

**The Health Care Workforce in  
New York, 2005**

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

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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 in 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 Robert Martiniano and Jean Moore.

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## **I. EXECUTIVE SUMMARY**

### **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 properly educated and trained workers. The health industry, policymakers, educators, and other stakeholders need timely data on the supply, demand, distribution, education, and use of health workers needed in order to formulate effective health workforce policies and programs.

The health workforce – health care professionals and others working in health care facilities – is an important component of the country’s economy, representing nearly 11% of all workers. 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 2004 and 2014. Not surprisingly, more than half of the fastest growing occupations in the U.S. over that same period are projected to be in health care occupations.

In 2005, there were nearly 950,000 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 7% between 2000 and 2005. While hospitals continued to be the largest employer in New York’s health sector in 2005, there has been little growth in hospital employment since 2000. 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;
- Plans to restructure hospitals and nursing homes including bed reductions, mergers and closures;
- Financial uncertainty attributed to rising health care costs, coupled with cuts to 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 sector employment continued to grow faster than all other employment sectors in all regions of the state outside of the New York City region.**

Health workers comprised a growing share of New York's workforce. Health sector employment in New York grew by more than 20% between 1990 and 2005, compared to a little more than 1% growth for all other employment sectors in the state over the same time period. Health care employment in regions outside of New York City rose by 18% between 1990 and 2005, while jobs in all other employment sectors declined by 5%. In New York City, health sector employment grew 23%, and employment in all other sectors also rose 11% over the same time period.

### **Employment in home health care, ambulatory care, and nursing homes grew the fastest, while hospital employment remained relatively stable.**

Between 2000 and 2005, home care employment rose by more than 22% statewide, fueled by the addition of nearly 15,000 new home care jobs New York City alone. However, not all regions of the state saw home care job growth – the Finger Lakes, Capital District, and Central New York regions all experienced declines in home care employment over the same time period. Both nursing homes and ambulatory settings saw a 10% increase in jobs statewide. Hospital employment showed little growth (1%) overall.

### **Between 2000 and 2005, job growth in New York was greatest for nursing aides, orderlies, and attendants; home health aides; medical managers; and registered nurses (RNs).**

The number of nursing aides, orderlies, and attendant jobs increased by 10,660, or by nearly 12%, between 2000 and 2005. The number of home health aide jobs grew by 7,560, or by more than 7%; the number of medical and health service manager jobs rose by 5,560, or by more than 31%; and the number of RN jobs increased by 4,700, or by nearly 3%.

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

In 2006, hospitals across the state reported continued difficulty recruiting experienced RNs and increasingly, pharmacists. In some regions of the state, hospitals reported that the recruitment of pharmacists was more problematic than the recruitment of RNs.

Nursing homes across the state reported both recruitment and retention difficulties for RNs, licensed practical nurses, and nursing aides.

Home care agencies statewide reported that RNs posed the most recruitment difficulty. Retention of home care staff was most problematic for personal care aides, home health aides, RNs, and LPNs.



**Between 2002 and 2005, the number of licensed RNs grew by 4% with most regions seeing an increase in licensed RNs.**

The number of licensed RNs in New York increased by 4% between 2002 and 2005, and rose in nine of ten regions in New York. Only the Western New York region experienced a small decline in the number of licensed RNs (1.1%) over the same time period.

**In 2005, for the third consecutive year, the number of RN graduations in New York increased over the previous year. RN graduations were projected to continue to rise in 2006 and 2007.**

After six consecutive years of declining RN graduations between 1997 and 2002, overall RN graduations increased in each of the past three years (2003 through 2005). RN graduations from both associate degree (ADN) and bachelor's degree (BSN) programs increased between 2004 and 2005 and were projected to continue to increase in 2006 and 2007.

**An increasing number of nursing education programs reported no growth in the number of admissions in 2005, compared to 2004.**

Acceptances into nursing programs have leveled off, indicating a potential lack of growth in RN graduations past 2007. In 2003, 35% of the ADN programs reported that acceptances did not increase from the previous year, and by 2005 the percentage nearly doubled. The percentage of BSN programs reporting no growth in the number of acceptances over the previous year rose from 25% in 2004 to 46% in 2005.

**An increasing number of nursing programs turned away qualified applicants in 2005, citing limits on program admissions as the primary reason.**

The majority of ADN and BSN programs that turned away qualified applicants in 2005 indicated that limits on program admissions was 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.

**Statewide, the most substantial job growth was projected for RNs, nursing aides, and home health aides between 2002 and 2012.**

The New York State Department of Labor projected that between 2002 and 2012 the number of RN jobs will increase by nearly 34,000, with 7,000 average annual job openings. The number of home health aide jobs was projected to increase by almost 33,000, with about 4,800 average annual job openings. Nursing aide, orderly, and attendant jobs were projected to increase by over 5,000, with more than 2,600 average annual job openings, mostly attributed to turnover of workers in existing jobs rather than growth in new jobs. Annual openings reflect both new job growth and replacement of individuals who leave existing positions.

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## **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 properly educated and trained workers. The health industry, policymakers, educators, and other stakeholders need timely data on the supply, demand, distribution, education, and use of the workers in order to formulate effective health workforce policies and programs.

The health workforce – health care professionals and others working in health care facilities – is an important component of the country’s economy, representing nearly 11% of all workers. 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 2004 and 2014. Not surprisingly, more than half of the fastest growing occupations in the U.S. over that same period are projected to be in health care occupations.

In 2005, there were nearly 950,000 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 7% between 2000 and 2005. While hospitals continued to be the largest employer in New York’s health sector in 2005, there has been little growth in hospital employment since 2000. 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;
- Plans to restructure 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;
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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 include:

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

The goals of this report include:

- Assisting policymakers and other stakeholders to target health workforce education and job training resources to address the most pressing needs;
- Guiding health workforce policies, including decisions about the capacity of health professions education programs; and
- Informing 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 include the following:

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

- New York State Registered Nursing Graduations, 1996 – 2007 (July 2006)
- Surveys of the Human Resources Directors and Nurse Recruiters

The Center conducts annual surveys of human resource directors and nurse recruiters from hospitals and nursing homes across the state. The survey asks about the professions and occupations that pose the greatest recruitment and retention problems as well as the expected 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 (which are described on page 11). In instances where the response rate for a region, either by setting or occupation, is less than three, no information is provided.

The Center conducted a workforce survey of home care agencies in the summer and fall of 2005 with support from the Home Care Association of New York State. Given the inconsistencies between service area agencies and NYS Department of Labor regions, it was not possible to report region-specific findings. Consequently, findings presented in this report are statewide, downstate (New York City, Long Island, and Hudson Valley regions), and upstate (the remaining regions in New York) (see Exhibit 1).

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

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

- 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 2005, monthly totals for January through September were averaged.

- Occupational Employment Statistics (OES)

These data were used to describe changes in the number of jobs by occupation in New York, by Department of Labor regions, and for the New York City 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 2002 and the projected number of jobs in those categories in 2012 for New York and between 2004 and 2014 for the U.S. It is expected that 2004 through 2014 projections for New York will be available from the NYS Department of Labor in early 2007.

Annual openings reflected both new positions in the occupation and turnover of workers in existing positions who retire, change jobs, or leave the occupation. Occupations with a small increase in the number of new jobs but a high number of annual openings indicated 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 reflected counts of licensed health care professionals in New York at four points in time: April 1, 2002; June 1, 2003; April 1, 2004; and April 1, 2005, except for registered nurses. The counts of registered nurses are for January 1, 2002; January 6, 2003; January 5, 2004; and January 3, 2005. These counts represented 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>

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<sup>2</sup> <sup>2</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.

### *Terminology*

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

- Hospitals;
- Nursing and personal care facilities;
- Home health care services;
- 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 care sector defined by BLS.

Occupations were usually grouped by BLS Occupational Employment Statistics (OES) categories. These occupational categories also had limitations. For example, registered nursing (RN) made no distinction between nurse practitioners, RN managers, and critical care RNs. The nursing aides, orderlies, and attendants occupational category also included multiple job titles, levels of training, and certification statuses.

Also, 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 certification requirements.

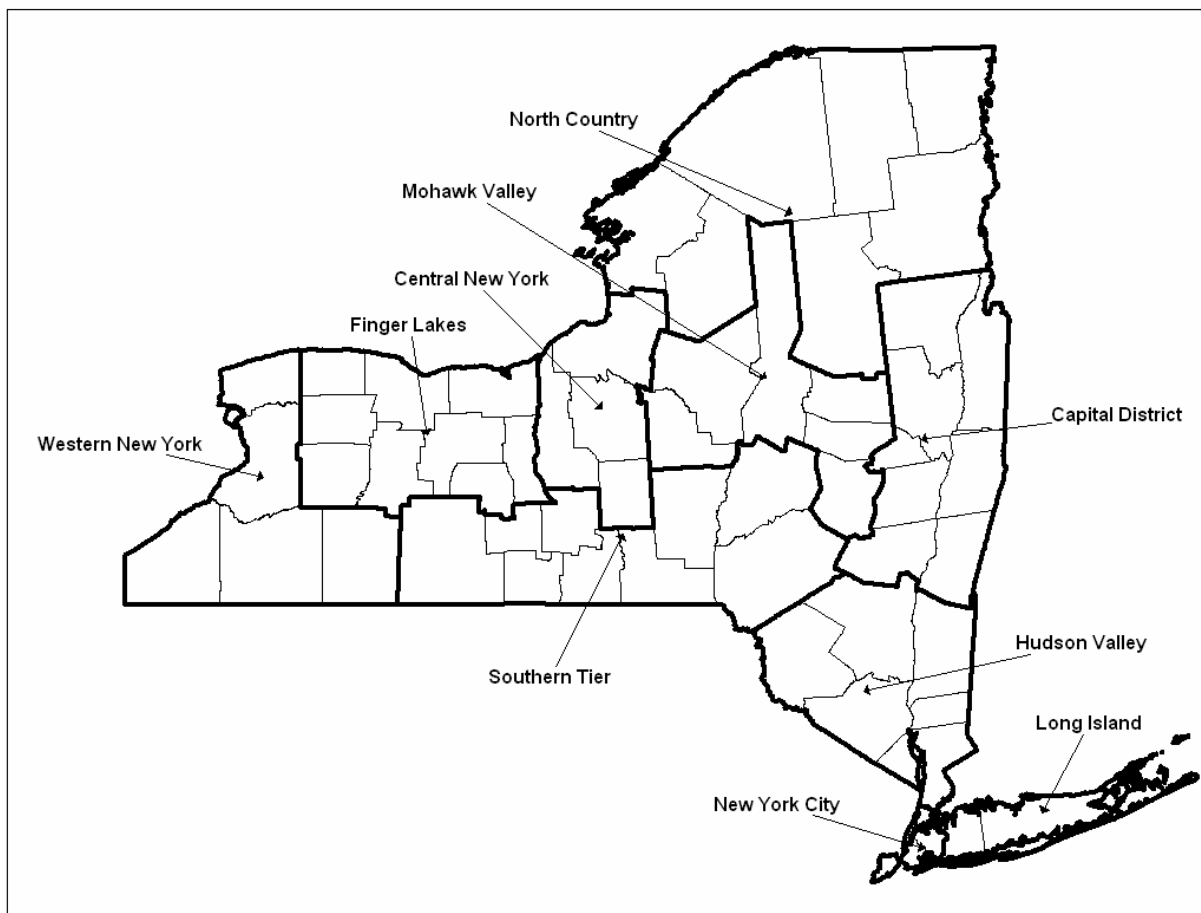
### *Geographic Areas*

The NYS Department of Labor 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



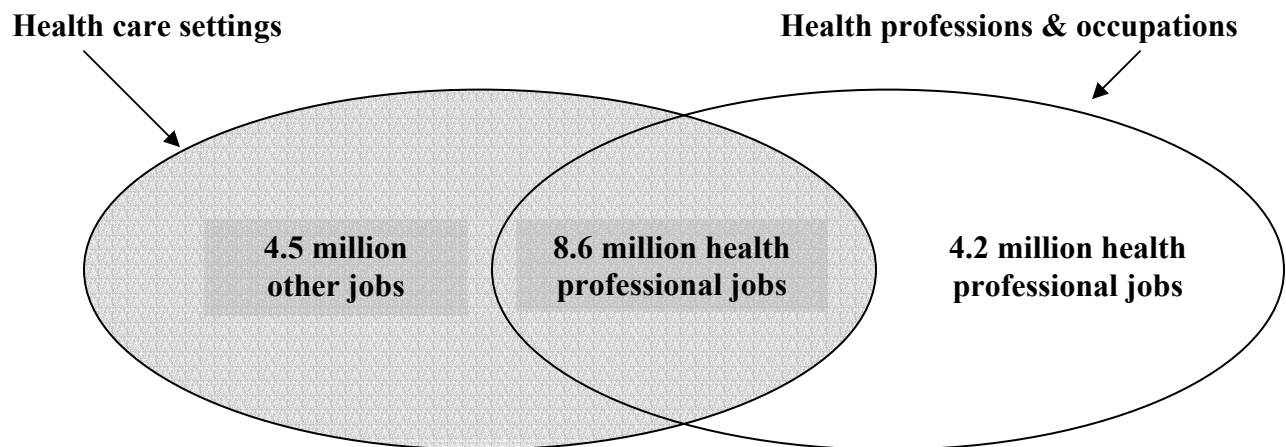
### III. THE HEALTH CARE WORKFORCE IN THE UNITED STATES

#### A. Total Employment

In 2004, there were more than 17 million jobs in health care settings or in health occupations nationally, accounting for nearly 12% of the U.S. workforce.

Of the 17 million, slightly more than 13 million jobs, or more than three-quarters, were in health care settings in 2004. 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 million jobs, or one-quarter, were in health occupations outside of health care settings, such as schools, factories, or other non-health care settings (Exhibits 2 and 3).

**Exhibit 2**  
**The U.S. Health Workforce, 2004**





**Exhibit 3**  
**The U.S. Health Workforce, 2004**

	<b>Health Professional Jobs</b>	<b>Other Jobs</b>	<b>Totals</b>
<b>Health Care Settings</b>	8,588,097	4,474,003	13,062,100
<b>Other Work Settings</b>	4,176,903	128,373,329	132,550,232
<b>Totals</b>	12,765,000	132,847,332	145,612,332

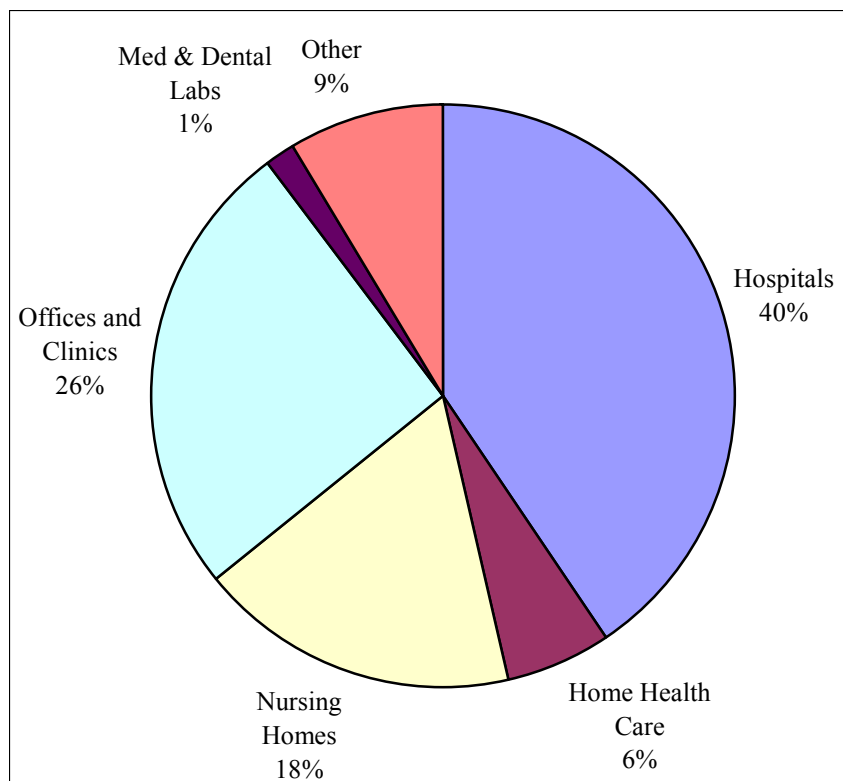
	<b>Number</b>	<b>Percent of Civilian Labor Workforce</b>
Health professional jobs in health care settings	8,588,097	5.8%
Other jobs in health care settings	4,474,003	3.1%
Health professional jobs in other settings	4,176,903	2.9%
<b>Total U.S. Health Care Jobs</b>	<b>17,239,003</b>	<b>11.8%</b>
U.S. Civilian Labor Force Jobs	145,615,332	100.0%

Data Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2004 and projected 2014.

**B. By Settings**

Hospitals continued to employ more health workers in the U.S. (40%) than the other health settings, followed by offices and clinics (26%) (Exhibit 4).

**Exhibit 4**  
**Percent Distribution of the Workforce by Health Settings, 2005**



Source: Industry Output and Employment Projections to 2014, Monthly Labor Review, Bureau of Labor Statistics, November 2005

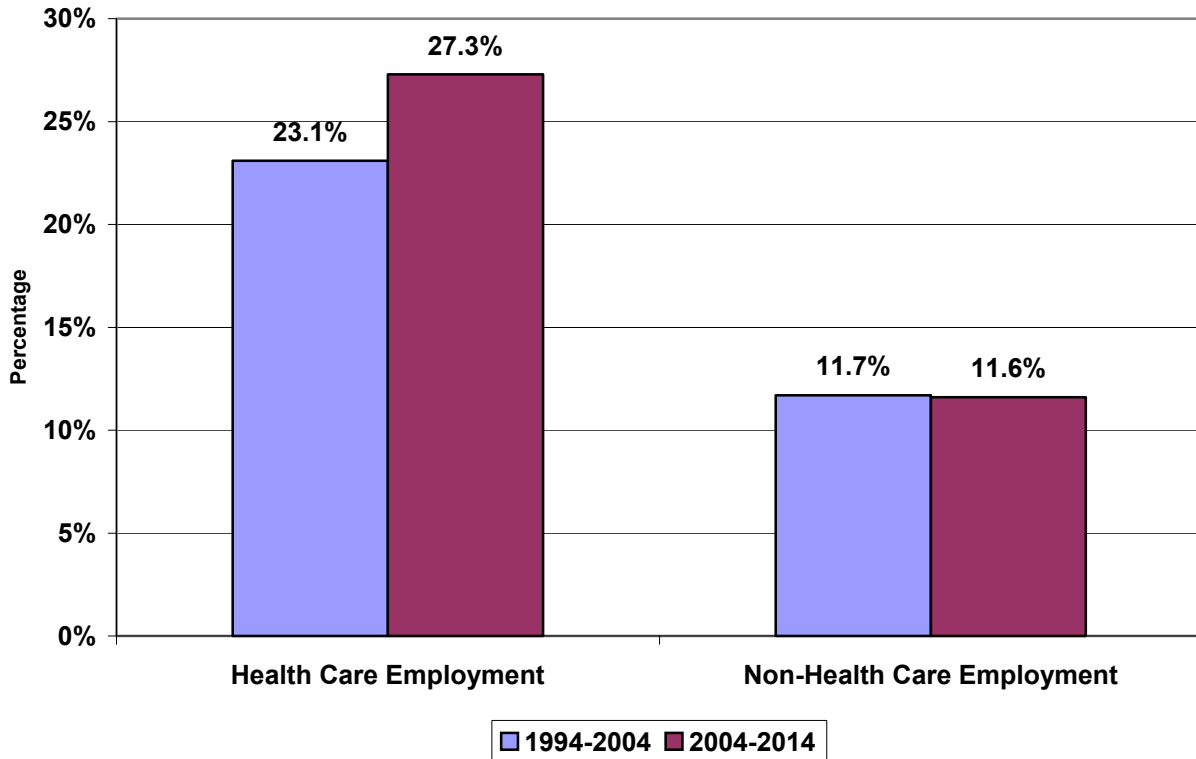
According to the BLS, nearly 9% of jobs nationally were in the health sector in 2004. Jobs in the health sector were projected to grow by more than 3.5 million between 2004 and 2014, or more than 27%, which was greater than twice the projected rate for jobs in all other settings (12%) (Exhibit 5).

One in every six new jobs created in the U.S. between 2004 and 2014 will be in health care. With the health sector projected to add 3.5 million of the 19 million new jobs in the nation between 2004 and 2014, one in 10 jobs will be in the health sector in 2014. Seventeen of the 30 occupations projected to grow the fastest between 2004 and 2014 were health care occupations<sup>3</sup>.

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<sup>3</sup> Center for Health Workforce Studies, "An Analysis of Bureau of Labor Statistics Occupational Projections, 2004 - 2014," June 2006.

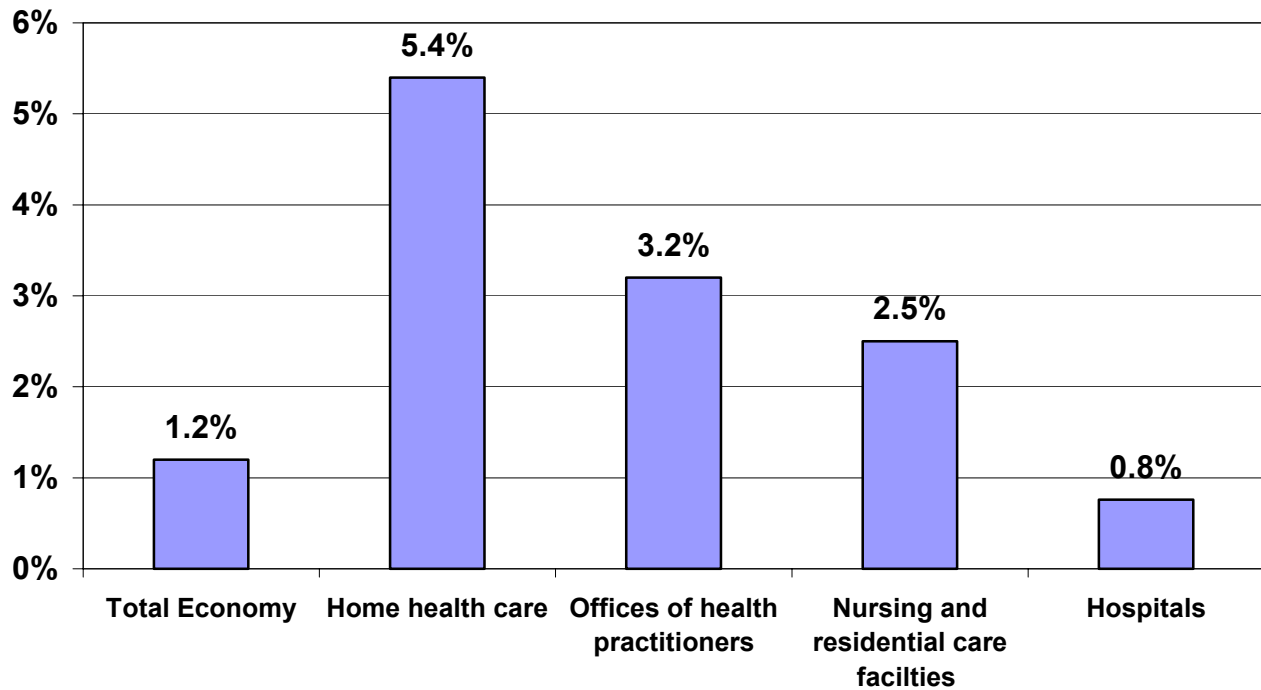
**Exhibit 5**  
**Growth of Health Care and Non-Health Care Sectors Jobs**  
**1994 – 2004 and Projected 2004 - 2014**



Source: Industry Output and Employment Projections to 2014, Monthly Labor Review, Bureau of Labor Statistics, November 2005.

Employment within home health care services was projected to grow 5.4% annually between 2004 and 2014, followed by growth of jobs in offices of health practitioners at 3.2% and nursing and residential care facilities at 2.5%. 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, 2004 – 2014**

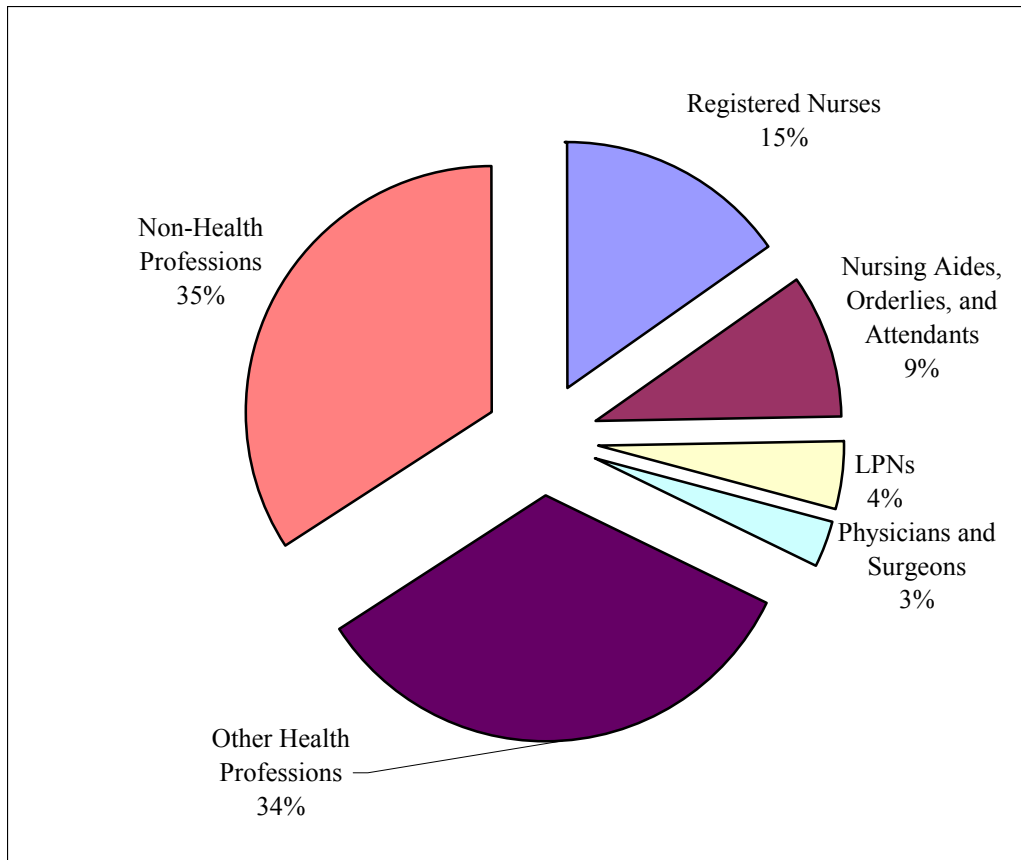


Source: Monthly Labor Review, November 2005, Industry output and employment projections to 2014, Jay M. Berman

### **C. By Occupations**

RNs were the single largest occupation in the health sector in 2004, followed by nursing aides, orderlies, and attendants. Thirty-five percent of the jobs in the health sector in 2004 were in non-health care fields such as information technology, housekeeping, and food service (Exhibit 7).

**Exhibit 7**  
**Health Care Employment in the U.S., 2004<sup>4</sup>**



Source: U.S. Department of Labor, Bureau of Labor Statistics, Industry Employment by Occupation

Seventeen of the 30 occupations projected to grow the fastest between 2004 and 2014 were health occupations, including 15 of top 20<sup>5</sup>. The health occupations projected to have the biggest percentage increase in new jobs were:

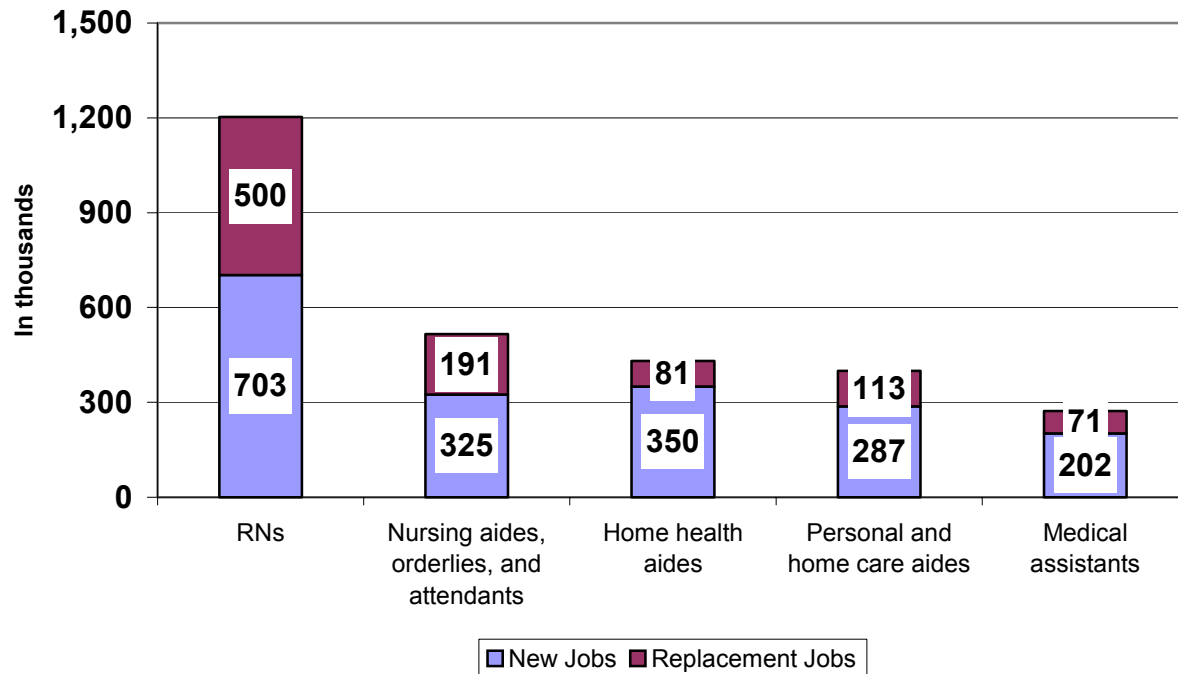
- home health aides (56%);
- medical assistants (52%);
- physician assistants (50%);
- physical therapists assistants (44%);
- dental hygienists (43%); and
- dental assistants (43%).

<sup>4</sup> Includes all workers in health sector employment. It does not include health professionals working outside of the health sector.

<sup>5</sup> Center for Health Workforce Studies, "An Analysis of Bureau of Labor Statistics Occupational Projections, 2004 - 2014," June 2006.

More than 1.2 million RNs will be needed between 2004 and 2014 to fill newly created RN positions as well as to fill vacant positions resulting from retirements and other departures from the profession. Additionally, more than 500,000 nursing aides and over 400,000 home health aides will be needed over the same period (Exhibit 8).

**Exhibit 8**  
**Total Demand for Five Health Occupations with the Largest New Job Growth**  
**between 2004 and 2014**



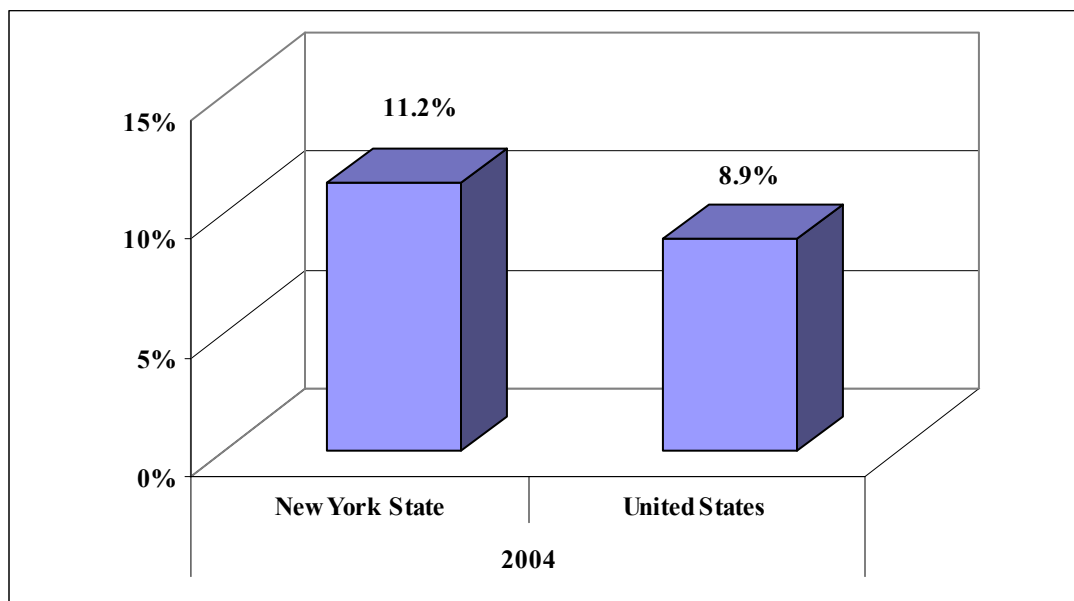
Source: Occupational Employment Projections to 2014, Monthly Labor Review, Bureau of Labor Statistics, November 2005

## 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 2004<sup>6</sup>. This did not include those health professionals working in other employment sectors outside of the health sector (Exhibit 9).

**Exhibit 9**  
**Health Sector Employment as a**  
**Percentage of Total Employment, 2004**



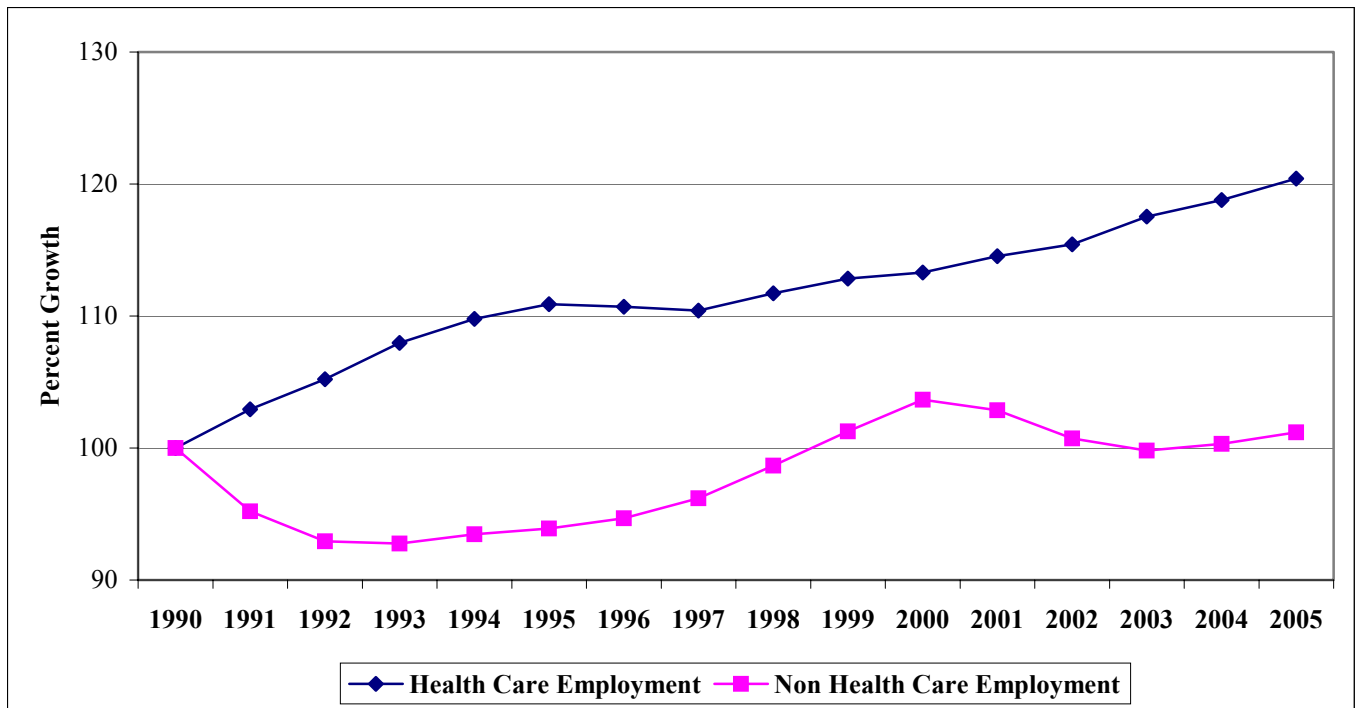
Source: NYS Department of Labor, ES-202; Monthly Labor Review, November 2005, Industry output and employment projections to 2014, Jay M. Berman

Between 1990 and 2005, employment in health care in the state expanded by nearly 160,000 jobs, or over 20%, while employment in all other sectors grew just over 1%. Within the health sector, employment increased between 1990 and 1995, declined for two years between 1995 and 1997, then climbed steadily between 1997 and 2005. The largest growth in health care employment occurred between 1990 and 1995, averaging more than 2% per year. Between 1997 and 2005, health care 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 shrank between 2000 and 2003. There was a slight increase in employment in all other sectors between 2003 and 2005 (Exhibit 10).

<sup>6</sup> New York State Department of Labor, ES-202

**Exhibit 10**  
**New York Employment Growth between 1990 and 2005,**  
**Standardized to 1990**

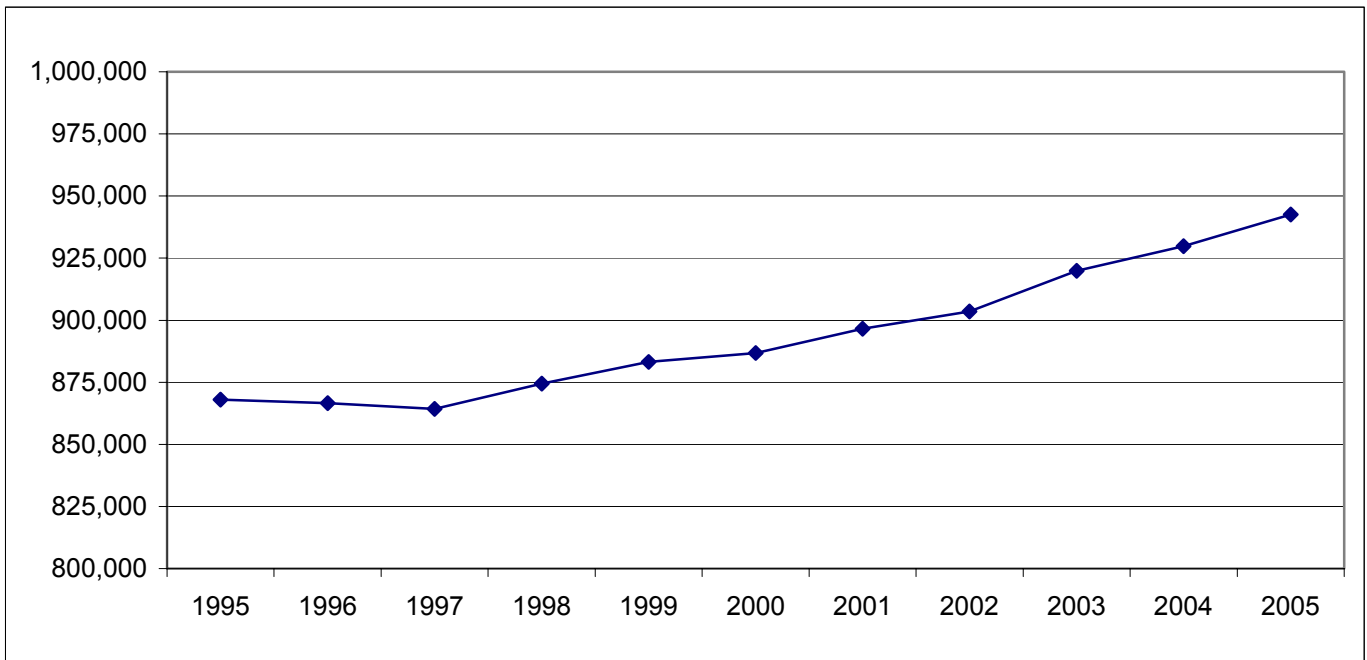


Source: NYS Department of Labor, ES-202

Health sector employment in New York grew rapidly between 1995 and 2005, with the addition of nearly 75,000 jobs, or growth of more than 8.5%. Annual growth in the health sector has remained constant since 1995, with yearly growth at about 1% (Exhibit 11).



**Exhibit 11**  
**Trends in Total New York Health Sector Employment, 1995-2005**



Source: NYS Department of Labor, ES-202

*Employment Growth in Regions Outside of New York City<sup>7</sup>*

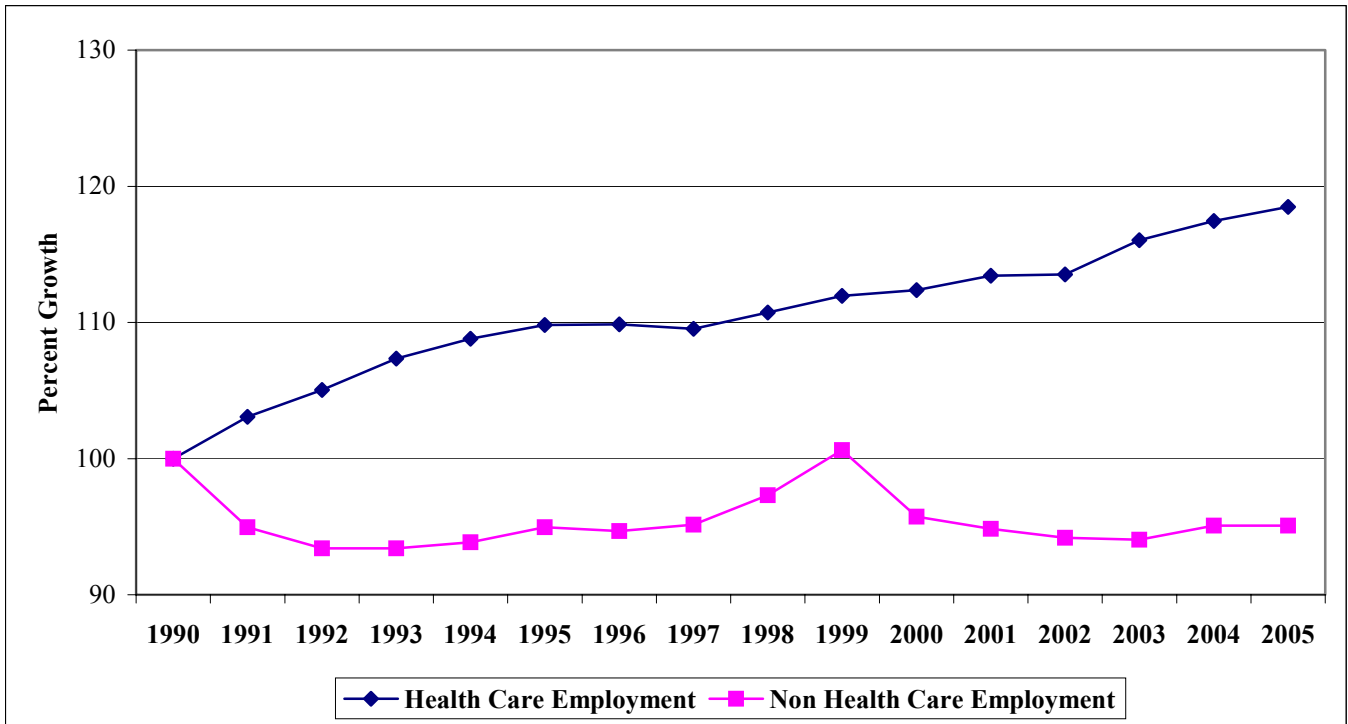
The difference between health care and non-health care job growth in regions outside of New York City was even more dramatic. While employment in the health care sector grew nearly 19% between 1990 and 2005, employment outside of the health care sector declined by 5% during that same period.

There was some job growth in the non-health care 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>7</sup> For New York City employment growth, please see page 43, Exhibit 32.

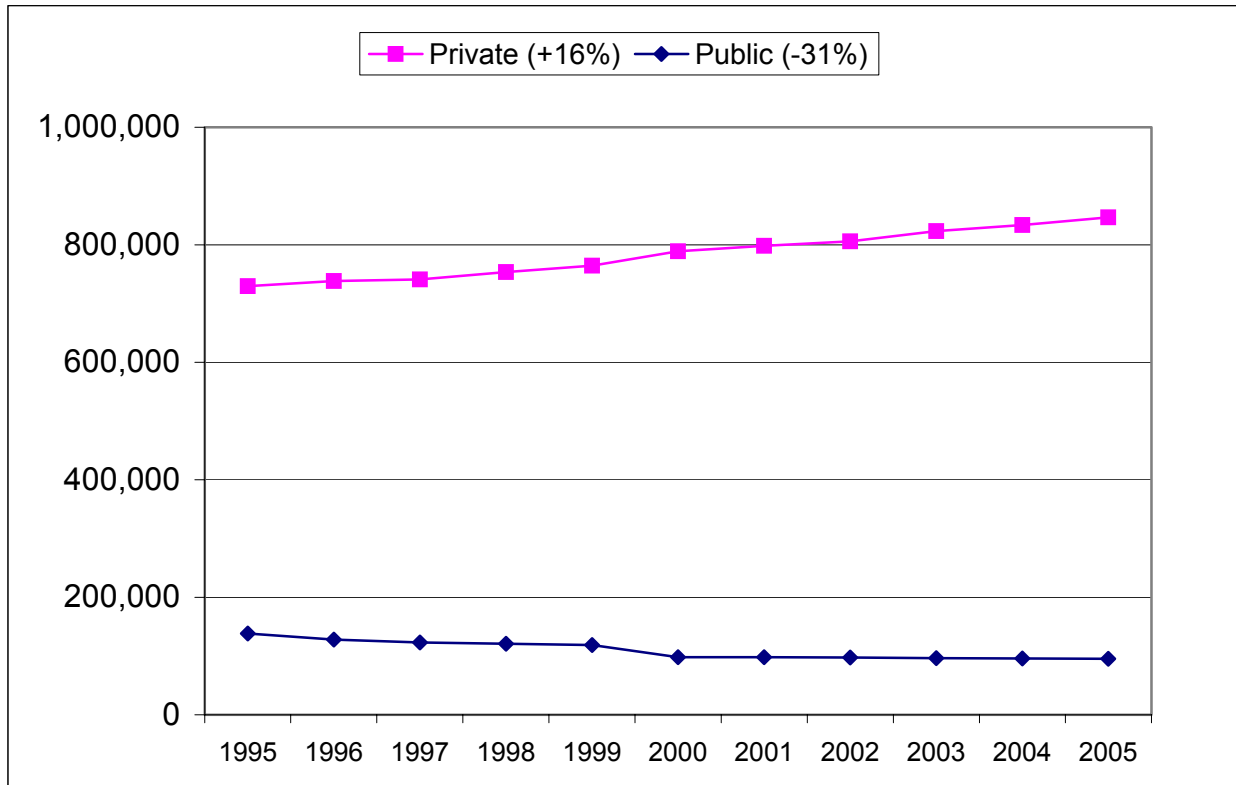
**Exhibit 12**  
**Employment Growth in Regions Outside of New York City, 1990 and 2005,**  
**(Standardized to 1990)**



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 1995 and 2005, private sector health employment in the state increased by 16%, while public sector health employment decreased by nearly 31% (Exhibit 13).

**Exhibit 13**  
**Trends in Public and Private Health Employment**  
**for New York, 1994 – 2005**

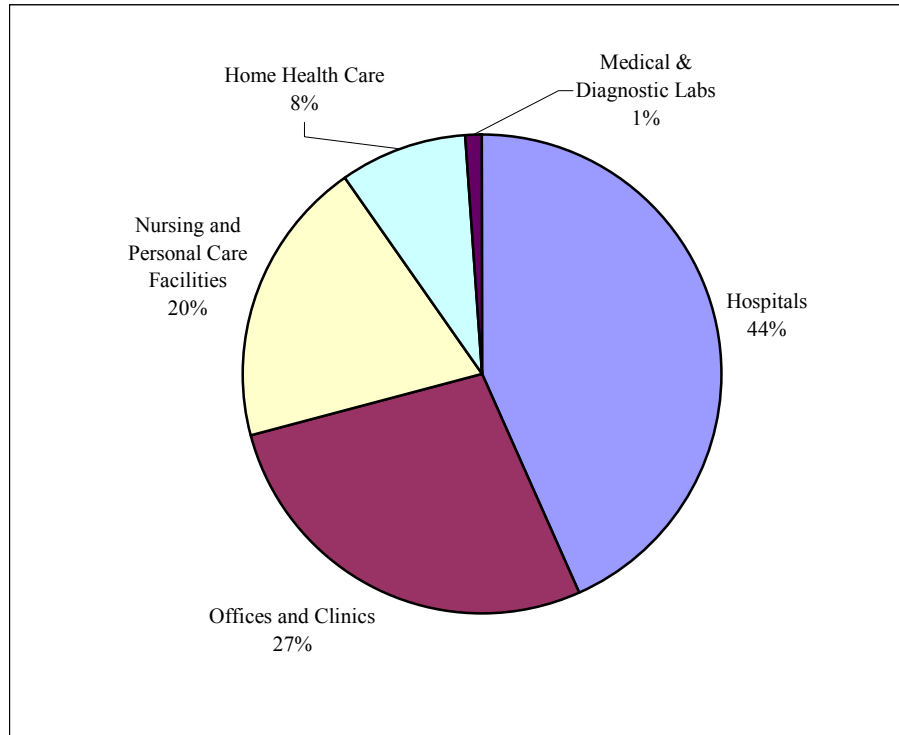


Sources: NYS Department of Labor, ES-202

### **B. By Setting**

Hospitals employed the largest share of workers in the health sector in New York in 2005 (44% of all health sector employees), while most of the remainder worked either in offices and clinics (27%) or nursing and personal care facilities (20%) (Exhibit 14).

**Exhibit 14**  
**Health Sector Employment by Setting**  
**for New York, 2005**



Sources: NYS Department of Labor, ES-202

Between 1990 and 2005, hospital employment in New York declined by slightly more than 5%, while employment in other health settings grew dramatically, including an 87% increase in office and clinic jobs, a 59% increase in home health care jobs, and a 43% increase in nursing and residential care facility jobs (Exhibit 15).

**Exhibit 15**  
**Change in Health Sector Employment between 1990 and 2005 for New York**

Health Setting	1990	2005	Number Change	Percent Change
Home Health Care	49,735	79,027	29,292	58.9%
Hospitals	430,078	407,479	-22,599	-5.3%
Medical and Diagnostic Laboratories	12,101	11,521	-580	-4.8%
Nursing and Residential Care Facilities <sup>8</sup>	130,116	185,567	55,451	42.6%
Offices and Clinics	138,240	259,003	120,763	87.4%
Total	760,270	942,597	182,327	24.0%

Sources: NYS Department of Labor, ES-202

<sup>8</sup> Excluding residential mental retardation, mental health, and substance abuse facilities.

### C. By Region

Health sector employment in New York grew between 2000 and 2005, increasing by more than 7% over that six-year period. By 2005, New York City had more than 405,000 health sector jobs, and Long Island had nearly 140,000 health sector jobs, reflecting percentage growth of 7.8% and 10.2%, respectively. The region with the largest percentage increase in health sector employment between 2000 and 2005 was the North Country, with 12.9%, though they had the smallest total number of jobs. Central New York had the second largest percentage increase in health care employment, with 11.4% (Exhibit 16).

**Exhibit 16**  
**Total Health Sector Employment in New York**  
**by Department of Labor Region, 2000 – 2005**

Region	2000	2001	2002	2003	2004	2005	Change between 2000 and 2005	
							Number	Percent
Capital District	52,057	53,345	53,450	53,666	53,868	55,146	3,089	5.9%
Central New York	30,397	31,265	31,314	31,341	32,296	33,861	3,464	11.4%
Finger Lakes	57,230	56,236	53,938	55,135	56,329	57,777	547	1.0%
Hudson Valley	100,596	100,855	100,302	102,252	104,116	106,115	5,519	5.5%
Long Island	125,368	127,569	131,376	133,177	133,589	138,175	12,807	10.2%
Mohawk Valley	21,687	21,823	21,751	22,070	22,304	23,351	1,664	7.7%
New York City	376,420	381,772	387,985	394,431	397,859	405,944	29,524	7.8%
North Country	14,792	15,375	15,988	16,321	16,580	16,704	1,912	12.9%
Southern Tier	30,117	30,568	30,994	31,265	31,346	32,063	1,946	6.5%
Western New York	69,402	68,722	68,300	69,237	70,427	71,723	2,321	3.3%
<b>Totals</b>	878,066	887,530	895,398	908,895	920,737	942,596	64,530	7.3%

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

The Capital District had the most health sector jobs per 100,000 population in 2005, with 5,210 jobs per capita, followed by New York City with 4,985 jobs per capita. The North Country had the fewest with 3,873 jobs per capita, though their per capita number of health sector jobs increased by 11.5% between 2000 and 2005. This was the largest increase of any region, edging out the Central New York region where health sector jobs per capita increased by 11.3% (Exhibit 17).

**Exhibit 17**  
**Total Health Sector Employment in New York**  
**by Department of Labor Region**  
**Per 100,000, 2000 & 2005**

Region	2000		2005		Change in Jobs Per Capita
	Population	Rate of Jobs Per Capita	Population	Rate of Jobs Per Capita	
Capital District	1,029,927	5,054	1,058,478	5,210	3.1%
Central New York	711,275	4,274	711,502	4,759	11.3%
Finger Lakes	1,199,588	4,771	1,200,589	4,812	0.9%
Hudson Valley	2,179,189	4,616	2,261,204	4,693	1.7%
Long Island	2,753,913	4,552	2,808,064	4,921	8.1%
Mohawk Valley	505,700	4,289	505,092	4,623	7.8%
New York City	8,008,278	4,700	8,143,197	4,985	6.1%
North Country	425,871	3,473	431,319	3,873	11.5%
Southern Tier	718,973	4,189	717,961	4,466	6.6%
Western New York	1,443,743	4,807	1,417,224	5,061	5.3%
<b>Totals</b>	18,976,457	4,627	19,254,630	4,895	5.8%

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

### *Hospital Employment*

Between 2000 and 2005, overall hospital employment in New York increased by over 5,000 jobs, or more than 1%, with the biggest growth between 2000 and 2001. The region that experienced the greatest percentage increase in hospital employment between 2000 and 2005 was the North Country, followed by the Capital District. New York City experienced the largest growth in the number of new jobs, with nearly 4,300 new jobs, followed by the North Country with more than 1,200 jobs. Some regions saw declines in hospital employment over the same time period. The Western New York region experienced the largest decline, losing more than 1,200 jobs (Exhibit 18).

**Exhibit 18**  
**Change in Hospital Employment in New York**  
**by Department of Labor Region, 2000 to 2005**

Region	2000	2001	2002	2003	2004	2005	Change, 2000 to 2005	
							Number	Percent
Capital District	20,664	20,793	20,958	21,377	20,898	21,340	676	3.3%
Central New York	11,194	11,417	11,300	11,187	11,273	11,394	200	1.8%
Finger Lakes	26,544	25,462	24,355	24,720	25,619	26,017	-527	-2.0%
Hudson Valley	39,672	39,649	39,511	39,266	38,979	38,663	-1,009	-2.5%
Long Island	45,263	45,854	46,939	47,181	47,475	46,334	1,071	2.4%
Mohawk Valley	9,507	9,624	9,330	9,414	9,466	9,461	-46	-0.5%
New York City	199,051	201,931	201,617	202,804	202,259	203,333	4,282	2.2%
North Country	7,133	7,881	8,066	8,386	8,399	8,381	1,248	17.5%
Southern Tier	14,847	15,047	15,106	15,247	15,105	15,253	406	2.7%
Western New York	28,548	28,200	27,946	28,088	28,203	27,302	-1,246	-4.4%
<b>Totals</b>	<b>402,423</b>	<b>405,858</b>	<b>405,128</b>	<b>407,670</b>	<b>407,676</b>	<b>407,479</b>	<b>5,056</b>	<b>1.3%</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 17,000 jobs between 2000 and 2005, with all regions except New York City seeing job growth. Long Island experienced the largest percentage increase with a nearly 30% jump, while employment in New York City in nursing and personal care facilities remained almost flat (Exhibit 19).

**Exhibit 19**  
**Change in Nursing and Personal Care Facility Employment**  
**in New York by Department of Labor Region, 2000 to 2005**

Region	2000	2001	2002	2003	2004	2005	Change, 2000 to 2005	
							Number	Percent
Capital District	13,921	14,636	14,755	14,582	14,989	15,167	1,246	9.0%
Central New York	6,983	6,991	7,339	7,267	8,080	8,935	1,952	28.0%
Finger Lakes	12,432	12,672	11,810	12,341	12,350	13,943	1,511	12.2%
Hudson Valley	20,703	20,569	21,058	21,780	23,590	23,883	3,180	15.4%
Long Island	18,858	18,363	20,376	20,947	22,427	24,448	5,590	29.6%
Mohawk Valley	6,298	6,373	6,529	6,482	6,444	7,222	924	14.7%
New York City	62,144	63,979	64,862	63,554	63,208	62,051	-93	-0.1%
North Country	3,263	2,961	3,250	3,192	3,340	3,463	200	6.1%
Southern Tier	7,405	7,462	7,598	7,455	7,477	7,852	447	6.0%
Western New York	16,695	16,950	17,584	17,673	18,063	18,416	1,721	10.3%
<b>Totals</b>	<b>168,702</b>	<b>170,956</b>	<b>175,160</b>	<b>175,273</b>	<b>179,968</b>	<b>185,568</b>	<b>16,866</b>	<b>10.0%</b>

Sources: NYS Department of Labor, ES-202

### *Ambulatory Care*

Employment in ambulatory care settings increased by nearly 11% between 2000 and 2005, with about 10,000 jobs added. The Mohawk Valley, Central New York, 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, 2000 to 2005**

Region	2000	2001	2002	2003	2004	2005	Change, 2000 to 2005	
							Number	Percent
Capital District	14,463	14,961	14,760	14,765	15,268	15,913	1,450	10.03%
Central New York	10,748	11,475	11,357	11,609	11,722	12,159	1,411	13.13%
Finger Lakes	13,022	13,383	13,254	13,914	14,118	14,259	1,237	9.50%
Hudson Valley	34,084	34,962	34,038	34,861	35,218	36,603	2,519	7.39%
Long Island	50,939	52,661	53,287	54,217	54,768	56,525	5,586	10.97%
Mohawk Valley	4,800	4,819	4,840	5,099	5,315	5,456	656	13.67%
New York City	83,882	83,671	86,406	88,557	90,945	94,751	10,869	12.96%
North Country	3,856	4,037	4,161	4,189	4,265	4,254	398	10.32%
Southern Tier	6,930	7,120	7,222	7,483	7,583	7,715	785	11.33%
Western New York	19,609	19,626	18,663	19,260	19,621	20,941	1,332	6.79%
<b>Totals</b>	242,333	246,715	247,988	253,954	258,823	268,576	26,243	10.83%

### *Home Health Care*

Between 2000 and 2005, employment in home health care in New York grew by more than 14,000 jobs, with the New York City region accounting for virtually all of the increase, a 46% jump in home health care jobs.

The Hudson Valley region experienced the next largest increase in home health care jobs, growing by more than 800 jobs between 2000 and 2005, while, in contrast, the Finger Lakes region saw the largest decrease, losing nearly 1,700 jobs (Exhibit 21).



**Exhibit 21**  
**Change in Home Health Care Services Employment**  
**in New York by Department of Labor Region, 2000 to 2005**

<b>Region</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>Change, 2000 to 2005</b>	
							<b>Number</b>	<b>Percent</b>
Capital District	3,010	2,954	2,976	2,941	2,712	2,726	-284	-9.4%
Central New York	1,473	1,382	1,318	1,278	1,221	1,373	-100	-6.8%
Finger Lakes	5,232	4,719	4,519	4,161	4,242	3,558	-1,674	-32.0%
Hudson Valley	6,138	5,675	5,696	6,345	6,351	6,966	828	13.5%
Long Island	10,307	10,691	10,773	10,833	10,919	10,868	561	5.4%
Mohawk Valley	1,081	1,008	1,052	1,076	1,080	1,212	131	12.1%
New York City	31,342	32,192	35,209	39,516	41,447	45,809	14,467	46.2%
North Country	540	495	512	553	577	606	66	12.2%
Southern Tier	936	939	1,068	1,079	1,181	1,243	307	32.8%
Western New York	4,550	3,945	4,107	4,216	4,540	4,614	64	1.4%
<b>Totals</b>	<b>64,609</b>	<b>64,000</b>	<b>67,230</b>	<b>71,998</b>	<b>74,270</b>	<b>79,027</b>	<b>14,418</b>	<b>22.3%</b>

Sources: NYS Department of Labor, ES-202

#### **D. By Occupation**

Changes in the number of health care jobs in New York between 2000 and 2005 varied by occupation. While these data represented positions and not individuals or full time equivalents, they were useful in identifying trends in occupations or job titles.

- Nursing aides, orderlies, and attendant jobs increased by 10,660, or by nearly 12%;
- Home health aide jobs increased by 7,560, or by more than 7%;
- Medical and health service manager jobs increased by 5,560, or by more than 31%; and
- Registered nurse jobs increased by 4,700, or by nearly 3%.
  
- Medical secretary jobs decreased by 3,570, or by more than 24%;
- Social worker jobs decreased by 2,020, or by 5%;
- Radiologic technology and technical jobs decreased by 1,440, or by 12%; and
- Dental hygienist jobs decreased by 1,960, or by nearly 18% (Exhibit 22).

**Exhibit 22**  
**Change in the Number of Jobs in Selected Health Occupations for New York,**  
**2000 to 2005**

Occupation	2000	2001	2002	2003	2004	2005	Change 2000 to 2005	
							Number	Percent
HEALTH CARE TECHNICIANS AND TECHNOLOGISTS								
Cardiovascular Technologists and Technicians	2,280	2,820	3,090	3,620	3,820	3,520	1,240	54.4%
Dietetic Technicians	1,890	2,010	1,660	1,520	1,490	1,650	-240	-12.7%
Licensed Practical and Licensed Vocational Nurses	47,370	45,580	48,560	47,990	51,420	50,060	2,690	5.7%
Medical and Clinical Laboratory Technicians	10,690	9,800	8,960	9,750	9,910	10,080	-610	-5.7%
Medical and Clinical Laboratory Technologists	9,480	9,760	9,050	9,680	9,340	8,980	-500	-5.3%
Medical Records and Health Information Technicians	6,450	6,270	6,340	7,030	7,220	7,740	1,290	20.0%
Nuclear Medicine Technologists	1,090	1,000	1,080	1,180	1,170	1,100	10	0.9%
Pharmacy Technicians	10,290	10,420	10,120	9,870	11,950	11,260	970	9.4%
Radiologic Technologists and Technicians	12,010	10,850	11,050	10,700	11,160	10,570	-1,440	-12.0%
Surgical Technologists	4,790	4,280	4,510	4,100	4,380	4,730	-60	-1.3%
HEALTH CARE PROFESSIONALS								
Dental Hygienists	11,140	12,400	10,000	9,910	10,000	9,180	-1,960	-17.6%
Dietitians and Nutritionists	3,910	4,180	4,280	4,240	4,180	3,970	60	1.5%
Pharmacists	12,860	14,500	13,730	12,620	13,100	13,400	540	4.2%
Physical Therapists	9,490	10,410	9,970	11,340	12,400	12,390	2,900	30.6%
Registered Nurses	159,670	160,380	163,600	163,710	165,800	164,370	4,700	2.9%
Respiratory Therapists	4,890	4,850	4,380	4,430	4,500	4,780	-110	-2.2%
Social Workers	40,190	34,020	35,900	34,970	34,320	38,170	-2,020	-5.0%
MANAGERS/ADMINISTRATIVE SUPPORT								
Medical and Health Services Managers	17,760	19,290	19,820	22,100	23,120	23,320	5,560	31.3%
Medical Secretaries	14,730	12,720	13,460	12,510	11,920	11,160	-3,570	-24.2%
HEALTH CARE PARAPROFESSIONALS								
Dental Assistants	16,870	15,120	17,600	18,110	16,160	17,010	140	0.8%
Home Health Aides	107,130	109,330	108,210	105,790	103,840	114,690	7,560	7.1%
Medical Assistants	17,260	21,730	19,160	21,310	21,080	18,220	960	5.6%
Nursing Aides, Orderlies, and Attendants	90,000	89,270	90,930	97,700	96,490	100,660	10,660	11.8%

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 2005 in New York.

The number of RNs who were licensed increased more than 9,100, or 4% between 2002 and 2005. The number of social workers who were licensed increased by almost 3,000 individuals, or nearly over 7% during the same period. The numbers of physician assistants and nurse practitioners both grew, 23% and nearly 18%, respectively. The number of licensed practical nurses decreased slightly, and the number of respiratory therapists decreased by 8%.

**Exhibit 23**  
**Changes in the Number of Licensed Individuals**  
**in Selected Health Service Occupations for New York<sup>9</sup>, 2002 to 2005**

Profession	2002	2003	2004	2005	Change 2002 to 2005	
					Number	Percent
Registered Physician Assistants	6,294	6,806	7,229	7,747	1,453	23.1%
Nurse Practitioners	10,481	11,195	11,717	12,344	1,863	17.8%
Occupational Therapists	8,161	8,697	8,946	9,137	976	12.0%
Speech-Language Pathologists	10,158	10,525	10,914	11,342	1,184	11.7%
Physical Therapists	15,351	16,152	16,556	16,958	1,607	10.5%
Social Workers	40,008	40,892	41,413	42,929	2,921	7.3%
Dental Hygienists	9,036	9,112	9,149	9,395	359	4.0%
Pharmacists	18,498	19,029	19,136	19,243	745	4.0%
Registered Nurses	231,137	232,945	237,992	240,290	9,153	4.0%
Dietitians/Nutritionists	4,404	4,531	4,622	4,559	155	3.5%
Occupational Therapy Assistants	3,536	3,591	3,614	3,592	56	1.6%
Physical Therapy Assistants	4,311	4,417	4,367	4,365	54	1.3%
Licensed Practical Nurses	69,548	68,754	66,746	69,467	-81	-0.1%
Respiratory Therapists	4,681	4,655	4,504	4,662	-19	-0.4%
Respiratory Therapy Technicians	1,728	1,649	1,519	1,590	-138	-8.0%

Source: NYS Education Department, Office of Professions

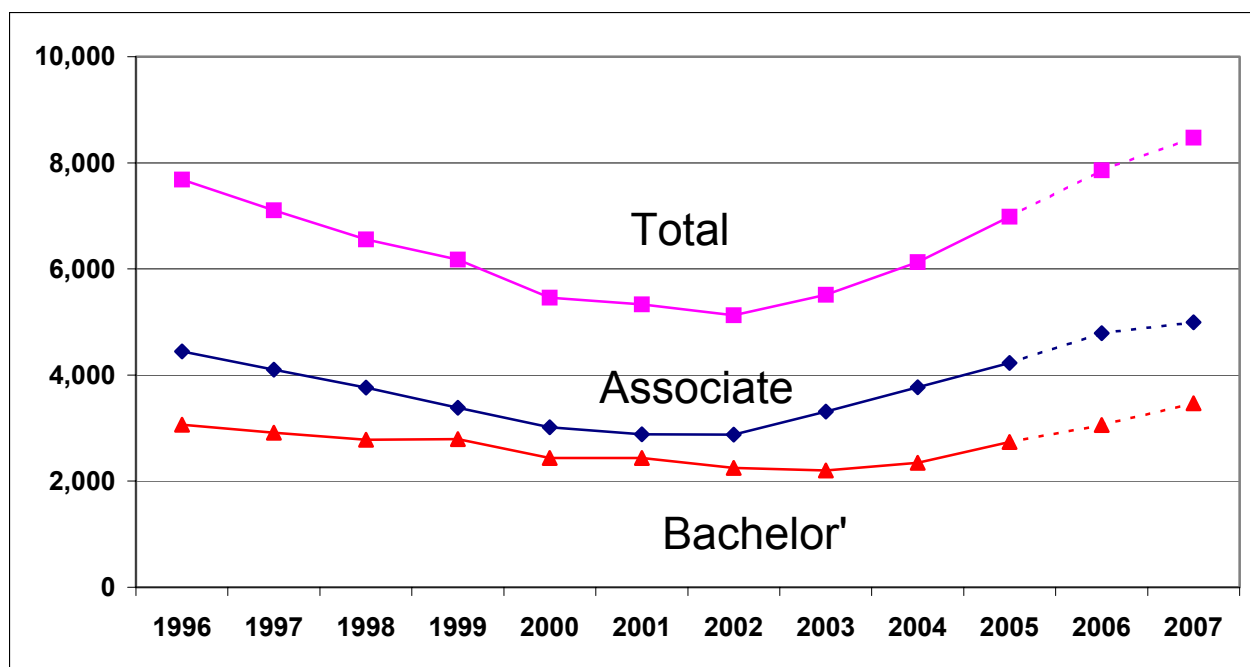
<sup>9</sup> Note: This total includes all New York licensed individuals regardless of whether the address given in the licensure file was a New York address, while tables of licensees by region include only those individuals with an address in the region.

### E. Trends in RN Education, 1996 – 2007

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 2007. Of the 107 nursing programs in New York, 96 returned the surveys for a 90% response rate. Data for the 11 non-respondents were imputed from previous surveys; consequently, the following data reflect enrollment and graduations of all registered nursing programs in the state.

After six consecutive years of declining RN graduations between 1997 and 2002, overall RN graduations increased in each of the past three years (2003 through 2005). RN graduations from both associate degree (ADN) and bachelor degree (BSN) programs increased between 2004 and 2005 and are projected to continue to increase in 2006 and 2007 (Exhibit 24).

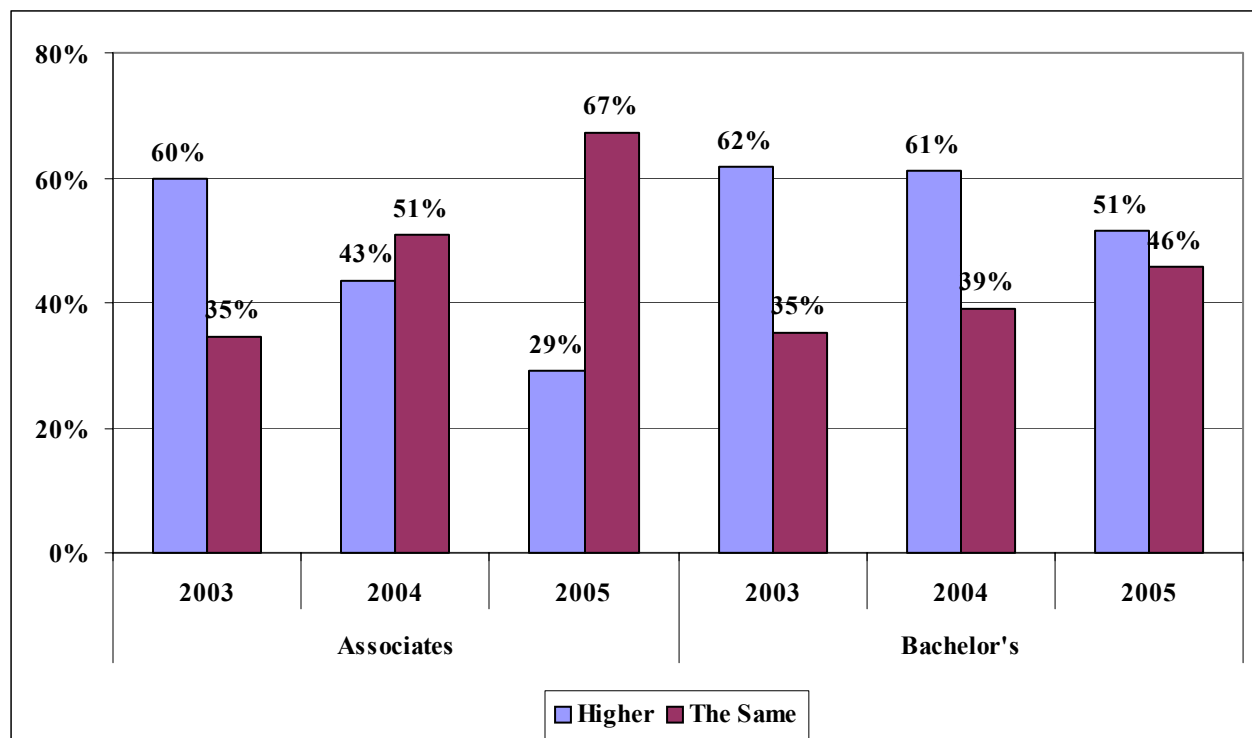
**Exhibit 24**  
**New York RN Graduations by Degree Type, 1996 to 2007**



See the Appendix for the full report of New York Nursing Graduations, 1996 – 2007.

While graduations are projected to increase through 2007, acceptances into nursing programs have leveled off, indicating a potential lack of growth in RN graduations past 2007. In 2003, 35% of the ADN programs reported that acceptances had not increased from the previous year. By 2005, the percent of ADN programs reporting no growth in acceptances over the prior year grew to 67%. The percent of BSN programs reporting no growth in the number of acceptances over the previous year nearly doubled from 25% in 2004 to 46% in 2005 (Exhibit 25).

**Exhibit 25**  
**Percent Change in Number of Acceptances by Program Type, 2003 - 2005**



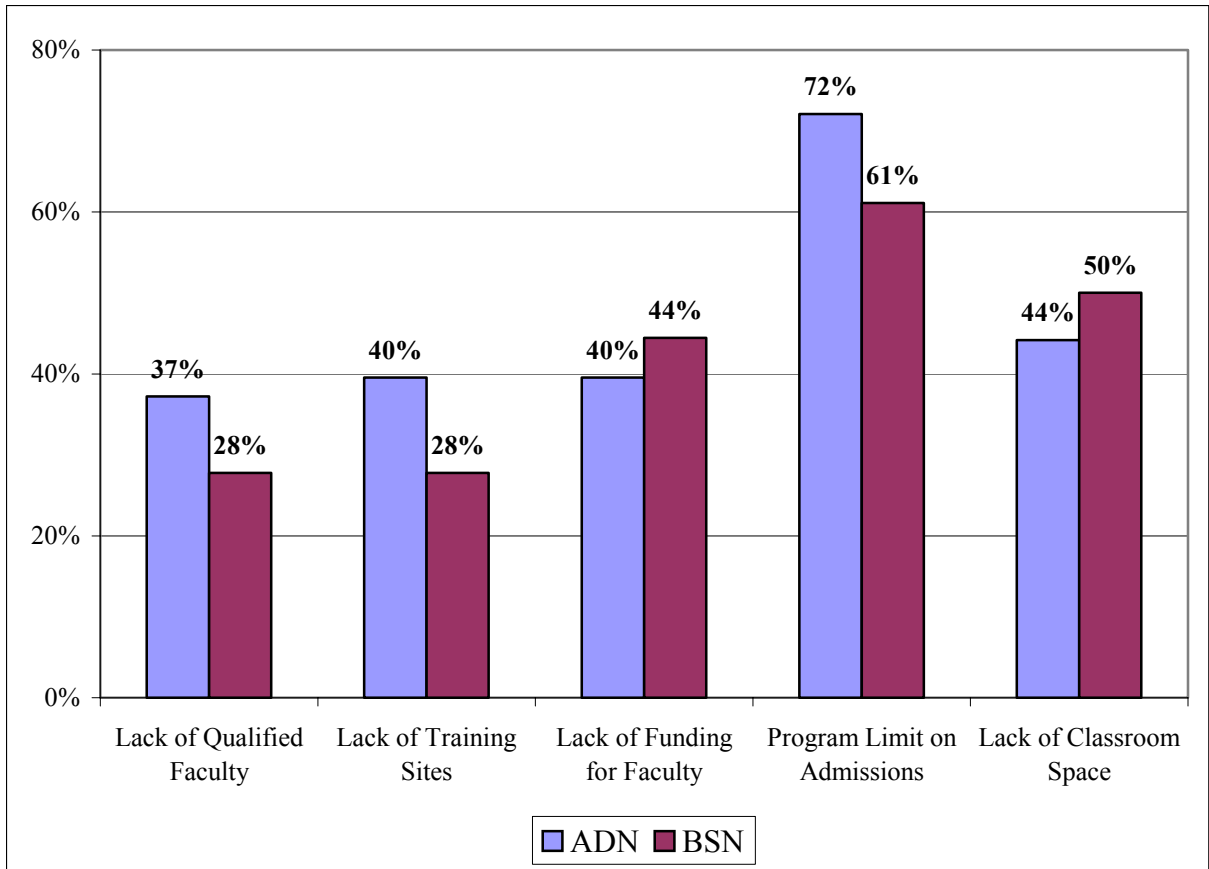
More nursing programs reported turning away qualified applicants, with 67% turning away qualified applicants in 2005, compared to 57% in 2004, and 49% in 2003. ADN programs were more likely to turn away qualified applicants (75%) than BSN programs (50%) (Exhibit 26).

**Exhibit 26**  
**Percentage of Respondents Reporting Turning Away Qualified Applicants by**  
**Program Type**

	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>All Programs</b>	49%	57%	67%
<b>ADN</b>	68%	73%	80%
<b>BSN</b>	26%	39%	50%

The majority of ADN and BSN programs that turned away qualified applicants in 2005 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 (Exhibit 27).

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



## **F. Demand for Workers**

The Center conducted surveys of hospitals, nursing homes, and home health care agencies to determine the current demand for health workers. The survey of hospitals and nursing homes was conducted in the fall of 2006, while the survey of home health care agencies was conducted in mid to late 2005.

Few respondents reported employing occupational therapists, speech pathologists, respiratory therapists, dietitians/nutritionists, and homemakers/housekeepers. This limited the ability to draw valid conclusions about the recruitment and retention of home care workers in these occupations. Consequently, these five occupations were excluded from the analysis and are not presented in this report.

## Hospitals

Fifty-one hospitals statewide, or approximately 20%, responded to the survey. The recruitment of experienced RNs (4.3)<sup>10</sup> continued to be the most pressing need for hospitals followed by the recruitment of pharmacists (3.9) and the recruitment of respiratory therapists (3.4). Experienced RNs were also the most difficult occupation to retain (3.2), followed by nursing aides (3.1), and newly trained RNs (3.0). Nursing aides were the only occupation where respondents indicated more difficulty retaining than recruiting workers, (3.1 to 2.7, respectively).

Slightly more than 70% of survey respondents indicated that a shortage of pharmacists was the primary reason for the difficulty in recruiting and retaining these workers. Likewise, 53% of respondents said that the shortage of RNs was the primary reason for the difficulty in recruiting and retaining RNs. In all cases but licensed practical nurses, competition for workers was the second-most frequently cited reason for recruitment and retention difficulties, with salary levels the third (Exhibit 28).

**Exhibit 28**  
**Recruitment and Retention Difficulties for Hospitals**  
**for 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
Dietitians/Nutritionists	3.3	2.1	32%	21%	13%
Licensed Practical Nurses	2.7	2.5	24%	17%	22%
Nursing Aides	2.7	3.1	26%	19%	15%
Pharmacists	3.9	2.7	70%	48%	45%
Radiologic Technologists	2.9	2.2	35%	37%	9%
Experienced RNs	4.3	3.2	53%	45%	39%
Newly Trained RNs	3.0	3.0	42%	48%	16%
Respiratory Therapists	3.4	2.6	51%	29%	18%
Masters in Social Work	2.8	2.3	24%	14%	7%
Bachelors in Social Work	2.3	2.1	10%	21%	5%

Seventy-three percent of hospitals statewide reported difficulty hiring workers for the night shift. Two-thirds of the respondents indicated difficulties hiring workers for the evening shift, and 43% reported difficulties hiring part-time workers.

<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.



### *Nursing Homes*

Nearly 120 nursing homes statewide responded to the survey for response rate of just under 20%. Nursing homes indicated the most difficulty recruiting experienced RNs, followed by licensed practical nurses, newly trained RNs, and nursing aides. Licensed practical nurses were the most difficult to retain, followed by nursing aides, and experienced RNs.

When asked about their reasons for recruitment and retention problems, 40% of nursing homes indicated that competition for RNs and a general shortage of RNs were the two main reasons for their recruitment and retention difficulties (Exhibit 29).

**Exhibit 29**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations**

<b>Occupation</b>	<b>Average Assessment of Difficulty</b>		<b>Percent of Respondents who Indicated Reasons for Difficulties</b>		
	<b>Recruitment</b>	<b>Retention</b>	<b>Shortage of Workers</b>	<b>Competition for Workers</b>	<b>Salary Levels</b>
Dietitians/Nutritionists	2.5	1.7	27%	23%	20%
Licensed Practical Nurses	3.7	3.0	38%	40%	29%
Nursing Aides	3.0	2.9	27%	36%	21%
Occupational Therapists	2.6	2.0	35%	28%	19%
Physical Therapists	2.7	2.0	28%	30%	25%
Experienced RNs	4.2	2.9	43%	44%	36%
Newly Trained RNs	3.1	2.5	32%	36%	27%
Respiratory Therapists	0.7	0.5	19%	12%	12%
Masters in Social Work	2.2	1.7	11%	8%	15%
Bachelors in Social Work	1.8	1.4	8%	10%	13%

Around 65% of nursing homes reported difficulty hiring workers for evening and night shifts. More than one-third of the respondents reported difficulty hiring part-time workers.

### *Home Health Care Agencies*

Approximately one-quarter of home health care agencies responded to the 2005 workforce survey. However, response rates varied by program type and were as follows:

- 44% of Certified Home Health Agencies (CHHAs);
- 41% of Hospice Programs;
- 34% of Long Term Home Health Care Programs (LTHHCPs); and
- 20% of Licensed Home Care Service Agencies (LHCSAs).

Statewide, home health care agencies indicated they had the most difficulty recruiting RNs, home health aides, and personal care aides. Personal care aides were also difficult to retain, as were home health aides, licensed practical nurses, and RNs (Exhibit 30).

**Exhibit 30**  
**Recruitment and Retention Difficulties for Selected Occupations**

<b>Occupation</b>	<b>Average Assessment of Difficulty</b>	
	<b>Recruitment</b>	<b>Retention</b>
Home Health Aides	3.4	2.9
Licensed Practical Nurses	2.9	2.9
Personal Care Aides	3.4	3.1
Physical Therapists	2.8	2.2
Registered Nurses	3.9	2.9
Social Workers	2.8	2.2

Downstate regions reported the most difficulty recruiting RNs in home health care services, followed by home health aides and LPNs. LPNs were the most difficult to retain in downstate regions, followed by RNs and personal care aides.

Upstate regions reported the most difficulty recruiting personal care aides in home health care services, followed by RNs, and home health aides. Personal care aides were also the most difficult to retain in Upstate regions, followed by home health aides and RNs.

## **G. Projected Job Growth**

Between 2002 and 2012, the NYS Department of Labor projects the number of RN jobs will increase by nearly 34,000, with 7,000 average annual job openings. The number of home health aide jobs is projected to increase by almost 33,000, with about 4,800 average annual job openings over the same time period. The number of nursing aide, orderly, and attendant jobs is projected to increase by just over 5,000, though there will be more than 2,600 average annual job openings, mostly attributed to turnover of workers in existing jobs rather than growth in new jobs. Average annual job openings reflect both new job growth and replacement of individuals who leave existing positions (Exhibit 31).

**Exhibit 31**  
**Employment Projections for Health Care Occupations<sup>11</sup>**  
**for New York , including New York City, 2002 – 2012**

	2002	2012	Growth Between 2002 and 2012		Avg. Annual Openings
			Number	Percent	
Registered Nurse	168,130	202,020	33,890	20.2%	6,910
Home Health Aides	113,330	146,220	32,890	29.0%	4,780
Nursing Aides, Orderlies, and Attendants	95,780	109,720	13,940	14.6%	2,650
Licensed Practical Nurse	46,980	52,260	5,280	11.2%	1,550
Social Workers	36,170	43,180	7,010	19.4%	1,320
Medical Assistances	20,390	29,550	9,160	44.9%	1,300
Dental Assistants	17,000	22,010	5,010	29.5%	980
Medical and Health Services Managers	21,860	25,830	3,970	18.2%	830
Pharmacists	13,000	15,250	2,250	17.3%	480
Physical Therapists	11,180	14,200	3,020	27.0%	410
Radiologic Technologists and Technicians	10,660	12,410	1,750	16.4%	380
Emergency Medical Technicians and Paramedics	10,450	12,970	2,520	24.1%	370
Clinical, Counseling, and School Psychologists	9,880	11,240	1,360	13.8%	360
Medical and Clinical Laboratory Technologists	9,520	10,540	1,020	10.7%	360
Dental Hygienists	8,990	11,680	2,690	29.9%	350
Physician Assistants	6,240	8,710	2,470	39.6%	350
Medical Secretaries	12,730	13,640	910	7.1%	330
Speech Language Pathologists and Audiologists	7,810	9,200	1,390	17.8%	330
Medical and Clinical Laboratory Technicians	8,940	9,690	750	8.4%	320
Medical Records and Health Information Technicians	6,440	8,730	2,290	35.6%	320
Pharmacy Technicians	9,610	11,400	1,790	18.6%	310
Respiratory Therapists	4,500	5,730	1,230	27.3%	270
Occupational Therapists	6,100	7,560	1,460	23.9%	230
Dietitians and Nutritionists	4,620	5,140	520	11.3%	170
Medical Transcriptionists	4,340	5,030	690	15.9%	150
Surgical Technologists	4,010	4,760	750	18.7%	130
Psychiatric Aides	5,450	5,630	180	3.3%	90

Source: NYS Department of Labor, Wage and Industry Data, Occupational Outlook, 2002 - 2012

<sup>11</sup> Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2002 and the projected number of jobs in those categories in 2012. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons. The NYS Department of Labor expects to have state specific 2004 – 2014 projections by early 2007.

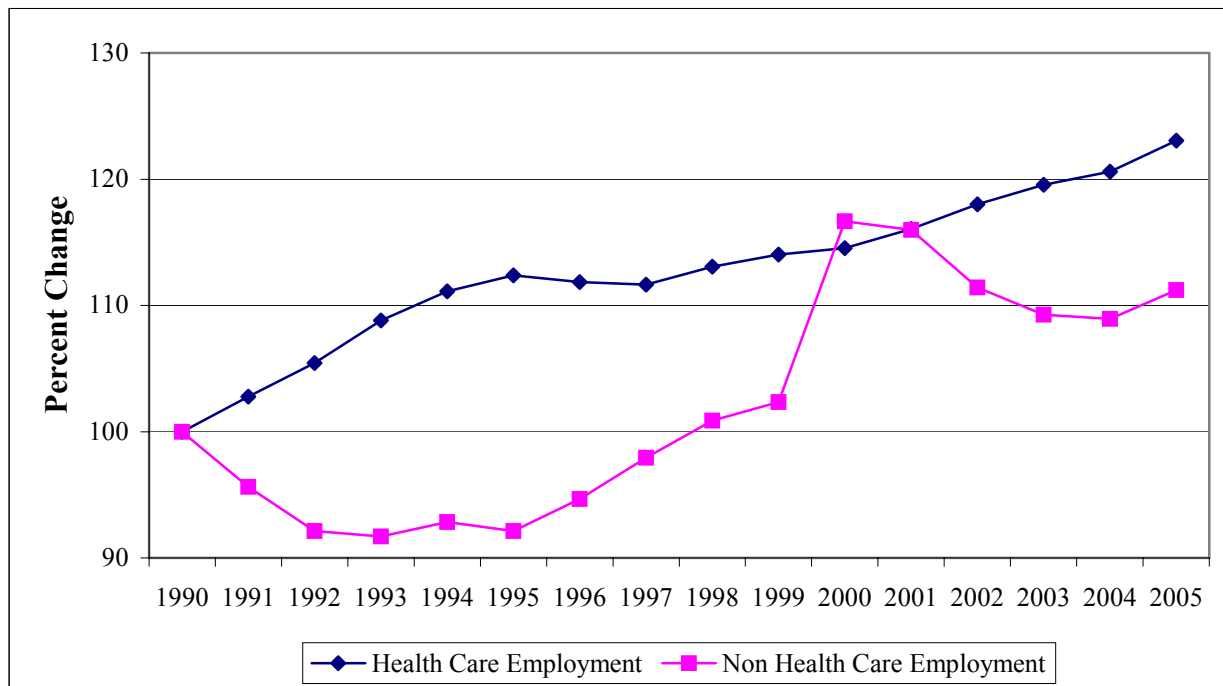
## V. REGIONAL PROFILES

### A. New York City

#### 1. Total Employment

Between 1990 and 2005, employment in the health sector in New York City grew steadily, with the largest increase occurring between 1990 and 1995. 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 2005. Between 1990 and 2005, employment in the health sector in New York City grew by 23% while employment in all other sectors grew by only 11% during the same period (Exhibit 32).

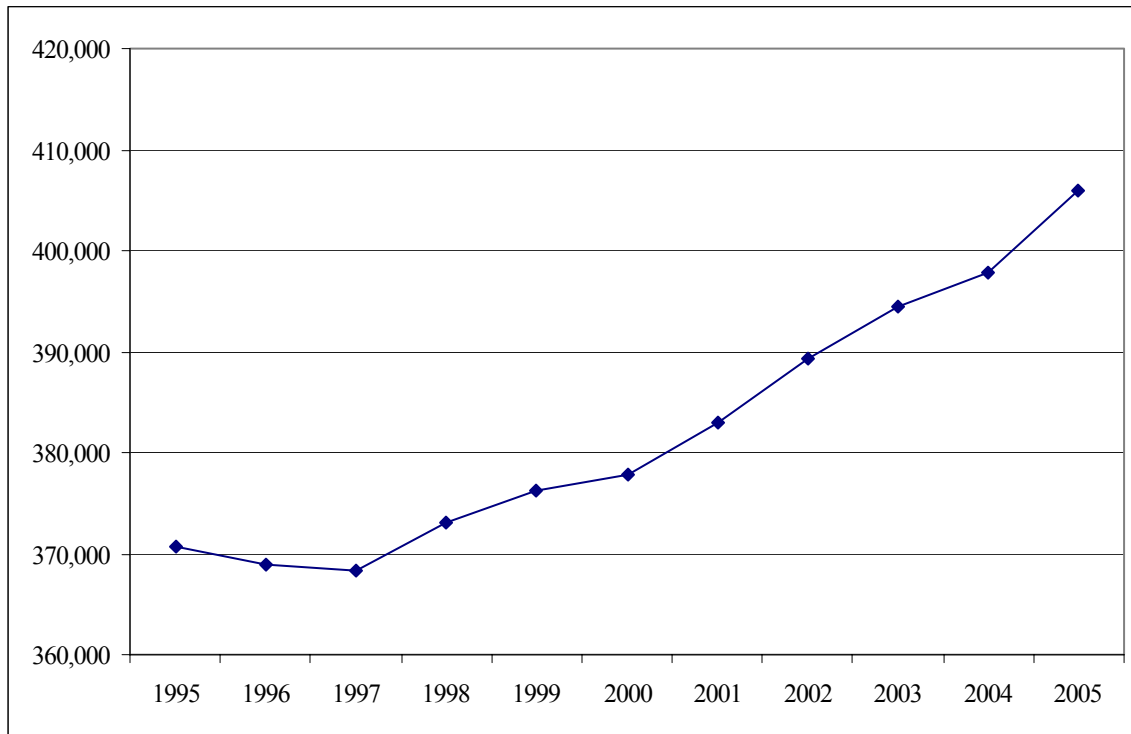
**Exhibit 32**  
**New York City Employment Growth between 1990 and 2005, Standardized to 1990**



Source: NYS Department of Labor, ES-202

Between 1995 and 2005 in New York City, health sector employment increased by more than 9%. All job growth occurred after 1997, when increases in health sector employment averaged more than 1% annually, and 2% between 2004 and 2005 (Exhibit 33).

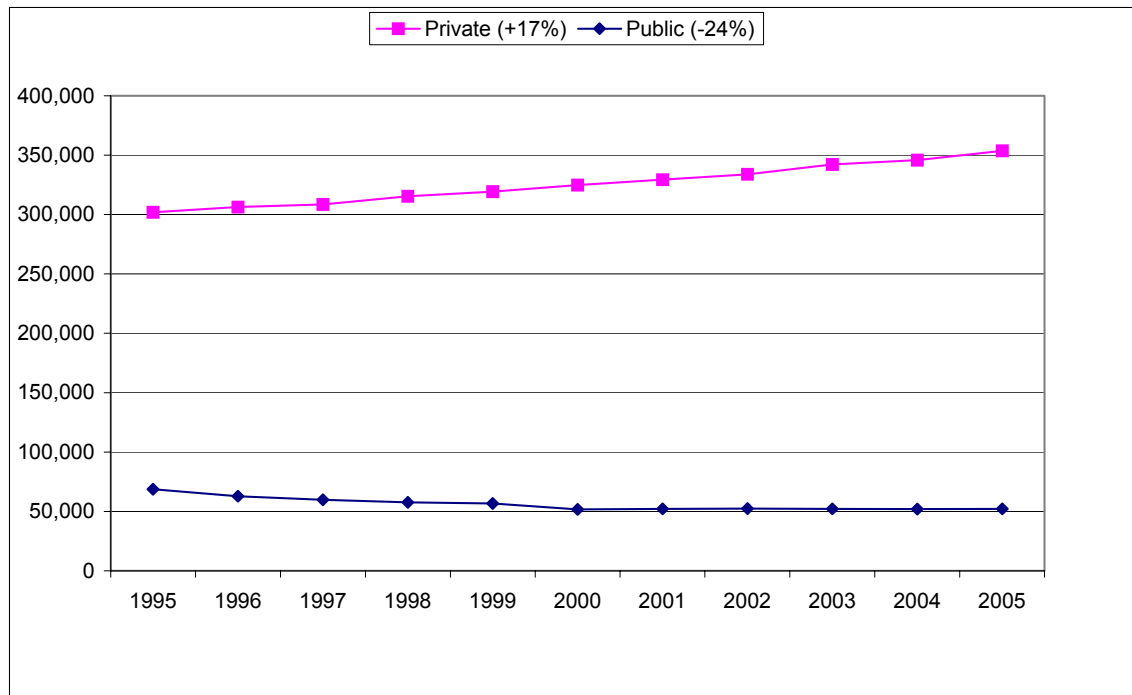
**Exhibit 33**  
**Trends in Health Care Employment, 1995 - 2005**



Source: NYS Department of Labor, ES-202

Between 1995 and 2005, private health sector employment increased by 17% in New York City, while public health sector employment declined by 24% (Exhibit 34).

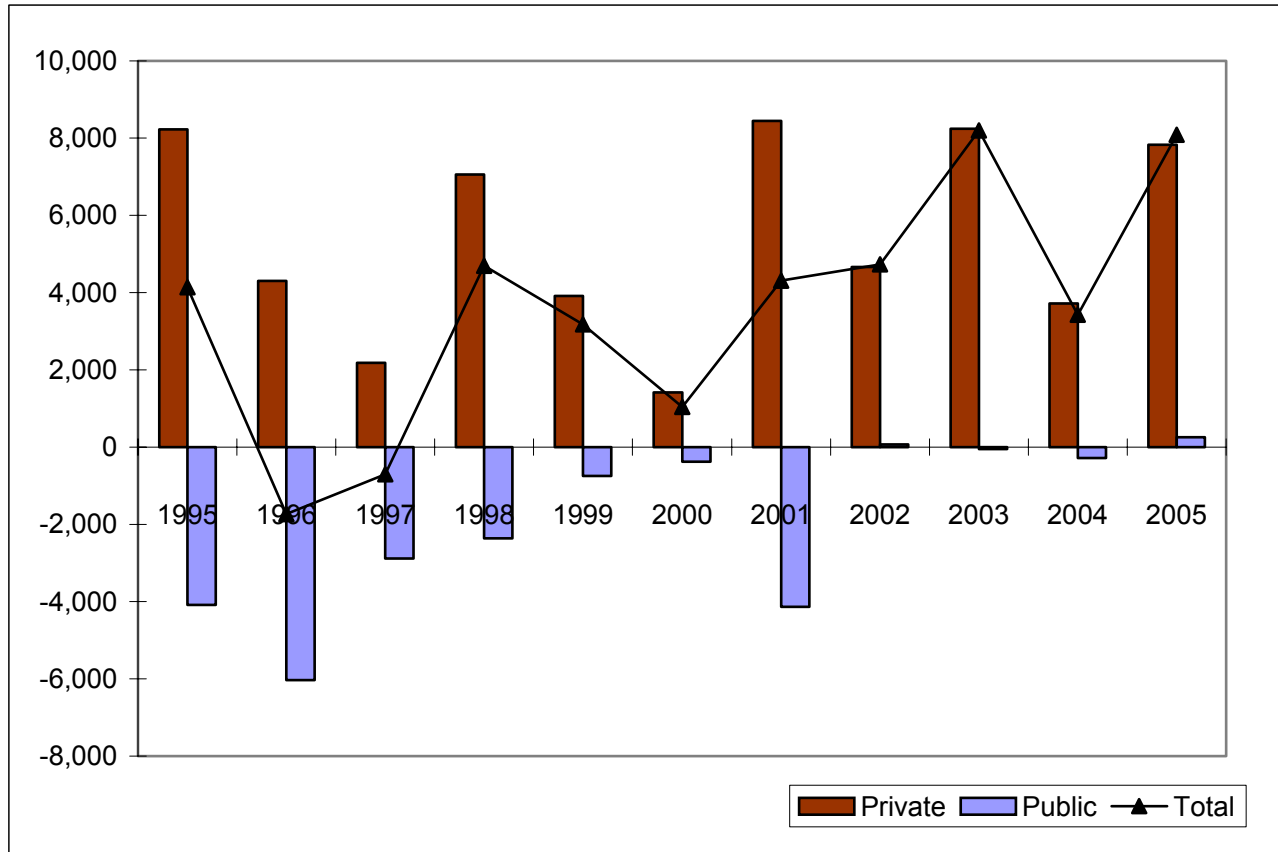
**Exhibit 34**  
**Trends in Public and Private Health Employment for New York City, 1995 – 2005**



Source: NYS Department of Labor, ES-202

While total health care employment increased in 1995 in New York City, significant declines in public health sector employment in 1996 and 1997 offset employment gains in the private sector, leading to a drop in overall health sector employment. Starting in 1998, increases in private health sector employment outpaced decreases in public health sector employment, leading to an overall increase in health sector employment. For the past three years, public health sector employment has remained relatively stable while private health sector employment has continued to grow (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, 1995 to 2005**

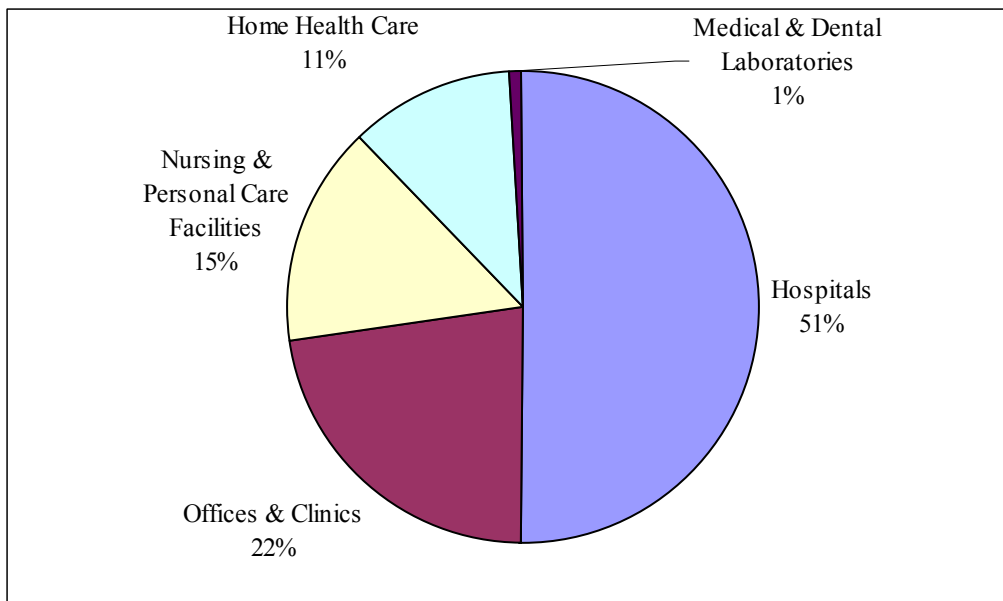


Source: NYS Department of Labor, ES-202

## 2. By Setting

Hospitals continued to be the largest employer of New York City health workers in 2005, accounting for more than half of all health care 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**  
**for New York City, 2005**



Source: NYS Department of Labor, ES-202

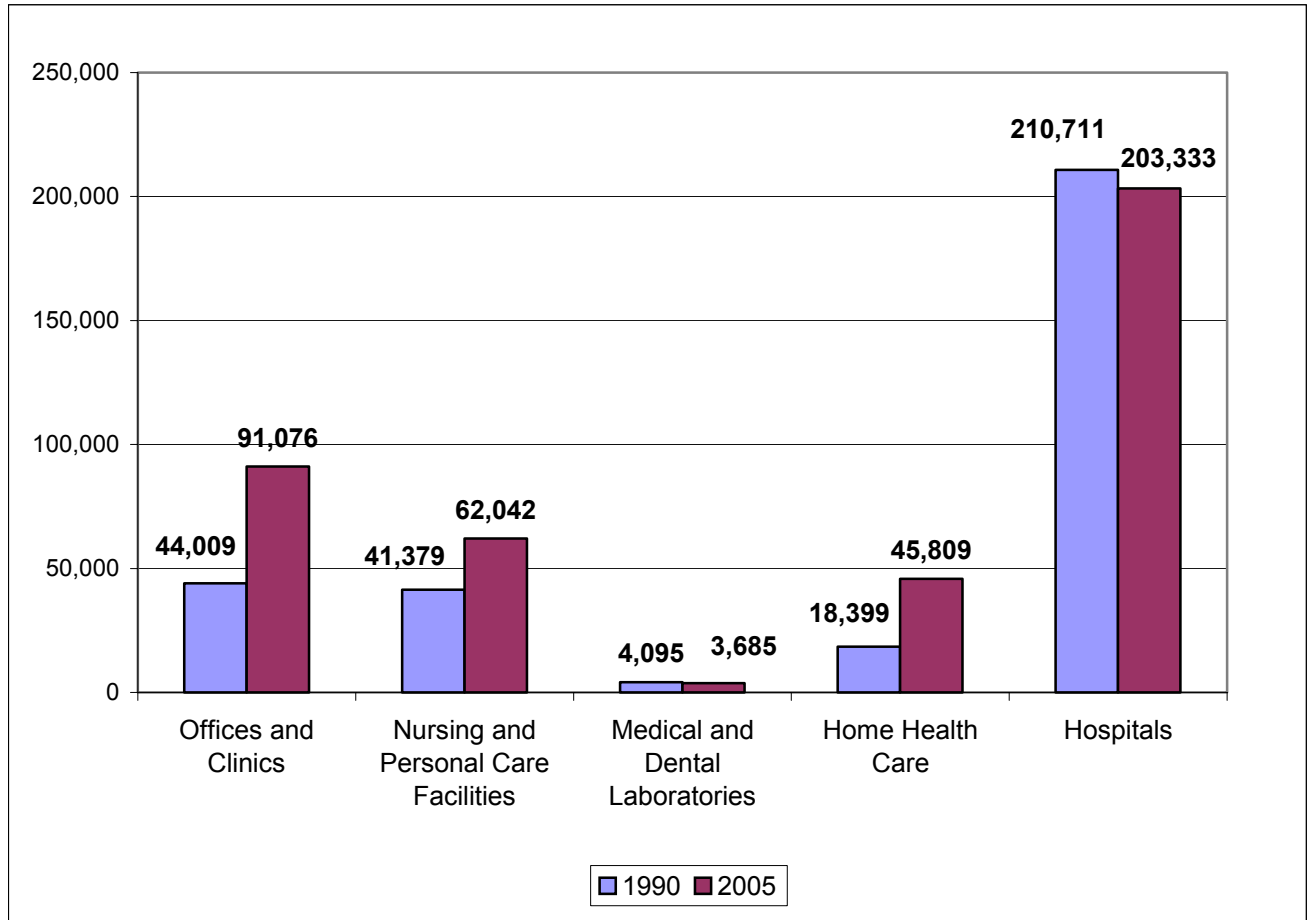
Between 1990 and 2005, health sector employment significantly increased in certain settings in New York City, including:

- Home health care, with an increase of 149%;
- Offices and clinics, with an increase of 107%; and
- Nursing and personal home care facilities, with an increase of 50%.

Hospital employment in New York City decreased by 4% between 1990 and 2005, 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 10% over the same period (Exhibit 37).



**Exhibit 37**  
**Number of Jobs by Health Care Setting in New York City,**  
**1990 and 2005**



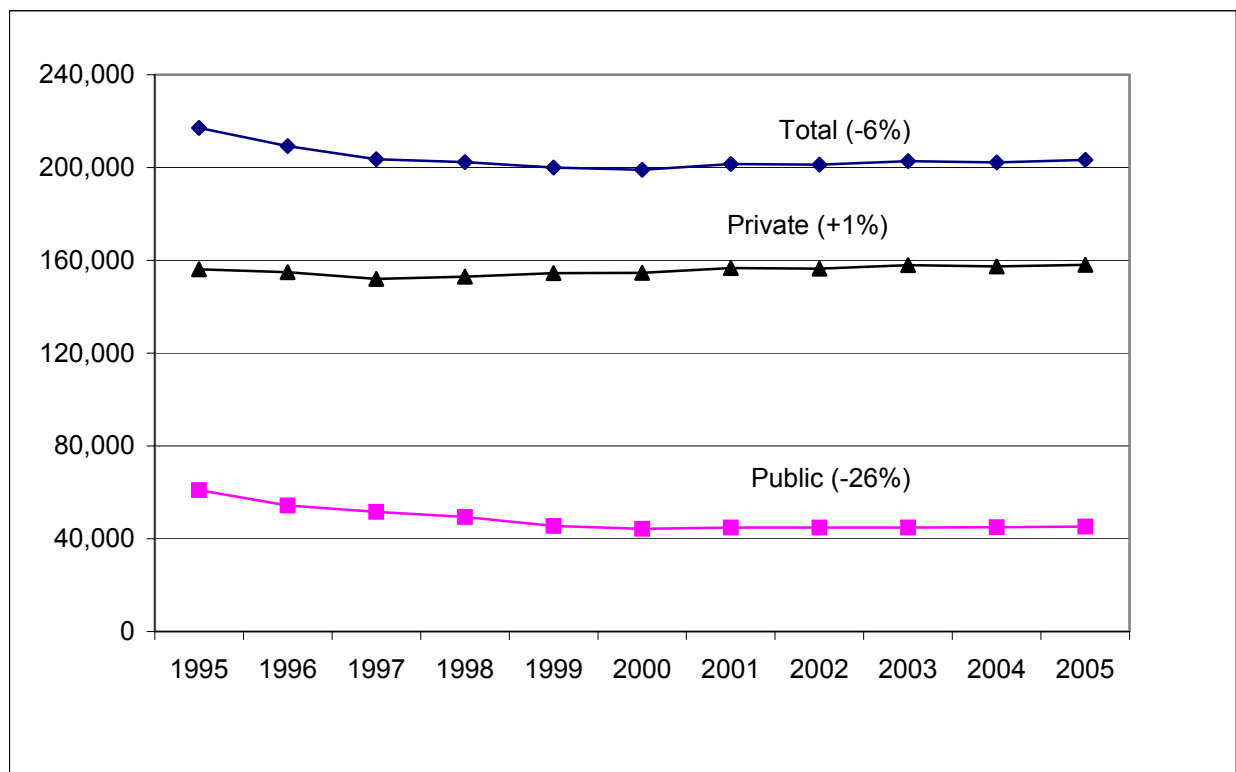
Source: NYS Department of Labor, ES-202

### 3. Hospital Employment Trends

Overall, hospital employment in New York City declined by almost 6% between 1995 and 2005, with private sector hospital jobs increasing by 1% and public sector hospital jobs decreasing by 26%.

In 1995, private sector hospital employment was two and a half times greater than public sector hospital employment. By 2005, private sector hospital employment was three and a half times greater than public sector hospital employment, due in large part to a substantial decline in public sector hospital employment between 1995 and 1999 (Exhibit 38).

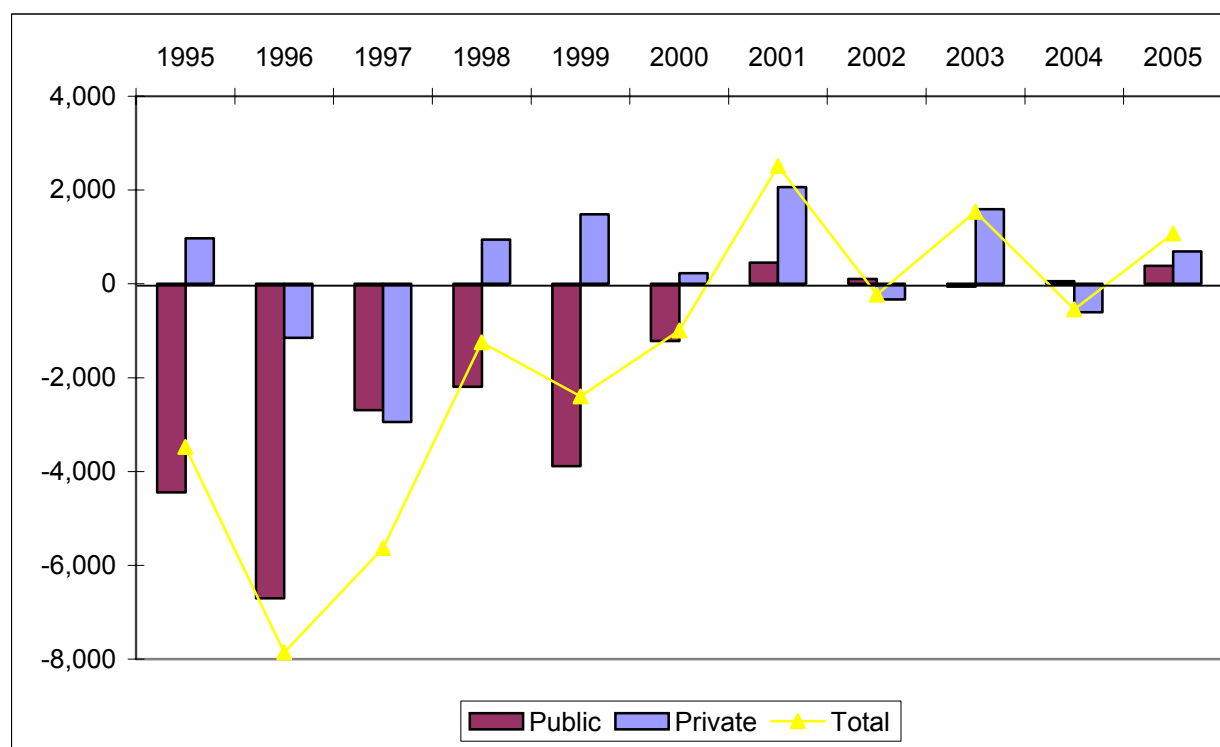
**Exhibit 38**  
**Trends in Hospital Employment for New York City, 1995 – 2005**



Source: NYS Department of Labor, ES-202

Between 1995 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 2005, overall hospital employment either increased or experienced small declines. Public hospital sector employment showed modest growth between 2000 and 2005, with a very slight decline in employment between 2002 and 2003. Private hospital sector growth had intervals of growth and decline between 2001 and 2005, with growth outpacing decline (Exhibit 39).

**Exhibit 39**  
**Annual Change from the Prior Year in Hospital Employment for New York City,**  
**Public and Private Employment, 1995 – 2005**



Source: NYS Department of Labor, ES-202

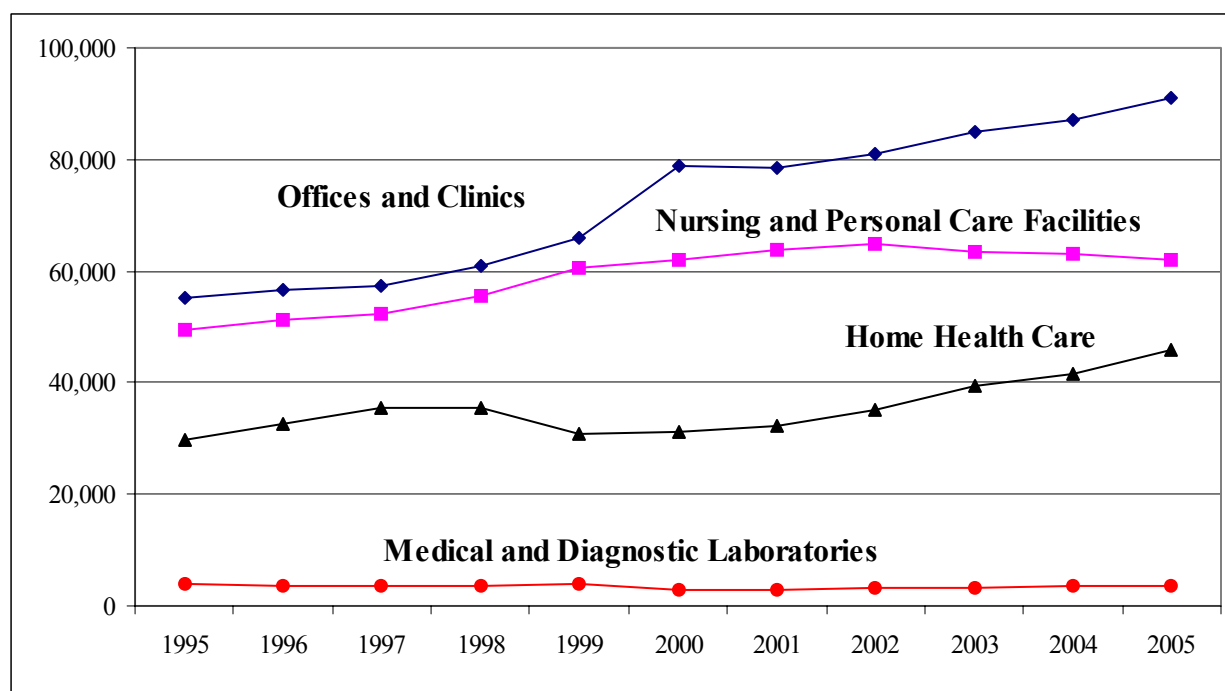
#### *4. Non-Hospital Employment Trends*

Between 1995 and 2005, the most significant health sector employment trends outside of hospitals were:

- A rise in home health care employment which increased by nearly 54%. After increases in home health care employment between 1995 and 1997, followed by two years of decline in 1998 and 1999, employment in home health care grew by more than 48% between 1999 and 2005;
- Increases in office and clinic employment which grew nearly 65%;

- Growth in employment in nursing and personal care facilities, with an increase of more than 25%; and
- A decline of employment in medical and dental diagnostic laboratories which decreased 2% (Exhibit 40).

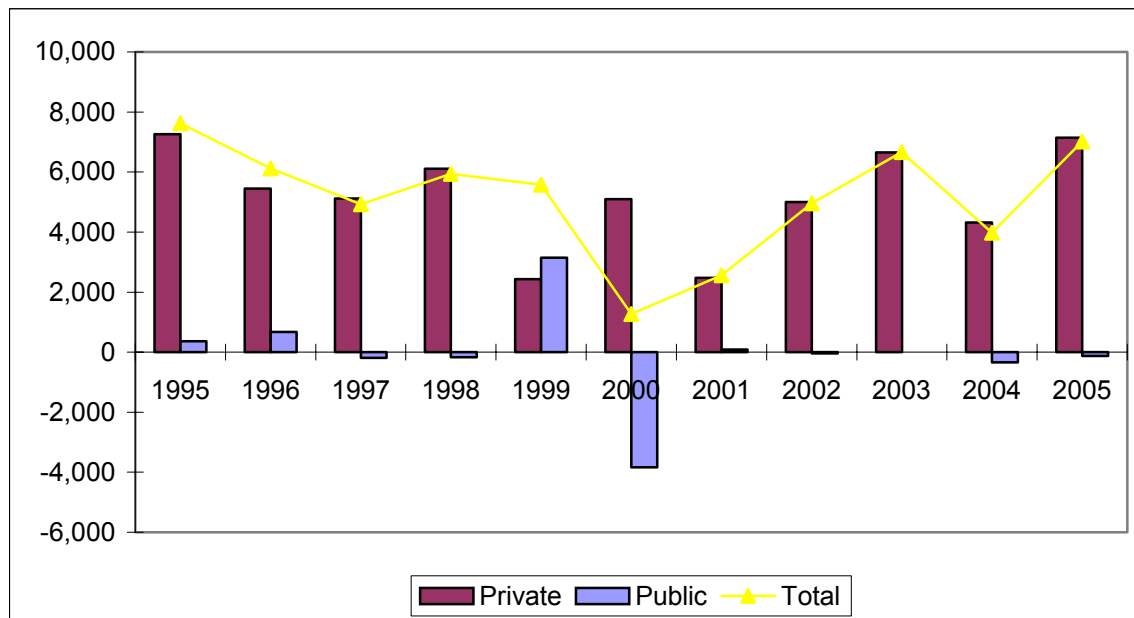
**Exhibit 40**  
**Trends in Non-Hospital Health Employment for New York City, 1995 – 2005**



Source: NYS Department of Labor, ES-202

Between 1995 and 2005, 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 5,000 new jobs each year between 1995 and 1998. While private employment in the non-hospital health sector continued to increase between 2000 and 2005, public employment in the non-hospital health sector dramatically declined in 2000 then remained relatively stable between 2001 and 2005. Between 2004 and 2005, private non-hospital health sector employment grew by more than 7,000 jobs, the largest increase since 1995 (Exhibit 41).

**Exhibit 41**  
**Annual Change from the Prior Year in Non-Hospital Health Care Employment**  
**for New York City, Public and Private, 1995 - 2005**



Source: NYS Department of Labor, ES-202

### 5. By Occupation

Between 2000 and 2005, changes in the number of health care jobs in New York City varied widely by occupation. While these data represented positions and not individuals or full time equivalents, they were useful in identifying trends in occupations or job titles.

Jobs for:

- RNs increased by nearly 20,000 or almost 25%;
- home health aides increased by more than 18,000 or nearly 30%;
- nursing aides, orderlies, and attendants increased by almost 13,500 or slightly more than 30%;
- medical and health service managers increased by 4,750 or nearly 52%;
- social workers increased by 4,220 or slightly more than 19%; and
- medical secretaries increased by nearly 6,000, or 120%.

Jobs for both dietetic technicians and radiological technicians and technologists decreased between 2000 and 2005 by 290 and 100, respectively. While these are not large declines in terms of absolute numbers, the reduction in dietetic technician jobs represents a 31% decline (Exhibit 42).

**Exhibit 42**  
**Number of Jobs in Selected Health Occupations for the New York City Primary  
Metropolitan Statistical Area<sup>12</sup>**

Occupation	2000	2001	2002	2003	2004	2005	Change, 2000 to 2005	
							Number	Percent
HEALTH CARE TECHNICIANS/TECHNOLOGISTS								
Cardiovascular Technologists and Technicians	930	1,240	1,440	1,800	1,880	1,960	1,030	110.8%
Medical and Clinical Laboratory Technologists	4,490	4,920	4,740	5,100	5,160	6,510	2,020	45.0%
Pharmacy Technicians	3,920	3,880	3,960	4,340	5,100	6,850	2,930	74.7%
Medical Records and Health Information Technicians	2,850	2,740	2,880	3,070	3,270	3,930	1,080	37.9%
Nuclear Medicine Technologists	550	500	490	510	460	660	110	20.0%
Medical and Clinical Laboratory Technicians	5,640	5,080	4,810	5,550	5,740	6,770	1,130	20.0%
Licensed Practical Nurses	20,690	18,400	21,210	20,370	22,830	22,860	2,170	10.5%
Dietetic Technicians	930	740	640	580	500	640	-290	-31.2%
Surgical Technologists	2,920	2,550	2,550	2,250	2,560	3,190	270	9.2%
Radiologic Technologists and Technicians	5,640	4,670	4,320	4,190	4,400	5,540	-100	-1.8%
HEALTH CARE PROFESSIONALS								
Physical Therapists	3,610	4,780	4,480	5,180	5,990	6,940	3,330	92.2%
Registered Nurses	79,260	77,740	81,190	79,990	83,240	99,010	19,750	24.9%
Pharmacists	5,560	7,080	6,790	5,950	6,230	7,630	2,070	37.2%
Dietitians and Nutritionists	2,340	2,220	2,350	2,190	2,100	2,350	10	0.4%
Respiratory Therapists	2,370	2,220	2,100	2,150	2,220	2,980	610	25.7%
Social Workers	22,060	18,890	20,120	21,340	20,760	26,280	4,220	19.1%
Dental Hygienists	N/A	5,250	3,390	3,080	3,600	3,900	N/A	N/A
MANAGEMENT/ADMINISTRATIVE SUPPORT								
Medical and Health Services Managers	9,220	10,440	10,540	12,260	13,110	13,970	4,750	51.5%
Medical Secretaries	4,930	3,990	5,140	4,210	3,880	10,850	5,920	120.1%
HEALTH CARE PARAPROFESSIONALS								
Nursing Aides, Orderlies, and Attendants	44,670	45,060	44,990	48,540	48,150	58,130	13,460	30.1%
Dental Assistants	6,980	7,760	8,780	8,730	7,230	9,330	2,350	33.7%
Medical Assistants	8,550	10,190	8,420	9,690	8,750	11,270	2,720	31.8%
Home Health Aides	61,960	60,590	55,090	55,200	56,170	80,280	18,320	29.6%

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 2005, the overall number of licensed health professionals in New York City increased with the largest percentage increases for speech-language pathologists (23%) and nurse practitioners (21%). The numbers of licensed physician assistants, occupational therapists, and physical therapists all grew by more than 10% over that same time period.

Several occupations decreased in size between 2002 and 2005. Pharmacists declined by 7% and licensed practical nurses by nearly 13%. The number of RNs showed virtually no growth over the same time period (Exhibit 43).

**Exhibit 43**  
**Changes in the Number of Licensed Individuals**  
**in Selected Health Service Professions for New York City, 2002 to 2005**

Profession	2002	2003	2004	2005	Change 2002 to 2005	
					Number	Percent
Speech-Language Pathologists	2,213	2,364	2,528	2,723	510	23.0%
Nurse Practitioners	1,929	2,098	2,197	2,331	402	20.8%
Registered Physician Assistants	1,945	2,098	2,186	2,284	339	17.4%
Occupational Therapists	1,930	2,128	2,177	2,237	307	15.9%
Physical Therapists	3,632	3,922	3,959	4,082	450	12.4%
Dietitians/Nutritionists	1,336	1,406	1,432	1,414	78	5.8%
Social Workers	14,810	15,033	15,156	15,488	678	4.6%
Dental Hygienists	1,435	1,428	1,434	1,464	29	2.0%
Occupational Therapy Assistants	824	833	834	839	15	1.8%
Registered Nurses	52,222	51,837	52,383	52,226	4	0.0%
Physical Therapy Assistants	1,013	1,023	997	982	-31	-3.1%
Respiratory Therapists	1,204	1,154	1,149	1,161	-43	-3.6%
Respiratory Therapist Technicians	522	455	441	495	-27	-5.2%
Pharmacists	5,084	5,201	4,679	4,728	-356	-7.0%
Licensed Practical Nurses	16,834	16,047	15,022	14,663	-2,171	-12.9%

Source: NYS Education Department, Office of Professions

## 7. Demand for Workers

### Hospitals

A small sample of hospitals in New York City indicated they had the most difficulty recruiting for pharmacists, experienced RNs, and respiratory therapists. Pharmacists were also the most difficult to retain, followed by radiologic technologists, and experienced RNs. Hospitals cited a shortage of workers in those occupations as the main reason for the difficulties. Hospitals in New York City also indicated they had the most problems hiring workers for the night shift and bi-lingual staff.

### Nursing Homes

Nursing homes in New York City reported the most difficulty recruiting both experienced and newly trained RNs and LPNs. They also indicated that retention of experienced RNs and LPNs was very problematic.

Nursing homes indicated the primary reason for these difficulties was the shortage of workers in these occupations, followed by competition for workers in these occupations (Exhibit 44).

**Exhibit 44**  
**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
Dietitians/Nutritionists	2.7	2.0	29%	14%	10%
Licensed Prac. Nurses	3.6	3.1	36%	32%	12%
Nursing Aides	1.4	1.4	0%	8%	0%
Occupational Therapists	2.3	1.8	25%	15%	5%
Physical Therapists	2.2	1.8	10%	15%	10%
Experienced RNs	4.2	3.2	44%	32%	24%
Newly Trained RNs	3.0	2.5	27%	18%	14%
Masters in Social Work	2.9	2.3	8%	8%	13%
Bachelors in Social Work	1.5	1.3	6%	13%	6%

Forty percent of the nursing homes reported the most difficulty hiring for evening shift positions, while nearly 30% reported difficulty hiring for the night shift. About one-third indicated that hiring part-time workers and bilingual workers was also problematic.



### *8. Projected Growth by Health Care Occupation*

According to the NYS Department of Labor, 12 of the top 25 fastest-growing occupations for the New York City region between 2002 and 2012 will be health care occupations (Exhibit 43).

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

- medical assistants (47.3%);
- physician assistants (45.5%);
- physical therapy assistants (45%);
- physical therapy aides (40.3%); and
- occupational therapy aides (36.7%).

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:

- registered nurses (3,220);
- home health aides (2,040);
- social workers (660); and
- licensed practical nurses (590).

**Exhibit 45**  
**Employment Projections for Health Care Occupations<sup>13</sup>**  
**for New York , including New York City, 2002 – 2012**

	2002	2012	Growth Between 2002 and 2012		Avg. Annual Openings
			Number	Percent	
Registered Nurses	72,980	89,940	16,960	23.2%	3,230
Home Health Aides	51,060	64,760	13,700	26.8%	2,040
Nursing Aides, Orderlies, and Attendants	41,180	47,980	6,800	16.5%	1,220
Social Workers	17,880	20,870	2,990	16.7%	600
Licensed Practical Nurses	16,540	18,820	2,280	13.8%	590
Medical Assistants	8,620	12,700	4,080	47.3%	570
Medical and Health Services Managers	10,750	12,960	2,210	20.6%	430
Dental Assistants	6,080	8,310	2,230	36.7%	380
Pharmacists	5,860	6,790	930	15.9%	200
Medical and Clinical Laboratory Technologists	4,590	5,210	620	13.5%	180
Medical and Clinical Laboratory Technicians	4,470	4,890	420	9.4%	160
Physical Therapists	3,850	4,990	1,140	29.6%	150
Physician Assistants	2,460	3,580	1,120	45.5%	150
Radiologic Technologists and Technicians	3,730	4,390	660	17.7%	140
Medical Records and Health Information Technicians	2,530	3,400	870	34.4%	130
Pharmacy Technicians	4,040	4,830	790	19.6%	130
Emergency Medical Technicians and Paramedics	3,990	4,670	680	17.0%	120
Respiratory Therapists	1,870	2,420	550	29.4%	120
Medical Secretaries	3,580	3,810	230	6.4%	90
Cardiovascular Technologists and Technicians	1,560	2,040	480	30.8%	80
Dietitians and Nutritionists	2,070	2,360	290	14.0%	80
Occupational Therapists	1,940	2,470	530	27.3%	80
Physical Therapy Assistants	1,310	1,860	550	42.0%	80

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2002 – 2012

<sup>13</sup> Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2002 and the projected number of jobs in those categories in 2012. 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 2000 and 2005, health care employment in the Capital District grew by almost 3,100 jobs, or nearly 6%. Jobs in ambulatory care settings increased by 10%, while jobs in nursing home and personal care facilities increased by 9%. Employment in home health care services declined by more than 9% during the same period (Exhibit 46).

**Exhibit 46**  
**Number of Workers by Health Care Setting in the Capital District**  
**between 2000 and 2005**

Setting	2000	2001	2002	2003	2004	2005	Change 2000 to 2005	
							Number	Percent
Hospitals	20,664	20,793	20,958	21,377	20,898	21,340	676	3.3%
Ambulatory Care (Excluding Home Health)	14,463	14,961	14,760	14,765	15,268	15,913	1,450	10.0%
Nursing Home and Personal Care Facilities	13,921	14,636	14,755	14,582	14,989	15,167	1,246	9.0%
Home Health Care Services	3,010	2,954	2,976	2,941	2,712	2,726	-284	-9.4%
<b>Totals</b>	52,057	53,345	53,450	53,666	53,868	55,146	3,089	5.9%

Source: NYS Department of Labor, ES-202

### 2. Licensed Health Professionals

The number of nurse practitioners in the Capital District grew by more than 15% between 2002 and 2005, followed by physician assistants and occupational therapists, which both grew by more than 11%. The number of pharmacists grew slightly between 2002 and 2005, and the Capital District was the only region in the state where the number of pharmacists increased.

The number of RNs grew slightly between 2002 and 2005, while the number of licensed practical nurses remained constant. There were slight decreases in the number of occupational therapy assistants and respiratory therapists. Physical therapy assistants declined by 4% (Exhibit 47).

**Exhibit 47**  
**Change in the Number of Selected Licensed Health Care Occupations<sup>14</sup>**  
**for the Capital District, 2002 to 2005**

Occupation	2002	2003	2004	2005	Change between 2002 and 2005	
					Number	Percent
Nurse Practitioners	512	550	581	590	78	15.2%
Physician Assistants	447	468	476	498	51	11.4%
Occupational Therapists	451	477	491	502	51	11.3%
Speech-Language Pathologists	709	730	754	777	68	9.6%
Social Workers	1,942	2,006	2,043	2,121	179	9.2%
Physical Therapists	863	906	926	932	69	8.0%
Dental Hygienists	740	758	760	777	37	5.0%
Dietitians/Nutritionists	258	270	273	267	9	3.5%
Registered Nurses	13,978	14,087	14,290	14,443	465	3.3%
Pharmacists	1,241	1,287	1,233	1,258	17	1.4%
Licensed Practical Nurses	4,976	4,995	4,924	4,976	0	0.0%
Occupational Therapy Assistants	315	331	328	313	-2	-0.6%
Respiratory Therapists	305	302	300	300	-5	-1.6%
Physical Therapy Assistants	397	406	398	381	-16	-4.0%

Source: NYS Education Department, Office of Professions

### *3. Employment Projections by Health Occupation*

The NYS Department of Labor estimated that between 2002 and 2012 the largest number of job openings in the Capital District will be for home health aides, at nearly 2,000 new jobs. This was a 32% increase in the number of total jobs and job openings (due to both growth and replacement) with 280 average annual job openings. Additionally, the number of RN jobs was projected to grow by more than 16% between 2002 and 2012, with 360 average annual job openings (Exhibit 48).

<sup>14</sup> Region was determined by the address of the licensee. It was unclear if this represented a home or practice address.

**Exhibit 48**  
**Employment Projections for the Top Ten Health Care Growth Occupations**  
**for the Capital District, 2002 – 2012**

	2002	2012	Growth Between 2002 and 2012		Avg. Annual Openings
			Number	Percent	
Registered Nurses	9,710	11,300	1,590	16.4%	360
Home Health Aides	6,140	8,130	1,990	32.4%	280
Nursing Aides, Orderlies, and Attendants	6,920	7,660	740	10.7%	160
Licensed Practical Nurses	3,010	3,280	270	9.0%	100
Social Workers	2,230	2,620	390	17.5%	80
Medical Assistants	900	1,380	480	53.3%	70
Medical and Health Services Managers	1,730	1,950	220	12.7%	50
Physical Therapists	860	1,160	300	34.9%	40
Dental Assistants	460	640	180	39.1%	30
Dental Hygienists	580	810	230	39.7%	30

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2002 - 2012

#### *4. Demand for Health Workers*

##### Hospitals

Hospitals in the Capital District reported the most difficulties recruiting experienced RNs, dietitians/nutritionists, and pharmacists. Newly trained RNs and LPNs were the most difficult to retain, followed by experienced RNs, and nursing aides. Nursing aides were significantly more difficult to retain than to recruit.

The primary reason cited for recruitment and retention difficulty was the competition for workers in the occupation. Shortages of workers were indicated for some of the occupations (Exhibit 49).

**Exhibit 49**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations in the Capital District**

<b>Occupation</b>	<b>Average Assessment of Difficulty</b>		<b>Percent of Respondents who Indicated Reasons for Difficulties</b>		
	<b>Recruitment</b>	<b>Retention</b>	<b>Shortage of Workers</b>	<b>Competition for Workers</b>	<b>Salary Levels</b>
Dietitians/Nutritionists	3.6	2.4	29%	43%	14%
Licensed Practical Nurses	3.0	3.0	14%	29%	14%
Nursing Aides	1.9	2.7	0%	40%	0%
Pharmacists	3.4	2.1	80%	80%	60%
Radiologic Technologists	2.4	1.9	17%	50%	17%
Experienced RNs	3.7	2.7	43%	43%	14%
Newly Trained RNs	3.0	3.0	43%	43%	0%
Respiratory Therapists	3.0	2.0	60%	60%	40%
Masters in Social Work	2.6	2.1	0%	0%	0%
Bachelors in Social Work	2.4	2.1	0%	0%	0%

Nearly 60% of the hospitals indicated they had difficulty hiring for evening shifts, and almost 60% indicated they had difficulties hiring for the night shift.

#### Nursing Homes

Nursing homes in the Capital District indicated they had the most difficulty recruiting experienced RNs, nursing aides, licensed practical nurses, and newly trained RNs. Nursing aides and experienced RNs were the most difficult occupations to retain.

Nursing homes indicated that competition for workers was the primary reason for recruitment and retention difficulties, though salary levels for experienced and newly trained RNs was also an issue (Exhibit 50).

**Exhibit 50**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in the Capital District**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties		
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels
Dietitians/Nutritionists	2.8	1.9	28%	33%	22%
Licensed Practical Nurses	3.8	2.8	42%	47%	37%
Nursing Aides	3.9	3.7	37%	53%	32%
Occupational Therapists	2.4	1.8	21%	29%	14%
Physical Therapists	2.5	1.6	21%	21%	14%
Experienced RNs	4.3	3.0	53%	53%	47%
Newly Trained RNs	3.3	2.8	38%	50%	50%
Respiratory Therapists	1.1	0.7	0%	0%	0%
Masters in Social Work	2.3	1.6	7%	14%	14%
Bachelors in Social Work	1.8	1.4	8%	17%	25%

Nearly 90% of nursing homes indicated they had difficulties hiring for the evening shift, while 74% reported difficulties hiring for the night shift.

### **C. Central New York**

#### *1. Employment by Setting*

Between 2000 and 2005, health care employment in the Central New York region grew by nearly 3,500 jobs, or more than 11%. Employment in nursing homes and personal care facilities increased by nearly 2,000 jobs, or 28%, while jobs in ambulatory care grew by more than 13%.

Hospital employment grew slightly while jobs in home health care declined by nearly 7% (Exhibit 51).

**Exhibit 51**  
**Number of Workers by Health Care Setting in Central New York**  
**Between 2000 and 2005**

Setting	2000	2001	2002	2003	2004	2005	Change 2000 to 2005	
							Number	Percent
Hospitals	11,194	11,417	11,300	11,187	11,273	11,394	200	1.8%
Ambulatory Care (Excluding Home Health)	10,748	11,475	11,357	11,609	11,722	12,159	1,411	13.1%
Nursing Home and Personal Care Facilities	6,983	6,991	7,339	7,267	8,080	8,935	1,952	28.0%
Home Health Care Services	1,473	1,382	1,318	1,278	1,221	1,373	-100	-6.8%
<b>Totals</b>	30,397	31,265	31,314	31,341	32,296	33,861	3,464	11.4%

Source: NYS Department of Labor, ES-202

*2. Licensed Health Professionals*

Between 2002 and 2005, the number of physician assistants increased by more than 18% in Central New York, while both physical therapists and occupational therapists experienced increases of 15% or more during the same period. The number of registered nurses increased by 4.6% between 2002 and 2005, and the number of licensed practical nurses grew by nearly 3% during the same period.

Pharmacists and dietitians/nutritionists declined by 2.4% and 7%, respectively (Exhibit 52).



**Exhibit 52**  
**Change in the Number of Licensed Health Care Occupations**  
**for Central New York, 2002 to 2005**

Occupation	2002	2003	2004	2005	Change between 2002 and 2005	
					Number	Percent
Physician Assistants	200	229	220	237	37	18.5%
Physical Therapists	505	520	551	583	78	15.4%
Occupational Therapists	227	248	225	261	34	15.0%
Speech-Language Pathologists	331	356	368	378	47	14.2%
Occupational Therapy Assistants	87	90	89	94	7	8.0%
Physical Therapy Assistants	170	181	180	179	9	5.3%
Registered Nurses	8,801	8,840	9,002	9,028	407	4.6%
Licensed Practical Nurses	4,188	4,176	4,089	4,295	107	2.6%
Social Workers	972	982	975	993	21	2.2%
Nurse Practitioners	810	847	814	823	13	1.6%
Respiratory Therapists	296	301	285	299	3	1.0%
Dental Hygienists	494	494	502	497	3	0.6%
Pharmacists	588	592	580	574	-14	-2.4%
Dietitians/Nutritionists	171	168	168	159	-12	-7.0%

Source: NYS Education Department, Office of Professions

### *3. Employment Projections by Health Occupation*

The NYS Department of Labor estimated that between 2002 and 2012, the number of RN jobs in the Central New York region will grow by nearly 1,500, with 300 average annual job openings. During the same period, there will be 130 average annual job openings for nursing aides and orderlies. The total number of home health aide jobs is projected to increase by 35.5%, with 120 average annual job openings (Exhibit 53).

**Exhibit 53**  
**Employment Projections for the Top Ten Health Care Growth Occupations**  
**for the Central New York Region, 2002-2012**

	2002	2012	Growth Between 2002 and 2012		Avg. Annual Openings
			Number	Percent	
Registered Nurses	6,950	8,440	1,490	21.4%	300
Nursing Aides, Orderlies, and Attendants	3,440	4,250	810	23.5%	130
Home Health Aides	2,450	3,320	870	35.5%	120
Licensed Practical Nurse	2,170	2,560	390	18.0%	90
Medical Assistants	830	1,250	420	50.6%	60
Social Workers	1,280	1,530	250	19.5%	50
Dental Assistants	550	750	200	36.4%	40
Medical and Health Services Managers	670	820	150	22.4%	30
Physical Therapists	520	710	190	36.5%	30
Radiologic Technologists and Technicians	680	830	150	22.1%	30

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2002 – 2012

### *4. Demand for Health Workers*

#### Hospitals

There were too few hospital respondents from the Central New York region to report any findings.

#### Nursing Homes

Nursing homes in Central New York reported the most difficulty recruiting nursing aides, occupational therapists, experienced RNs, and licensed practical nurses. Nursing aides were the most difficult to retain.

Nursing homes indicated that competition for workers was the primary reason for recruitment and retention difficulties, though salary levels for experienced and newly trained RNs was also an issue (Exhibit 54).

**Exhibit 54**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in Central 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
Dietitians/Nutritionists	1.7	1.0	25%	75%	25%
Licensed Practical Nurses	3.1	2.4	43%	29%	57%
Nursing Aides	3.7	2.9	43%	71%	43%
Occupational Therapists	3.7	1.9	71%	43%	14%
Physical Therapists	2.8	2.0	43%	43%	43%
Experienced RNs	3.4	2.3	67%	50%	67%
Newly Trained RNs	2.4	1.9	17%	17%	33%
Masters in Social Work	2.0	1.3	20%	0%	20%
Bachelors in Social Work	3.1	1.9	29%	14%	29%

More than 70% of the nursing homes in Central New York indicated difficulties hiring for the evening and the night shifts.

**D. Finger Lakes**

*1. Employment by Setting*

Health care employment in the Finger Lakes region grew by only 1% between 2000 and 2005, driven in large part by a reduction in home health care employment. Nursing home and personal care facilities and ambulatory care experienced job growth of 9.5% and 12.2%, respectively.

**Exhibit 55**  
**Number of Workers by Health Care Setting in the Finger Lakes**  
**between 2000 and 2005**

Setting	2000	2001	2002	2003	2004	2005	Change 2000 to 2005	
							Number	Percent
Hospitals	26,544	25,462	24,355	24,720	25,619	26,017	-527	-2.0%
Ambulatory Care (Excluding Home Health)	13,022	13,383	13,254	13,914	14,118	14,259	1,237	9.5%
Nursing Home and Personal Care Facilities	12,432	12,672	11,810	12,341	12,350	13,943	1,511	12.2%
Home Health Care Services	5,232	4,719	4,519	4,161	4,242	3,558	-1,674	-32.0%
<b>Totals</b>	57,230	56,236	53,938	55,135	56,329	57,777	547	1.0%

Source: NYS Department of Labor, ES-202

## *2. Licensed Health Professionals*

Between 2002 and 2005, the number of speech-language pathologists in the Finger Lakes grew by nearly 44%. The number of physician assistants and nurse practitioners grew by 15.3% and 13.6%, respectively. The number of registered nurses increased by over 200 or 4.6%.

The number of dietitians/nutritionists, pharmacists, respiratory therapists, occupational therapy assistants, and licensed practical nurses all declined between 2000 and 2005, with more than 430 fewer licensed practical nurses in 2005 than in 2002 (Exhibit 56).

**Exhibit 56**  
**Change in the Number of Licensed Health Care Occupations**  
**for the Finger Lakes Region, 2002 to 2005**

Occupation	2002	2003	2004	2005	Change between 2002 and 2005	
					Number	Percent
Speech-Language Pathologists	570	771	795	820	250	43.9%
Physician Assistants	405	426	444	467	62	15.3%
Nurse Practitioners	1,047	1,117	1,153	1,189	142	13.6%
Occupational Therapists	501	529	538	555	54	10.8%
Physical Therapists	765	814	820	842	77	10.1%
Physical Therapy Assistants	227	235	237	248	21	9.3%
Social Workers	1,652	1,707	1,727	1,765	113	6.8%
Registered Nurses	13,869	13,875	14,059	14,095	226	1.6%
Dental Hygienists	979	980	978	987	8	0.8%
Dietitians/Nutritionists	233	236	233	231	-2	-0.9%
Pharmacists	943	982	915	931	-12	-1.3%
Respiratory Therapists	256	237	235	248	-8	-3.1%
Occupational Therapy Assistants	218	220	208	207	-11	-5.0%
Licensed Practical Nurses	5,885	5,780	5,575	5,453	-432	-7.3%

Source: NYS Education Department, Office of Professions

## *3. Employment Projections by Health Occupation*

The number of RN jobs in the Finger Lakes region is projected to increase by nearly 1,800 between 2002 and 2012, with more than 410 average annual job openings. The NYS Department of Labor estimated there will be 290 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 57).

**Exhibit 57**  
**Employment Projections for the Top Eleven Health Care Growth Occupations**  
**for the Finger Lakes Region, 2002 – 2012**

	2002	2012	Growth Between 2002 and 2012		Avg. Annual Openings
			Number	Percent	
Registered Nurses	10,880	12,660	1,780	16.4%	410
Home Health Aides	7,080	9,070	1,990	28.1%	290
Nursing Aides, Orderlies, and Attendants	6,350	7,390	1,040	16.4%	180
Licensed Practical Nurses	3,770	4,010	240	6.4%	100
Social Workers	2,330	2,780	450	19.3%	80
Dental Assistants	910	1,090	180	19.8%	50
Medical and Health Services Managers	1,050	1,200	150	14.3%	40
Pharmacists	760	930	170	22.4%	40
Dental Hygienists	1,180	1,400	220	18.6%	30
Medical Assistants	590	810	220	37.3%	30
Speech Language Pathologists	830	960	130	15.7%	30

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2002 – 2012

#### *4. Demand for Health Workers*

##### Hospitals

Hospitals in the Finger Lakes indicated they had the most difficulties recruiting for experienced RNs, respiratory therapists, and pharmacists. Nursing aides, experienced RNs, and LPNs were the most difficult to retain. Nursing aides were harder to retain than to recruit.

Salary levels were the primary reason identified for the difficulties in recruitment and retention, with hospitals indicating the salary levels were especially important for recruiting and retaining pharmacists, nursing aides, and LPNs (Exhibit 58).

**Exhibit 58**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations in the Finger Lakes**

<b>Occupation</b>	<b>Average Assessment of Difficulty</b>		<b>Percent of Respondents who Indicated Reasons for Difficulties</b>		
	<b>Recruitment</b>	<b>Retention</b>	<b>Shortage of Workers</b>	<b>Competition for Workers</b>	<b>Salary Levels</b>
Dietitians/Nutritionists	2.0	1.5	33%	33%	33%
Licensed Practical Nurses	3.3	3.5	0%	0%	50%
Nursing Aides	2.5	3.8	25%	0%	50%
Pharmacists	3.5	2.3	33%	33%	67%
Radiologic Technologists	2.8	2.3	0%	67%	33%
Experienced RNs	4.3	3.8	50%	50%	50%
Newly Trained RNs	2.5	3.0	25%	75%	25%
Respiratory Therapists	3.8	2.5	50%	25%	25%
Masters in Social Work	2.3	1.5	0%	0%	33%
Bachelors in Social Work	2.3	1.5	0%	0%	33%

All the hospitals that responded to the survey indicated they had difficulties hiring for the evening and for the night shifts.

**Nursing Homes**

Nursing homes in the Finger Lakes indicated most difficulty recruiting experienced RNs, LPNs, and nursing aides. Nursing aides and LPNs were the most difficult to retain. Nursing aides were somewhat more difficult to retain than to recruit.

Nursing homes indicated that competition for workers in the specific occupation was the primary reason for these recruitment and retention difficulties (Exhibit 59).

**Exhibit 59**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in the Finger Lakes**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties		
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels
Dietitians/Nutritionists	1.2	0.8	0%	0%	0%
Licensed Practical Nurses	4.0	3.3	17%	50%	25%
Nursing Aides	3.3	3.8	25%	33%	25%
Occupational Therapists	1.7	1.2	43%	29%	14%
Physical Therapists	1.8	1.2	29%	29%	0%
Experienced RNs	4.3	2.1	17%	50%	25%
Newly Trained RNs	2.3	1.3	0%	22%	22%
Masters in Social Work	1.7	1.0	0%	0%	0%
Bachelors in Social Work	1.5	1.0	0%	0%	0%

Three-quarters of the nursing homes reported difficulty hiring staff for the evening and night shifts. One-third indicated difficulty hiring bilingual staff.

**E. Hudson Valley**

*1. Employment by Setting*

Health care employment in the Hudson Valley region increased by 5.5% between 2000 and 2005. Nursing and personal care facilities experienced the largest job growth at more than 15%, while employment in home health care grew by 13.5%. Employment in hospitals declined by more than 1,000 jobs, or 2.5%, over the same time period (Exhibit 60).

**Exhibit 60**  
**Number of Workers by Health Care Setting in the Hudson Valley Region**  
**between 2000 and 2005**

Setting	2000	2001	2002	2003	2004	2005	Change 2000 to 2005	
							Number	Percent
Hospitals	39,672	39,649	39,511	39,266	38,979	38,663	-1,009	-2.5%
Ambulatory Care (Excluding Home Health)	34,084	34,962	34,038	34,861	35,218	36,603	2,519	7.4%
Nursing Home and Personal Care Facilities	20,703	20,569	21,058	21,780	23,590	23,883	3,180	15.4%
Home Health Care Services	6,138	5,675	5,696	6,345	6,351	6,966	828	13.5%
<b>Totals</b>	100,596	100,855	100,302	102,252	104,116	106,115	5,519	5.5%

Source: NYS Department of Labor, ES-202

## *2. Licensed Health Professionals*

The number of nurse practitioners in the Hudson Valley region rose more than 21% between 2002 and 2005, while the number of physician assistants increased by nearly 17%. The numbers of occupational therapy assistants, physical therapists, and speech-language pathologists all grew by more than 10% during the same period. The number of registered nurses increased by nearly 400, or 1.3%.

The number licensed practical nurses and the number of pharmacists declined between 2000 and 2005 (Exhibit 61).



**Exhibit 61**  
**Change in the Number of Licensed Health Care Occupations**  
**for the Hudson Valley Region, 2002 to 2005**

Occupation	2002	2003	2004	2005	Change between 2002 and 2005	
					Number	Percent
Nurse Practitioners	1,239	1,353	1,405	1,505	266	21.5%
Physician Assistants	549	597	599	642	93	16.9%
Occupational Therapy Assistants	547	592	599	613	66	12.1%
Physical Therapists	1,919	2,030	2,084	2,121	202	10.5%
Speech-Language Pathologists	1,352	1,396	1,457	1,489	137	10.1%
Occupational Therapists	1,079	1,166	1,176	1,183	104	9.6%
Social Workers	6,153	6,312	6,402	6,539	386	6.3%
Dental Hygienists	988	1,011	1,024	1,041	53	5.4%
Physical Therapy Assistants	428	439	446	441	13	3.0%
Respiratory Therapists	574	570	565	585	11	1.9%
Dietitians/Nutritionists	659	684	687	669	10	1.5%
Registered Nurses	29,387	29,389	29,737	29,758	371	1.3%
Licensed Practical Nurses	7,749	7,595	7,310	7,501	-248	-3.2%
Pharmacists	2,091	2,135	1,984	1,961	-130	-6.2%

Source: NYS Education Department, Office of Professions

### *3. Employment Projections by Health Occupation*

The NYS Department of Labor estimated that between 2002 and 2012 there will be more than 2,700 new jobs in the Hudson Valley region for RNs, with 640 average annual job openings. During the same period, home health aide jobs are projected to increase by nearly 3,300, with almost 500 average annual job openings. The number of nursing aide, orderly, and attendant jobs is projected to increase by nearly 1,100, with 240 average annual job openings (Exhibit 62).

**Exhibit 62**  
**Employment Projections for the Top Eleven Health Care Growth Occupations**  
**for the Hudson Valley Region, 2002 – 2012**

	2002	2012	Growth Between 2002 and 2012		Avg. Annual Openings
			Number	Percent	
Registered Nurses	17,180	19,930	2,750	16.0%	640
Home Health Aides	12,200	15,460	3,260	26.7%	490
Nursing Aides, Orderlies, and Attendants	9,780	10,850	1,070	10.9%	240
Licensed Practical Nurses	5,340	5,900	560	10.5%	180
Social Workers	4,100	5,020	920	22.4%	170
Dental Assistants	2,810	3,520	710	25.3%	150
Medical and Health Services Managers	2,210	2,570	360	16.3%	80
Emergency Medical Technicians and Paramedics	1,350	1,720	370	27.4%	60
Physical Therapists	1,670	2,100	430	25.7%	60
Dental Hygienists	1,430	1,800	370	25.9%	50
Medical Records and Health Information Technicians	900	1,250	350	38.9%	50

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2002 - 2012

#### *4. Demand for Health Workers*

##### Hospitals

Hospitals in the Hudson Valley region reported the most difficulty recruiting pharmacists and RNs. Pharmacists were also the most difficult to retain, followed by experienced and newly trained RNs. Salary levels were cited for these occupations as the primary reason for the recruitment and retention difficulty (Exhibit 63).

**Exhibit 63**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations in the Hudson Valley Region**

<b>Occupation</b>	<b>Average Assessment of Difficulty</b>		<b>Percent of Respondents who Indicated Reasons for Difficulties</b>		
	<b>Recruitment</b>	<b>Retention</b>	<b>Shortage of Workers</b>	<b>Competition for Workers</b>	<b>Salary Levels</b>
Dietitians/Nutritionists	3.2	2.0	20%	0%	20%
Licensed Practical Nurses	3.0	2.2	50%	25%	0%
Nursing Aides	2.6	2.2	20%	0%	0%
Pharmacists	4.8	4.0	40%	80%	60%
Radiologic Technologists	3.0	3.0	20%	40%	0%
Experienced RNs	4.4	3.2	40%	40%	60%
Newly Trained RNs	2.8	3.2	40%	60%	60%
Respiratory Therapists	3.0	3.0	0%	40%	0%
Master's in Social Work	2.8	2.6	0%	0%	0%
Bachelor's in Social Work	1.4	1.4	0%	0%	0%

Eighty percent of the hospitals in the Hudson Valley region reported difficulty hiring staff for the night shift. Forty percent reported difficulty hiring bilingual staff and part-time staff.

#### Nursing Homes

Nursing homes in the Hudson Valley region cited the most difficulty recruiting experienced RNs, LPNs, and newly trained RNs and LPNs. LPNs were the most difficult to retain, followed by nursing aides, and experienced RNs.

Competition for workers and general shortages of workers were identified as the primary reasons for the recruitment and retention difficulties. Salary levels were thought to contribute to the recruitment and retention difficulties for RNs and physical therapists (Exhibit 64).

**Exhibit 64**  
**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
Dietitians/Nutritionists	2.2	1.1	20%	0%	10%
Licensed Practical Nurses	4.1	3.0	46%	46%	23%
Nursing Aides	3.2	2.9	31%	23%	8%
Occupational Therapists	1.7	1.5	25%	25%	13%
Physical Therapists	2.5	1.4	11%	44%	44%
Experienced RNs	4.3	2.8	33%	42%	42%
Newly Trained RNs	3.2	2.1	30%	40%	30%
Masters in Social Work	1.8	1.4	0%	0%	13%
Bachelors in Social Work	1.5	1.0	0%	0%	0%

Nearly 85% of nursing homes in the Hudson Valley region reported difficulty hiring for the night shift and 46% cited difficulty hiring for the evening shift.

**F. Long Island**

*1. Employment by Setting*

Health care employment in the Long Island region grew by over 10%, adding more than 12,800 jobs between 2000 and 2005. Employment in nursing and personal care facilities grew the most with nearly 5,600 jobs. There was also modest growth in hospital and home health care service employment (Exhibit 65).

**Exhibit 65**  
**Number of Workers by Health Care Setting for Long Island**  
**between 2000 and 2005**

Setting	2000	2001	2002	2003	2004	2005	Change 2000 to 2005	
							Number	Percent
Hospitals	45,263	45,854	46,939	47,181	47,475	46,334	1,071	2.40%
Ambulatory Care (Excluding Home Health)	50,939	52,661	53,287	54,217	54,768	56,525	5,586	10.97%
Nursing Home and Personal Care Facilities	18,858	18,363	20,376	20,947	22,427	24,448	5,590	29.60%
Home Health Care Services	10,307	10,691	10,773	10,833	10,919	10,868	561	5.40%
<b>Totals</b>	125,368	127,569	131,376	133,177	133,589	138,175	12,807	10.2%

Source: NYS Department of Labor, ES-202

## *2. Licensed Health Professionals*

Between 2002 and 2005, the number of physician assistants in Long Island increased by nearly 27%, while the number of nurse practitioners increased by more than 25%. The number of occupational therapists and the number of physical therapists both grew by more than 12% during the same period.

Between 2002 and 2005, the number of RNs grew by nearly 2%, while the number of pharmacists declined by nearly 2%, and the number of licensed practical nurses decreased by almost 9% (Exhibit 66).

**Exhibit 66**  
**Change in the Number of Licensed Health Care Occupations**  
**for Long Island, 2002 to 2005**

Occupation	2002	2003	2004	2005	Change between 2002 and 2005	
					Number	Percent
Physician Assistants	1,158	1,252	1,350	1,465	307	26.5%
Nurse Practitioners	1,784	2,034	2,103	2,236	452	25.3%
Occupational Therapists	1,403	1,532	1,579	1,618	215	15.3%
Physical Therapists	2,621	2,824	2,855	2,935	314	12.0%
Speech-Language Pathologists	2,392	2,400	2,533	2,629	237	9.9%
Occupational Therapy Assistants	293	317	323	320	27	9.2%
Social Workers	7,325	7,475	7,553	7,742	417	5.7%
Physical Therapy Assistants	850	878	886	878	28	3.3%
Dental Hygienists	1,611	1,636	1,634	1,647	36	2.2%
Registered Nurses	35,986	36,155	36,598	36,668	682	1.9%
Respiratory Therapists	808	803	793	820	12	1.5%
Dietitians/Nutritionists	867	820	885	869	2	0.2%
Pharmacists	3,449	3,556	3,371	3,387	-62	-1.8%
Licensed Practical Nurses	9,866	9,626	9,223	9,006	-860	-8.7%

Source: NYS Education Department, Office of Professions

## *3. Employment Projections by Health Occupation*

The NYS Department of Labor estimated that between 2002 and 2012 there will be nearly 4,600 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 6,100 with 830 average annual job openings. Employment of medical assistants will grow by nearly 44% with more than 2,200 average annual job openings during the same time period (Exhibit 67).

**Exhibit 67**  
**Employment Projections for the Top Ten Health Care Growth Occupations**  
**for Long Island, 2002 – 2012**

	2002	2012	Growth Between 2002 and 2012		Avg. Annual Openings
			Number	Percent	
Registered Nurses	22,570	27,160	4,590	20.3%	930
Home Health Aides	16,460	22,590	6,130	37.2%	830
Medical Assistants	5,150	7,400	2,250	43.7%	330
Nursing Aides, Orderlies, and Attendants	11,700	13,150	1,450	12.4%	300
Licensed Practical Nurses	5,870	6,490	620	10.6%	190
Social Workers	3,680	4,840	1,160	31.5%	190
Dental Assistants	3,340	4,280	940	28.1%	180
Medical and Health Services Managers	2,590	3,150	560	21.6%	110
Dental Hygienists	2,170	2,780	610	28.1%	80
Radiologic Technologists and Technicians	2,040	2,460	420	20.6%	80

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2002 – 2012

#### *4. Demand for Health Workers*

##### Hospitals

There were too few hospital respondents from the Long Island region to report any findings.

##### Nursing Homes

Nursing homes on Long Island reported the most difficulty recruiting experienced RNs, LPNs, and newly trained RNs. Competition for workers and general worker shortages were the primary reasons cited for the recruitment and retention difficulties in these occupations (Exhibit 68).

**Exhibit 68**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations on Long Island**

<b>Occupation</b>	<b>Average Assessment of Difficulty</b>		<b>Percent of Respondents who Indicated Reasons for Difficulties</b>		
	<b>Recruitment</b>	<b>Retention</b>	<b>Shortage of Workers</b>	<b>Competition for Workers</b>	<b>Salary Levels</b>
Dietitians/Nutritionists	2.8	1.6	0%	29%	0%
Licensed Practical Nurses	4.1	3.3	63%	63%	0%
Nursing Aides	3.1	2.4	13%	38%	0%
Occupational Therapists	3.3	2.6	57%	57%	29%
Physical Therapists	3.3	2.4	29%	57%	14%
Experienced RNs	4.4	3.4	63%	75%	25%
Newly Trained RNs	3.5	3.3	63%	75%	13%
Respiratory Therapists	1.4	1.0	0%	0%	0%
Masters in Social Work	2.4	2.3	14%	29%	29%

Three-quarters of the nursing homes on Long Island cited difficulties in hiring evening staff, and 63% indicated difficulties in hiring night staff.

**G. Mohawk Valley**

*1. Employment by Setting*

Health care employment in the Mohawk Valley increased by nearly 8% between 2000 and 2005. Employment in all health care settings rose except for hospitals where there was a slight decline in the number of jobs.

Jobs in nursing homes and personal care facilities increased by almost 15%, jobs in ambulatory care grew by nearly 14%, and jobs in home health care grew by more than 12% (Exhibit 69).

**Exhibit 69**  
**Number of Workers by Health Care Setting in the Mohawk Valley**  
**between 2000 and 2005**

Setting	2000	2001	2002	2003	2004	2005	Change 2000 to 2005	
							Number	Percent
Hospitals	9,507	9,624	9,330	9,414	9,466	9,461	-46	-0.5%
Ambulatory Care (Excluding Home Health)	4,800	4,819	4,840	5,099	5,315	5,456	656	13.7%
Nursing Home and Personal Care Facilities	6,298	6,373	6,529	6,482	6,444	7,222	924	14.7%
Home Health Care Services	1,081	1,008	1,052	1,076	1,080	1,212	131	12.1%
<b>Totals</b>	21,687	21,823	21,751	22,070	22,304	23,351	1,664	7.7%

Source: NYS Department of Labor, ES-202

## *2. Licensed Health Professionals*

Between 2002 and 2005, the number of dietitians/nutritionists in the Mohawk Valley increased more than 24%, and the number of speech-language pathologists grew more than 13%. The number of physician assistants, nurse practitioners, and occupational therapists all increased by more than 10% in the same time period. The number of registered nurses grew by 180 or 3% between 2002 and 2005.

The number of licensed practical nurses declined slightly between 2002 and 2005. The numbers of occupational therapy assistants, pharmacists, and physical therapists dropped by almost 7%, 7%, and 6%, respectively (Exhibit 70).



**Exhibit 70**  
**Change in the Number of Licensed Health Care Occupations**  
**for the Mohawk Valley, 2002 to 2005**

Occupation	2002	2003	2004	2005	Change between 2002 and 2005	
					Number	Percent
Dietitians/Nutritionists	62	62	72	77	15	24.2%
Speech-Language Pathologists	156	156	174	179	23	14.7%
Physician Assistants	108	109	110	120	12	11.1%
Nurse Practitioners	334	344	354	370	36	10.8%
Occupational Therapists	280	293	294	309	29	10.4%
Social Workers	513	532	529	546	33	6.4%
Physical Therapists	289	309	302	307	18	6.2%
Respiratory Therapists	141	138	140	149	8	5.7%
Dental Hygienists	276	277	277	286	10	3.6%
Registered Nurses	6,092	6,113	6,192	6,272	180	3.0%
Licensed Practical Nurses	3,511	3,497	3,420	3,492	-19	-0.5%
Physical Therapist Assistants	195	186	184	184	-11	-5.6%
Pharmacists	442	437	415	413	-29	-6.6%
Occupational Therapy Assistants	195	193	192	182	-13	-6.7%

Source: NYS Education Department, Office of Professions

*3. Employment Projections by Health Occupation*

The NYS Department of Labor estimated that between 2002 and 2012 there will be nearly 600 new jobs for RNs in the Mohawk Valley region, with 140 average annual job openings. Total jobs for home health aides will increase by almost 23%, with 110 average annual job openings (Exhibit 71).

**Exhibit 71**  
**Employment Projections for the Top Eight Health Care Growth Occupations**  
**for the Mohawk Valley Region, 2002 – 2012**

	2002	2012	Growth Between 2002 and 2012		Avg. Annual Openings
			Number	Percent	
Registered Nurses	3,990	4,570	580	14.5%	140
Home Health Aides	3,180	3,900	720	22.6%	110
Nursing Aides, Orderlies, and Attendants	3,470	3,900	430	12.4%	90
Licensed Practical Nurses	2,160	2,300	140	6.5%	60
Social Workers	680	850	170	25.0%	40
Dental Assistants	420	520	100	23.8%	20
Medical and Health Services Managers	360	410	50	13.9%	20
Pharmacists	350	420	70	20.0%	20

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2002 – 2012

#### 4. Demand for Health Workers

##### Hospitals

Hospitals in the Mohawk Valley indicated difficulty recruiting pharmacists, dietitians/nutritionists, and experienced RNs. Nursing aides and newly trained RNs were the most difficult to retain. It was more difficult to retain nursing aides and newly trained RNs than recruit them.

A shortage of workers and competition for workers were cited as the primary reasons for these recruitment and retention problems (Exhibit 72).

**Exhibit 72**  
**Recruitment and Retention Difficulties for Hospitals**  
**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
Dietitians/Nutritionists	3.8	2.6	40%	40%	0%
Licensed Practical Nurses	2.8	2.4	20%	20%	0%
Nursing Aides	3.0	3.8	40%	20%	20%
Pharmacists	4.0	2.6	75%	25%	0%
Radiologic Technologists	3.2	2.2	50%	25%	0%
Experienced RNs	3.8	2.8	40%	40%	0%
Newly Trained RNs	2.4	3.2	20%	40%	0%
Respiratory Therapists	3.2	1.8	25%	0%	0%
Masters in Social Work	3.0	2.0	25%	25%	0%
Bachelors in Social Work	3.0	2.0	25%	25%	0%

More than half of the hospitals in the Mohawk Valley reported difficulty hiring workers for the night shift.

##### Nursing Homes

Nursing homes in the Mohawk Valley reported the most difficulty recruiting experienced RNs, occupational therapists, physical therapists, and LPNs. Physical therapists were the most difficult to retain, followed by newly trained RNs, and nursing aides. It was slightly more difficult to retain nursing aides and newly trained RNs than to recruit them.

Salary levels and competition for workers were cited as the primary reasons for recruitment and retention difficulties (Exhibit 73).

**Exhibit 73**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in the Mohawk Valley**

<b>Occupation</b>	<b>Average Assessment of Difficulty</b>		<b>Percent of Respondents who Indicated Reasons for Difficulties</b>		
	<b>Recruitment</b>	<b>Retention</b>	<b>Shortage of Workers</b>	<b>Competition for Workers</b>	<b>Salary Levels</b>
Dietitians/Nutritionists	3.2	2.5	44%	33%	33%
Licensed Practical Nurses	3.5	3.1	40%	60%	60%
Nursing Aides	3.2	3.3	40%	60%	60%
Occupational Therapists	4.0	3.1	30%	30%	30%
Physical Therapists	4.0	3.5	40%	40%	50%
Experienced RNs	4.2	3.2	40%	60%	30%
Newly Trained RNs	3.3	3.4	30%	60%	30%
Respiratory Therapists	1.7	0.8	25%	0%	25%
Masters in Social Work	2.0	1.6	0%	0%	33%
Bachelors in Social Work	2.0	2.0	0%	0%	33%

More than three-quarters of nursing homes reported difficulty hiring for the evening or the night shifts.

## **H. North Country**

### *1. Employment by Setting*

Total health care employment in the North Country grew by nearly 13% between 2000 and 2005, adding more than 1,900 jobs. Employment in hospitals increased by more than 1,200 jobs or 17.5%, while employment in home care services grew by more than 12% with an increase of 66 jobs. Employment in ambulatory care increased more than 10%, adding almost 400 jobs (Exhibit 74).

**Exhibit 74**  
**Number of Workers by Health Care Setting in the North Country**  
**between 2000 and 2005**

Setting	2000	2001	2002	2003	2004	2005	Change 2000 to 2005	
							Number	Percent
Hospitals	7,133	7,881	8,066	8,386	8,399	8,381	1,248	17.5%
Ambulatory Care (Excluding Home Health)	3,856	4,037	4,161	4,189	4,265	4,254	398	10.3%
Nursing Home and Personal Care Facilities	3,263	2,961	3,250	3,192	3,340	3,463	200	6.1%
Home Health Care Services	540	495	512	553	577	606	66	12.2%
<b>Totals</b>	14,792	15,375	15,988	16,321	16,580	16,704	1,912	12.9%

Source: NYS Department of Labor, ES-202

## *2. Licensed Health Professionals*

Between 2002 and 2005, the number of occupational therapists in the North Country increased by 23%, while the number of licensed occupational therapy assistants grew by slightly more than 22%. The numbers of physician assistants, speech-language pathologists, social workers, dietitians/nutritionists, and physical therapists grew by 10% or more during the same time period. The number of registered nurses grew by nearly 160 or 3.5% between 2002 and 2005.

The number of licensed practical nurses, respiratory therapists, and pharmacists all declined between 2002 and 2005 (Exhibit 75).

**Exhibit 75**  
**Change in the Number of Licensed Health Care Occupations**  
**for the North Country, 2002 to 2005**

Occupation	2002	2003	2004	2005	Change between 2002 and 2005	
					Number	Percent
Occupational Therapists	100	116	120	123	23	23.0%
Occupational Therapy Assistants	54	60	65	66	12	22.2%
Physician Assistants	132	130	145	158	26	19.7%
Speech-Language Pathologists	158	171	182	184	24	15.2%
Social Workers	287	304	307	321	34	11.8%
Dietitians/Nutritionists	69	73	78	77	8	11.6%
Physical Therapists	233	253	250	257	24	10.3%
Physical Therapy Assistants	121	131	131	131	10	8.3%
Nurse Practitioners	180	185	185	190	10	5.6%
Registered Nurses	4,508	4,557	4,636	4,665	157	3.5%
Dental Hygienists	195	200	196	200	5	2.6%
Licensed Practical Nurses	2,498	2,483	2,424	2,488	-10	-0.4%
Pharmacists	300	307	294	294	-6	-2.0%
Respiratory Therapists	66	63	61	64	-2	-3.0%

Source: NYS Education Department, Office of Professions

*3. Employment Projections by Health Occupation*

The NYS Department of Labor estimated that between 2002 and 2012 the number of jobs for RNs in the North Country will grow by more than 17%, with 140 average annual job openings. During the same period, home health aide jobs are projected to increase by more than 800 jobs (42.5%), with 120 average annual job openings (Exhibit 76).

**Exhibit 76**  
**Employment Projections for the Top Seven Health Care Growth Occupations**  
**for the North Country Region, 2002 – 2012**

	2002	2012	Growth Between 2002 and 2012		Avg. Annual Openings
			Number	Percent	
Registered Nurses	3,610	4,230	620	17.2%	140
Home Health Aides	2,920	3,750	830	28.4%	120
Licensed Practical Nurses	1,310	1,460	150	11.5%	50
Nursing Aides, Orderlies, and Attendants	1,740	1,940	200	11.5%	40
Dental Assistants	240	290	50	20.8%	20
Medical and Health Services Managers	360	430	70	19.4%	20
Psychiatric Aides	550	620	70	12.7%	20

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2002 – 2012

#### 4. Demand for Health Workers

##### Hospitals

Hospitals in the North Country reported the most difficulty recruiting experienced RNs, dietitians/nutritionists, and pharmacists. Nursing aides were the most difficult to retain, followed by experienced RNs. Nursing aides were substantially more difficult to retain than recruit.

A shortage of workers and competition for workers were cited as the primary reasons for these recruitment and retention problems.

**Exhibit 77**  
**Recruitment and Retention Difficulties for Hospitals**  
**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
Dietitians/Nutritionists	4.1	2.0	63%	25%	0%
Licensed Practical Nurses	3.0	2.9	63%	25%	38%
Nursing Aides	2.9	3.8	38%	25%	38%
Pharmacists	4.1	2.7	86%	57%	43%
Radiologic Technologists	3.3	2.6	57%	57%	14%
Experienced RNs	4.8	3.3	63%	50%	25%
Newly Trained RNs	3.0	2.9	50%	63%	25%
Respiratory Therapists	3.9	2.8	100%	57%	29%
Masters in Social Work	3.4	2.6	67%	33%	0%
Bachelors in Social Work	2.4	2.2	20%	60%	0%

Seventy percent of the hospitals reported difficulty hiring workers for the night shift, while 60% reported difficulty hiring evening shift or part-time workers.

##### Nursing Homes

Nursing homes in the North Country reported the most difficulty recruiting experienced RNs, dietitians/nutritionists, and physical therapists. Nursing aides were the most difficult to retain, followed by newly trained RNs and experienced RNs. Nursing aides were more difficult to retain than recruit.

The primary reasons cited for these recruitment and retention difficulties were shortages of workers and salary levels (Exhibit 78).

**Exhibit 78**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in the North Country**

<b>Occupation</b>	<b>Average Assessment of Difficulty</b>		<b>Percent of Respondents who Indicated Reasons for Difficulties</b>		
	<b>Recruitment</b>	<b>Retention</b>	<b>Shortage of Workers</b>	<b>Competition for Workers</b>	<b>Salary Levels</b>
Dietitians/Nutritionists	3.6	2.1	22%	11%	22%
Licensed Practical Nurses	3.3	2.9	11%	11%	33%
Nursing Aides	3.0	3.7	22%	22%	22%
Occupational Therapists	2.8	2.2	29%	29%	14%
Physical Therapists	3.6	2.7	38%	25%	25%
Experienced RNs	3.9	3.0	33%	33%	33%
Newly Trained RNs	3.3	3.1	33%	33%	22%
Respiratory Therapists	1.4	1.2	25%	0%	25%
Masters in Social Work	2.1	1.9	29%	14%	14%
Bachelors in Social Work	2.1	1.9	25%	0%	25%

More than 50% of the nursing homes reported difficulty hiring workers for the night shift, and one-third cited difficulty hiring workers for the evening shift.

## **I. Southern Tier**

### *1. Employment by Setting*

Health care employment in the Southern Tier grew by more than 6% between 2000 and 2005, adding nearly 2,000 jobs. Employment in home health care grew the fastest, increasing by almost 33%. Employment in ambulatory care increased by nearly 800 jobs or slightly more than 11% over the same period (Exhibit 79).

**Exhibit 79**  
**Number of Workers by Health Care Setting in the Southern Tier**  
**Between 2000 and 2005**

Setting	2000	2001	2002	2003	2004	2005	Change 2000 to 2005	
							Number	Percent
Hospitals	14,847	15,047	15,106	15,247	15,105	15,253	406	2.7%
Ambulatory Care (Excluding Home Health)	6,930	7,120	7,222	7,483	7,583	7,715	785	11.3%
Nursing Home and Personal Care Facilities	7,405	7,462	7,598	7,455	7,477	7,852	447	6.0%
Home Health Care Services	936	939	1,068	1,079	1,181	1,243	307	32.8%
<b>Totals</b>	30,117	30,568	30,994	31,265	31,346	32,063	1,946	6.5%

Source: NYS Department of Labor, ES-202

*2. Licensed Health Professionals*

Between 2002 and 2005, the number of occupational therapists in the Southern Tier increased by nearly 24%, and the number of physician assistants grew by more than 16%. Both licensed practical nurses and registered nurses increased slightly during the same time period.

There were large declines in the number of respiratory therapists and pharmacists between 2002 and 2005 (Exhibit 80).

**Exhibit 80**  
**Change in the Number of Licensed Health Care Occupations**  
**for the Southern Tier, 2002 to 2005**

Occupation	2002	2003	2004	2005	Change between 2002 and 2005	
					Number	Percent
Occupational Therapists	226	253	262	280	54	23.9%
Physician Assistants	165	176	177	192	27	16.4%
Social Workers	1,024	1,083	1,105	1,122	98	9.6%
Nurse Practitioners	472	493	494	516	44	9.3%
Speech-Language Pathologists	277	284	290	301	24	8.7%
Physical Therapists	414	433	426	436	22	5.3%
Licensed Practical Nurses	3,360	3,429	3,436	3,448	88	2.6%
Dental Hygienists	461	459	463	473	12	2.6%
Registered Nurses	8,032	8,006	8,143	8,125	93	1.2%
Physical Therapy Assistants	207	216	210	203	-4	-1.9%
Dietitians/Nutritionists	161	165	165	155	-6	-3.7%
Occupational Therapy Assistants	74	78	76	71	-3	-4.1%
Respiratory Therapists	184	178	169	171	-13	-7.1%
Pharmacists	546	557	513	500	-46	-8.4%

Source: NYS Education Department, Office of Professions



### *3. Employment Projections by Health Occupation*

The NYS Department of Labor estimated that between 2002 and 2012 there will be 2,130 average annual job openings for RNs in the Southern Tier, and employment of RNs was projected to increase by nearly 900 new jobs during the period. Employment of home health aides was projected to increase by almost 1,000 new jobs, with 140 average annual job openings (Exhibit 81).

**Exhibit 81**  
**Employment Projections for the Top Eleven Health Care Growth Occupations**  
**for the Southern Tier Region, 2002 – 2012**

	2002	2012	Growth Between 2002 and 2012		Avg. Annual Openings
			Number	Percent	
Registered Nurses	5,890	6,770	880	14.9%	210
Home Health Aides	3,210	4,170	960	29.9%	140
Nursing Aides, Orderlies, and Attendants	3,790	4,290	500	13.2%	100
Licensed Practical Nurses	2,360	2,550	190	8.1%	70
Medical Assistants	660	950	290	43.9%	40
Social Workers	1,130	1,360	230	20.4%	40
Dental Hygienists	530	690	160	30.2%	30
Dental Assistants	490	630	140	28.6%	20
Medical and Health Services Managers	660	770	110	16.7%	20
Radiologic Technologists and Technicians	500	550	50	10.0%	20
Speech-Language Pathologists	320	380	60	18.8%	20

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2002 – 2012

### *4. Demand for Health Workers*

#### Hospitals

Hospitals in the Southern Tier reported the most difficulty recruiting experienced RNs, pharmacists, LPNs, and nursing aides. Nursing aides were the most difficult to retain, followed by newly trained RNs, and experienced RNs. Nursing aides were substantially more difficult to retain than recruit.

The shortage of workers and the competition for workers were the primary reasons cited for difficulties in recruitment and retention of workers (Exhibit 82).

**Exhibit 82**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations in the Southern Tier**

<b>Occupation</b>	<b>Average Assessment of Difficulty</b>		<b>Percent of Respondents who Indicated Reasons for Difficulties</b>		
	<b>Recruitment</b>	<b>Retention</b>	<b>Shortage of Workers</b>	<b>Competition for Workers</b>	<b>Salary Levels</b>
Dietitians/Nutritionists	2.2	1.8	14%	14%	14%
Licensed Practical Nurses	3.3	2.8	10%	10%	50%
Nursing Aides	3.1	4.0	50%	30%	20%
Pharmacists	3.8	2.6	78%	33%	33%
Radiologic Technologists	2.6	2.3	38%	25%	0%
Experienced RNs	4.1	3.3	50%	60%	50%
Newly Trained RNs	3.4	3.4	40%	70%	40%
Respiratory Therapists	3.0	2.4	50%	0%	0%
Masters in Social Work	2.1	1.9	14%	29%	14%
Bachelors in Social Work	2.6	2.3	13%	25%	13%

Seventy percent of the hospitals in the Southern Tier cited difficulty hiring workers for the evening shift, and 60% reported difficulty hiring workers for the night shift. One-half indicated difficulty hiring part-time workers.

#### Nursing Homes

Nursing homes in the Southern Tier reported the most difficulty recruiting experienced RNs, physical therapists, and dietitians/nutritionists. LPNs, newly trained RNs, and nursing aides were also difficult to recruit. Nursing aides were also the most difficult to retain, followed by newly trained RNs, and experienced RNs. Nursing aides were harder to retain than recruit.

The primary reasons cited for these recruitment and retention difficulties were general worker shortages and competition for workers (Exhibit 83).

**Exhibit 83**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in the Southern Tier**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties		
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels
Dietitians/Nutritionists	3.6	2.1	22%	11%	22%
Licensed Practical Nurses	3.3	2.9	11%	11%	33%
Nursing Aides	3.0	3.7	22%	22%	22%
Occupational Therapists	2.8	2.2	29%	29%	14%
Physical Therapists	3.6	2.7	38%	25%	25%
Experienced RNs	3.9	3.0	33%	33%	33%
Newly Trained RNs	3.3	3.1	33%	33%	22%
Respiratory Therapists	1.4	1.2	25%	0%	25%
Masters in Social Work	2.1	1.9	29%	14%	14%
Bachelors in Social Work	2.1	1.9	13%	0%	13%

More than 50% of the nursing homes indicated difficulty hiring for the evening or the night shifts.

## **J. Western New York**

### *1. Employment by Setting*

Health care employment in Western New York increased by 3.3% between 2000 and 2005, with job growth in nursing home and personal care facilities (13%) and ambulatory care (6.8%). Employment in home health care remained relatively stable. Employment in hospitals declined by more than 4% during the same period, with a reduction of more than 1,200 jobs (Exhibit 84).

**Exhibit 84**  
**Number of Workers by Health Care Setting in Western New York**  
**between 2000 and 2005**

Setting	2000	2001	2002	2003	2004	2005	Change 2000 to 2005	
							Number	Percent
Hospitals	28,548	28,200	27,946	28,088	28,203	27,302	-1,246	-4.4%
Ambulatory Care (Excluding Home Health)	19,609	19,626	18,663	19,260	19,621	20,941	1,332	6.8%
Nursing Home and Personal Care Facilities	16,695	16,950	17,584	17,673	18,063	18,866	2,171	13.0%
Home Health Care Services	4,550	3,945	4,107	4,216	4,540	4,614	64	1.4%
<b>Totals</b>	69,402	68,722	68,300	69,237	70,427	71,723	2,321	3.3%

Source: NYS Department of Labor, ES-202

## *2. Licensed Health Professionals*

Between 2002 and 2005, the number of physician assistants in Western New York increased by more than 23%, while the number of nurse practitioners grew by nearly 17%. The number of physical therapists and the number of speech-language pathologists grew 14.9% and 10.7%, respectively.

The number of RNs declined slightly between 2002 and 2005. The number of pharmacists and licensed practical nurses also declined during this period (Exhibit 85).

**Exhibit 85**  
**Change in the Number of Licensed Health Care Occupations**  
**for Western New York, 2002 to 2005**

Occupation	2002	2003	2004	2005	Change between 2002 and 2005	
					Number	Percent
Physician Assistants	346	383	404	437	81	23.4%
Nurse Practitioners	837	902	912	977	140	16.7%
Physical Therapists	1,144	1,194	1,181	1,203	170	14.9%
Speech-Language Pathologists	858	899	913	950	92	10.7%
Social Workers	1,527	1,598	1,576	1,638	111	7.3%
Physical Therapy Assistants	249	261	261	265	16	6.4%
Dietitians/Nutritionists	278	293	292	294	16	5.8%
Occupational Therapists	695	730	740	732	37	5.3%
Dental Hygienists	928	948	961	975	47	5.1%
Registered Nurses	18,001	17,842	17,947	17,799	-202	-1.1%
Occupational Therapy Assistants	634	636	631	612	-22	-3.5%
Respiratory Therapists	432	413	406	411	-21	-4.9%
Pharmacists	1,556	1,584	1,455	1,447	-109	-7.0%
Licensed Practical Nurses	7,530	7,404	7,149	6,944	-586	-7.8%

Source: NYS Education Department, Office of Professions

*3. Projected Demand for Health Occupations*

The NYS Department of Labor estimated that between 2002 and 2012, there will be an average of 450 average annual job openings in Western New York for RNs, a projected increase of nearly 1,800 jobs. The number of home health aide jobs is projected to increase by almost 2,300, with 330 average annual job openings (Exhibit 86).

**Exhibit 86**  
**Employment Projections for the Western New York Region, 2002 – 2012**

	2002	2012	Growth Between 2002 and 2012		Avg. Annual Openings
			Number	Percent	
Registered Nurses	13,020	14,770	1,750	13.4%	450
Home Health Aides	7,410	9,680	2,270	30.6%	330
Nursing Aides, Orderlies, and Attendants	7,440	8,520	1,080	14.5%	210
Licensed Practical Nurses	4,670	5,170	500	10.7%	150
Social Workers	2,370	2,930	560	23.6%	100
Medical Assistants	1,180	1,580	400	33.9%	60
Dental Assistants	1,190	1,400	210	17.6%	50
Medical and Health Services Managers	1,350	1,560	210	15.6%	50
Pharmacists	1,050	1,230	180	17.1%	40

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2002 - 2012

#### 4. Demand for Health Workers

##### Hospitals

Hospitals in Western New York reported the most difficulty recruiting experienced RNs, pharmacists, dietitian/nutritionists, respiratory therapists, newly trained RNs, and radiologic technologists. Newly trained RNs were the most difficult to retain, followed by experienced RNs, and respiratory therapists.

A shortage of workers and competition for workers were cited as the primary reasons for these recruitment and retention difficulties (Exhibit 87).

**Exhibit 87**  
**Recruitment and Retention Difficulties for Hospitals**  
**for Selected Occupations in Western 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
Dietitians/Nutritionists	3.7	1.9	43%	14%	14%
Licensed Practical Nurses	1.3	1.1	0%	20%	0%
Nursing Aides	2.8	2.9	0%	17%	0%
Pharmacists	3.9	2.6	71%	43%	57%
Radiologic Technologists	3.3	1.6	43%	29%	14%
Experienced RNs	4.4	3.1	86%	57%	43%
Newly Trained RNs	3.3	3.3	71%	43%	29%
Respiratory Therapists	3.6	3.1	71%	43%	29%
Masters in Social Work	2.9	2.7	33%	17%	0%
Bachelors in Social Work	2.3	2.3	0%	50%	0%

More than 8% of hospitals in Western New York reported having difficulties hiring for the night shift and part-time workers.

##### Nursing Homes

Nursing homes in Western New York indicated they experienced the most difficulty recruiting experienced RNs, LPNs, and nursing aides. Nursing aides and LPNs were the most difficult to retain.

A shortage of workers was cited as the primary reason for these difficulties in recruitment and retention (Exhibit 88).

**Exhibit 88**  
**Recruitment and Retention Difficulties for Nursing Homes**  
**for Selected Occupations in Western New York**

<b>Occupation</b>	<b>Average Assessment of Difficulty</b>		<b>Percent of Respondents who Indicated Reasons for Difficulties</b>		
	<b>Recruitment</b>	<b>Retention</b>	<b>Shortage of Workers</b>	<b>Competition for Workers</b>	<b>Salary Levels</b>
Dietitians/Nutritionists	2.1	1.9	13%	25%	13%
Licensed Practical Nurses	4.0	3.1	33%	33%	22%
Nursing Aides	4.0	3.4	56%	44%	11%
Occupational Therapists	2.3	2.2	38%	25%	38%
Physical Therapists	2.4	1.9	25%	25%	25%
Experienced RNs	4.1	2.8	33%	33%	33%
Newly Trained RNs	3.3	2.1	50%	25%	25%
Masters in Social Work	2.4	1.7	14%	0%	0%
Bachelors in Social Work	1.7	1.3	0%	0%	0%

Nearly 90% of the nursing homes in Western New York reported difficulty hiring for the evening shift, and two-thirds cited difficulty hiring for the night shift.

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## APPENDIX

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# **New York Registered Nursing Graduations, 1996 – 2007**

July 2006

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## **PREFACE**

This report summarizes the results of a survey of New York registered nursing (RN) education programs conducted by the New York Center for Health Workforce Studies (the Center) in the fall of 2005 and the spring of 2006. This survey, administered annually, asks questions related to RN graduations, applications, acceptances, barriers to expanding student capacity, and the job market in New York 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 they impact on the supply of RNs. The year 2005 was the sixth year of the survey.

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 University at Albany, State University of New York, the School of Public Health, 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 2005. The brief survey included questions on applications, acceptances, and graduations for the current year as well as projected graduations through 2007. It also asks about barriers to admitting more students and perceptions about the job market for new RNs. This report summarizes the responses to the 2005 survey.

Of the 107 nursing programs in New York, 96 responded to the survey for a 90% response rate. Data for the 11 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 33% of 2005 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>1</sup>.

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<sup>1</sup> 2004 National Sample Survey of Registered Nurses.

## **SUMMARY OF FINDINGS**

RN graduations in New York increased in 2005, rising by more than 800 graduations or 14% over 2004 graduations, the third consecutive annual increase. Additionally, RN graduations are expected to continue to rise in 2006 and 2007, with 2007 graduations 10% higher than in 1996.

An increasing number of nursing education programs reported turning away qualified applicants, primarily due to admission limits. Additionally, a growing percent of programs reported no increase in program acceptances, which may lead to a leveling off of RN graduations in the future.

## **KEY FINDINGS**

- 1. For the third consecutive year, the number of RN graduates in New York increased over the previous year.**

It is estimated that nearly 7,000 individuals graduated from RN education programs in New York in 2005. This was the third successive year that RN graduations have increased, following six consecutive years of declines. This represents an increase in RN graduations of more than 36% since 2002, the year with the fewest number of graduates between 1996 and 2005 (Table 1 and Figure 1).

- 2. RN graduations are projected to continue to rise in 2006 and 2007.**

The number of RN graduations in 2006 is expected to be more than 53% higher than the number of RN graduations in 2002, and the number of RN graduations in 2007 is projected to be 65% higher than in 2002. With these anticipated increases, RN graduations in 2007 are expected to surpass RN graduations in 1996, when the number of nursing graduations was at an all time high for the state (Table 1 and Figure 1).

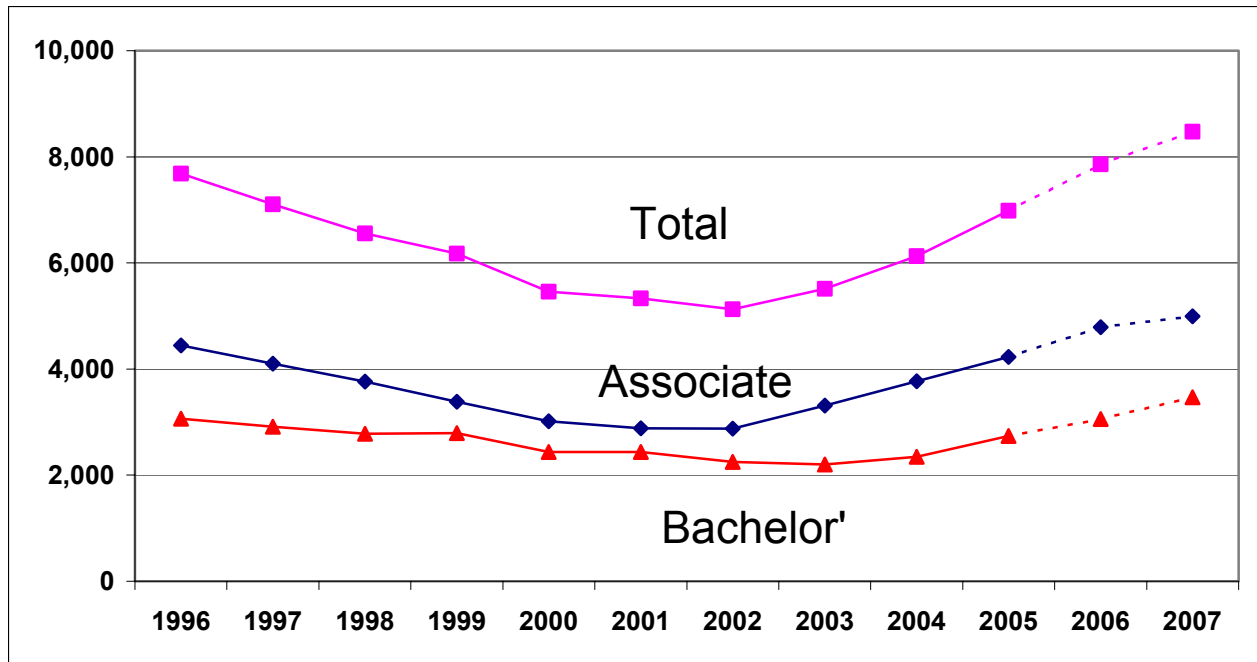
3. The number of graduations from both ADN and BSN programs rose in 2005 and is projected to continue to rise through 2007.

In 2005, both ADN and BSN degree graduations increased by 12% and 17%, respectively, over 2004 graduations. Graduations for both ADN and BSN programs are expected to continue to increase and to exceed 1996 ADN and BSN graduations (Table 1 and Figure 1).

**Table 1**  
**New York RN Graduations by Degree Type, 1996 to 2006**

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	3,770	2,344	11	6,125
	2005	4,231	2,739	14	6,984
Projected Graduations	2006	4,787	3,059	12	7,858
	2007	4,995	3,467	11	8,473

**Figure 1**  
**New York RN Graduations by Degree Type, 1996 to 2007**

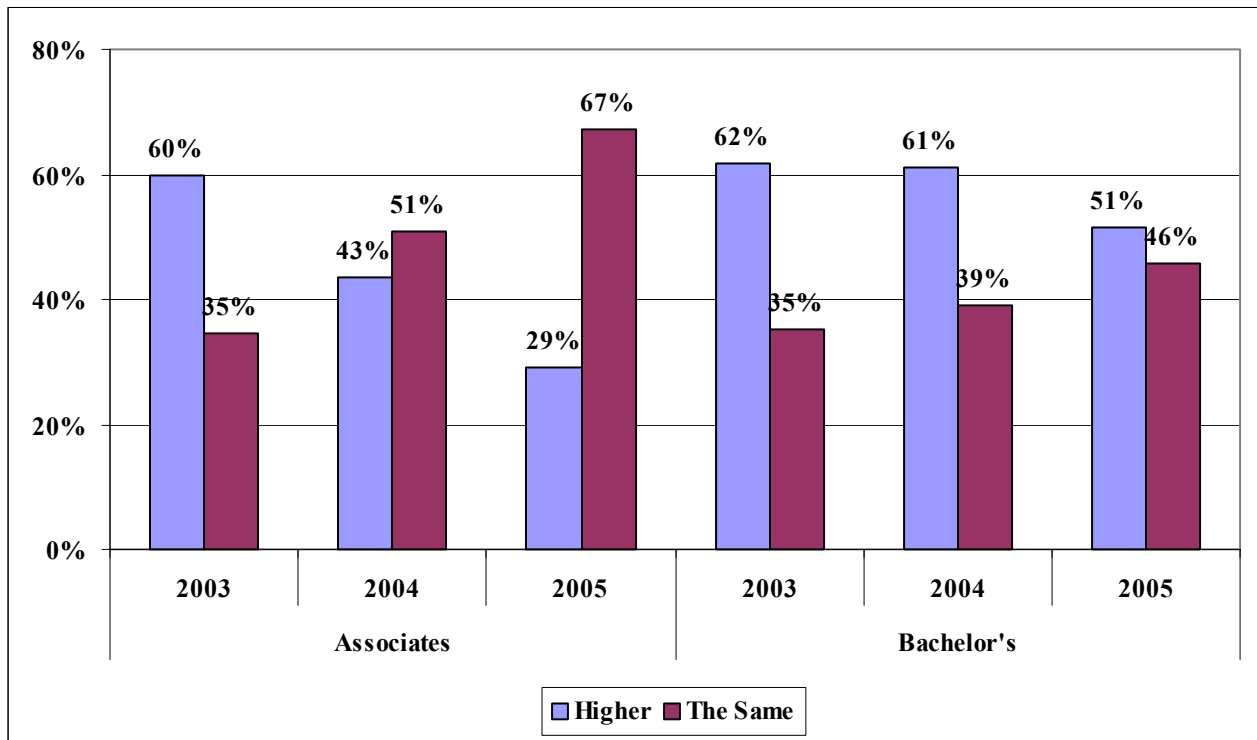


4. **An increasing number of nursing education programs reported no growth in the number of admissions in 2005, compared to 2004.**

In 2005, a higher percent of nursing programs indicated that increases in acceptances into their programs had leveled off. In 2003, 35% of the ADN programs reported that acceptances had not grown from the previous year. By 2005, the percent of ADN programs reporting no growth in acceptances over the prior year grew to 67%. The percent of BSN programs reporting no growth in the number of acceptances over the previous year nearly doubled from 25% in 2004 to 46% in 2005 (Figure 2).



**Figure 2**  
**Percent Change in Number of Acceptances by Program Type, 2003 - 2005**



5. Compared to 2003 and 2004, an increasing number of nursing programs reported turning away qualified applicants in 2005.

Sixty-seven percent of nursing programs reported turning away qualified applicants in 2005, compared to 57% in 2004 and 49% in 2003. ADN programs were more likely to turn away qualified applicants compared to BSN programs. Over three-fourths of ADN programs and one-half of BSN programs reported turning away qualified applicants in 2005.

**Table 2**  
**Percent of Respondents Reporting**  
**Turning Away Qualified Applicants by Program Type**

	2003	2004	2005
<b>All Programs</b>	49%	57%	67%
<b>ADN</b>	68%	73%	80%
<b>BSN</b>	26%	39%	50%

- 6. It is estimated that an increasing number of qualified applicants were turned away in 2005 compared to 2003 and 2004.**

Both ADN and BSN programs reported turning away more qualified applicants in 2005 than in 2003 and 2004. The percent of nursing education programs that reported turning away 81 or more qualified applicants in 2005 nearly doubled compared to 2003. However, the percent of BSN programs that reported turning away qualified applicants remained relatively stable between 2003 and 2005, while the percent of ADN programs that reported turning away qualified applicants nearly tripled during the same period (Table 3). Based on survey responses, it is estimated that nearly 3,000 qualified applicants were turned away from New York nursing education programs in 2005. Since applicants may apply to more than one nursing education program, this number may not represent an unduplicated count of qualified applicants denied admission to nursing education programs in the state.

**Table 3**  
**Number of Qualified Applicants Turned Away**  
**by Program Type**

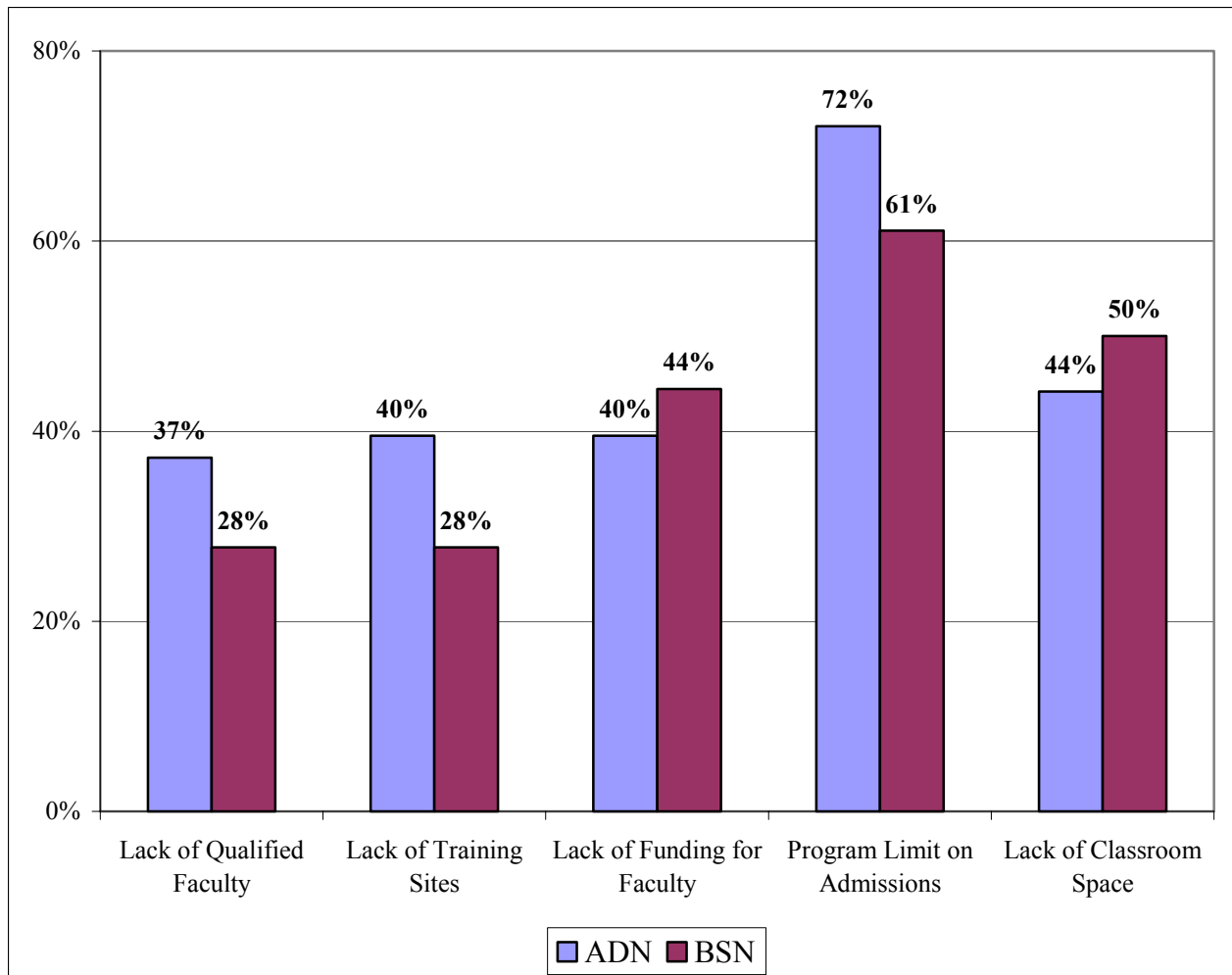
Number of Qualified Applicants Turned Away	Type of Program								
	All Nursing Programs			Associate Degree			Bachelor's Degree		
	2003	2004	2005	2003	2004	2005	2003	2004	2005
<b>1 – 20</b>	24%	26%	29%	35%	32%	34 %	6%	18%	23%
<b>21 – 40</b>	17%	10%	6%	21%	16%	7%	11%	0%	5%
<b>41 – 60</b>	0%	5%	8%	0%	4%	7%	0%	8%	3%
<b>61 – 80</b>	3%	5%	4%	5%	5%	4%	0%	5%	5%
<b>81 or More</b>	8%	13%	16%	7%	16%	20%	9%	8%	10%

- 7. 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, while a higher percent of BSN programs reported lack of classroom space and lack of funding to hire new faculty as additional reasons for turning away qualified applicants (Figure 3).

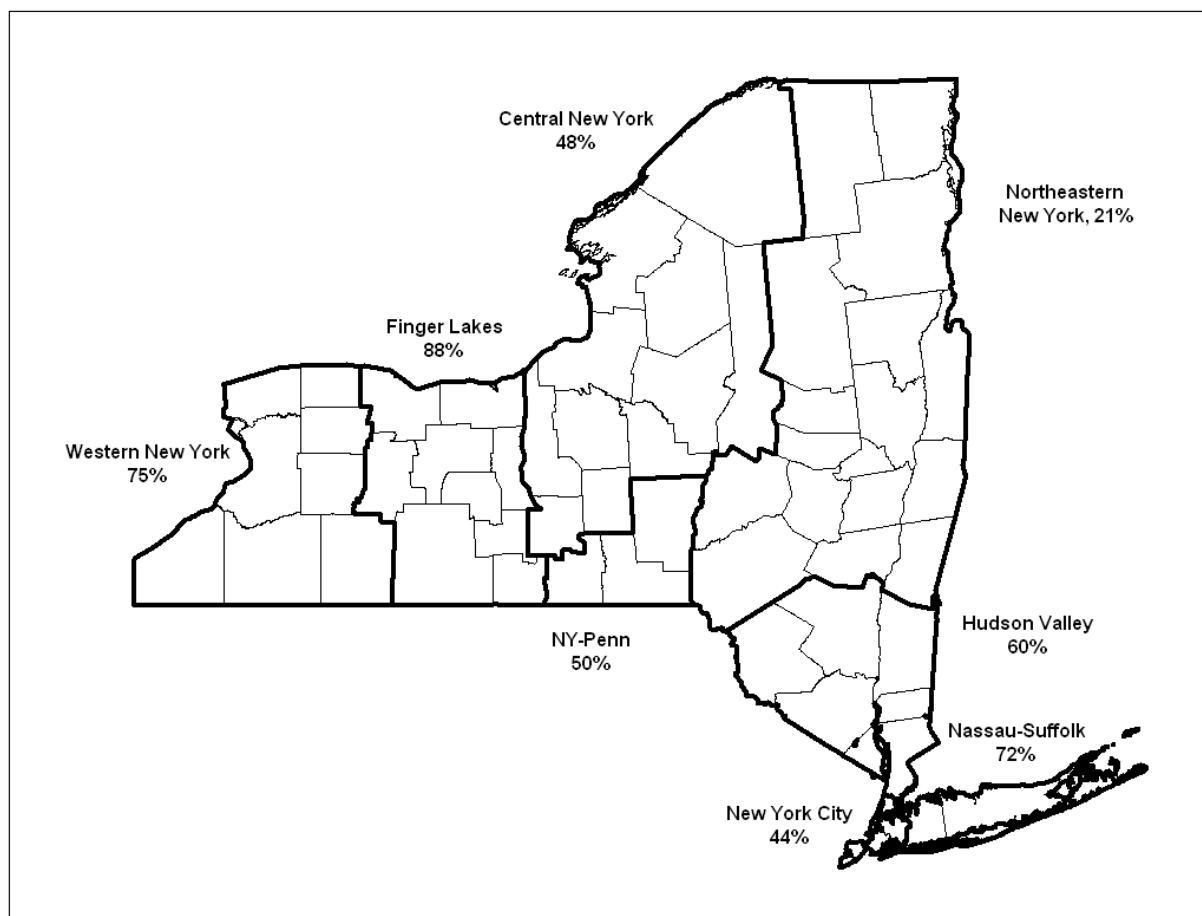
**Figure 3**  
**Reasons for Turning Away Qualified Applicants by Sponsorship and by Degree Type**



**8. Between 2003 and 2007, RN graduations are projected to increase in all regions of New York**

All regions are projected to experience significant increases in RN graduations between 2003 and 2007, ranging from 21% in the Northeastern New York Region to 88% in the Finger Lakes Region. RN graduations in 2007 are projected to surpass 1996 RN graduations in six of the eight regions of the state (Figure 4 and Table 4).

**Figure 4**  
**Projected Percentage Increase in RN Graduations, 2003 – 2007, by HSA Region**



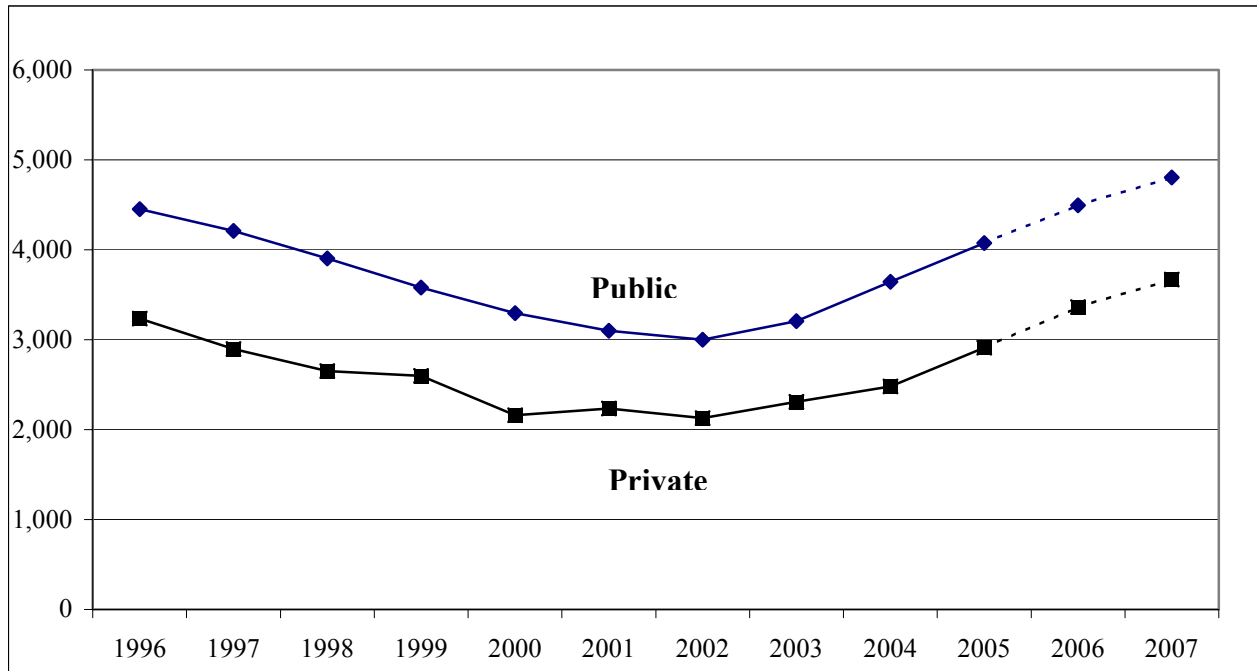
**Table 4**  
**Percent Change in the Number of RN Graduations by Region**

Region	Graduations						Percent Change		
					Projected				
	1996	2003	2004	2005	2006	2007	96 to 03	03 to 07	96 to 07
Western New York	890	473	605	700	793	829	-46.9%	75.3%	-6.9%
Finger Lakes	654	482	536	682	751	906	-26.3%	88.0%	38.5%
Central NY	961	724	825	952	1,073	1,071	-24.7%	47.9%	11.4%
NY-Penn	92	50	50	70	60	75	-45.7%	50.0%	-18.5%
Northeastern NY	641	628	637	627	730	760	-2.0%	21.0%	18.6%
Hudson Valley	1,058	689	836	956	1,060	1,103	-34.9%	60.1%	4.3%
New York City	2,258	1,605	1,745	1,972	2,239	2,311	-28.9%	44.0%	2.3%
Long Island	937	795	837	953	1,102	1,368	-15.2%	72.1%	46.0%
<b>Statewide Totals</b>	7,685	5,513	6,125	6,984	7,858	8,473	-28.3%	53.7%	10.3%

**9. In 2005, both publicly and privately sponsored RN education program graduations increased and are projected to continue increasing through 2007.**

The number of RN graduations has been steadily growing since 2002, including an increase in 2005, in both publicly sponsored (State University of New York and City University of New York schools) and privately sponsored programs (including hospital based programs) and are projected to continue to grow through 2007. From 2002 through 2007, RN graduations from publicly sponsored programs are expected to increase 60%, while RN graduations from privately sponsored programs are expected to rise 72% (Figure 5).

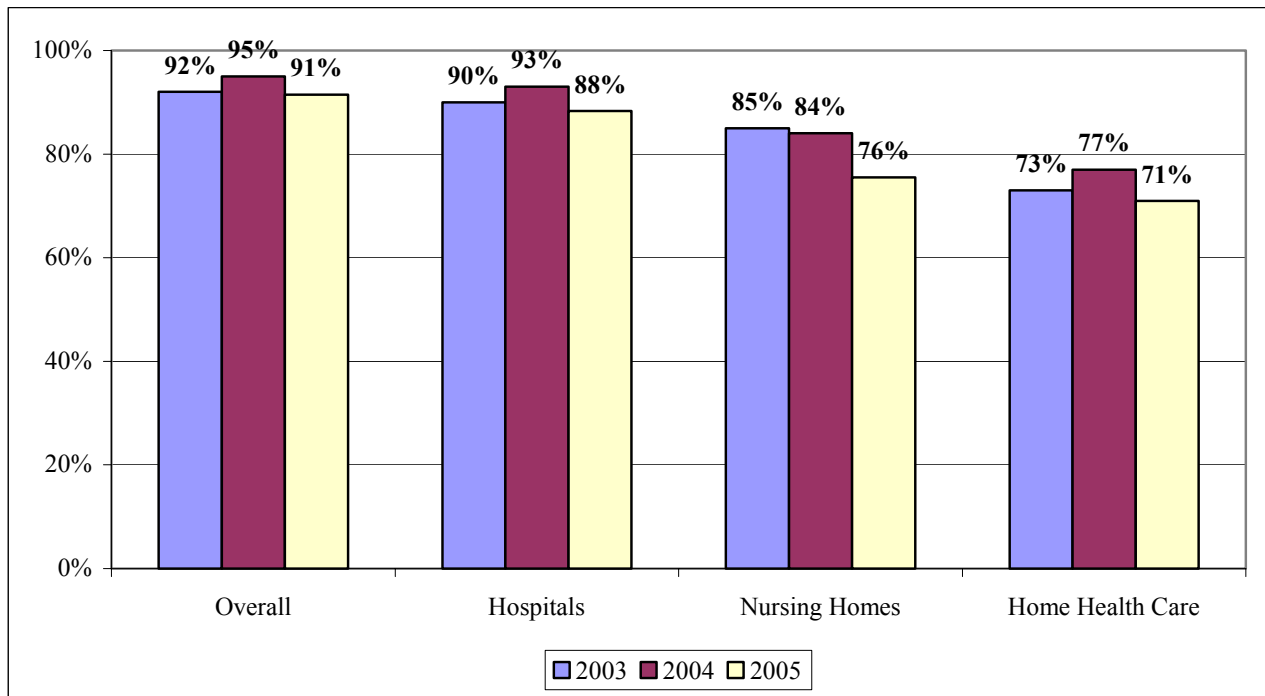
**Figure 5**  
**Change in RN Graduations in Public and Private Nursing Programs**



**10. The demand for newly trained RNs continues to remain strong.**

The vast majority of New York nursing programs reported high demand for newly trained RNs in 2005. More than 90% of the respondents indicated that overall, many jobs were available for newly trained RNs. From 2003 to 2005, demand for newly trained RNs remained relatively constant in the hospital and home care sectors but declined slightly in the nursing home sector (Figure 6).

**Figure 6**  
**Demand for Newly Trained RNs between 2003 and 2005**



## DISCUSSION

While rising enrollments in RN education programs and renewed interest in nursing as a career have fueled an increase in RN graduations, the production of new RNs has barely offset exits from the profession, primary due to retirement. There were more than 34,500 RN graduations in the state between 2000 and 2005, but the number of licensed RNs grew by only 11,200.

Capacity limits reported by the nursing education programs coupled with an aging RN workforce suggests that production will not keep pace with exits, and RN shortages in New York are likely to worsen.

The federal Bureau of Labor Statistics (BLS) forecasts that between 2004 and 2014, 1.2 million RN job openings will occur in the United States<sup>2</sup>. New York currently employs approximately 7.3% of the active nursing workforce, and it will need to produce nearly 88,000 *new* RNs over

<sup>2</sup> Daniel E. Hecker, *Occupational Employment Projections to 2014*, Monthly Labor Review, U.S. Department of Labor, November 2005.

that same 10-year period, or 8,800 per year, to meet BLS projections. With an estimated 12% of RN graduates already holding an RN license, New York would actually have to graduate 10,000 RNs per year to produce 8,800 new RNs, significantly more than are currently being produced.

One factor affecting future production of RNs is the ability of nursing programs to expand program capacity. The 2005 survey found that more New York nursing programs were at capacity and more than 60% indicated they were not accepting additional qualified candidates because of admission limits. It will be critical to remove potential barriers to expanding program capacity in order for RN education programs to admit more students into their programs.