Trends in New York Registered Nurse Graduations, 1996-2008

CHWS

Center for Health Workforce Studies

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New York Registered Nursing Graduations, 1996 – 2008

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PREFACE

This report summarizes the results of the 2006 survey of New York registered nursing education programs, which was conducted by the New York Center for Health Workforce Studies (the Center). The nursing education program fax-back survey, administered annually, asks questions about applications, acceptances, registered nurse (RN) graduations, barriers to expanding student capacity, and the local job market for newly trained RNs. The primary goal of the survey is to document trends in nursing graduations statewide and regionally in New York and understand how these trends affect the supply of RNs. The 2006 survey was the seventh consecutive year that the Center studied nursing education programs in New York.

This report was prepared at the New York Center for Health Workforce Studies by Robert Martiniano and Jean Moore. The Center is not-for-profit research center operating under the auspices of the School of Public Health at the University at Albany, State University of New York, and Health Research, Incorporated (HRI). The ideas expressed in this report are those of the Center for Health Workforce Studies and do not necessarily represent views or positions of the School of Public Health, the University at Albany, State University of New York, or HRI.

BACKGROUND

The Center for Health Workforce Studies (the Center) surveys registered nursing education programs in New York annually to better understand trends affecting the supply of registered nurses (RNs) in the state. The most recent survey was conducted in the fall of 2006 through the spring of 2007. The brief survey included questions on applications, acceptances, and graduations for 2006 as well as projected graduations through 2008. The survey also asked about barriers to admitting more students and perceptions about the local job market for new RNs. This report summarizes the responses to the 2006 survey.

Of the 108 nursing programs in New York, 99 responded to the survey for a 92% response rate. Data for the 9 nonrespondents were imputed from responses to previous surveys; consequently, the following data reflect enrollments and graduations for all registered nursing programs in the state. It is important to note that *not all RN graduations represent new RNs* as many RNs who have completed an associate degree (ADN) or diploma program return to school to obtain a bachelor's degree in nursing (BSN). Based on survey responses, the Center estimates that approximately 30% of 2006 bachelor's degree graduates already were licensed as RNs, which means that approximately 12% of all RN program graduates in the state were previously licensed RNs.

While not every RN educated in New York will become licensed and practice in the state, and some RNs practicing in New York were educated outside of the state, RNs educated in New York were by far the single largest source of RNs practicing in the state. Data from the 2004 National Sample Survey of Registered Nurses indicated that more than 82% of RNs actively practicing in New York received their initial nursing degree in New York[1].

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[1] 2004 National Sample Survey of Registered Nurses.

SUMMARY OF FINDINGS

RN graduations in New York increased in 2006, rising by more than 800 or 12% over 2005 graduations, the fourth consecutive annual increase. Additionally, RN graduations are expected to continue to rise in 2007 and 2008, with 2008 total graduations 13% higher than graduations in 1996, the previous high point for RN graduations in New York.

While RN graduations are projected to rise in the near term, the number may level off in the future. Nearly 80% of BSN programs reported increases in the number of student acceptances, compared to only 25% of ADN programs. Since ADN programs in the state produce approximately 66% of new RNs, their inability to expand program capacity could substantially impact future RN graduations.

KEY FINDINGS

1.　**For the fourth consecutive year, the number of RN graduates in New York in 2006 increased over the number of RN graduations in the previous year.**

It is estimated that nearly 7,800 individuals graduated from RN education programs in New York in 2006. This was the fourth successive year that RN graduations have increased, following six consecutive years of declines. This represents an increase in RN graduations of more than 51% since 2002 (Figure 1 and Table 1).

2.　**RN graduations in New York are projected to continue to rise in 2007 and 2008.**

The number of RN graduations in New York in 2007 is expected to be nearly 62% higher than the number of RN graduations in 2002, and the number of RN graduations in 2008 is projected to be 70% higher than in 2002. The actual number of RN graduations in 2006 and the estimated number of graduations in 2007 and in 2008 will exceed the number of RN graduations in 1996, the previous high point in RN graduations for New York (Figure 1 and Table 1).

3.   The number of graduations from both ADN and BSN programs in New York rose in 2006 and is projected to continue to rise through 2008.

In 2006, ADN and BSN graduations increased by 11% and 14%, respectively, over 2005 graduations. Graduations from both ADN and BSN programs are expected to continue to rise in 2007 and 2008 and are projected to exceed 1996 ADN and BSN graduation levels (Figure 1 and Table 1).

Figure 1
New York RN Graduations by Degree Type, 1996 to 2008
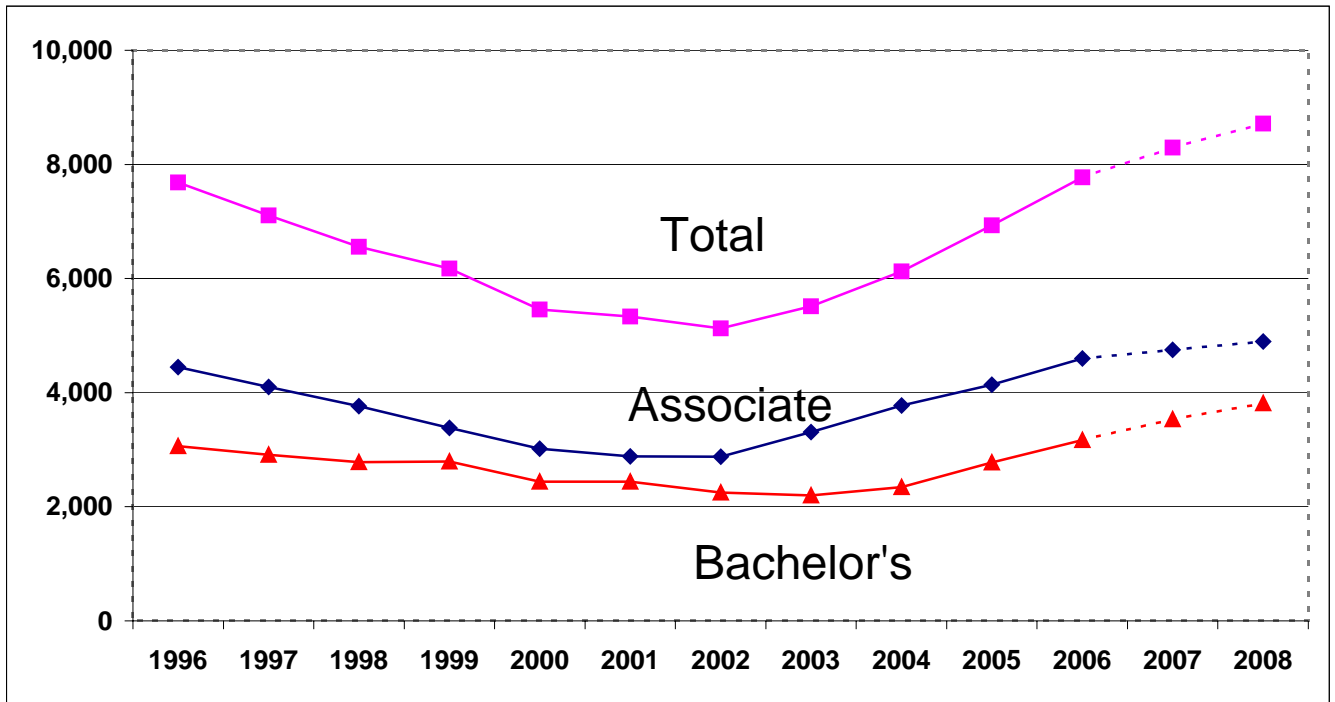
Table 1
New York RN Graduations by Degree Type, 1996 to 2008

| School Year		Degree Type			
		Associate	Bachelor's	Diplomas	Totals
Actual Graduations	1996	4,447	3,062	176	7,685
	1997	4,102	2,911	94	7,107
	1998	3,763	2,780	13	6,556
	1999	3,381	2,792	4	6,177
	2000	3,015	2,437	4	5,456
	2001	2,885	2,437	12	5,334
	2002	2,877	2,248	3	5,128
	2003	3,311	2,199	3	5,513
	2004	3,772	2,344	11	6,127
	2005	4,139	2,779	14	6,932
	2006	4,597	3,167	8	7,772
Projected Graduations	2007	4,750	3,536	10	8,296
	2008	4,894	3,811	12	8,717

4. **Between 2002 and 2008, RN graduations are projected to increase in regions of New York.**

All regions[2] in New York are projected to experience significant increases in RN graduations between 2002 and 2008, ranging from 21% in the North Country to 113% in the Finger Lake region and 118% in the Long Island region. RN graduations in 2008 are projected to surpass 1996 RN graduations in six of the eight regions of the state (Figure 2 and Table 2).

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[2] New York State Department of Labor regions were used in this report.

Figure 2
Projected Percentage Increase in RN Graduations, 2002 – 2008,
**by Region**
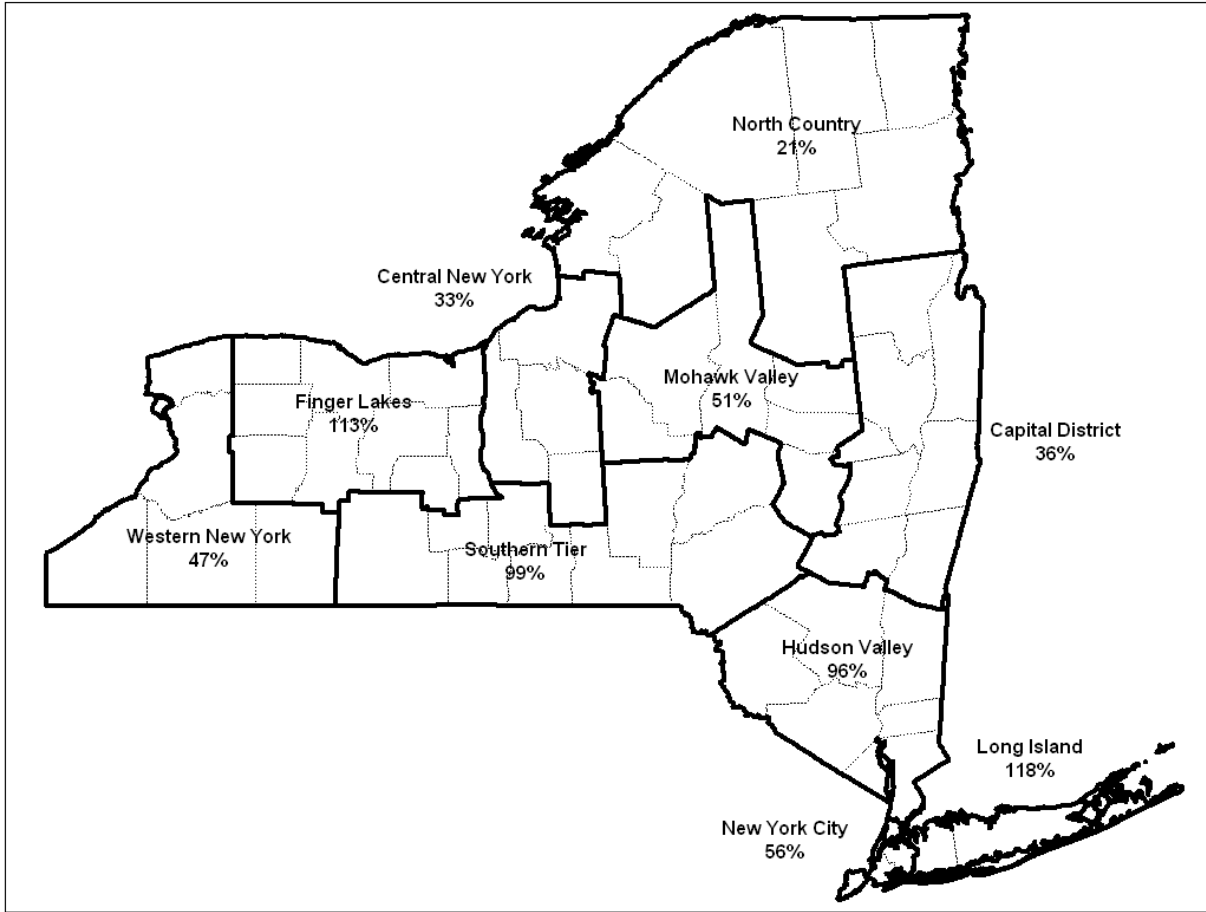
Table 2
Percent Change in the Number of RN Graduations
by Region

	Graduations								% Change		
							Projected		96	02	96
Region	1996	2002	2003	2004	2005	2006	2007	2008	to 02	to 08	to 08
Capital District	343	300	330	365	327	377	373	408	-12.5%	36.0%	19.0%
Central New York	476	289	303	365	385	387	395	385	-39.3%	33.2%	-19.1%
Finger Lakes	518	385	431	451	575	656	761	819	-25.7%	112.7%	58.1%
Hudson Valley	1,058	616	689	836	928	1,046	1,062	1,208	-41.8%	96.1%	14.2%
Long Island	937	677	795	837	1,074	1,188	1,433	1,474	-27.7%	117.7%	57.3%
Mohawk Valley	259	198	203	243	246	281	261	299	-23.6%	51.0%	15.4%
New York City	2,258	1,544	1,605	1,747	1,965	2,238	2,391	2,410	-31.6%	56.1%	6.7%
North Country	274	206	194	214	198	259	247	250	-24.8%	21.4%	-8.8%
Southern Tier	478	306	423	410	514	577	599	610	-36.0%	99.3%	27.6%
Western New York	890	535	473	605	646	702	707	787	-39.9%	47.1%	-11.6%

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5.   The number of upper division[3] BSN graduations is projected to remain constant through 2008.

While the number of BSN graduations in New York is projected to increase by nearly 63% between 2004 and 2008, the number of upper division BSN graduations is expected to remain relatively stable during the same period, increasing by only 9% between 2004 and 2008. As a proportion of total BSN graduations, upper division BSN graduations are projected to be one-fourth of total BSN graduations in 2008 compared to nearly 40% of total BSN graduations in 2004 (Figure 3).

Figure 3
**New York BSN and BSN Graduations, 2004 – 2008**

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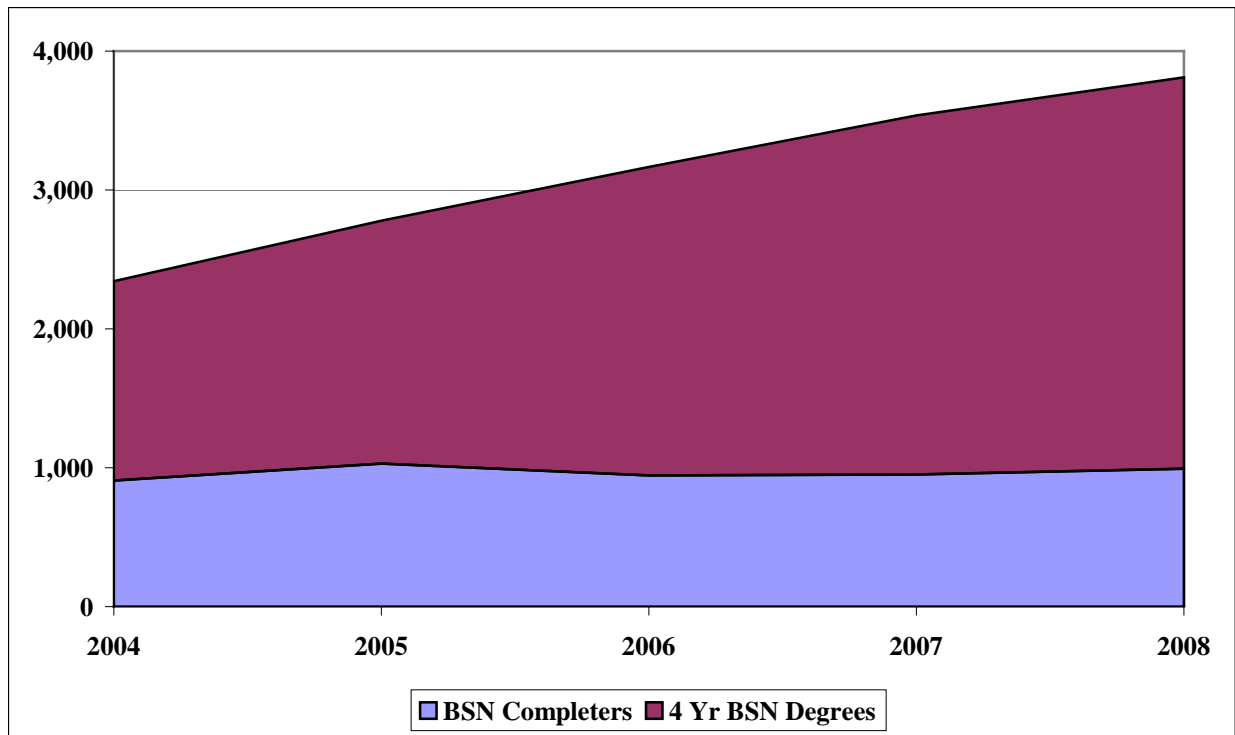
[3] Upper division BSNs are awarded to RNs who already hold a RN diploma or ADN and complete their Bachelor's of Nursing degree at an accredited four-year nursing program.

6.   RN graduations from privately sponsored nursing education programs are increasing faster than RN graduations from publicly sponsored programs.

Between 2002 and 2008, RN graduations from publicly sponsored programs (State University of New York and City University of New York schools) are projected to increase 56%, while RN graduations from privately sponsored programs (including hospital based programs) are expected to rise 89% (Figure 4).

Figure 4
Change in RN Graduations in Public and Private Nursing Programs, 1996 to 2008
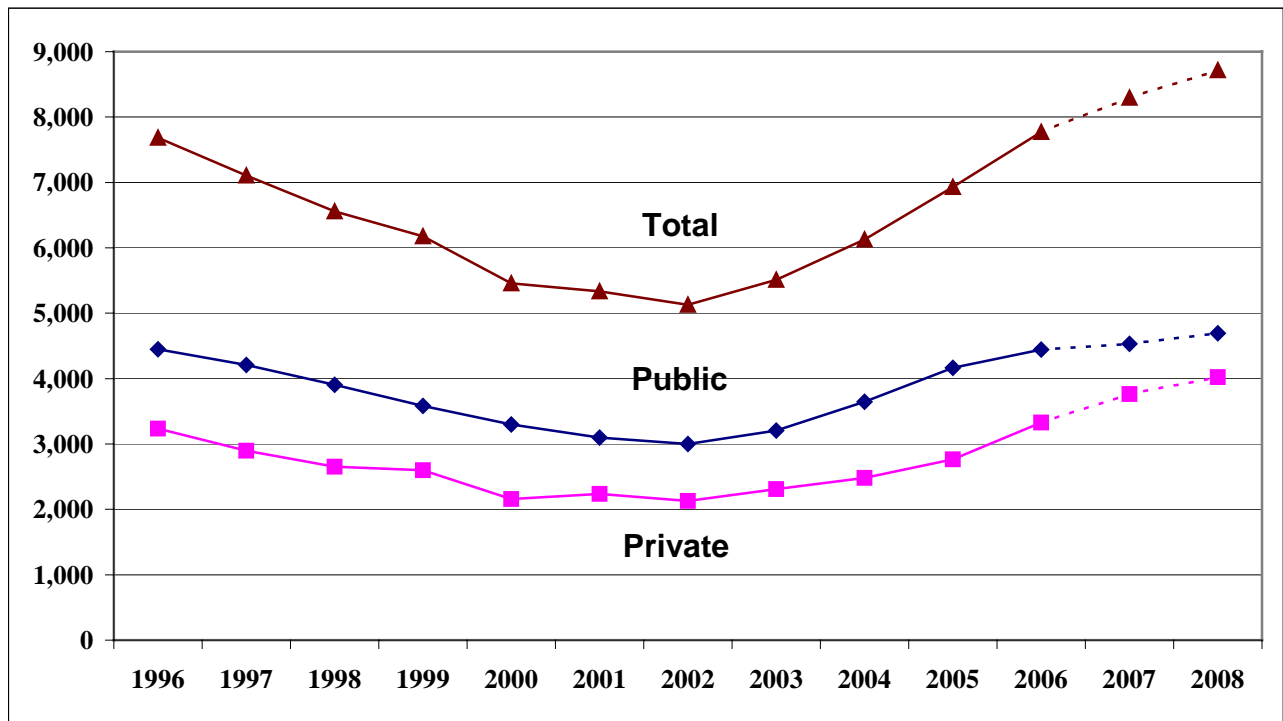
7.   Graduations from privately sponsored ADN programs are projected to nearly double between 2002 and 2008.

Privately sponsored ADN program graduations are expected to increase by 95% between 2002 and 2008 and privately sponsored BSN program graduations are projected to increase by 86% during the same period (Figure 5).

Figure 5
**Change in Private Nursing School RN Graduations by Degree Type, 1996 to 2008**
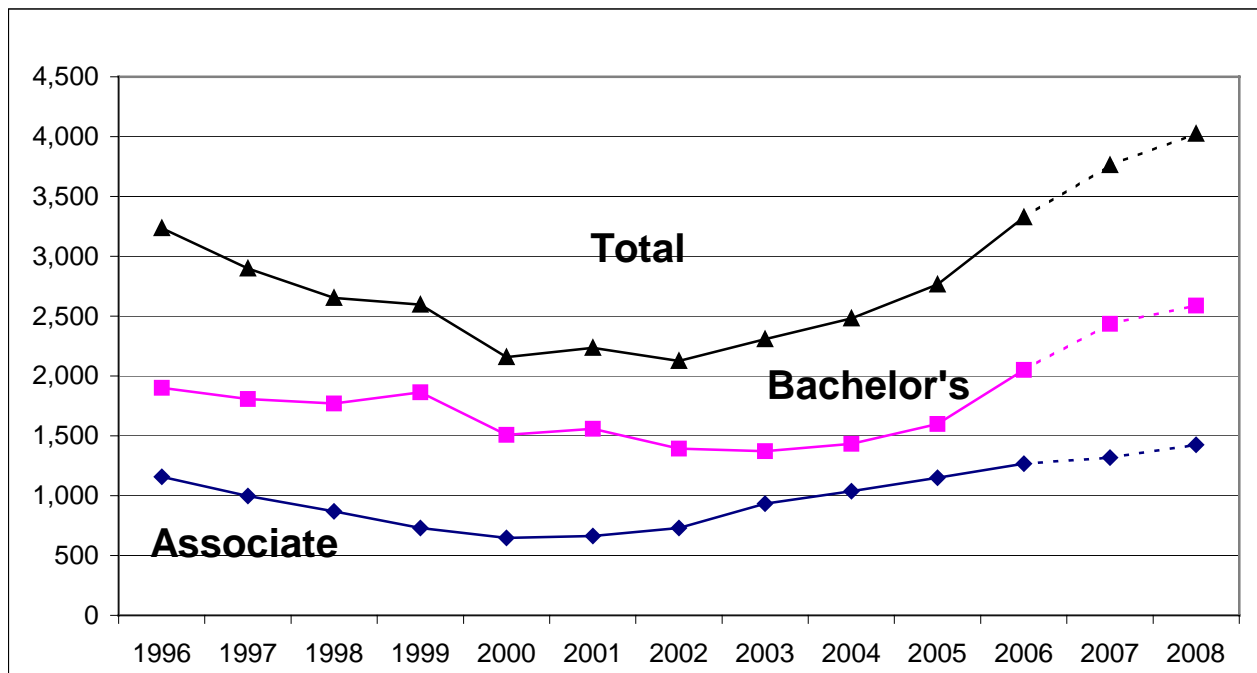
8.   BSN programs continued to report growth in the number of applications in 2006, compared to 2005 or 2004. Fewer ADN programs, however, reported an increase in the number of applications in 2006 compared to 2005 or 2004.

The percent of nursing education programs that reported an increase in applications declined slightly between 2005 and 2006. While the percent of BSN programs that reported an increase in applications increased slightly, the percent of ADN programs that reported an increase in applications declined by 12% (Figure 6). This comparison, however, must be understood in a

larger context. Fifty-six percent of nursing education programs in New York confer associate degrees. However, ADN programs account for nearly two-thirds of new RN graduations in the state. Any changes in ADN enrollments or graduations, consequently, will have a more substantial impact than changes in BSN enrollments or graduations.

Figure 6
Percent Change in Number of Applications by Program Type, 2004 - 2006
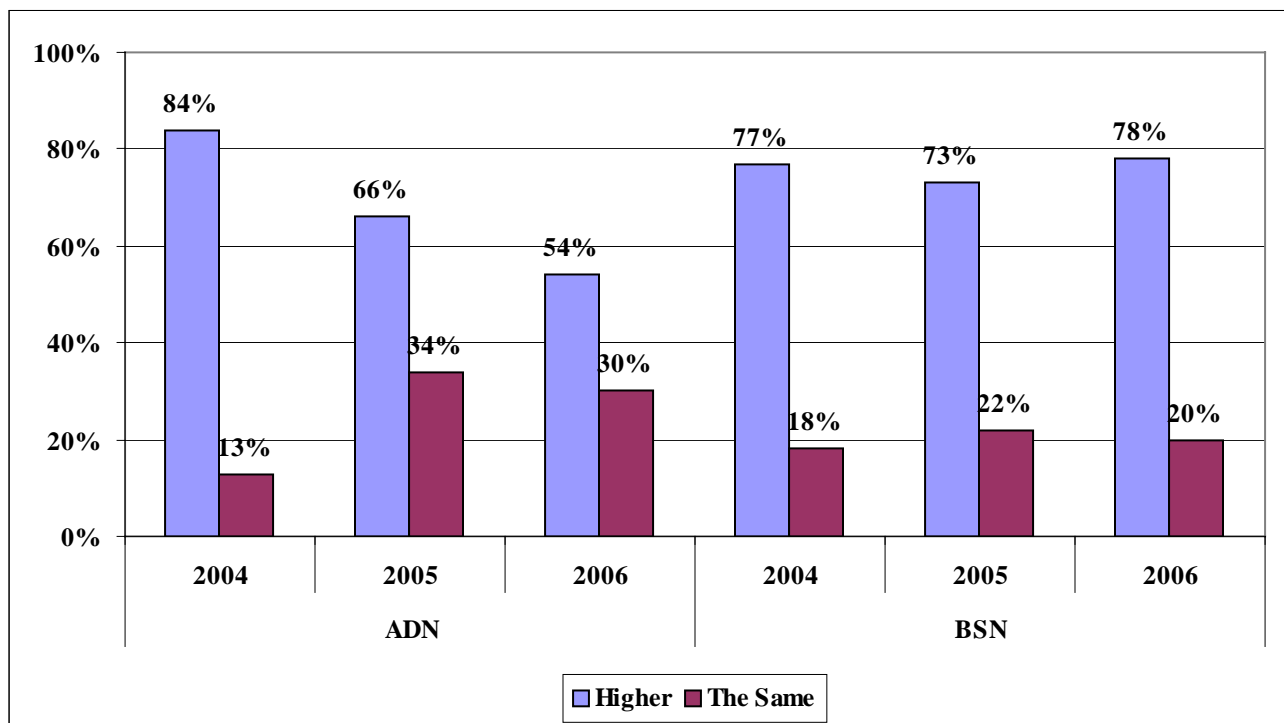
9. **BSN programs reported growth in the number of acceptances in 2006, compared to 2005. More ADN programs in 2006 reported no growth in acceptances than in 2005.**

The number of nursing education programs that reported an increase in acceptances between 2005 and 2006 rose slightly, fueled by a 53% increase in BSN programs reporting a higher number of acceptances in 2006 over 2005. An increasing number of ADN programs, however, reported no growth in the number of acceptances in 2005 and 2006 (Figure 7).

Figure 7
Percent Change in Number of Acceptances by Program Type, 2004 - 2006
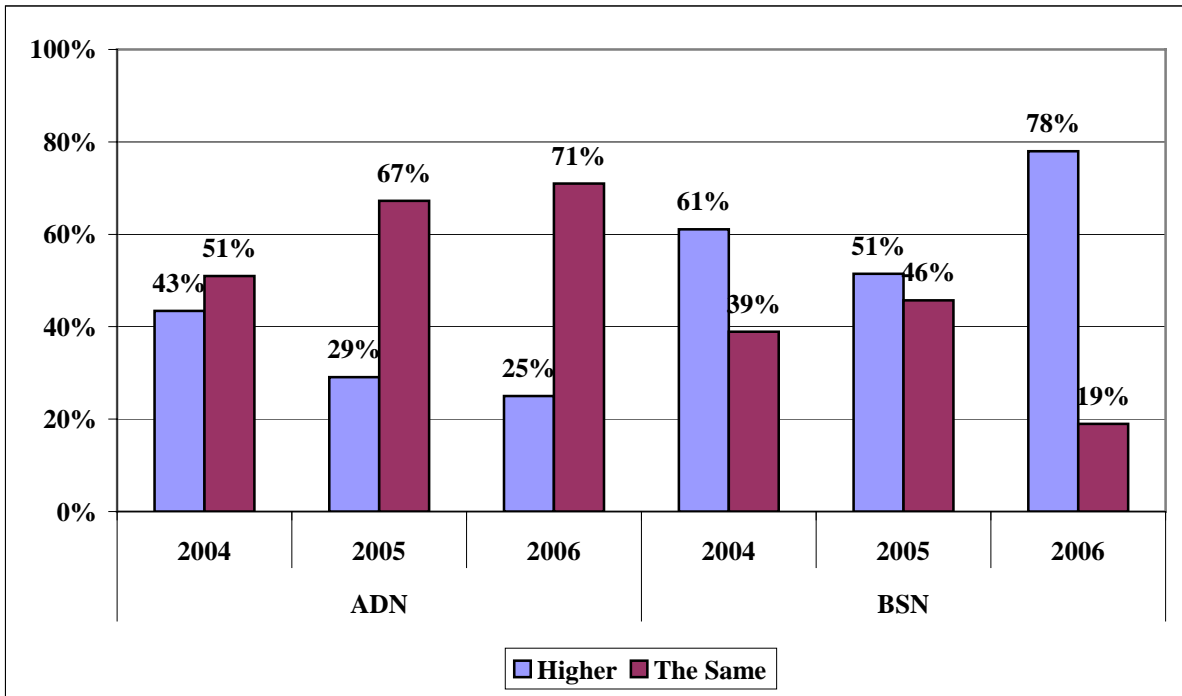
10.   **Compared to 2005, fewer nursing education programs reported turning away qualified applicants in 2006.**

Fifty-nine percent of nursing education programs reported turning away qualified applicants in 2006, compared to 67% in 2005 and 57% in 2004. ADN programs were more likely to turn away qualified applicants than BSN programs. Nearly three-fourths of ADN programs and more than 40% of BSN programs reported turning away qualified applicants in 2006 (Table 3).

Table 3
Percent of Respondents Reporting
Turning Away Qualified Applicants by Program Type

	2004	2005	2006
All Programs	57%	67%	59%
ADN	73%	80%	72%
BSN	39%	50%	43%

11.   Fewer qualified applications were turned away in 2006.

Both ADN and BSN programs reported turning away fewer qualified applicants in 2006 than in 2005. The percent of ADN and BSN programs that reported turning away 81 or more qualified applicants declined between 2005 and 2006, while the percent of ADN and BSN programs that reported turning away between 61 and 80 qualified candidates remained the same (Table 4). Based on survey responses, it was estimated that nearly 2,200 qualified applicants were turned away from New York's nursing education programs in 2006, down from nearly 3,000 in 2005. Since applicants may apply to more than one nursing education program, these numbers do not represent an unduplicated count of qualified applicants denied admission to nursing education programs in the state.

Table 4
Number of Qualified Applicants Turned Away
**by Program Type**

Number of Qualified Applicants Turned Away	Type of Program								
	All Nursing Programs			Associate Degree			Bachelor's Degree		
	2004	2005	2006	2004	2005	2006	2004	2005	2006
1 – 20	26%	29%	21%	32%	34 %	35%	18%	23%	9%
21 – 40	10%	6%	11%	16%	7%	17%	0%	5%	7%
41 – 60	5%	8%	8%	4%	7%	6%	8%	3%	14%
61 – 80	5%	4%	4%	5%	4%	4%	5%	5%	5%
81 or More	13%	16%	9%	16%	20%	11%	8%	10%	9%

12.   The primary reason nursing education programs reported turning away qualified applicants was a limit on program admissions.

The majority of ADN and BSN programs that turned away qualified applicants cited limits on program admissions as the primary reason for doing so. A higher percent of ADN programs reported lack of clinical training sites and difficulty recruiting qualified faculty as additional reasons for turning away qualified applicants compared to BSN programs. A higher percent of BSN programs reported lack of classroom space and lack of funding for faculty as additional reasons for turning away qualified applicants than ADN programs (Figure 8).

Figure 8
Reasons for Turning Away Qualified Applicants by Sponsorship and by Degree Type
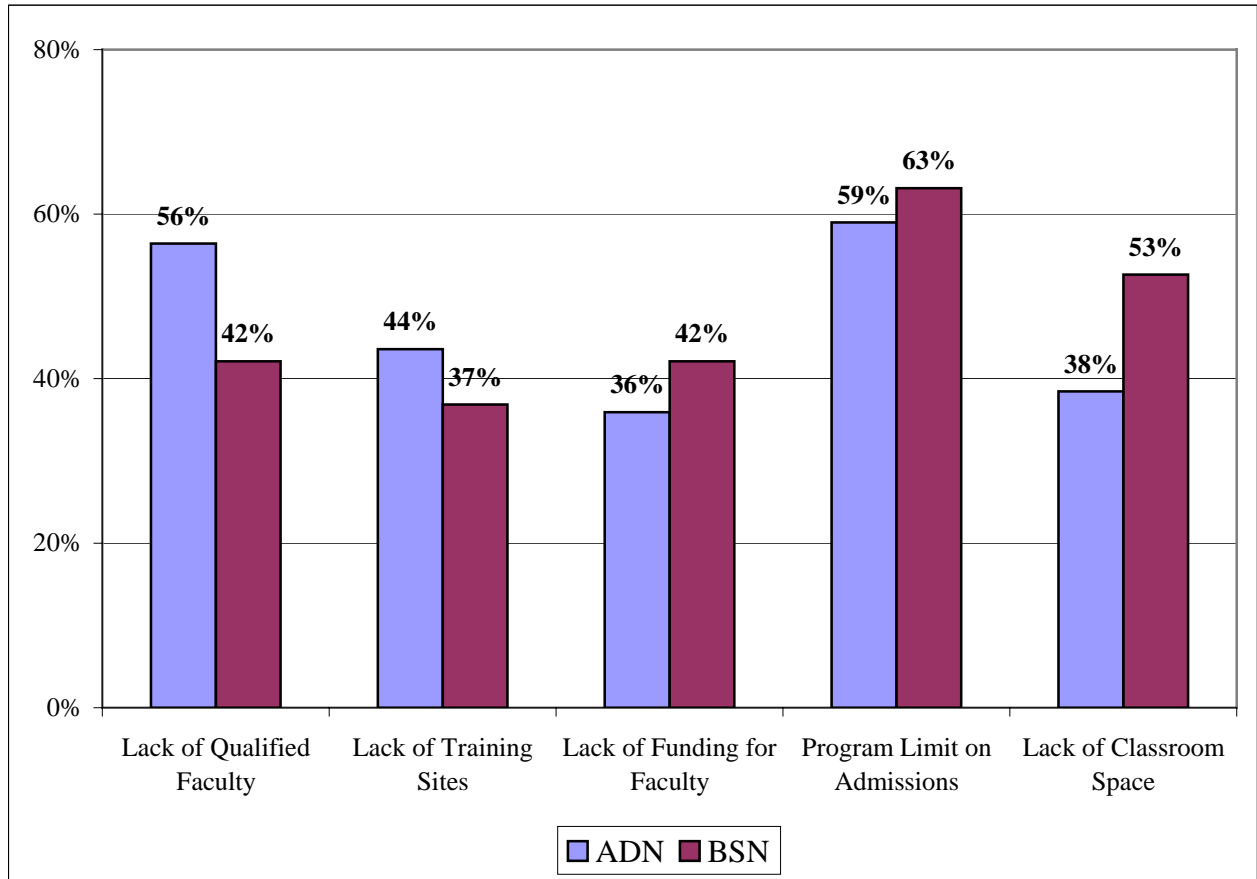
13.   The demand for newly trained RNs remains strong.

The vast majority of New York's nursing programs reported continued high demand for newly trained RNs in 2006. More than 90% of the respondents indicated that, overall, many jobs were available for newly trained RNs. From 2004 to 2006, demand for newly trained RNs remained relatively constant in the hospital sector but declined in the nursing home and home health sectors (Figure 9).

Figure 9
Demand for Newly Trained RNs between 2004 and 2006
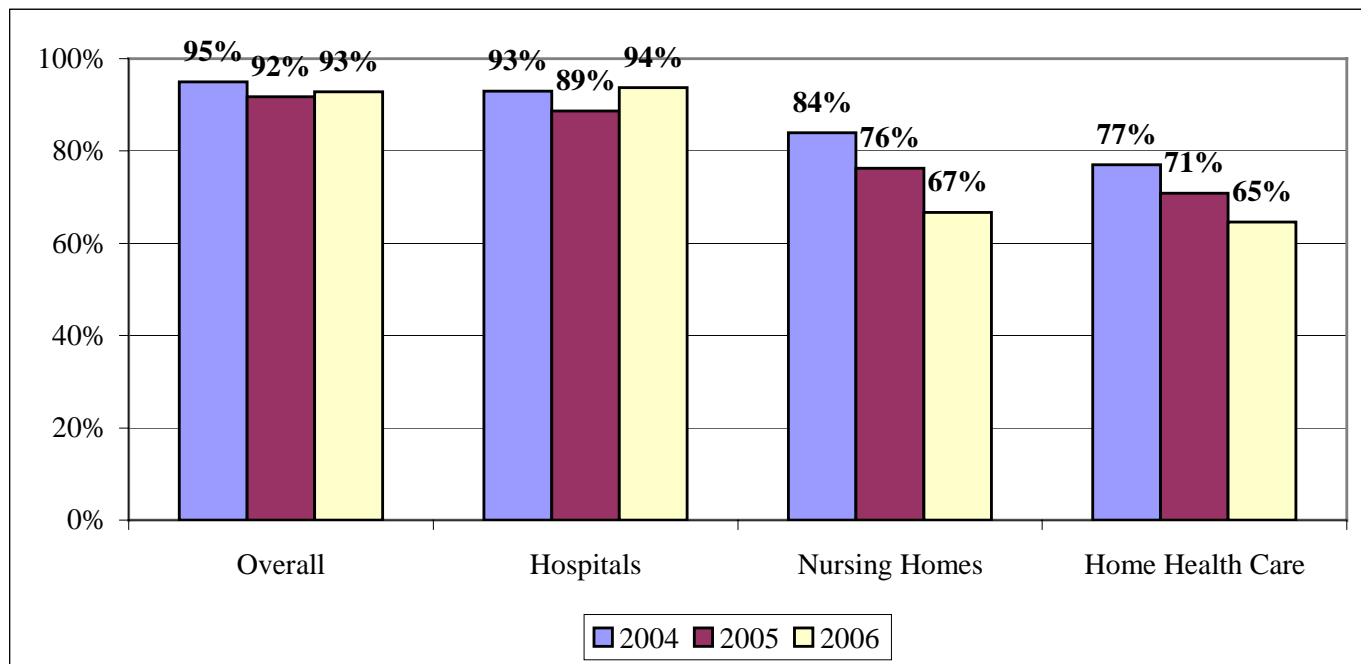
DISCUSSION

RN graduations have steadily increased since 2002, but it is unclear whether this trend will continue or whether this increase in RN graduations will eliminate the current and projected shortage of RNs. While RN graduations are projected to increase through 2008, a higher percent of ADN programs, which account for nearly two-thirds of new RN graduations in New York, reported the same level of acceptances to their programs in both 2005 and 2006. Additionally, 63% of ADN programs reported limits on the number of admissions to their programs. These two trends could result in a leveling off on RN graduations in the future.

The demand for RNs, and consequently the shortage of RNs, persists. A federal Bureau of Health Professions report indicated that New York had a shortage of nearly 13,000 RNs in 2005 and would face a projected shortage of nearly 37,000 RNs by 2015[4]. The state would need to produce

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[4] Biviano, et al., *What is Behind HRSA's Projected Supply, Demand, and Shortage of Registered Nurses?* Department of Health and Human Services, Bureau of Health Professions, September 2004.

an additional 4,200 more RN graduates annually over the 2005 level (6,900), or over 11,000 RNs each year, to eliminate the projected shortfall of RNs by 2015.

The RN workforce in New York faces many challenges, including limited growth in the educational pipeline producing new RNs, high levels of turnover and attrition, many projected retirements of aging RNs and nursing faculty, and increased demand for nursing services from an aging population. These issues suggest a need for multifaceted strategies to address current and future nursing supply and demand imbalances, such as:

- Marketing RN careers to an expanded pool of potential workers;
- Increasing the capacity of the educational pipeline;
- Improving the retention of RNs through better training and improved working conditions;
- Reducing the demand for RNs through improved efficiency; and
- Regular data collection to monitor the supply, demand, and use of RNs.