



CUNY Consortium of Nursing Programs

Post-Graduate Outcomes Report

Office of the University Dean for Health & Human Services
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Introduction

The Affordable Care Act (ACA) is accelerating trends in healthcare toward community-based services, patient-centered care, care coordination among multiple providers, an interdisciplinary team approach, use of electronic health records, and accountability for the total care of the patient. There is also a greater focus on primary and preventive care and the effective management of chronic diseases. The role of nurses is evolving as the delivery system is being transformed. Since Registered Nurses (RNs) constitute the largest profession within healthcare, successful outcomes associated with these changes will hinge to a great extent on the nursing workforce. There are approximately 2.7 million practicing RNs nationwide¹ and more than 280,000 are licensed in New York State^{2 (p1)}.

The impact of health care reform and related professional and economic factors is also affecting the basics of nursing education and the career trajectory of new RNs. The 2011 **Institute of**

¹ 2012 estimate provided by the Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2014-15 Edition*, Registered Nurses

² 2013 estimate from the Center for Health Workforce Studies, *A Profile of Active Registered Nurses in New York*

Medicine (IOM) report *The Future of Nursing: Leading Change, Advancing Health*³ recommended that: “nurses should achieve higher levels of education...through an improved education system that promotes seamless academic progression”^{3 (p164)} and that leaders in the field should work collaboratively to “increase the proportion of nurses with a baccalaureate degree”^{3(p12)}. There is also a preference for a more highly educated nursing workforce among employers. According to a 2013 survey conducted by the **Healthcare Association of New York State (HANYS)** and the **Greater New York Hospital Association (GNYHA)**⁴ 82% of hospital respondents in the downstate region indicated a preference for hiring BSN prepared nurses.

Nationally there have been reports that new RNs are experiencing difficulty in finding their first job. A recent survey conducted by the **National Student Nurses Association** showed that 39% of new associate degree nursing (ADN) graduates, and 28% of generic baccalaureate degree nursing (BSN) graduates were not working as RNs four months after graduation. In summarizing the survey results Mancino (2011⁵, 2013⁶) also noted that employers were seeking RNs with experience, that many older RNs were not retiring because of the recession, and that many more new graduates were flooding the market.

The downturn in the U.S. economy coupled with implementation of federal and state health care reforms has led to an easing of the nursing shortage in NYC. Since 2008 there have been eight hospital closings in NYC alone and others are in imminent danger of closing. In recent years there have also been hospital consolidations, downsizings and hiring freezes. According to a 2013 report by the **NYS Center for Health Workforce Studies**⁷ the number of RN jobs in NYC actually declined from 99,010 in 2005 to 96,210 in 2011^{7(p12)}. Thus newly licensed graduates must now compete with laid-off but more experienced nurses for fewer job openings.

³ National Research Council. *The Future of Nursing: Leading Change, Advancing Health*. Washington, DC: The National Academies Press, 2011

⁴ HANYS, GNYHA (2013) *New York's Health Care Sector: A Changing, Growing Workforce; Demand Continues for Health Care Professionals: 2013 Nursing and Allied Professionals Workforce Survey Report*

⁵ Mancino, D. (2011) Inaction is Not an Option, *Dean's Notes*, vol. 33, no. 2

⁶ Mancino, D. (2013) Recalculating: The “Nursing Shortage” Needs New Direction, *Dean's Notes*, vol. 34, no. 3

⁷ The Center for Health Workforce Studies (2013), *An Assessment of Trends in the Job Market for New York's Newly Trained RNs, 2005-2012*, April 2013

A decrease in the percentage of nurses employed in acute care settings and an increase in those employed in community-based settings is consistent with implementation of the ACA. The preference for baccalaureate prepared nurses and the hospital closings have created a competitive job market for new nurses in NYC, especially ADN graduates. In a 2013 brief the **American Association of Colleges of Nursing (AACN)**⁸ advised new ADN graduates to advance their education to at least the baccalaureate level and to seek employment in community health, ambulatory care, nursing homes and schools, since almost half of all RNs now work in non-hospital settings. **Charting Nursing's Future**⁹, a 2013 newsletter published by the **Robert Wood Johnson Foundation**, described current trends in nursing education and employment and made a compelling case for policies that facilitate the “academic progression” of nurses within institutions of higher education.

⁸ American Association of Colleges of Nursing (2013), *Talking Points: Impact of the Economy on the Nursing Shortage*

⁹ Robert Wood Johnson Foundation (2013), *The Case for Academic Progression: Why Nurses Should Advance Their Education and the Strategies that Make this Feasible, Charting Nursing's Future*, September 2013, No. 21

The Consortium of City University of New York Nursing Programs

The **City University of New York (CUNY)**, a public university system consisting of 24 colleges and professional schools, is a major source of new RNs for the New York City metropolitan area. Indeed, the local healthcare industry relies on CUNY to provide a reliable supply of new nurses as well as career ladder opportunities for currently practicing RNs. Quality health care is dependent on the availability of an educated and competent workforce. Each year, through its expansive network, CUNY prepares a large, culturally diverse pool of nurses who are dedicated to providing the best possible health care to all New Yorkers.

The following review of CUNY's consortium of nursing programs focuses on current trends in the academic progression of nurses through the ADN, BSN and MSN levels. It also provides data on the changing employment environment for new RNs in NYC. In both of these areas- academic progression and employment of new RNs- the CUNY case study embodies key elements in the unfolding of the nursing profession in the age of the ACA.

In 2012-13, thirteen CUNY schools offered nursing degree programs¹⁰.

Nine offered the ADN: Borough of Manhattan Community College; Bronx Community College; Hostos Community College; Kingsborough Community College; LaGuardia Community College; Medgar Evers College; New York City College of Technology; Queensborough Community College; The College of Staten Island.

Six offered the BSN (Generic and/or RN to BSN Completion): Hunter College; Lehman College; Medgar Evers College; New York City College of Technology; The College of Staten Island; York College.

Three offered the MSN (with various specializations): Hunter College; Lehman College; The College of Staten Island.

Two offered the Doctorate in Nursing: Graduate Center (PhD); Hunter College (DNP).

¹⁰ See the March 2013 Annual Data Report, Nursing Degree Programs found at: <http://www.cuny.edu/about/administration/offices/hhs/AnnualDataReportNursingDegreeProgramsCUNY2013FINAL.pdf>.

In 2012, 1021 ADN and generic BSN CUNY nurse graduates passed the **National Council Licensure Examination for Registered Nurses (NCLEX-RN)**¹¹. This total is 42% of all 2012 NCLEX-RN passers who graduated from nursing programs in NYC.

Data Sources

The following overview is based on the integration of data from several sources:

- 1) CUNY's Institutional Research Database (IRDB), maintained by the Office of Institutional Research and Assessment (OIRA), is a warehouse of CUNY's official student data, combining information from all of the colleges in a single relational database. The IRDB contains detailed enrollment, graduation, and course data for all CUNY students from 1990 to present.
- 2) In 2008, the Office of the University Dean for Health and Human Services conducted a survey of CUNY nursing graduates from academic years 1997-98 through 2006-07. The survey examined CUNY graduates' educational experiences, their experiences as newly licensed RNs, and their experiences in the labor market. It included students that graduated with an ADN, a generic BSN, and an RN to BSN. In 2013 the survey was revised and updated and administered to nursing graduates from academic years 2007-08 through 2011-12. A stratified random sample of all graduates was created for both surveys. The 2008 survey was conducted by telephone and yielded information for 1896 CUNY nursing graduates representing 22 percent of the entire population of nurses who graduated from CUNY's ADN and BSN degree programs over the ten-year period. The 2013 survey was conducted both by telephone and online and yielded a total of 1685 completed surveys representing 25 percent of the population of graduates over the five-year period.
- 3) New York State Department of Labor unemployment insurance (UI) wage record files provide individual quarterly wage data and employer names and industry classification for those employed in New York State, excluding federal employees

¹¹ Data from NYSED.gov, Office of the Professions, *New York State RN NCLEX Results: 2008-2012*

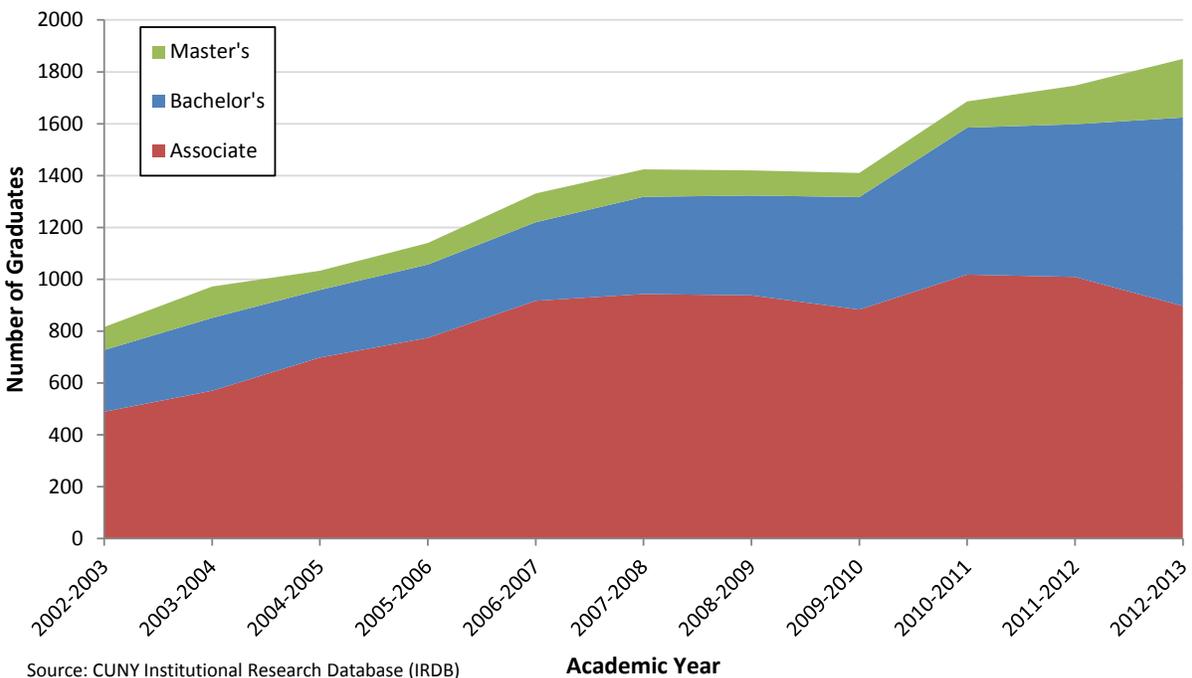
and the self-employed. The UI wage record data from 1996 to 2013 has been linked with CUNY enrollment data for students enrolled from 2000 to 2012.

Findings

Increase in the Number of Graduates of CUNY Nursing Degree Programs

Over the last decade the total number of graduates of CUNY's ADN, BSN and MSN programs increased 127% from 816 in 2002-03 to 1850 in 2012-13. Much of this growth was driven by the nursing shortage.

Figure 1. CUNY Nursing Program Graduates, by Degree Level, 2002-03 to 2012-13



Especially in recent years the percentages among ADN, BSN and MSN graduates has been trending toward a more highly educated nursing workforce. For example, since 2006-07 the number of BSN graduates as a percentage of all undergraduate nursing degrees awarded increased from 25% to 45%. Current enrollment data indicate that this trend will continue. By 2020 CUNY's goal is to have 80% of all undergraduate nursing degrees be BSNs.

Road to the Middle Class for ADN Graduates

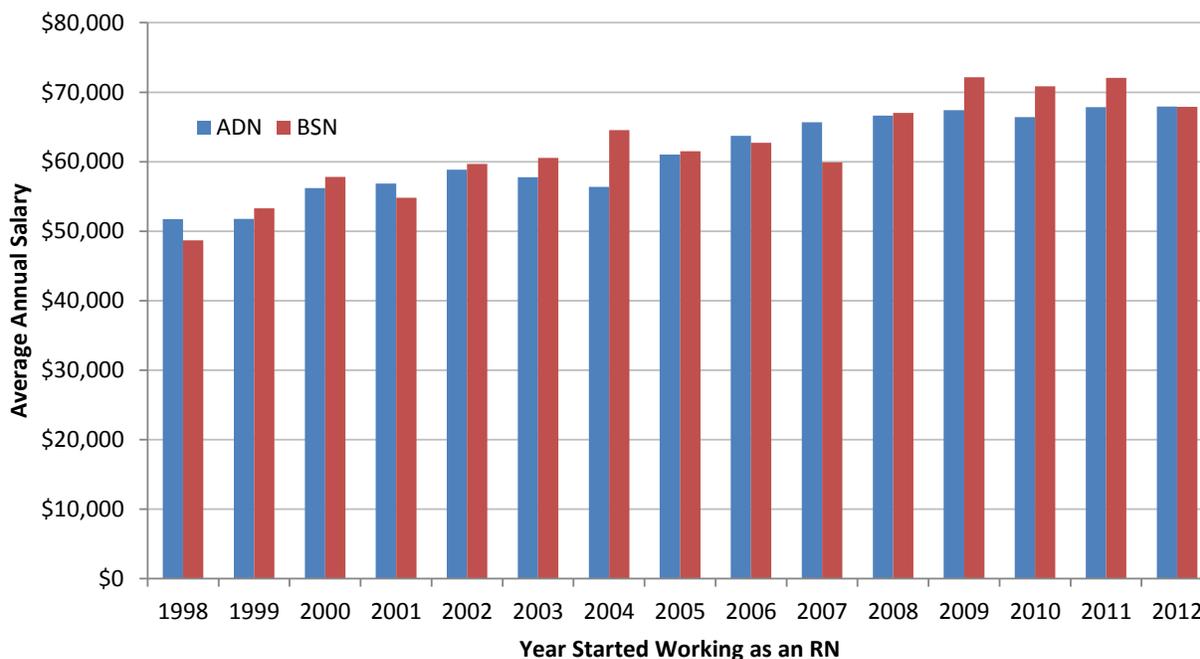
As a public institution, CUNY has a responsibility to prepare a sufficient number of qualified personnel to meet the health care needs of NYC residents. In response to the nursing shortage of the last decade CUNY more than doubled the number of its ADN graduates from 489 in 2002-2003 to a peak of over 1000 graduates in both 2010-11 and 2011-12. The average age of an ADN graduate in 2011-12 was 31.2 years; 31% were Black, 17% were Asian and 15% were Hispanic; 62% were not born in the U.S. Over the last five years, over 40% of ADN graduates have been incumbent healthcare workers who have worked their way up from jobs such as home care aide, patient care associate, licensed practical nurse or community health worker. They come from diverse cultural and linguistic backgrounds, and frequently are residents of the same urban neighborhoods as the patients they now serve.

Graduation from a CUNY ADN program provides aspiring students with an opportunity to enter a respected and well-paid profession. The nursing career ladder has served as a “road to the middle class” for many working poor people and their families. The powerful appeal of nursing as a profession is illustrated by the over one-quarter of CUNY ADN graduates from 2007-08 through 2011-12 that earned a baccalaureate degree in a discipline other than nursing prior to receiving their ADN. In recent years there has been an increase in the number of graduates of accelerated second degree BSN programs, nationally and at CUNY. At the same time the ADN has been, and continues to be, an alternative route into the profession for working adults and second degree students who are seeking a career upgrade or career change.

Starting Salaries of First RN Jobs

After passing the NCLEX-RN, recent CUNY ADN graduates could expect to earn about \$65,000 annually in their very first RN job, if it was at a hospital.

Figure 2. Average Yearly Salary in First RN Job, Full-Time Hospital Employment Only, by Year Started Working as an RN, 1998-2012



Source: 2008 Survey of CUNY Nursing Graduates (Years 1998-2006) and 2013 Survey of CUNY Nursing Graduates (Years 2008-2011)

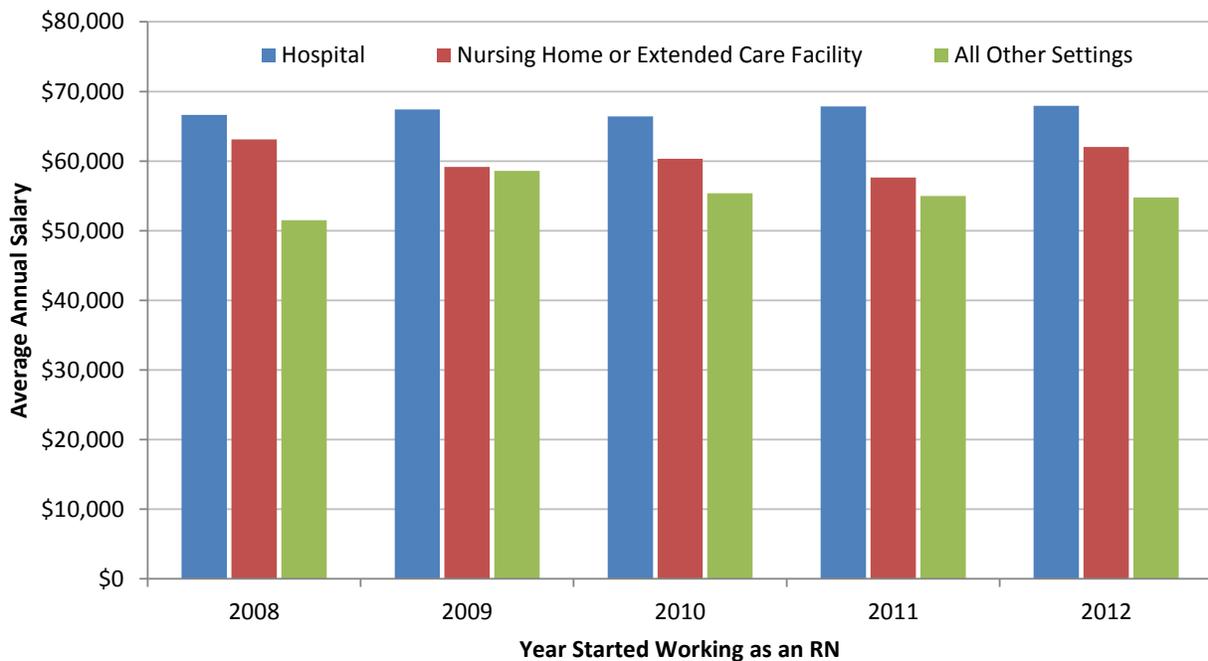
The high starting salaries for ADN graduates are among the many motivating factors for choosing nursing as a profession. However, the starting salaries of graduates of generic BSN programs are not much higher. Thus, historically, there have been few immediate financial incentives to earn the baccalaureate degree while also continuing to work as an RN.

Nevertheless, on our most recent survey, 56% of ADN graduates from 2007-08 through 2011-12 “strongly agree” that: “It is worth the time and tuition costs to get a baccalaureate degree in nursing.” This is up from our previous survey where 32% of our ADN graduates from 1997-08 through 2006-07 “strongly agree” with the same statement. This difference reflects an important change in the attitude of new RNs.

The starting salaries of newly licensed graduates in non-hospital settings are somewhat lower for those employed in nursing home and/or extended care facilities and lower still for those employed in non-institutional settings, ambulatory care, physicians’ offices and other

community-based settings. On average, newly licensed graduates could expect to earn about \$12,000 less annually in a community-based setting compared to a hospital setting.

Figure 3. Average Yearly Salary in First RN Job for ADN graduates, Full-Time Employment Only, by Year Started Working as an RN, 2008-2012

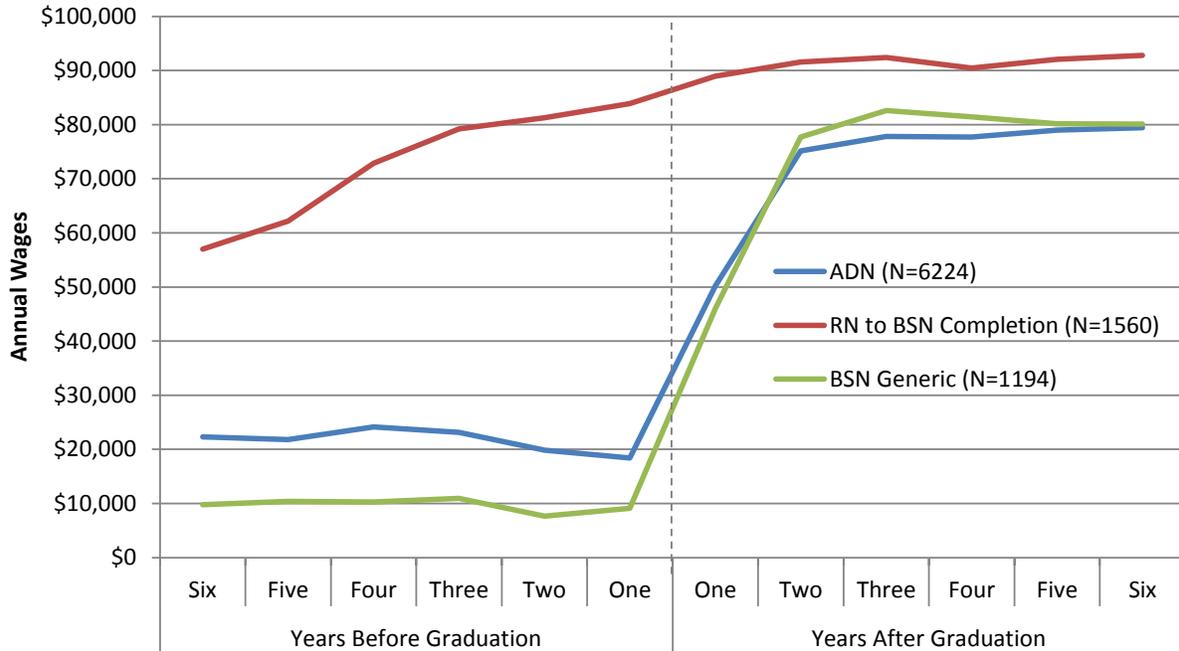


Source: 2013 Survey of CUNY Nursing Graduates

Annual Median Wages Before and After Graduation

The dramatic change in the fortunes of both ADN and generic BSN graduates is depicted in the following chart which looks at wages both before and after graduating for all those included in the NYS wage dataset. For both groups earnings skyrocketed just two years after completing the degree and then leveled off. Median annual wages jumped from \$10,000 to nearly \$80,000 for generic BSN graduates and from \$20,000 to \$75,000 for ADN graduates. The more experienced RN to BSN graduates achieved more modest gains.

Figure 4. Median Total Annual Wages of CUNY Nursing Graduates (Academic Years 1999-00 to 2009-10) Employed in New York State, Six Years Before and After Graduation, by Degree Earned, in Inflation-Adjusted 2013 Dollars

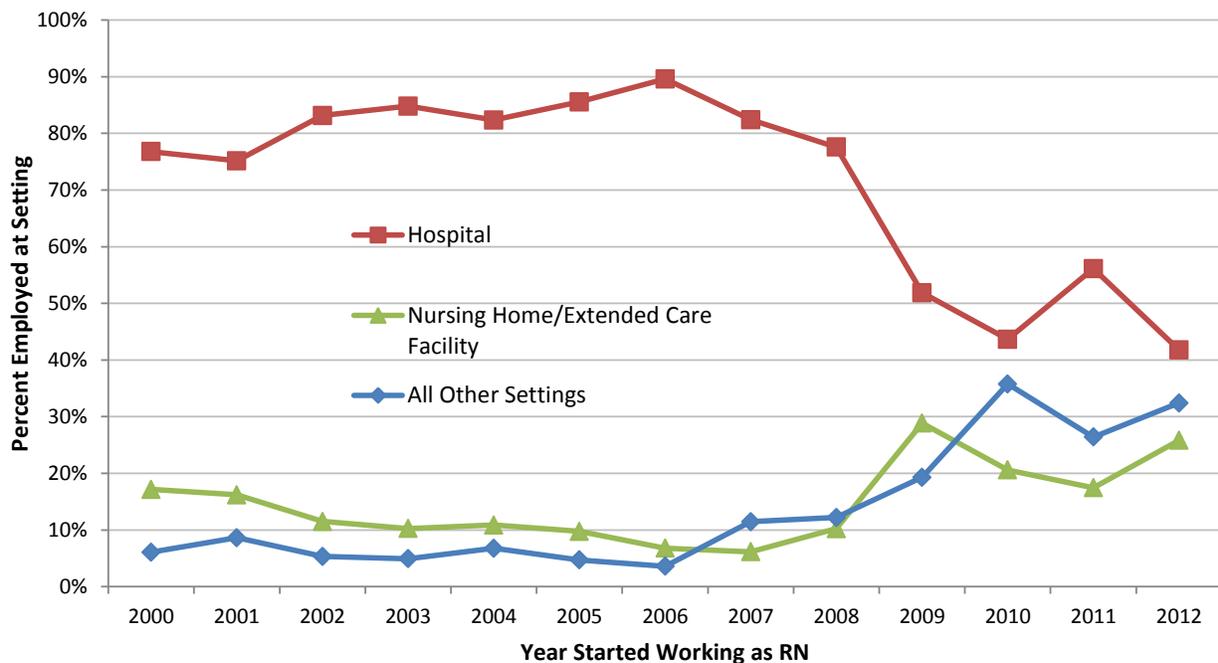


Source: NYS UI Wage Database

Settings of First RN Jobs

The hospital closings and ongoing healthcare reforms are also associated with changes in the settings of the first RN jobs for graduates of CUNY’s ADN programs. Figure 5 below shows the decrease in first RN job employment in hospitals and the concurrent increase in first RN job employment in nursing homes and extended care facilities and in “other” non-institutional, more community-based settings such as home care, ambulatory care and physicians’ offices.

Figure 5. Setting of First RN Job, ADN Graduates Only, by Year Started Working as an RN, 2000-2012



Source: 2008 Survey of CUNY Nursing Graduates (Years 1998-2007) and 2013 Survey of CUNY Nursing Graduates (Years 2008-2011)

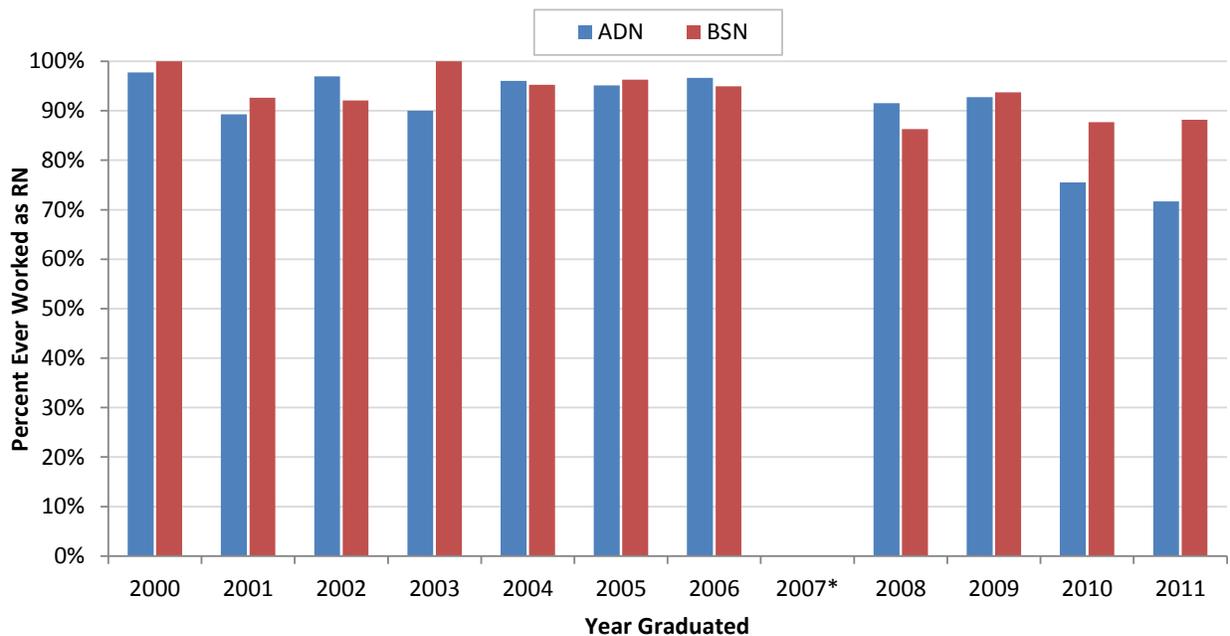
Since it is likely that the first RN jobs for ADN graduates will continue to trend toward non-hospital settings, it is critical that CUNY nursing students have clinical opportunities that reflect this change. Historically, in many of our ADN programs, the clinical component was dependent on placements at local hospitals. As hospitals have increasingly shown a preference to hire BSN graduates they have also cut back on providing placements for ADN nursing students. Clinical placements in hospitals are limited and often viewed by the hospital as a recruitment tool. Therefore, out of necessity, but also to keep pace with changes in the service delivery system, CUNY needs to continue to increase its affiliations with health providers in community-based settings, and to align its curriculum with ongoing health care reforms within those venues.

A More Competitive Nursing Job Market

In recent years there has been an increase in the percentage of CUNY ADN graduates who passed the NCLEX but were still **not** employed as RNs eighteen months after they graduated. Of the spring 2011 graduates, 28% were in this predicament. There was also an increase in the

percentage of newly licensed generic BSN graduates **not** yet employed as RNs. Of the spring 2011 generic BSN graduates, 12 % fell into this category.

Figure 6. Percentage of CUNY ADN and BS Generic Graduates Who Ever Worked as an RN within 18 Months of Graduation, Out Of All CUNY ADN and BSN Generic Spring Graduates Who Received Their RN License, 2000-2006 and 2008-2011



Source: 2008 Survey of CUNY Nursing Graduates (Years 2000-2006) and 2013 Survey of CUNY Nursing Graduates (Years 2008-2011)

* Data from 2007 not available

Due to the decline in their timely employment as RNs, hundreds of newly licensed graduates were neither earning a higher salary to support their families nor practicing to the full extent of their training and the scope of their license. If they remain out of the RN workforce too long, and their nascent clinical skills deteriorate, they may find it more difficult to re-enter.

One way to ameliorate this problem is for CUNY schools to expand “transition-to-practice” opportunities for recent graduates. For example, New York City College of Technology collaborated with Maimonides Medical Center in Brooklyn so that graduates of its ADN program, who subsequently enrolled in its RN-BSN program, were hired by the medical center and participated in a one year residency program that included being paired with experienced and trained nurse preceptors. Those who successfully completed the residency were retained as employees.

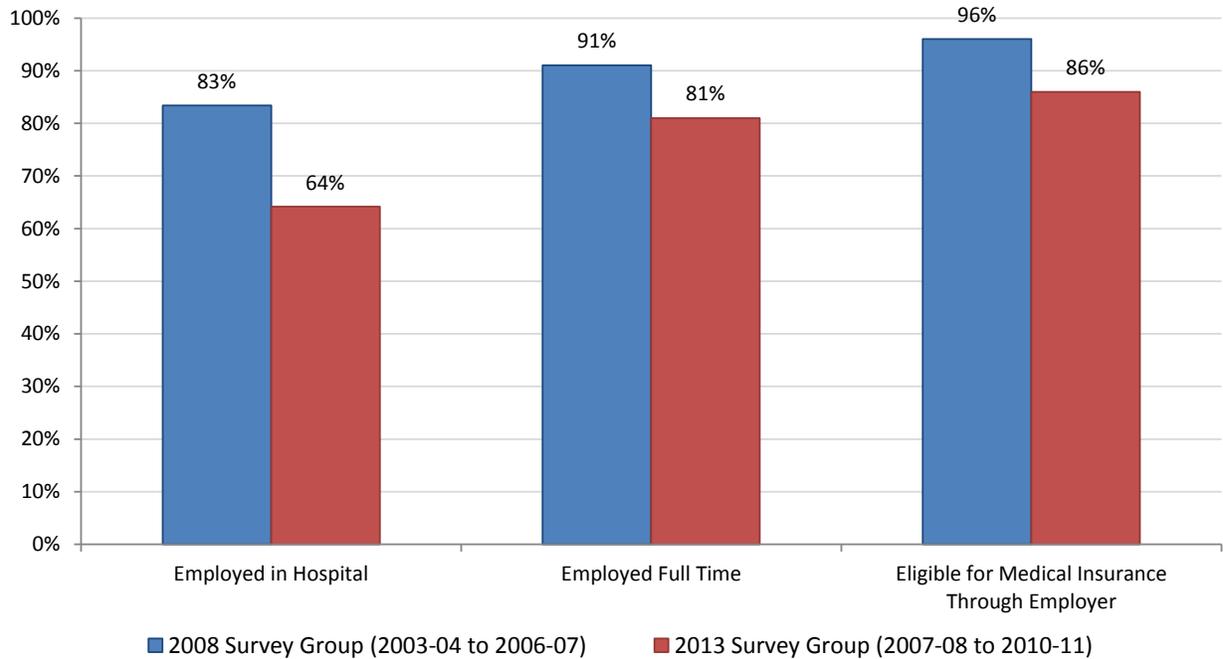
Incumbent Workers and Time to First RN Job

In the most recent survey, from 2007-08 through 2011-12, approximately 40% of ADN graduates were incumbent healthcare workers. Of these nearly one-fifth were employed as LPNs; 44% were members of a union. About 11% of all ADN graduates were represented by 1199 SEIU Healthcare Workers East. Incumbent workers were employed in both public and private organizations including hospitals, nursing homes, mental health clinics, home care and social services agencies. These graduates who mostly worked in direct care positions while earning their ADN had a shorter search time before landing their first job as an RN. This is not surprising since they were already imbedded within healthcare organizations, and many had the support of their employer and/or union in both going to school and upgrading their positions. Thus more than half of incumbent workers who secured employment as RNs did not change employers.

RN Employment 18 to 54 Months Post-Graduation

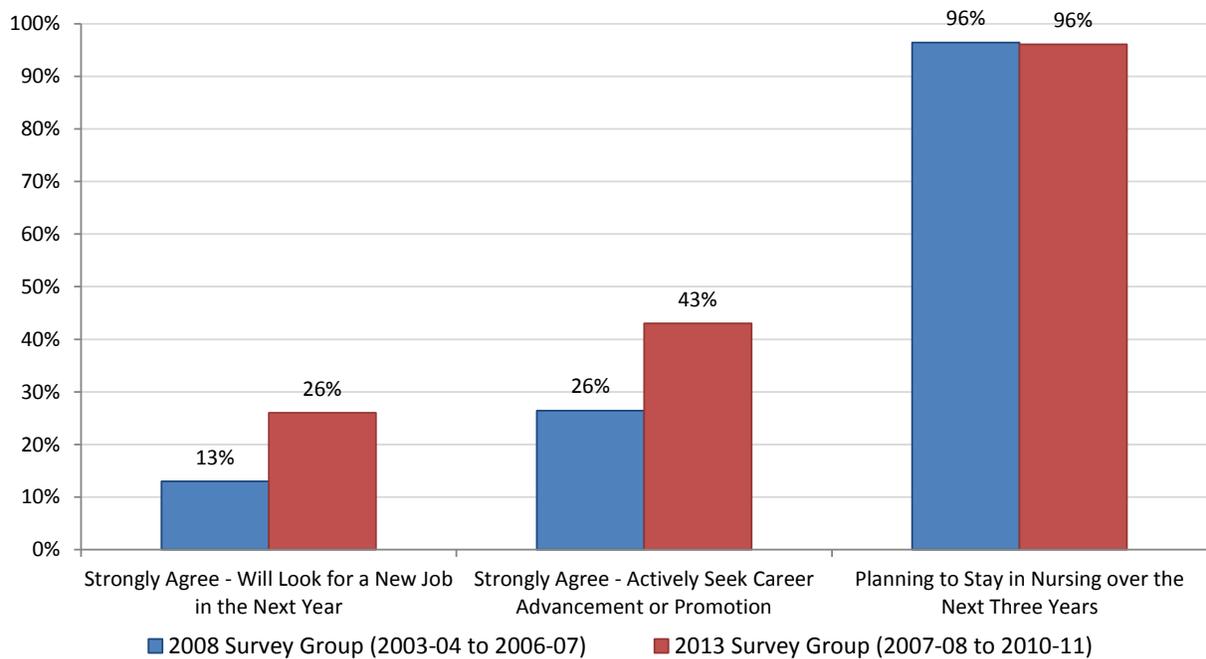
We formed comparison groups of four-year periods from the two graduate surveys encompassing academic years 2003-04 to 2006-07 from the 2008 survey and academic years 2007-08 to 2010-11 from the 2013 survey. Based upon the dates that the surveys were administered, these groups allow for a direct comparison of CUNY nurse graduates between 18 and 54 months after their graduation. Thus we can see some of the emerging trends that are impacting the professional trajectory of our graduates. More recent ADN graduates are less likely to be employed in hospitals, less likely to be employed full-time and less likely to be eligible for employer sponsored medical insurance (Fig.7). They are also more likely to be looking for a new job, and more likely to seek out opportunities for career advancement. Yet despite some dissatisfaction with their current employment status, recent CUNY nurse graduates are as resolute as their predecessors in their commitment to stay in their chosen profession (Fig.8). A review of the NYS employment data confirms the same trends that were noted in the nurse graduate survey data. The targeted cohort of graduates in the 2008 survey was more likely to be employed in hospitals than the cohort from the 2013 survey. On the other hand, the 2013 cohort was more likely to be employed in ambulatory settings, especially in home care, and in nursing homes (Table 1).

Figure 7. Comparison of CUNY Nursing Survey Respondents from 2008 and 2013 Surveys, ADN Graduates 18-54 Months after Graduation, Currently Employed as an RN at Time of Survey



Source: 2008 Survey of CUNY Nursing Graduates (Years 1998-2006) and 2013 Survey of CUNY Nursing Graduates (Years 2008-2011)

Figure 8. Comparison of CUNY Nursing Survey Respondents from 2008 and 2013 Surveys, ADN Graduates 18-54 Months after Graduation, Currently Employed as an RN at Time of Survey



Source: 2008 Survey of CUNY Nursing Graduates (Years 1998-2006) and 2013 Survey of CUNY Nursing Graduates (Years 2008-2011)

Table 1. Industry Classification of New York State Employer in Fourth Quarter 2008 and 2012, CUNY ADN Graduates 18-54 Months after Graduation

<i>Industry</i>	<i>2003-04 to 2006-07 Graduates, in Q4 2008 (N = 2009)</i>	<i>2007-08 to 2010-11 Graduates, in Q4 2012 (N = 2390)</i>
Hospitals	74%	52%
General Medical and Surgical Hospitals	52%	37%
NYC Health and Hospitals Corporation	21%	13%
Specialty Hospitals	1%	1%
Other	0.2%	0.3%
Ambulatory Health Care Services	7%	17%
Home Health Care Services	4%	10%
Offices of Physicians	2%	3%
Outpatient Care Centers	1%	3%
Other	0.1%	1%
Nursing and Residential Care Facilities	7%	11%
Nursing Care Facilities	6%	9%
Disability, Mental Health, and Substance Abuse Facilities	1%	1%
Other	0.2%	0.3%
Social Assistance	1%	2%
Services for the Elderly and Persons with Disabilities	1%	2%
Other	0.2%	0.7%
State and Local Government	5%	5%
NY State	3%	2%
New York City (Including CUNY CC/DOE)	2%	3%
Administrative and Support Services	4%	6%
Temporary and Professional Employment Services	3%	5%
Other	0.1%	0.3%
All Other Non-Healthcare/Social Assistance Industries	2%	7%

Source: NYS UI Wage Database

* - NYS UI Wage Database contains data only for workers employed in New York State and excludes federal employees and the self-employed

Surging RN-BSN Programs

The tight job market and the preference for baccalaureate prepared nurse graduates are contributing to an increase in enrollment in CUNY's RN to BSN programs as well as a decrease in enrollment in our ADN programs. The decrease in ADN enrollment is to be expected in an environment in which job placement of recent graduates has been problematic. The RN to BSN surge is being driven by both an increase in enrollments among the most recent ADN graduates as well among currently employed RNs who are being encouraged or required to return to school to upgrade their credentials. In recent years the number of RN to BSN graduates has increased 74% from 296 in 2009-10 to 516 in 2012-13.

Graduates are enrolling in RN to BSN programs either immediately or within a few years of graduation. According to CUNY's 2013 survey, 60% of recent ADN graduates, whether they are working in their first job as an RN or not, were already enrolled in an RN to BSN program (either at CUNY or elsewhere); another 23% of graduates planned to enroll within a year.

CUNY's first priority is for our own ADN graduates to enroll in an RN to BSN program. This will enhance their career prospects and is consistent with IOM recommendations. Several CUNY schools have collaborated to create dual ADN/BSN programs in which students are enrolled in both an associate and baccalaureate program at the same time. For example over 100 nursing students are participating in the Queensborough Community College (QCC)-Hunter College dual degree and upon completion of their degree at QCC will seamlessly transition to Hunter.

CUNY's new online RN to BSN completion program offered through its School of Professional Studies (SPS) will provide another new option. In our recent survey, the most common reason cited by ADN graduates who enrolled in a non-CUNY RN to BSN completion program was that "CUNY did not offer an online program." The new SPS program corrects this situation.

In the 2013 survey conducted by HANYS and GNYHA the vast majority of hospital respondents indicated that they encouraged their nurses to further their education by providing tuition reimbursement, flexible scheduling and on-site RN-to-BSN programs; one-quarter required that

newly hired ADNs earn a BSN within a certain number of years. The survey also showed that 34% of responding downstate hospitals had either achieved “Magnet” status or were actively pursuing it. The drive for Magnet Recognition from the **American Nurses Credentialing Center** places a greater emphasis on the education level of their nurses. As of June 2013 organizations that apply for this status must have an action plan that demonstrates evidence of progress toward 80% of their nurses having a BSN or higher by 2020.

Surging MSN Programs

In recent years the increase in graduations from RN to BSN programs has coincided with an increase of 143% in graduates of our MSN programs, from 93 in 2009-10 to 226 in 2012-13. Enrollment data indicate that these trends will continue. In our 2013 survey, 40% of RN-BS graduates from 2007-08 through 2011-12 had already earned a MSN or were currently enrolled in an MSN program. Bringing more nurses into graduate programs is urgent given the shortage of primary care physicians and the call for advanced practice nurses to deliver high quality, cost-effective care in a health system undergoing reform. Nurse Practitioners (NPs) in particular are playing a larger role in meeting the demand for primary care providers. To further increase capacity in this area, two CUNY schools-Hunter and the College of Staten Island- have received approval from the New York State Education Department to offer the Doctorate in Nursing Practice (DNP).

Conclusion

The role of nurses is evolving as the health care delivery system is transformed. For example, health care reform provides payment incentives for models such as **Accountable Care Organizations** and **Health Homes** that attempt to improve the quality of services while containing costs. The “care team” has become the basic workforce unit associated with these innovations. The multidisciplinary team usually consists of a primary care provider (often an NP), a care manager (often an RN), and a combination of assistive health personnel such as care

navigators, medical assistants and/or community health workers¹². It is likely that health care reform will stimulate a greater demand for nurses who are trained at the BSN, MSN and DNP levels to take on leadership responsibilities in areas such as care coordination, chronic disease management and patient education in a widening variety of settings, especially in the community.

The dynamic CUNY consortium of nursing programs responded to the severe nursing shortage of the past decade by dramatically increasing the number of new RN graduates. In the last few years CUNY has facilitated the academic progression of RNs through to its BSN level and MSN level degree programs. The CUNY consortium of nursing programs will continue to evolve over the next decade to prepare a more highly educated RN workforce to play more prominent roles in all aspects of health care reform.

¹² For additional information, see our January 2013 report entitled “New York City Emerging Healthcare Workforce: Health Homes Case Study Project” found at:
<http://www.cuny.edu/about/administration/offices/hhs/HealthHomeFinalReport.1.30.13.pdf>