



**The Health Care Workforce in New York**  
*Trends in the Supply of and Demand for Health Workers*

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



**The Health Care Workforce in  
New York, 2006**

**Trends in the Supply and Demand for Health Workers**

**January 2008**

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## **PREFACE**

This report tracks the health workforce in New York and provides information at national, state, and regional levels. It describes health workforce trends and developments in order to inform key stakeholders including the health industry, health professionals, educators, policy makers, and the public.

This study was primarily supported through funding from the 1199 Hospital League Health Care Industry Planning and Placement Fund, Inc., a joint labor-management fund responsible for the education and training of its members. With this report, the Fund can better understand trends in the supply and demand for health workers across the state, more effectively plan for health worker education and training, and target available training dollars to meet priority needs.

The Center for Health Workforce Studies at the School of Public Health, University at Albany, conducted the research and produced this report. The Center is a not-for-profit research organization dedicated to health workforce data collection and analysis. Several Center staff contributed to the development of this report, including Maria Kouznetsova, Robert Martiniano, and Jean Moore.





## **I. EXECUTIVE SUMMARY**

The success of the health care system in this country is dependent upon qualified personnel. Access to care, quality of care, and cost of care are all affected by the availability of well-trained workers. The health industry, policymakers, educators, and other stakeholders need timely data on the supply, demand, distribution, education, and use of health workers in order to formulate effective health workforce policies and programs.

The health workforce – health care professionals working inside and outside of the health sector and others working in health facilities – is an important component of the country’s economy, representing nearly 12% of all workers in 2006. Health sector employment is one of the fastest growing employment sectors in the country. It is projected to grow at twice the rate of all other sectors in the U.S. between 2006 and 2016. Not surprisingly, more than half of the fastest growing occupations in the U.S. over that same period are projected to be health occupations.

In 2006, there were nearly 960,000 jobs in New York’s health sector. This represented one in nine jobs in the state. Health sector employment in New York grew by nearly 8% between 2001 and 2006. While hospitals continued to be the largest employer in New York’s health sector in 2006, hospital jobs have shown the least growth since 2001. However, other settings, including home health care, ambulatory care, and nursing homes have experienced substantial job growth over that same period.

The health industry in New York faces pressures from a variety of sources:

- Persistent shortages of health workers in many professions and occupations;
- The current restructuring of hospitals and nursing homes including mergers, bed reductions, and closures;
- Financial uncertainty attributed to rising health care costs, coupled with cuts in Medicare and Medicaid reimbursement;
- Increased concern about patient safety and medical errors; and
- Growing interest in the potential of health information technology to improve efficiency and safety, but limited resources to invest in this technology.

This report presents a wide array of data about the health workforce in New York. It describes trends in the state’s health care workforce by setting, occupation, and region.

## **Key Findings**

### **Health care providers statewide reported persistent problems recruiting and retaining registered nurses, as well as workers in an increasing number of other health occupations.**

Hospitals across the state reported continued difficulty recruiting and retaining pharmacists and experienced registered nurses (RNs). Recruitment problems were also reported for medical laboratory technologists and radiologic technologists, particularly in nuclear medicine.

Nursing homes across the state reported recruitment and retention difficulties for RNs and licensed practical nurses. Recruitment problems were also reported for occupational and physical therapists. Retention difficulties were reported for certified nurse aides.

Statewide, home care agencies reported difficulty recruiting for many occupations, particularly RNs, master's prepared social workers (MSWs), respiratory therapists, occupational therapists, and physical therapists. Retention was most problematic for personal care aides and RNs.

### **Health sector jobs continued to grow faster than all other employment sectors throughout the state.**

Health sector employment in New York grew by more than 22% between 1990 and 2006, accounting for one in nine jobs in 2006. In contrast, all other employment sectors in the state grew by only 2% over the same time period. Health sector employment in regions outside of New York City rose by 20% between 1990 and 2006, while jobs in all other employment sectors declined by 5%. In New York City, health sector employment grew 26%, while employment in all other sectors rose 13% over the same period.

### **Health care jobs grew the fastest in home care, while hospital employment showed the least growth.**

Between 2001 and 2006, home care employment rose by nearly 35% statewide, fueled by the addition of more than 22,700 new home care jobs in New York City alone. However, not all regions of the state saw home care job growth – the Finger Lakes, Capital District, Central New York, and Long Island regions all experienced declines in home care employment over the same time period. Both nursing homes and ambulatory settings saw increases in jobs statewide, 10.3% and almost 7%, respectively. Hospital employment grew nearly 3% statewide.

### **Between 2001 and 2006, job growth in New York was greatest for home health aides, nursing aides, medical managers, and social workers.**

The number of home health aide jobs increased by 21,630, or nearly 20%, between 2001 and 2006. The number of nursing aide, orderly, and attendant jobs grew by 10,930, or about 12%; the number of social worker jobs rose by 8,450, or almost 25%; the number of medical and health service manager jobs increased by 6,170, or more than 32%; and the number of RN jobs grew by 4,590, or approximately 3%.

**For the fourth consecutive year, the number of RN graduates in the state in 2006 increased over the previous year.**

Approximately 7,800 individuals graduated from RN education programs in New York in 2006, a 51% increase over the number of RN graduations in 2002. RN graduations are projected to continue to rise in 2007 and 2008 and should surpass the number of 1996 RN graduates, the previous high point for RN graduations in New York.

Fewer nursing education programs in the state reported turning away qualified applicants in 2006 (59%) compared to 2005 (67%). However, more associate degree nursing (ADN) programs reported turning away qualified applicants (75%), compared to baccalaureate nursing (BSN) programs (40%). The majority of ADN and BSN programs that turned away qualified applicants in 2006 indicated that limits on program admissions was the primary reason for doing so.

**Despite increases in the production of new RNs and an increase in the total supply of licensed RNs between 2002 and 2006, not all regions saw an increase in the number of licensed RNs.**

Although there was an increase in the production of new RNs and growth in the total number of licensed RNs in New York between 2002 and 2006, half of the state's regions saw declines in the number of licensed RNs over that time period, including Finger Lakes, Hudson Valley, Western New York, Southern Tier, and North Country.

**Statewide, the most substantial job growth between 2004 and 2014 is projected for RNs, home health aides, and nursing aides.**

The New York State Department of Labor projected that between 2004 and 2014 the number of home health aide jobs would increase by almost 36,800, with about 5,110 average annual job openings. During the same period, the number of RN jobs was projected to increase by nearly 28,500, with 6,370 average annual job openings. Additionally, the number of nursing aide, orderly, and attendant jobs were projected to increase by 9,900, with more than 2,300 average annual job openings, most attributable to turnover of workers rather than growth in new jobs.



## **II. BACKGROUND**

### **A. Overview**

The success of the health care system in this country is dependent upon qualified personnel. Access to care, quality of care, and cost of care are all affected by the availability of a sufficient number of well-trained workers. The health industry, policymakers, educators, and other stakeholders need timely data on the supply, demand, distribution, education, and use of health workers in order to formulate effective health workforce policies and programs.

The health workforce – health care professionals working inside and outside of the health sector and others working in health facilities – is an important component of the country’s economy, representing nearly 12% of all workers in 2006. Health sector employment is one of the fastest growing employment sectors in the country. It is projected to grow at twice the rate of all other sectors in the U.S. between 2006 and 2016. Not surprisingly, more than half of the fastest growing occupations in the U.S. over that same period are projected to be health occupations.

In 2006, there were nearly 960,000 jobs in New York’s health sector. This represented one in nine jobs in the state. Health sector employment in New York grew by nearly 8% between 2001 and 2006. While hospitals continued to be the largest employer in New York’s health sector in 2006, hospital jobs have shown the least growth since 2001. However, other settings, including home health care, ambulatory care, and nursing homes have experienced substantial job growth over that same period.

The health industry in New York faces pressures from a variety of sources:

- Persistent shortages of health workers in many professions and occupations;
- The current restructuring of hospitals and nursing homes including mergers, bed reductions, and closures;
- Financial uncertainty attributed to rising health care costs, coupled with cuts in Medicare and Medicaid reimbursement;
- Increased concern about patient safety and medical errors; and
- Growing interest in the potential of health information technology to improve efficiency and safety, but limited resources to invest in this technology.

This report presents a wide array of data about the health workforce in New York. It describes trends in the state’s health care workforce by setting, occupation, and region.

### **B. Objectives and Goals**

The objectives of this report are:

- To describe health care employment trends in New York, using data on jobs by health setting as well as data on health professionals in the state;
- To identify the health professions and occupations in greatest demand currently as well as offering projections for future demand;

The goals of this report are:

- To assist policymakers and other stakeholders to target health workforce education and job training resources to address the most pressing needs;
- To guide health workforce policies, including decisions about the capacity of health professions education programs; and
- To inform current and prospective students about health care employment prospects and opportunities.

## **C. Data Sources and Terminology**

### *Data Sources*

The data sources used in this report were:

1. Center for Health Workforce Studies<sup>1</sup>:

- New York State Registered Nursing Graduations, 1996-2008 (October 2007)
- Surveys of Human Resources Directors in Health Care

The Center conducts annual surveys of human resources directors from hospitals, nursing homes, and home health agencies across the state. The survey asks about the professions and occupations that pose the greatest recruitment and retention problems as well as any anticipated changes in service (expansions or reductions) and their impact on the need for workers. Findings from these surveys are reported statewide and by New York State Department of Labor regions (DOL) (which are described beginning on page 13).

Thirty-three hospitals statewide responded to the survey, with most of the DOL regions having less than five respondents. Consequently, hospital survey responses were aggregated and data are reported for the downstate region (Hudson Valley, Long Island, and New York City) and the upstate region (Capital District, Central New York, Finger Lakes, Mohawk Valley, North Country, Southern Tier, and Western New York).

Many home health care agencies serve patients in multiple counties and these counties may be located in different DOL regions. Consequently, information on recruitment and retention for home health care agencies is reported in each region where service is provided.

2. U.S. Bureau of Labor Statistics (BLS) and the NYS DOL:

- Covered Employment and Wages Program (ES-202)  
These data were used to describe regional changes in health care employment by setting. To determine annual employment numbers for 2006, monthly totals for January through December were averaged.

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<sup>1</sup> The sources of all exhibits are the Center's data unless otherwise noted.

- Occupational Employment Statistics (OES)

These data were used to describe changes in the number of jobs by occupation in New York by DOL regions and for the New York City primary metropolitan statistical area (PMSA). OES estimates are based on a sample of employers. If too few employers respond to the survey, the numbers for some occupations may not be reported or may not reflect the true count of jobs in those occupations. Additionally, estimates may fluctuate year to year based on response rates, especially for smaller geographical areas.

- Employment Projections

Employment projections used in this report reflect a count of the number of jobs in certain occupational categories in 2004 as well as the projected number of jobs in those categories in 2014 for New York and between 2006 and 2016 for the U.S.

Annual openings reflect both new positions in the occupation and replacement of workers leaving existing positions. Those occupations with a small increase in the number of new jobs but a high number of annual openings suggest significant annual turnover within the occupation rather than expansion of the occupation.

### 3. State Education Department Licensure Data

The licensure data presented in this report reflect counts of licensed health care professionals in New York at five points in time: April 1, 2002; June 1, 2003; April 1, 2004; April 1, 2005, and April 1, 2006. These counts represent the maximum number of individuals who could be employed in the profession since some licensees may not have been actively working in the profession. Counts by county were based on the mailing address in the licensure file, which could have been either a home or a practice location. Additionally, certain individuals in the file were licensed to practice in New York but lived in another state.<sup>2</sup>

### *Terminology*

The settings used in this report were based on the U.S. portion of the North American Industry Classification System (NAICS) for the health sector as implemented by the BLS. The breakdown of settings within the health sector was as follows:

- Hospitals;
- Nursing and personal care facilities (excluding residential, mental retardation, mental health and substance abuse facilities);
- Home health care services;

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<sup>2</sup> Note: The statewide total includes all individuals licensed in New York regardless of whether the address given in the licensure file was a New York address. Tables of licensees by region include only those individuals with an address in the region.

- Ambulatory care settings (excluding home health care services), including:
  - Medical and diagnostic laboratories;
  - Offices and clinics of doctors of medicine;
  - Offices and clinics of dentists;
  - Offices and clinics of other health practitioners;
  - Outpatient care centers; and
  - Other ambulatory health services.

This classification scheme provided standardization among the data sets presented but had some limitations. By limiting the analyses to the NAICS health services industries, health care workers in hospital-operated ambulatory care sites may have been included in hospital employment counts. In addition, health care professionals in industries outside of the settings listed, such as those in schools, insurance firms, or who are self-employed, were excluded from the health sector counts. The Center estimated that, nationally, one-fourth of the health care workforce was employed outside the health care settings included in the health sector defined by BLS.

Occupations were usually grouped by BLS OES categories. These occupational categories also had limitations. For example, registered nursing made no distinction between nurse practitioners and RNs. The nursing aides, orderlies, and attendants occupational category also included multiple job titles, levels of training, and certification status.

In addition, there were some job titles in a health setting that may not have necessarily reflected similar OES occupational classifications, and this may have caused some problems in reporting. For example, confusion may have resulted from the differences in defining a home health aide as any individual providing services in the home or as one who completed the home health aide certification requirements.

### *Geographic Areas*

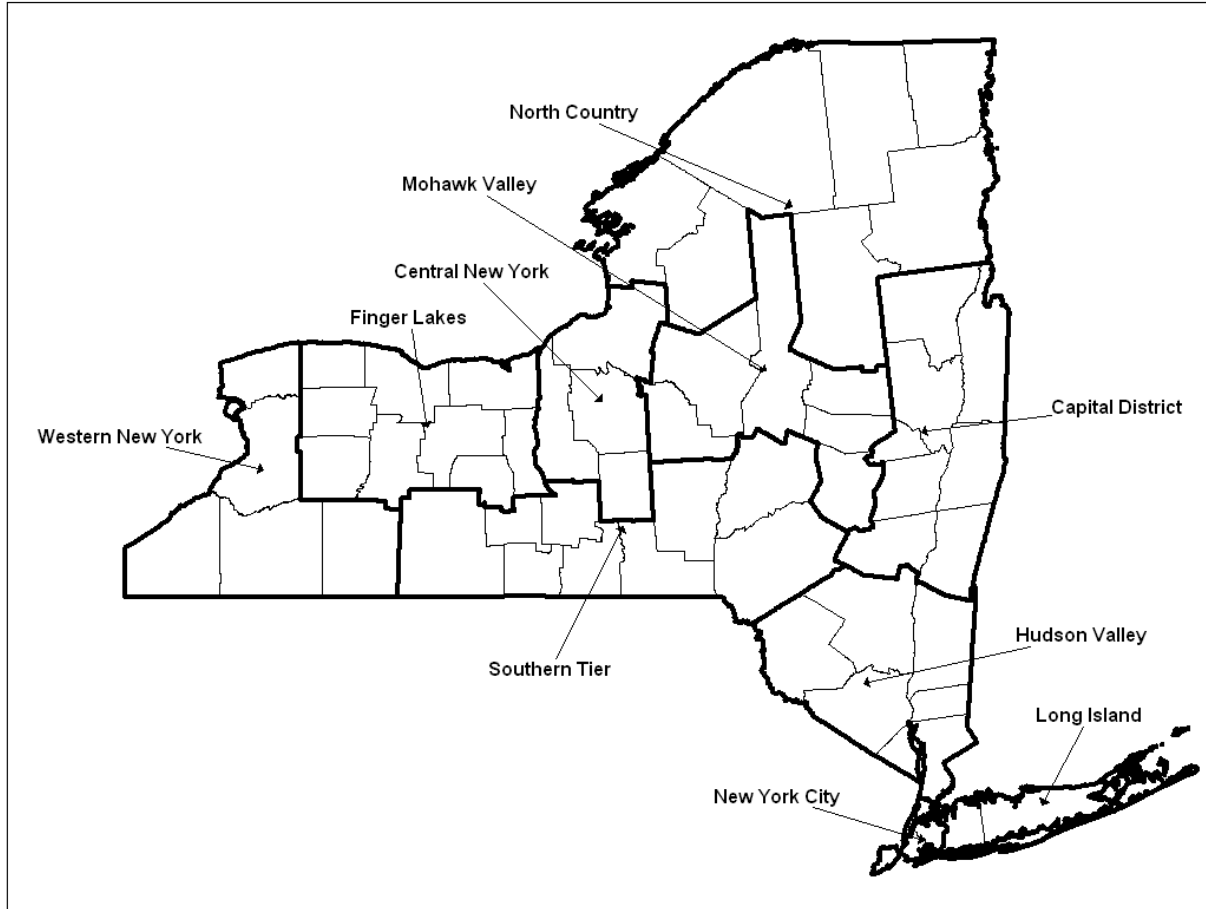
The NYS DOL regions (Exhibit 1) used in this report are:

- Capital District: The counties of Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Warren, and Washington.
- Central New York: The counties of Cayuga, Cortland, Onondaga, and Oswego.
- Finger Lakes: The counties of Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates.
- Hudson Valley: The counties of Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester.
- Long Island: The counties of Nassau and Suffolk.
- Mohawk Valley: The counties of Fulton, Herkimer, Madison, Montgomery, Oneida, and Schoharie.
- New York City: The counties of Bronx, Kings (Brooklyn), New York (Manhattan), Queens, and Richmond (Staten Island).
- North Country: The counties of Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, and St. Lawrence.



- Southern Tier: The counties of Broome, Chemung, Chenango, Delaware, Otsego, Schuyler, Steuben, Tioga, and Tompkins.
- Western New York: The counties of Allegany, Cattaraugus, Chautauqua, Erie, and Niagara.

**Exhibit 1**  
**New York State Counties by Labor Department Region**



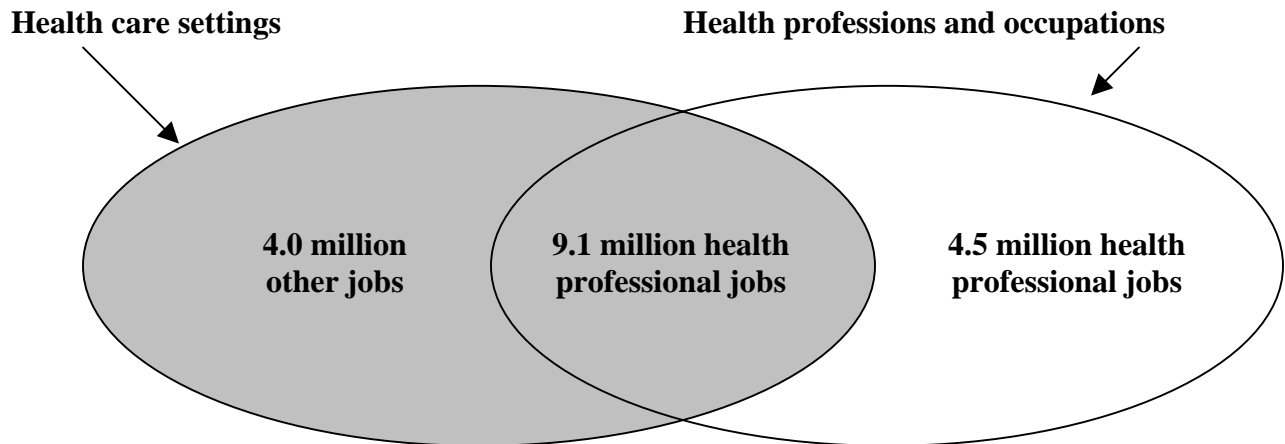
### III. THE HEALTH CARE WORKFORCE IN THE UNITED STATES

#### A. Total Employment

In 2006, there were over 17 and a half million jobs in health care settings or in health occupations nationally, accounting for almost 12% of the U.S. workforce.

Of the 17.6 million, slightly more than 13 million jobs, or more than three-quarters, were in health care settings in 2006. This included positions both in health care occupations and in non-health occupations such as food service, clerical titles, and information technology services. The other four and a half million jobs, or nearly one-quarter, were in health occupations outside of health care settings, such as schools, factories, and other non-health care settings (Exhibits 2 and 3).

**Exhibit 2**  
**The U.S. Health Workforce, 2006**



**Exhibit 3**  
**The U.S. Health Workforce, 2006**

	<b>Health Professional Jobs</b>	<b>Other Jobs</b>	<b>Totals</b>
<b>Health Care Settings</b>	9,093,186	4,015,914	13,109,100
<b>Other Work Settings</b>	4,490,814	133,020,086	137,510,900
<b>Totals</b>	13,584,000	137,036,000	150,620,000

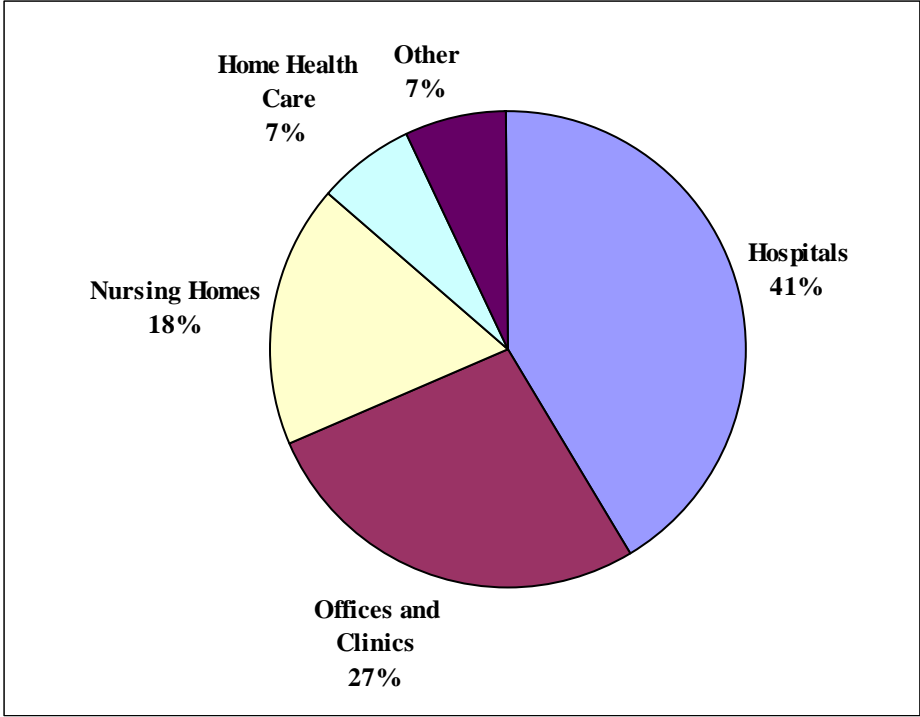
	<b>Number</b>	<b>Percent of Civilian Labor Workforce</b>
Health professional jobs in health care settings	9,093,186	6.0%
Other jobs in health care settings	4,015,914	2.7%
Health professional jobs in other settings	4,490,814	3.0%
<b>Total U.S. Health Care Jobs</b>	<b>17,599,914</b>	<b>11.7%</b>
U.S. Civilian Labor Force Jobs	150,620,000	100.0%

Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2006 and projected 2016.

**B. By Settings**

Hospitals continued to employ more health workers in the U.S. (41%) than other health settings, followed by offices and clinics (27%) (Exhibit 4).

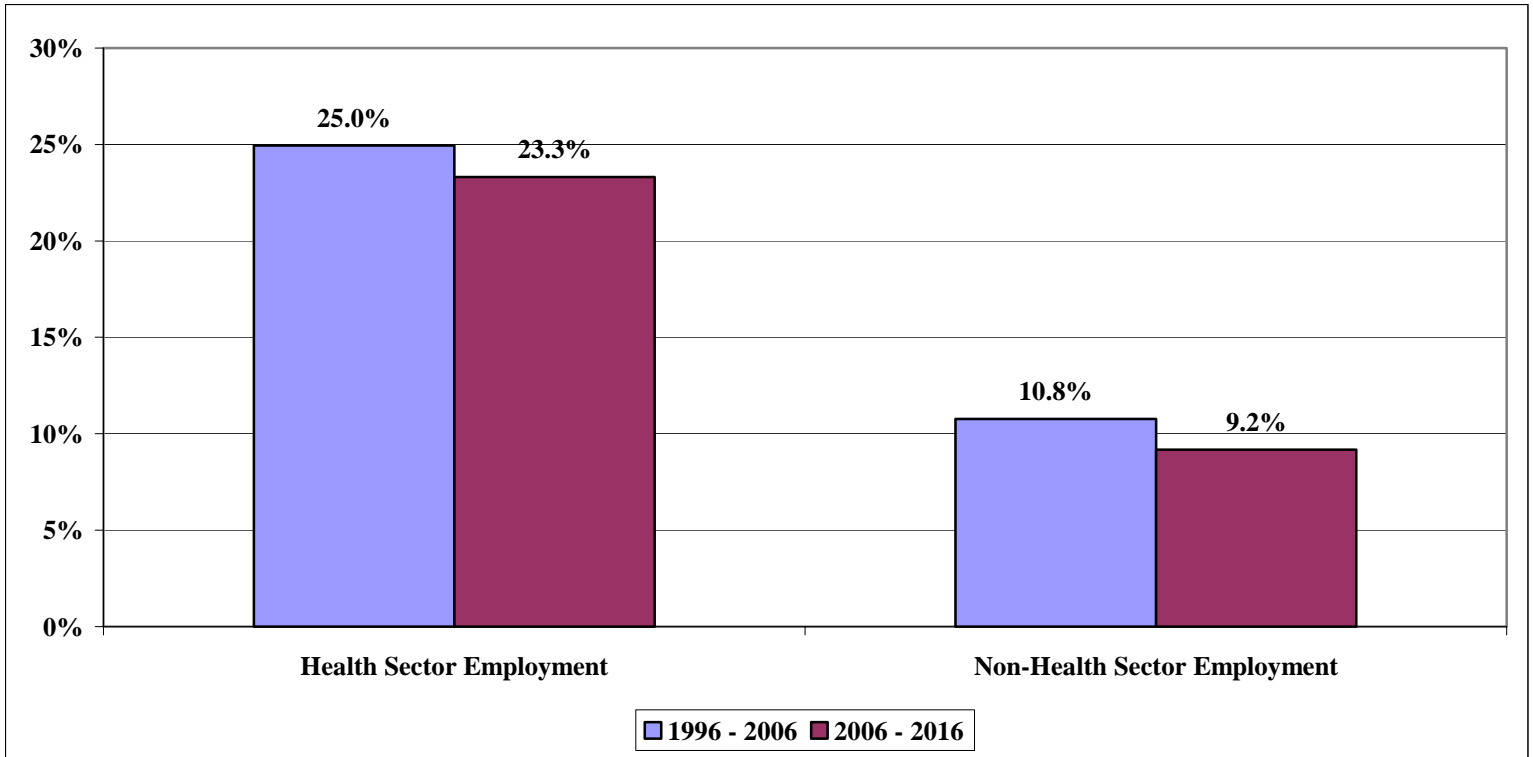
**Exhibit 4**  
**Percent Distribution of the Workforce by Health Settings, 2006**



Source: Industry Output and Employment Projections to 2016, Monthly Labor Review, Bureau of Labor Statistics, November 2007

According to the BLS, nearly 9% of jobs nationwide were in the health sector in 2006, and health sector jobs are projected to grow by more than twice the rate for all other settings. Approximately, one in every five jobs created between 2006 and 2016 will be in the health sector (Exhibit 5).

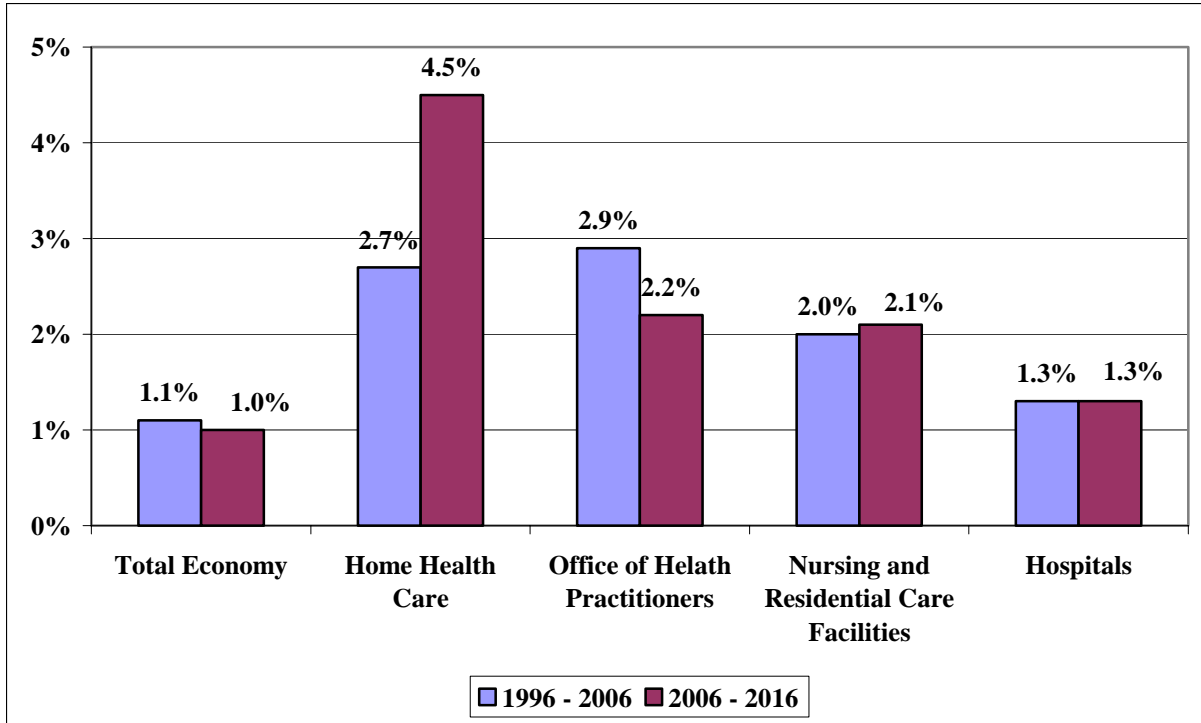
**Exhibit 5**  
**Growth of Health Sector and Non-Health Sector Jobs**  
**1996-2006 and Projected 2006-2016**



Source: Industry Output and Employment Projections to 2016, Monthly Labor Review, Bureau of Labor Statistics, November 2007.

Between 2006 and 2016, employment within home health care services is projected to grow fastest at 4.5% annually, followed by growth of jobs in offices of health practitioners at 2.2% and nursing and residential care facilities at 2.1%. Hospital employment was projected to remain relatively stable over the same period (Exhibit 6).

**Exhibit 6  
Annual National Projected Health Sector Job Growth by Setting**

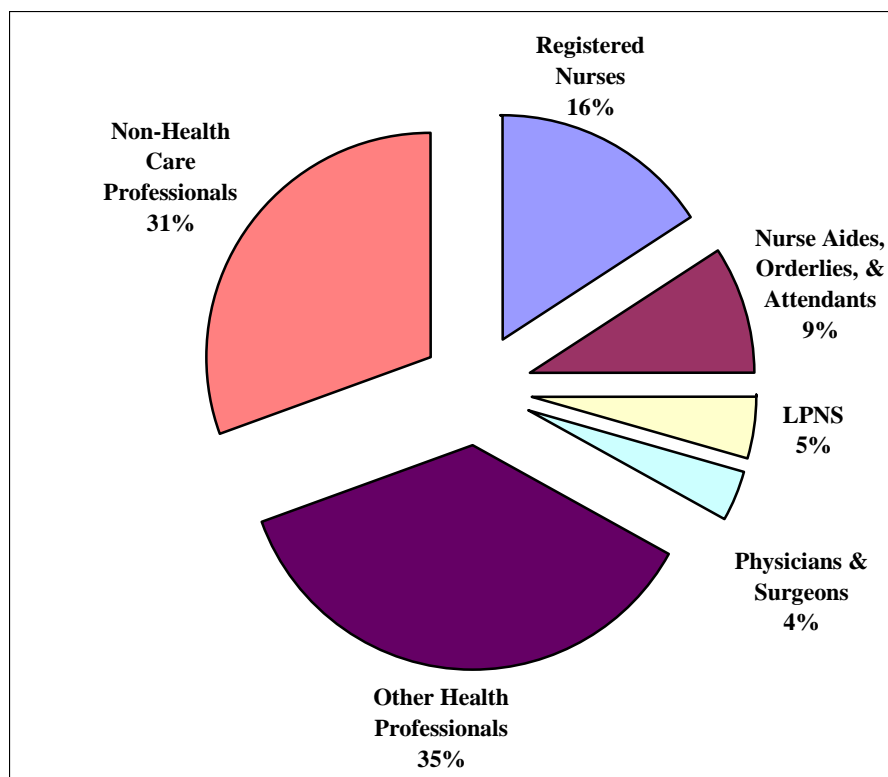


Source: Industry Output and Employment Projections to 2016, Monthly Labor Review, Bureau of Labor Statistics, November 2007.

**C. By Occupations**

RNs represent the single largest occupation in the health sector in 2006, followed by nursing aides, orderlies, and attendants. Thirty-five percent of the jobs in the health sector in 2006 were in other health professions, such as physical therapists, pharmacists, and occupational therapists (Exhibit 7).

**Exhibit 7**  
**Health Sector Employment in the U.S., 2006<sup>3</sup>**



Source: Industry Output and Employment Projections to 2016, Monthly Labor Review, Bureau of Labor Statistics, November 2007.

Seventeen of the 30 occupations projected to grow the fastest between 2006 and 2016 are health occupations, including 13 of the top 20<sup>4</sup>. The health occupations projected to have the biggest percentage increase in new jobs were:

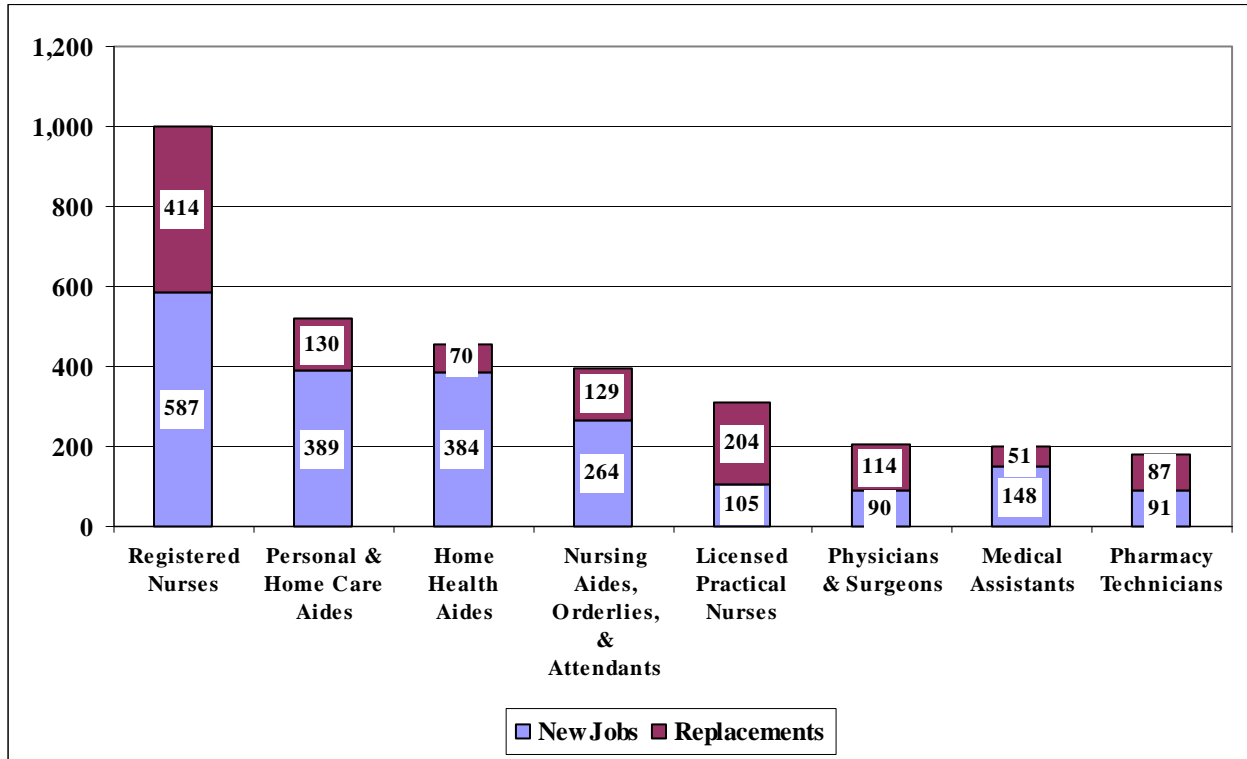
- personal and home care aides (51%);
- home health aides (49%);
- medical assistants (35%);
- physical therapists assistants (32%); and
- pharmacy technicians (32%).

Between 2006 and 2016, more than one million RNs will be needed to fill newly created RN positions as well as to fill vacant positions resulting from retirements and other departures from the profession. Additionally, nearly 520,000 personal and home care aides and more than 450,000 home health aides will be needed over the same period (Exhibit 8).

<sup>3</sup> Includes all workers in health sector employment. It does not include health professionals working outside of the health sector.

<sup>4</sup> Industry Output and Employment Projections to 2016, Monthly Labor Review, Bureau of Labor Statistics, November 2007.

**Exhibit 8**  
**Total Demand for Five Health Occupations with the Largest New Job Growth,**  
**Between 2006 and 2016**



Source: Industry Output and Employment Projections to 2016, Monthly Labor Review, Bureau of Labor Statistics, November 2007.

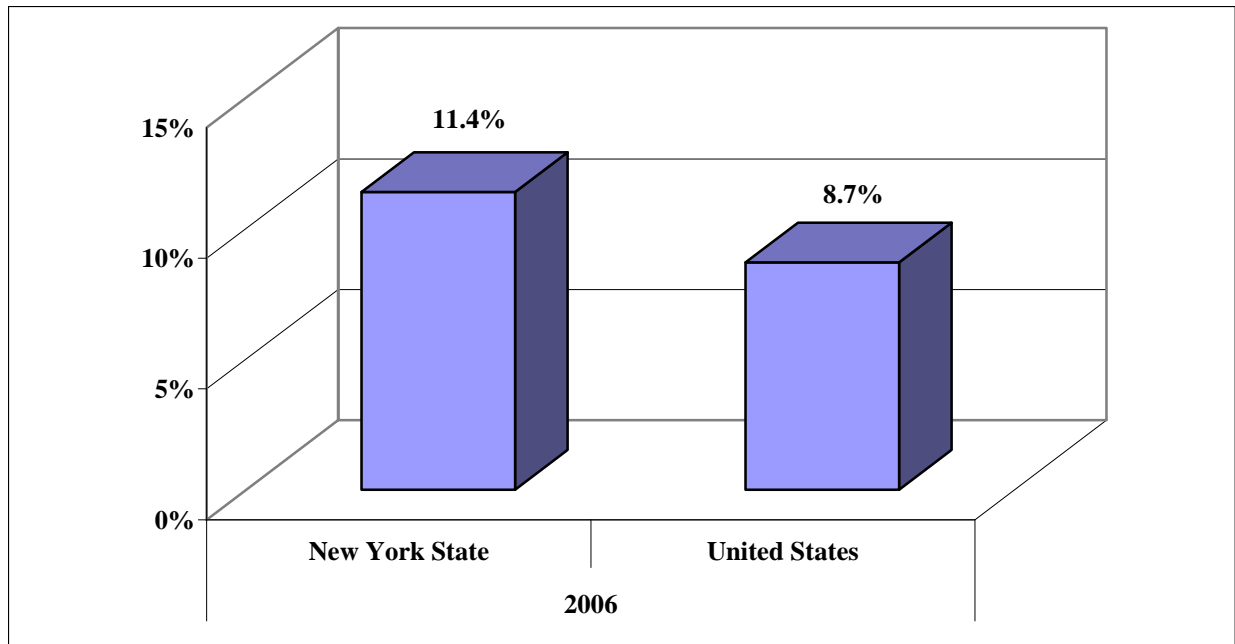


## IV. NEW YORK HEALTH SECTOR EMPLOYMENT

### A. Total Employment

Employment in the health sector accounted for more than 11% of total employment in New York in 2006<sup>5</sup>. This did not include those health professionals working in jobs outside of the health sector (Exhibit 9).

**Exhibit 9**  
**Health Sector Employment as a Percentage of Total Employment, 2006**



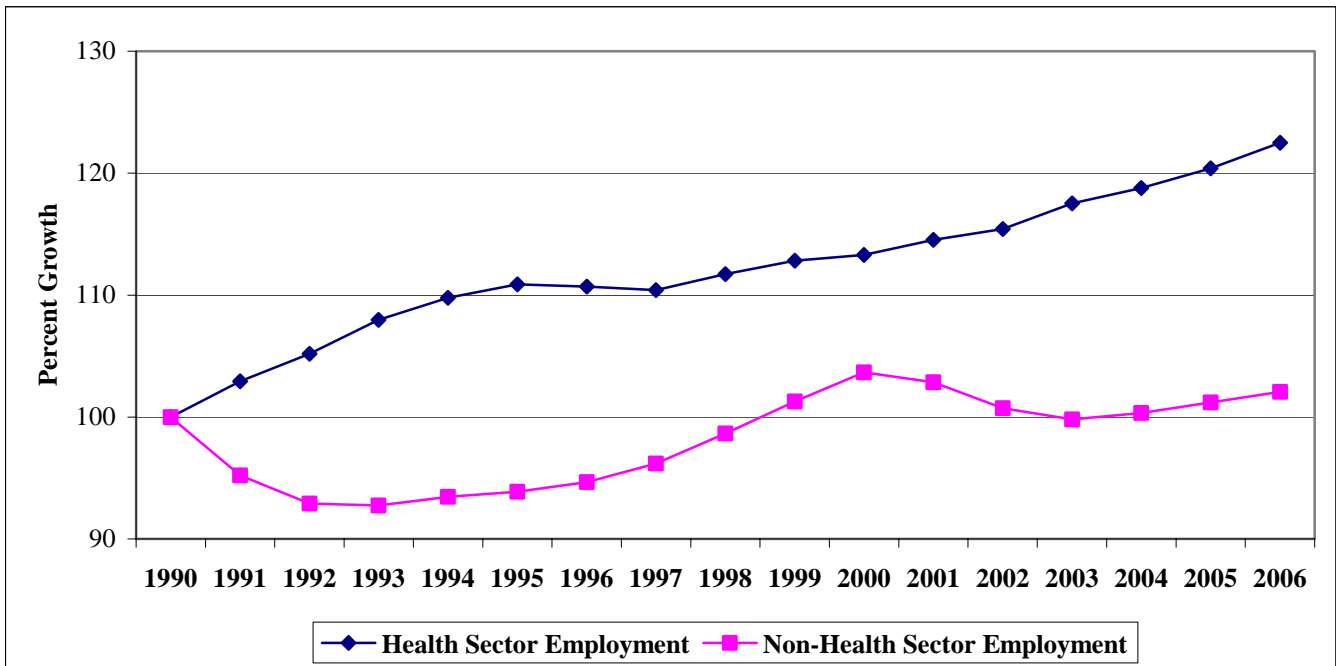
Source: NYS Department of Labor, ES-202; Industry Output and Employment Projections to 2016, Monthly Labor Review, Bureau of Labor Statistics, November 2007.

Between 1990 and 2006, employment in the health sector in the state expanded by nearly 200,000 jobs, or more than 22%, while employment in all other sectors grew just over 2%. Within the health sector, employment increased between 1990 and 1995, declined for two years between 1995 and 1997, then climbed steadily between 1997 and 2006. The largest growth in health sector employment occurred between 1990 and 1995, averaging more than 2% per year. Between 1997 and 2006, health sector employment increased, on average, by slightly more than 1% annually.

Employment in all other sectors declined between 1990 and 1992, grew between 1992 and 2000, and then declined again between 2000 and 2003. There was a slight increase in employment in all other sectors between 2003 and 2006 (Exhibit 10).

<sup>5</sup> New York State Department of Labor, ES-202

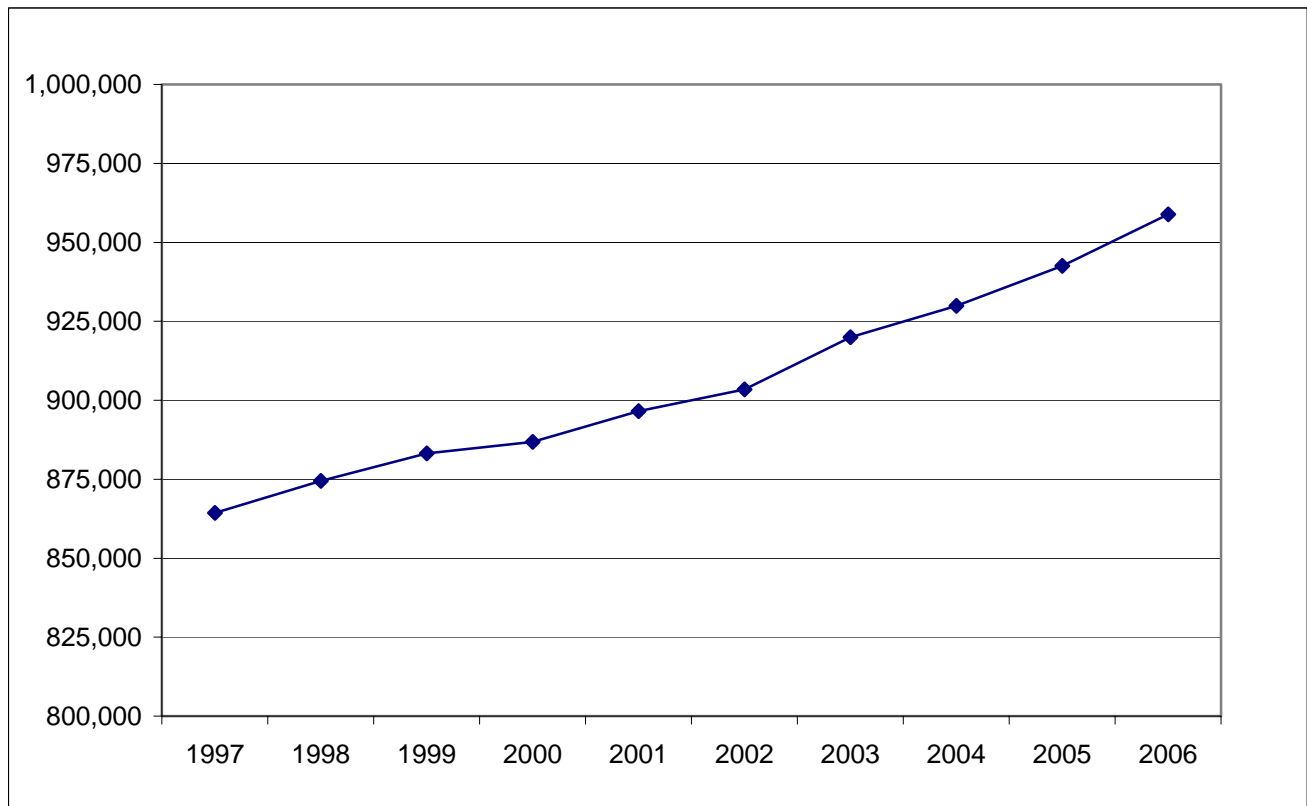
**Exhibit 10**  
**New York Employment Growth between 1990 and 2006,**  
**Standardized to 1990**



Source: NYS Department of Labor, ES-202

Health sector employment in New York grew 10.6% between 1997 and 2006, with the addition of nearly 95,000 jobs. Annual job growth in the health sector has remained constant since 1997, with yearly growth at about 1% (Exhibit 11).

**Exhibit 11**  
**Trends in Total New York Health Sector Employment, 1997-2006**



Source: NYS Department of Labor, ES-202

*Employment Growth in Regions Outside of New York City<sup>6</sup>*

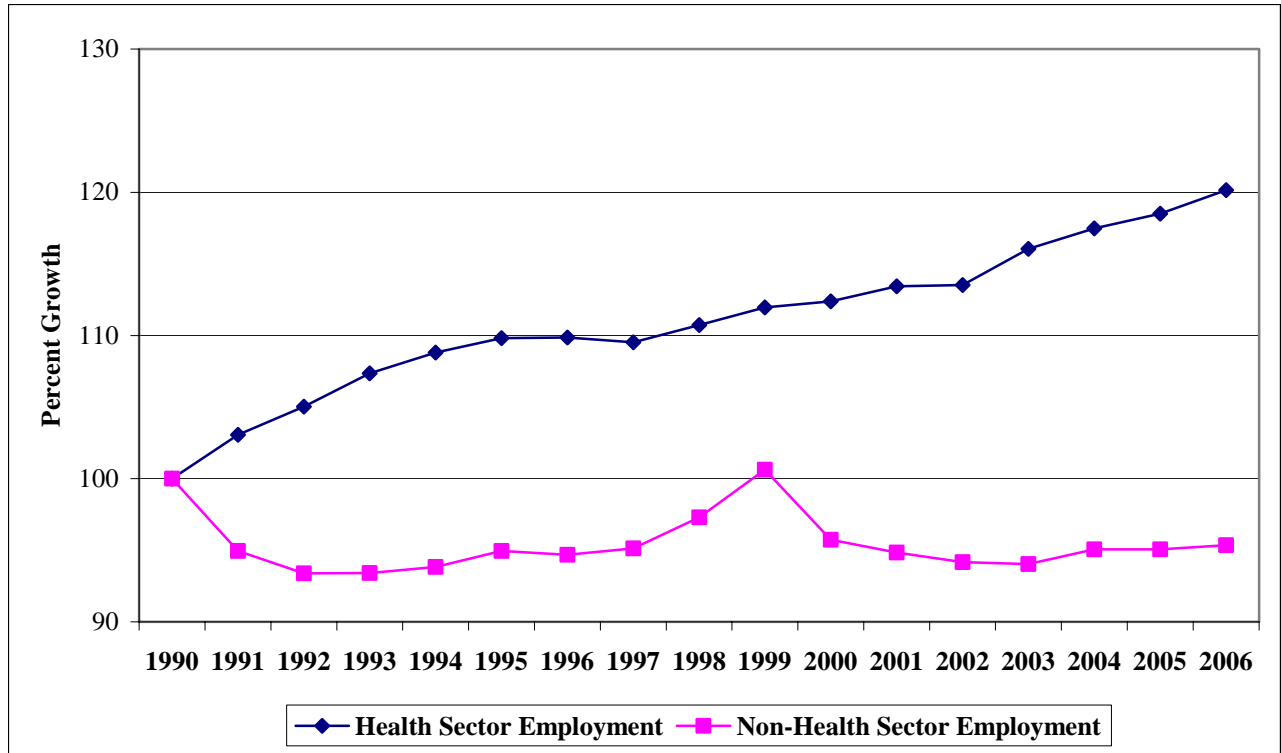
The difference between health sector and non-health sector job growth in regions outside of New York City was even more dramatic. While employment in the health sector grew by 20% between 1990 and 2006, employment outside of the health sector declined more than 5% during that same period.

There was some job growth outside of the health sector in the late 1990's, but it declined between 1999 and 2000 and has remained below the 1990 employment levels (Exhibit 12)

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<sup>6</sup> For New York City employment growth, please see page 42, Exhibit 32.

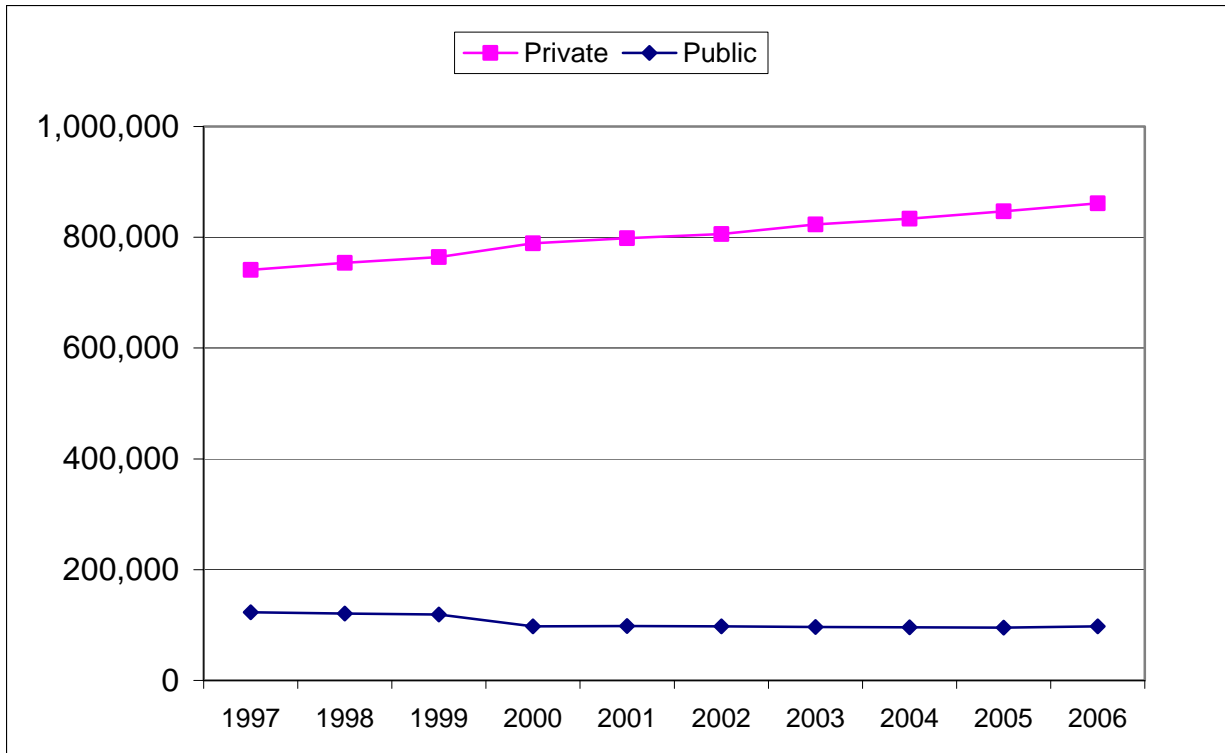
**Exhibit 12**  
**Employment Growth in Regions Outside of New York City, 1990 and 2006,**  
**(Standardized to 1990)**



Source: NYS Department of Labor, ES-202

Private and public health sector employment in New York has followed a pattern of steady growth in private sector employment and substantial decline in public sector employment. Between 1997 and 2006, private sector health employment in the state increased by more than 16%, while public sector health employment decreased by 21% (Exhibit 13).

**Exhibit 13**  
**Trends in Public and Private Health Employment**  
**in New York, 1997-2006**

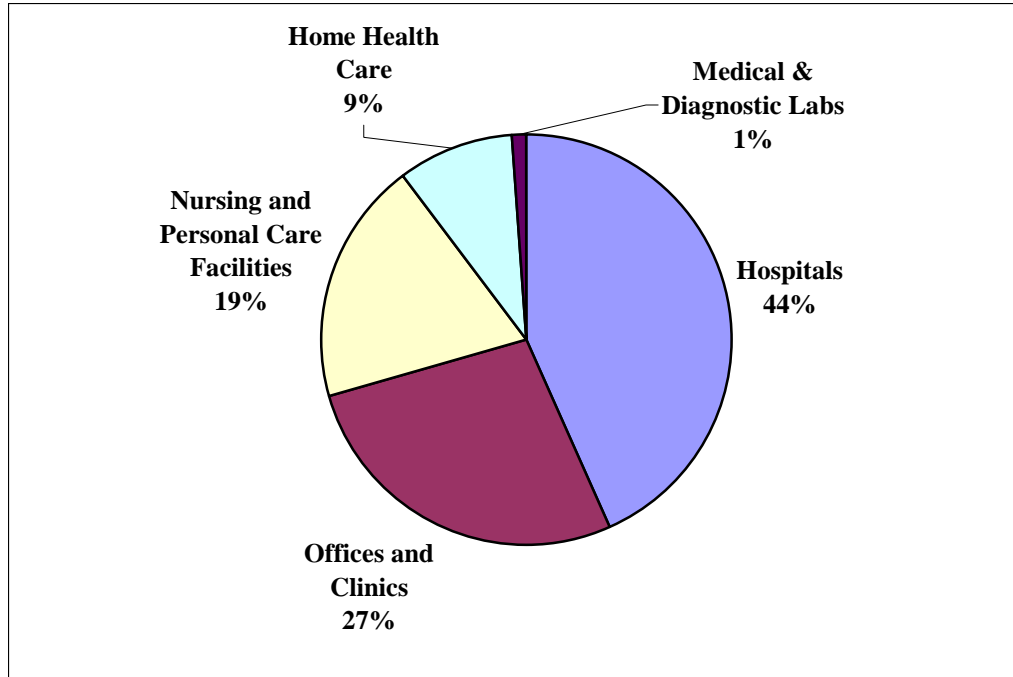


Sources: NYS Department of Labor, ES-202

**B. By Setting**

Hospitals employed the largest share of workers in the health sector in New York in 2006 (43% of all health sector employees), while most of the remainder worked either in offices and clinics (27%) or nursing and personal care facilities (19%) (Exhibit 14).

**Exhibit 14**  
**Health Sector Employment by Setting in New York, 2006**



Sources: NYS Department of Labor, ES-202

Between 1990 and 2006, hospital employment in New York declined by more than 3%. Meanwhile, employment in other health settings grew dramatically, including a nearly 90% increase in office and clinic jobs, a 75% increase in home health care jobs, and a 41% increase in nursing and residential care facility jobs (Exhibit 15).

**Exhibit 15**  
**Change in Health Sector Employment between 1990 and 2006 in New York**

<b>Health Setting</b>	<b>1990</b>	<b>2006</b>	<b>Number Change</b>	<b>Percent Change</b>
Home Health Care	49,735	87,149	37,414	75.2%
Hospitals	430,078	414,512	-15,566	-3.62%
Medical and Diagnostic Laboratories	12,101	11,629	-472	-3.9%
Nursing and Residential Care Facilities <sup>7</sup>	130,116	183,401	53,285	40.9%
Offices and Clinics	138,240	262,175	123,935	89.6%
<b>Total</b>	<b>782,803<sup>8</sup></b>	<b>958,866</b>	<b>176,063</b>	<b>22.5%</b>

Sources: NYS Department of Labor, ES-202

<sup>7</sup> Excluding residential mental retardation, mental health, and substance abuse facilities.

<sup>8</sup> Includes 22,533 jobs that were not classified into any of the categories.

### C. By Region

Health sector employment in New York grew between 2001 and 2006, increasing by nearly 8% over the six-year period. By 2006, the New York City region had nearly 415,000 health sector jobs, and the Long Island region had more than 143,000 health sector jobs, reflecting growth of 8.6% and 12.4%, respectively. The Long Island region also had the largest percentage increase in health sector employment, and the North County region had the second largest percentage increase in health sector employment, with 11.7% (Exhibit 16).

**Exhibit 16**  
**Total Health Sector Employment in New York**  
**by Department of Labor Region, 2001-2006**

Region	2001	2002	2003	2004	2005	2006	Change between 2001 and 2006	
							Number	Percent
Capital District	53,345	53,450	53,666	53,868	55,146	54,141	796	1.5%
Central New York	31,265	31,314	31,341	32,296	33,861	34,424	3,159	10.1%
Finger Lakes	56,236	53,938	55,135	56,329	57,777	58,303	2,067	3.7%
Hudson Valley	100,855	100,302	102,252	104,116	106,115	107,412	6,557	6.5%
Long Island	127,569	131,376	133,177	133,589	138,175	143,416	15,847	12.4%
Mohawk Valley	21,823	21,751	22,070	22,304	23,351	24,175	2,352	10.8%
New York City	381,772	387,985	394,431	397,859	405,944	414,683	32,911	8.6%
North Country	15,375	15,988	16,321	16,580	16,704	17,167	1,792	11.7%
Southern Tier	30,568	30,994	31,265	31,346	32,063	31,880	1,312	4.3%
Western New York	68,722	68,300	69,237	70,427	71,723	70,989	2,267	3.3%
<b>Totals</b>	<b>887,530</b>	<b>895,398</b>	<b>908,895</b>	<b>920,737</b>	<b>942,596</b>	<b>956,590</b>	<b>69,060</b>	<b>7.8%</b>

Sources: NYS Department of Labor, ES-202; U.S. Census

The Long Island region had the most health sector jobs per 100,000 population in 2006, with 5,130 jobs per capita, followed by the Capital District region with 5,103 jobs per capita. The North Country had the fewest with 4,000 jobs per capita. The Long Island region had the largest per capita increase between 2001 and 2006 of 11.8% followed by the Mohawk Valley and North County regions, both 10.8%. The Capital District region had a per capita decrease of 1% between 2001 and 2005, the only region to show a per capita decline (Exhibit 17).

**Exhibit 17**  
**Total Health Sector Employment in New York by Department of Labor Region**  
**Per 100,000 population, 2001 and 2006**

Region	2001		2006		Change in Jobs Per Capita
	Population	Rate of Jobs Per Capita	Population	Rate of Jobs Per Capita	
Capital District	1,033,538	5,161	1,060,993	5,103	-1.1%
Central New York	710,649	4,399	709,580	4,851	10.3%
Finger Lakes	1,201,319	4,681	1,196,334	4,873	4.1%
Hudson Valley	2,209,050	4,566	2,275,791	4,720	3.4%
Long Island	2,778,921	4,591	2,795,377	5,130	11.8%
Mohawk Valley	504,148	4,329	504,226	4,794	10.8%
New York City	8,076,374	4,727	8,214,426	5,048	6.8%
North Country	425,959	3,610	429,178	4,000	10.8%
Southern Tier	718,995	4,251	715,600	4,455	4.8%
Western New York	1,436,651	4,783	1,404,678	5,054	5.7%
<b>Totals</b>	19,095,604	4,648	19,306,183	4,955	6.6%

Sources: NYS Department of Labor, ES-202; U.S. Census

*Hospital Employment*

Between 2001 and 2006, overall hospital employment in New York grew by more than 10,600 jobs, or by nearly 3%, with the largest jump in jobs between 2005 and 2006. The region that experienced the greatest percentage increase in hospital employment between 2001 and 2006 was the Long Island region, followed by the North County region. The Long Island region also experienced the largest growth in the number of new jobs, with nearly 5,130 new jobs, followed by the New York City region with an increase of more than 1,200 jobs. Two regions saw declines in hospital employment over the same time period. The Western New York region experienced the largest decline, losing nearly 1,000 jobs between 2001 and 2006 (Exhibit 18).



**Exhibit 18**  
**Change in Hospital Employment in New York**  
**by Department of Labor Region, 2001 to 2006**

Region	2001	2002	2003	2004	2005	2006	Change, 2001 to 2006	
							Number	Percent
Capital District	20,793	20,958	21,377	20,898	21,340	21,627	834	4.0%
Central New York	11,417	11,300	11,187	11,273	11,394	11,481	64	0.6%
Finger Lakes	25,462	24,355	24,720	25,619	26,017	26,469	1,007	4.0%
Hudson Valley	39,649	39,511	39,266	38,979	38,663	39,353	-296	-0.7%
Long Island	45,854	46,939	47,181	47,475	46,334	50,980	5,126	11.2%
Mohawk Valley	9,624	9,330	9,414	9,466	9,461	10,245	621	6.5%
New York City	201,931	201,617	202,804	202,259	203,333	203,168	1,237	0.6%
North Country	7,881	8,066	8,386	8,399	8,381	8,471	590	7.5%
Southern Tier	15,047	15,106	15,247	15,105	15,253	15,494	447	3.0%
Western New York	28,200	27,946	28,088	28,203	27,302	27,221	-979	-3.5%
<b>Totals</b>	<b>405,858</b>	<b>405,128</b>	<b>407,670</b>	<b>407,676</b>	<b>407,479</b>	<b>416,515</b>	<b>10,657</b>	<b>2.6%</b>

Sources: NYS Department of Labor, ES-202

*Nursing and Personal Care Facility Employment*

Employment at nursing and personal care facilities in New York increased by nearly 12,000 jobs between 2001 and 2006, with all regions except the New York City and Capital District regions experiencing job growth. The Long Island region had the largest percentage increase with more than a 37% jump, while employment in the New York City and Capital District regions in nursing and personal care facilities dropped by almost 5% and 6%, respectively (Exhibit 19).

**Exhibit 19**  
**Change in Nursing and Personal Care Facility Employment**  
**in New York by Department of Labor Region, 2001 to 2006**

Region	2001	2002	2003	2004	2005	2006	Change, 2001 to 2006	
							Number	Percent
Capital District	14,636	14,755	14,582	14,989	15,167	13,758	-878	-6.0%
Central New York	6,991	7,339	7,267	8,080	8,935	9,285	2,294	32.8%
Finger Lakes	12,672	11,810	12,341	12,350	13,943	13,721	1,049	8.3%
Hudson Valley	20,569	21,058	21,780	23,590	23,883	23,928	3,359	16.3%
Long Island	18,363	20,376	20,947	22,427	24,448	25,225	6,862	37.4%
Mohawk Valley	6,373	6,529	6,482	6,444	7,222	7,133	760	11.9%
New York City	63,979	64,862	63,554	63,208	62,051	60,982	-2,997	-4.7%
North Country	2,961	3,250	3,192	3,340	3,463	3,319	358	12.1%
Southern Tier	7,462	7,598	7,455	7,477	7,852	7,543	81	1.1%
Western New York	16,950	17,584	17,673	18,063	18,416	17,998	1,048	6.2%
<b>Totals</b>	<b>170,956</b>	<b>175,160</b>	<b>175,273</b>	<b>179,968</b>	<b>185,568</b>	<b>184,898</b>	<b>11,941</b>	<b>6.9%</b>

Sources: NYS Department of Labor, ES-202

### *Ambulatory Care*

Employment in ambulatory care settings increased by more than 10% between 2001 and 2006, with more than 25,400 jobs added. The North Country, Mohawk Valley, and New York City regions saw the largest percentage increases (Exhibit 20).

**Exhibit 20**  
**Change in Ambulatory Care Services Employment (Excluding Home Health Care)**  
**in New York by Department of Labor Region, 2001 to 2006**

Region	2001	2002	2003	2004	2005	2006	Change, 2001 to 2006	
							Number	Percent
Capital District	14,961	14,760	14,765	15,268	15,913	15,959	998	6.7%
Central New York	11,475	11,357	11,609	11,722	12,159	12,352	877	7.6%
Finger Lakes	13,383	13,254	13,914	14,118	14,259	14,649	1,266	9.5%
Hudson Valley	34,962	34,038	34,861	35,218	36,603	36,984	2,022	5.8%
Long Island	52,661	53,287	54,217	54,768	56,525	57,400	4,739	9.0%
Mohawk Valley	4,819	4,840	5,099	5,315	5,456	5,543	724	15.0%
New York City	83,671	86,406	88,557	90,945	94,751	95,709	12,038	14.4%
North Country	4,037	4,161	4,189	4,265	4,254	4,745	708	17.5%
Southern Tier	7,120	7,222	7,483	7,583	7,715	7,585	465	6.5%
Western New York	19,626	18,663	19,260	19,621	20,941	21,218	1,592	8.1%
<b>Totals</b>	246,715	247,988	253,954	258,823	268,576	274,150	25,429	10.3%

Sources: NYS Department of Labor, ES-202

### *Home Health Care*

Between 2001 and 2006, employment in home health care in New York grew by nearly 23,000 jobs, with the New York City region accounting for virtually all of the increase, a 70% jump in home health care jobs.

The Hudson Valley region saw the next largest increase in home health care employment, growing by nearly 1,500 jobs between 2001 and 2006, while, in contrast, the Finger Lakes region saw the largest decrease, losing 1,254 jobs (26.6%) (Exhibit 21).

**Exhibit 21**  
**Change in Home Health Care Services Employment**  
**in New York by Department of Labor Region, 2001 to 2006**

Region	2001	2002	2003	2004	2005	2006	Change, 2001 to 2006	
							Number	Percent
Capital District	2,954	2,976	2,941	2,712	2,726	2,797	-157	-5.3%
Central New York	1,382	1,318	1,278	1,221	1,373	1,306	-76	-5.5%
Finger Lakes	4,719	4,519	4,161	4,242	3,558	3,465	-1,254	-26.6%
Hudson Valley	5,675	5,696	6,345	6,351	6,966	7,146	1,471	25.9%
Long Island	10,691	10,773	10,833	10,919	10,868	9,811	-880	-8.2%
Mohawk Valley	1,008	1,052	1,076	1,080	1,212	1,254	246	24.4%
New York City	32,192	35,209	39,516	41,447	45,809	54,825	22,633	70.3%
North Country	495	512	553	577	606	632	137	27.7%
Southern Tier	939	1,068	1,079	1,181	1,243	1,258	319	34.0%
Western New York	3,945	4,107	4,216	4,540	4,614	4,552	607	15.4%
<b>Totals</b>	64,000	67,230	71,998	74,270	79,027	87,046	23,046	34.9%

Sources: NYS Department of Labor, ES-202

**D. By Occupation**

Changes in the number of health sector jobs in New York between 2001 and 2006 varied by occupation. While these data represented positions and not individuals or full-time equivalents, they may be useful in identifying trends in occupations or job titles.

- Home health aide jobs increased by 21,630, or nearly 20%;
- Nursing aides, orderlies, and attendant jobs increased by 10,390, or nearly 12%;
- Social worker jobs increased by 8,450, or nearly 25%;
- Medical and health service manager jobs increased by 6,170, or more than 32%; and
- RN jobs increased by 4,590, or nearly 3%.
  
- Medical assistant jobs decreased by 3,930, or more than 18%;
- Dental hygienist jobs decreased by 3,130, or more than 25%; and
- Medical secretary jobs decreased by 1,580, or more than 12% (Exhibit 22).

**Exhibit 22**  
**Change in the Number of Jobs in Selected Health Occupations in New York,**  
**2001-2006**

Occupation	2001	2002	2003	2004	2005	2006	Change 2001 to 2006	
							Number	Percent
<b>HEALTH CARE TECHNICIANS AND TECHNOLOGISTS</b>								
Cardiovascular Technologists and Technicians	2,820	3,090	3,620	3,820	3,520	3,320	500	17.7%
Dietetic Technicians	2,010	1,660	1,520	1,490	1,650	1,540	-470	-23.4%
Licensed Practical and Licensed Vocational Nurses	45,580	48,560	47,990	51,420	50,060	48,230	2,650	5.8%
Medical and Clinical Laboratory Technicians	9,800	8,960	9,750	9,910	10,080	9,650	-150	-1.5%
Medical and Clinical Laboratory Technologists	9,760	9,050	9,680	9,340	8,980	9,760	0	0.0%
Medical Records and Health Information Technicians	6,270	6,340	7,030	7,220	7,740	8,190	1,920	30.6%
Nuclear Medicine Technologists	1,000	1,080	1,180	1,170	1,100	1,260	260	26.0%
Pharmacy Technicians	10,420	10,120	9,870	11,950	11,260	11,960	1,540	14.8%
Radiologic Technologists and Technicians	10,850	11,050	10,700	11,160	10,570	10,870	20	0.2%
Surgical Technologists	4,280	4,510	4,100	4,380	4,730	5,040	760	17.8%
<b>HEALTH CARE PROFESSIONALS</b>								
Dental Hygienists	12,400	10,000	9,910	10,000	9,180	9,270	-3,130	-25.2%
Dietitians and Nutritionists	4,180	4,280	4,240	4,180	3,970	4,240	60	1.4%
Pharmacists	14,500	13,730	12,620	13,100	13,400	13,970	-530	-3.7%
Physical Therapists	10,410	9,970	11,340	12,400	12,390	11,810	1,400	13.4%
Registered Nurses	160,380	163,600	163,710	165,800	164,370	164,970	4,590	2.9%
Respiratory Therapists	4,850	4,380	4,430	4,500	4,780	5,210	360	7.4%
Social Workers	34,020	35,900	34,970	34,320	38,170	42,470	8,450	24.8%
<b>MANAGERS/ADMINISTRATIVE SUPPORT</b>								
Medical and Health Services Managers	19,290	19,820	22,100	23,120	23,320	25,460	6,170	32.0%
Medical Secretaries	12,720	13,460	12,510	11,920	11,160	11,140	-1,580	-12.4%
<b>HEALTH CARE PARAPROFESSIONALS</b>								
Dental Assistants	15,120	17,600	18,110	16,160	17,010	17,270	2,150	14.2%
Home Health Aides	109,330	108,210	105,790	103,840	114,690	130,960	21,630	19.8%
Medical Assistants	21,730	19,160	21,310	21,080	18,220	17,800	-3,930	-18.1%
Nursing Aides, Orderlies, and Attendants	89,270	90,930	97,700	96,490	100,660	99,660	10,390	11.6%

Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics

*Licensure Data for Selected Health Professions in New York*

State licensure data are a source of information on the supply of health professionals. Data are available from the New York State Education Department (SED) on the number of individuals licensed in a health profession. By law, SED licenses more than 25 health professions, and individuals must secure a New York license before practicing in one of these health professions. *Licensure data in a health profession represent the upper limit of the number of individuals in New York who can practice in a profession.* It is important to recognize the limitations of these data; chiefly that some individuals who are licensed in a health profession may be working either less than full time or not at all in the profession, or may be working in the profession but in another state. Licensure data, however, can provide valuable information on major trends in the supply of health professionals in the state. Exhibit 23 presents the number of licensees in selected professions between 2002 and 2006 in New York.

The number of RNs who were licensed increased by nearly 16,000, or 7% between 2002 and 2006. The number of social workers who were licensed increased by almost 9,400 individuals, or more than 23% during the same period. The numbers of physician assistants and nurse practitioners both grew between 2002 and 2006, by nearly 31% and 23%, respectively.

**Exhibit 23**  
**Change in the Number of Licensed Individuals**  
**in Selected Health Professions in New York<sup>9</sup>, 2002 to 2006**

Profession	2002	2003	2004	2005	2006	Change 2002 to 2006	
						Number	Percent
Physician Assistants	6,294	6,806	7,229	7,747	8,221	1,927	30.6%
Social Workers	40,008	40,892	41,413	42,929	49,400	9,392	23.5%
Nurse Practitioners	10,481	11,195	11,717	12,344	12,902	2,421	23.1%
Speech-Language Pathologists	10,158	10,525	10,914	11,342	11,846	1,688	16.6%
Physical Therapists	15,351	16,152	16,556	16,958	17,639	2,288	14.9%
Occupational Therapists	8,161	8,697	8,946	9,137	9,367	1,206	14.8%
Pharmacists	18,498	19,029	19,136	19,243	19,832	1,334	7.2%
Registered Nurses	231,137	232,945	237,992	240,290	246,958	15,821	6.8%
Dietitians/Nutritionists	4,404	4,531	4,622	4,559	4,642	238	5.4%
Dental Hygienists	9,036	9,112	9,149	9,395	9,517	481	5.3%
Physical Therapy Assistants	4,311	4,417	4,367	4,365	4,458	147	3.4%
Occupational Therapy Assistants	3,536	3,591	3,614	3,592	3,626	90	2.5%
Respiratory Therapists	4,681	4,655	4,504	4,662	4,703	22	0.5%
Licensed Practical Nurses	69,548	68,754	66,746	69,467	69,855	307	0.4%

Source: NYS Education Department, Office of Professions

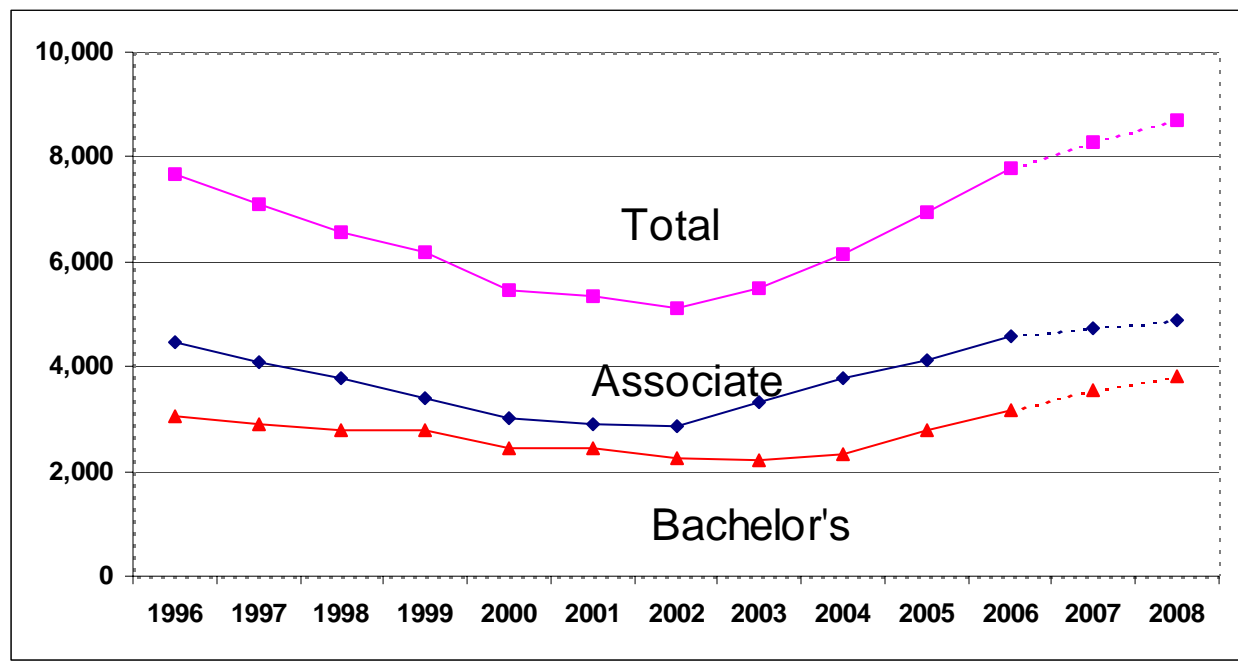
<sup>9</sup> Note: This total includes all New York licensed individuals regardless of whether the address given in the licensure file was a New York address, while tables of licensees by region include only those individuals with an address in the region.

### E. Trends in RN Education, 1996-2008

The Center surveys registered nursing education programs in New York annually to better understand trends affecting the supply of RNs in the state. The brief survey includes questions on applications, acceptances, and graduations for the current year as well as projected graduations through 2008. Of the 108 nursing programs in New York surveyed in 2007, 99 returned the surveys for a 92% response rate. Data for the nine non-respondents were imputed from previous surveys; consequently, the following data reflect enrollments and graduations for all registered nursing programs in the state.

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. RN graduations are projected to continue to rise in 2007 and 2008. Furthermore, the number of graduations from both ADN and BSN programs rose in 2006 and is projected to continue to rise through 2008 (Exhibit 24).

**Exhibit 24**  
**New York RN Graduations by Degree Type, 1996 to 2008**

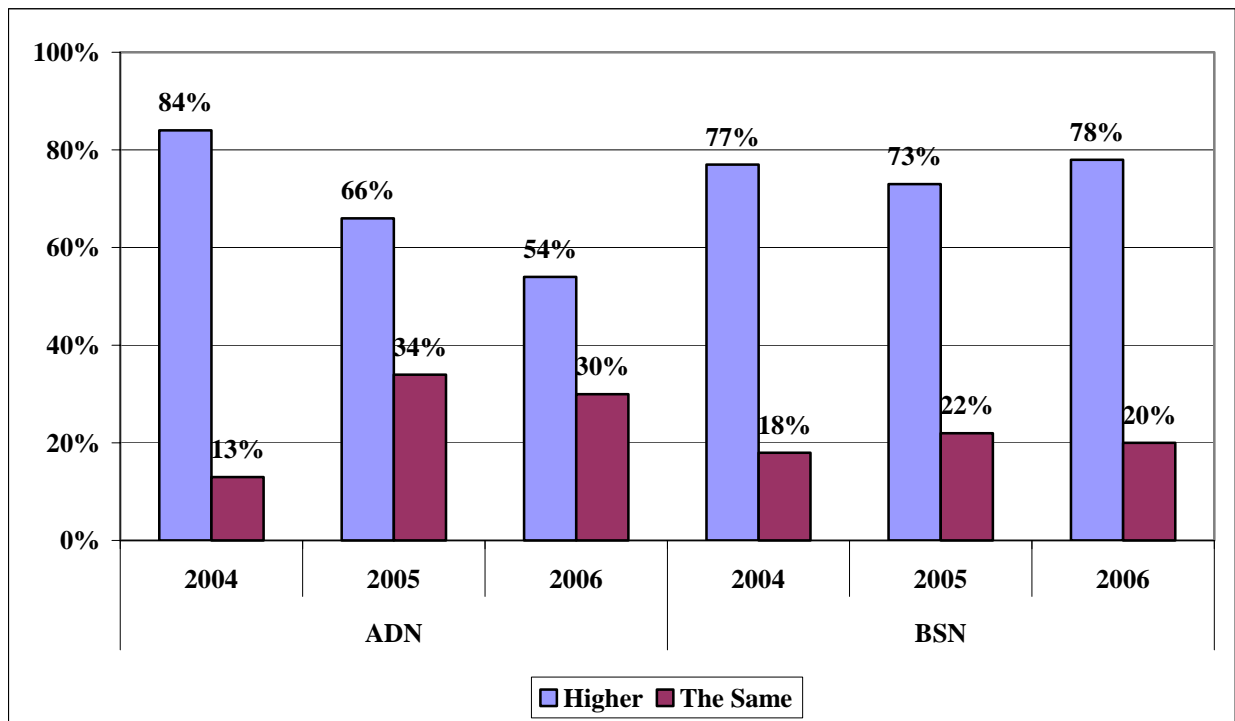


See the Appendix for the full report of New York Nursing Graduations, 1996-2008.

While graduations are projected to continue to rise through 2008, the percent of nursing education programs that reported an increase in applications declined slightly between 2005 and 2006. Compared to 2005, fewer nursing education programs reported turning away qualified applicants in 2006 (Exhibit 25).

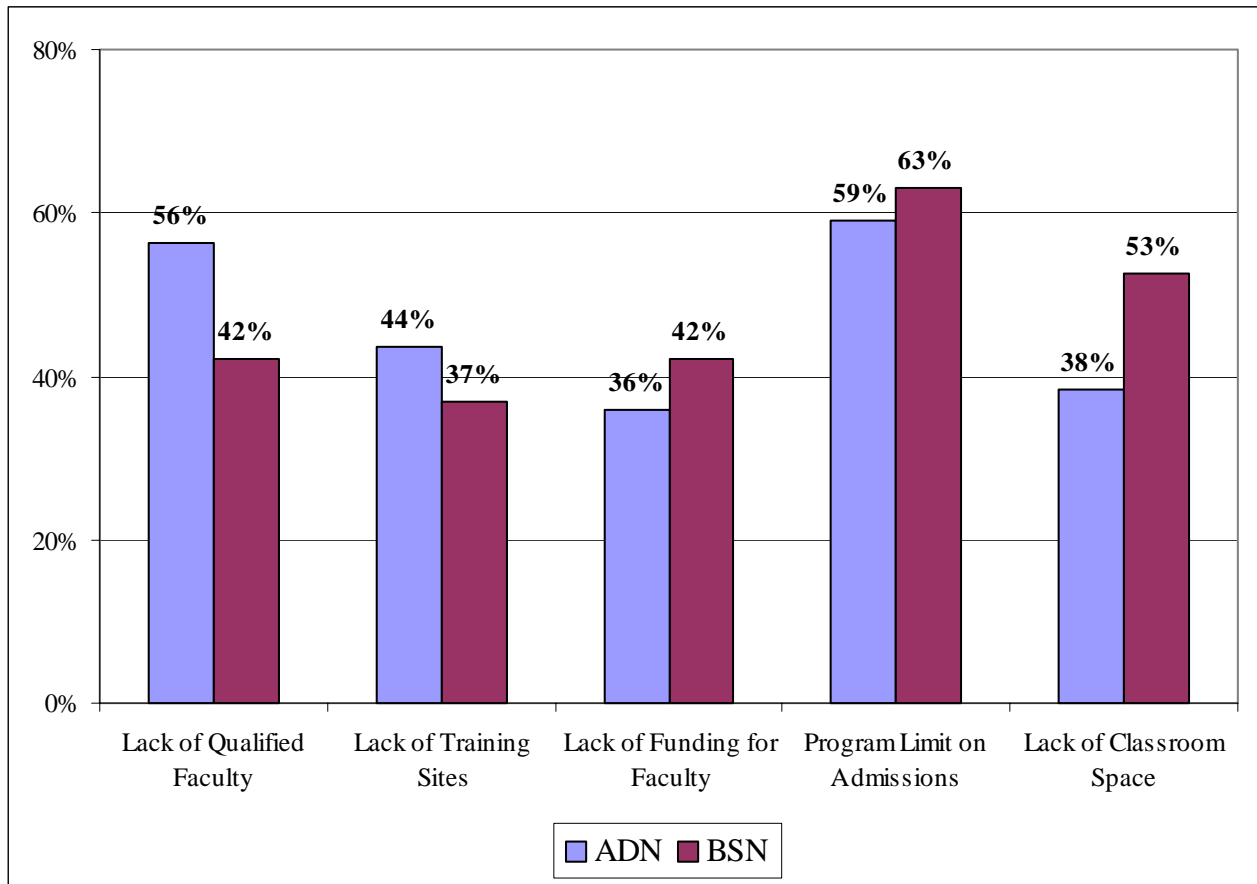
Fifty-nine percent of nursing education programs reported turning away qualified applicants in 2006, compared to 67% in 2005 and 57% in 2004. ADN programs were more likely to turn away qualified applicants than BSN programs. Nearly three-fourths of ADN programs and more than 40% of BSN programs reported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

**Exhibit 25**  
**Percent Change in Number of Acceptances by Program Type, 2004-2006**



The majority of ADN and BSN programs that turned away qualified applicants in 2006 cited limits on program admissions as the primary reason for doing so. A higher percentage of ADN programs reported lack of clinical training sites and difficulty recruiting qualified faculty as additional reasons for turning away qualified applicants, while a higher percentage of BSN programs reported lack of classroom space and lack of funding to hire new faculty as additional reasons for turning away qualified applicants than ADN programs (Exhibit 27).

**Exhibit 27**  
**Reasons for Turning Away Qualified Applicants by Degree Type**



**F. Demand for Workers**

The Center conducted surveys of hospitals, nursing homes, and home health care agencies in the state to determine the current demand for health workers<sup>10</sup>. The survey of hospitals, nursing homes, and home health care agencies was conducted in the fall of 2007.

<sup>10</sup> Recruitment and retention for each of the three health sectors were assessed on a 1 to 5 scale, with 1 being very easy and 5 being very difficult.



### Hospitals

Thirty-three hospitals in New York, or approximately 13%, responded to the survey. Hospitals across the state reported continued difficulty recruiting and retaining pharmacists and experienced RNs. Recruitment problems were also reported for medical laboratory technologists and radiologic technologists, particularly in nuclear medicine (Exhibit 28).

**Exhibit 28**  
**Hospital Recruitment and Retention Difficulties for Selected Occupations, 2007**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.5	2.4	42%	38%	35%	4%
Medical Laboratory Technicians	4.0	2.8	61%	50%	46%	14%
Nursing Aides/Patient Care Associates	2.3	3.1	16%	39%	45%	23%
Pharmacists	4.7	3.2	79%	76%	59%	10%
Physical Therapists	4.2	3.2	63%	59%	50%	9%
Radiologic Technologists						
<i>-mammographers</i>	3.6	2.7	45%	55%	32%	6%
<i>-nuclear medicine technologists</i>	4.1	2.8	71%	71%	39%	7%
<i>-sonographers</i>	3.8	2.7	55%	66%	69%	7%
Registered Nurses						
<i>-experienced</i>	4.1	3.4	81%	81%	65%	19%
<i>-newly trained</i>	2.6	3.4	45%	65%	52%	10%
Respiratory Therapists	3.7	2.8	46%	46%	36%	4%

Seventy-three percent of the hospitals statewide reported difficulty hiring for off-shift positions, while 52% reported difficulty hiring part-time employees. About one-third indicated that hiring bilingual workers (mostly Spanish-speaking) was also problematic.

Thirty-six percent of the respondents statewide indicated an expected expansion of service in the future and reported need for additional RNs, physicians, and pharmacists.

### Nursing Homes

Just over 100 nursing homes in New York responded to the survey for response rate of about 16%. Nursing homes across the state reported recruitment and retention difficulties for RNs and

licensed practical nurses. Recruitment problems were also reported for occupational and physical therapists. Retention difficulties were reported for certified nurse aides (Exhibit 29).

**Exhibit 29**  
**Nursing Home Recruitment and Retention Difficulties for Selected Occupations, 2007**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nurse Aides	3.1	3.5	46%	51%	35%	13%
Clerical	2.2	2.1	5%	10%	25%	2%
Dietitians/Nutritionists	3.3	2.5	33%	27%	32%	4%
Licensed Practical Nurses	3.9	3.5	57%	63%	43%	9%
Physical Therapists	3.7	2.8	41%	40%	33%	3%
Occupational Therapists	3.7	2.7	43%	38%	32%	2%
Registered Nurses						
Experienced	4.3	3.7	69%	71%	50%	12%
Newly Trained	3.8	3.6	56%	60%	41%	10%
Respiratory Therapists	3.2	2.8	25%	20%	20%	0%
Social Workers						
MSWs	3.2	2.5	12%	23%	29%	4%
BSWs	2.9	2.4	14%	15%	24%	3%

Sixty-six percent of nursing homes statewide reported difficulty hiring for off-shifts, while 53% and 24%, respectively, indicated difficulties hiring part-time and bilingual workers (Spanish- and Russian-speaking).

Approximately 25% of nursing homes indicated an expected expansion of services in the future and reported a need for more workers in the following occupations: RNs, certified nurse aides, LPNs and physical and occupational therapists.

## Home Care Agencies

Approximately 17% of home care agencies in New York responded to the survey. Statewide, home care agencies reported difficulty recruiting for many occupations, particularly RNs, MSWs, respiratory therapists, occupational therapists, and physical therapists. Retention was most problematic for personal care aides and RNs (Exhibit 30).

**Exhibit 30**  
**Home Health Agency Recruitment and Retention Difficulties**  
**for Selected Occupations, 2007**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.6	3.2	33%	24%	39%	7%
Home Health Aides	3.8	3.3	60%	48%	52%	17%
Licensed Practical Nurses	3.2	2.7	31%	33%	31%	6%
Occupational Therapists	3.9	3.0	50%	38%	29%	5%
Personal Care Aides	3.8	3.7	54%	40%	43%	25%
Physical Therapists	3.9	3.1	48%	35%	37%	5%
Registered Nurses -Associate/Diploma prepared	3.9	3.4	54%	59%	57%	13%
-Bachelor's prepared	4.4	3.5	62%	61%	64%	11%
Respiratory Therapists	4.0	3.3	56%	36%	36%	4%
Social Workers -MSWs	4.1	3.4	36%	40%	36%	6%
-BSWs	3.4	2.9	33%	25%	27%	8%
Speech-Language Pathologists	3.7	3.3	44%	46%	41%	8%

Fifty-five percent of home health care agencies statewide indicated an expected expansion of service in the future and indicated that home health aides, RNs, personal care aides, LPNs, physical therapists, and occupational therapists were needed for these expansions. Twenty-seven percent of the home health care agencies statewide reported an expected reduction in services in the future, with home health aides, personal care aides, registered nurses, LPNs, and MSWs being affected by these reductions.

### G. Projected Job Growth

Between 2004 and 2014, the NYS DOL projects the number of home health aide jobs will increase by nearly 37,000, or by more than 5,100 average annual job openings. The number of

RN jobs is projected to increase by 28,450 during the same period, or by more than 6,300 average annual job openings, most attributable to a turnover of workers in existing jobs rather than growth in new jobs (Exhibit 31).

**Exhibit 31**  
**Employment Projections for Health Care Occupations<sup>11</sup>**  
**in New York, including New York City, 2004-2014**

	2004	2014	Growth Between 2004 and 2014		Avg. Annual Openings
			Number	Percent	
Registered Nurse	168,020	196,470	28,450	16.9%	6,370
Home Health Aides	109,410	146,200	36,790	33.6%	5,110
Nursing Aides, Orderlies, and Attendants	102,560	112,460	9,900	9.7%	2,330
Social Workers	52,770	59,440	6,670	12.6%	1,600
Licensed Practical Nurse	51,030	55,660	4,630	9.1%	1,570
Medical Assistants	19,420	25,780	6,360	32.7%	1,000
Dental Assistants	17,170	21,450	4,280	24.9%	910
Medical and Health Services Managers	24,810	26,940	2,130	8.6%	690
Medical and Clinical Laboratory Technicians	10,620	12,170	1,550	14.6%	450
Pharmacists	13,200	14,760	1,560	11.8%	420
Physical Therapists	12,570	15,320	2,750	21.9%	400
Clinical, Counseling, and School Psychologists	10,390	11,860	1,470	14.1%	380
Radiologic Technologists and Technicians	11,190	12,880	1,690	15.1%	380
Medical and Clinical Laboratory Technologists	9,290	10,150	860	9.3%	340
Pharmacy Technicians	11,640	13,310	1,670	14.3%	320
Dental Hygienists	9,030	11,290	2,260	25.0%	310
Emergency Medical Technicians and Paramedics	11,000	12,590	1,590	14.5%	290
Speech-Language Pathologists and Audiologists	8,260	8,950	690	8.4%	280
Medical Secretaries	11,710	12,220	510	4.4%	270
Occupational Therapists	7,860	9,400	1,540	19.6%	260
Physician Assistants	6,290	7,820	1,530	24.3%	250
Medical Records and Health Information Technicians	7,860	8,960	1,100	14.0%	220
Respiratory Therapists	4,550	5,170	620	13.6%	210
Dietitians and Nutritionists	4,380	4,660	280	6.4%	140
Medical Transcriptionists	4,530	5,090	560	12.4%	140
Surgical Technologists	4,560	5,130	570	12.5%	120
Psychiatric Aides	5,950	6,010	60	1.0%	90

Source: NYS Department of Labor, Wage and Industry Data, Occupational Outlook, 2004 – 2014

<sup>11</sup> Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2004 and the projected number of jobs in those categories in 2014. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.

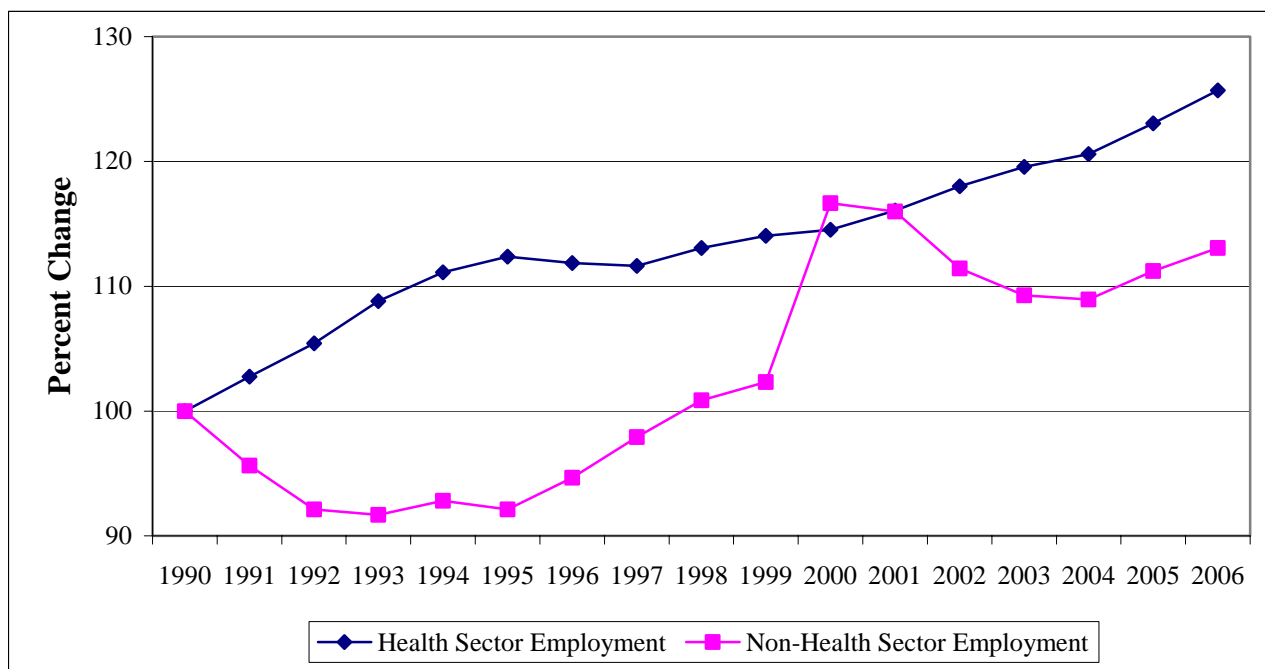
## V. REGIONAL PROFILES

### A. New York City

#### 1. Total Employment

Between 1990 and 2006, employment in the health sector in New York City grew steadily, with the largest increase occurring between 1990 and 1995, when 48% of the growth occurred. Employment in all other sectors saw more sporadic growth, with declines between 1990 and 1995, but substantial growth between 1995 and 2000. Employment in all other sectors declined between 2000 and 2004, but grew between 2004 and 2006. Between 1990 and 2006, employment in the health sector in New York City grew by nearly 26% while employment in all other sectors grew by only 13% during the same period (Exhibit 32).

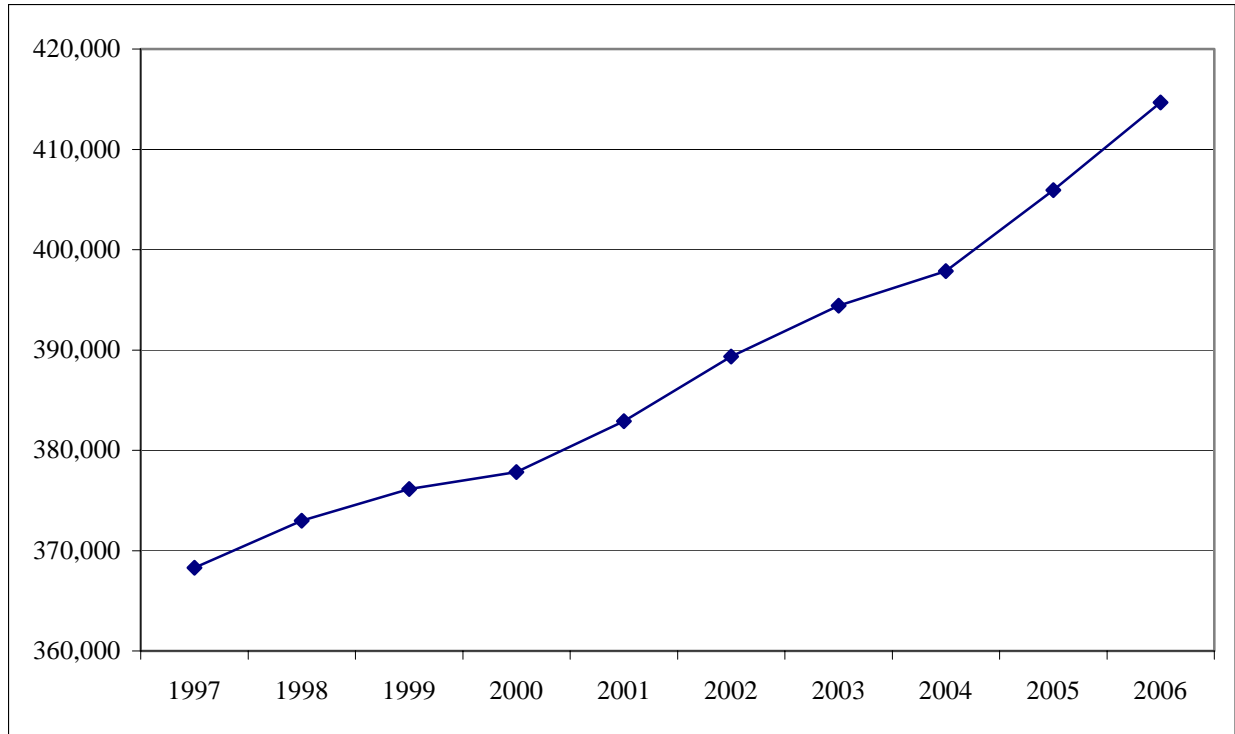
**Exhibit 32**  
**New York City Employment Growth between 1990 and 2006, Standardized to 1990**



Source: NYS Department of Labor, ES-202

Between 1997 and 2006 in New York City, health sector employment increased nearly 13%, including annual increases of more than 2% in both 2005 and 2006 (Exhibit 33).

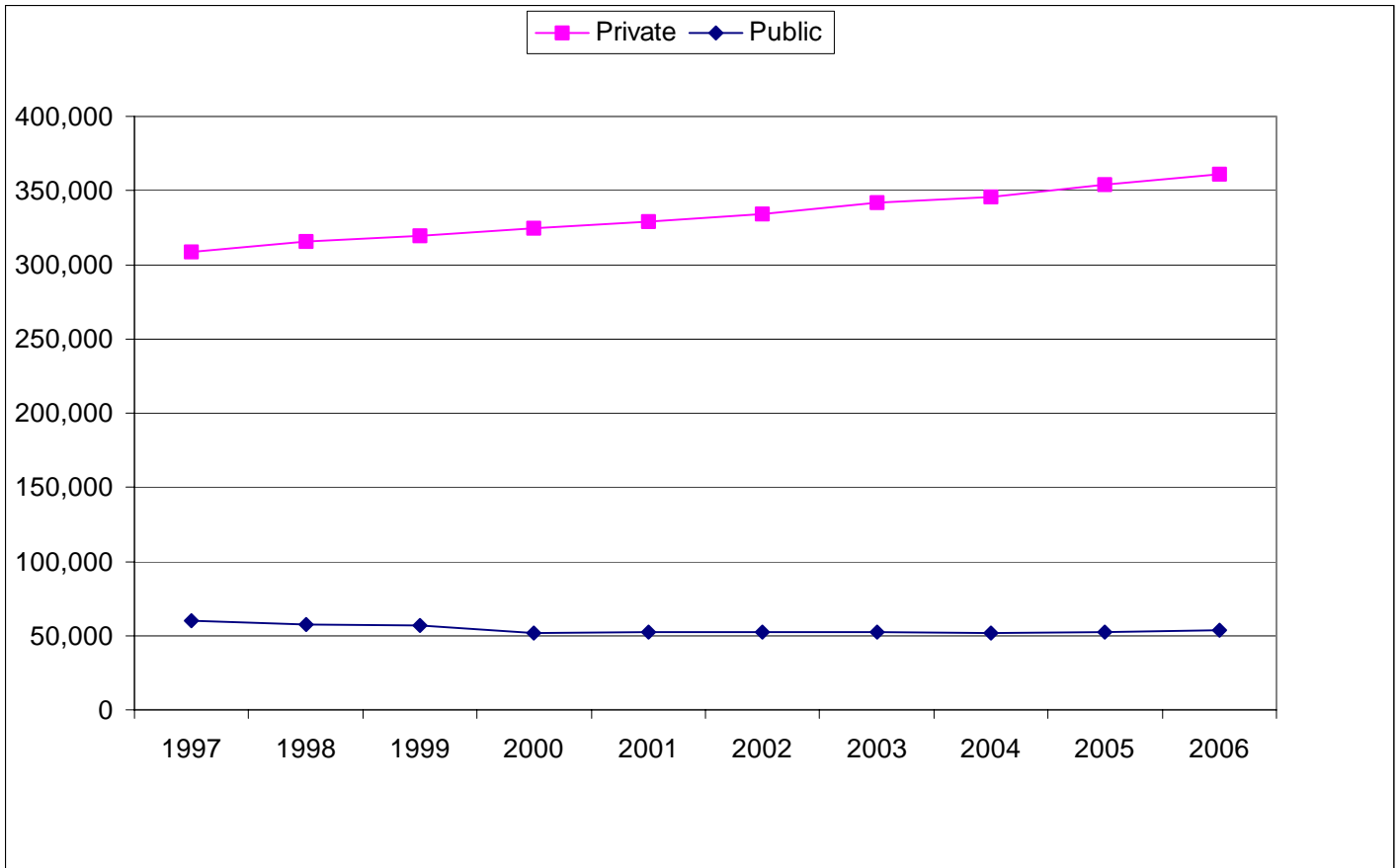
**Exhibit 33**  
**Trends in Health Sector Employment, 1997 - 2006**



Source: NYS Department of Labor, ES-202

Between 1997 and 2006, private health sector employment increased by 17% in New York City, including increases of more than 2% in three of the last four years (2003, 2005, and 2006). Public health sector employment in New York City declined by 11% during the same period, fueled by a substantial reduction in jobs in the mid 1990's. Public health sector employment increased by slightly more than 3% between 2004 and 2006 (Exhibit 34).

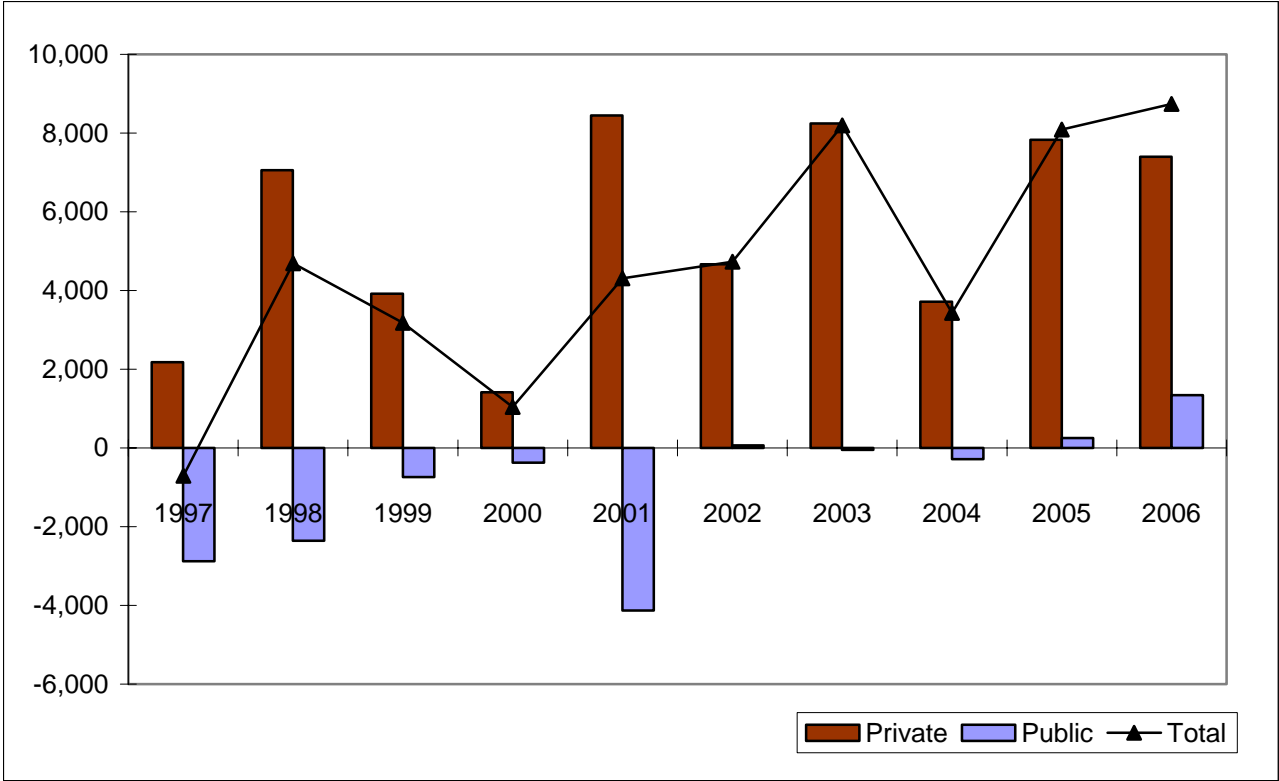
**Exhibit 34**  
**Trends in Public and Private Health Employment in New York City, 1997-2006**



Source: NYS Department of Labor, ES-202

Between 1997 and 2006, private health sector employment increased each year in New York City. In contrast, public health sector employment decreased each of the first five years, remained steady for the next three years, and then increased during the last two years (Exhibit 35).

**Exhibit 35**  
**Change in the Number Employed in Health Care from the Previous Year**  
**for Public and Private Employment in New York City, 1997-2006**



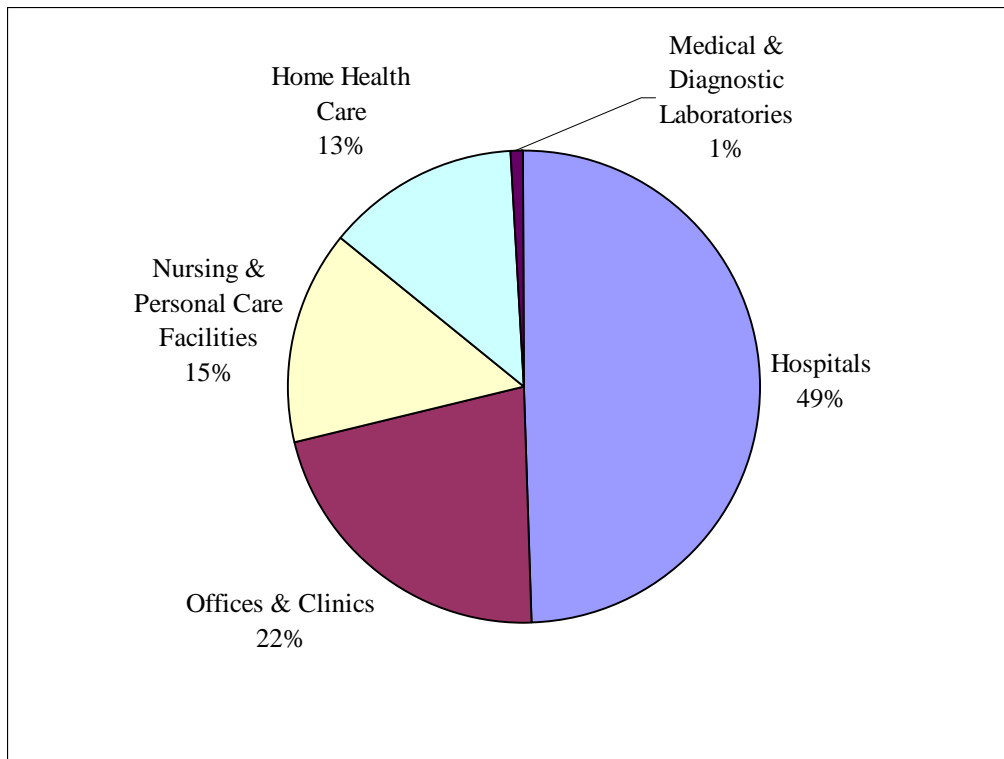
Source: NYS Department of Labor, ES-202



## 2. By Setting

Hospitals continued to be the largest employer of New York City health workers in 2006, accounting for nearly half of all health sector jobs. Offices and clinics of health practitioners and nursing and personal care facilities followed, at 22% and 15%, respectively (Exhibit 36).

**Exhibit 36**  
**Health Sector Employment by Setting in New York City, 2006**



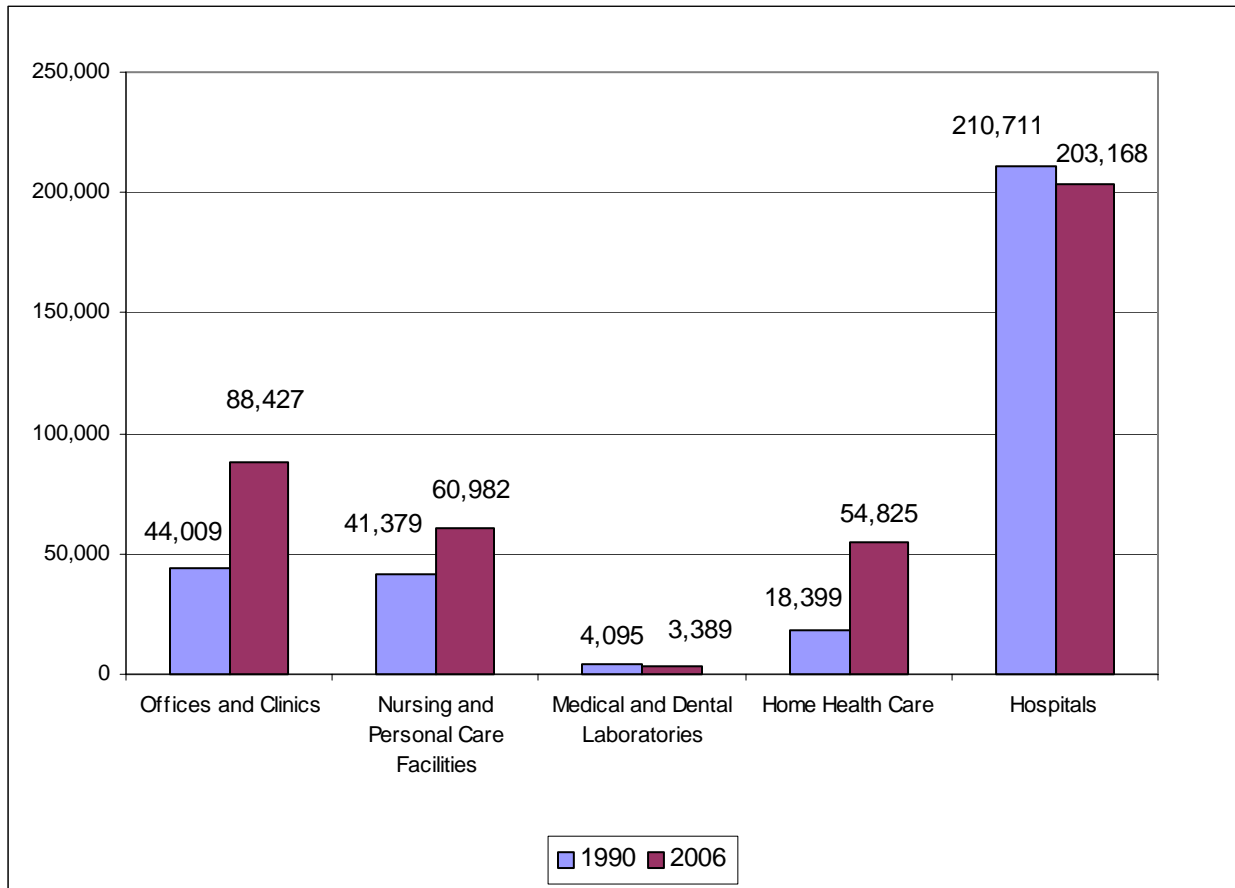
Source: NYS Department of Labor, ES-202

Between 1990 and 2006, health sector employment significantly increased in certain settings in New York City, including:

- Home health care, with an increase of 198%;
- Offices and clinics, with an increase of 101%; and
- Nursing and personal home care facilities, with an increase of 47%.

Hospital employment in New York City decreased by 3.5% between 1990 and 2006, primarily driven by a significant decline in public sector hospital jobs. Employment in New York City medical and dental laboratories saw an overall decline of 17% over the same period (Exhibit 37).

**Exhibit 37**  
**Number of Jobs by Health Care Setting in New York City,**  
**1990 and 2006**



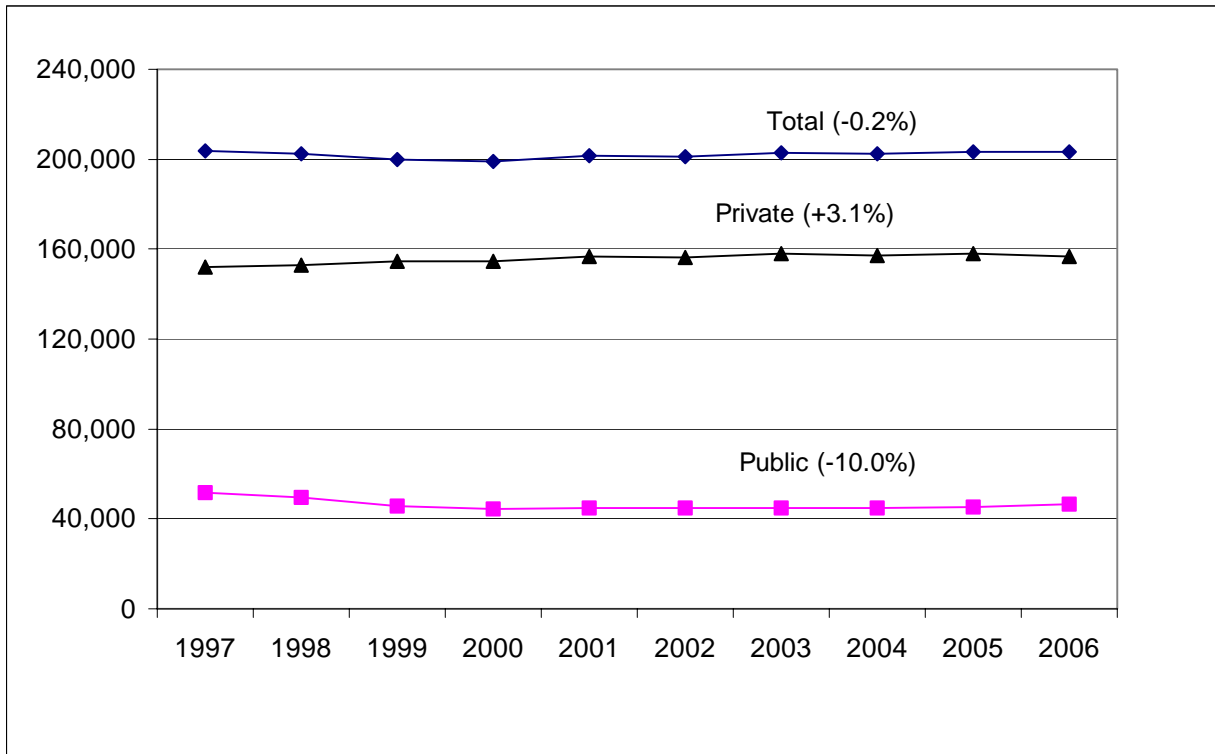
Source: NYS Department of Labor, ES-202

*3. Hospital Employment Trends*

Overall, hospital employment in New York City slightly declined by 0.2% between 1997 and 2006, with private sector hospital jobs increasing by more than 3% while public sector hospital jobs decreased by 10%.

In 1997, private sector hospital employment in New York City was almost three times greater than public sector hospital employment. By 2006, private sector hospital employment was almost three and a half times greater than public sector hospital employment, due in large part to a decline in public sector hospital employment between 1997 and 1999 (Exhibit 38).

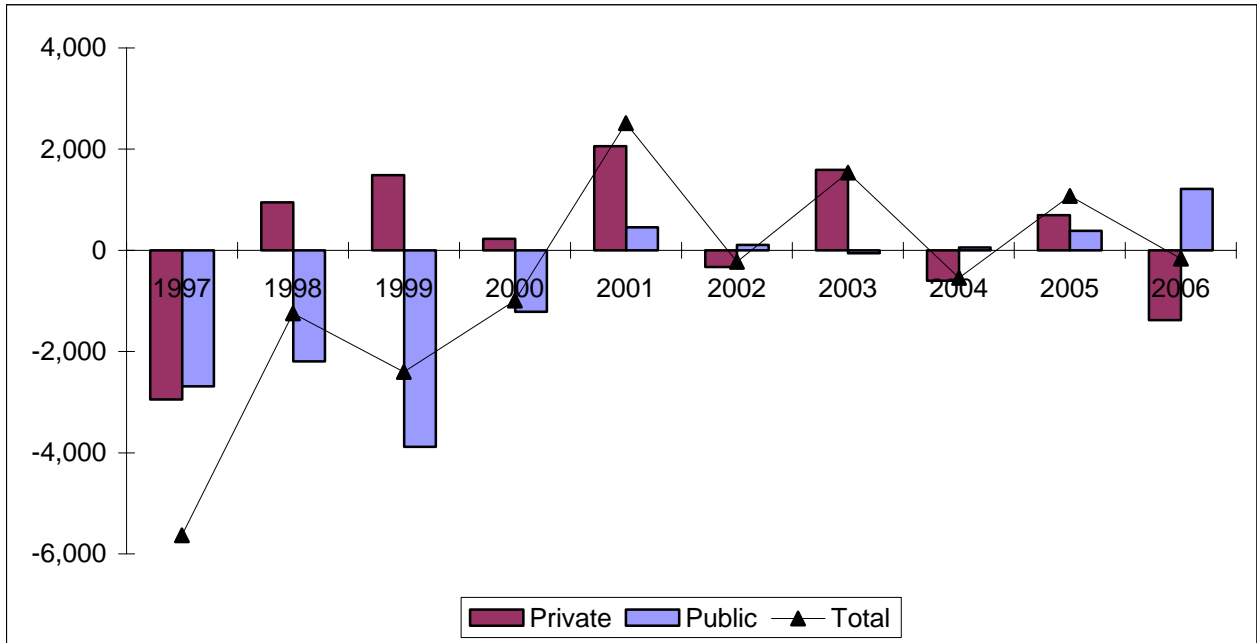
**Exhibit 38**  
**Trends in Hospital Employment in New York City, 1997-2006**



Source: NYS Department of Labor, ES-202

Between 1997 and 2000, overall hospital employment declined, driven by significant reductions in public sector hospital employment and intermittent drops in private sector hospital employment. Between 2001 and 2006, overall hospital employment either increased or experienced small declines. Public hospital sector employment showed modest growth between 2000 and 2006, with a very slight decline in employment between 2002 and 2003. Private hospital sector employment had intervals of growth and decline between 2001 and 2006, with a big decrease in employment in 2006 (Exhibit 39).

**Exhibit 39**  
**Annual Change from the Prior Year in Hospital Employment in New York City,**  
**Public and Private Employment, 1997-2006**



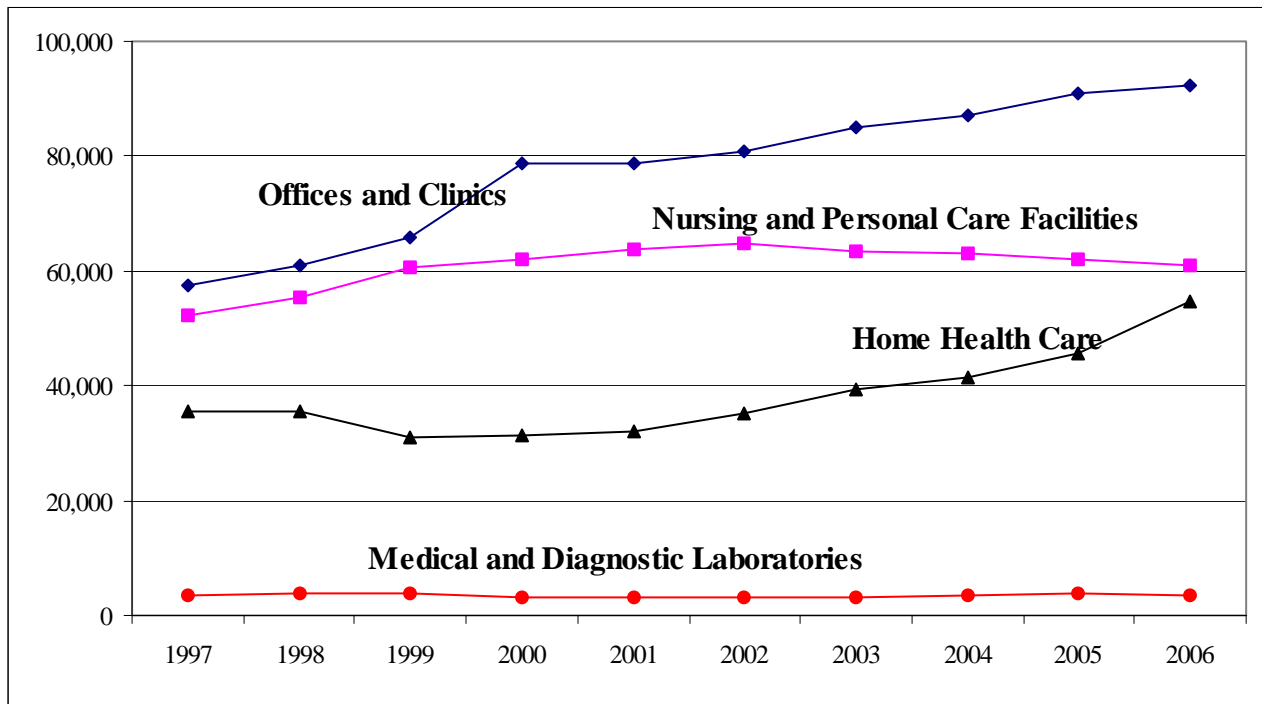
Source: NYS Department of Labor, ES-202

*4. Non-Hospital Health Sector Employment Trends*

Between 1997 and 2006, the most significant health sector employment trends outside of hospitals were:

- A rise in home health care employment of more than 54%. After two years of decline in 1998 and 1999, home health care jobs grew by more than 77% between 1999 and 2006;
- Increases in office and clinic employment of nearly 61%; and
- Growth in employment in nursing and personal care facilities of 16% (Exhibit 40).

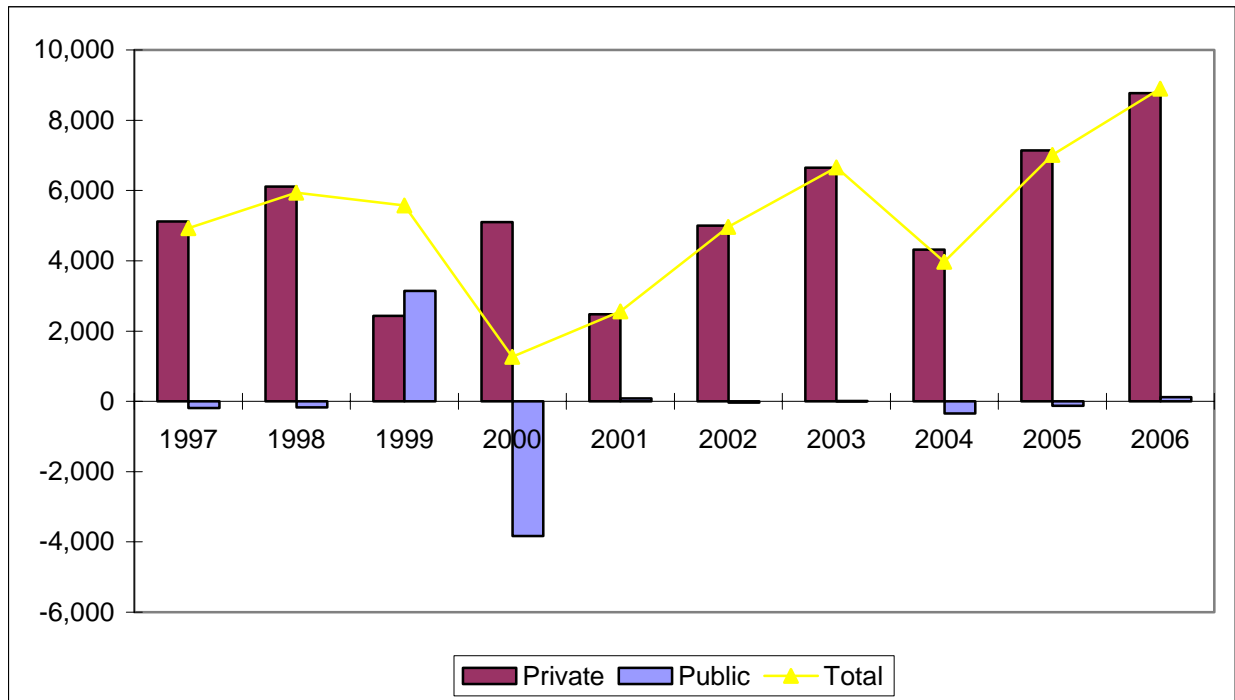
**Exhibit 40**  
**Trends in Non-Hospital Health Employment in New York City, 1997-2006**



Source: NYS Department of Labor, ES-202

Between 1997 and 2006, annual changes in non-hospital health sector employment in New York City were driven by substantial year-to-year increases in private employment, including the addition of more than 6,100 new jobs between 1998 and 1999. While private employment in the non-hospital health sector continued to increase between 2000 and 2006, public employment in the non-hospital health sector dramatically declined in 2000 then remained relatively stable between 2001 and 2005, and grew slightly in 2006. Between 2005 and 2006, private non-hospital health sector employment grew by nearly 8,800 jobs, the largest increase in non-hospital employment between 1997 and 2006 (Exhibit 41).

**Exhibit 41**  
**Annual Change from the Prior Year in Non-Hospital Health Sector Employment**  
**in New York City, Public and Private, 1997-2006**



Source: NYS Department of Labor, ES-202

*5. By Occupation*

Between 2001 and 2006, changes in the number of health sector jobs in New York City varied widely by occupation. While these data represented positions and not individuals or full-time equivalents, they are useful in identifying trends in occupations or job titles.

Jobs for:

- Home health aide jobs increased by nearly 35,000 or almost 58%;
- RN jobs increased by nearly 19,000 or more than 24%;
- Nursing aides, orderlies, and attendant jobs increased by nearly 11,000 or slightly more than 24%;
- Social worker jobs increased by more than 9,000 or 48%;
- Medical secretary jobs grew by more than 5,700, or 143%; and
- Dental hygienist jobs decreased by 1,200 or 23% (Exhibit 42).

**Exhibit 42**  
**Number of Jobs in Selected Health Occupations in the New York City PMSA<sup>12</sup>**

Occupation	2001	2002	2003	2004	2005	2006	Change, 2001 to 2006	
							Number	Percent
<b>HEALTH CARE TECHNICIANS/TECHNOLOGISTS</b>								
Cardiovascular Technologists and Technicians	1,240	1,440	1,800	1,880	1,960	1,880	640	51.6%
Medical and Clinical Laboratory Technologists	4,920	4,740	5,100	5,160	6,510	6,940	2,020	41.1%
Pharmacy Technicians	3,880	3,960	4,340	5,100	6,850	7,370	3,490	89.9%
Medical Records and Health Information Technicians	2,740	2,880	3,070	3,270	3,930	3,840	1,100	40.1%
Nuclear Medicine Technologists	500	490	510	460	660	730	230	46.0%
Medical and Clinical Laboratory Technicians	5,080	4,810	5,550	5,740	6,770	6,550	1,470	28.9%
Licensed Practical Nurses	18,400	21,210	20,370	22,830	22,860	20,630	2,230	12.1%
Dietetic Technicians	740	640	580	500	640	540	-200	-27.0%
Surgical Technologists	2,550	2,550	2,250	2,560	3,190	3,220	670	26.3%
Radiologic Technologists and Technicians	4,670	4,320	4,190	4,400	5,540	5,680	1,010	21.6%
<b>HEALTH CARE PROFESSIONALS</b>								
Physical Therapists	4,780	4,480	5,180	5,990	6,940	6,550	1,770	37.0%
Registered Nurses	77,740	81,190	79,990	83,240	99,010	96,720	18,980	24.4%
Pharmacists	7,080	6,790	5,950	6,230	7,630	7,850	770	10.9%
Dietitians and Nutritionists	2,220	2,350	2,190	2,100	2,350	2,510	290	13.1%
Respiratory Therapists	2,220	2,100	2,150	2,220	2,980	3,350	1,130	50.9%
Social Workers	18,890	20,120	21,340	20,760	26,280	27,960	9,070	48.0%
Dental Hygienists	5,250	3,390	3,080	3,600	3,900	4,050	-1,200	-22.9%
<b>MANAGEMENT/ADMINISTRATIVE SUPPORT</b>								
Medical and Health Services Managers	10,440	10,540	12,260	13,110	13,970	15,550	5,110	48.9%
Medical Secretaries	3,990	5,140	4,210	3,880	10,850	9,700	5,710	143.1%
<b>HEALTH CARE PARAPROFESSIONALS</b>								
Nursing Aides, Orderlies, and Attendants	45,060	44,990	48,540	48,150	58,130	55,940	10,880	24.1%
Dental Assistants	7,760	8,780	8,730	7,230	9,330	9,550	1,790	23.1%
Medical Assistants	10,190	8,420	9,690	8,750	11,270	10,900	710	7.0%
Home Health Aides	60,590	55,090	55,200	56,170	80,280	95,560	34,970	57.7%

Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics

<sup>12</sup> Bronx, Kings, New York, Queens, Richmond, Westchester, Putnam, and Rockland counties in New York and three counties in Northern New Jersey. This definition of the New York City PMSA was first used in 2005. Data from all other years cited in this report are for New York state counties only.

## 6. Licensed Health Care Professionals

Between 2002 and 2006, the overall number of licensed health professionals in New York City increased with the largest percentage increases for social workers (46%) and speech-language pathologists (32%). The numbers of nurse practitioners, physician assistants, occupational therapists, and physical therapists all experienced double-digit increases during that same period.

Several occupations decreased in number between 2002 and 2006 in New York City. The number of pharmacists declined by slightly more than 4%, and the number of licensed practical nurses decreased by nearly 13%. The number of RNs showed virtually no growth over the same time period (Exhibit 43).

**Exhibit 43**  
**Change in the Number of Licensed Individuals**  
**in Selected Health Professions in New York City, 2002-2006**

Profession	2002	2003	2004	2005	2006	Change 2002 to 2006	
						Number	Percent
Social Workers	14,810	15,033	15,156	15,488	21,638	6,828	46.1%
Speech-Language Pathologists	2,213	2,364	2,528	2,723	2,920	707	31.9%
Nurse Practitioners	1,929	2,098	2,197	2,331	2,469	540	28.0%
Registered Physician Assistants	1,945	2,098	2,186	2,284	2,396	451	23.2%
Occupational Therapists	1,930	2,128	2,177	2,237	2,335	405	21.0%
Physical Therapists	3,632	3,922	3,959	4,082	4,193	561	15.4%
Dietitians/Nutritionists	1,336	1,406	1,432	1,414	1,415	79	5.9%
Dental Hygienists	1,435	1,428	1,434	1,464	1,498	63	4.4%
Occupational Therapy Assistants	824	833	834	839	849	25	3.0%
Registered Nurses	52,984	53,075	53,198	53,085	53,129	145	0.3%
Physical Therapy Assistants	1,013	1,023	997	982	999	-14	-1.4%
Respiratory Therapists	1,204	1,154	1,149	1,161	1,170	-34	-2.8%
Pharmacists	5,084	5,201	4,679	4,728	4,865	-219	-4.3%
Licensed Practical Nurses	16,834	16,047	15,022	14,663	14,702	-2,132	-12.7%
Respiratory Therapist Technicians	522	455	441	495	433	-89	-17.0%

Source: NYS Education Department, Office of Professions



## 7. Demand for Workers

### Hospitals

Hospitals in the downstate<sup>13</sup> New York reported the most difficulty recruiting pharmacists, experienced RNs, nuclear medicine technologists and physical therapists. Retention of experienced RNs and pharmacists was most problematic.

The shortage of workers, the competition for workers, and salary levels were the primary reasons cited for difficulties in recruitment and retention of workers (Exhibit 44).

**Exhibit 44**  
**Recruitment and Retention Difficulties for Downstate Hospitals**  
**in Selected Occupations**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.8	2.9	20%	20%	30%	0%
Medical Laboratory Technicians	3.7	2.5	45%	36%	36%	18%
Nursing Aides/Patient Care Associates	1.9	3.0	0%	38%	46%	15%
Pharmacists	4.8	3.5	92%	75%	67%	8%
Physical Therapists	4.2	3.2	62%	46%	69%	15%
Radiologic Technologists						
-mammographers	3.5	2.7	25%	54%	33%	0%
-nuclear medicine technologists	4.2	2.6	67%	67%	25%	0%
-sonographers	3.4	2.7	33%	58%	33%	0%
Registered Nurses						
-Experienced	4.2	3.6	75%	83%	67%	33%
-Newly Trained	2.3	3.4	25%	50%	67%	8%
Respiratory Therapists	3.6	3.0	42%	50%	50%	8%

Fifty-seven percent of the hospitals in downstate New York cited difficulty hiring part-time workers, 64% reported difficulty hiring workers for off-shifts, and 43% reported difficulty hiring bilingual employees (Spanish-speaking).

<sup>13</sup> Since only thirty-three hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

## Nursing Homes

Nursing homes in New York City reported the most difficulty recruiting RNs and LPNs. The retention of experienced RNs and LPNs was the most problematic. Nursing homes indicated the primary reason for these difficulties was the shortage of workers in these occupations, followed by competition for workers, and salary levels (Exhibit 45).

**Exhibit 45**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in New York City**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nurse Aides	2.0	2.3	11%	22%	33%	6%
Clerical	2.3	2.5	13%	6%	19%	0%
Dietitians/Nutritionists	3.6	2.6	29%	35%	47%	0%
Licensed Practical Nurses	3.9	3.1	44%	44%	28%	11%
Physical Therapists	3.5	2.5	31%	46%	31%	0%
Occupational Therapists	3.7	2.4	38%	46%	38%	0%
Registered Nurses						
Experienced	4.3	3.9	67%	61%	67%	6%
Newly Trained	4.1	3.8	65%	59%	47%	12%
Respiratory Therapists	2.7	2.8	17%	33%	33%	0%
Social Workers						
MSWs	3.4	2.8	7%	29%	43%	0%
BSWs	3.1	2.8	8%	8%	33%	0%

Thirty-nine percent of the nursing homes in New York City reported difficulty hiring for part-time positions, while 33% reported difficulty hiring for off-shifts. About one-third indicated that hiring bilingual workers (mostly Spanish- and Russian-speaking) was also problematic.

## Home Health Agencies

Home health agencies in New York City reported the most difficulty hiring MSWs, bachelor's prepared RNs, and occupational therapists. Retention was problematic for respiratory therapists, MSWs, and speech-language pathologists.

Home health agencies indicated the primary reason for these difficulties was the competition for workers, followed by shortage of workers in these occupations (Exhibit 46).

**Exhibit 46**  
**Recruitment and Retention Difficulties for Home Health Agencies**  
**in New York City**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.5	3.2	15%	23%	31%	23%
Home Health Aides	3.5	3.3	56%	52%	52%	16%
Licensed Practical Nurses	3.5	3.0	27%	27%	41%	0%
Occupational Therapists	4.1	3.2	40%	40%	27%	7%
Personal Care Aides/Homemakers	3.3	3.4	53%	47%	47%	42%
Physical Therapists	3.8	3.2	33%	39%	17%	0%
Registered Nurses						
Associate/Diploma prepared	4.0	3.4	48%	61%	48%	18%
Bachelor's prepared	4.2	3.4	48%	55%	55%	15%
Respiratory Therapists	3.8	4.4	40%	0%	20%	0%
Social Workers						
MSWs	4.2	3.9	24%	35%	29%	12%
BSWs	3.6	2.9	24%	29%	38%	19%
Speech-Language Pathologists	3.1	3.7	30%	20%	40%	10%

Sixty-nine percent of the home health agencies in New York City reported the most difficulty hiring bilingual workers (Spanish- and Russian-speaking), while 59% reported difficulty hiring for off-shifts. Forty-nine percent indicated that hiring part-time workers was also problematic.

*8. Projected Growth by Health Care Occupation*

According to the NYS DOL, 12 of the top 25 fastest growing occupations between 2004 and 2014 for the New York City region will be in health occupations (Exhibit 47).

The health occupations projected to have the largest percentage increase in new jobs were:

- home health aides (34.2%);
- medical assistants (29.0%);
- physician assistants (25.0%);
- dental assistants (22.0%); and
- physical therapists (20.6%).

Some of the occupations with high percentage growth, however, were relatively small occupations so that the actual number of new jobs will be moderate. Some large occupations had lower percentage growth but will add more jobs overall.

The health occupations projected to have the largest average number of annual openings were:

- RNs (2,630);
- home health aides (2,550);
- nursing aides, orderlies, and attendants (1,080); and
- social workers (600).

**Exhibit 47**  
**Employment Projections for Health Care Occupations<sup>14</sup> in New York City, 2004 – 2014**

	2004	2014	Growth Between 2004 and 2014		Avg. Annual Openings
			Number	Percent	
Registered Nurse	71,180	82,530	11,350	15.9%	2,630
Home Health Aides	53,980	72,420	18,440	34.2%	2,550
Nursing Aides, Orderlies, and Attendants	44,550	49,570	5,020	11.3%	1,080
Social Workers	24,980	28,190	3,210	12.9%	600
Licensed Practical Nurse	16,490	17,960	1,470	8.9%	510
Medical Assistances	8,090	10,440	2,350	29.0%	390
Medical and Health Services Managers	11,930	12,720	790	6.6%	310
Dental Assistants	5,330	6,500	1,170	22.0%	270
Medical and Clinical Laboratory Technicians	4,960	5,590	630	12.7%	190
Medical and Clinical Laboratory Technologists	4,780	5,220	440	9.2%	170
Physical Therapists	4,610	5,560	950	20.6%	150
Clinical, Counseling, and School Psychologists	3,950	4,400	450	11.4%	140
Pharmacy Technicians	4,310	4,840	530	12.3%	110
Emergency Medical Technicians and Paramedics	4,350	4,970	620	14.3%	110
Occupational Therapists	2,800	3,360	560	20.0%	100
Physician Assistants	2,480	3,100	620	25.0%	100
Respiratory Therapists	1,920	2,180	260	13.5%	90
Medical Secretaries	3,380	3,520	140	4.1%	80
Speech-Language Pathologists and Audiologists	1,960	2,190	230	11.7%	70
Dietitians and Nutritionists	1,990	2,130	140	7.0%	60
Pharmacists	4,580	5,100	520	11.4%	50
Radiologic Technologists and Technicians	3,800	4,270	470	12.4%	50
Surgical Technologists	2,410	2,630	220	9.1%	50

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2004 – 2014

<sup>14</sup> Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2004 and the projected number of jobs in those categories in 2014. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.

## B. Capital District

### 1. Employment by Setting

Between 2001 and 2006, health sector employment in the Capital District region grew by almost 800 jobs, or nearly 2%. Jobs in ambulatory care settings increased by nearly 7%, while jobs in hospitals increased by 4%. Employment in nursing home and personal care facilities decreased by 6%, while home health care services declined by more than 5% during the same period (Exhibit 48).

**Exhibit 48**  
**Number of Workers by Health Care Setting in the Capital District Region**  
**between 2001 and 2006**

Setting	2001	2002	2003	2004	2005	2006	Change 2001 to 2006	
							Number	Percent
Hospitals	20,793	20,958	21,377	20,898	21,340	21,627	834	4.0%
Ambulatory Care (Excluding Home Health)	14,961	14,760	14,765	15,268	15,913	15,959	998	6.7%
Nursing Home and Personal Care Facilities	14,636	14,755	14,582	14,989	15,167	13,758	-878	-6.0%
Home Health Care Services	2,954	2,976	2,941	2,712	2,726	2,797	-157	-5.3%
<b>Totals</b>	<b>53,345</b>	<b>53,450</b>	<b>53,666</b>	<b>53,868</b>	<b>55,146</b>	<b>54,141</b>	<b>797</b>	<b>1.5%</b>

Source: NYS Department of Labor, ES-202

### 2. Licensed Health Professionals

The number of social workers in the Capital District region grew by more than 36% between 2002 and 2006, followed by nurse practitioners (19%), and speech-language pathologists (13%). The number of RNs grew slightly between 2002 and 2006.

The number of physical therapy assistants and occupational therapy assistants in the Capital District region decreased by 5.3% and 2.5%, respectively, during the same period (Exhibit 49).

**Exhibit 49**  
**Change in the Number of Individuals in Selected Health Occupations in**  
**the Capital District Region, 2002 to 2006**

Occupation	2002	2003	2004	2005	2006	Change between 2002 and 2006	
						Number	Percent
Social Workers	1,942	2,006	2,043	2,121	2,651	709	36.5%
Nurse Practitioners	512	550	581	590	607	95	18.6%
Speech-Language Pathologists	709	730	754	777	803	94	13.3%
Physician Assistants	447	468	476	498	504	57	12.8%
Occupational Therapists	451	477	491	502	505	54	12.0%
Physical Therapists	863	906	926	932	947	84	9.7%
Dental Hygienists	740	758	760	777	792	52	7.0%
Dietitians/Nutritionists	258	270	273	267	275	17	6.6%
Pharmacists	1,241	1,287	1,233	1,258	1,294	53	4.3%
Registered Nurses	14,558	14,670	14,792	14,816	14,707	149	1.0%
Licensed Practical Nurses	4,976	4,995	4,924	4,976	4,985	9	0.2%
Respiratory Therapists	305	302	300	300	301	-4	-1.3%
Occupational Therapy Assistants	315	331	328	313	307	-8	-2.5%
Physical Therapy Assistants	397	406	398	381	376	-21	-5.3%

Source: NYS Education Department, Office of Professions

### 3. Demand for Health Workers

#### Hospitals

Hospitals in the upstate<sup>15</sup> New York region reported the most difficulty recruiting pharmacists, sonographers, physical therapists, medical laboratory technicians, and experienced RNs. Retention of RNs was the most problematic.

The shortage of workers, the competition for workers, and salary levels were the primary reasons cited for difficulties in recruitment and retention of workers (Exhibit 50).

<sup>15</sup> Since only thirty-three hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

**Exhibit 50**  
**Recruitment and Retention Difficulties for Upstate Hospitals**  
**In Selected Occupations**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.3	2.1	56%	50%	38%	6%
Medical Laboratory Technicians	4.1	2.9	71%	59%	53%	12%
Nursing Aides/Patient Care Associates	2.6	3.2	28%	39%	44%	28%
Pharmacists	4.5	3.0	71%	76%	53%	12%
Physical Therapists	4.1	3.2	63%	68%	37%	5%
Radiologic Technologists						
-mammographers	3.6	2.8	58%	53%	32%	11%
-nuclear medicine technologists	4.0	2.9	75%	75%	50%	13%
-sonographers	4.1	2.7	71%	71%	29%	12%
Registered Nurses						
-Experienced	4.0	3.3	84%	79%	63%	11%
-Newly Trained	2.8	3.4	58%	74%	42%	11%
Respiratory Therapists	3.6	2.7	50%	44%	25%	0%

Forty-seven percent of the hospitals in upstate New York cited difficulty hiring part-time workers, 79% reported difficulty hiring workers for off-shifts, and 38% reported difficulty hiring bilingual employees (Spanish-speaking).

Nursing Homes

Nursing homes in the Capital District indicated they had the most difficulty recruiting respiratory therapists, physical therapists, occupational therapists, and experienced RNs. Certified nursing aides and LPNs were the most difficult to retain.

Nursing homes in the Capital District region indicated that shortage of workers, competition for workers, and salary levels were the primary reasons for recruitment and retention difficulties (Exhibit 51).

**Exhibit 51**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**in Selected Occupations in the Capital District Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nurse Aides	4.1	4.5	62%	85%	31%	0%
Clerical	2.2	1.8	8%	15%	8%	0%
Dietitians/Nutritionists	3.4	2.8	44%	11%	22%	4%
Licensed Practical Nurses	4.2	4.0	62%	62%	31%	0%
Physical Therapists	4.9	3.0	88%	63%	50%	0%
Occupational Therapists	4.5	3.0	75%	50%	50%	0%
Registered Nurses						
Experienced	4.3	3.5	69%	69%	46%	0%
Newly Trained	4.0	3.7	44%	56%	33%	0%
Respiratory Therapists	5.0	3.0	100%	50%	0%	0%
Social Workers						
MSWs	3.2	2.6	33%	0%	33%	11%
BSWs	3.1	2.2	44%	11%	33%	0%

Eighty-five percent of the nursing homes in the Capital District region reported difficulty hiring for off-shifts positions, while 77% reported difficulty hiring for part-time jobs. Only 23% reported difficulty hiring bilingual workers.

Home Health Agencies

Home health agencies in the Capital District region reported the most difficulty recruiting respiratory therapists, physical therapists, and bachelor’s prepared RNs. Retention was the most problematic for home health aides, personal care aides, MSWs, and respiratory therapists.

Home health agencies in the Capital District region indicated the primary reasons for these difficulties were shortage of workers, competition for workers, and salary level in these occupations (Exhibit 52).



**Exhibit 52**  
**Recruitment and Retention Difficulties for Home Health Agencies**  
**in the Capital District Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.6	3.0	43%	29%	43%	0%
Home Health Aides	3.8	3.7	64%	57%	50%	29%
Licensed Practical Nurses	3.2	2.8	43%	43%	43%	14%
Occupational Therapists	3.8	2.9	56%	44%	44%	11%
Personal Care Aides/Homemakers	3.7	3.6	56%	56%	33%	33%
Physical Therapists	4.3	2.8	63%	50%	63%	13%
Registered Nurses						
Associate/Diploma prepared	3.9	3.2	80%	80%	80%	13%
Bachelor's prepared	4.3	3.1	80%	87%	80%	7%
Respiratory Therapists	4.5	3.5	100%	75%	25%	0%
Social Workers						
MSWs	4.0	3.6	50%	63%	50%	0%
BSWs	3.3	2.5	67%	17%	17%	0%
Speech-Language Pathologists	4.2	3.4	60%	69%	60%	0%

Sixty-eight percent of the home health agencies in the Capital District region reported difficulty hiring part-time employees, while 53% reported difficulty hiring for off-shifts, and 53% reported difficulty hiring bilingual workers (Spanish-speaking).

*4. Employment Projections by Health Occupation*

The NYS DOL estimated that between 2004 and 2014 the largest number of annual job openings in the Capital District region will be for home health aides, with 1,300 new jobs and 190 average annual job openings. Additionally, the number of RN jobs was projected to grow by 18% between 2004 and 2014, with 180 average annual job openings (Exhibit 53).

**Exhibit 53**  
**Employment Projections for the Top Ten Health Care Growth Professions**  
**for the Capital District Region, 2004-2014**

	2004	2014	Growth Between 2004 and 2014		Avg. Annual Openings
			Number	Percent	
Home Health Aides	4,560	5,860	1,300	28.5%	190
Registered Nurses	10,110	11,930	1,820	18.0%	180
Nursing Aides, Orderlies, and Attendants	6,900	7,260	360	5.2%	130
Licensed Practical Nurses	3,210	3,500	290	9.0%	100
Social Workers	3,470	3,790	320	9.2%	100
Medical and Health Services Managers	1,960	2,120	160	8.2%	60
Medical Assistants	730	1,030	300	41.1%	40
Physical Therapists	920	1,170	250	27.2%	30
Dental Hygienists	610	800	190	31.1%	30
Dental Assistants	490	630	140	28.6%	20

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2004-2014

## C. Central New York

### 1. Employment by Setting

Between 2001 and 2006, health sector employment in the Central New York region grew by more than 3,100 jobs, or slightly over 10%. Employment in nursing homes and personal care facilities increased by nearly 2,300 jobs, or almost 33%, while jobs in ambulatory care grew by nearly 8%.

Hospital employment grew slightly in the Central New York region while jobs in home health care declined nearly 6% (Exhibit 54).

**Exhibit 54**  
**Number of Workers by Health Care Setting in the Central New York Region**  
**Between 2001 and 2006**

Setting	2001	2002	2003	2004	2005	2006	Change 2001 to 2006	
							Number	Percent
Hospitals	11,417	11,300	11,187	11,273	11,394	11,481	64	0.6%
Ambulatory Care (Excluding Home Health)	11,475	11,357	11,609	11,722	12,159	12,352	877	7.6%
Nursing Home and Personal Care Facilities	6,991	7,339	7,267	8,080	8,935	9,285	2,294	32.8%
Home Health Care Services	1,382	1,318	1,278	1,221	1,373	1,306	-76	-5.5%
<b>Totals</b>	<b>31,265</b>	<b>31,314</b>	<b>31,341</b>	<b>32,296</b>	<b>33,861</b>	<b>34,424</b>	<b>3,159</b>	<b>10.1%</b>

Source: NYS Department of Labor, ES-202

### 2. Licensed Health Professionals

Between 2002 and 2006, the number of social workers increased by nearly 28% in the Central New York region, while physician assistants grew by 24% during the same period. The number of RNs remained relatively stable between 2002 and 2006. The number of dietitians/nutritionists and dental hygienists declined by 2.3% and 1.4% in the Central New York region, respectively (Exhibit 55).

**Exhibit 55**  
**Change in the Number of Licensed Individuals in Selected Health Occupations**  
**in the Central New York Region, 2002-2006**

Occupation	2002	2003	2004	2005	2006	Change between 2002 and 2006	
						Number	Percent
Social Workers	972	982	975	993	1,241	269	27.7%
Physician Assistants	200	229	220	237	248	48	24.0%
Physical Therapists	505	520	551	583	605	100	19.8%
Speech-Language Pathologists	331	356	368	378	392	61	18.4%
Occupational Therapists	227	248	225	261	253	26	11.5%
Physical Therapy Assistants	170	181	180	179	184	14	8.2%
Occupational Therapy Assistants	87	90	89	94	92	5	5.7%
Respiratory Therapists	296	301	285	299	307	11	3.7%
Licensed Practical Nurses	4,188	4,176	4,089	4,295	4,303	115	2.7%
Nurse Practitioners	810	847	814	823	832	22	2.7%
Pharmacists	588	592	580	574	598	10	1.7%
Registered Nurses	9,110	9,204	9,304	9,234	9,144	34	0.4%
Dental Hygienists	494	494	502	497	487	-7	-1.4%
Dietitians/Nutritionists	171	168	168	159	167	-4	-2.3%

Source: NYS Education Department, Office of Professions

### 3. Demand for Health Workers

#### Hospitals

Hospitals in the upstate<sup>16</sup> New York region reported the most difficulty recruiting pharmacists, sonographers, physical therapists, medical laboratory technicians, and experienced RNs. Retention of RNs was the most problematic.

The shortage of workers, the competition for workers, and salary levels were the primary reasons cited for difficulties in recruitment and retention of workers (Exhibit 56).

<sup>16</sup> Since only thirty-three hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

**Exhibit 56**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations in Upstate New York**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.3	2.1	56%	50%	38%	6%
Medical Laboratory Technicians	4.1	2.9	71%	59%	53%	12%
Nursing Aides/Patient Care Associates	2.6	3.2	28%	39%	44%	28%
Pharmacists	4.5	3.0	71%	76%	53%	12%
Physical Therapists	4.1	3.2	63%	68%	37%	5%
Radiologic Technologists						
-mammographers	3.6	2.8	58%	53%	32%	11%
-nuclear medicine technologists	4.0	2.9	75%	75%	50%	13%
-sonographers	4.1	2.7	71%	71%	29%	12%
Registered Nurses						
-Experienced	4.0	3.3	84%	79%	63%	11%
-Newly Trained	2.8	3.4	58%	74%	42%	11%
Respiratory Therapists	3.6	2.7	50%	44%	25%	0%

Forty-seven percent of the hospitals in upstate New York cited difficulty hiring part-time workers, 79% reported difficulty hiring workers for off-shifts, and 38% reported difficulty hiring bilingual employees (Spanish-speaking).

Nursing Homes

Nursing homes in the Central New York region reported the most difficulty recruiting experienced RNs, licensed practical nurses, occupational therapists, and MSWs. Licensed practical nurses, certified nurse assistants (CNAs), and experienced RNs were the most difficult to retain.

Nursing homes in the Central New York region indicated that the competition for workers and shortages of workers were the primary reasons for recruitment and retention difficulties, though salary levels for LPNs and experienced RNS was also an issue (Exhibit 57).

**Exhibit 57**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**In Selected Occupations in the Central New York Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nurse Aides	3.6	4.0	40%	80%	40%	0%
Clerical	1.8	1.8	0%	0%	0%	0%
Dietitians/Nutritionists	3.3	2.3	50%	25%	50%	25%
Licensed Practical Nurses	3.8	4.0	40%	80%	60%	0%
Physical Therapists	3.5	2.0	25%	50%	0%	0%
Occupational Therapists	3.8	2.4	40%	40%	0%	0%
Registered Nurses						
Experienced	4.4	4.0	60%	100%	80%	0%
Newly Trained	3.8	3.8	60%	50%	50%	0%
Respiratory Therapists	1.0	1.5	0%	0%	0%	0%
Social Workers						
MSWs	3.8	2.2	20%	60%	40%	20%
BSWs	3.6	2.2	20%	60%	20%	20%

Eighty percent of the nursing homes in the Central New York Region reported difficulty hiring for part-time positions and 80% reported difficulty hiring for off-shifts. Twenty percent indicated that hiring bilingual workers was also problematic.

Home Health Agencies

Home health agencies in the Central New York region reported the most difficulty recruiting bachelor's prepared RNs, occupational therapists, personal care aides, and home health aides. Retention was most problematic for personal care aides and home health aides.

Home health agencies in the Central New York region indicated the primary reasons for these difficulties were shortage of workers, competition for workers, and salary levels in these occupations (Exhibit 58).

**Exhibit 58**  
**Recruitment and Retention Difficulties for Home Health Agencies**  
**in the Central New York Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.6	2.9	50%	38%	25%	0%
Home Health Aides	4.2	3.3	60%	70%	60%	20%
Licensed Practical Nurses	3.4	2.5	20%	60%	40%	10%
Occupational Therapists	4.3	1.3	100%	67%	0%	0%
Personal Care Aides/Homemakers	4.3	3.4	63%	50%	63%	13%
Physical Therapists	4.0	2.0	75%	25%	50%	0%
Registered Nurses						
Associate/Diploma prepared	3.8	2.5	57%	57%	43%	14%
Bachelor's prepared	4.6	2.7	83%	67%	50%	17%
Respiratory Therapists	2.0	2.0	0%	100%	0%	0%
Social Workers						
MSWs	3.8	1.8	40%	60%	40%	0%
BSWs	3.3	2.0	25%	25%	25%	0%
Speech-Language Pathologists	4.0	2.5	25%	75%	25%	0%

Eighty percent of the home health agencies in the Central New York region reported difficulty hiring part-time employees, while 40% reported difficulty hiring for off-shifts and another 40% reported difficulty hiring bilingual workers (Spanish-speaking).

*4. Employment Projections by Health Occupation*

The NYS DOL estimated that between 2004 and 2014, the number of RN jobs in the Central New York region will grow by 1,070, with 250 average annual job openings. During the same period, there will be 100 average annual job openings for home health aides. The total number of home health aide jobs is projected to increase by nearly 31% between 2004 and 2014 (Exhibit 59).

**Exhibit 59**  
**Employment Projections for the Top Ten Health Care Growth Professions**  
**in the Central New York Region, 2004-2014**

	2004	2014	Growth Between 2004 and 2014		Avg. Annual Openings
			Number	Percent	
Registered Nurses	6,550	7,620	1,070	16.3%	250
Home Health Aides	2,240	2,930	690	30.8%	100
Nursing Aides, Orderlies, and Attendants	4,000	4,340	340	8.5%	80
Licensed Practical Nurse	2,390	2,480	90	3.8%	60
Medical Assistants	850	1,180	330	38.8%	50
Social Workers	2,030	2,170	140	6.9%	40
Dental Assistants	610	790	180	29.5%	40
Medical and Health Services Managers	900	960	60	6.7%	30
Physical Therapists	490	610	120	24.5%	20
Radiologic Technologists and Technicians	420	490	70	16.7%	10

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2004 – 2014



## D. Finger Lakes

### 1. Employment by Setting

Health sector employment in the Finger Lakes region grew by almost 4% between 2001 and 2006, with increases in ambulatory care of nearly 10% and in nursing home and personal care facilities of more than 8.3%. Employment in hospitals also grew by over 1,000 jobs between 2001 and 2006, or 4%. These increases offset a substantial decrease in home health care employment of nearly 27% (Exhibit 60).

**Exhibit 60**  
**Number of Workers by Health Care Setting in the Finger Lakes Region**  
**between 2001 and 2006**

Setting	2001	2002	2003	2004	2005	2006	Change 2001 to 2006	
							Number	Percent
Hospitals	25,462	24,355	24,720	25,619	26,017	26,469	1,007	4.0%
Ambulatory Care (Excluding Home Health)	13,383	13,254	13,914	14,118	14,259	14,649	1,266	9.5%
Nursing Home and Personal Care Facilities	12,672	11,810	12,341	12,350	13,943	13,721	1,049	8.3%
Home Health Care Services	4,719	4,519	4,161	4,242	3,558	3,465	-1,254	-26.6%
<b>Totals</b>	<b>56,236</b>	<b>53,938</b>	<b>55,135</b>	<b>56,329</b>	<b>57,777</b>	<b>58,304</b>	<b>2,068</b>	<b>3.7%</b>

Source: NYS Department of Labor, ES-202

### 2. Licensed Health Professionals

Between 2002 and 2006, the number of social workers in the Finger Lakes region grew by slightly more than 50%. The number of speech-language pathologists and physician assistants grew by nearly 50% and 24%, respectively.

The number of RNs, LPNs, respiratory therapists, and occupational therapy assistants declined slightly between 2001 and 2006 (Exhibit 61).

**Exhibit 61**  
**Change in the Number of Licensed Individuals in Selected Occupations**  
**in the Finger Lakes Region, 2002 to 2006**

Occupation	2002	2003	2004	2005	2006	Change between 2002 and 2006	
						Number	Percent
Social Workers	1,652	1,707	1,727	1,765	2,483	831	50.3%
Speech-Language Pathologists	570	771	795	820	852	282	49.5%
Physician Assistants	405	426	444	467	502	97	24.0%
Nurse Practitioners	1,047	1,117	1,153	1,189	1,231	184	17.6%
Physical Therapists	765	814	820	842	880	115	15.0%
Occupational Therapists	501	529	538	555	569	68	13.6%
Physical Therapy Assistants	227	235	237	248	250	23	10.1%
Dietitians/Nutritionists	233	236	233	231	240	7	3.0%
Dental Hygienists	979	980	978	987	995	16	1.6%
Pharmacists	943	982	915	931	955	12	1.3%
Licensed Practical Nurses	5,885	5,780	5,575	5,453	5,860	-25	-0.4%
Respiratory Therapists	256	237	235	248	254	-2	-0.8%
Registered Nurses	14,402	14,471	14,549	14,382	14,250	-152	-1.1%
Occupational Therapy Assistants	218	220	208	207	206	-12	-5.5%

Source: NYS Education Department, Office of Professions

### 3. Demand for Health Workers

#### Hospitals

Hospitals in the upstate<sup>17</sup> New York region reported the most difficulty recruiting pharmacists, sonographers, physical therapists, medical laboratory technicians, and experienced RNs. Retention of RNs was the most problematic.

The shortage of workers, the competition for workers, and salary levels were the primary reasons cited for difficulties in recruitment and retention of workers (Exhibit 62).

<sup>17</sup> Since only thirty-three hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

**Exhibit 62**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations in Upstate New York**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.3	2.1	56%	50%	38%	6%
Medical Laboratory Technicians	4.1	2.9	71%	59%	53%	12%
Nursing Aides/Patient Care Associates	2.6	3.2	28%	39%	44%	28%
Pharmacists	4.5	3.0	71%	76%	53%	12%
Physical Therapists	4.1	3.2	63%	68%	37%	5%
Radiologic Technologists						
-mammographers	3.6	2.8	58%	53%	32%	11%
-nuclear medicine technologists	4.0	2.9	75%	75%	50%	13%
-sonographers	4.1	2.7	71%	71%	29%	12%
Registered Nurses						
-Experienced	4.0	3.3	84%	79%	63%	11%
-Newly Trained	2.8	3.4	58%	74%	42%	11%
Respiratory Therapists	3.6	2.7	50%	44%	25%	0%

Forty-seven percent of the hospitals in upstate New York cited difficulty hiring part-time workers, 79% reported difficulty hiring workers for off-shifts, and 38% reported difficulty hiring bilingual employees (Spanish-speaking).

Nursing Homes

Nursing homes in the Finger Lakes region indicated the most difficulty recruiting respiratory therapists, experienced RNs, and occupational therapists. RNs, LPNs, and CNAs were difficult to retain.

Nursing homes the Finger Lakes region indicated that competition for workers, shortage of workers, and salary levels in the specific occupations were the primary reasons for these recruitment and retention difficulties (Exhibit 63).

**Exhibit 63**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in the Finger Lakes Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nurse Aides	3.2	3.4	56%	33%	33%	11%
Clerical	2.2	1.9	0%	22%	44%	0%
Dietitians/Nutritionists	3.0	2.4	29%	0%	29%	0%
Licensed Practical Nurses	3.8	3.4	78%	67%	44%	11%
Physical Therapists	3.7	3.3	29%	14%	43%	14%
Occupational Therapists	3.9	3.3	29%	14%	43%	14%
Registered Nurses						
Experienced	4.3	3.4	78%	78%	44%	22%
Newly Trained	3.9	3.4	50%	50%	25%	25%
Respiratory Therapists	5.0	-	0%	0%	0%	0%
Social Workers						
MSWs	3.3	2.5	0%	17%	0%	0%
BSWs	3.0	2.6	0%	14%	0%	0%

Sixty-seven percent of the nursing homes in the Finger Lakes region reported the most difficulty hiring for off-shifts, while 44% reported difficulty hiring part-time workers, and 22% reported difficulty hiring bilingual workers.

Home Health Agencies

Home health agencies in the Finger Lakes region reported the most difficulty recruiting respiratory therapists, personal care aides, and home health aides. The retention of dietitians/nutritionists was the most problematic.

Home health agencies indicated the primary reasons for these difficulties were shortage of workers, competition for workers, and the salary levels in these occupations (Exhibit 64).

**Exhibit 64**  
**Recruitment and Retention Difficulties for Home Health Agencies**  
**in the Finger Lakes Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.5	4.0	33%	17%	17%	0%
Home Health Aides	4.2	3.0	66%	11%	44%	0%
Licensed Practical Nurses	3.0	2.7	29%	14%	14%	14%
Occupational Therapists	3.4	1.8	60%	20%	0%	0%
Personal Care Aides/Homemakers	4.3	3.3	50%	17%	33%	0%
Physical Therapists	3.4	1.8	60%	0%	0%	0%
Registered Nurses						
Associate/Diploma prepared	3.6	2.5	27%	27%	27%	0%
Bachelor's prepared	4.1	2.4	33%	33%	44%	0%
Respiratory Therapists	5.0	0	100%	0%	0%	0%
Social Workers						
MSWs	4.0	0.5	75%	50%	0%	0%
BSWs	2.7	1.8	50%	25%	0%	0%
Speech-Language Pathologists	3.0	0	100%	0%	0%	0%

Sixty-four percent of the home health agencies in the Finger Lakes region reported difficulty hiring part-time employees, while 55% reported difficulty hiring for the off-shifts, and 36% reported difficulty hiring bilingual workers (Spanish-speaking).

*4. Employment Projections by Health Occupation*

The number of RN jobs in the Finger Lakes region is projected to increase by 1,800 between 2004 and 2014, with more than 410 average annual job openings. The NYS DOL estimated 270 average annual job openings for home health aides and 180 average annual job openings for nursing aides, orderlies, and attendants over the same time period (Exhibit 65).

**Exhibit 65**  
**Employment Projections for the Top Eleven Health Care Growth Professions**  
**in the Finger Lakes Region, 2004 – 2014**

	2004	2014	Growth Between 2004 and 2014		Avg. Annual Openings
			Number	Percent	
Registered Nurses	10,810	12,610	1,800	16.7%	410
Home Health Aides	6,100	7,980	1,880	30.8%	270
Nursing Aides, Orderlies, and Attendants	6,990	7,910	920	13.2%	180
Licensed Practical Nurses	4,220	4,460	240	5.7%	110
Social Workers	3,670	4,000	330	9.0%	100
Dental Assistants	1,280	1,520	240	18.8%	60
Medical and Health Services Managers	1,400	1,530	130	9.3%	40
Medical Assistants	740	930	190	25.7%	30
Dental Hygienists	830	980	150	18.1%	30
Pharmacists	800	900	100	12.5%	30
Speech-Language Pathologists	1,140	1,180	40	3.5%	30

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2004-2014

## E. Hudson Valley

### 1. Employment by Setting

Health sector employment in the Hudson Valley region increased by nearly 7% between 2001 and 2006. Home health care facilities experienced the largest job growth at almost 26%, while employment in nursing and personal care grew by more than 16% during the same period. Employment in hospitals declined slightly by more than 290 jobs between 2001 and 2006 (Exhibit 66).

**Exhibit 66**  
**Number of Workers by Health Care Setting in the Hudson Valley Region**  
**between 2001 and 2006**

Setting	2001	2002	2003	2004	2005	2006	Change 2001 to 2006	
							Number	Percent
Hospitals	39,649	39,511	39,266	38,979	38,663	39,353	-296	-0.7%
Ambulatory Care (Excluding Home Health)	34,962	34,038	34,861	35,218	36,603	36,984	2,022	5.8%
Nursing Home and Personal Care Facilities	20,569	21,058	21,780	23,590	23,883	23,928	3,359	16.3%
Home Health Care Services	5,675	5,696	6,345	6,351	6,966	7,146	1,471	25.9%
<b>Totals</b>	<b>100,855</b>	<b>100,302</b>	<b>102,252</b>	<b>104,116</b>	<b>106,115</b>	<b>107,411</b>	<b>6,556</b>	<b>6.5%</b>

Source: NYS Department of Labor, ES-202

### 2. Licensed Health Professionals

The number of social workers in the Hudson Valley region rose more than 35% between 2002 and 2006, while the numbers of nurse practitioners and physician assistants increased by nearly 25% and 23%, respectively. The numbers of occupational therapy assistants, speech-language pathologists, and occupational therapy assistants all experienced double-digit growth during the same period.

The number of RNs declined by 166, or 0.5%, between 2002 and 2006. The numbers of licensed practical nurses and pharmacists also declined during the same period (Exhibit 67).

**Exhibit 67**  
**Change in the Number of Licensed Individuals in Selected Health Occupations**  
**in the Hudson Valley Region, 2002 to 2006**

Occupation	2002	2003	2004	2005	2006	Change between 2002 and 2006	
						Number	Percent
Social Workers	6,153	6,312	6,402	6,539	8,317	2,164	35.2%
Nurse Practitioners	1,239	1,353	1,405	1,505	1,544	305	24.6%
Physician Assistants	549	597	599	642	675	126	23.0%
Speech-Language Pathologists	1,352	1,396	1,457	1,489	1,571	219	16.2%
Occupational Therapists	1,079	1,166	1,176	1,183	1,223	144	13.3%
Occupational Therapy Assistants	547	592	599	613	616	69	12.6%
Physical Therapists	1,919	2,030	2,084	2,121	2,155	236	12.3%
Dental Hygienists	988	1,011	1,024	1,041	1,054	66	6.7%
Physical Therapy Assistants	428	439	446	441	449	21	4.9%
Dietitians/Nutritionists	659	684	687	669	687	28	4.2%
Respiratory Therapists	574	570	565	585	584	10	1.7%
Registered Nurses	30,205	30,322	30,457	30,536	30,039	-166	-0.5%
Licensed Practical Nurses	7,749	7,595	7,310	7,501	7,516	-233	-3.0%
Pharmacists	2,091	2,135	1,984	1,961	1,961	-130	-6.2%

Source: NYS Education Department, Office of Professions

### 3. Demand for Health Workers

#### Hospitals

Hospitals in downstate<sup>18</sup> New York reported the most difficulty recruiting pharmacists, experienced RNs, nuclear medicine technologists, and physical therapists. Retention of experienced RNs and pharmacists was cited as very problematic.

The shortage of workers, the competition for workers, and salary levels were the primary reasons cited for difficulties in recruitment and retention of workers (Exhibit 68).

<sup>18</sup> Since only thirty-three hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.



**Exhibit 68**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations in Downstate New York**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.8	2.9	20%	20%	30%	0%
Medical Laboratory Technicians	3.7	2.5	45%	36%	36%	18%
Nursing Aides/Patient Care Associates	1.9	3.0	0%	38%	46%	15%
Pharmacists	4.8	3.5	92%	75%	67%	8%
Physical Therapists	4.2	3.2	62%	46%	69%	15%
Radiologic Technologists						
-mammographers	3.5	2.7	25%	54%	33%	0%
-nuclear medicine technologists	4.2	2.6	67%	67%	25%	0%
-sonographers	3.4	2.7	33%	58%	33%	0%
Registered Nurses						
-Experienced	4.2	3.6	75%	83%	67%	33%
-Newly Trained	2.3	3.4	25%	50%	67%	8%
Respiratory Therapists	3.6	3.0	42%	50%	50%	8%

Fifty-seven percent of the hospitals in downstate New York cited difficulty hiring part-time workers, 64% reported difficulty hiring workers for off-shifts, and 43% reported difficulties hiring bilingual employees (Spanish-speaking).

Nursing Homes

Nursing homes in the Hudson Valley region cited the most difficulty recruiting experienced RNs, licensed practical nurses, and physical therapists. RNs and LPNs were the most difficult to retain.

Nursing homes in the Hudson Valley region indicated that competition for workers, general shortages of workers, and salary levels were the primary reasons for these recruitment and retention difficulties (Exhibit 69).

**Exhibit 69**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in the Hudson Valley Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nurse Aides	3.0	3.3	36%	43%	36%	21%
Clerical	2.2	1.9	0%	0%	42%	17%
Dietitians/Nutritionists	3.2	2.3	22%	33%	33%	0%
Licensed Practical Nurses	3.9	3.6	43%	57%	43%	14%
Physical Therapists	3.7	2.7	42%	50%	33%	8%
Occupational Therapists	3.5	2.5	38%	46%	31%	8%
Registered Nurses						
Experienced	4.2	3.9	64%	79%	36%	29%
Newly Trained	3.6	3.7	55%	64%	27%	27%
Respiratory Therapists	2.0	1.5	0%	0%	0%	0%
Social Workers						
MSWs	3.0	2.6	11%	33%	22%	0%
BSWs	3.0	2.8	17%	17%	33%	0%

Sixty-four percent of the nursing homes in the Hudson Valley region reported difficulty hiring for off-shifts, while 43% reported difficulty hiring part-time workers, and 21% reported difficulty hiring bilingual workers.

Home Health Agencies

Home health agencies in Hudson Valley region reported the most difficulty recruiting BSNs, MSWs, and respiratory therapists. The retention of MSWs, occupational therapists, and respiratory therapists was the most problematic.

Home health agencies in the Hudson Valley region indicated the primary reasons for these difficulties were the shortage of workers, the competition for workers, and salary levels in these occupations (Exhibit 70).

**Exhibit 70**  
**Recruitment and Retention Difficulties for Home Health Agencies**  
**in the Hudson Valley Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.3	3.3	13%	0%	63%	25%
Home Health Aides	3.6	3.1	63%	63%	56%	25%
Licensed Practical Nurses	3.7	2.8	23%	38%	46%	8%
Occupational Therapists	4.0	3.7	22%	22%	44%	0%
Personal Care Aides/Homemakers	3.9	3.4	45%	55%	64%	36%
Physical Therapists	3.9	3.2	10%	40%	30%	10%
Registered Nurses						
Associate/Diploma prepared	4.0	2.9	53%	63%	63%	16%
Bachelor's prepared	4.6	3.2	72%	72%	78%	11%
Respiratory Therapists	4.2	3.6	40%	20%	60%	0%
Social Workers						
MSWs	4.6	4.8	0%	38%	63%	0%
BSWs	2.8	2.6	11%	22%	44%	22%
Speech-Language Pathologists	3.3	3.3	33%	33%	50%	17%

Seventy-four percent of the home health agencies in the Hudson Valley region reported difficulty hiring part-time employees, while 61% and 48%, respectively, reported difficulty hiring bilingual workers (Spanish-speaking) and employees for the off-shifts.

*4. Employment Projections by Health Occupation*

The NYS DOL estimated that between 2004 and 2014 there will be more than 3,500 new jobs in the Hudson Valley region for RNs, with 760 average annual job openings. During the same period, home health aide jobs are projected to increase by 4,150, with 580 average annual job openings. The number of licensed practical nurses jobs is projected to increase by nearly 1,100, with 260 average annual job openings (Exhibit 71).

**Exhibit 71**  
**Employment Projections for the Top Eleven Health Care Growth Occupations**  
**in the Hudson Valley Region, 2004 – 2014**

	2004	2014	Growth Between 2004 and 2014		Avg. Annual Openings
			Number	Percent	
Registered Nurses	19,800	23,340	3,540	17.9%	760
Home Health Aides	12,450	16,600	4,150	33.3%	580
Licensed Practical Nurses	6,790	7,880	1,090	16.1%	260
Nursing Aides, Orderlies, and Attendants	9,630	10,510	880	9.1%	220
Social Workers	6,110	7,000	890	14.6%	200
Medical and Health Services Managers	2,470	2,700	230	9.3%	70
Dental Assistants	2,870	3,410	540	18.8%	50
Physical Therapists	1,400	1,750	350	25.0%	50
Dental Hygienists	1,970	2,340	370	18.8%	40
Emergency Medical Technicians and Paramedics	1,850	2,110	260	14.1%	30
Medical Records and Health Information Technicians	760	870	110	14.5%	20

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2004-2014

## F. Long Island

### 1. Employment by Setting

Health sector employment in the Long Island region grew by over 12% between 2001 and 2006, adding nearly 16,000 jobs. Employment in nursing and personal care facilities grew the most, increasing by nearly 6,900 jobs, or by more than 37%. There was also growth in hospital and ambulatory care employment of 11% and 9%, respectively (Exhibit 72).

**Exhibit 72**  
**Number of Workers by Health Care Setting in the Long Island Region**  
**between 2001 and 2006**

Setting	2001	2002	2003	2004	2005	2006	Change 2001 to 2006	
							Number	Percent
Hospitals	45,854	46,939	47,181	47,475	46,334	50,980	5,126	11.2%
Ambulatory Care (Excluding Home Health)	52,661	53,287	54,217	54,768	56,525	57,400	4,739	9.0%
Nursing Home and Personal Care Facilities	18,363	20,376	20,947	22,427	24,448	25,225	6,862	37.4%
Home Health Care Services	10,691	10,773	10,833	10,919	10,868	9,811	-880	-8.2%
<b>Totals</b>	127,569	131,376	133,177	133,589	138,175	143,416	15,847	12.4%

Source: NYS Department of Labor, ES-202

### 2. Licensed Health Professionals

Between 2002 and 2006, the number of physician assistants in Long Island increased by more than 37%, while the number of social workers increased by nearly 34%. The number of nurse practitioners grew by almost 32% during the same period.

Between 2002 and 2006, the number of RNs increased slightly, while the number of licensed practical nurses decreased by more than 8% (Exhibit 73).

**Exhibit 73**  
**Change in the Number of Individuals in Selected Health Occupations**  
**in the Long Island Region, 2002 to 2006**

Occupation	2002	2003	2004	2005	2006	Change between 2002 and 2006	
						Number	Percent
Physician Assistants	1,158	1,252	1,350	1,465	1,589	431	37.2%
Social Workers	7,325	7,475	7,553	7,742	9,808	2,483	33.9%
Nurse Practitioners	1,784	2,034	2,103	2,236	2,350	566	31.7%
Occupational Therapists	1,403	1,532	1,579	1,618	1,685	282	20.1%
Physical Therapists	2,621	2,824	2,855	2,935	3,040	419	16.0%
Occupational Therapy Assistants	293	317	323	320	338	45	15.4%
Speech-Language Pathologists	2,392	2,400	2,533	2,629	2,735	343	14.3%
Physical Therapy Assistants	850	878	886	878	890	40	4.7%
Dietitians/Nutritionists	867	820	885	869	898	31	3.6%
Dental Hygienists	1,611	1,636	1,634	1,647	1,647	36	2.2%
Respiratory Therapists	808	803	793	820	821	13	1.6%
Registered Nurses	36,865	36,155	36,598	36,668	37,268	403	1.1%
Pharmacists	3,449	3,556	3,371	3,387	3,472	23	0.7%
Licensed Practical Nurses	9,866	9,626	9,223	9,006	9,035	-831	-8.4%

Source: NYS Education Department, Office of Professions

### *3. Demand for Health Workers*

#### Hospitals

Hospitals in downstate<sup>19</sup> New York reported the most difficulty recruiting pharmacists, experienced RNs, nuclear medicine technologists, and physical therapists. Retention of experienced RNs and pharmacists was cited as very problematic.

The shortage of workers, the competition for workers, and salary levels were the primary reasons cited for difficulties in recruitment and retention of workers (Exhibit 74).

<sup>19</sup> Since only thirty-three hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

**Exhibit 74**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations in Downstate New York**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.8	2.9	20%	20%	30%	0%
Medical Laboratory Technicians	3.7	2.5	45%	36%	36%	18%
Nursing Aides/Patient Care Associates	1.9	3.0	0%	38%	46%	15%
Pharmacists	4.8	3.5	92%	75%	67%	8%
Physical Therapists	4.2	3.2	62%	46%	69%	15%
Radiologic Technologists						
-mammographers	3.5	2.7	25%	54%	33%	0%
-nuclear medicine technologists	4.2	2.6	67%	67%	25%	0%
-sonographers	3.4	2.7	33%	58%	33%	0%
Registered Nurses						
-Experienced	4.2	3.6	75%	83%	67%	33%
-Newly Trained	2.3	3.4	25%	50%	67%	8%
Respiratory Therapists	3.6	3.0	42%	50%	50%	8%

Fifty-seven percent of the hospitals in downstate New York cited difficulty hiring part-time workers, 64% of hospitals in downstate New York reported difficulty hiring workers for off-shifts, and 43% reported difficulty hiring bilingual employees (Spanish-speaking).

Nursing Homes

Nursing homes in the Long Island region reported the most difficulty recruiting experienced RNs, LPNs, and physical therapists. Nursing homes in the Long Island region reported retention problems for experienced RNs and CNAs. The competition for workers, the shortage of workers, and salary levels were the primary reasons cited for the recruitment and retention difficulties in these occupations (Exhibit 75).

**Exhibit 75**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in the Long Island Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nurse Aides	2.3	3.7	11%	44%	11%	11%
Clerical	2.6	1.9	0%	11%	33%	0%
Dietitians/Nutritionists	3.6	2.1	33%	33%	22%	0%
Licensed Practical Nurses	4.2	3.6	60%	70%	50%	0%
Physical Therapists	3.7	3.4	43%	29%	29%	0%
Occupational Therapists	3.6	3.4	43%	29%	29%	0%
Registered Nurses						
Experienced	4.6	4.0	60%	70%	40%	0%
Newly Trained	3.3	3.2	60%	60%	20%	0%
Respiratory Therapists	-	-	-	-	-	-
Social Workers						
MSWs	2.9	2.4	11%	22%	33%	0%
BSWs	3.0	2.5	25%	13%	38%	0%

Seventy percent of the nursing homes in the Long Island region cited difficulties hiring for off-shifts, 40% reported difficulty hiring part-time employees, and 20% indicated difficulties in hiring bilingual workers.

Home Health Agencies

Home health agencies in the Long Island region reported the most difficulty recruiting MSWs, occupational therapists, and bachelor's prepared RNs. It was most problematic to retain occupational therapists, MSWs, and physical therapists.

Home health agencies in the Longs Island region indicated the primary reasons for these difficulties were shortage of workers, competition for workers, and salary levels in these occupations (Exhibit 76).



**Exhibit 76**  
**Recruitment and Retention Difficulties for Home Health Agencies**  
**in the Long Island Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.2	2.6	11%	0%	44%	22%
Home Health Aides	3.3	3.3	56%	56%	44%	17%
Licensed Practical Nurses	3.1	2.7	43%	21%	36%	0%
Occupational Therapists	4.3	4.1	50%	25%	38%	13%
Personal Care Aides/Homemakers	3.0	3.0	60%	50%	50%	30%
Physical Therapists	3.7	3.8	20%	30%	30%	0%
Registered Nurses						
Associate/Diploma prepared	3.6	3.4	56%	29%	50%	17%
Bachelor's prepared	3.9	3.0	56%	56%	56%	17%
Respiratory Therapists	3.6	3.6	40%	20%	40%	20%
Social Workers						
MSWs	4.3	4.0	22%	33%	33%	0%
BSWs	3.4	3.2	22%	33%	44%	22%
Speech-Language Pathologists	3.1	3.6	14%	29%	43%	29%

Seventy-five percent of the home health agencies in the Long Island region reported difficulty hiring bilingual workers (Spanish-speaking), while 60% and 50%, respectively, reported difficulty hiring part-time employees and employees for the off-shifts.

*4. Employment Projections by Health Occupation*

The NYS DOL estimated that between 2004 and 2014 there will be 4,520 new jobs for RNs in the Long Island region with 930 average annual job openings. The number of home health aide jobs will increase by more than 5,100 with 680 average annual job openings. Employment of nursing aides, orderlies, and attendants will grow by nearly 11% with more than 1,400 average annual job openings during the same period (Exhibit 77).

**Exhibit 77**  
**Employment Projections for the Top Ten Health Care Growth Occupations**  
**in the Long Island Region, 2004 – 2014**

	2004	2014	Growth Between 2004 and 2014		Avg. Annual Openings
			Number	Percent	
Registered Nurses	22,910	27,430	4,520	19.7%	930
Home Health Aides	12,630	17,760	5,130	40.6%	680
Nursing Aides, Orderlies, and Attendants	13,560	15,020	1,460	10.8%	330
Medical Assistants	5,200	7,320	2,120	40.8%	310
Licensed Practical Nurses	6,870	7,730	860	12.5%	240
Dental Assistants	3,410	4,470	1,060	31.1%	210
Social Workers	5,400	6,200	800	14.8%	180
Radiologic Technologists and Technicians	2,370	2,930	560	23.6%	100
Medical and Health Services Managers	3,020	3,420	400	13.2%	100
Dental Hygienists	1,590	2,080	490	30.8%	60

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2004-2014

## G. Mohawk Valley

### 1. Employment by Setting

Health sector employment in the Mohawk Valley increased by nearly 11% between 2001 and 2006. Employment in all health care settings rose.

Jobs in home health care settings grew by more than 24% between 2001 and 2006. Jobs in ambulatory care increased by 15%, and jobs in nursing homes and personal care facilities nursing homes and jobs in hospitals grew by almost 12%. Hospital employment grew by nearly 7% during the same period (Exhibit 78).

**Exhibit 78**  
**Number of Workers by Health Care Setting in the Mohawk Valley Region**  
**between 2001 and 2006**

Setting	2001	2002	2003	2004	2005	2006	Change 2001 to 2006	
							Number	Percent
Hospitals	9,624	9,330	9,414	9,466	9,461	10,245	621	6.5%
Ambulatory Care (Excluding Home Health)	4,819	4,840	5,099	5,315	5,456	5,543	724	15.0%
Nursing Home and Personal Care Facilities	6,373	6,529	6,482	6,444	7,222	7,133	760	11.9%
Home Health Care Services	1,008	1,052	1,076	1,080	1,212	1,254	246	24.4%
<b>Totals</b>	<b>21,823</b>	<b>21,751</b>	<b>22,070</b>	<b>22,304</b>	<b>23,351</b>	<b>24,175</b>	<b>2,351</b>	<b>10.8%</b>

Source: NYS Department of Labor, ES-202

### 2. Licensed Health Professionals

Between 2002 and 2006, the number of dietitians/nutritionists in the Mohawk Valley region increased more than 37%, and the number of social workers grew by 29%. The number of physician assistants, speech-language pathologists, and nurse practitioners, physical therapists, and respiratory therapists all experienced double-digit increases during the same time period.

The number of RNs did not change between 2002 and 2006. The number of occupational therapy assistants decreased by 11%, while the numbers of physical therapy assistants and pharmacists each dropped by 7% (Exhibit 79).

**Exhibit 79**  
**Change in the Number of Individuals in Selected Health Occupations**  
**in the Mohawk Valley Region, 2002 to 2006**

Occupation	2002	2003	2004	2005	Change between 2002 and 2006		
					2006	Number	Percent
Dietitians/Nutritionists	62	62	72	77	85	23	37.1%
Social Workers	513	532	529	546	662	149	29.0%
Physician Assistants	108	109	110	120	129	21	19.4%
Speech-Language Pathologists	156	156	174	179	185	29	18.6%
Nurse Practitioners	334	344	354	370	375	41	12.3%
Physical Therapists	289	309	302	307	324	35	12.1%
Respiratory Therapists	141	138	140	149	156	15	10.6%
Occupational Therapists	280	293	294	309	303	23	8.2%
Dental Hygienists	276	277	277	286	282	6	2.2%
Registered Nurses	6,356	6,380	6,408	6,345	6,356	0	0.0%
Licensed Practical Nurses	3,511	3,497	3,420	3,492	3,498	-13	-0.4%
Pharmacists	442	437	415	413	413	-29	-6.6%
Physical Therapist Assistants	195	186	184	184	182	-13	-6.7%
Occupational Therapy Assistants	195	193	192	182	174	-21	-10.8%

Source: NYS Education Department, Office of Professions

*3. Demand for Health Workers*

Hospitals

Hospitals in upstate<sup>20</sup> New York reported the most difficulty recruiting pharmacists, sonographers, physical therapists, medical laboratory technicians, and experienced RNs. Retention of RNs was the most problematic.

The shortage of workers, the competition for workers, and salary levels were the primary reasons cited for difficulties in recruitment and retention of workers (Exhibit 80).

<sup>20</sup> Since only thirty-three hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

**Exhibit 80**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations in Upstate New York**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.3	2.1	56%	50%	38%	6%
Medical Laboratory Technicians	4.1	2.9	71%	59%	53%	12%
Nursing Aides/Patient Care Associates	2.6	3.2	28%	39%	44%	28%
Pharmacists	4.5	3.0	71%	76%	53%	12%
Physical Therapists	4.1	3.2	63%	68%	37%	5%
Radiologic Technologists						
-mammographers	3.6	2.8	58%	53%	32%	11%
-nuclear medicine technologists	4.0	2.9	75%	75%	50%	13%
-sonographers	4.1	2.7	71%	71%	29%	12%
Registered Nurses						
-Experienced	4.0	3.3	84%	79%	63%	11%
-Newly Trained	2.8	3.4	58%	74%	42%	11%
Respiratory Therapists	3.6	2.7	50%	44%	25%	0%

Forty-seven percent of the hospitals in upstate New York cited difficulty hiring part-time workers, 79% reported difficulty hiring workers for off-shifts, and 43% reported difficulty hiring bilingual employees (Spanish-speaking).

Nursing Homes

Nursing homes in the Mohawk Valley reported difficulty recruiting MSWs and experienced RNs. Retention was most problematic for LPNs, RNs, and CNAs.

Salary levels and competition for workers were cited as the primary reasons for recruitment and retention difficulties (Exhibit 81).

**Exhibit 81**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in the Mohawk Valley**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nurse Aides	4.0	4.0	100%	100%	43%	43%
Clerical	2.4	3.3	14%	0%	14%	0%
Dietitians/Nutritionists	3.3	3.0	33%	33%	33%	0%
Licensed Practical Nurses	4.0	4.1	86%	86%	43%	19%
Physical Therapists	3.0	3.7	29%	29%	29%	0%
Occupational Therapists	3.2	3.0	33%	33%	33%	0%
Registered Nurses						
Experienced	4.4	4.4	100%	100%	57%	29%
Newly Trained	4.0	4.1	57%	71%	57%	0%
Respiratory Therapists	3.0	3.0	0%	0%	0%	0%
Social Workers						
MSWs	5.0	3.0	100%	100%	100%	0%
BSWs	2.8	2.4	20%	40%	40%	0%
Other:						
Physicians	5.0	4.0	100%	100%	100%	0%
Cooks	4.0	4.0	100%	100%	100%	100%

Eighty-six percent of the nursing homes in the Mohawk Valley region reported difficulty hiring part-time employees and 86% reported difficulty hiring employees for off-shifts.

Home Health Agencies

Home health agencies in Mohawk Valley region reported the most difficulty recruiting physical therapists, BSNs, MSWs, and dietitians/nutritionists. Retention was most problematic for dietitians/nutritionists, occupational therapists, and ADNs.

Home health agencies in the Mohawk Valley region indicated the primary reasons for these difficulties were shortage of workers, competition for workers, and salary levels in these occupations (Exhibit 82).

**Exhibit 82**  
**Recruitment and Retention Difficulties for Home Health Agencies**  
**in the Mohawk Valley Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	4.3	3.8	50%	75%	25%	25%
Home Health Aides	3.9	3.2	73%	73%	55%	27%
Licensed Practical Nurses	3.5	2.8	50%	50%	50%	8%
Occupational Therapists	4.0	3.6	80%	20%	0%	0%
Personal Care Aides/Homemakers	3.8	3.1	70%	40%	40%	30%
Physical Therapists	4.5	3.2	100%	17%	33%	0%
Registered Nurses						
Associate/Diploma prepared	4.2	3.5	77%	85%	77%	38%
Bachelor's prepared	4.5	3.2	86%	79%	71%	36%
Respiratory Therapists	3.0	2.3	0%	0%	0%	0%
Social Workers						
MSWs	4.3	2.5	50%	0%	50%	0%
BSWs	3.0	2.7	33%	0%	0%	0%
Speech-Language Pathologists	3.5	3.0	25%	25%	25%	0%

Slightly more than half of the home health agencies in the Mohawk Valley region reported difficulty hiring part-time employees, hiring employees for off-shifts, or hiring bilingual workers.

*4. Employment Projections by Health Occupation*

The NYS DOL estimated that between 2004 and 2014 there will be 940 new jobs for home health aides in the Mohawk Valley region, with 140 average annual job openings. Total jobs for nursing aides, orderlies, and attendants will increase by almost 8%, with 70 average annual job openings (Exhibit 83).

**Exhibit 83**  
**Employment Projections for the Top Eight Health Care Growth Occupations**  
**in the Mohawk Valley Region, 2004-2014**

	2004	2014	Growth Between 2004 and 2014		Avg. Annual Openings
			Number	Percent	
Home Health Aides	3,870	4,810	940	24.3%	140
Nursing Aides, Orderlies, and Attendants	3,330	3,590	260	7.8%	70
Registered Nurses	4,060	4,610	550	13.5%	60
Social Workers	1,300	1,450	150	11.5%	50
Licensed Practical Nurses	2,010	2,090	80	4.0%	50
Dental Assistants	540	690	150	27.8%	40
Pharmacists	450	490	40	8.9%	10
Medical and Health Services Managers	440	470	30	6.8%	10

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2004-2014



## H. North Country

### 1. Employment by Setting

Total health sector employment in the North Country region grew by nearly 12% between 2001 and 2006, adding almost 1,800 jobs. Employment in ambulatory care increased by slightly more than 700 jobs, or by 18%, while employment in hospitals grew by nearly 600 jobs or almost 8% during the same period. Jobs in home health care (28%) and nursing home and personal care facilities (12%) also increased between 2001 and 2006 (Exhibit 84).

**Exhibit 84**  
**Number of Workers by Health Care Setting in the North Country Region**  
**between 2001 and 2006**

Setting	2001	2002	2003	2004	2005	2006	Change 2001 to 2006	
							Number	Percent
Hospitals	7,881	8,066	8,386	8,399	8,381	8,471	590	7.5%
Ambulatory Care (Excluding Home Health)	4,037	4,161	4,189	4,265	4,254	4,745	708	17.5%
Nursing Home and Personal Care Facilities	2,961	3,250	3,192	3,340	3,463	3,319	358	12.1%
Home Health Care Services	495	512	553	577	606	632	137	27.7%
<b>Totals</b>	15,375	15,988	16,321	16,580	16,704	17,167	1,793	11.7%

Source: NYS Department of Labor, ES-202

### 2. Licensed Health Professionals

Between 2002 and 2006, the number of social workers in the North Country region increased by nearly 54%, while the number of licensed occupational therapy assistants grew by over 33%. The numbers of physician assistants, physical therapy assistants, and speech-language pathologists rose by nearly 21% or more during the same period. However, the number of RNs declined by nearly 510 individuals, or 11%, between 2002 and 2006. The number of licensed practical nurses, dental hygienists, and pharmacists all declined slightly during the same period (Exhibit 85).

**Exhibit 85**  
**Change in the Number of Licensed Health Care Occupations**  
**in the North Country Region, 2002-2006**

Occupation	2002	2003	2004	2005	2006	Change between 2002 and 2006	
						Number	Percent
Social Workers	287	304	307	321	441	154	53.7%
Occupational Therapy Assistants	54	60	65	66	72	18	33.3%
Physician Assistants	132	130	145	158	168	36	27.3%
Physical Therapy Assistants	121	131	131	131	147	26	21.5%
Speech-Language Pathologists	158	171	182	184	191	33	20.9%
Occupational Therapists	100	116	120	123	119	19	19.0%
Physical Therapists	233	253	250	257	258	25	10.7%
Dietitians/Nutritionists	69	73	78	77	76	7	10.1%
Nurse Practitioners	180	185	185	190	195	15	8.3%
Respiratory Therapists	66	63	61	64	67	1	1.5%
Licensed Practical Nurses	2,498	2,483	2,424	2,488	2,493	-5	-0.2%
Pharmacists	300	307	294	294	299	-1	-0.3%
Dental Hygienists	195	200	196	200	194	-1	-0.5%
Registered Nurses	4,734	4,557	4,636	4,665	4,225	-509	-10.8%

Source: NYS Education Department, Office of Professions

### *3. Demand for Health Workers*

#### Hospitals

Hospitals in upstate<sup>21</sup> New York reported the most difficulty recruiting pharmacists, sonographers, physical therapists, medical laboratory technicians, and experienced RNs. Retention of RNs was the most problematic.

The shortage of workers, the competition for workers, and salary levels were the primary reasons cited for difficulties in recruitment and retention of workers (Exhibit 86).

<sup>21</sup> Since only thirty-three hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

**Exhibit 86**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations in Upstate New York**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.3	2.1	56%	50%	38%	6%
Medical Laboratory Technicians	4.1	2.9	71%	59%	53%	12%
Nursing Aides/Patient Care Associates	2.6	3.2	28%	39%	44%	28%
Pharmacists	4.5	3.0	71%	76%	53%	12%
Physical Therapists	4.1	3.2	63%	68%	37%	5%
Radiologic Technologists						
-mammographers	3.6	2.8	58%	53%	32%	11%
-nuclear medicine technologists	4.0	2.9	75%	75%	50%	13%
-sonographers	4.1	2.7	71%	71%	29%	12%
Registered Nurses						
-Experienced	4.0	3.3	84%	79%	63%	11%
-Newly Trained	2.8	3.4	58%	74%	42%	11%
Respiratory Therapists	3.6	2.7	50%	44%	25%	0%

Forty-seven percent of the hospitals in upstate New York cited difficulty hiring part-time workers, 79% reported difficulty hiring workers for off-shifts, and 38% reported difficulties hiring bilingual employees (Spanish-speaking).

Nursing Homes

Nursing homes in the North Country region reported the most difficulty recruiting physical therapists, respiratory therapists, and occupational therapists. Nursing homes in the North Country region also reported recruitment problems for experienced RNs, CNAs, and MSWs. Retention was the most problematic for CNAs, LPNs, and RNs.

The primary reasons cited for these recruitment and retention difficulties were the shortages of workers, the competition of workers, and salary levels of the specific occupations (Exhibit 87).

**Exhibit 87**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**For Selected Occupations in the North Country**

Occupation	Average Assessment Of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nurse Aides	4.5	4.5	100%	100%	100%	75%
Clerical	1.6	2.3	0%	0%	33%	0%
Dietitians/Nutritionists	3.3	3.3	33%	33%	33%	0%
Licensed Practical Nurses	4.5	3.5	75%	75%	100%	25%
Physical Therapists	4.7	3.0	67%	67%	100%	0%
Occupational Therapists	4.7	3.0	67%	67%	100%	0%
Registered Nurses						
Experienced	4.5	3.3	75%	50%	75%	25%
Newly Trained	3.3	3.5	50%	75%	75%	0%
Respiratory Therapists	5.0	3.0	0%	0%	100%	0%
Social Workers						
MSWs	4.3	2.3	33%	33%	67%	0%
BSWs	3.5	3.0	0%	50%	50%	0%

All of the nursing homes in the North Country region reported difficulty hiring workers for off-shifts, and 50% cited difficulty hiring workers for part-time positions.

Home Health Agencies

Home health agencies in the North Country region reported the most difficulty recruiting MSWs, respiratory therapists, personal care aides, home health aides, and BSNs. Retention was problematic for MSWs, BSNs, home health aides, and physical therapists.

Home health agencies in the North Country region indicated the primary reasons for these difficulties were salary levels within the specific occupations, the shortage of workers, and the competition for workers in these occupations (Exhibit 88).

**Exhibit 88**  
**Recruitment and Retention Difficulties for Home Health Agencies**  
**in North Country Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.7	3.3	33%	33%	67%	0%
Home Health Aides	4.7	3.7	100%	67%	67%	33%
Licensed Practical Nurses	2.0	1.7	0%	0%	33%	0%
Occupational Therapists	3.7	3.3	33%	33%	67%	0%
Personal Care Aides/Homemakers	5.0	3.5	100%	50%	100%	50%
Physical Therapists	3.7	3.7	33%	33%	33%	0%
Registered Nurses						
Associate/Diploma prepared	3.8	3.2	67%	83%	100%	17%
Bachelor's prepared	4.7	3.7	67%	83%	100%	17%
Respiratory Therapists	5.0	3.0	100%	100%	100%	0%
Social Workers						
MSWs	5.0	4.3	33%	67%	33%	0%
BSWs	4.5	2.0	100%	100%	50%	0%
Speech-Language Pathologists	4.5	3.0	50%	50%	100%	0%

Fifty percent of the home health agencies in the North County region reported difficulty hiring part-time employees, 50% reported difficulty hiring employees for off-shifts, and 33% indicated difficulties in hiring bilingual workers.

*4. Employment Projections by Health Occupation*

The NYS DOL estimated that between 2004 and 2014 the number of jobs for RNs in the North Country will grow by 22%, with 160 average annual job openings. During the same period, home health aide jobs are projected to increase by 570 jobs (23.3%), with 90 average annual job openings (Exhibit 89).

**Exhibit 89**  
**Employment Projections for the Top Seven Health Care Growth Occupations**  
**in the North Country Region, 2004 – 2014**

	2004	2014	Growth Between 2004 and 2014		Avg. Annual Openings
			Number	Percent	
Registered Nurses	3,820	4,660	840	22.0%	160
Home Health Aides	2,450	3,020	570	23.3%	90
Licensed Practical Nurses	1,480	1,600	120	8.1%	40
Nursing Aides, Orderlies, and Attendants	1,730	1,860	130	7.5%	30
Dental Assistants	280	380	100	35.7%	20
Medical and Health Services Managers	390	440	50	12.8%	20
Psychiatric Aides	570	620	50	8.8%	20

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2004-2014

## I. Southern Tier

### 1. Employment by Setting

Health sector employment in the Southern Tier region grew by nearly 5% between 2001 and 2006, adding more than 1,500 jobs. Employment in home health grew the fastest, increasing by 34%. Employment in ambulatory care increased by 665 jobs or slightly more than 9% over the same period (Exhibit 90).

**Exhibit 90**  
**Number of Workers by Health Care Setting in the Southern Tier Region**  
**Between 2001 and 2006**

Setting	2001	2002	2003	2004	2005	2006	Change 2001 to 2006	
							Number	Percent
Hospitals	15,047	15,106	15,247	15,105	15,253	15,494	447	3.0%
Ambulatory Care (Excluding Home Health)	7,120	7,222	7,483	7,583	7,715	7,785	665	9.3%
Nursing Home and Personal Care Facilities	7,462	7,598	7,455	7,477	7,852	7,543	81	1.1%
Home Health Care Services	939	1,068	1,079	1,181	1,243	1,258	319	34.0%
<b>Totals</b>	<b>30,568</b>	<b>30,994</b>	<b>31,265</b>	<b>31,346</b>	<b>32,063</b>	<b>32,080</b>	<b>1,512</b>	<b>4.9%</b>

Source: NYS Department of Labor, ES-202

### 2. Licensed Health Professionals

Between 2002 and 2006, the number of social workers in the Southern Tier region increased by more than 40%, while the number of occupational therapists increased by 29% and the number of physician assistants grew by 28%.

However, the number of RNs declined by more than 200, or over 2%, between 2002 and 2006, and the number of respiratory therapists and pharmacists both experienced small losses during the same period (Exhibit 91).

**Exhibit 91**  
**Change in the Number of Licensed Individuals in Selected Health Occupations**  
**in the Southern Tier Region, 2002-2006**

Occupation	2002	2003	2004	2005	2006	Change between 2002 and 2006	
						Number	Percent
Social Workers	1,024	1,083	1,105	1,122	1,437	413	40.3%
Occupational Therapists	226	253	262	280	291	65	28.8%
Physician Assistants	165	176	177	192	211	46	27.9%
Nurse Practitioners	472	493	494	516	533	61	12.9%
Physical Therapists	414	433	426	436	459	45	10.9%
Speech-Language Pathologists	277	284	290	301	301	24	8.7%
Dental Hygienists	461	459	463	473	474	13	2.8%
Licensed Practical Nurses	3,453	3,429	3,436	3,448	3,457	4	0.1%
Occupational Therapy Assistants	74	78	76	71	73	-1	-1.4%
Registered Nurses	8,421	8,389	8,260	8,205	8,219	-202	-2.4%
Physical Therapy Assistants	207	216	210	203	202	-5	-2.4%
Dietitians/Nutritionists	161	165	165	155	155	-6	-3.7%
Respiratory Therapists	184	178	169	171	173	-11	-6.0%
Pharmacists	546	557	513	500	510	-36	-6.6%

Source: NYS Education Department, Office of Professions

### *3. Demand for Health Workers*

#### Hospitals

Hospitals in upstate<sup>22</sup> New York reported the most difficulty recruiting pharmacists, sonographers, physical therapists, medical laboratory technicians, and experienced RNs. Retention of RNs was the most problematic.

The shortage of workers, the competition for workers, and salary levels were the primary reasons cited for difficulties in recruitment and retention of workers (Exhibit 92).

<sup>22</sup> Since only thirty-three hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.



**Exhibit 92**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations in Upstate New York**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.3	2.1	56%	50%	38%	6%
Medical Laboratory Technicians	4.1	2.9	71%	59%	53%	12%
Nursing Aides/Patient Care Associates	2.6	3.2	28%	39%	44%	28%
Pharmacists	4.5	3.0	71%	76%	53%	12%
Physical Therapists	4.1	3.2	63%	68%	37%	5%
Radiologic Technologists						
-mammographers	3.6	2.8	58%	53%	32%	11%
-nuclear medicine technologists	4.0	2.9	75%	75%	50%	13%
-sonographers	4.1	2.7	71%	71%	29%	12%
Registered Nurses						
-Experienced	4.0	3.3	84%	79%	63%	11%
-Newly Trained	2.8	3.4	58%	74%	42%	11%
Respiratory Therapists	3.6	2.7	50%	44%	25%	0%

Forty-seven percent of the hospitals in upstate New York cited difficulty hiring part-time workers, 79% reported difficulty hiring workers for off-shifts, and 38% reported difficulties hiring bilingual employees (Spanish-speaking).

Nursing Homes

Nursing homes in the Southern Tier region reported the most difficulty recruiting physical therapists and RNs. The retention of newly-trained RNs and physical therapists was the most difficult.

The primary reasons cited for these recruitment and retention difficulties the shortage of workers, the competition for workers, and salary levels within the occupations (Exhibit 93).

**Exhibit 93**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in the Southern Tier Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nurse Aides	3.0	2.4	50%	50%	50%	0%
Clerical	1.7	1.1	0%	0%	0%	0%
Dietitians/Nutritionists	3.5	2.2	50%	50%	33%	17%
Licensed Practical Nurses	3.5	1.9	38%	63%	63%	0%
Physical Therapists	4.7	2.7	50%	50%	50%	0%
Occupational Therapists	3.7	1.8	50%	33%	17%	0%
Registered Nurses						
Experienced	4.3	2.3	50%	75%	63%	13%
Newly Trained	4.0	2.8	50%	83%	83%	17%
Respiratory Therapists	3.7	2.0	33%	33%	33%	0%
Social Workers						
MSWs	3.2	1.8	0%	17%	17%	17%
BSWs	3.2	2.0	0%	0%	0%	20%

Fifty percent of the nursing homes in the Southern Tier region reported difficulty hiring part-time employees, 63% reported difficulty hiring employees for off-shifts, and 25% reported difficulty hiring bilingual workers.

Home Health Agencies

Home health agencies in the Southern Tier region reported difficulty recruiting in a large number of health professions, including speech pathologists, respiratory therapists, BSNs, and personal care aides/homemakers. Retention was most problematic for speech-language pathologists, respiratory therapists, and dietitians/nutritionists.

Home health agencies in the Southern Tier region indicated the primary reasons for these difficulties were salary levels within the specific occupations, the shortage of workers, and the competition for workers (Exhibit 94).

**Exhibit 94**  
**Recruitment and Retention Difficulties for Home Health Agencies**  
**in the Southern Tier Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	4.3	4.5	75%	25%	75%	0%
Home Health Aides	4.1	3.9	71%	57%	43%	29%
Licensed Practical Nurses	3.0	3.0	50%	50%	25%	13%
Occupational Therapists	4.3	4.3	75%	25%	50%	0%
Personal Care Aides/Homemakers	4.5	4.0	67%	50%	33%	33%
Physical Therapists	4.3	4.3	75%	50%	75%	25%
Registered Nurses						
Associate/Diploma prepared	4.1	3.3	64%	55%	73%	18%
Bachelor's prepared	4.6	3.7	82%	64%	82%	18%
Respiratory Therapists	4.7	4.7	67%	33%	67%	0%
Social Workers						
MSWs	3.3	3.7	33%	33%	33%	0%
BSWs	4.3	4.0	33%	33%	67%	0%
Speech-Language Pathologists	5.0	5.0	100%	33%	50%	50%

Fifty percent of the home health agencies in Southern Tier region reported difficulty hiring part-time employees, 50% reported difficulty hiring off-shift employees, while 33% indicated difficulties in hiring bilingual workers.

*4. Employment Projections by Health Occupation*

The NYS DOL estimated that between 2004 and 2014 there will be 200 average annual job openings for RNs in the Southern Tier region, and employment of RNs was projected to increase by more than 800 new jobs during the period. Employment of home health aides was projected to increase by 1,100 new jobs, with 160 average annual job openings (Exhibit 95).

**Exhibit 95**  
**Employment Projections for the Top Eleven Health Care Growth Occupations**  
**in the Southern Tier Region, 2004 – 2014**

	2004	2014	Growth Between 2004 and 2014		Avg. Annual Openings
			Number	Percent	
Registered Nurses	2,880	6,720	840	29.2%	200
Home Health Aides	3,480	4,580	1,100	31.6%	160
Nursing Aides, Orderlies, and Attendants	3,820	4,070	250	6.5%	80
Social Workers	1,930	2,150	220	11.4%	60
Licensed Practical Nurses	2,460	250	80	3.3%	60
Medical Assistants	460	630	170	37.0%	30
Dental Assistants	520	660	140	26.9%	30
Dental Hygienists	570	730	160	28.1%	20
Radiologic Technologists and Technicians	450	510	60	13.3%	20
Medical and Health Services Managers	680	720	40	5.9%	10
Speech-Language Pathologists	270	280	10	3.7%	10

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2004-2014

## J. Western New York

### 1. Employment by Setting

Health care employment in the Western New York region increased by 3.3% between 2000 and 2006, led by job growth in home health care services (15.4%), ambulatory care (8.1%), and nursing home and personal care facilities (6.2%). Employment in hospitals declined by more than 3% during the same period, however, with a reduction of nearly 1,000 jobs (Exhibit 96).

**Exhibit 96**  
**Number of Workers by Health Care Setting in Western New York Region**  
**between 2001 and 2006**

Setting	2001	2002	2003	2004	2005	2006	Change 2001 to 2006	
							Number	Percent
Hospitals	28,200	27,946	28,088	28,203	27,302	27,221	-979	-3.5%
Ambulatory Care (Excluding Home Health)	19,626	18,663	19,260	19,621	20,941	21,218	1,592	8.1%
Nursing Home and Personal Care Facilities	16,950	17,584	17,673	18,063	18,866	17,998	1,048	6.2%
Home Health Care Services	3,945	4,107	4,216	4,540	4,614	4,552	607	15.4%
<b>Totals</b>	<b>68,722</b>	<b>68,300</b>	<b>69,237</b>	<b>70,427</b>	<b>71,723</b>	<b>70,989</b>	<b>2,268</b>	<b>3.3%</b>

Source: NYS Department of Labor, ES-202

### 2. Licensed Health Professionals

Between 2002 and 2006, the number of social workers in the Western New York region increased by more than 37%, while the number of physician assistants grew by nearly 34%. The number of nurse practitioners and speech-language pathologists grew 18.6% and 13.4%, respectively.

The number of RNs and licensed practical nurses declined during this same period (Exhibit 97).

**Exhibit 97**  
**Change in the Number of Licensed Individuals in Selected Health Occupations**  
**in Western New York, 2002 to 2006**

Occupation	2002	2003	2004	2005	Change between 2002 and 2006		
					2006	Number	Percent
Social Workers	1,527	1,598	1,576	1,638	2,093	566	37.1%
Physician Assistants	346	383	404	437	462	116	33.5%
Nurse Practitioners	837	902	912	977	993	156	18.6%
Speech-Language Pathologists	858	899	913	950	973	115	13.4%
Dietitians/Nutritionists	278	293	292	294	303	25	9.0%
Physical Therapy Assistants	249	261	261	265	269	20	8.0%
Dental Hygienists	928	948	961	975	994	66	7.1%
Physical Therapists	1,144	1,194	1,181	1,203	1,214	70	6.1%
Occupational Therapists	695	730	740	732	737	42	6.0%
Pharmacists	1,556	1,584	1,455	1,447	1,498	-58	-3.7%
Registered Nurses	18,774	18,683	18,603	18,088	17,817	-957	-5.1%
Respiratory Therapists	432	413	406	411	409	-23	-5.3%
Occupational Therapy Assistants	634	636	631	612	600	-34	-5.4%
Licensed Practical Nurses	7,530	7,404	7,149	6,944	6,968	-562	-7.5%

Source: NYS Education Department, Office of Professions

### *3. Demand for Health Workers*

#### Hospitals

Hospitals in upstate<sup>23</sup> New York reported the most difficulty recruiting pharmacists, sonographers, physical therapists, medical laboratory technicians, and experienced RNs. Retention of RNs was the most problematic.

The shortage of workers, the competition for workers, and salary levels were the primary reasons cited for difficulties in recruitment and retention of workers (Exhibit 98).

<sup>23</sup> Since only thirty-three hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

**Exhibit 98**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations in Upstate New York**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.3	2.1	56%	50%	38%	6%
Medical Laboratory Technicians	4.1	2.9	71%	59%	53%	12%
Nursing Aides/Patient Care Associates	2.6	3.2	28%	39%	44%	28%
Pharmacists	4.5	3.0	71%	76%	53%	12%
Physical Therapists	4.1	3.2	63%	68%	37%	5%
Radiologic Technologists						
-mammographers	3.6	2.8	58%	53%	32%	11%
-nuclear medicine technologists	4.0	2.9	75%	75%	50%	13%
-sonographers	4.1	2.7	71%	71%	29%	12%
Registered Nurses						
-Experienced	4.0	3.3	84%	79%	63%	11%
-Newly Trained	2.8	3.4	58%	74%	42%	11%
Respiratory Therapists	3.6	2.7	50%	44%	25%	0%

Forty-seven percent of the hospitals in upstate New York cited difficulty hiring part-time workers, 79% reported difficulty hiring workers for off-shifts, and 38% reported difficulties hiring bilingual employees (Spanish-speaking).

Nursing Homes

Nursing homes in the Western New York region indicated that they experienced difficulty recruiting experienced RNs and respiratory therapists, and that retaining CNAs and respiratory therapists was the most difficult.

A shortage of workers was cited as the primary reason for these difficulties in recruitment and retention followed by the competition for workers (Exhibit 99).

**Exhibit 99**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in the Western New York Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nurse Aides	2.8	4.1	62%	46%	23%	8%
Clerical	2.3	2.2	8%	23%	38%	0%
Dietitians/Nutritionists	2.5	2.4	27%	18%	18%	0%
Licensed Practical Nurses	3.8	3.8	67%	67%	33%	8%
Physical Therapists	3.2	2.5	31%	23%	8%	0%
Occupational Therapists	3.2	2.6	38%	31%	15%	0%
Registered Nurses						
Experienced	4.3	3.6	77%	54%	38%	8%
Newly Trained	3.6	3.4	55%	45%	36%	9%
Respiratory Therapists	4.0	4.0	50%	0%	0%	0%
Social Workers						
MSWs	2.4	2.3	0%	0%	9%	0%
BSWs	2.3	1.9	0%	0%	8%	0%

Sixty-nine percent of the nursing homes in the Western New York region reported difficulty hiring for off-shifts, 54% reported difficulty hiring part-time employees, and 31% reported difficulty hiring bilingual workers.

Home Health Agencies

Home health agencies in the Western New York region reported recruitment difficulties for a large number of health professions, including speech-language pathologists, respiratory therapists, and BSNs. These agencies also reported that retention of speech-language pathologists, respiratory therapists, and dietitians/nutritionists was difficult.

Home health agencies indicated the primary reasons for these difficulties were salary levels within these occupations and the shortage of workers (Exhibit 100).



**Exhibit 100**  
**Recruitment and Retention Difficulties for Home Health Agencies**  
**in the Western New York Regions**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	4.3	4.5	75%	25%	75%	0%
Home Health Aides	4.1	3.9	71%	57%	43%	29%
Licensed Practical Nurses	3.0	3.0	50%	50%	25%	13%
Occupational Therapists	4.3	4.3	75%	25%	50%	0%
Personal Care Aides/Homemakers	4.5	4.0	67%	50%	33%	33%
Physical Therapists	4.3	4.3	75%	50%	75%	25%
Registered Nurses						
Associate/Diploma prepared	4.1	3.3	64%	55%	73%	18%
Bachelor's prepared	4.6	3.7	82%	64%	82%	18%
Respiratory Therapists	4.7	4.7	67%	33%	67%	0%
Social Workers						
MSWs	3.3	3.7	33%	33%	33%	0%
BSWs	4.3	4.0	33%	33%	67%	0%
Speech-Language Pathologists	5.0	5.0	100%	100%	50%	50%

Fifty percent of the home health agencies in the Western New York region reported difficulty hiring part-time employees and off-shift employees, while 33% indicated difficulty hiring bilingual workers.

*4. Projected Demand for Health Occupations*

The NYS DOL estimated that between 2004 and 2014, there will be an average of 520 annual job openings in Western New York for RNs, a projected increase of more than 2,400 jobs. The number of home health aide jobs is projected to increase by almost 2,500, with 340 average annual job openings (Exhibit 101).

**Exhibit 101**  
**Employment Projections for the Western New York Region, 2004-2014**

	2004	2014	Growth Between 2004 and 2014		Avg. Annual Openings
			Number	Percent	
Registered Nurses	13,500	15,920	2,420	17.9%	520
Home Health Aides	7,080	9,540	2,460	34.7%	340
Licensed Practical Nurses	5,680	6,460	780	13.7%	200
Nursing Aides, Orderlies, and Attendants	8,010	8,660	650	8.1%	180
Dental Assistants	1,680	2,150	470	28.0%	100
Social Workers	3,120	3,610	490	15.7%	50
Medical Assistants	1,080	1,370	290	26.9%	50
Medical and Health Services Managers	1,590	1,770	180	11.3%	50
Pharmacists	1,330	1,400	70	5.3%	40

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2004-2014

**APPENDIX A**

**New York Registered Nursing Graduations, 1996 – 2008**

**October 2007**

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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<sup>24</sup>.

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<sup>24</sup> 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).

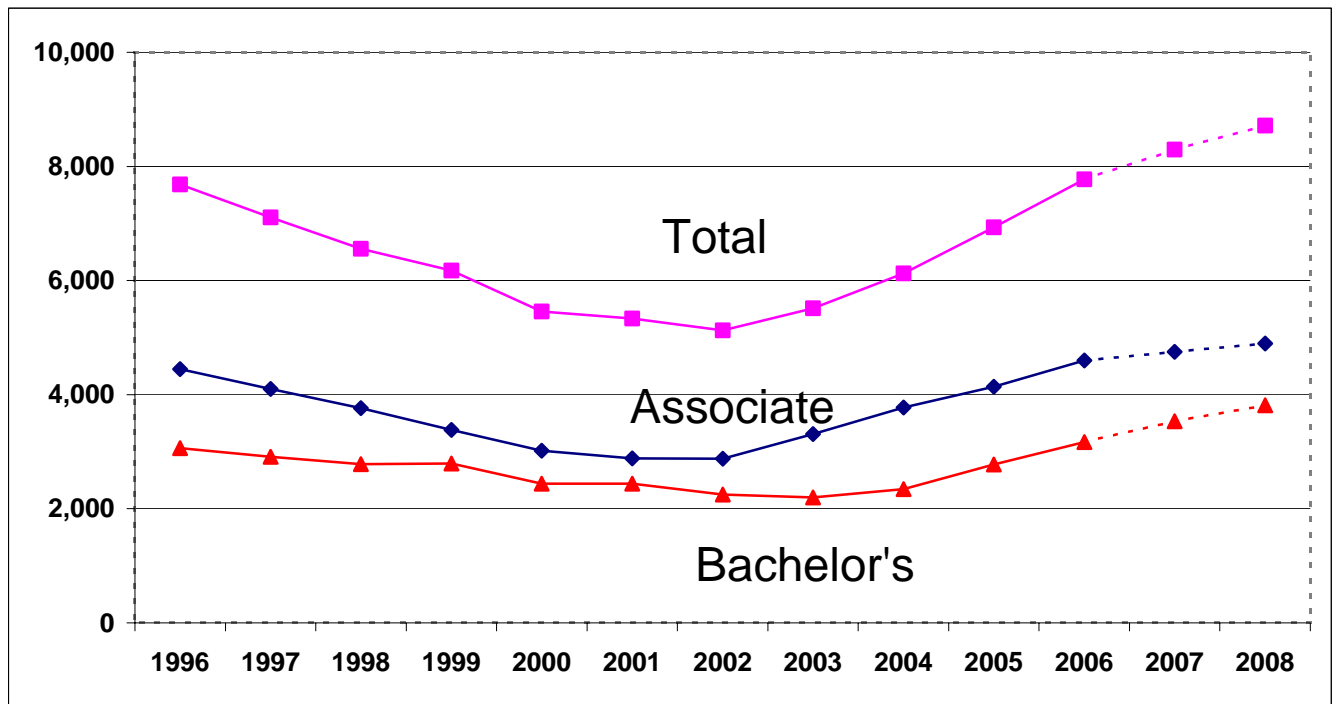
- 2. RN graduations in New York are projected to continue to rise in 2007 and 2008.**

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.**

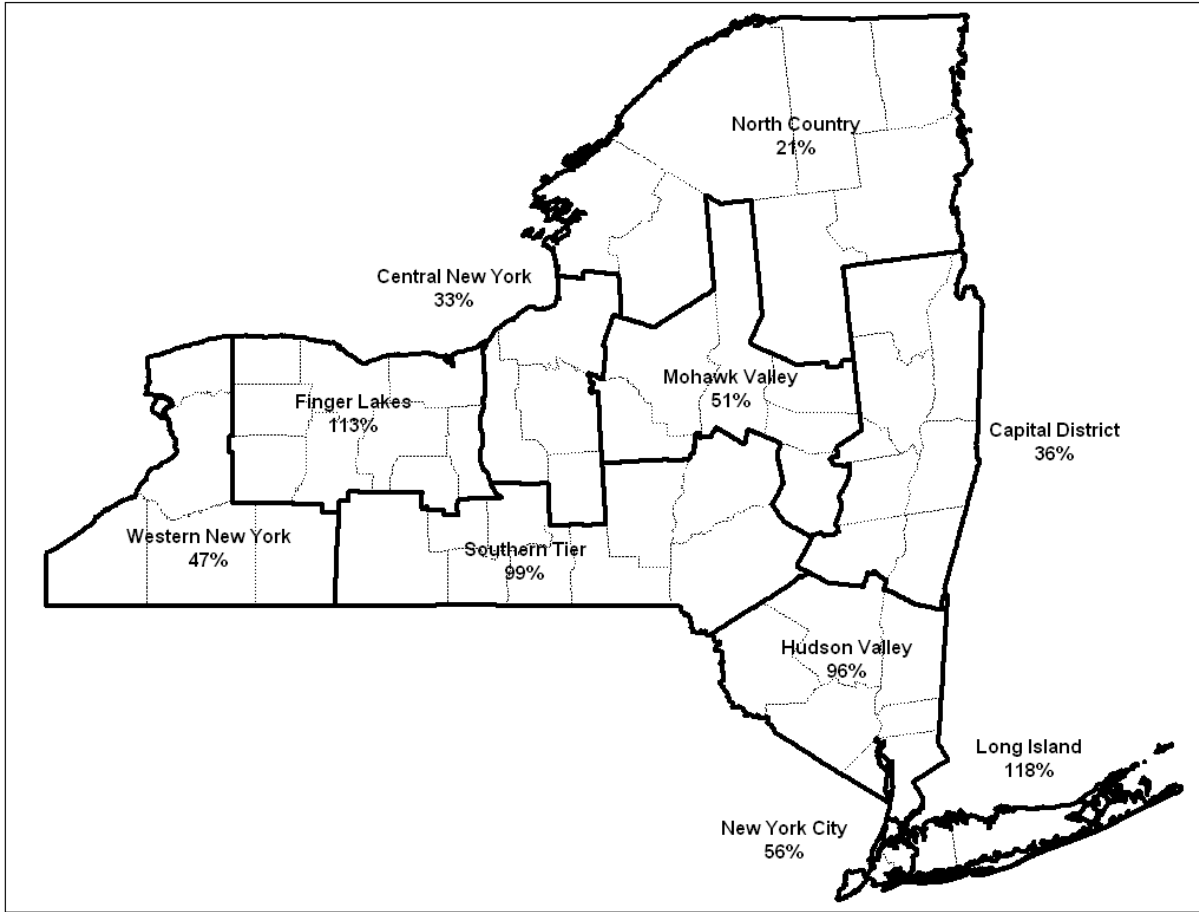
All regions<sup>25</sup> in New York are projected to experience significant increases in RN graduations between 2002 and 2008, ranging from 21% in the North Country to 113% in the Finger Lake region and 118% in the Long Island region. RN graduations in 2008 are projected to surpass 1996 RN graduations in six of the eight regions of the state (Figure 2 and Table 2).

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<sup>25</sup> New York State Department of Labor regions were used in this report.



**Figure 2**  
**Projected Percentage Increase in RN Graduations, 2002 – 2008,**  
**by Region**



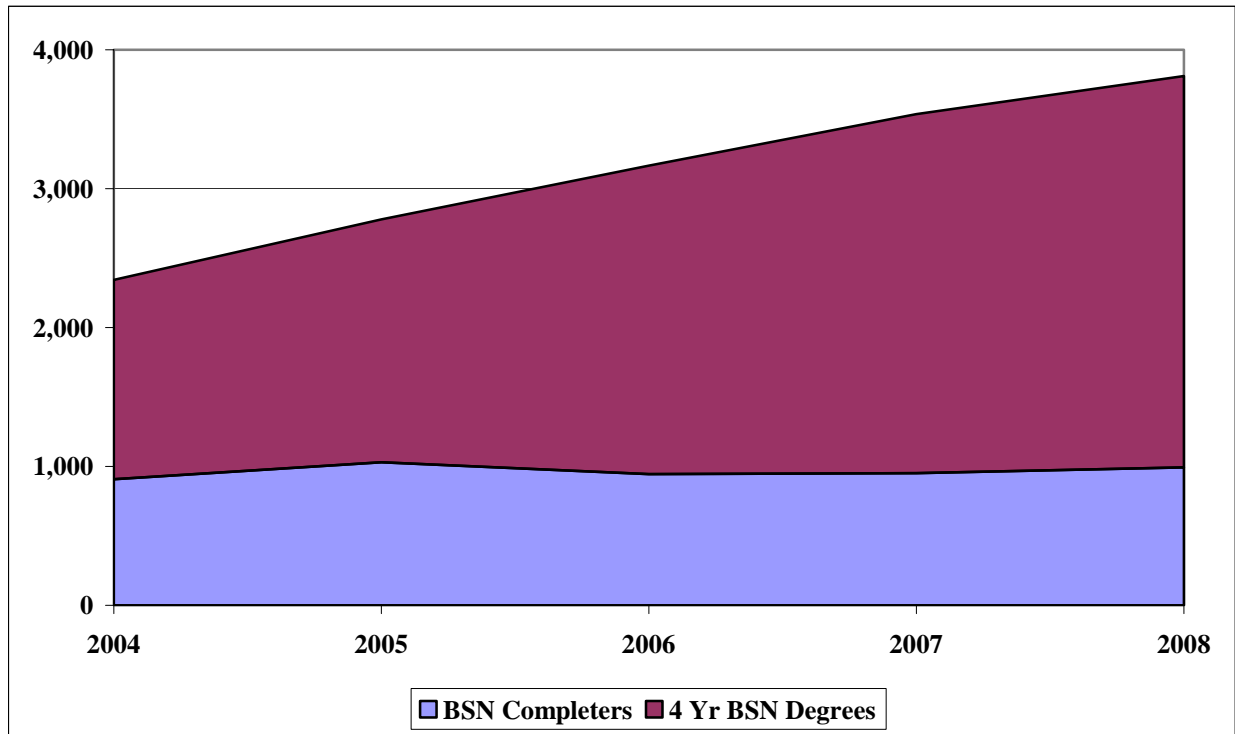
**Table 2**  
**Percent Change in the Number of RN Graduations by Region**

Region	Graduations								% Change		
	1996	2002	2003	2004	2005	2006	Projected		96 to 02	02 to 08	96 to 08
							2007	2008			
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%

5. **The number of upper division<sup>26</sup> 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**

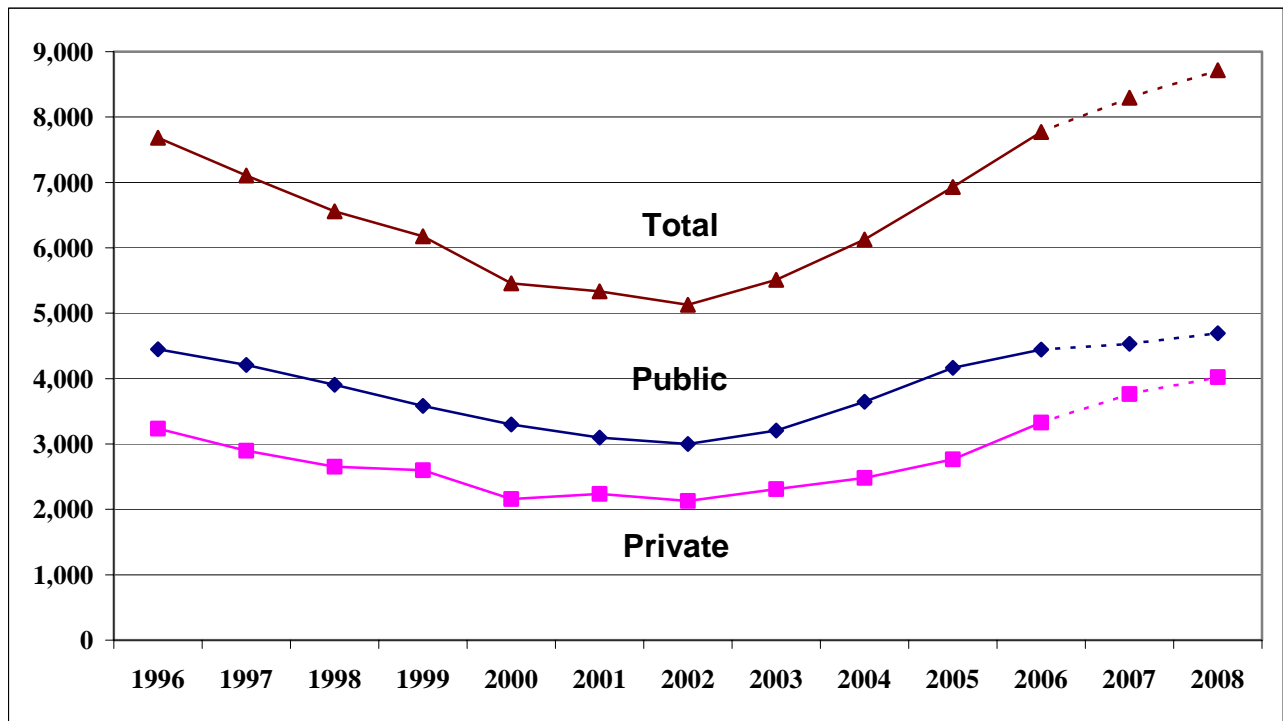


<sup>26</sup> Upper division BSNs are awarded to RNs who already hold a RN diploma or ADN and complete their Bachelor's of Nursing degree at an accredited four-year nursing program.

**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).

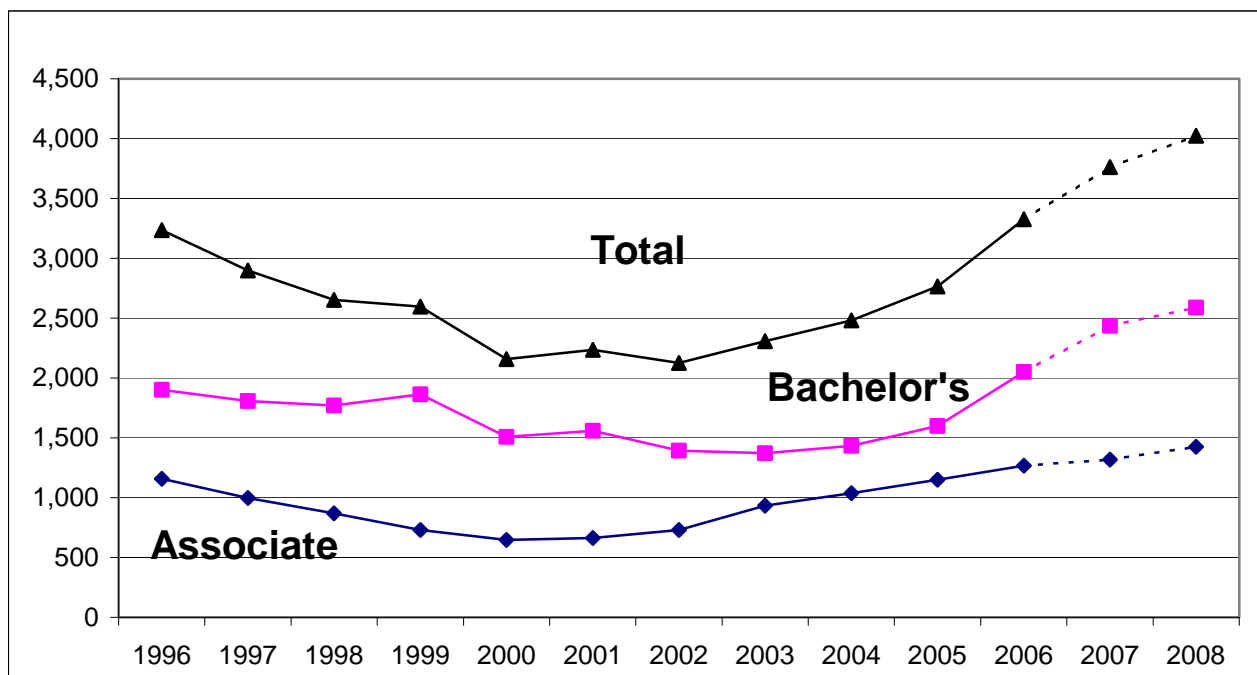
**Figure 4  
Change in RN Graduations in Public and Private Nursing Programs, 1996 to 2008**



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**

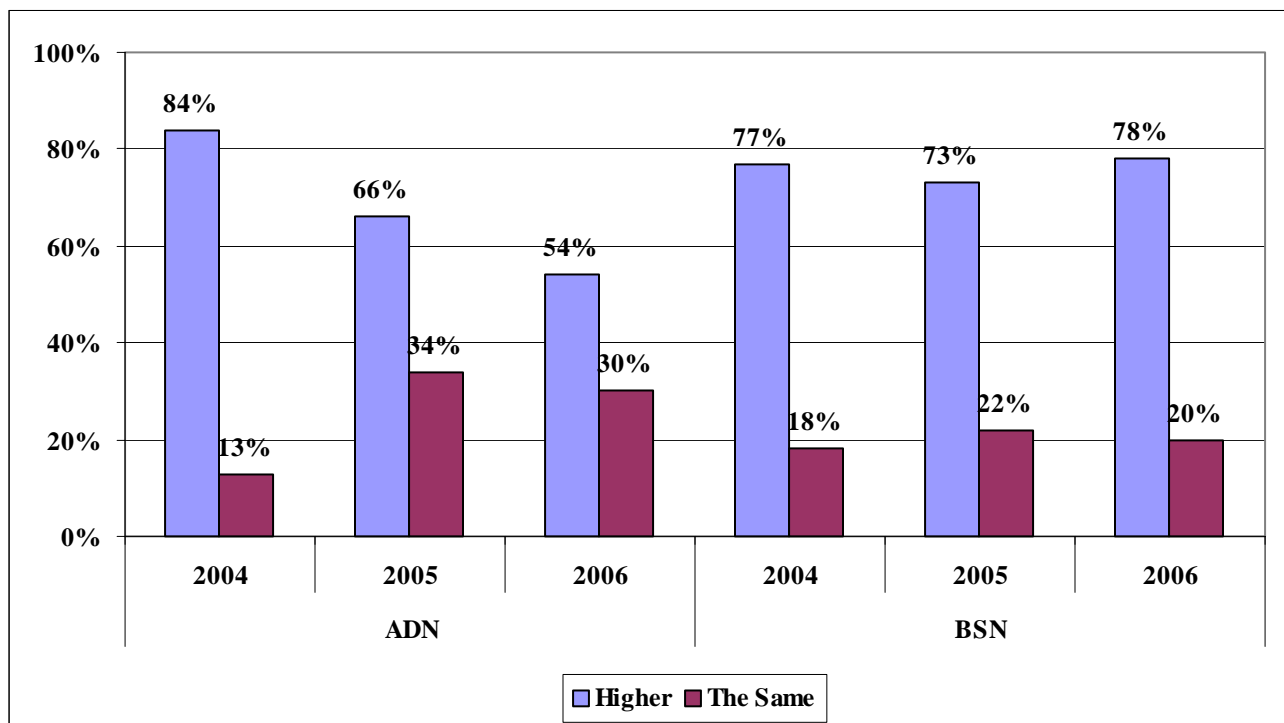


8. **BSN programs continued to report growth in the number of applications in 2006, compared to 2005 or 2004. Fewer ADN programs, however, reported an increase in the number of applications in 2006 compared to 2005 or 2004.**

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.

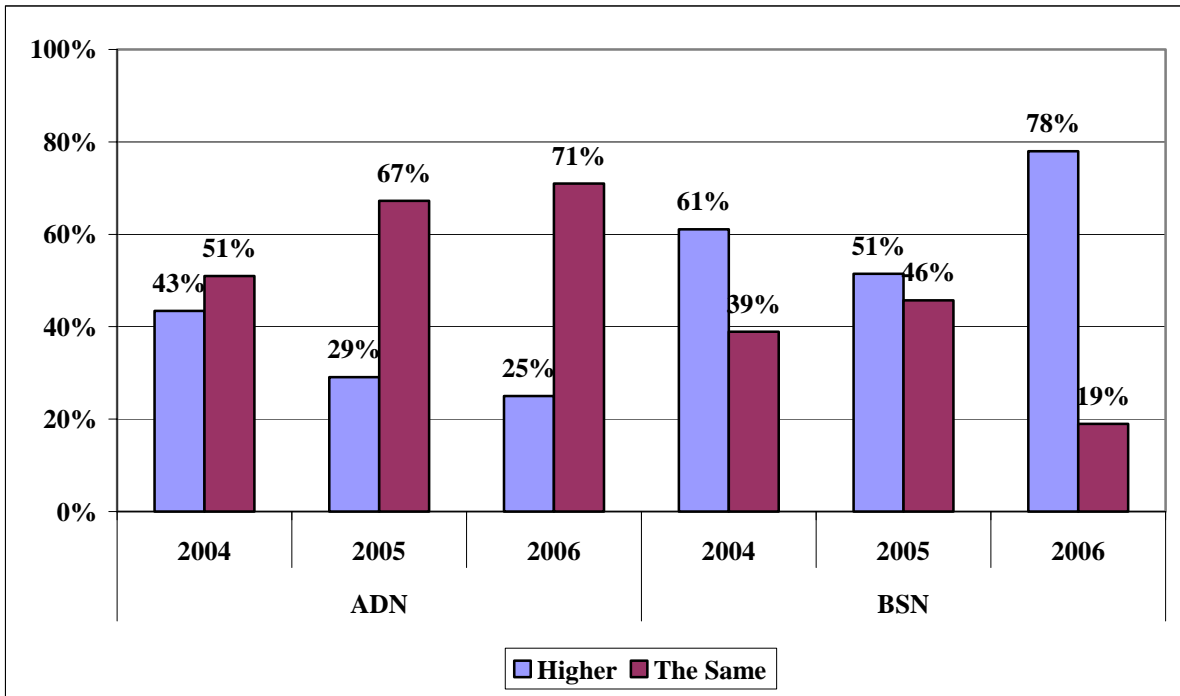
**Figure 6**  
**Percent Change in Number of Applications by Program Type, 2004 - 2006**



- 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
<b>All Programs</b>	57%	67%	59%
<b>ADN</b>	73%	80%	72%
<b>BSN</b>	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.

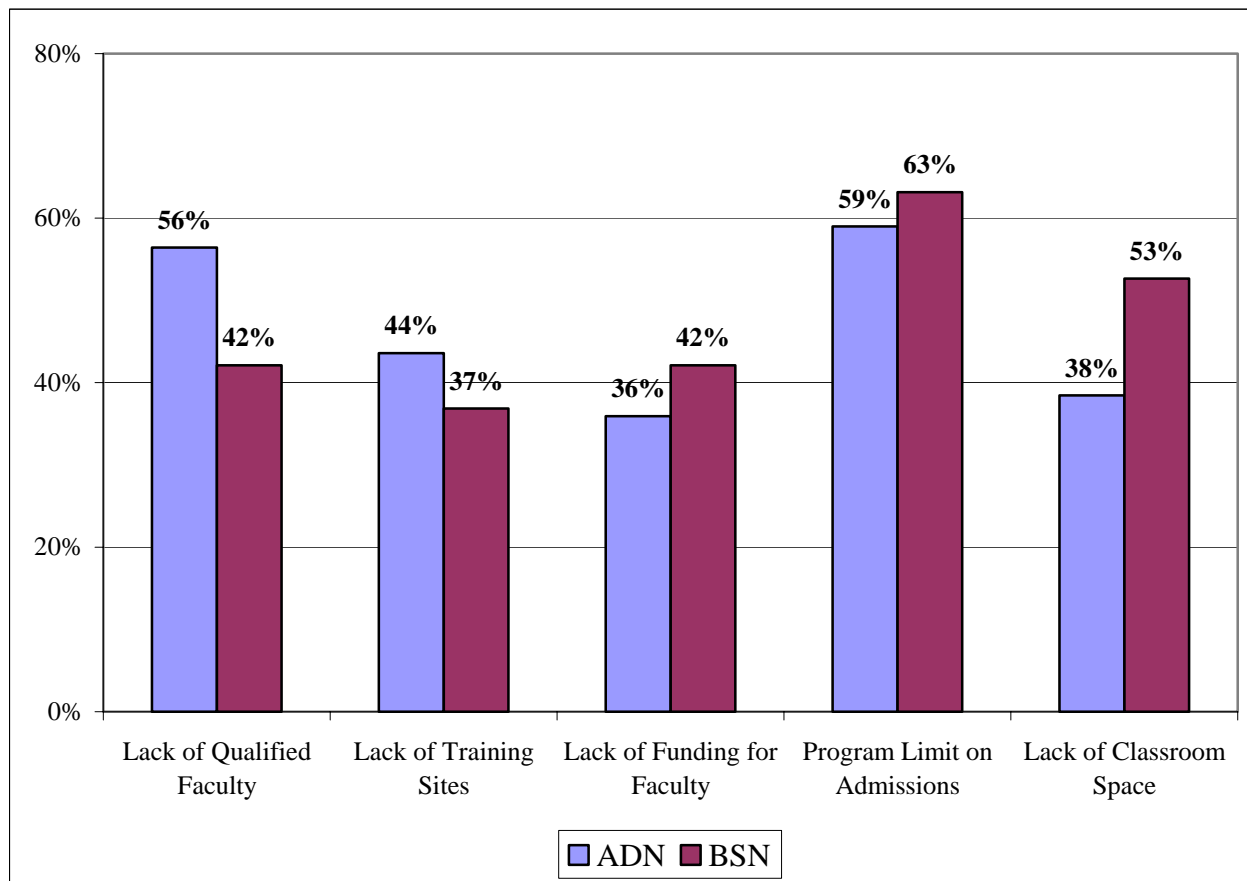
**Table 4  
Number of Qualified Applicants Turned Away  
by Program Type**

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
<b>1 – 20</b>	26%	29%	21%	32%	34 %	35%	18%	23%	9%
<b>21 – 40</b>	10%	6%	11%	16%	7%	17%	0%	5%	7%
<b>41 – 60</b>	5%	8%	8%	4%	7%	6%	8%	3%	14%
<b>61 – 80</b>	5%	4%	4%	5%	4%	4%	5%	5%	5%
<b>81 or More</b>	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 Degree Type**

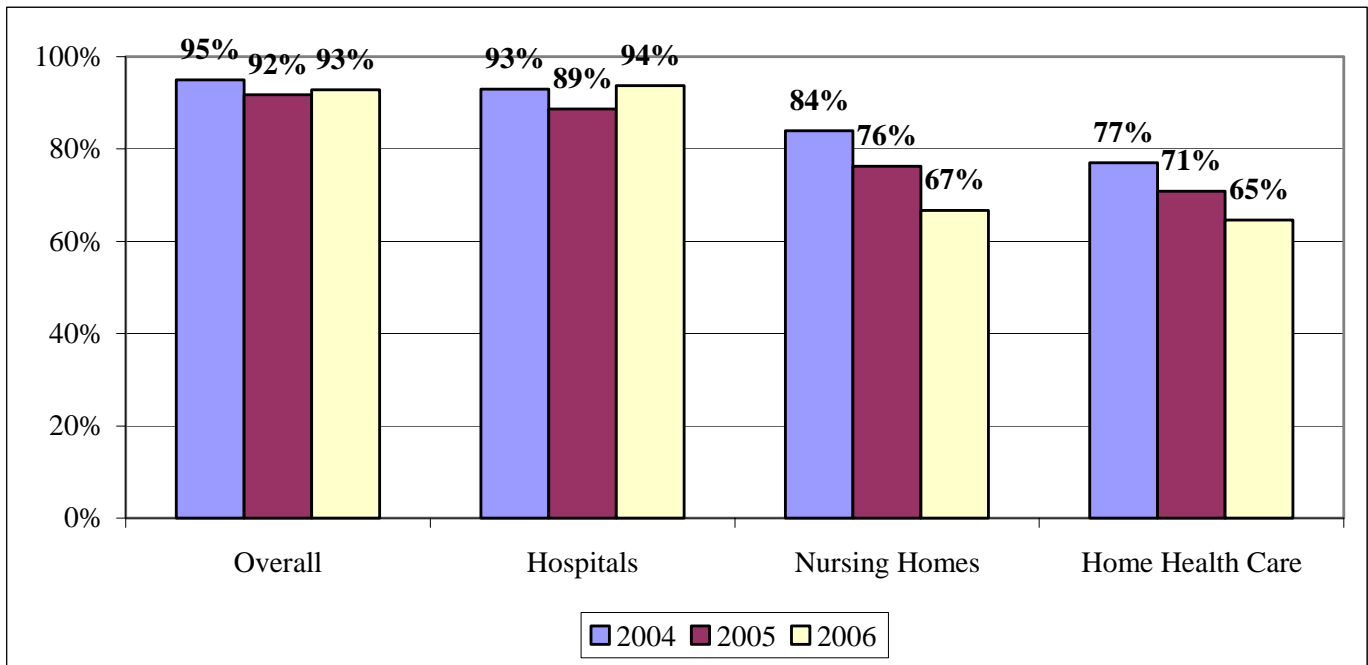


**13. The demand for newly trained RNs remains strong.**

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<sup>27</sup>. The state would need to

<sup>27</sup> 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.

produce 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.