawn to the "macho" persona of the military, opportunities for travel, generous educational benefits as well as higher salaries for military nurses (Boivin 2002).

current male nurses would be a way to understand the extent of gender discrimination, how discrimination affects male nurses' decisions to stay or leave a job, and ways to battle gender discrimination in the nursing profession.

Clearly gender socialization is an important factor contributing to the lack of nurses. Since we are facing a health care crisis, a more nuanced understanding of why young men, as well as young women, are not choosing nursing is needed. As part of a long-term solution to the crisis, many health care organizations have suggested and are attempting to recruit young people into the nursing. However, a more thorough understanding of why young people choose or turn away from nursing occupations is needed. Empirical research including focus groups and interviews with high school, junior-high school and elementary male and female students would be invaluable in understanding their perceptions of the nursing profession, where those perceptions come from (e.g., media, guidance counselors) and how to recruit tomorrow's health care providers. Since the study of career perceptions has primarily looked at registered nursing, researchers also need to look at the perceptions of related professions including LPNs and NAs.

Since many have suggested that guidance counselors dissuade students from this career path, interviews and focus groups with guidance counselors would also be invaluable. What are their perceptions of the nursing profession? Focus groups with guidance counselors could be used to understand how these frontline career counselors perceive the health care industry and nursing as a profession for males and females. A culmination of this investigation could be a media and educational campaign targeted to junior-high and high schools to educate guidance offices of the advancement opportunities for those in the nursing profession.

Retention of Current Nurses—Work and Family Balance

A final area of research is needed in order both to understand the impact of the current nursing shortage as well as to devise strategies to lessen the impending health care crisis. Most significantly, research is needed that explores how nurses balance work and family responsibilities. Most registered nurses (71.5 percent) are married and 52 percent have children living at home (ANA 2003), with 16 percent having children under the age of six (ANA 2003). A large portion of the nursing labor force is part of the

"sandwich generation" having overlapping childcare and eldercare demands. The need to balance work and family responsibilities is an everyday reality for all types of nurses. While increased patient loads have been linked to lower job satisfaction (Aiken, et al. 2002; ANA 2001), an understanding of how the nursing shortage has affected nurses' ability to juggle work and family lives is needed. Focus groups with current and former nurses could examine how the changing work environment of nursing has impacted their lives beyond their jobs. If nurses come home from work "exhausted" and "discouraged" how does this influence their time with their families (ANA 2001)? Although mandatory overtime for registered nurses is now illegal in New Jersey, do nurses still feel pressure to work extra hours? How do nurses balance rotating schedules and night shifts with raising children or caring for elderly relatives?

Research on the work-family balance of nurses is vital because people make job-related choices including the decision to stay at a current employer or switch careers in part due to their family's financial and emotional needs. Focus groups could also be conducted with RNs, LPNs and nursing assistants who have left the nursing profession to understand how their decision was related to their family responsibilities and personal lives. This research would be invaluable for policy makers and hospital administrators alike in order to develop retention strategies for RNs, LPNs, and nursing assistants as well as the development of strategies to reconcile work and home tensions including issues such as childcare and scheduling.

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The nursing shortages both nationally and within New Jersey are approaching crisis levels. This report pulls together research and literature on the shortage and synthesizes the state of the current and predicted nursing shortage in New Jersey. While there has been much debate, discussion and research on the scope and causes of the problem, there is still more information that is needed. The proposed policy suggestions and proposed research agendas are intended to not only increase the supply of nurses in the face of the impending national health care crisis but also to recruit underrepresented groups into nursing to ensure a more diverse and representative nursing profession.

References

Aiken, Linda H, Sean P. Clarke, Douglas M. Sloane, Julie Sochalski, and Jeffrey H. Silber. 2002. “Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction.” *Journal of the American Medical Association* 288 (16): 1987-1993.

Aiken, Linda H., Sean P. Clarke, Robyn B. Cheung, Douglas M. Sloane, and Jeffrey H. Silber. 2003. “Educational Levels of Hospital Nurses and Surgical Patient Mortality.” *Journal of the American Medical Association* 290 (12): 1617-1623.

American Association of Colleges of Nursing (AACN). 2000 (June). “Nursing Fact Sheet.” Retrieved on September 28, 2003 from http://www.aacn.nche.edu/Media/Backgrounders/nursfact.htm.

American Association of Colleges of Nursing (AACN). 2001. “Enrollments Rise at U.S. Nursing Colleges and Universities Ending A Six-Year Period of Decline.” Retrieved on October 1, 2003 from http://www.aacn.nche.edu/Media/NewsRelease/enr101.htm.

American Association of Colleges of Nursing (AACN). 2003 (May). “Faculty Shortages in Baccalaureate and Graduate Nursing Programs: Scope of the Problem and Strategies for Expanding the Supply.” AACN: Washington DC.

American Nurses Association (ANA). 2001. “Analysis of American Nurses Association Staffing Survey.” Retrieved on September 8, 2003 from http:www.nursingworld.org/staffing.

American Nurses Association (ANA). 2003. “Today’s Registered Nurse – Numbers and Demographics.” Retrieved on October 13, 2003 from http://www.nursingworld.org/readroom/fsdemogr.htm.

Auerbach, David I., Peter I. Buerhaus, and Douglas O. Staiger. 2000. “Associate Degree Students and the Rapidly Aging RN Workforce.” *Nursing Economics* 18 (4): 178-184.

Berlin, Linda E. and Karen R. Sechrist. 2002. “The Shortage of Doctorally Prepared Nursing Faculty: A Dire Situation.” *Nursing Outlook* 50: 50-6.

Boughn, Susan. 2001 (January/February). “Why Women and Men Choose Nursing.” *Nursing & Health Care Perspectives* 22(1): 14-19.

Boivin, Janet. 2002 (October 7). “Men Make their Mark in Military Nursing.” *Nursing Spectrum*. Retrieved October 13, 2003 from http://community.nursingspectrum.com/MagazineArticles/article.cfm?AID=7960.

Buerhaus, Peter I. and David Auerbach. 1999. “Slow Growth in the United States of the Number of Minorities in the RN Workforce.” *Image: Journal of Nursing Scholarship* 31(2): 179-183.

Buerhaus, Peter I., Douglas O. Staiger, and David I. Auerbach. 2000a. “Implications of an Aging Registered Nurse Workforce.” *Journal of the American Medical Association* 283 (22): 2948-2954.

Buerhaus, Peter I., Douglas O. Staiger, and David I. Auerbach. 2000b (May/June). “Why Are Shortages of Hospital RNs Concentrated in Specialty Care Units?” *Nursing Economics* 18 (3): 111-116.

Brewer, Carol and Christine Tassone Kovner. 2001. “Is There Another Nursing Shortage? What the Data Tell Us.” *Nursing Outlook.* 49: 20-6.

Bureau of Labor Statistics. 2002. *Occupational Outlook Handbook.* Washington D.C.: U.S. Department of Labor.

Center for Rural Health. 2003 (June 2003). “An Examination of Supply vs. Demand North Dakota’s Nursing Workforce: A Preliminary Analysis.” North Dakota Center for Health Workforce Data and Center For Rural Health. School of Medicine and Health Sciences, University of North Dakota.

Farella, Carrie. 2000 (December 1). “MIW: Men in White.” *Nursing Spectrum.* Retrieved on October 13, 2003 from http://community.nursingspectrum.com/MagazineArticles/article.cfm?AID=2746.

First Consulting Group. 2001. “The Healthcare Workforce Shortage and Its Implications for America’s Hospitals.” Long Beach, CA: First Consulting Group. Retrieved from September 1, 2003 from http://www.fcg.com/webfiles/pdfs/FCGWorkforceReport.pdf.

Gabriel, Barbara A. 2001 (March). “Wanted: A Few Good Nurses Addressing the Nation’s Nursing Shortage.” *Reporter* 10: 6. Retrieved on October 13, 2003 from http://www.aamc.org/newsroom/reporter/march01/nursing.htm.

Goodin, Heather Janiszewski. 2003 (August). “The Nursing Shortage in the United States of America: An Integrative Review of the Literature.” *Journal of Advanced Nursing* 43(4): 335-343.

Harvard School of Public Health. 2002 (December 11). “4 in 10 of Public, More Than One-Third of Physicians Say They Have Personally Experienced Medical Errors.” News Release. Retrieved on October 13, 2003 from http://www.hsph.harvard.edu/press/releases/press12112002.html.

Health Resources and Services Administration (HRSA). 2000. Bureau of Health Professions. *HRSA State Health Workforce Profiles – New Jersey.* Washington D.C.: U.S. Department of Health and Human Services.

Health Resources and Services Administration (HRSA). 2001a (February 14). “HRSA National Survey Cites Slowdown in Number of Registered Nurses Entering Profession.” Press Release. Retrieved on September 8, 2003 from http://newsroom.hrsa.gov/releases/2001%20Releases/nursesurvey.htm. Washington D.C.: U.S. Department of Health and Human Services.

Health Resources and Services Administration (HRSA). 2001b. Bureau of Health Professions – Division of Nursing. *The Registered Nurse Population: National Sample Survey of Registered Nurses – March 2000 Preliminary Findings*. Washington D.C.: U.S. Department of Health and Human Services.

Health Resources and Services Administration (HRSA) 2002. Bureau of Health Professions. *Projected Supply, Demand and Shortages of Registered Nurses: 2000-2020.* Washington D.C.: U.S. Department of Health and Human Services.

Hemsley-Brown, Jane and Nicholas H. Foskett. 1999. “Career Desirability: Young People’s Perceptions of Nursing as a Career.” *Journal of Advanced Nursing* 29(6): 1342-1350.

Hilton, Lisette. 2001 (May 14). “A Few Good Men: Male Nurses Defy Stereotypes and Discrimination to Find Satisfaction in a Female-Dominated Profession.” NurseWeek.com Retrieved on October 13, 2003 from http://www.nurseweek.com/news/features/01-05/men.html.

Hinshaw, Ada Sue. 2001. "A Continuing Challenge: The Shortage of Educationally Prepared Nursing Faculty." *Online Journal of Issues in Nursing* 6 (1): Manuscript 3 Retrieved on October 13, 2003 from http://www.nursingworld.org/ojin/topic14/tpc14_3.htm.

Keating, Sarah B. and Karen R. Sechrist. 2001. “The Nursing Shortage in California: The Public Policy of the California Strategic Planning Committee for Nursing.” *Online Journal of Issues in Nursing*. 6 (1): Manuscript 2. Retrieved on October 13, 2003 from http://www.nursingworld.org/ojin/topic14/tpc14_2.htm.

Male Nurse Magazine. 2003. “Gender Discrimination in Nursing.” Retrieved on October 13, 2003 from http://www.malenursemagazine.com/gender_discrimination.html.

Minnesota Department of Health. 2002 (October). “Labor Availability and Health Care Costs.” Health Policy and Systems Compliance Division. MDH: St. Paul.

Minnick, Ann F. 2000. “Retirement, the Nursing Workforce, and the Year 2005.” *Nursing Outlook* (48): 211-217.

Nevidjon, Brenda and Jeanette Ives Erickson. 2001. "The Nursing Shortage: Solutions for the Short and Long Term." *Online Journal of Issues in Nursing*: 6 (1): Manuscript 4. Retrieved on October 13, 2003 from http://www.nursingworld.org/ojin/topic14/tpc14_4.htm

New Jersey Collaborating Center For Nursing (NJCCN). 2003a. "New Jersey Nursing in the Forefront." (Released July 2003). Retrieved on October 13, 2004 from www.njccn.org/presentations.asp - 16k.

New Jersey Collaborating Center For Nursing (NJCCN). 2003b (March 18). "Preliminary Findings of the RN Survey" and "LPN Survey Preliminary Findings." Retrieved on October 13, 2003 from http://www.njccn.org/pdf/rn_Survey_Rpt_Revised.pdf and http://www.njccn.org/pdf/LPN_Survey_Rpt.pdf.

New Jersey State Employment and Training Commission. 1992. *A Unified State Plan for New Jersey's Workforce Readiness System.*

Nurses for a Healthier Tomorrow. 2001 (July). "Facts about the Nursing Shortage." Retrieved on September 10, 2003 from www.nursesource.org/facts_shortage.html

Robert Wood Johnson Foundation. 2003. "New Jersey Health Initiatives Workforce Agenda." Retrieved on October 13, 2003 from http://www.rwjf.org/publications/ publicationsPdfs/cfp-NJHIWA.pdf.

Staiger, Douglas O., David I. Auerbach, and Peter I. Buerhaus. 2000. "Expanding Career Opportunities for Women and the Declining Interest in Nursing as a Career." 18(5): 230-236.

Stone, Robyn I. 2001. *Who Will Care for Us? Addressing the Long-term Care Workforce Crisis.* The Urban Institute and the American Association of Homes and Services for the Aging.

Trossman, Susan. 2002 (January/February). "Who Will Be There To Teach? Shortage of Nursing Faculty a Growing Problem." *The American Nurse.* Retrieved on October 13, 2003 from http://www.nursingworld.org/tan/janfeb02/teach.htm.

Williams, Christine. 1992. "The Glass Elevator: Hidden Advantages for Men in the "Female" Professions." *Social Problems* 39:253-67.

Appendix 1.

Occupational Category	Education/ Training	Career Advancement Opportunities	National Shortage	Shortage in New Jersey
Registered Nurse (RN)	・In all states and D.C., RNs must graduate from an approved program and pass a national licensing examination. ・RNs can complete a Bachelor's of Science in Nursing (B.S.N.) program (4-year), an Associate's program (2-year) or a diploma program (3-year) offered by junior and community colleges. Diploma programs are often administered through local hospitals.	・Most advancement opportunities such as many administrative positions, teaching, consulting and advanced specialties including midwife, nurse practioner and certified anesthetist require graduate level training (Master's degree or Ph.D.) beyond a Bachelor's degree. ・RNs who have less than a Bachelor's degree can go back to school to obtain a Bachelor's degree.	・Currently, many states and employers are reporting shortages. Some regions such as rural areas and specialty areas such as ICUs are experiencing acute shortages. ・The Bureau of Labor Statistics projects that by 2010, one million new RN's will be needed. By the year 2020, the supply of RNs will be 20% below need (Beurhaus, Staiger, and Auerbach 2000a). ・The shortage is predicted to reach crisis proportions due to the unprecedented numbers of retirees and older people in the coming years. ・In addition, there is a lack of RNs with Bachelor's degrees. Federal guidelines suggest that 2/3 of a nursing staff have Bachelor's degrees. Less than 1/3 of RNs nationally have B.S.N. degrees (AACN 2000). ・There is also a lack of nursing faculty, particularly faculty with Ph.D.s.	・In 2000, there was a 13% shortage for full-time equivalent RNs (HRSA 2002: 14). ・From 1996 to 2006, there will be an estimated 17% (or 11,000 jobs) increase in demand for RNs (NJCCN 2003a). ・According to the New Jersey Collaborating Center for Nursing (NJCCN 2003a), a conservative estimate is that New Jersey will have a 30% shortage of RNs by 2020. A less conservative estimate is 43%. ・In New Jersey, the percentage of RNs with Bachelor's degrees falls below the national average. In 2002, only 27.2% had bachelor's degrees (NJCCN 2003a).
Licensed Practical Nurse (LPN) ***(Also called Licensed Vocational Nurse - LVN)***	・LPNs must complete a one-year program and pass a licensing examination. A high school degree is usually required for entrance to a program, although some high schools offer LPN programs as part of their curriculum.	・LPNs can obtain more schooling and become RNs.	・According to the American Health Care Association (AHCA), the LPN vacancy rate was 14.6% in 2001 (Minnesota Department of Health 2002).	・From 1996 to 2006, there will be an estimated 21% (or 3,400 jobs) increase in demand for LPNs (NJCCN 2003a). ・By 2006, there will be an estimated 17% shortage of LPNs in New Jersey (RWJ 2003).

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Appendix 1 *(continued).*

Nursing Assistant (NA) *(Also known as nursing aides, geriatric aides, unlicensed administrative personnel, unlicensed assistive personnel and home health aides (see below).*	· Can be certified or non-certified. Generally, no experience or training is necessary. · However, some employers may prefer Certified Nursing Assistants (CNAs). Certification classes are available from community colleges and technical schools. Some NAs become certified while on the job. For example, many nursing homes hire inexperienced people. They then complete a certain number of training hours within the first few months of their employment. Those who complete the training are then certified and put on a state registry of nursing aides. · Some states require that nursing aides working with psychiatric patients (also known as psychiatric aides) require they have some formalized training.	·Generally, opportunities for advancement are limited for nursing assistants and home health aides. To enter another health care occupation such as LPN or RN, a nursing assistant needs further education.	· Nationally, employers are reporting difficulty in hiring and retaining all types of nursing assistants. · AHCA reports that the vacancy rate for nursing assistants was 11.9% in 2001 (Minnesota Department of Health 2002). · Opportunities for nursing aides are expected to grow faster than average for all occupations.	· Between 1998-2008, there will be an estimated 20% shortage of nursing assistants and aides (RWJ 2003).
Home Health Aide	· Employers may or may not require prior experience or training. The Federal government does require that home health aides employed by those receiving Medicare reimbursements pass a competency test. Federal law suggests 75 hours of classroom and practical training supervised by a RN. · Home health aides employed by those receiving Medicaid or other state administered programs may be subject to additional training requirements (Stone 2001).	· See above.	· Opportunities for home health aides are expected to grow the fastest out of all types of nurse assistant occupations. · Also, see above.	· Between 1998-2008, there will be an estimated 61% shortage of home health aides (RWJ 2003).
Note - Unless otherwise noted, information comes from Bureau of Labor Statistics, U.S. Department of Labor. Occupational Outlook Handbook, *2002-2003 edition.*				

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