



Trends in New York Nursing Education, 1991-2002



School of Public Health
University at Albany, State University of New York

**TRENDS IN NURSING EDUCATION
IN NEW YORK STATE,
1991 to 2002**

**The Center for Health Workforce Studies
School of Public Health
University at Albany, SUNY
<http://chws.albany.edu>**

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Preface

To help understand trends in the supply of registered nurses (RNs) in New York, the Center for Health Workforce Studies at the School of Public Health, University at Albany, has surveyed the registered nursing programs in the state in each of the past two years. The survey goes to nursing deans and directors who are asked to provide information on recent graduates, applications and admissions, as well as their perceptions of the job market for newly graduated RNs. This study would not be possible without the assistance of the deans and directors of the nursing programs in New York State.

By providing timely data on health workforce trends, the Center hopes to inform educators, the public and policy makers. Funding for the data analysis portion of this study was provided by the federal Bureau of Health Professions in the Health Resources and Services Administration (HRSA).

The Center for Health Workforce Studies is located at the School of Public Health, University at Albany, State University of New York. The Center is a not-for-profit research organization, dedicated to health workforce data collection and analysis. Several staff from the Center for Health Workforce Studies contributed to this study, including Jean Moore, Mark Beaulieu, Robert Martiniano, Emily Slocum, and Edward Salsberg.

The views expressed in this report are those of the Center and do not necessarily represent the views of the School of Public Health, the University at Albany or HRSA.

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Executive Summary

Background

There are more registered nurses (RNs) in New York State and the nation than in any other health occupation. Nurses are critical to the delivery of effective health services, providing care in hospitals, nursing homes and other settings. An increased demand for RNs coupled with a decline in the supply is contributing to a growing shortage of RNs. This report examines the educational pipeline, providing data on graduates of different types of RN education programs in the state, evaluates trends in the number of new RNs being educated in New York and examines the demand for RNs in the health care job market.

Registered nursing education in New York is diverse, including three different degrees offered by several different types of institutions. There were 104 nursing education programs in New York State in 2000, 44 offered bachelor degrees, 59 offered associate degrees, and one offered nursing diplomas. Forty-three programs were sponsored by independent colleges; 43 were offered by the State University of New York (SUNY); the City University of New York (CUNY) sponsored 15 programs; two programs were sponsored by the Regents College¹; and one program was offered by a hospital.

The Center for Health Workforce Studies conducted its second annual survey of registered nursing education programs in New York State in the fall of 2000 to obtain data on nursing graduates for 1999 and 2000 and current enrollment. The survey asked about trends in the numbers of 2001 applicants and acceptances into nursing programs. The programs were asked to assess regional job opportunities for RNs and to compare the current job market for new RNs to the job market last year. (See Appendix 1 for a copy of the 2000 survey.) The response rates to both annual surveys were over 90%. This report presents the results of these surveys as well as data on nursing graduations from the Integrated Postsecondary Education Data System (IPEDS)². It is designed to help nursing programs, policy makers and the public better understand trends in the production of RNs in New York State and its implications for the RN shortages being experienced by health care providers statewide.

Key Findings

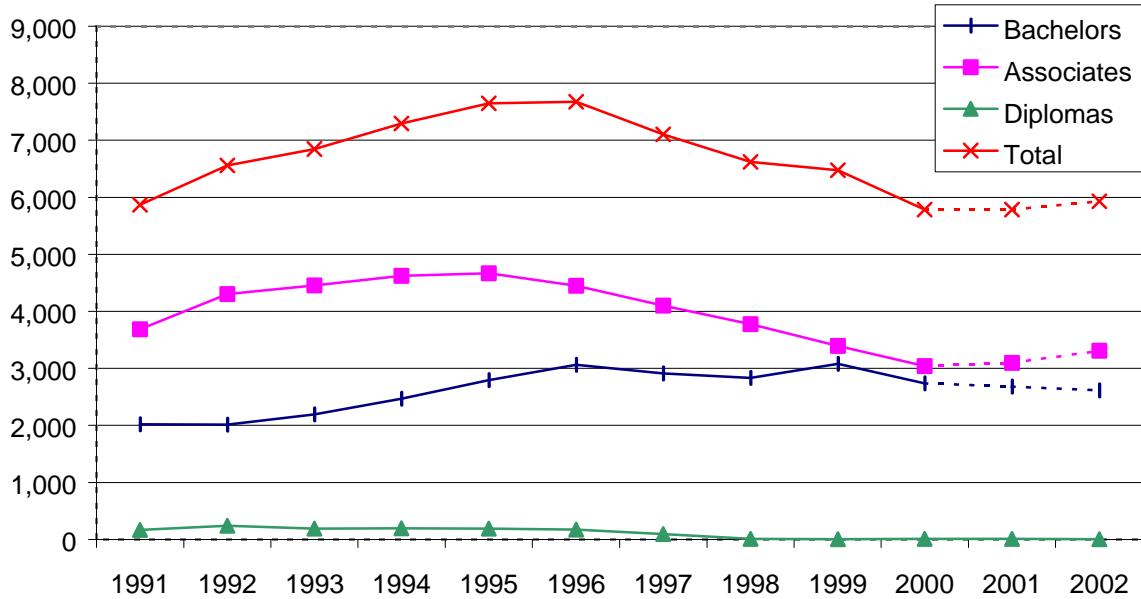
- 1. Total RN production in New York State declined steadily from 1996 to 2000, with a net decrease of 1,900 RNs (25%).**

¹ The Regents College nursing education program is a national program whose administrative offices are located in New York. Approximately 90% of their nursing degrees were awarded to people from states other than New York. For the purpose of this study, the number of Regents College program graduates has been adjusted to include only the estimated number of graduates residing in New York State.

² U.S. Department of Education, National Center for Education Statistics; "Integrated Postsecondary Education Data System - Completions 1991-97"; <<http://nces.ed.gov/Iped/c9697/>>; (Final release: 23 November 1999).

In 2000, there were 5,789 graduates of registered nursing programs in New York State. This was a decrease of 697 (10.6%) from 1999. It was the fourth consecutive year of decline. Between 1996 and 2000, there was a net decrease of nearly 1,900 (25%) RN graduates. This represents a significant loss of nursing supply and is contributing to shortages in the health industry.

Figure 1
Trends in Nursing Degrees Awarded in New York State



2. **Based on current enrollment, the number of graduates in 2001 is expected to be essentially the same as 2000 and rise slightly in 2002 (about 140 graduates or 2.4%).**

In 2000, nursing programs reported some modest increases in applications and enrollments that will lead to limited increases in the number of future graduates. However, while the end of the decline in the number of graduates is welcome, the small increase expected in 2002 indicates that the health care industry cannot expect immediate relief from shortages. Even with the modest increase in 2002, there will still be 1,750 fewer RN graduates than in 1996.

3. **Between 1996 and 2000, the production of associate degree nurses in New York State declined by nearly 32%, but is projected to increase slightly in 2001 and 2002.**

The majority of new nurses in New York State (as in the rest of the nation) graduate from associate degree programs. In 2000, 52.5% of new RN graduates in New York were from associate degree programs. This was far lower than in past years. Based on survey responses, associate degree graduates are expected to rise 9% between 2000 and 2002, but this will still be less than the number of 1996 graduates.

- 4. Between 1996 and 2000, the production of bachelor degree nurses in New York State declined by nearly 11% and is projected to continue declining through 2002.**

While associate degree graduates are expected to rise by 9% between 2000 and 2002, the number of bachelor degree graduates is expected to continue to decline at least through 2002 with 124 fewer graduates, a further drop of 4.5%. (Some bachelor degree graduates already have an associate degree and do not represent new RN capacity.)

**Table 1
Trends in Nursing Degrees Awarded in New York State, 1996 to 2002**

	Change 1996 to 2000		Projected Change 1996 to 2002		Projected Change 2000 to 2002	
	Number	Percent	Number	Percent	Number	Percent
Bachelor Degrees	-324	-10.6%	-449	-14.7%	-124	-4.5%
Associate Degrees	-1,407	-31.6%	-1,137	-25.6%	270	8.8%
Diplomas	-165	-93.8%	-170	-96.6%	-5	-45.5%
Total Degrees	-1,897	-24.7%	-1,756	-22.8%	141	2.4%

- 5. Every region in New York State is projected to have fewer graduates in 2002 than in 1996.**

The projected declines between 1996 and 2002 range from a low of -14.8% in Northeastern New York to a high of -32.1% in Western New York. Between 1996 and 2002, RN graduates in New York City and Long Island are expected to decline by 28.3% and 26.1%, respectively.

- 6. Both public and private sector nursing education programs reported significant declines in nursing degrees awarded over the past four years, with the largest decreases at CUNY and independent college nursing education programs.**

CUNY experienced a decrease of 32.8% (397) in RN graduates between 1996 and 2000. The independent college programs saw a slightly smaller decrease with 30.4%, or 982 fewer graduates in 2000 than in 1996. SUNY programs had a smaller decrease in graduates than either CUNY or the independent college programs, with 16.9% (515) fewer graduates in 2000 than 1996.

- 7. While nursing education programs in all sectors are expected to graduate fewer nurses in 2002 than in 1996, independent college programs project a 7.1% increase in nursing graduates between 2000 and 2002.**

SUNY and CUNY nursing graduates are expected to drop slightly between 2000 and 2002, but both are expecting decreases of less than 3%.

- 8. Nursing deans indicate that the job market for RNs has improved over the past year, with many openings in hospitals, nursing homes and home care.**

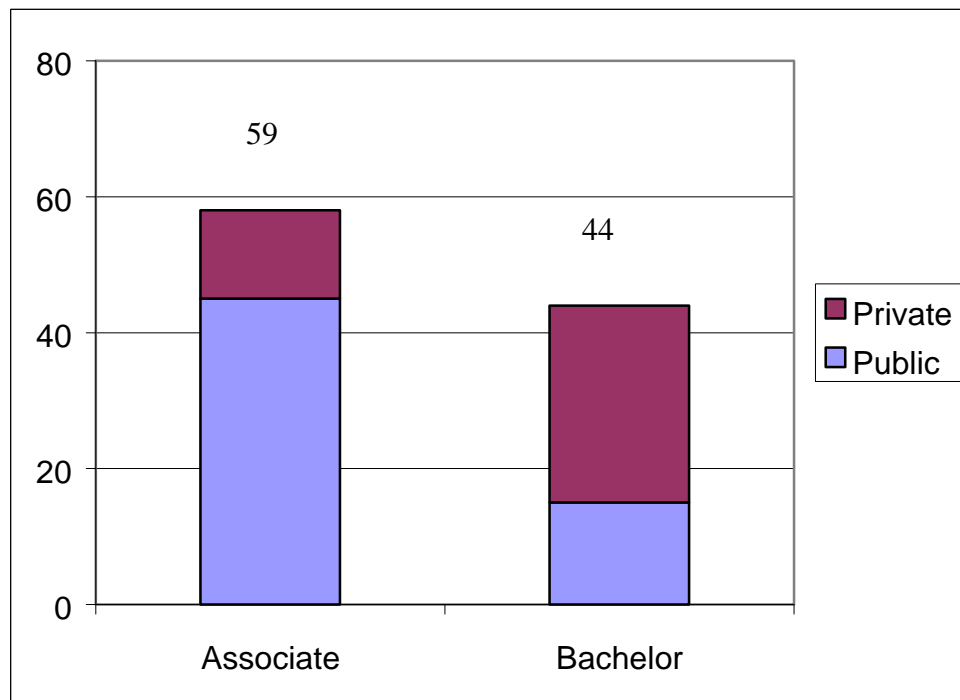
As would be expected given the growing concerns with shortages, the overall job market for new graduates is very strong.

Introduction

In 2000, there were 5,789 graduates of registered nursing programs in New York State. Of the total RN degrees awarded in 2000, 52.5% were associate degrees, over 47% were bachelor degrees, and nursing diplomas accounted for less than 1%. Nearly 43% of RN graduates attended programs sponsored by SUNY, almost 40% attended programs sponsored by independent colleges, 14% attended programs sponsored by CUNY, and the remaining 3% attended Regents College.

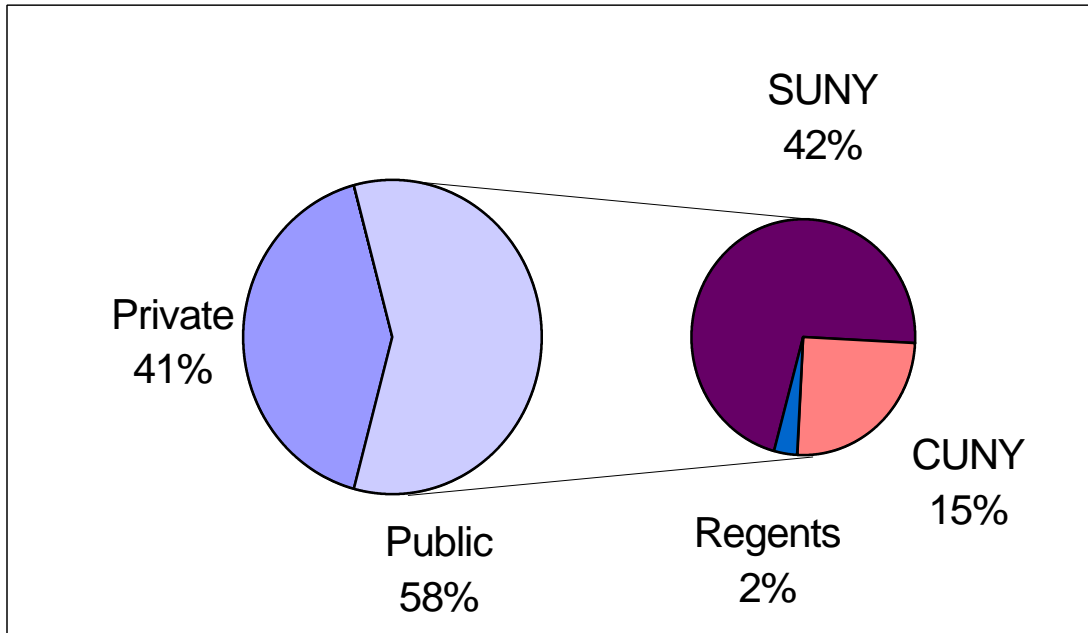
There were 104 nursing education programs in New York State, including 44 bachelor programs, 59 associate programs, and 1 diploma program. Figure 2 depicts associate and bachelor nursing education programs in New York State by type of sponsor.

Figure 2
Number of Associate and Bachelor Nursing Programs
in New York State by Sponsorship



Of the 103 associate and bachelor nursing education programs, 43 were privately sponsored and 60 were publicly sponsored, including 43 programs sponsored by SUNY, 15 programs sponsored by CUNY, and two Regent College operated programs.

Figure 3
Percent of Associate and Bachelor Nursing Programs by Type of Sponsor



Overall Trends

After rising steadily from 1991 to 1996, the number of registered nurses graduating from New York State programs has steadily declined for the past 4 years. Although RN graduates are projected to rise slightly in 2002 compared with RN graduates in 2000, the expected number of RN graduates in 2002 still represents a 23% decline from the number of graduates in 1996. Figure 4 shows the trends in total number of RN graduates in New York State since 1991 and projected through 2002.

Figure 4
Trends in Total Nursing Graduates, 1991 to 2002

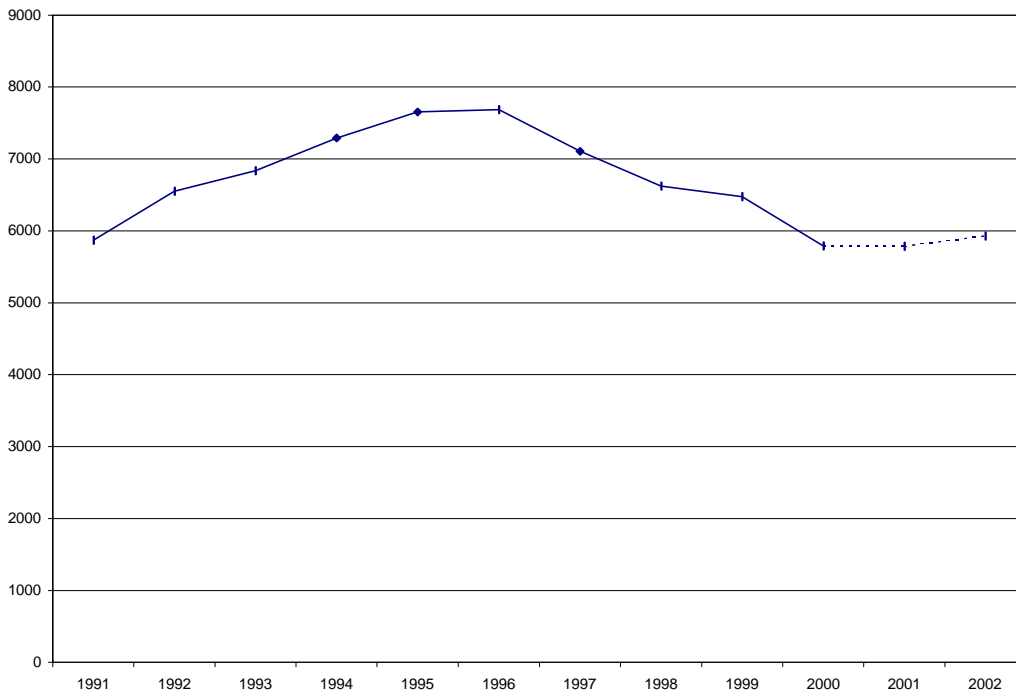


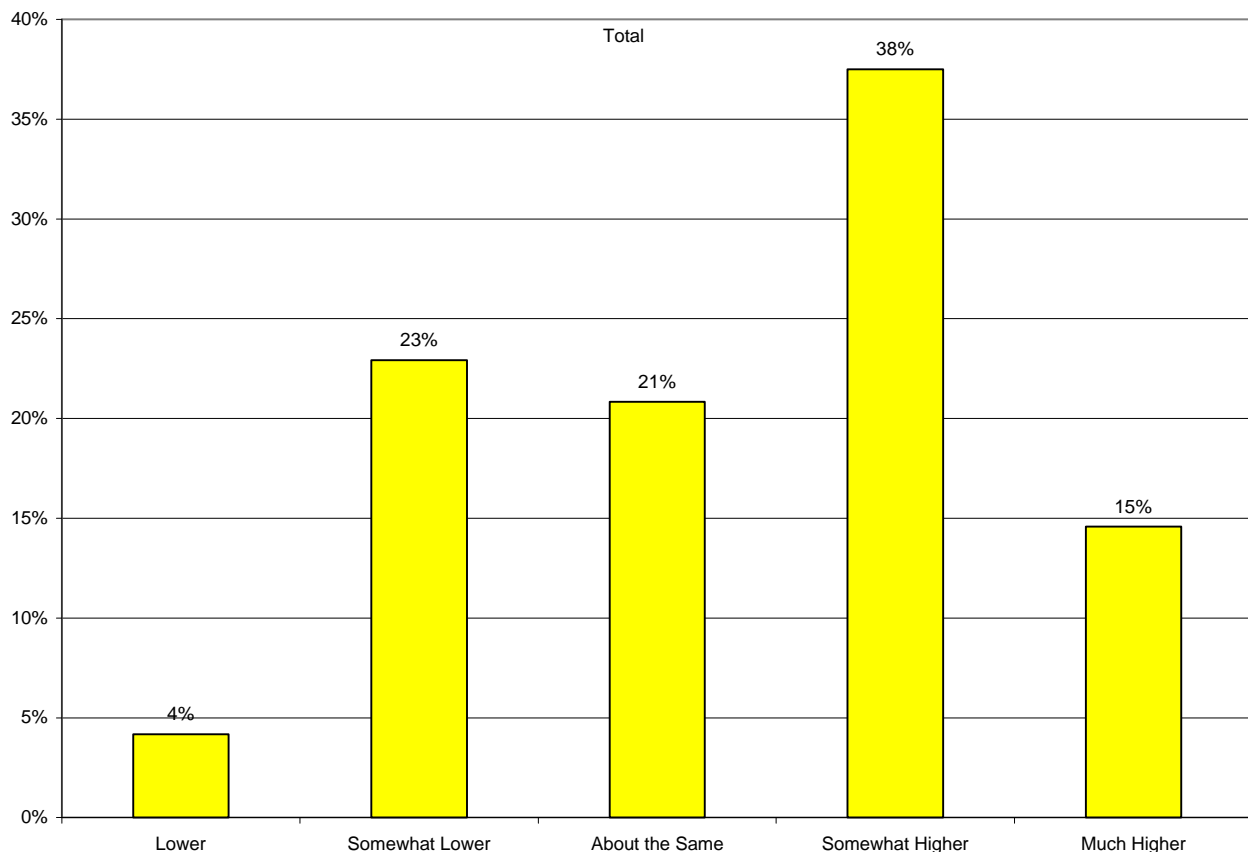
Table 2 shows the actual number of RN graduates from 1996 to 2000 and the projected number of graduates for 2001 and 2002. The total number of RN graduates in New York State in 2000 was 5,789, down nearly 11% from the previous year. Overall, the total RN degrees awarded declined by 1,897, nearly 25%, between 1996 and 2000. While the total number of RN graduates in 2001 (5,786) is projected to be comparable to the number in 2000 (5,789), the total number of RN graduates in 2002 is projected to increase more than 2% over the number of graduates in 2000.

Table 2
Trends in the Number of Nursing Degrees Awarded in NYS, 1996 to 2002

	1996	1997	1998	1999	2000	Projected	
						2001	2002
Bachelor Degrees	3,062	2,911	2,834	3,080	2,738	2,681	2,614
Associate Degrees	4,447	4,102	3,776	3,392	3,040	3,094	3,310
Diplomas	176	94	13	4	11	11	6
Total Degrees	7,686	7,107	6,622	6,476	5,789	5,786	5,930

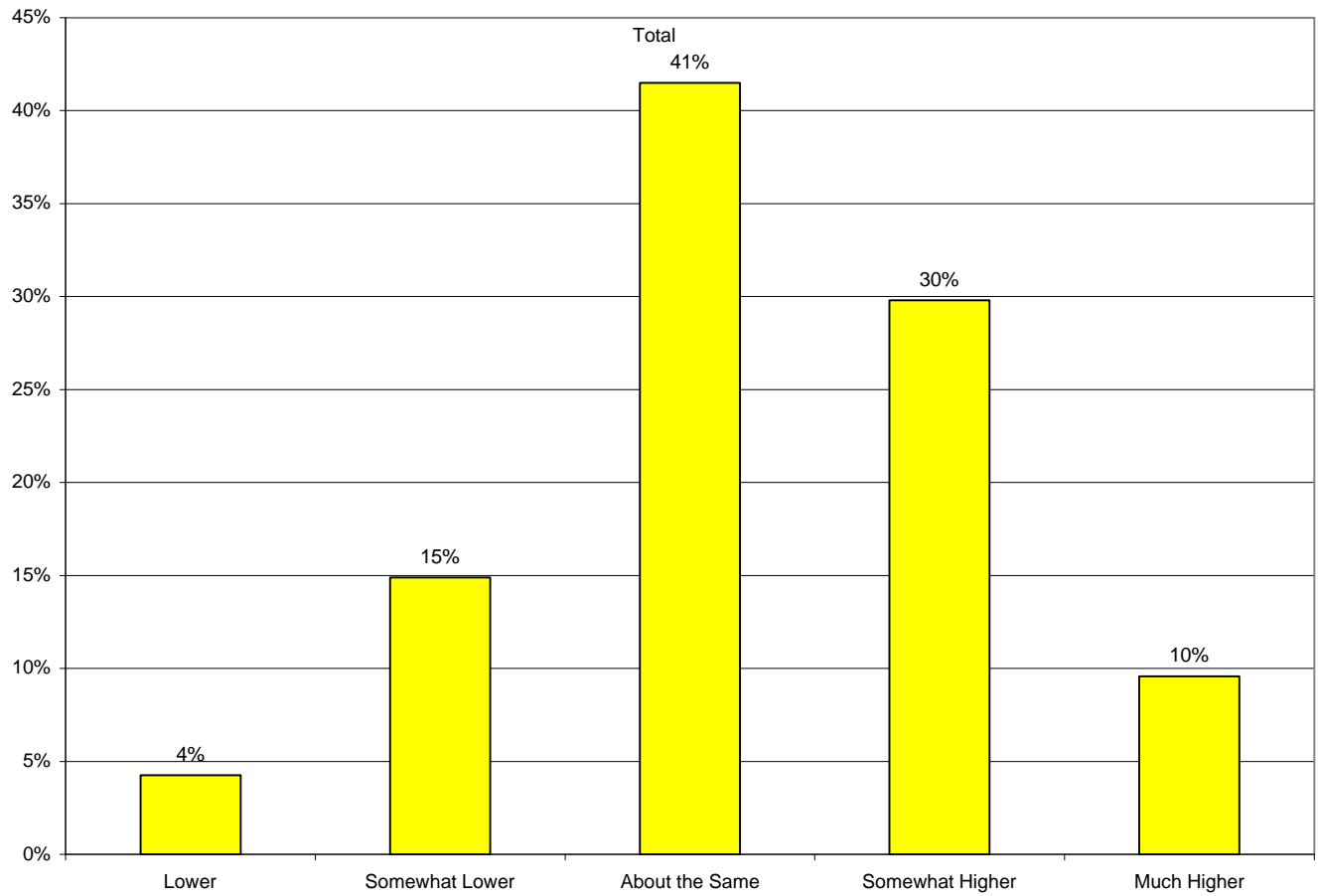
As shown in Figure 5, the majority of nursing programs (53%) reported that the number of applications to their programs was higher than they were last year. Twenty-one percent of the programs indicated that program applications were about the same as last year and while 27% reported that the number of applications was lower.

Figure 5
Comparison of Nursing Program Applications, 2000 and 2001



As shown in Figure 6, 41% of nursing programs reported that program acceptances in 2001 were about the same as the number in 2000, while 40% indicated that acceptances were higher. However, despite growing publicity about the nursing shortage, 19% of programs indicated that program acceptances in 2001 were lower than the number in 2000.

Figure 6
Comparison Of Nursing Program Acceptances, 2000 and 2001



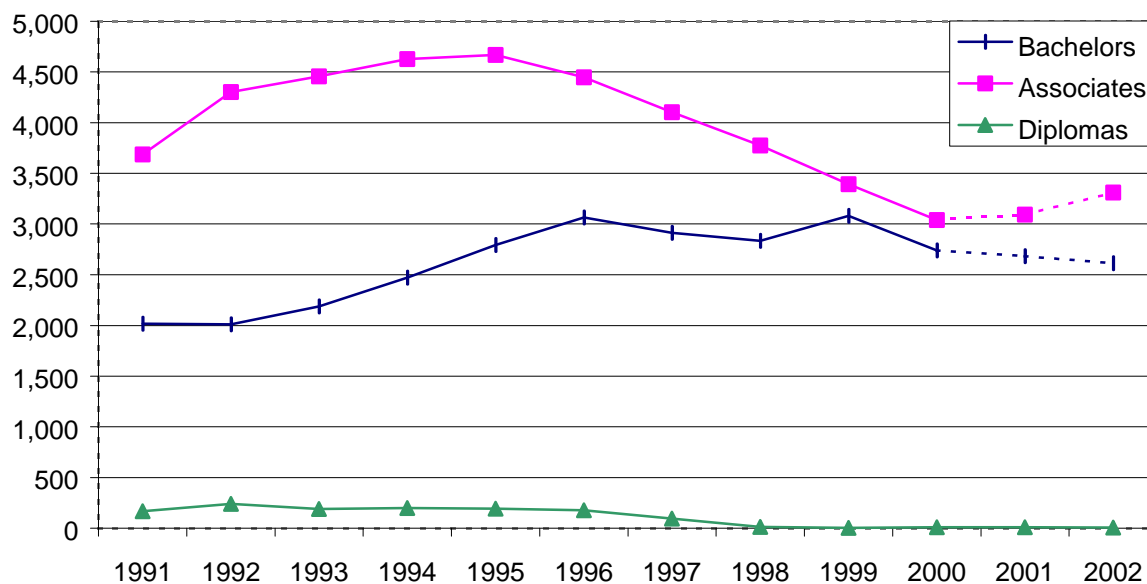
Trends in Nursing Graduates by Award Type

Associate nursing education programs target individuals who are not currently licensed as RNs and each degree awarded represents an individual who, after successfully passing the nurse licensing examination, becomes a newly licensed RN. Between 1996 and 2000, the production of associate degree RNs in New York State steadily declined, but is projected to increase in 2001 and 2002.

Bachelor nursing education programs target individuals who are not currently licensed as RNs as well as associate degree or diploma nurses who are seeking to complete a bachelor degree in nursing. Consequently, while all associate nursing graduates represent new RN capacity, only a portion of bachelor nursing graduates represents new RN capacity. Since 1996, the production of bachelor degree RNs declined every year except 1999 and is projected to continue declining through 2002.

Figure 7 shows the trends in the number of RN graduates in New York State by award type since 1991 and projected through 2002.

Figure 7
Trends in Nursing Graduates by Award Type, 1991 to 2002



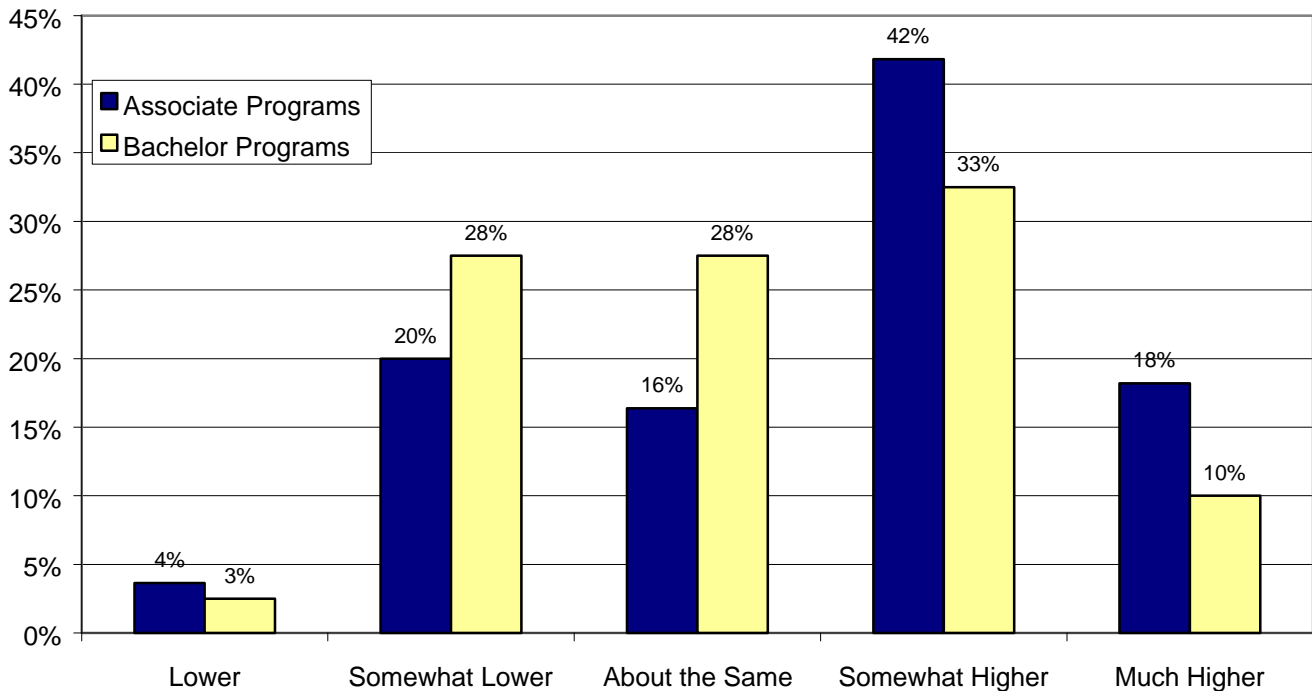
The number of associate nursing graduates in New York State in 2000 declined 10% from the previous year. The number of associate nursing degrees awarded between 1996 and 2000 declined by 1,407, almost 32%. The projected number of associate nursing degrees awarded in 2002 (3,310) represents a nearly 9% increase over the number awarded in 2000. The projected number of associate nursing degrees awarded in 2002 represents a decline of 25.6% from the number awarded in 1996.

The number of bachelor nursing degrees awarded between 1996 and 2000 declined by 324, nearly 11%. The projected number of bachelor nursing degrees awarded in 2002 (2,614) represents a nearly 5% decline from the number awarded in 2000 (2,738). The projected number of bachelor nursing degrees awarded in 2002 represents declines of 14.7% from the number awarded in 1996.

As shown in Figure 8, 76% of associate nursing programs reported that the number of applications to their programs were either the same or higher than they were last year. Twenty-four percent of associate nursing programs indicated that program applications were lower than last year.

Seventy-one percent of bachelor nursing programs reported that the number of applications to their programs were either the same or higher than they were last year. Thirty-one percent of bachelor nursing programs indicated that program applications were lower than last year.

Figure 8
Comparison of Associate and
Bachelor Nursing Program Applications, 2000 and 2001

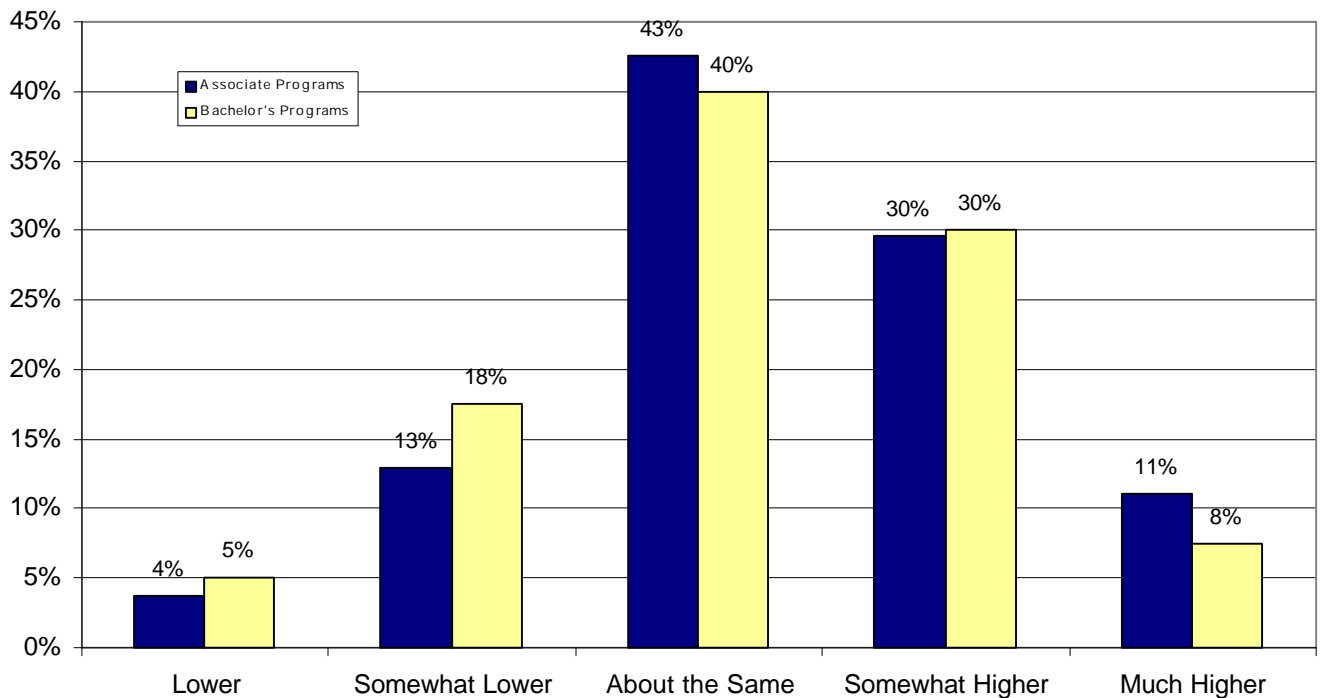


As shown in Figure 9, the majority of associate and bachelor nursing programs reported that program acceptances in 2001 were either higher than or the same as the number of acceptances in 2000.

Forty-one percent of associate nursing programs reported that program acceptances in 2001 were higher than the number of acceptances in 2000. Forty-three percent of associate nursing programs reported no change in acceptances between 2000 and 2001. Seventeen percent of associate nursing programs indicated that program acceptances in 2001 were lower than the number in 2000.

Thirty-eight percent of bachelor nursing programs reported that program acceptances in 2001 were higher than the number of acceptances in 2000. Forty of bachelor nursing programs reported no change in acceptances between 2000 and 2001. Twenty-three percent of bachelor nursing programs indicated that program acceptances in 2001 were lower than the number in 2000.

Figure 9
Comparison of Associate and Bachelor Nursing Program Acceptances, 2000 and 2001

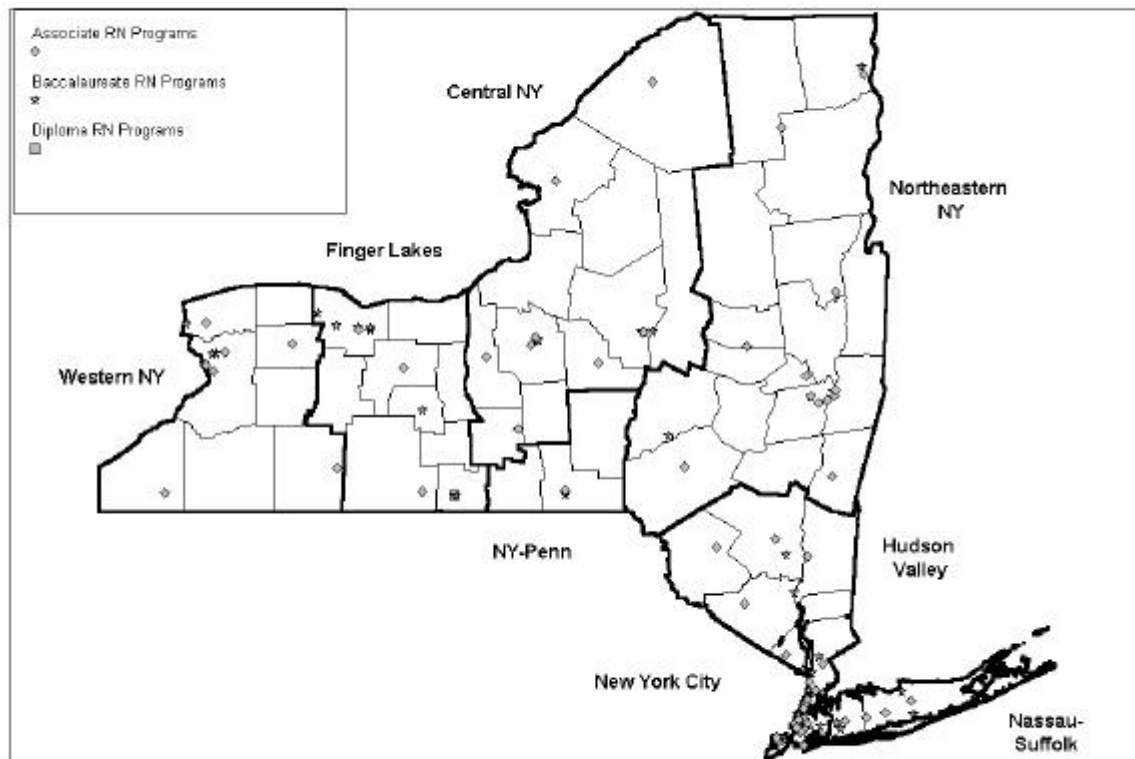


Trends in Nursing Education by Region³

The eight Health Systems Agency (HSA) regions of New York State were used for the regional analysis in this study. The HSA regions have been used for health planning purposes in New York State for almost thirty years.

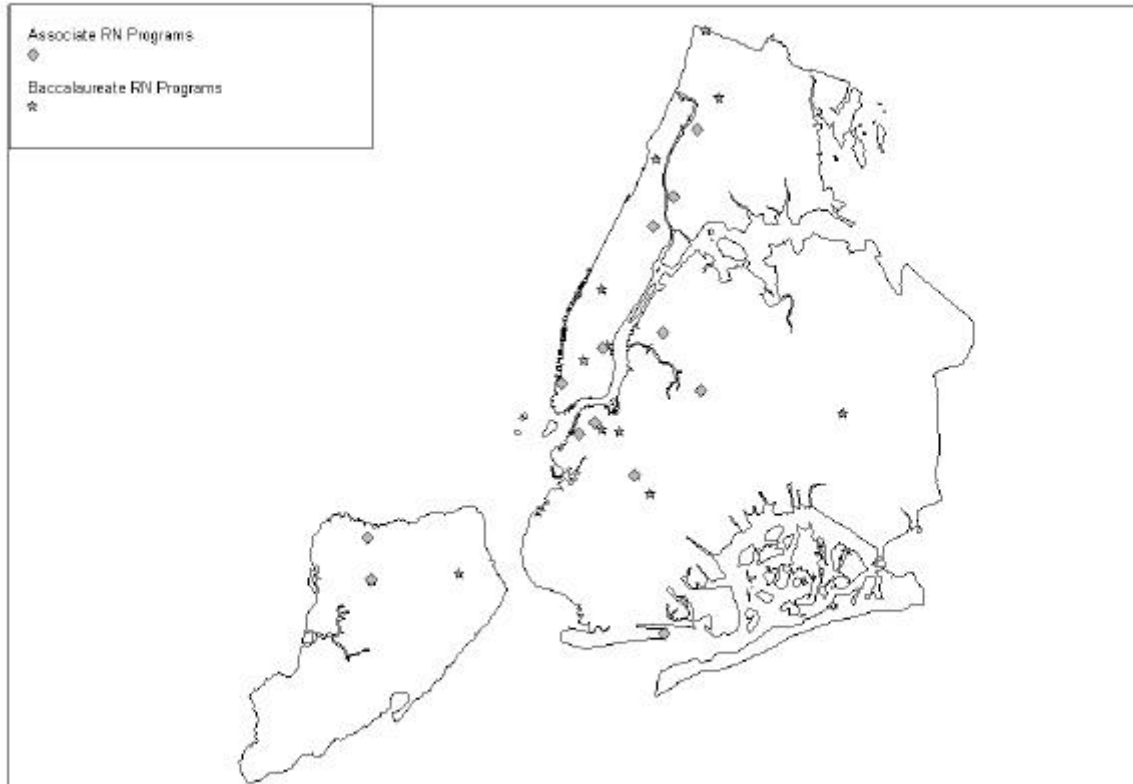
Map 1 depicts all nursing education programs in New York State by HSA region. Map 2 depicts all nursing education programs located within the five boroughs of the New York City.

Map 1
Nursing Education Programs by Health Systems Agency Regions



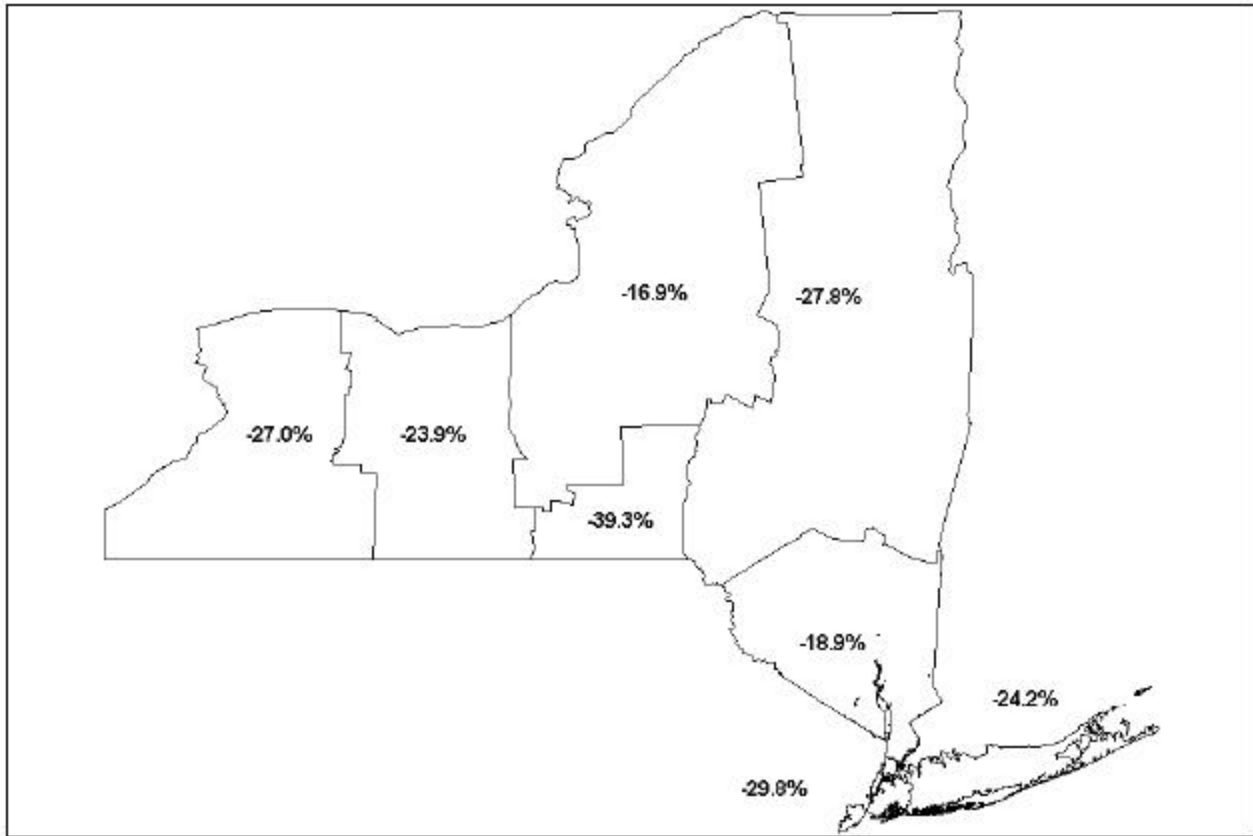
³ Since the Regents College nursing program graduates in New York are spread across the state and data by region are not available, their graduates are not included in the regional analysis.

Map 2 Nursing Education Programs in New York City



Map 3 shows the percent decline in the number of RN graduates between 1996 and 2000 by region. Every region in New York State produced fewer RNs in 2000 than in 1996. The declines range from a low of -18.9% in the Hudson Valley Region to a high of -39.3% in the NY-Penn Region. RN graduates in the New York City Region and the Long Island Region declined by 29.8% and 24.2%, respectively. In total, there were 1,900 fewer RN graduates in New York State in 2000 than in 1996.

Map 3
Percent Decline in Number of Nursing Graduates by Region
Between 1996 and 2000



While every region in New York State is projected to have fewer nursing graduates in 2002 than in 1996, there was significant regional variation in the extent of the decline. Table 3 shows the actual number of nursing graduates by region from 1996 to 2000 and the projected number of graduates for 2001 and 2002. The projected regional declines in the production of RNs between 1996 and 2002 range from a low of -14.8% in Northeastern New York to a high of -32.1% in Western New York. Between 1996 and 2002, RN graduates in New York City and Long Island are expected to decline by 28.3% and 26.1%, respectively. Five of the eight regions are projected to increase the number of nursing graduates between 2000 and 2002. The NY-Penn and Northeastern New York regions are projecting the most significant increases, with 39.6% and 17.9% respectively. The remaining three regions, Finger Lakes, Hudson Valley and New York City, are projecting increases of 7.9%, 3.5% and 2.1% respectively.

Table 3
Nursing Graduations by Region, 1996 to 2002

Region	1996	1997	1998	1999	2000	2001	2002	Percent Change	
								1996 to	2000 to
Western New York	945	953	948	777	690	611	642	-27.0%	-7.0%
Finger Lake Region	581	581	534	546	442	456	477	-23.9%	7.9%
Central New York	870	781	735	729	723	717	690	-16.9%	-4.6%
NY-Penn	183	151	126	130	111	137	155	-39.3%	39.6%
Northeastern New York	641	618	591	586	463	517	546	-27.8%	17.9%
Hudson Valley	1,076	978	895	952	873	868	903	-18.9%	3.5%
New York	2,280	1,970	1,774	1,789	1,601	1,574	1,635	-29.8%	2.1%
Long Island	915	868	811	765	694	682	677	-24.2%	-2.5%
Total	7,491	6,900	6,413	6,274	5,597	5,561	5,724	-25.3%	2.3%

Trends in Nursing Education by Institutional Sector

Of the 104 nursing education programs in New York State in 2000, 43 were offered by SUNY, 43 by independent colleges, 15 by the City University of New York (CUNY), two by the Regents College, and one by a hospital.

As shown in Figure 10, SUNY had the largest share of degrees awarded (2,532) followed closely by independent colleges with 2,252 degrees awarded. The City University of New York awarded 813 degrees, and the Regents College programs had 192 degrees awarded.⁴

Figure 10
Total Nursing Graduates by Institutional Sector, 1996 to 2002

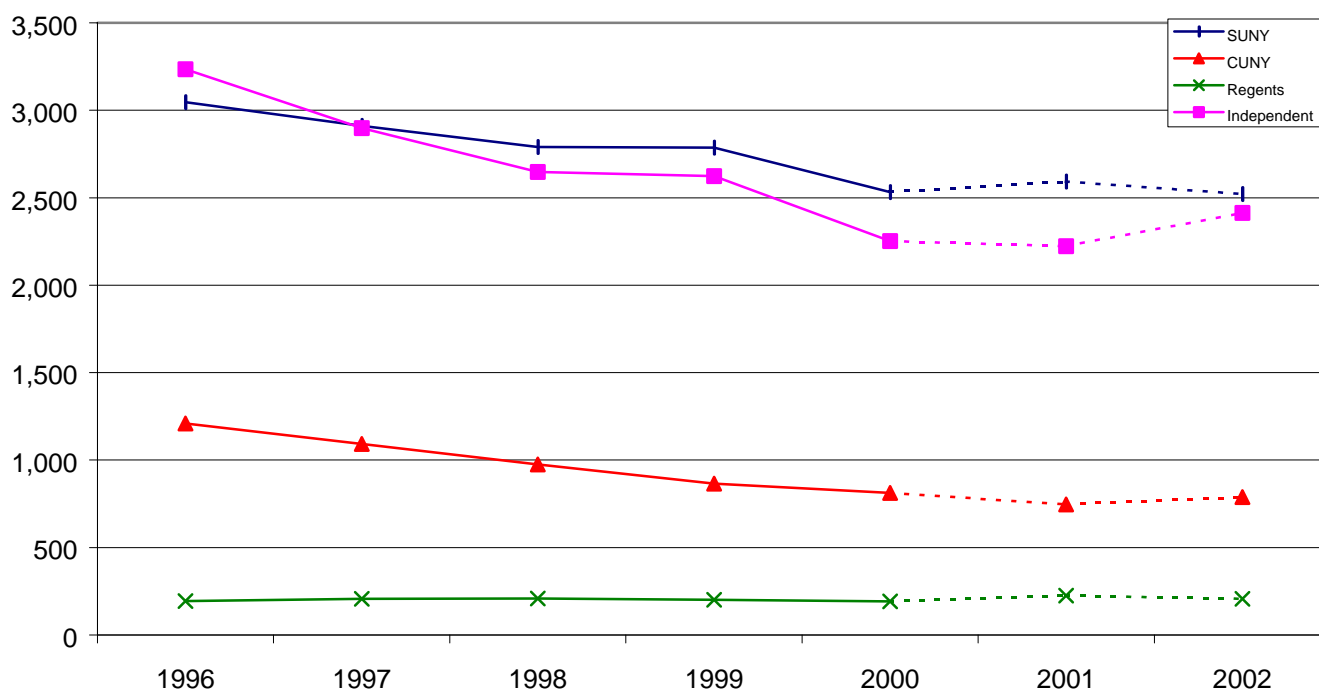
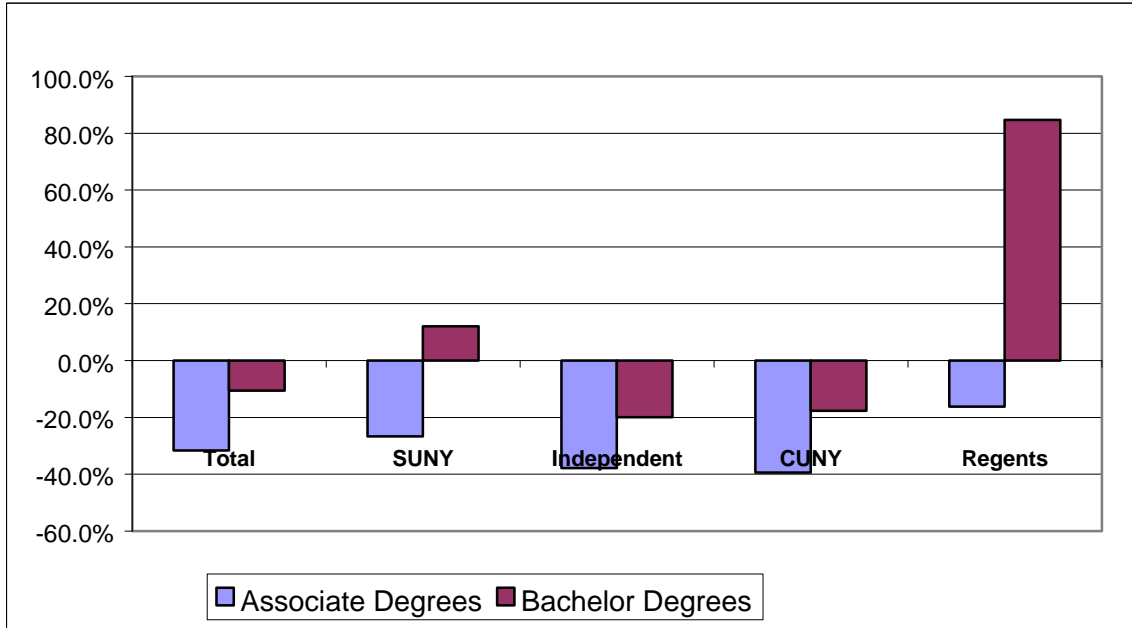


Figure 11 shows the percent change in associate and bachelor nursing degrees awarded by sector between 1996 and 2000. During that time, the total number of associate nursing degrees awarded by all four sectors declined by nearly 32%, with CUNY programs showing the greatest decline, over 39%. Bachelor nursing degrees decreased by nearly 11% between 1996 and 2000, with independent colleges showing the greatest decline, nearly 20%.

⁴ The number of Regents College program graduates has been adjusted to include the estimated number of graduates residing in New York State.

Figure 11
Percent Change in Associate and Bachelor Nursing Degrees
Awarded by Sector between 1996 and 2000



Between 2000 and 2002, the number of associate nursing degrees awarded are projected to increase by nearly 9%, with independent colleges showing the greatest gain (Figure 12). Between 2000 and 2002, bachelor nursing degrees are projected to decrease by nearly 5%, with the Regents College program showing the greatest decline, nearly 34%, followed by SUNY with a decline of nearly 19%.

Figure 12
Projected Percent Change in Associate and Bachelor Nursing Degrees
Awarded by Sector between 2000 and 2002

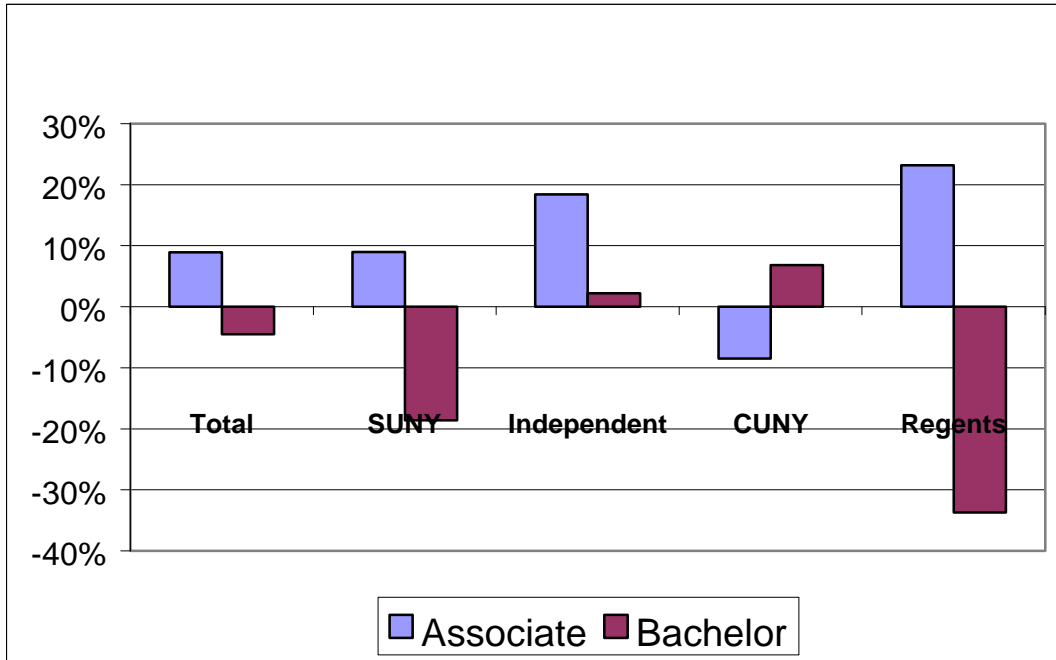


Figure 13 depicts associate degree nursing graduates by sector from 1996 to 2000 and projected through 2002. SUNY continues to be the largest producer of associate degree RNs, accounting for more than half of the associate nursing degrees awarded in every year depicted. Between 1996 and 2000, the number of associate degree RNs produced by SUNY and independent colleges and universities declined, but modest increases are projected in both sectors in 2001 and 2002.

Figure 13
Associate Degree Nursing Graduates by Institutional Sector, 1996 to 2002

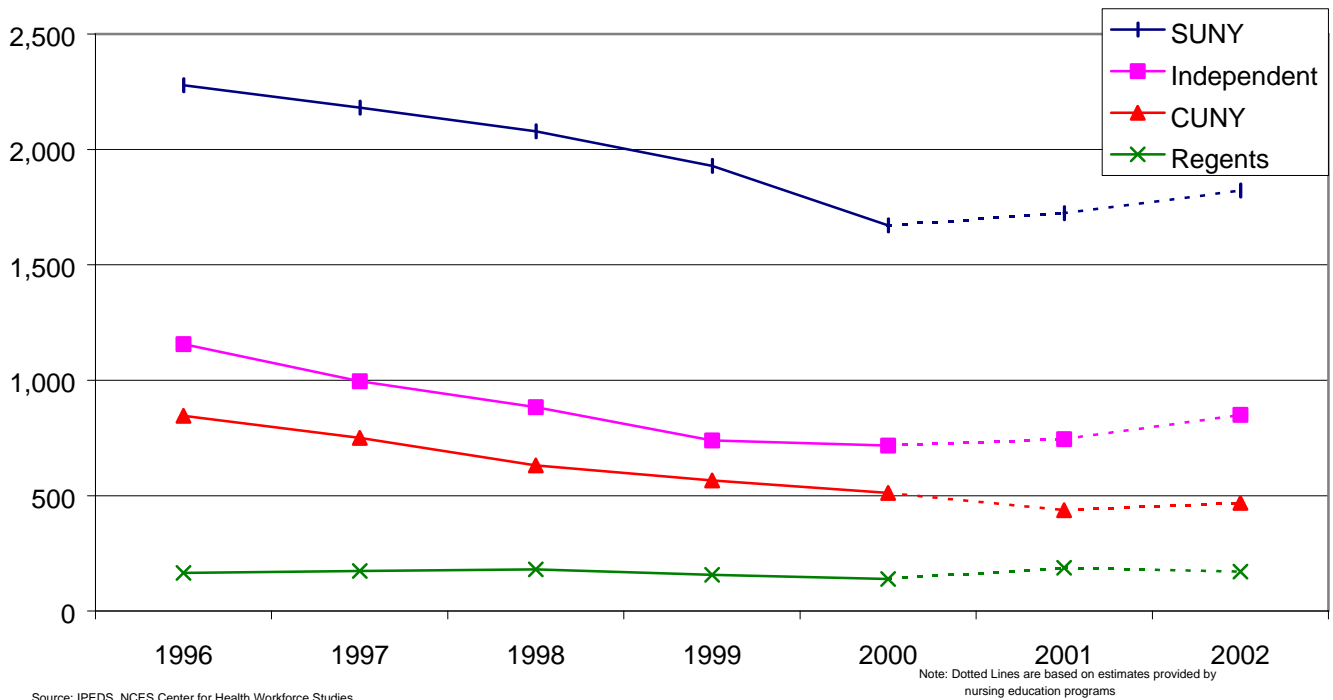
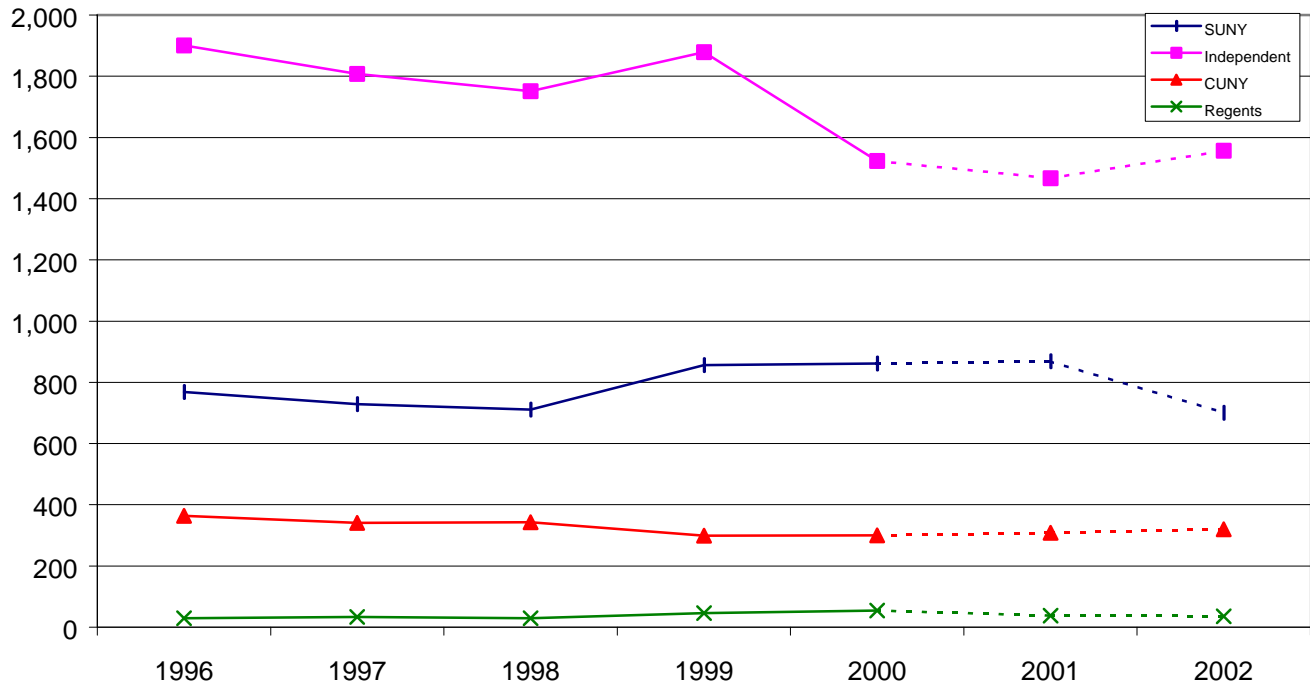


Figure 14 depicts bachelor degree nursing graduates by sector from 1996 to 2000 and projected through 2002. Independent colleges produced the largest number of bachelor nursing graduates, accounting for more than half the graduates each year and awarding nearly twice the number of bachelor nursing degrees as SUNY. Between 2000 and 2002, the number of bachelor nursing degrees awarded by independent colleges and by CUNY is projected to increase slightly, while the number awarded by SUNY and Regents College is projected to decline.

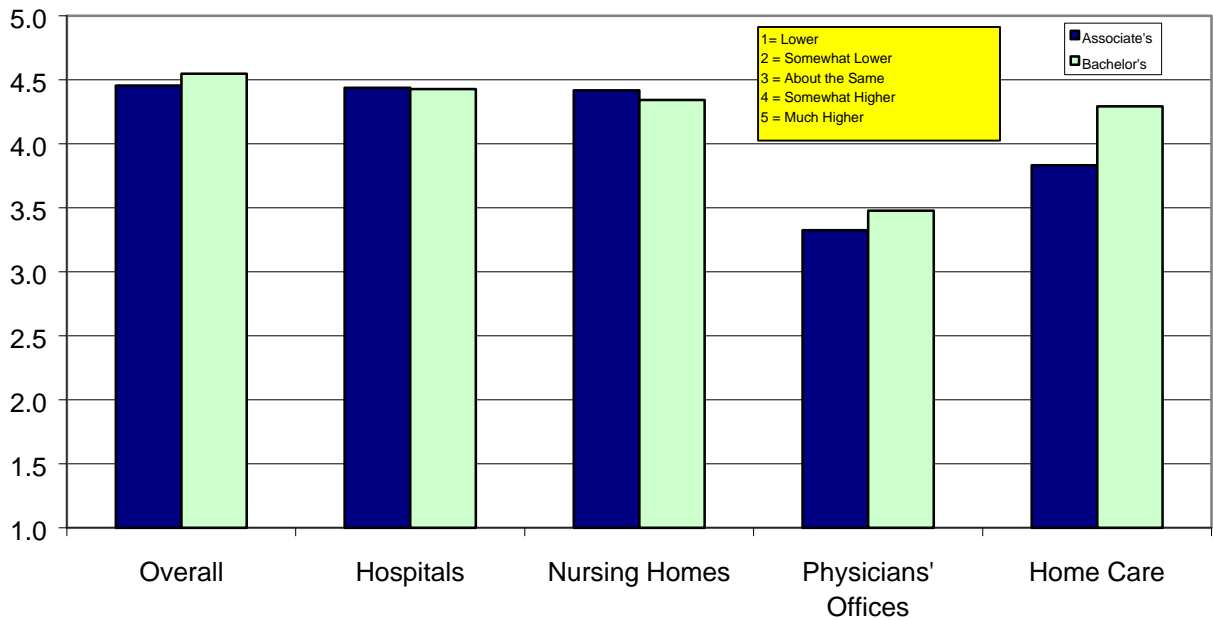
Figure 14
Bachelor Degree Nursing Graduates by Institutional Sector, 1996 to 2002



Trends in Demand for Nurses

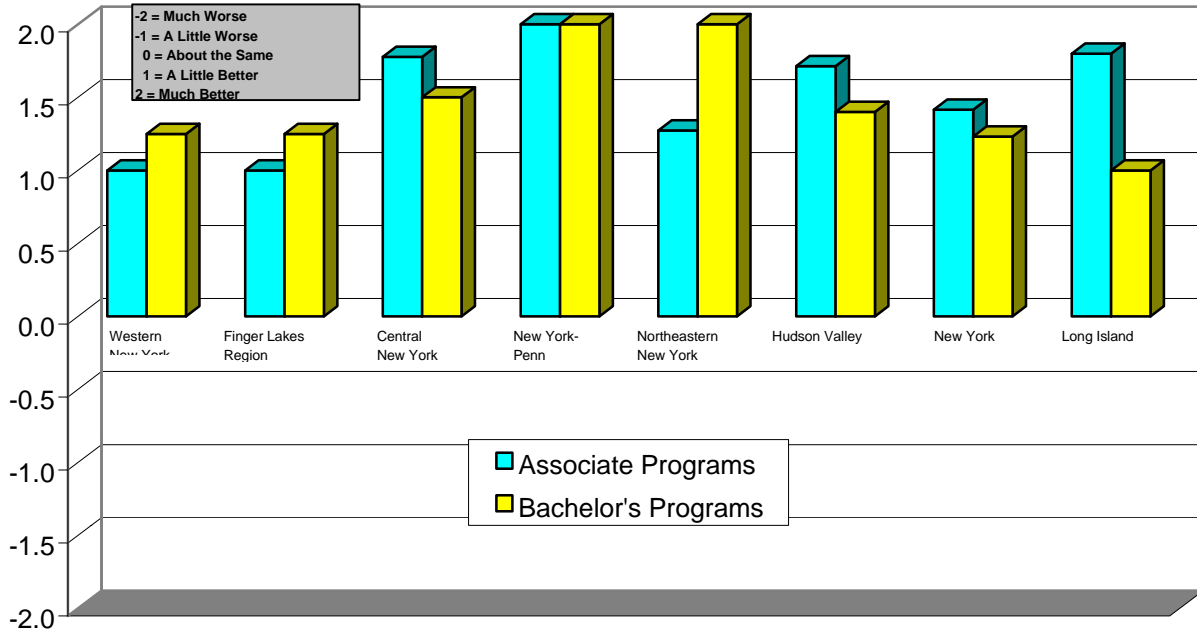
Nursing programs were asked to assess the relative number of job openings for RNs in health care. As shown in Figure 15, their responses indicate that there are many jobs available for RNs in hospitals, nursing homes and home care. Even the setting rated lowest, physician offices, appeared to have some jobs available. There was little difference in job availability for associate degree RNs and bachelor degree RNs, with the exception of home care where bachelor degree RNs appear to be in greater demand for home care jobs.

Figure 15
Comparison of Job Openings for Nurses by Degree Awarded and Job



Nursing programs were asked to compare the regional job market for new RNs this year to the job market last year. The responses, summarized in Figure 16, indicate clearly that the job market for RNs has improved over the past year. None of the programs rated the job market worse this year than last.

Figure 16
Comparison of Regional Job Market, 1999 and 2000



Appendix 1
NYS Nursing School Dean Fax Back Survey
Center for Health Workforce Studies
School of Public Health, University at Albany

School/Program: _____

Respondent: _____ Telephone Number: _____ e-mail: _____

1. Number of RN graduates from your nursing program(s).

Degree Level	98/99 Grads (actual)	A. 99/00 Grads (actual)	B. 00/01 Grads (estimated)	C. 01/02 Grads (estimated)
Associate				
Generic BSN				
BSN Completers				
Post-baccalaureate				

2. What is your estimate of the number of 2000/01 **student applications and acceptances** compared to last year?

2000/01 Applicants (compared to 1999/00)	2000/01 Acceptances (compared to 1999/00)
<input type="radio"/> much higher <input type="radio"/> somewhat higher <input type="radio"/> about the same <input type="radio"/> somewhat lower <input type="radio"/> lower	<input type="radio"/> much higher <input type="radio"/> somewhat higher <input type="radio"/> about the same <input type="radio"/> somewhat lower <input type="radio"/> lower

3. What is your perception of the job market for new registered nurses in your region in New York State?

	Many Job Openings		Some Job Openings		No Job Openings	Unsure
	1	2	3	4	5	?
a. Overall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Hospital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Nursing Homes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Physician's Office	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Home Care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. How would you compare the overall job market for new registered nurses this year to the job market last year?

- Much better than last year
- A little better than last year
- About the same as last year
- A little worse than last year
- Much worse than last year

5. In the space below, please provide any additional comments or observations on the changes in supply, demand, or use of RNs in New York State. *Use additional sheets if necessary.*

Thanks for your help with this survey!

Please fax the completed questionnaire to:
 The Center for Health Workforce Studies
 518-402-0252