



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



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

**The Health Care Workforce in
New York, 2007**

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PREFACE

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

This study was 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 of and demand for health workers across the state, more effectively plan for health worker education and training, and target available training dollars to meet priority needs.

The Center for Health Workforce Studies at the School of Public Health, University at Albany, conducted the research and produced this report. The Center is a not-for-profit research organization with a mission to provide timely accurate data and conduct policy-relevant research about the health workforce. Several Center staff contributed to the development of this report, including Robert Martiniano, Maria Kouznetsova, and Jean Moore.

I. EXECUTIVE SUMMARY

Health workers are the cornerstone of the health care delivery system. Efforts to improve quality and expand access to care are dependent on the availability of an adequate supply of appropriately prepared health workers. At a time when health care systems are undergoing dramatic change, data and information on the health workforce can contribute greatly to informed decision-making.

The health workforce – health care professionals working inside and outside of the health sector and others working in health care facilities – is an important component of the country’s economy, representing nearly 12% 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 2006 and 2016. Not surprisingly, more than half of the fastest growing occupations in the U.S. over that same period are projected to be health occupations.

In 2007, there were nearly 960,000 jobs in New York’s health sector. This represented one in nine jobs in the state. Health sector employment in New York grew by slightly more than 8% between 2002 and 2007, compared to a 2% growth in jobs in all other employment sectors. While hospitals continued to be the largest employer in New York’s health sector in 2006, hospital jobs have shown the least growth since 2001. However, other settings, including home health care, ambulatory care, and nursing homes, have experienced substantial job growth over the same period.

While many of the findings from this study are consistent with findings from previous years, the data presented in this report are retrospective and may not account for the effects of the current economic downturn on the supply of and demand for health workers.

Among the potential impacts of the current recession on the state’s health care delivery system are:

- rising numbers of uninsured and underinsured New Yorkers who may delay seeking care and be unable to cover the cost of the health care they receive;
- tight credit markets that may limit providers’ ability to borrow funds for needed investments in, among others, health information technology;
- the potential for revenue shortfalls that could lead to staffing cuts; and
- the easing of current shortages in some health professions and occupations as there are fewer vacant positions to fill.

Health sector employment is a vital part of New York’s economy. The current economic downturn clearly has the potential to adversely affect the state’s health industry as described above. However, future economic recovery will likely result in a return to health sector job growth and the potential for an increase in supply/demand gaps in many health professions and occupations.

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

Key Findings

Health care providers statewide reported persistent problems recruiting and retaining experienced registered nurses (RNs) as well as workers in an increasing number of other health occupations.

Hospitals across the state reported continued difficulty recruiting pharmacists, experienced RNs, physical therapists, and medical laboratory technicians. Hospitals also reported retention problems for experienced and newly-trained RNs and nursing aides/patient care associates.

Nursing homes across the state reported both recruitment and retention difficulties for experienced RNs, recruitment problems for physical therapists, and retention problems for certified nursing aides and licensed practical nurses (LPNs).

Home care agencies statewide reported that occupational therapists, experienced RNs, and respiratory therapists posed the most recruitment difficulty. Retention was an issue for many health care occupations, most notably home health aides, personal care aides, speech pathologists, and respiratory therapists.

Health sector jobs continued to grow faster than all other employment sectors.

Health workers comprised a growing share of New York's workforce. Between 2001 and 2007, the health sector in New York grew by more than 9% while the remaining employment sectors grew by slightly more than one-half of 1%. In 2007, more than 1 in 9 jobs in New York were in the health sector.

Employment in home health care and ambulatory care grew the fastest among health sector jobs.

Between 2002 and 2007, home care employment rose by more than 38% statewide, with the vast majority of new jobs in New York City and the Hudson Valley region. However, not all regions saw home care job growth. The Finger Lakes region lost almost 1,000 home health care jobs between 2002 and 2007 and the Capital District, Central New York, and Long Island regions all experienced small declines in home care employment over the same time period.

Ambulatory care jobs increased by slightly more than 13% between 2002 and 2007, with the Mohawk Valley region have the largest increase of nearly 32%. All the other regions in New York experienced increases between 10% and 16%.

Between 2002 and 2007, employment in nursing homes in New York increased by 7% and hospital employment increased by nearly 4%, with the largest growth between 2005 and 2006.

Between 2002 and 2007, job growth in New York was greatest for home health aides; nursing aides, orderlies, and attendants; social workers; medical managers; and RNs.

The number of home health aide jobs increased by more than 37,000, or by nearly 35%, between 2002 and 2007. The number of nursing aides, orderlies, and attendant jobs grew by over 7,600, or by about 8%; the number of social worker jobs rose by more than 7,000, or by almost 20%; the number of medical and health service manager jobs increased by over 4,300, or by more than 21%; and the number of RN jobs increased by 3,400, or by approximately 2%.

Statewide, the most substantial job growth between 2006 and 2016 is projected for home health aides; RNs; nursing aides, orderlies, and attendants; and LPNs.

The New York State Department of Labor (NYS DOL) projected that between 2006 and 2016 the number of home health aide jobs would increase by more than 52,000, with nearly 6,500 average annual job openings. During the same period, the number of RN jobs would increase by over 24,000, with more than 5,200 average annual job openings. Additionally, it is projected that over 2,400 average annual openings for nursing aides, orderlies, and attendants would occur, and nearly 1,900 average annual openings for LPNs, during the same period.

For the fifth consecutive year, the number of RN graduations in 2007 in New York increased over the previous year. RN graduations are projected to continue to rise in 2008 and 2009.

After six consecutive years of declining RN graduations (1997 through 2002), overall RN graduations increased in each of the past five years (2003 through 2007). RN graduations from both associate degree (ADN) and bachelor's degree (BSN) programs increased between 2004 and 2007 and are projected to continue to increase in 2008 and 2009.

The number of nursing education programs that reported an increase in acceptances declined slightly in 2007, compared to 2006.

The number of nursing education programs that reported an increase in acceptances declined from 48% in 2006 to 38% in 2007. While a slightly higher percent of ADN programs reported an increase in acceptances between 2006 and 2007, there was a significant decrease in the percent of BSN programs that reported an increase in applications during the same period.

Compared to 2006, fewer nursing education programs reported turning away qualified applicants in 2007, citing limits on program admissions as the primary reason.

Fifty-four percent of nursing education programs reported turning away qualified applicants in 2007, compared to 59% in 2005 and 67% in 2004. The majority of ADN and BSN programs that denied admissions to qualified applicants cited limits on program admissions as the primary reason for doing so. Other reasons cited by RN education programs include a lack of clinical training sites and qualified faculty.

II. BACKGROUND

A. Overview

Health workers are the cornerstone of the health care delivery system. Efforts to improve quality and expand access to care are dependent on the availability of an adequate supply of appropriately prepared health workers. At a time when health care systems are undergoing dramatic change, data and information on the health workforce can contribute greatly to informed decision-making.

The health workforce – health care professionals working inside and outside of the health sector and others working in health care facilities – is an important component of the country’s economy, representing nearly 12% 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 2006 and 2016. Not surprisingly, more than half of the fastest growing occupations in the U.S. over that same period are projected to be health occupations.

In 2007, there were nearly 960,000 jobs in New York’s health sector. This represented one in nine jobs in the state. Health sector employment in New York grew by slightly more than 8% between 2002 and 2007, compared to a 2% growth in jobs in all other employment sectors. While hospitals continued to be the largest employer in New York’s health sector in 2006, hospital jobs have shown the least growth since 2001. However, other settings including home health care, ambulatory care, and nursing homes have experienced substantial job growth over that same period.

While many of the findings from this study are consistent with the findings from previous years, the data presented in this report are retrospective and may not account for the effects of the current economic downturn on the supply of and demand for health workers.

Among the potential impacts of the current recession on the state’s health care delivery system are:

- rising numbers of uninsured and underinsured New Yorkers who may delay seeking care and be unable to cover the cost of the health care they receive;
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Health sector employment is a vital part of New York’s economy. The current economic downturn clearly has the potential to adversely affect the state’s health industry as described above. However, future economic recovery will likely result in a return to health sector job growth and the potential for an increase in supply/demand gaps in many health professions and occupations.

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; and
- 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 Studies¹:
 - New York State Registered Nursing Graduations, 1996 – 2009 (February 2009)
 - Surveys of Human Resources Directors in Health Care

The Center conducts annual surveys of human resources directors from hospitals, nursing homes, and home health agencies across the state. The survey asks about the professions and occupations that pose the greatest recruitment and retention problems as well as 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 NYS DOL regions (which are described beginning on page 12). In instances, where total responses for a region, either by setting or occupation, are fewer than five, no information is provided. Hospital responses were given for downstate and upstate New York².

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

¹ The sources of all exhibits are data collected by the Center unless otherwise noted on the exhibit.

² Since only 32 hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for downstate (Hudson Valley, Long Island, and New York City regions) and upstate regions (the remainder of the DOL regions).

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

- Covered Employment and Wages Program (ES-202)

These data were used to describe regional changes in health care employment by setting. To determine annual employment numbers for 2007, monthly totals for January through December were averaged. A number of conditions potentially affect the information reported, including closures, mergers, and expansions. Consequently, large changes in jobs in specific health sectors, i.e., hospitals, nursing homes, or home health care, may reflect a change in ownership or the service delivery system rather than workforce issues.

- Occupational Employment Statistics (OES)

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

- Employment Projections

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

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 five points in time: June 1, 2003; April 1, 2004; April 1, 2005; April 1, 2006; and April 1, 2007. 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 ³.

³ 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 (excluding residential, mental retardation, mental health and substance abuse 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 OES categories. These occupational categories also had limitations. For example, registered nursing 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

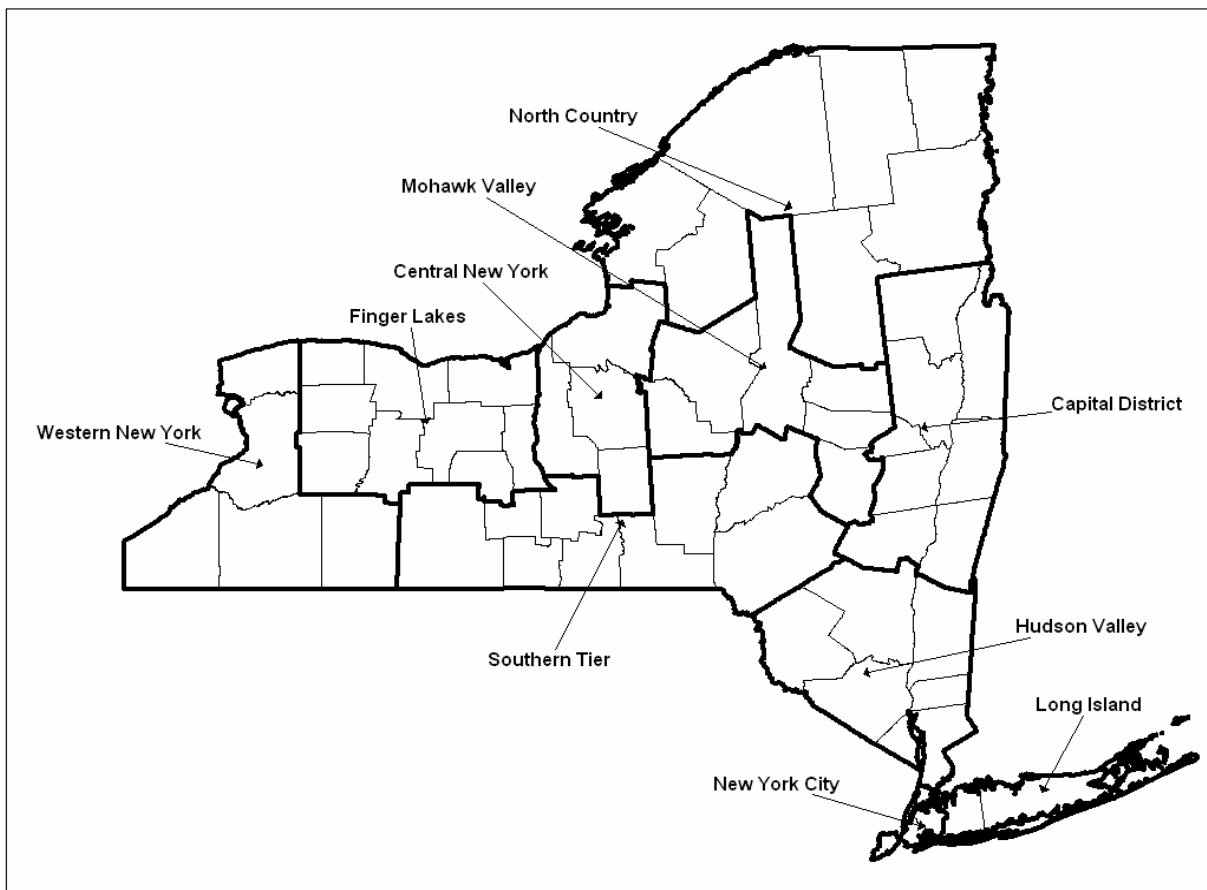
The NYS DOL regions⁴ (Exhibit 1) used in this report are:

- Capital District: The counties of Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Warren, and Washington.

⁴ Beginning in 2008, there were slight changes to the Central New York, Mohawk Valley, and Southern Tier regions. While most of the data cited in this report are based on the regions listed above, 2006 – 2016 projections are based on the revised regions.

- 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 Counties by State Labor Department Region



III. THE HEALTH CARE WORKFORCE IN THE UNITED STATES

A. Total Employment

In 2006, there were nearly 17.6 million jobs in health care settings or in health occupations nationally, accounting for almost 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 2006. This included positions both in health care occupations and in non-health occupations such as food service, clerical titles, and information technology services. The other four 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, 2006

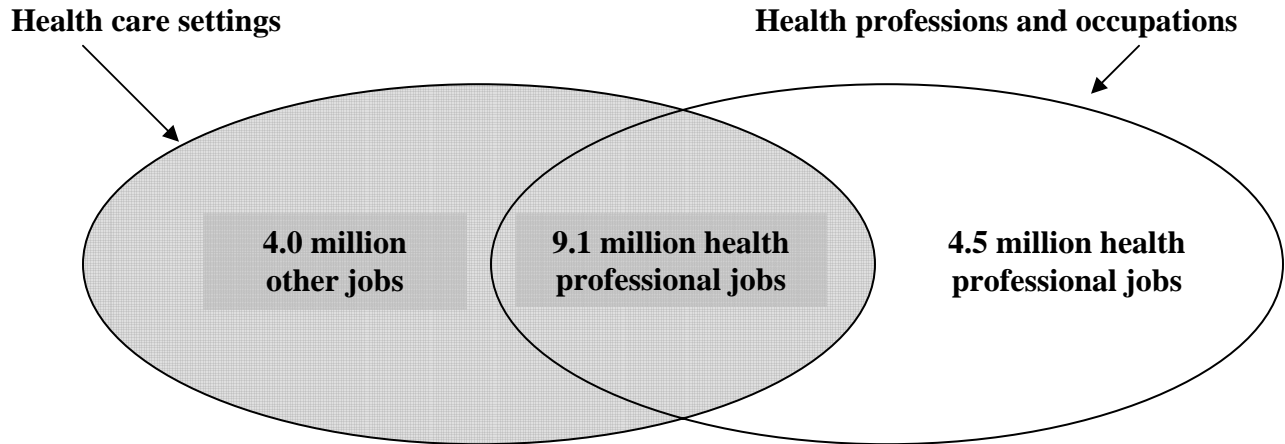


Exhibit 3
The U.S. Health Workforce, 2006

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

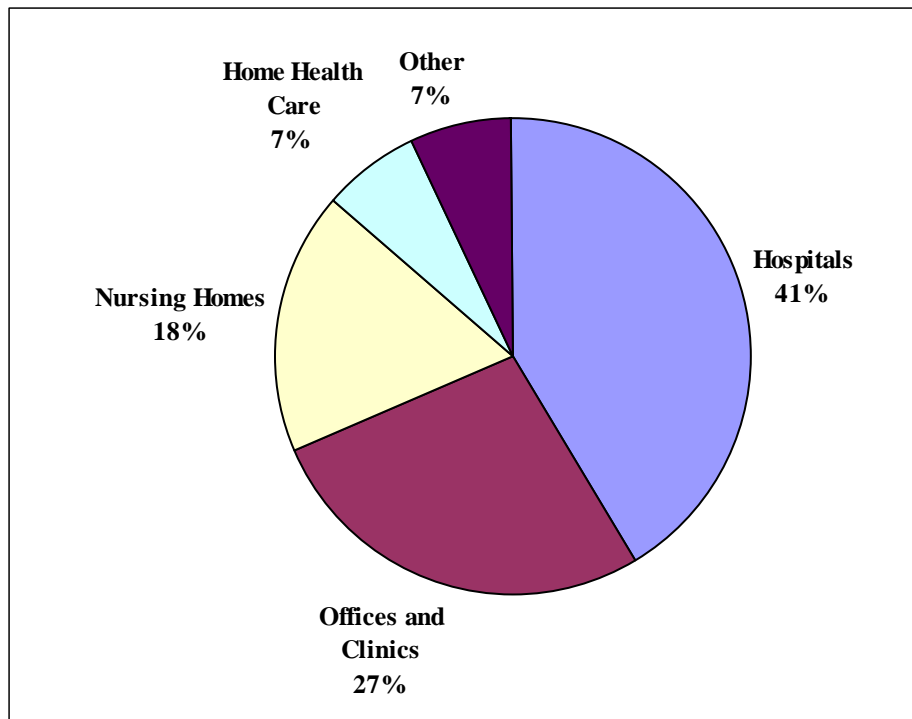
	Number	Percent of Civilian Labor Workforce
Health professional jobs in health care settings	9,093,186	6.0%
Other jobs in health care settings	4,015,914	2.7%
Health professional jobs in other settings	4,490,814	3.0%
Total U.S. Health Care Jobs	17,599,914	11.7%
U.S. Civilian Labor Force Jobs	150,620,000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

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

B. By Settings

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

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

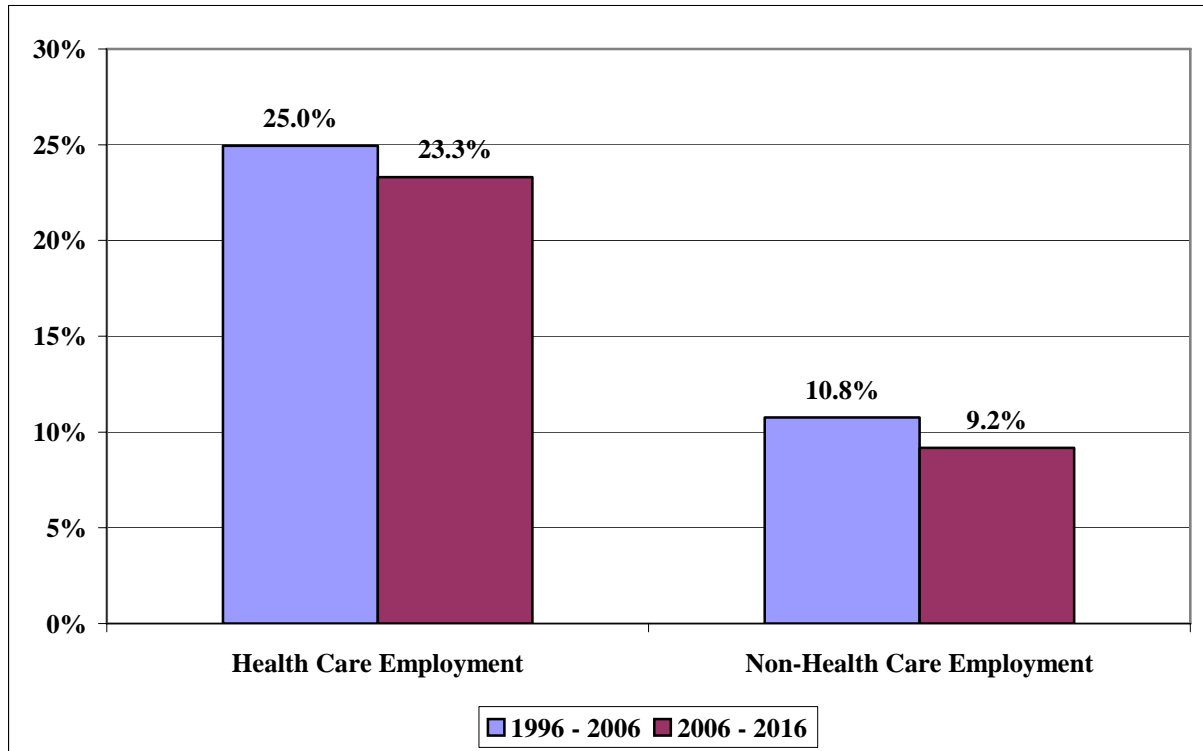


Industry Output and Employment Projections to 2016, Monthly Labor Review, Bureau of Labor Statistics, November 2007

According to the BLS, nearly 9% of jobs nationally were in the health sector in 2006, and about one in every five jobs created between 2006 and 2016 will be in the health care sector.

Health sector jobs are projected to grow by more than twice the rate of all other settings, and between 2006 and 2016, are expected to increase by more than 23% (Exhibit 5).

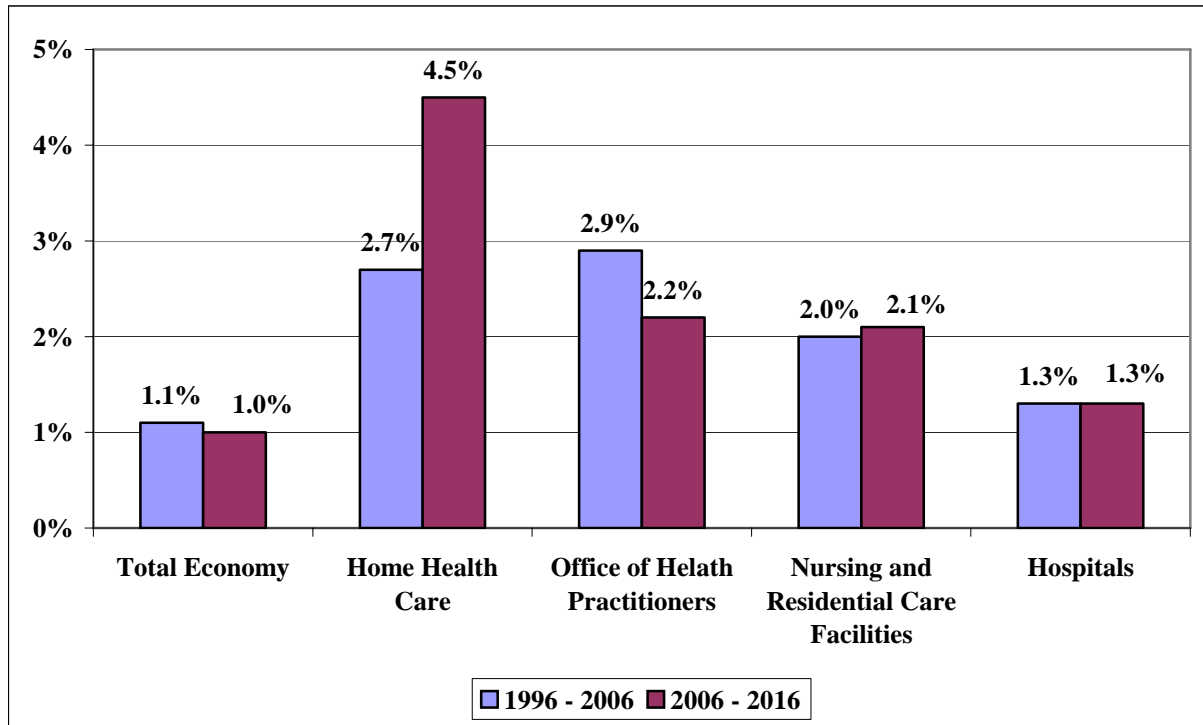
Exhibit 5
Growth of Health Care and Non-Health Care Sectors Jobs
1996 – 2006 and Projected 2006 - 2016



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

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

Exhibit 6
Annual National Projected Health Sector Job Growth by Setting

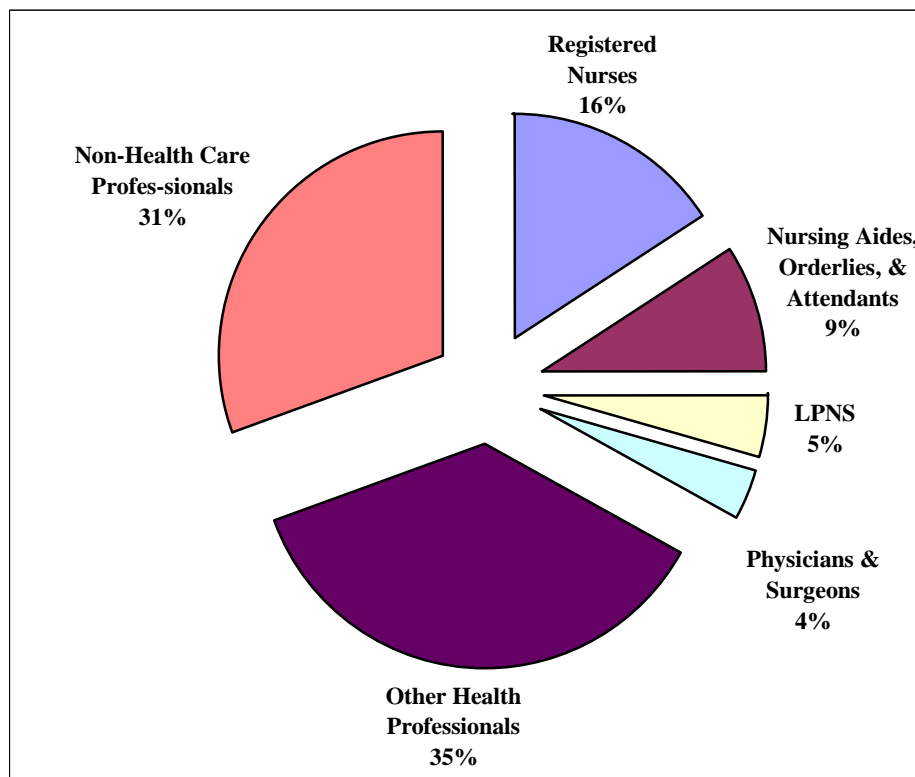


Source: Industry Output and Employment Projections to 2016, Monthly Labor Review, Bureau of Labor Statistics, November 2007.

C. By Occupations

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

Exhibit 7
Health Care Employment in the U.S., 2006⁵



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

Seventeen of the 30 occupations projected to grow most rapidly between 2006 and 2016 were health occupations, including 13 of top 20⁶. The health occupations projected to have the biggest percentage increase in new jobs were:

- personal and home care aides (51%);
- home health aides (49%);

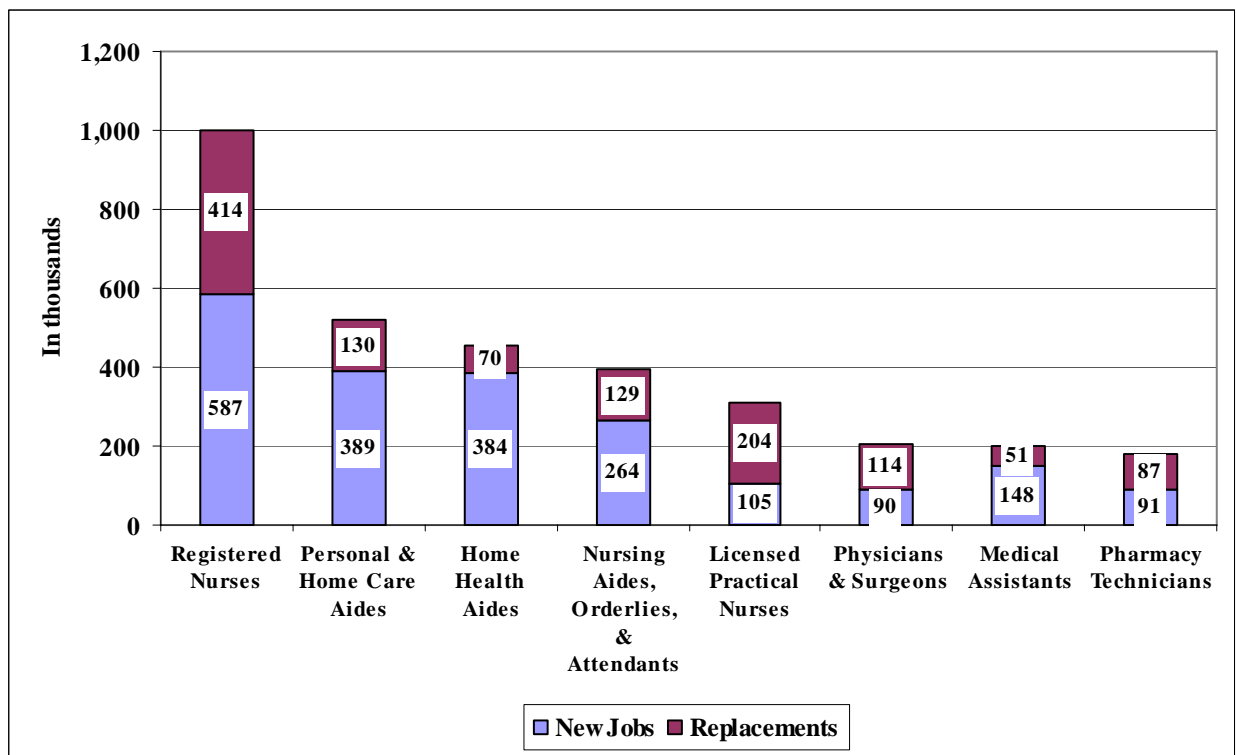
⁵ Includes all workers in health sector employment. It does not include health professionals working outside of the health sector.

⁶ Industry Output and Employment Projections to 2016, *Monthly Labor Review*, Bureau of Labor Statistics, November 2007.

- medical assistants (35%);
- physical therapists assistants (32%); and
- pharmacy technicians (32%).

More than one million RNs will be needed between 2006 and 2016 to fill newly created RN positions as well as to fill vacant positions resulting from retirements and other departures from the profession. Additionally, nearly 520,000 personal and home care aides and over 450,000 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 2006 and 2016



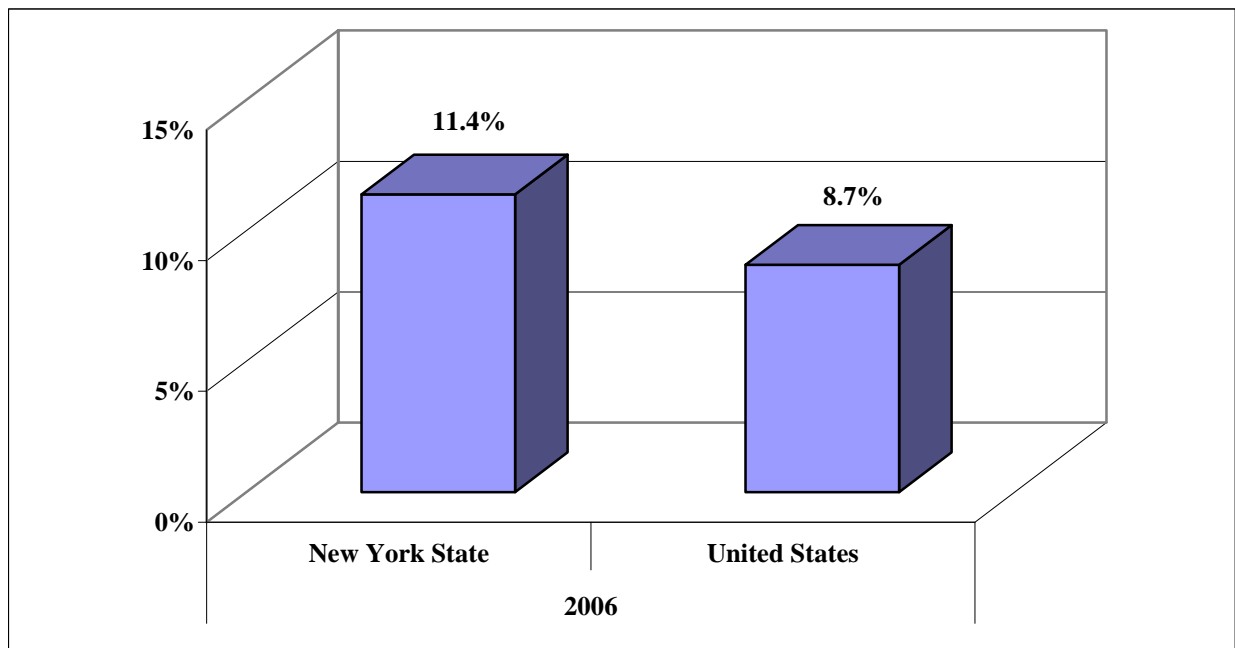
Source: Industry Output and Employment Projections to 2016, *Monthly Labor Review*, Bureau of Labor Statistics, November 2007.

IV. NEW YORK HEALTH SECTOR EMPLOYMENT

A. Total Employment

Employment in the health sector accounted for more than 11% of total employment in New York in 2006⁷. 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, 2006



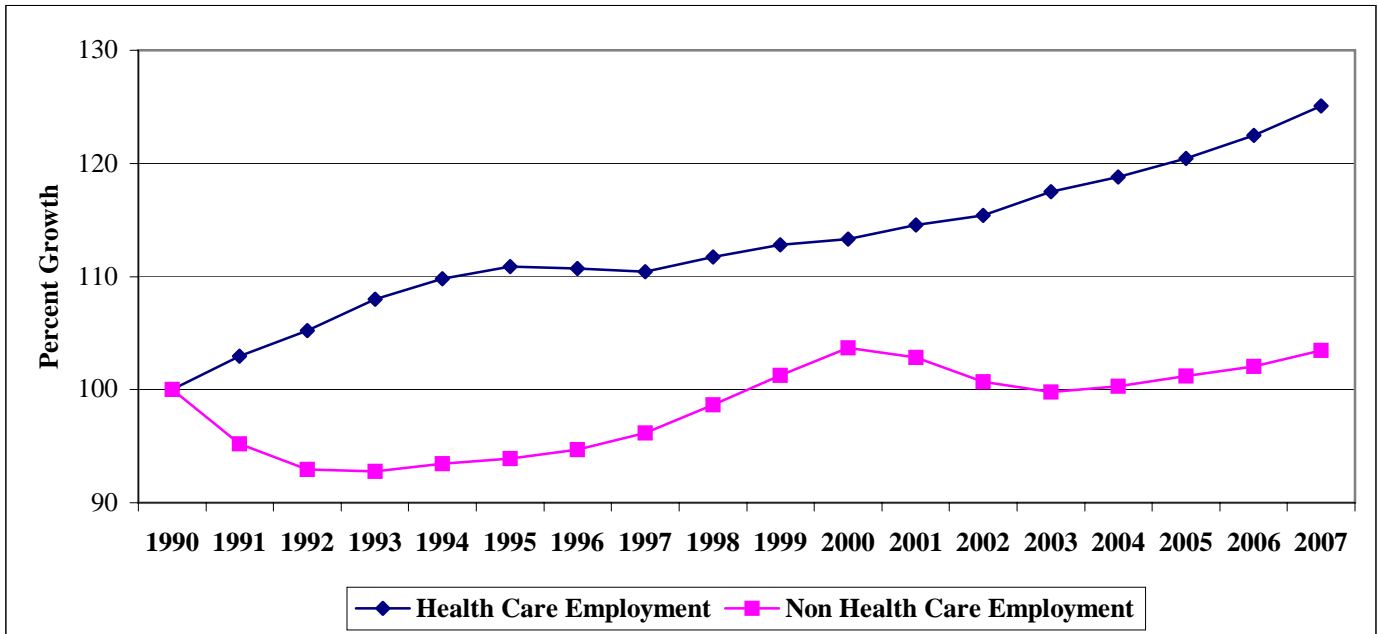
Source: NYS Department of Labor, ES-202; Industry Output and Employment Projections to 2016, Monthly Labor Review, Bureau of Labor Statistics, November 2007.

Between 1990 and 2007, employment in health care in New York expanded by nearly 200,000 jobs, or over 25%, while employment in all other sectors grew just over 3%. Within the health sector, employment increased between 1990 and 1995, declined for two years between 1995 and 1997, then climbed steadily between 1997 and 2007. The largest growth in health care employment occurred between 1990 and 1995, averaging more than 2% per year. Between 1997 and 2006, health care employment increased, on average, by slightly more than 1% annually. Between 2006 and 2007, employment in health care jobs increased by over 2%.

⁷ New York State Department of Labor, ES-202

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 2007. Between 2001 and 2007, the health sector in New York grew by more than 9% while the remainder employment sectors grew by slightly more than one-half of 1% (Exhibit 10).

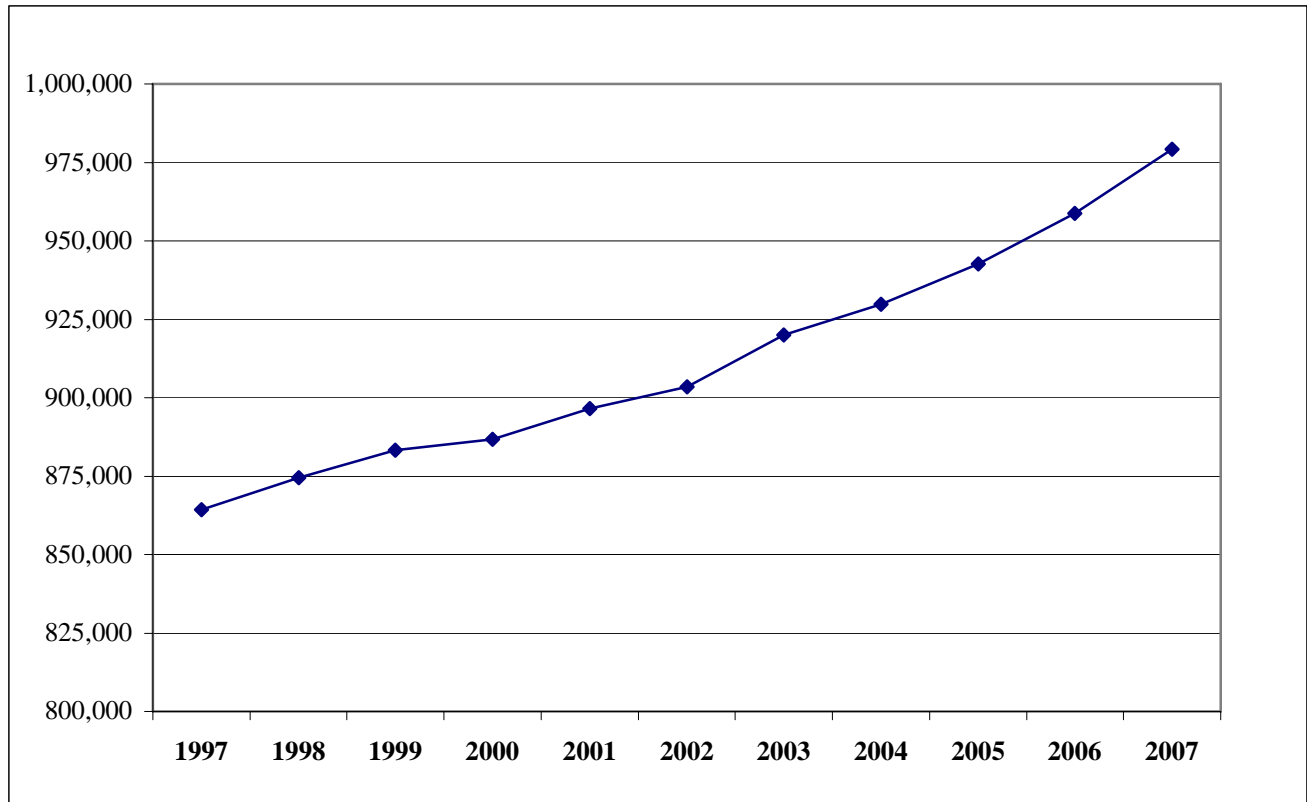
Exhibit 10
New York Employment Growth between 1990 and 2007,
Standardized to 1990



Source: NYS Department of Labor, ES-202

Health sector employment in New York grew rapidly between 1997 and 2007, with the addition of nearly 115,000 jobs, or growth of almost 12%. Annual growth in the health sector has remained constant since 1997, with yearly growth more than 1% (Exhibit 11).

Exhibit 11
Trends in Total New York Health Sector Employment, 1997-2007



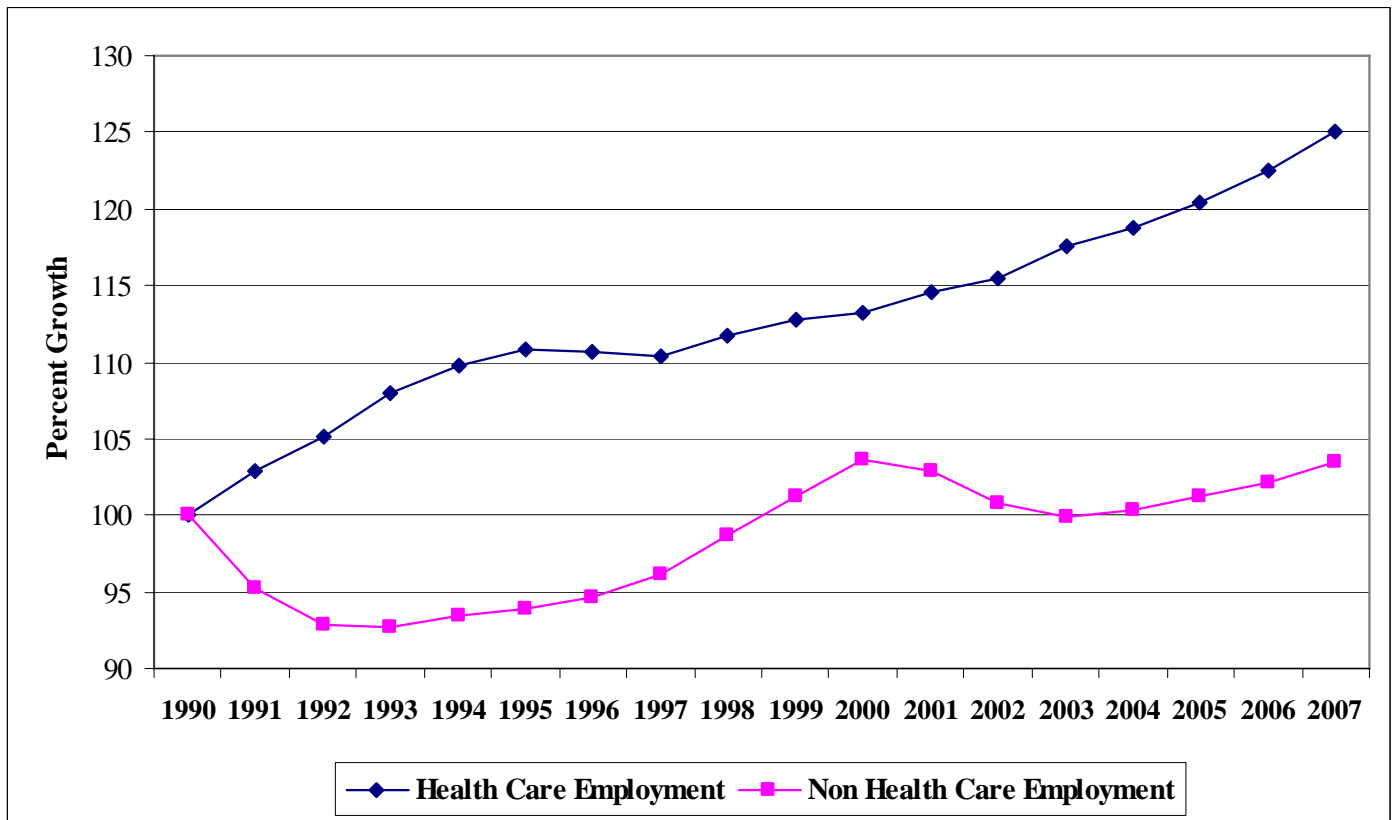
Source: NYS Department of Labor, ES-202

*Employment Growth in Regions Outside of New York City*⁸

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 by 22% between 1990 and 2007, employment outside of the health care sector declined by 4% 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).

Exhibit 12
Employment Growth in Regions Outside of New York City, 1990 - 2007,
(Standardized to 1990)

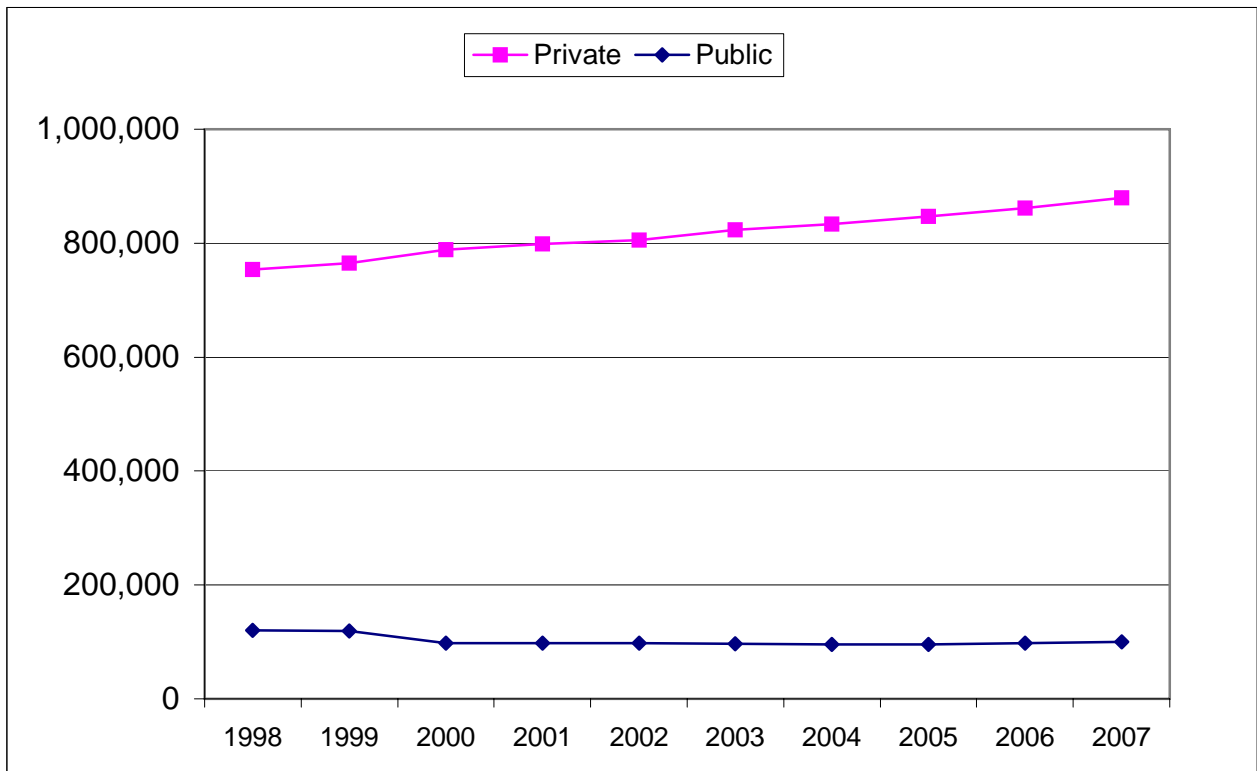


Source: NYS Department of Labor, ES-202

⁸ For New York City employment growth, please see page 41, Exhibit 32.

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 1998 and 2007, private sector health employment in the state increased by 17%, while public sector health employment decreased by 18%. The trend of in public health sector employment reversed in 2006, with average annual growth of 2% between 2005 and 2007 (Exhibit 13).

Exhibit 13
Trends in Public and Private Health Employment
for New York, 1998 – 2007

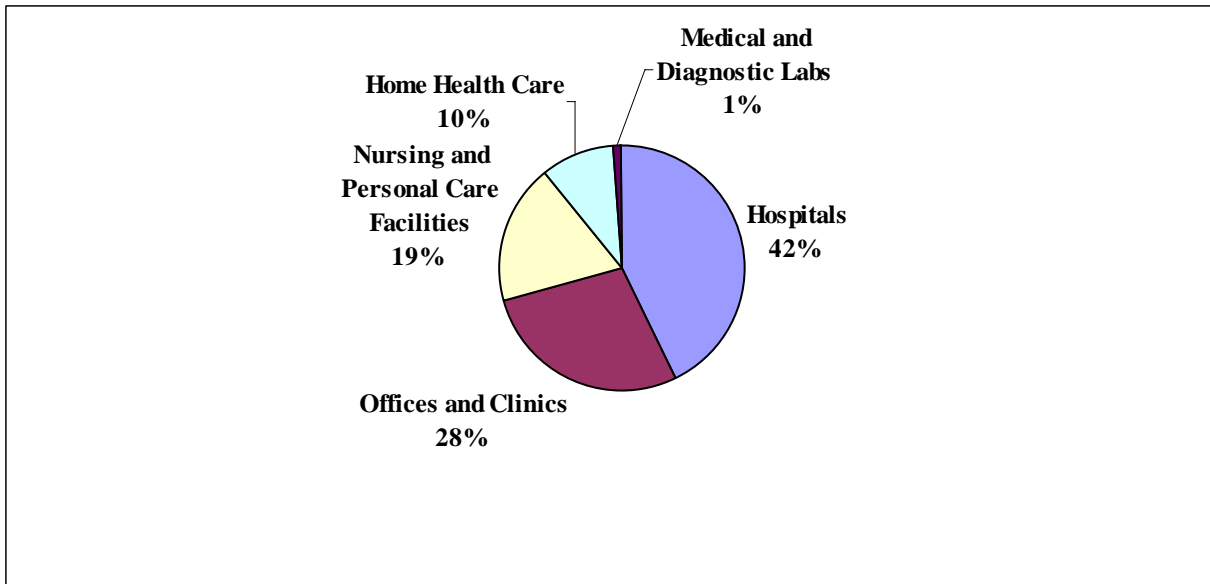


Sources: NYS Department of Labor, ES-202

B. By Setting

Hospitals employed the largest share of workers in the health sector in New York in 2007 (42% of all health sector employees), while most of the remainder worked either in offices and clinics (28%) or nursing and personal care facilities (19%) (Exhibit 14).

Exhibit 14
Health Sector Employment by Setting for New York, 2007



Sources: NYS Department of Labor, ES-202

Between 1990 and 2007, hospital employment in New York declined by more than 2%, while employment in other health settings grew dramatically, including a 96% increase in office and clinic jobs, a 87% increase in home health care jobs, and a 41% increase in nursing and residential care facility jobs (Exhibit 15).

Exhibit 15
Change in Health Sector Employment between 1990 and 2007 for New York

Health Setting	1990	2007	Number Change	Percent Change
Home Health Care	49,735	93,067	43,332	87.1%
Hospitals	430,078	420,122	-9,956	-2.3%
Medical and Diagnostic Laboratories	12,101	12,061	-40	-0.3%
Nursing and Residential Care Facilities ⁹	130,116	183,230	53,114	40.8%
Offices and Clinics	138,240	270,694	132,454	95.8%
Total	782,802 ⁸	979,174	196,371	25.1%

Sources: NYS Department of Labor, ES-202

⁹ Excluding residential mental retardation, mental health, and substance abuse facilities.

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

C. By Regions

Health sector employment in New York grew between 2002 and 2007 by slightly more than 8%. By 2007, the New York City region had more than 424,500 health sector jobs and the Long Island region had more than 147,500 health sector jobs, reflecting increases of 9.4% and 12.3%, respectively. The Mohawk Valley region had the largest percentage increase in health sector employment (15.2%), and the Central New York region had the third largest percentage increase in health care employment (11.0%) (Exhibit 16).

Exhibit 16
Total Health Sector Employment in New York
by Department of Labor Region, 2002 – 2007

Region	2002	2003	2004	2005	2006	2007	Change between 2002 and 2007	
							Number	Percent
Capital District	53,450	53,666	53,868	55,146	54,141	55,213	1,763	3.3%
Central New York	31,314	31,341	32,296	33,861	34,424	34,771	3,457	11.0%
Finger Lakes	53,938	55,135	56,329	57,777	58,303	59,374	5,436	10.1%
Hudson Valley	100,302	102,252	104,116	106,115	107,412	110,301	9,999	10.0%
Long Island	131,376	133,177	133,589	138,175	143,416	147,587	16,211	12.3%
Mohawk Valley	21,751	22,070	22,304	23,351	24,175	25,049	3,298	15.2%
New York City	387,985	394,431	397,859	405,944	414,683	424,585	36,600	9.4%
North Country	15,988	16,321	16,580	16,704	17,167	16,864	876	5.5%
Southern Tier	30,994	31,265	31,346	32,063	31,880	32,022	1,028	3.3%
Western New York	68,300	69,237	70,427	71,723	70,989	71,086	2,786	4.1%
Totals¹⁰	903,482	919,956	929,853	942,597	958,866	979,174	75,692	8.3%

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

¹⁰ The regions do not add up to the totals listed due to regional unclassification of certain responses. Numbers listed represent state totals.

The Long Island region had the most health sector jobs per 100,000 population in 2007 with 5,348 jobs per capita, followed by the Capital District region with 5,200 jobs per capita. The North Country had the fewest with 3,928 jobs per capita. The Mohawk Valley region had the largest per capita increase between 2002 and 2007 of nearly 16% followed by the Long Island and Central New York regions, of near 14% and slightly more than 12%, respectively (Exhibit 17).

Exhibit 17
Total Health Sector Employment in New York
by Department of Labor Region
Per 100,000, 2002 and 2007

Region	2002		2007		Change in Jobs Per Capita
	Population	Rate of Jobs Per Capita	Population	Rate of Jobs Per Capita	
Capital District	1,039,260	5,143	1,061,790	5,200	1.1%
Central New York	710,949	4,405	703,899	4,940	12.2%
Finger Lakes	1,202,252	4,486	1,189,334	4,992	11.3%
Hudson Valley	2,230,450	4,497	2,275,375	4,848	7.8%
Long Island	2,794,722	4,701	2,759,762	5,348	13.8%
Mohawk Valley	503,418	4,321	500,563	5,004	15.8%
New York City	8,106,876	4,786	8,274,527	5,131	7.2%
North Country	427,494	3,740	429,340	3,928	5.0%
Southern Tier	720,183	4,304	711,287	4,502	4.6%
Western New York	1,431,996	4,770	1,391,852	5,107	7.1%
Totals	19,167,600	4,671	19,297,729	5,062	8.4%

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

Hospital Employment

Between 2002 and 2007, overall hospital employment in New York increased by almost 15,000 jobs, or nearly 4%, with the biggest growth between 2005 and 2006. The Long Island region experienced the greatest percentage increase in hospital employment between 2002 and 2007, followed by the Finger Lakes region. The Long Island region also experienced the largest growth in the number of new jobs, with nearly 6,750 new jobs, followed by the New York City region with an increase of more than 3,330 jobs. The Western New York region experienced the only decline in hospital jobs, losing nearly 780 jobs between 2002 and 2007 (Exhibit 18).

Exhibit 18
Change in Hospital Employment in New York
by Department of Labor Region, 2002 - 2007

Region	2002	2003	2004	2005	2006	2007	Change, 2002 to 2007	
							Number	Percent
Capital District	20,958	21,377	20,898	21,340	21,627	22,074	1,116	5.3%
Central New York	11,300	11,187	11,273	11,394	11,481	11,641	341	3.0%
Finger Lakes	24,355	24,720	25,619	26,017	26,469	27,022	2,667	11.0%
Hudson Valley	39,511	39,266	38,979	38,663	39,353	39,895	384	1.0%
Long Island	46,939	47,181	47,475	46,334	50,980	53,690	6,751	14.4%
Mohawk Valley	9,330	9,414	9,466	9,461	10,245	10,199	869	9.3%
New York City	201,617	202,804	202,259	203,333	203,168	204,949	3,332	1.7%
North Country	8,066	8,386	8,399	8,381	8,471	8,320	254	3.1%
Southern Tier	15,106	15,247	15,105	15,253	15,494	15,150	44	0.3%
Western New York	27,946	28,088	28,203	27,302	27,221	27,167	-779	-2.8%
Totals	405,128	407,670	407,676	407,479	416,515	420,107	14,979	3.7%

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 slightly more than 7,500 jobs between 2002 and 2007. The Central New York region had the largest percentage increase of 29%, followed by the Long Island region (21%). Four regions experienced a loss of jobs in nursing and personal care facilities, with New York City and Capital District regions decreasing by more than 6% and nearly 7%, respectively (Exhibit 19).

Exhibit 19
Change in Nursing and Personal Care Facility Employment
in New York by Department of Labor Region, 2002 - 2007

Region	2002	2003	2004	2005	2006	2007	Change, 2002 to 2007	
							Number	Percent
Capital District	14,755	14,582	14,989	15,167	13,758	13,666	-1,089	-7.4%
Central New York	7,339	7,267	8,080	8,935	9,285	9,442	2,103	28.7%
Finger Lakes	11,810	12,341	12,350	13,943	13,721	13,767	1,957	16.6%
Hudson Valley	21,058	21,780	23,590	23,883	23,928	24,456	3,398	16.1%
Long Island	20,376	20,947	22,427	24,448	25,225	24,609	4,233	20.8%
Mohawk Valley	6,529	6,482	6,444	7,222	7,133	7,246	717	11.0%
New York City	64,862	63,554	63,208	62,051	60,982	61,139	-3,723	-5.7%
North Country	3,250	3,192	3,340	3,463	3,319	3,216	-34	-1.0%
Southern Tier	7,598	7,455	7,477	7,852	7,543	7,485	-113	-1.5%
Western New York	17,584	17,673	18,063	18,416	17,998	17,686	102	0.6%
Totals	175,160	175,273	179,968	185,568	184,898	182,712	7,552	4.3%

Sources: NYS Department of Labor, ES-202

Ambulatory Care

Employment in ambulatory care settings (excluding home health care) increased by more than 13% between 2002 and 2007, with more than 33,100 jobs added. The Mohawk Valley, Western 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, 2002 - 2007

Region	2002	2003	2004	2005	2006	2007	Change, 2002 to 2007	
							Number	Percent
Capital District	14,760	14,765	15,268	15,913	15,959	16,519	1,759	11.9%
Central New York	11,357	11,609	11,722	12,159	12,352	12,464	1,107	9.7%
Finger Lakes	13,254	13,914	14,118	14,259	14,649	15,064	1,810	13.7%
Hudson Valley	34,038	34,861	35,218	36,603	36,984	38,352	4,314	12.7%
Long Island	53,287	54,217	54,768	56,525	57,400	58,547	5,260	9.9%
Mohawk Valley	4,840	5,099	5,315	5,456	5,543	6,365	1,525	31.5%
New York City	86,406	88,557	90,945	94,751	95,709	99,219	12,813	14.8%
North Country	4,161	4,189	4,265	4,254	4,745	4,701	540	13.0%
Southern Tier	7,222	7,483	7,583	7,715	7,585	8,175	953	13.2%
Western New York	18,663	19,260	19,621	20,941	21,218	21,684	3,021	16.2%
Totals	247,988	253,954	258,823	268,576	274,150	281,090	33,102	13.3%

Sources: NYS Department of Labor, ES-202

Home Health Care

Between 2002 and 2007, employment in home health care in New York grew by almost 26,000 jobs, with the New York City region accounting for virtually all of the increase, a 68% jump in home health care jobs.

The Hudson Valley region experienced the next largest increase in home health care jobs, growing by slightly more than 1,900 jobs between 2002 and 2007, while, in contrast, the Finger Lakes region saw the largest decrease, losing nearly 1,000 jobs (22.1%) (Exhibit 21).

Exhibit 21
Change in Home Health Care Services Employment
in New York by Department of Labor Region, 2002 - 2007

Region	2002	2003	2004	2005	2006	2007	Change, 2002 to 2007	
							Number	Percent
Capital District	2,976	2,941	2,712	2,726	2,797	2,953	-23	-0.8%
Central New York	1,318	1,278	1,221	1,373	1,306	1,224	-94	-7.1%
Finger Lakes	4,519	4,161	4,242	3,558	3,465	3,522	-997	-22.1%
Hudson Valley	5,696	6,345	6,351	6,966	7,146	7,597	1,901	33.4%
Long Island	10,773	10,833	10,919	10,868	9,811	10,741	-32	-0.3%
Mohawk Valley	1,052	1,076	1,080	1,212	1,254	1,240	188	17.9%
New York City	35,209	39,516	41,447	45,809	54,825	59,277	24,068	68.4%
North Country	512	553	577	606	632	627	115	22.5%
Southern Tier	1,068	1,079	1,181	1,243	1,258	1,212	144	13.5%
Western New York	4,107	4,216	4,540	4,614	4,552	4,549	442	10.8%
Totals	67,230	71,998	74,270	79,027	87,046	92,942	25,712	38.2%

Sources: NYS Department of Labor, ES-202

D. By Occupation

Changes in the number of health care jobs in New York between 2002 and 2007 varied by occupation. While these data represented positions and not individuals or full time equivalents, they may be useful in identifying trends in occupations or job titles.

- Home health aide jobs increased by almost 37,300, or by nearly 35%;
- Nursing aides, orderlies, and attendant jobs increased by over 7,600, or more than 8%;
- Social worker jobs increased by over 7,000, or by nearly 20%;
- Medical and health service manager jobs increased by nearly 4,300, or by more than 21%; and
- RN jobs increased by nearly 3,400, or by more than 2%.
- Medical secretary jobs decreased by almost 3,000, or by slightly more than 22%;
- Medical and Clinical Laboratory Technicians jobs decreased by over 1,400, or by more than 15%; and
- Both LPN and medical assistant jobs decreased by more than 1,400, or by 3% and 7%, respectively (Exhibit 22).

Exhibit 22
Change in the Number of Jobs in Selected Health Occupations for New York,
2002 - 2007

Occupation	2002	2003	2004	2005	2006	2007	Change 2002 to 2007	
							Number	Percent
HEALTH CARE TECHNICIANS AND TECHNOLOGISTS								
Cardiovascular Technologists and Technicians	3,090	3,620	3,820	3,520	3,320	3,640	550	17.8%
Dietetic Technicians	1,660	1,520	1,490	1,650	1,540	1,310	-350	-21.1%
Licensed Practical and Licensed Vocational Nurses	48,560	47,990	51,420	50,060	48,230	47,120	-1,440	-3.0%
Medical and Clinical Laboratory Technicians	8,960	9,750	9,910	10,080	9,650	7,590	-1,370	-15.3%
Medical and Clinical Laboratory Technologists	9,050	9,680	9,340	8,980	9,760	9,690	640	7.1%
Medical Records and Health Information Technicians	6,340	7,030	7,220	7,740	8,190	8,630	2,290	36.1%
Nuclear Medicine Technologists	1,080	1,180	1,170	1,100	1,260	1,300	220	20.4%
Pharmacy Technicians	10,120	9,870	11,950	11,260	11,960	12,790	2,670	26.4%
Radiologic Technologists and Technicians	11,050	10,700	11,160	10,570	10,870	12,050	1,000	9.0%
Surgical Technologists	4,510	4,100	4,380	4,730	5,040	5,320	810	18.0%
HEALTH CARE PROFESSIONALS								
Dental Hygienists	10,000	9,910	10,000	9,180	9,270	9,960	-40	-0.4%
Dietitians and Nutritionists	4,280	4,240	4,180	3,970	4,240	4,190	-90	-2.1%
Pharmacists	13,730	12,620	13,100	13,400	13,970	15,310	1,580	11.5%
Physical Therapists	9,970	11,340	12,400	12,390	11,810	11,710	1,740	17.5%
Registered Nurses	163,600	163,710	165,800	164,370	164,970	166,990	3,390	2.1%
Respiratory Therapists	4,380	4,430	4,500	4,780	5,210	5,310	930	21.2%
Social Workers	35,900	34,970	34,320	38,170	42,470	42,930	7,030	19.6%
MANAGERS/ADMINISTRATIVE SUPPORT								
Medical and Health Services Managers	19,820	22,100	23,120	23,320	25,460	24,090	4,270	21.5%
Medical Secretaries	13,460	12,510	11,920	11,160	11,140	10,470	-2,990	-22.2%
HEALTH CARE PARAPROFESSIONALS								
Dental Assistants	17,600	18,110	16,160	17,010	17,270	16,590	-1,010	-5.7%
Home Health Aides	108,210	105,790	103,840	114,690	130,960	145,490	37,280	34.5%
Medical Assistants	19,160	21,310	21,080	18,220	17,800	17,750	-1,410	-7.4%
Nursing Aides, Orderlies, and Attendants	90,930	97,700	96,490	100,660	99,660	98,540	7,610	8.4%

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 2003 and 2007 in New York.

The number of RNs who were licensed increased by nearly 19,300, or 8.3%, between 2003 and 2007. The number of social workers who were licensed increased by over 9,100 individuals during the same period, or more than 22%. The numbers of physician assistants and nurse practitioners both grew between 2003 and 2007, by nearly 27% and 22%, respectively.

Exhibit 23
Changes in the Number of Licensed Individuals
in Selected Health Service Occupations for New York ⁹, 2003 - 2007

Profession	2003	2004	2005	2006	2007	Change 2003 to 2007	
						Number	Percent
Physician Assistants	6,806	7,229	7,747	8,221	8,631	1,825	26.8%
Social Workers	40,892	41,413	42,929	49,400	50,055	9,163	22.4%
Nurse Practitioners	11,195	11,717	12,344	12,902	13,615	2,420	21.6%
Speech-Language Pathologists	10,525	10,914	11,342	11,846	12,396	1,871	17.8%
Physical Therapists	16,152	16,556	16,958	17,639	18,465	2,313	14.3%
Pharmacists	19,029	19,136	19,243	19,832	21,574	2,545	13.4%
Occupational Therapists	8,697	8,946	9,137	9,367	9,565	868	10.0%
Registered Nurses	232,945	237,992	240,290	246,958	252,234	19,289	8.3%
Dental Hygienists	9,112	9,149	9,395	9,517	9,672	560	6.1%
Dietitians/Nutritionists	4,531	4,622	4,559	4,642	4,796	265	5.8%
Physical Therapy Assistants	4,417	4,367	4,365	4,458	4,566	149	3.4%
Occupational Therapy Assistants	3,591	3,614	3,592	3,626	3,648	57	1.6%
Respiratory Therapists	4,655	4,504	4,662	4,703	4,704	49	1.1%
Licensed Practical Nurses	68,754	66,746	69,467	69,855	68,805	51	0.1%

Source: NYS Education Department, Office of Professions

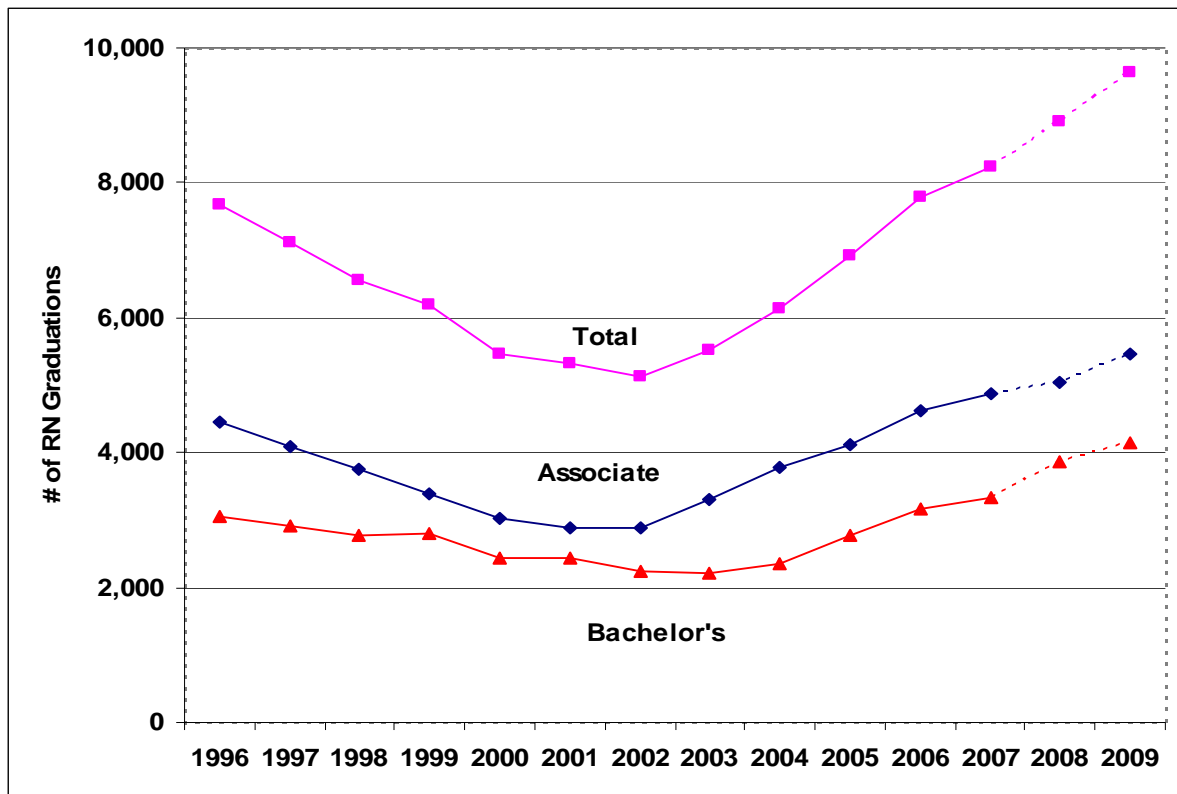
⁹ Note: This total includes all New York licensed individuals regardless of whether the address given in the licensure file was a New York address, while tables of licensees by region include only those individuals with an address in the region.

E. Trends in New York Registered Nursing Education, 1996 – 2009

The Center surveys registered nursing education programs in New York annually to better understand trends affecting the supply of RNs in the state. The brief survey includes questions on applications, acceptances, and graduations for the current year as well as projected graduations through 2008. Of the 114 nursing programs in New York, 104 returned the surveys for a 91% response rate. Data for the 10 nonrespondents were imputed from previous surveys; consequently, the following data reflect enrollment and graduations of all registered nursing programs in the state. (See the Appendix for the full report *Trends in New York Registered Nursing Graduations, 1996 – 2009*.)

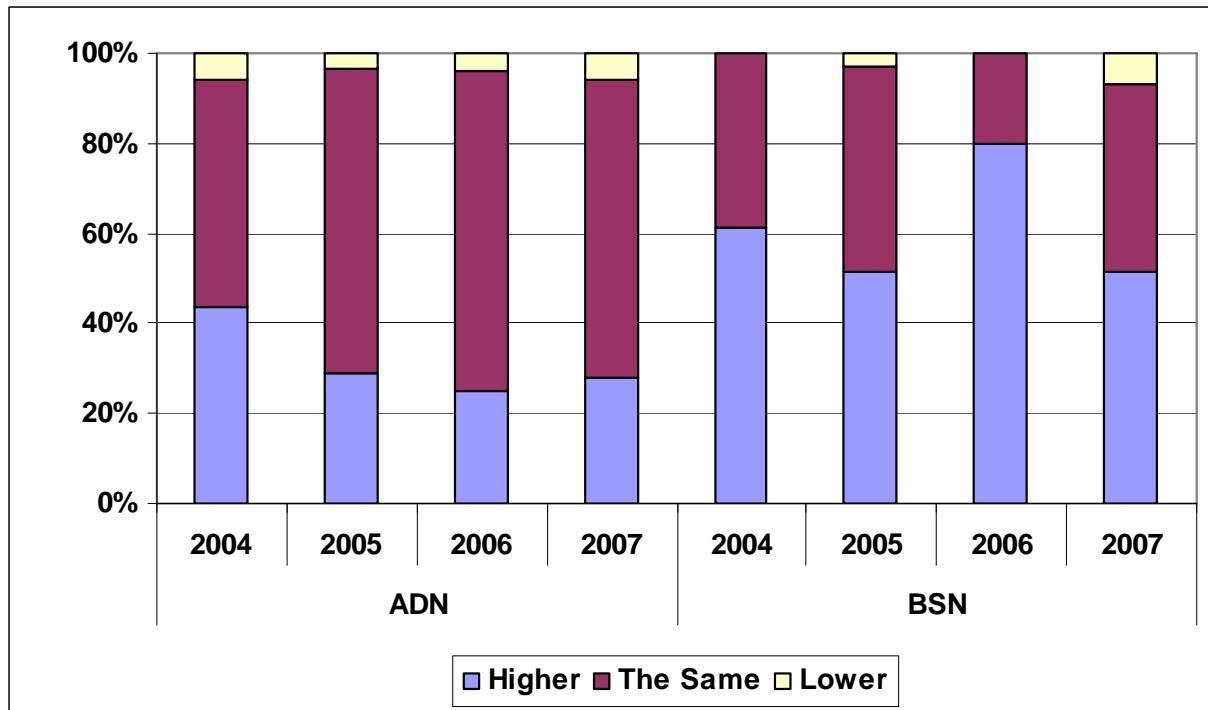
After six consecutive years of declining RN graduations between 1997 and 2002, overall RN graduations increased in each of the past five years (2003 through 2007). RN graduations from both associate degree (ADN) and bachelor degree (BSN) programs increased between 2004 and 2007 and are projected to continue to increase in 2008 and 2009 (Exhibit 24).

Exhibit 24
New York RN Graduations by Degree Type, 1996 to 2009



While graduations are projected to increase through 2009, the number of nursing education programs that reported an increase in acceptances between 2006 and 2007 declined from 48% to 38%. While a slightly higher percent of ADN programs reported an increase in acceptances between 2006 and 2007, there was a significant decrease in the percent of BSN programs that reported an increase in applications during the same period (Exhibit 25).

Exhibit 25
Percent Change in Number of Acceptances by Program Type, 2004 – 2007



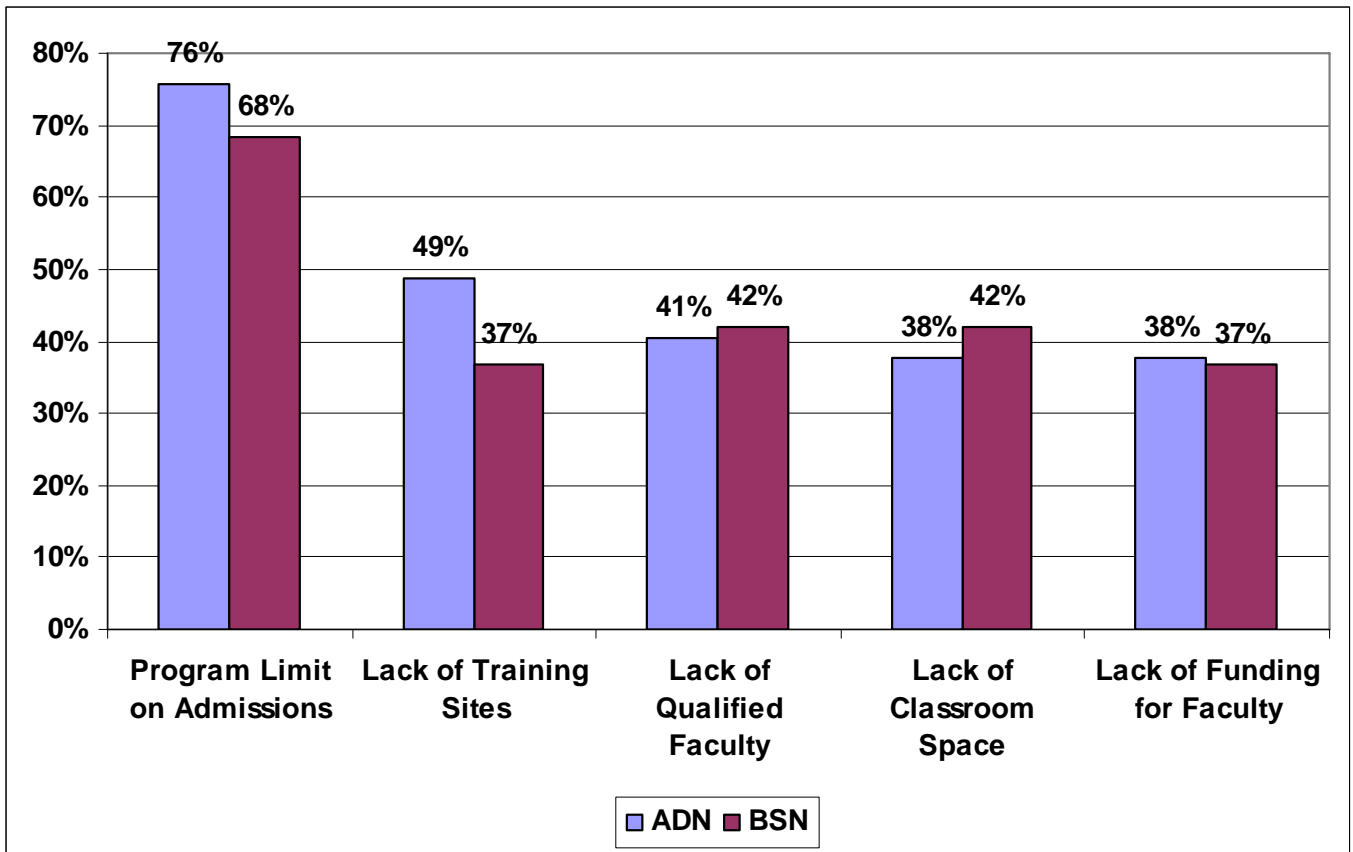
Fifty-four percent of nursing education programs reported turning away qualified applicants in 2007, compared to 59% in 2006 and 67% in 2005. ADN programs were more likely to turn away qualified applicants than BSN programs. Nearly two-thirds of ADN programs and slightly more than 40% of BSN programs reported turning away qualified applicants in 2007 (Exhibit 26).

Exhibit 26
Percentage of Respondents Reporting Turning Away Qualified Applicants by Program Type, 2004 – 2007

	2004	2005	2006	2007
All Programs	57%	67%	59%	54%
ADN	73%	80%	72%	65%
BSN	39%	50%	43%	41%

The majority of ADN and BSN programs that denied admissions to qualified applicants cited limits on program admissions as the primary reason for doing so. Other reasons indicated by nursing education programs included a lack of clinical training sites and qualified faculty (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 workers¹¹. The survey of hospitals, nursing homes, and home health care agencies was conducted in the fall of 2008.

Hospitals

Thirty-two hospitals in New York, or approximately 13%, responded to the survey. Hospitals across the state reported continued difficulty recruiting and retaining pharmacists, medical laboratory technicians, physician assistants, and experienced RNs. Shortage of workers and competition for workers were the reasons cited most often for these difficulties (Exhibit 28).

Exhibit 28
Hospital Recruitment and Retention Difficulties for Selected Occupations, 2008

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.9	2.4	47%	28%	13%	0%
Medical Laboratory Technicians	4.3	3.0	50%	47%	28%	0%
Nursing Aides/Patient Care Associates	2.4	3.2	13%	13%	19%	13%
Nurse Practitioners	3.9	2.9	44%	25%	25%	0%
Pharmacists	4.6	3.1	69%	53%	34%	6%
Physician Assistants	4.0	3.1	31%	31%	22%	3%
Physical Therapists	4.3	2.9	59%	56%	38%	6%
Radiologic Technologists						
<i>-mammographers</i>	3.2	2.4	16%	25%	16%	3%
<i>-nuclear medicine technologists</i>	3.7	2.3	31%	38%	19%	6%
<i>-sonographers</i>	3.5	2.6	25%	41%	25%	3%
Registered Nurses						
<i>-Experienced</i>	4.3	3.3	69%	72%	31%	9%
<i>-Newly Trained</i>	3.0	3.4	47%	59%	28%	6%
Respiratory Therapists	3.6	2.9	41%	25%	16%	0%

¹¹ Recruitment and retention for each of the three health sectors were assessed on 1 to 5 scale, with 1 being very easy and 5 being very difficult.

Seventy-six percent of hospitals statewide reported difficulty hiring for off-shift positions, while 44% reported difficulty hiring part-time employees. About 34% indicated that hiring bilingual workers (mostly Spanish-speaking) was also problematic.

Thirty-one percent of the respondents statewide indicated an expected expansion of service in the future and reported need for additional RNs, physical therapists, occupational therapists, and LPNs.

Nursing Homes

One hundred nursing homes in New York responded to the survey for response rate of about 16%. Nursing homes across the state reported recruitment and retention difficulties for experienced RNs, physical therapists, LPNs, and newly-trained RNs. Retention problems were reported for experienced and newly-trained RNs, certified nursing aides, and LPNs. Shortage of workers and competition for workers were cited most often as the reasons for these difficulties (Exhibit 29).

Exhibit 29
Nursing Home Recruitment and Retention Difficulties for Selected Occupations, 2008

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	3.1	3.4	45%	49%	30%	14%
Clerical	1.9	2.0	1%	7%	10%	4%
Dietitians/Nutritionists	3.3	2.5	27%	22%	18%	3%
Licensed Practical Nurses	3.6	3.2	47%	50%	36%	7%
Occupational Therapists	3.8	2.7	35%	38%	21%	1%
Physical Therapists	4.0	2.9	40%	39%	27%	1%
Registered Nurses -Experienced	4.3	3.5	67%	67%	50%	8%
-Newly Trained	3.6	3.5	46%	48%	30%	8%
Respiratory Therapists	3.5	2.9	5%	5%	5%	1%
Social Workers -MSWs	3.0	2.4	10%	9%	15%	1%
-BSWs	2.8	2.6	6%	7%	15%	1%

Statewide, 78% of nursing homes reported difficulty hiring for off-shifts, while 49% indicated difficulties hiring part-time, and 24% struggled to hire bilingual workers (Spanish- and Russian-speaking).

Approximately 13% of nursing homes statewide indicated an expected expansion of services in the future and reported a need for more workers in the following occupations: certified nursing aides, LPNs, and physical and occupational therapists.

Home Health Care Agencies

About 14% of home health care agencies in New York responded to the survey. Statewide, home health care agencies reported difficulty recruiting for many occupations, particularly occupational therapists, experienced RNs, and respiratory therapists. Retention was most problematic for home health aides, personal care aides, and speech pathologists (Exhibit 30).

**Exhibit 30
Home Health Agency Recruitment and Retention Difficulties
for Selected Occupations, 2008**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.8	2.7	18%	13%	12%	3%
Home Health Aides	3.7	3.6	36%	39%	40%	14%
Licensed Practical Nurses	3.2	3.0	20%	23%	23%	4%
Occupational Therapists	4.2	3.0	23%	15%	13%	4%
Personal Care Aides	3.5	3.6	22%	23%	25%	9%
Physical Therapists	3.9	2.9	20%	19%	15%	3%
Registered Nurses						
- <i>Experienced</i>	4.1	3.2	47%	45%	50%	9%
- <i>Newly Trained</i>	3.5	3.2	27%	28%	29%	6%
Respiratory Therapists	4.0	3.4	9%	7%	7%	2%
Social Workers						
- <i>MSWs</i>	3.9	3.2	15%	10%	9%	5%
- <i>BSWs</i>	3.5	3.0	14%	12%	11%	3%
Speech Pathologists	3.5	3.5	8%	8%	9%	4%

Forty percent of home health care agencies statewide indicated an expected expansion of service in the future and indicated that home health aides, RNs, personal care aides, LPNs, physical therapists, and occupational therapists were needed for these expansions. Ten percent of the home health care agencies statewide reported an expected reduction in services in the future, with home health aides, personal care aides, RNs, LPNs, and MSW social workers being affected by these reductions.

G. Projected Job Growth

Between 2006 and 2016, the NYS DOL projects the number of home health aide jobs will increase by over 52,300 and have nearly 6,500 average annual job openings. The number of RN jobs is projected to increase by more than 24,000 during the same period and have over 5,200 average annual job openings (Exhibit 31).

Exhibit 31
Employment Projections for Health Care Occupations¹²
for New York State, including New York City, 2006 – 2016

	2006	2016	Growth Between 2006 and 2016		Avg. Annual Openings
			Number	Percent	
Home Health Aides	138,290	190,610	52,320	37.8%	6,470
Registered Nurses	169,400	193,520	24,120	14.2%	5,210
Nursing Aides, Orderlies, and Attendants	104,210	116,310	12,100	11.6%	2,140
Licensed Practical Nurse	49,820	54,830	5,010	10.1%	1,860
Medical Assistants	18,060	23,540	5,480	30.3%	770
Dental Assistants	17,570	21,860	4,290	24.4%	740
Medical and Health Services Managers	27,830	29,640	1,810	6.5%	700
Pharmacy Technicians	12,110	13,840	1,730	14.3%	540
Medical and Public Health Social Workers	11,160	13,160	2,000	17.9%	440
Pharmacists	14,200	16,010	1,810	12.7%	430
Dental Hygienists	9,390	11,760	2,370	25.2%	420
Physical Therapists	12,870	15,490	2,620	20.4%	420
Clinical, Counseling, and School Psychologists	14,200	15,300	1,100	7.7%	330
Emergency Medical Technicians and Paramedics	12,750	14,460	1,710	13.4%	320
Medical Records and Health Information Technicians	8,370	9,210	840	10.0%	310
Medical Secretaries	11,510	12,810	1,300	11.3%	310
Radiologic Technologists and Technicians	11,100	12,110	1,010	9.1%	250
Occupational Therapists	8,370	9,550	1,180	14.1%	240
Medical and Clinical Laboratory Technicians	9,930	10,760	830	8.4%	230
Medical and Clinical Laboratory Technologists	9,980	10,790	810	8.1%	230
Speech Language Pathologists and Audiologists	8,830	9,460	630	7.1%	230
Surgical Technologists	5,120	5,800	680	13.3%	230
Physician Assistants	6,780	7,730	950	14.0%	190
Dietitians and Nutritionists	4,660	4,910	250	5.4%	150
Respiratory Therapists	5,310	5,950	640	12.1%	140
Cardiovascular Technicians and Technologists	3,400	3,980	580	17.1%	110
Diagnostic Medical Sonographers	3,670	4,240	570	15.5%	110
Medical Transcriptionists	4,590	5,070	480	10.5%	110
Psychiatric Aides	6,080	6,080	0	0.0%	50

Source: NYS Department of Labor, Wage and Industry Data, Occupational Outlook, 2006 – 2016

¹² Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2006 and the projected number of jobs in those categories in 2016. Annual openings reflect both creation of new positions in the occupation and replacement for those retiring or leaving the profession for other reasons.

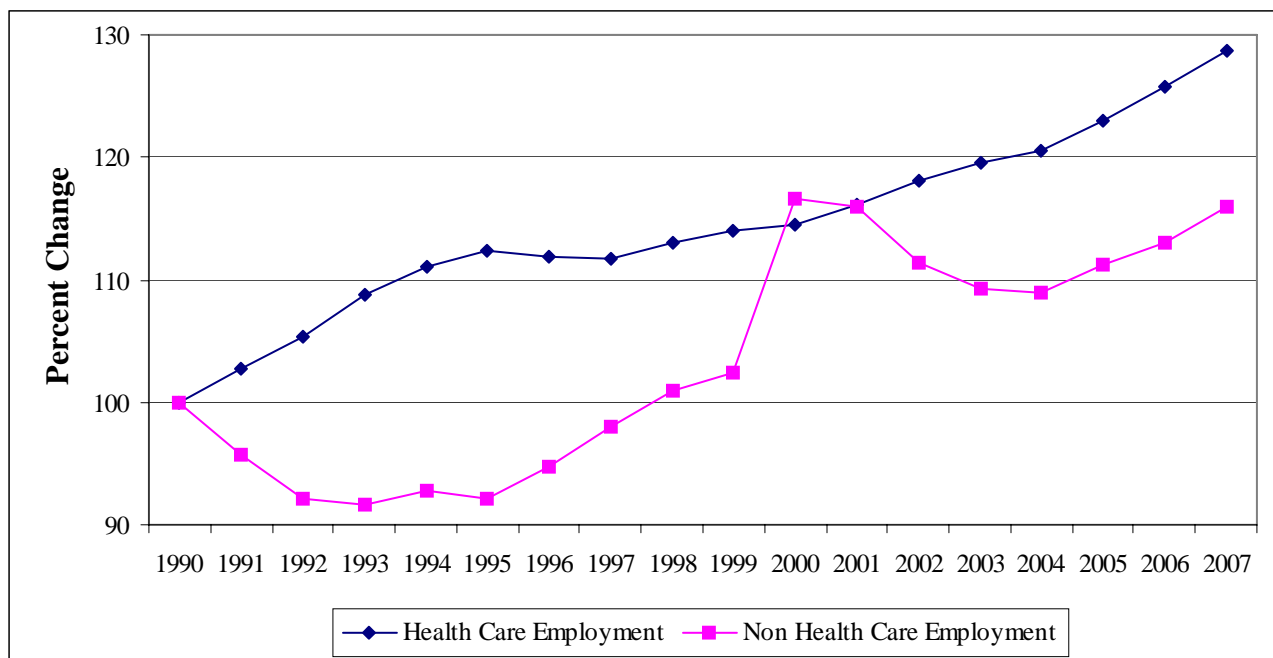
V. REGIONAL PROFILES

A. New York City

1. Total Employment

Between 1990 and 2007, 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 and between 2004 and 2007. Employment in all other sectors declined between 2000 and 2004, but grew between 2004 and 2007. Between 1990 and 2007, employment in the health sector in New York City grew by nearly 29% while employment in all other sectors grew by only 16% during the same period (Exhibit 32).

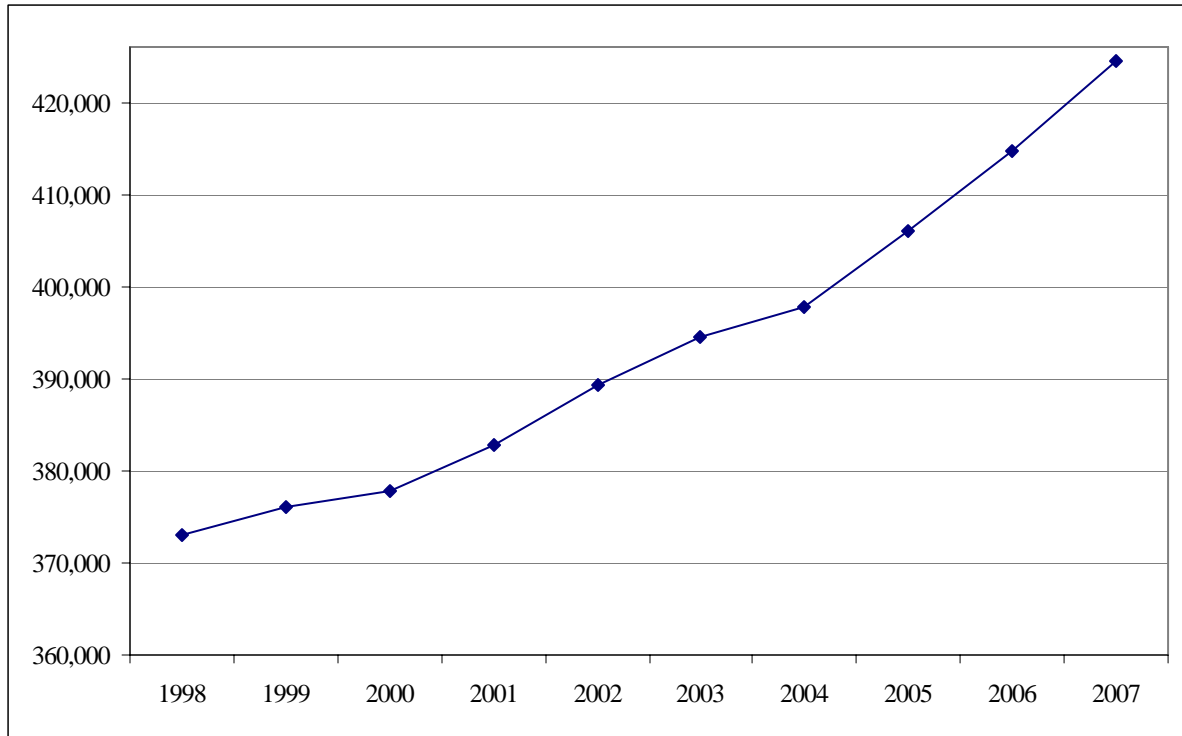
Exhibit 32
New York City Employment Growth between 1990 and 2007, Standardized to 1990



Source: NYS Department of Labor, ES-202

Between 1998 and 2007 in New York City, health sector employment increased by 14%, including annual increases of more than 2% between 2004 and 2007 (Exhibit 33).

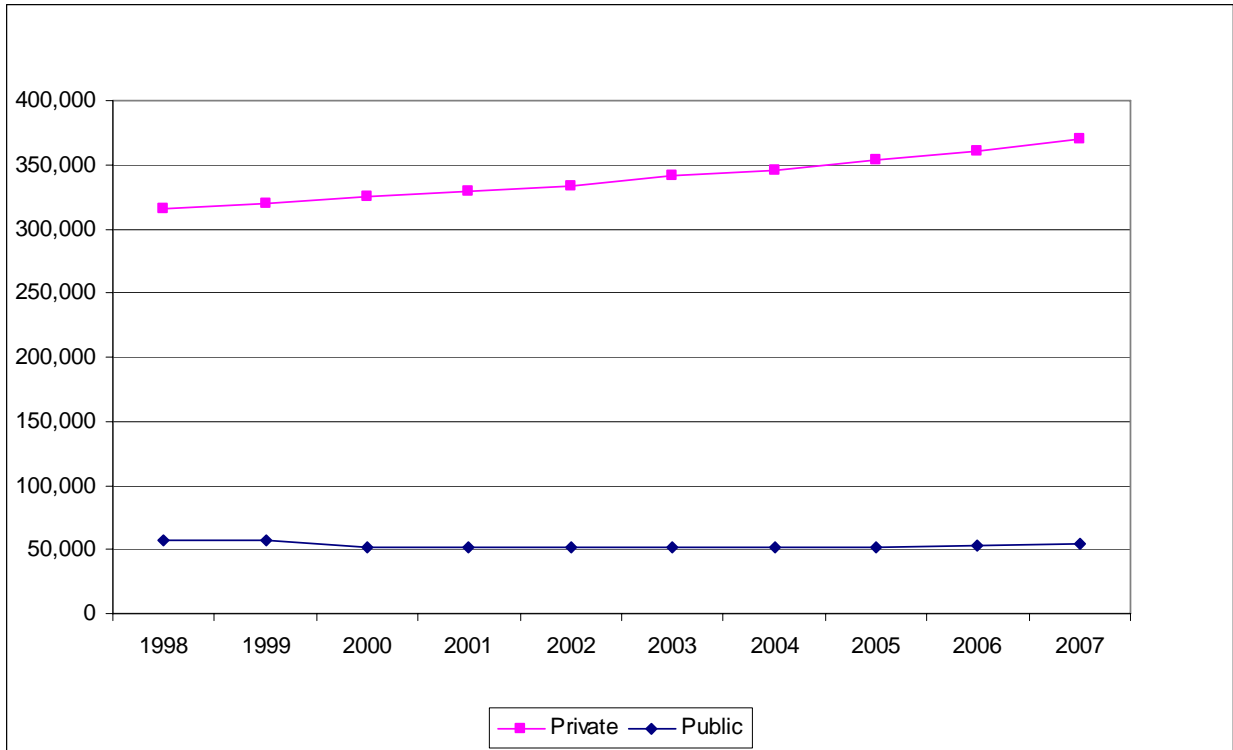
Exhibit 33
Trends in Health Care Employment, 1998 - 2007



Source: NYS Department of Labor, ES-202

Between 1998 and 2007, private health sector employment increased by 17% in New York City, including increases of more than 2% annually in last three years. Public health sector employment in New York City declined by 5% during the same period, fueled by a substantial reduction in jobs in the mid-1990's, though it increased by nearly 5% between 2004 and 2007 (Exhibit 34).

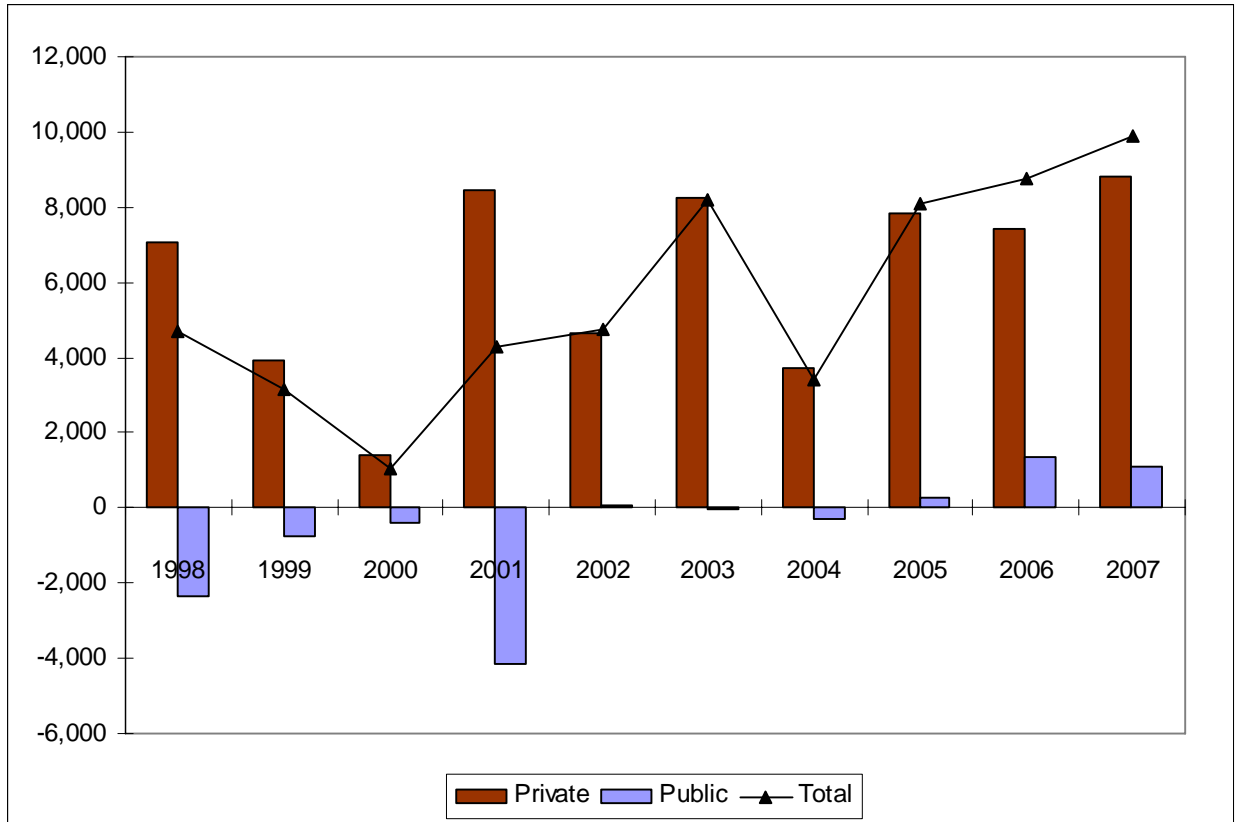
Exhibit 34
Trends in Public and Private Health Employment for New York City, 1998 – 2007



Source: NYS Department of Labor, ES-202

Between 1998 and 2007, private health sector employment increased each year in New York City. In contrast, public health sector employment decreased each of the first four years, remained steady for the next three years, and then increased between 2005 and 2007 (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, 1998 – 2007

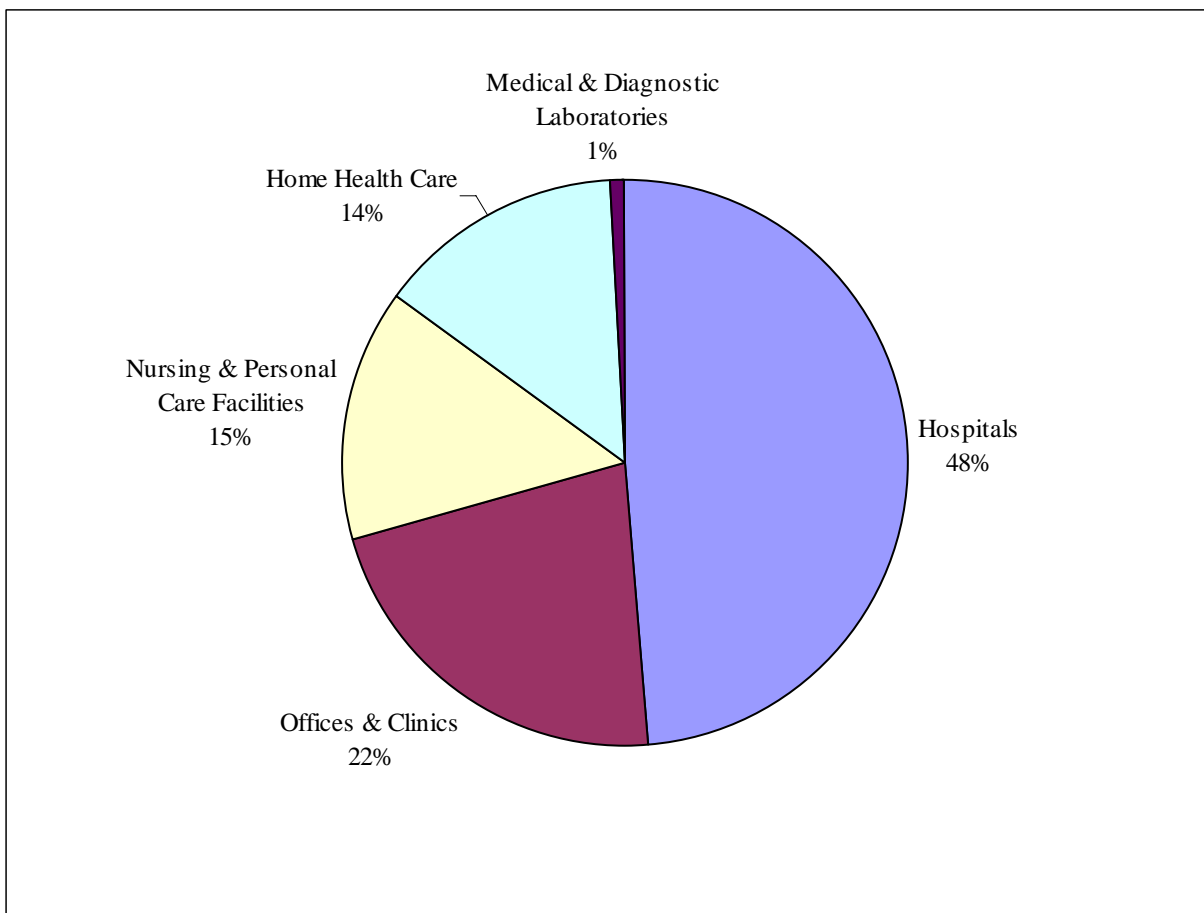


Source: NYS Department of Labor, ES-202

2. *By Setting*

Hospitals continued to be the largest employer of New York City health workers in 2007, accounting for nearly one-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, 2007



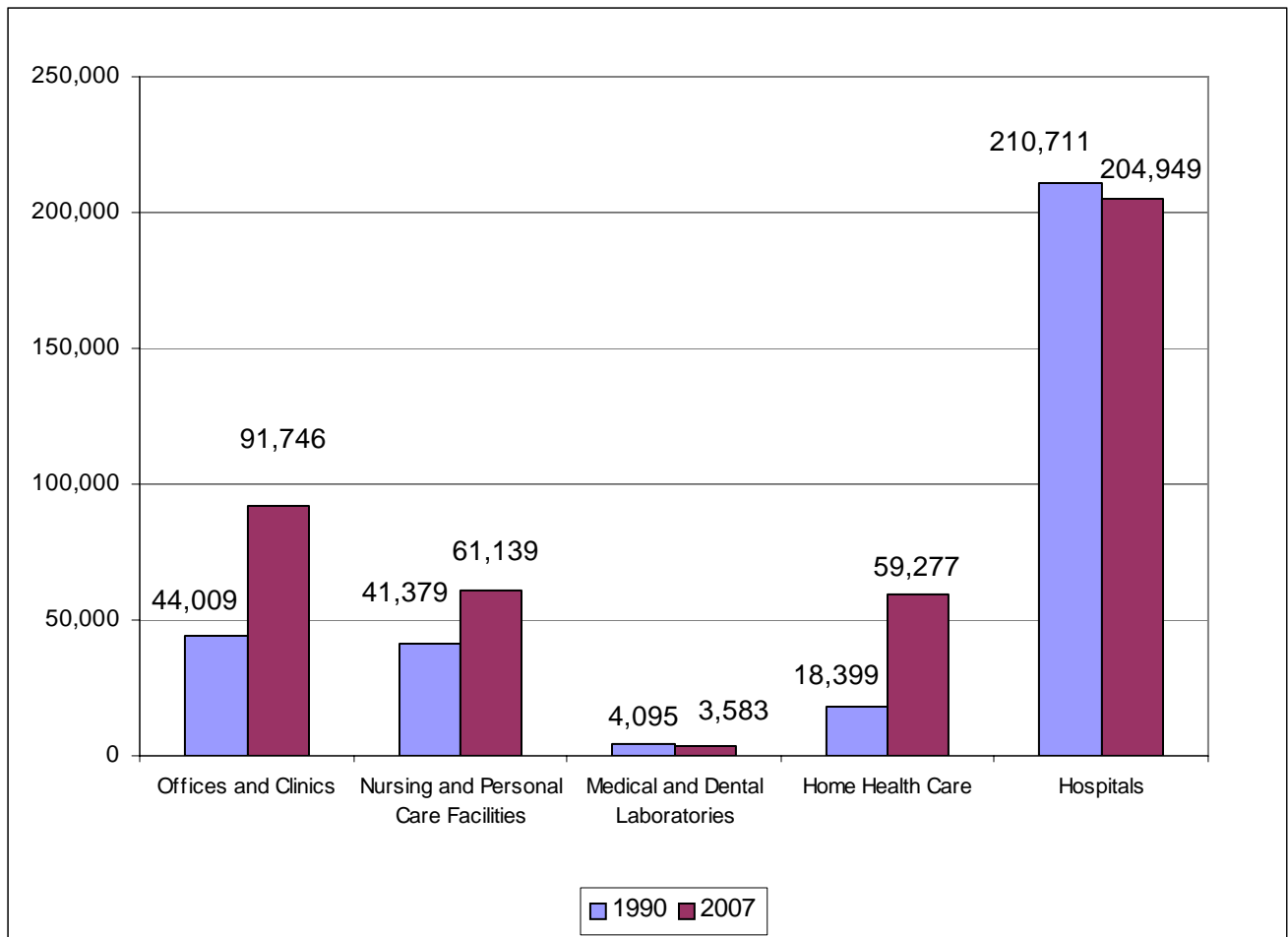
Source: NYS Department of Labor, ES-202

Between 1990 and 2007, health sector employment significantly increased in certain settings in New York City, including:

- Home health care, which more than tripled;
- Offices and clinics, which more than doubled; and
- Nursing and personal home care facilities, which increased by almost 48%.

Hospital employment in New York City decreased by nearly 3% between 1990 and 2007, 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 almost 13% over the same period (Exhibit 37).

Exhibit 37
Number of Jobs by Health Care Setting in New York City,
1990 and 2007



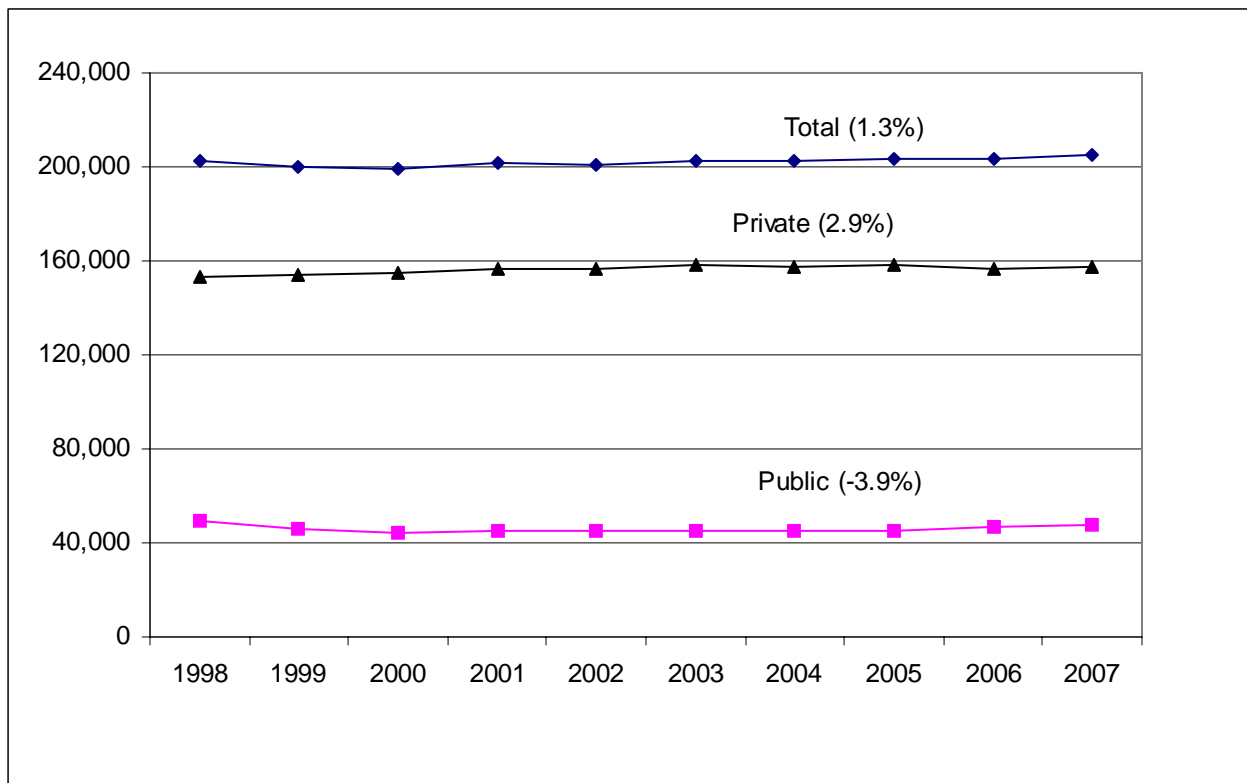
Source: NYS Department of Labor, ES-202

3. Hospital Employment Trends

Overall, hospital employment in New York City increased by more than 1% between 1998 and 2007, with private sector hospital jobs increasing by nearly 3% while public sector hospital jobs decreased by 4%.

In 1998, private sector hospital employment was almost three times greater than public sector hospital employment. By 2007, private sector hospital employment was slightly more than three times greater than public sector hospital employment (Exhibit 38).

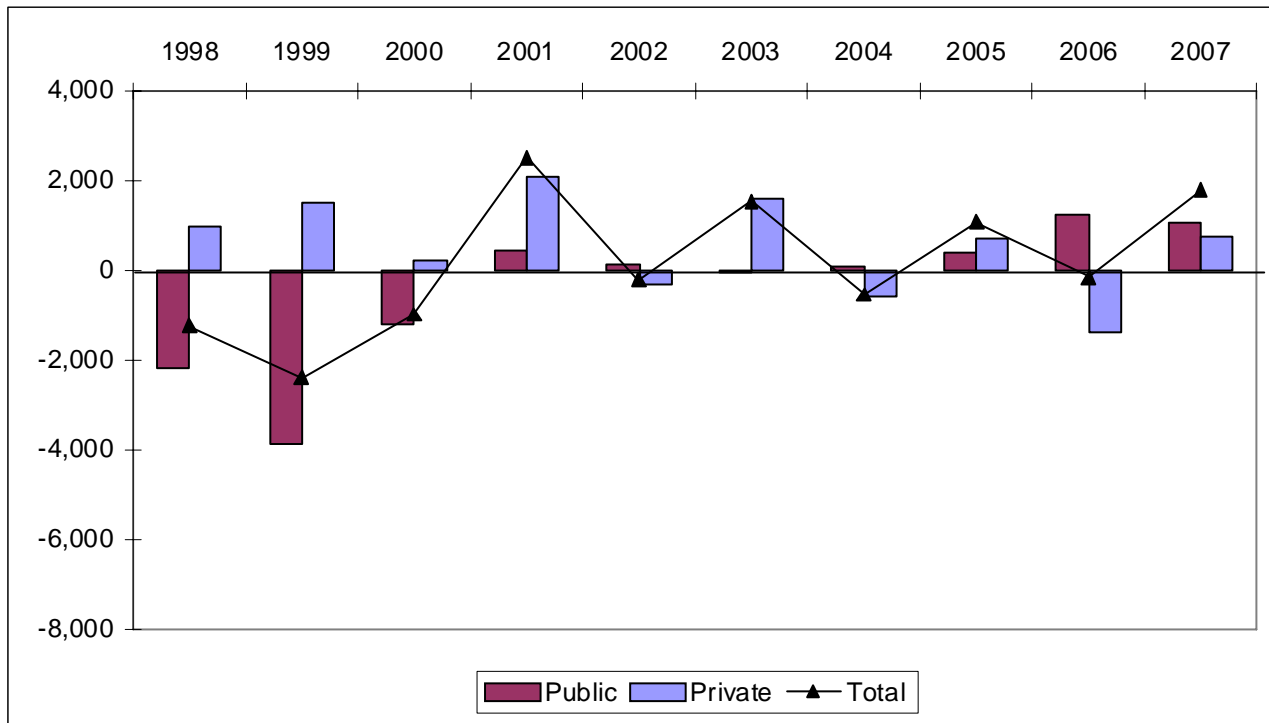
Exhibit 38
Trends in Hospital Employment for New York City, 1998 – 2007



Source: NYS Department of Labor, ES-202

Between 1998 and 2000, overall hospital employment declined, driven by significant reductions in public sector hospital jobs. Between 2001 and 2007, overall hospital employment either increased or experienced small declines. Public hospital sector employment showed modest growth between 2000 and 2007, with a very slight decline in employment between 2002 and 2003. Private hospital sector growth had intervals of growth and decline between 2001 and 2007 (Exhibit 39).

Exhibit 39
Annual Change from the Prior Year in Hospital Employment for New York City,
Public and Private Employment, 1998 – 2007



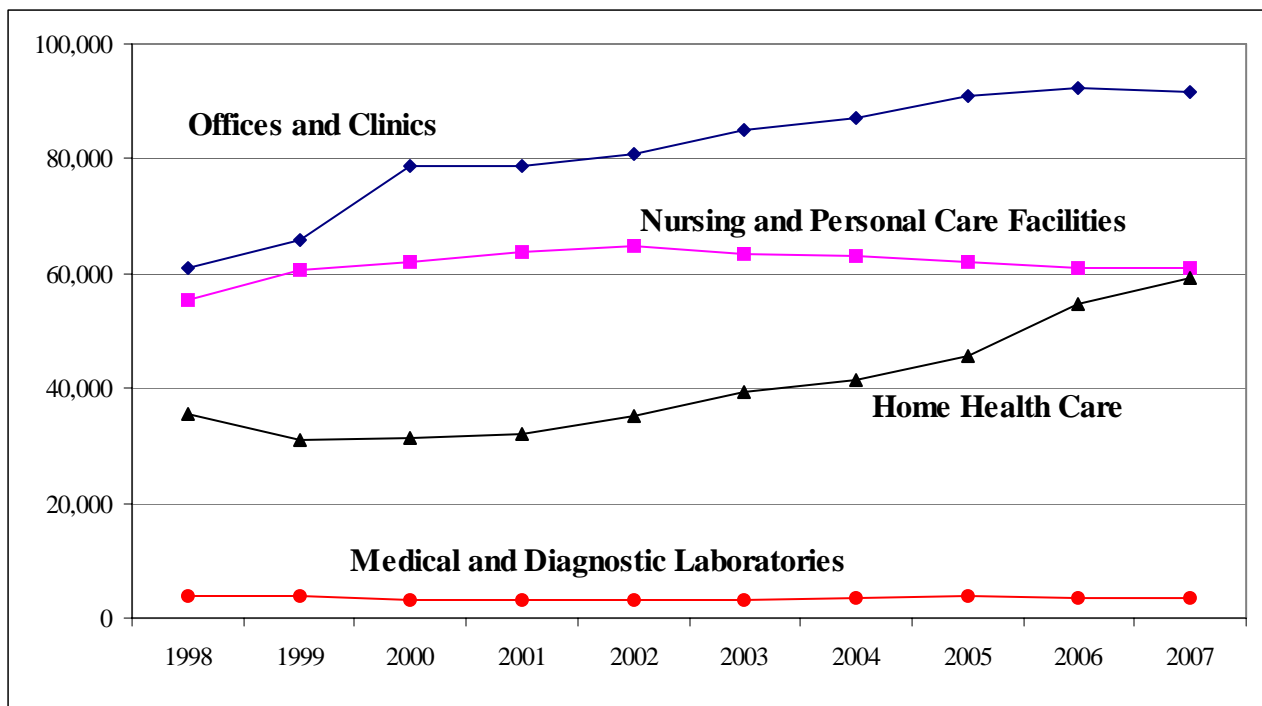
Source: NYS Department of Labor, ES-202

4. Non-Hospital Employment Trends

Between 1998 and 2007, the most significant health sector employment trends outside of hospitals were:

- A rise in home health care employment of more than 67%. After two years of decline in 1998 and 1999, employment in home health care grew by nearly 92% between 1999 and 2007;
- Increases in office and clinic employment of nearly 51%; and
- Growth in employment in nursing and personal care facilities of 10% (Exhibit 40).

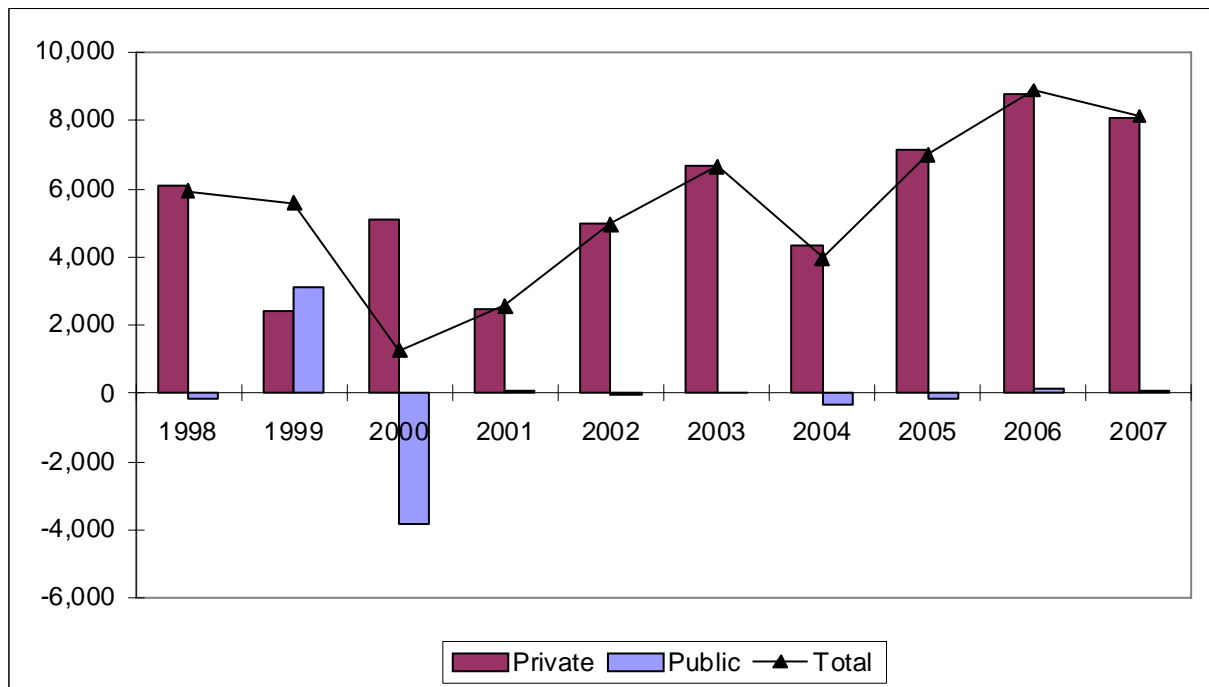
Exhibit 40
Trends in Non-Hospital Health Employment for New York City, 1998 – 2007



Source: NYS Department of Labor, ES-202

Between 1998 and 2007, annual changes in non-hospital health sector employment in New York City were driven by substantial year-to-year increases in private employment, including the addition of more than 6,000 new jobs in 1998 and 2003, the addition of over 7,000 jobs in 2005, and the addition of more than 8,000 jobs in both 2006 and 2007. Public employment in the non-hospital health sector dramatically declined in 2000, and then remained relatively stable between 2001 and 2007, including slight increases each year between 2005 and 2007 (Exhibit 41).

Exhibit 41
Annual Change from the Prior Year in Non-Hospital Health Care Employment
for New York City, Public and Private, 1998 – 2007



Source: NYS Department of Labor, ES-202

5. By Occupation

Between 2002 and 2007, 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.

- Home health aide jobs increased by nearly 50,000, or by 90%;
- RN jobs increased by almost 15,400, or by nearly 19%;
- Nursing aides, orderlies, and attendant jobs increased by over 9,600, or by slightly more than 21%;
- Social worker jobs increased by 7,500, or by 37%;
- Medical secretary jobs increased by more than 4,500, or by 88%; and
- LPN jobs decreased by nearly 1,800, or by more than 8% (Exhibit 42).

Exhibit 42
**Number of Jobs in Selected Health Occupations for the New York City Primary
Metropolitan Statistical Area¹³**

Occupation	2002	2003	2004	2005	2006	2007	Change, 2002 to 2007	
							Number	Percent
HEALTH CARE TECHNICIANS/TECHNOLOGISTS								
Cardiovascular Technologists and Technicians	1,440	1,800	1,880	1,960	1,880	1,840	400	27.8%
Medical and Clinical Laboratory Technologists	4,740	5,100	5,160	6,510	6,940	6,670	1,930	40.7%
Pharmacy Technicians	3,960	4,340	5,100	6,850	7,370	7,230	3,270	82.6%
Medical Records and Health Information Technicians	2,880	3,070	3,270	3,930	3,840	3,870	990	34.4%
Nuclear Medicine Technologists	490	510	460	660	730	660	170	34.7%
Medical and Clinical Laboratory Technicians	4,810	5,550	5,740	6,770	6,550	5,170	360	7.5%
Licensed Practical Nurses	21,210	20,370	22,830	22,860	20,630	19,430	-1,780	-8.4%
Dietetic Technicians	640	580	500	640	540	420	-220	-34.4%
Surgical Technologists	2,550	2,250	2,560	3,190	3,220	3,090	540	21.2%
Radiologic Technologists and Technicians	4,320	4,190	4,400	5,540	5,680	6,700	2,380	55.1%
HEALTH CARE PROFESSIONALS								
Physical Therapists	4,480	5,180	5,990	6,940	6,550	6,600	2,120	47.3%
Registered Nurses	81,190	79,990	83,240	99,010	96,720	96,560	15,370	18.9%
Pharmacists	6,790	5,950	6,230	7,630	7,850	8,410	1,620	23.9%
Dietitians and Nutritionists	2,350	2,190	2,100	2,350	2,510	2,380	30	1.3%
Respiratory Therapists	2,100	2,150	2,220	2,980	3,350	3,100	1,000	47.6%
Social Workers	20,120	21,340	20,760	26,280	27,960	27,620	7,500	37.3%
Dental Hygienists	3,390	3,080	3,600	3,900	4,050	4,220	830	24.5%
MANAGEMENT/ADMINISTRATIVE SUPPORT								
Medical and Health Services Managers	10,540	12,260	13,110	13,970	15,550	14,500	3,960	37.6%
Medical Secretaries	5,140	4,210	3,880	10,850	9,700	9,670	4,530	88.1%
HEALTH CARE PARAPROFESSIONALS								
Nursing Aides, Orderlies, and Attendants	44,990	48,540	48,150	58,130	55,940	54,630	9,640	21.4%
Dental Assistants	8,780	8,730	7,230	9,330	9,550	9,550	770	8.8%
Medical Assistants	8,420	9,690	8,750	11,270	10,900	12,010	3,590	42.6%
Home Health Aides	55,090	55,200	56,170	80,280	95,560	104,690	49,600	90.0%

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

¹³ 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 counties only.

6. Licensed Health Care Professionals

Between 2003 and 2007, the overall number of licensed health professionals in New York City grew with the largest percentage increases for social workers (56%) and speech-language pathologists (33%). The numbers of nurse practitioners grew by almost 27%; licensed physician assistants increased by nearly 18%, and occupational therapists grew by more than 14% over the same time period.

Several occupations decreased in size between 2003 and 2007 in New York City. The number of physical therapy assistants declined by 1%, though that occupation has shown growth in both 2006 and 2007. The number of RNs showed slight 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, 2003 - 2007

Profession	2003	2004	2005	2006	2007	Change 2003 to 2007	
						Number	Percent
Social Workers	15,033	15,156	15,488	21,638	23,461	8,428	56.1%
Speech-Language Pathologists	2,364	2,528	2,723	2,920	3,140	776	32.8%
Nurse Practitioners	2,098	2,197	2,331	2,469	2,658	560	26.7%
Registered Physician Assistants	2,098	2,186	2,284	2,396	2,465	367	17.5%
Occupational Therapists	2,128	2,177	2,237	2,335	2,435	307	14.4%
Physical Therapists	3,922	3,959	4,082	4,193	4,387	465	11.9%
Dental Hygienists	1,428	1,434	1,464	1,498	1,560	132	9.2%
Pharmacists	5,201	4,679	4,728	4,865	5,609	408	7.8%
Occupational Therapy Assistants	833	834	839	849	866	33	4.0%
Registered Nurses	53,075	53,198	53,085	53,129	54,736	1,661	3.1%
Dietitians/Nutritionists	1,406	1,432	1,414	1,415	1,450	44	3.1%
Respiratory Therapists	1,154	1,149	1,161	1,170	1,164	10	0.9%
Physical Therapy Assistants	1,023	997	982	999	1,013	-10	-1.0%

Source: NYS Education Department, Office of Professions

7. Demand for Workers

Hospitals

Hospitals in the downstate New York reported the most difficulty recruiting pharmacists, physician assistants, and medical laboratory technicians. Retention was most problematic for pharmacists and newly-trained RNs.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.8	1.8	30%	40%	30%	0%
Medical Laboratory Technicians	4.3	3.0	50%	40%	30%	0%
Nursing Aides/Patient Care Associates	2.0	2.4	0%	10%	10%	0%
Nurse Practitioners	3.6	1.6	30%	30%	30%	0%
Pharmacists	4.8	4.7	80%	60%	30%	0%
Physical Therapists	3.8	2.4	50%	50%	40%	10%
Physician Assistants	4.4	3.0	20%	20%	30%	0%
Radiologic Technologists						
-mammographers	2.9	2.1	20%	20%	20%	10%
-nuclear medicine technologists	3.1	2.2	20%	20%	20%	10%
-sonographers	2.8	2.1	20%	20%	20%	10%
Registered Nurses						
-Experienced	3.9	2.4	60%	60%	40%	0%
-Newly Trained	2.3	3.1	20%	40%	40%	0%
Respiratory Therapists	3.3	2.2	40%	10%	20%	0%

Thirty percent of the hospitals in downstate New York cited difficulty hiring part-time workers, 30% reported difficulty hiring workers for off-shifts, and 30% reported difficulty hiring bilingual employees (Spanish-speaking).

Nursing Homes

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	1.8	2.1	8%	17%	0%	8%
Clerical	2.1	2.1	0%	17%	0%	0%
Dietitians/Nutritionists	3.7	2.6	17%	33%	25%	0%
Licensed Practical Nurses	4.3	3.4	58%	42%	17%	8%
Occupational Therapists	4.2	2.7	42%	42%	17%	0%
Physical Therapists	4.2	2.9	33%	33%	17%	0%
Registered Nurses						
- <i>Experienced</i>	4.7	3.9	67%	50%	42%	8%
- <i>Newly Trained</i>	3.7	3.4	58%	42%	8%	8%
Respiratory Therapists	4.0	3.5	0%	0%	8%	0%
Social Workers						
- <i>MSWs</i>	3.9	3.1	33%	17%	17%	0%
- <i>BSWs</i>	3.4	3.0	17%	0%	17%	0%

In addition, 50% of the nursing homes in New York City reported difficulty hiring for part-time positions, while 67% reported difficulty hiring for off-shifts. Forty-two percent indicated that hiring bilingual workers (mostly Spanish-, Russian-, and Chinese-speaking) was also problematic.

Home Health Agencies

Home health agencies in New York City reported the most difficulty recruiting occupational therapists, experienced RNs, and respiratory therapists. Retention was most problematic for MSWs, home health aides, LPNs, and respiratory therapists.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.5	2.7	15%	9%	7%	4%
Home Health Aides	3.2	3.5	28%	33%	33%	15%
Licensed Practical Nurses	3.6	3.4	19%	19%	26%	6%
Occupational Therapists	4.2	3.2	20%	13%	11%	2%
Personal Care Aides	2.8	3.0	13%	13%	20%	13%
Physical Therapists	3.5	2.9	17%	19%	11%	2%
Registered Nurses						
-Experienced	4.0	3.2	52%	46%	48%	7%
-Newly Trained	3.1	3.1	24%	22%	24%	6%
Respiratory Therapists	3.8	3.4	13%	7%	11%	2%
Social Workers						
- MSWs	3.6	3.6	15%	9%	4%	4%
- BSWs	3.4	3.3	13%	13%	9%	4%
Speech Pathologists	3.2	3.0	7%	6%	6%	7%

In addition, 56% of the home health agencies in New York City reported having the most difficulty hiring bilingual workers (Russian- and Spanish-speaking), while 35% reported difficulty hiring for off-shifts. One-half of respondents indicated that hiring part-time workers was also problematic.

Forty percent of the respondents indicated an expected expansion of services in the future and indicated that home health aides, personal care aides, RNs, LPNs, physical and occupational therapists would be needed for those expansions.

8. Projected Growth by Health Care Occupation

According to the NYS DOL, 12 of the top 25 fastest-growing occupations for the New York City region between 2006 and 2016 will be health care occupations (Exhibit 47).

The health occupations projected to have the largest percentage increase in new jobs in New York City between 2006 and 2016 are:

- home health aides (40.8%);
- medical assistants (33.7%);
- dental hygienists (28.9%);
- dental assistants (28.3%); and
- physical therapists (23.1%).

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:

- home health aides (4,070);
- RNs (2,080);
- nursing aides, orderlies, and attendants (840); and
- LPNs (550).

Exhibit 47
Employment Projections for Health Care Occupations¹⁴
for New York City, 2006 – 2016

Occupation	2006	2016	Growth between 2006 and 2016		Average Annual Openings
			Number	Percent	
Home Health Aides	81,830	115,200	33,370	40.8%	4,070
Registered Nurses	69,620	78,930	9,310	13.4%	2,080
Nursing Aides, Orderlies, and Attendants	44,090	48,460	4,370	9.9%	840
Licensed Practical Nurses	14,800	16,110	1,310	8.9%	530
Medical and Health Services Managers	13,800	14,500	700	5.1%	330
Medical Assistances	7,060	9,440	2,380	33.7%	330
Dental Assistants	5,520	7,080	1,560	28.3%	260
Pharmacy Technicians	4,760	5,530	770	16.2%	230
Pharmacists	5,480	6,630	1,150	21.0%	220
Medical and Public Health Social Workers	5,250	6,120	870	16.6%	200
Physical Therapists	4,540	5,590	1,050	23.1%	160
Emergency Medical Technicians and Paramedics	6,040	6,650	610	10.1%	130
Clinical, Counseling, and School Psychologists	5,390	5,710	320	5.9%	110
Medical and Clinical Laboratory Technicians	4,560	4,990	430	9.4%	110
Surgical Technologists	2,610	2,870	260	10.0%	110
Medical and Clinical Laboratory Technologists	4,770	5,110	340	7.1%	100
Medical Records and Health Information Technicians	3,010	3,240	230	7.6%	100
Occupational Therapists	3,260	3,710	450	13.8%	100
Radiologic Technologists and Technicians	3,860	4,260	400	10.4%	90
Dental Hygienists	1,590	2,050	460	28.9%	80
Medical Secretaries	2,790	3,170	380	13.6%	80
Physician Assistants	2,820	3,210	390	13.8%	80

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2006 – 2016

¹⁴ Employment projections used in this report reflect a count of the number of jobs in those occupational categories in 2006 and the projected number of jobs in those categories in 2016. 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 2002 and 2007, health care employment in the Capital District region grew by almost 600 jobs, or slightly over 1%. Jobs in hospitals increased by over 5%, while jobs in ambulatory care settings increased by 4%. Employment in nursing home and personal care facilities decreased by more than 7%, while jobs in home health care services slightly declined during the same period (Exhibit 48).

Exhibit 48
Number of Workers by Health Care Setting in the Capital District Region
Between 2002 and 2007

Setting	2002	2003	2004	2005	2006	2007	Change 2002 to 2007	
							Number	Percent
Hospitals	20,958	21,377	20,898	21,340	21,627	22,074	1,116	5.3%
Ambulatory Care (Excluding Home Health)	14,760	14,765	15,268	15,913	15,959	15,347	587	4.0%
Nursing Home and Personal Care Facilities	14,755	14,582	14,989	15,167	13,758	13,666	-1,089	-7.4%
Home Health Care Services	2,976	2,941	2,712	2,726	2,797	2,953	-23	-0.8%
Totals	53,450	53,666	53,868	55,146	54,141	54,040	591	1.1%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

The number of licensed social workers in the Capital District region grew significantly, almost 40% between 2003 and 2007, followed by nurse practitioners (19%), speech-language pathologists (14%), and physician assistants (12%). The number of RNs grew by over 3% between 2003 and 2007.

There were decreases in the number of licensed occupational therapy assistants (-12%), physical therapy assistants (-10%), and LPNs (-1%) in the Capital District region during the same period (Exhibit 49).

Exhibit 49
Change in the Number of Selected Licensed Health Care Occupations
for the Capital District Region, 2003 - 2007

Occupation	2003	2004	2005	2006	2007	Change between 2003 and 2007	
						Number	Percent
Social Workers	2,006	2,043	2,121	2,651	2,805	799	39.8%
Nurse Practitioners	550	581	590	607	654	104	18.9%
Speech-Language Pathologists	730	754	777	803	835	105	14.4%
Physician Assistants	468	476	498	504	523	55	11.8%
Physical Therapists	906	926	932	947	980	74	8.2%
Pharmacists	1,287	1,233	1,258	1,294	1,377	90	7.0%
Occupational Therapists	477	491	502	505	508	31	6.5%
Dental Hygienists	758	760	777	792	801	43	5.7%
Dietitians/Nutritionists	270	273	267	275	285	15	5.6%
Registered Nurses	14,670	14,792	14,816	14,707	15,143	473	3.2%
Respiratory Therapists	302	300	300	301	309	7	2.3%
Licensed Practical Nurses	4,995	4,924	4,976	4,985	4,971	-24	-0.5%
Physical Therapy Assistants	406	398	381	376	367	-39	-9.6%
Occupational Therapy Assistants	331	328	313	307	292	-39	-11.8%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the upstate¹⁵ New York region reported the most difficulty recruiting pharmacists, experienced RNs, physical therapists, and medical laboratory technicians. Upstate hospitals also reported recruitment problems for nurse practitioners and physician assistants. Experience RNs, nursing aides, and pharmacists were the occupations most difficult to retain.

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

Exhibit 50
Recruitment and Retention Difficulties for Hospitals
In Selected Occupations in Upstate New York

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.9	2.6	55%	27%	5%	0%
Medical Laboratory Technicians	4.3	3.0	50%	55%	27%	0%
Nursing Aides/Patient Care Associates	2.6	3.5	18%	14%	23%	18%
Nurse Practitioners	4.1	3.0	45%	27%	23%	0%
Pharmacists	4.6	3.4	64%	50%	36%	9%
Physical Therapists	4.5	3.1	59%	59%	36%	5%
Physician Assistants	4.1	3.1	36%	36%	18%	5%
Radiologic Technologists						
-mammographers	2.6	2.6	14%	27%	14%	0%
-nuclear medicine technologists	3.9	2.6	36%	45%	18%	5%
-sonographers	3.8	2.8	27%	50%	23%	0%
Registered Nurses						
-Experienced	4.5	3.6	73%	77%	27%	14%
-Newly Trained	3.3	3.3	59%	68%	23%	9%
Respiratory Therapists	3.8	3.1	41%	32%	18%	0%

In addition, 50% of the hospitals in upstate New York cited difficulty hiring part-time workers, 68% reported difficulty hiring workers for off-shifts, and 36% reported difficulty hiring bilingual employees (Spanish-speaking).

¹⁵ Since only 32 hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

Nursing Homes

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

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	3.4	3.8	33%	67%	42%	17%
Clerical	2.0	2.1	0%	8%	25%	17%
Dietitians/Nutritionists	3.3	2.4	42%	17%	17%	0%
Licensed Practical Nurses	3.4	3.0	50%	58%	33%	0%
Occupational Therapists	3.4	2.4	8%	33%	17%	0%
Physical Therapists	4.2	3.1	42%	25%	33%	0%
Registered Nurses - <i>Experienced</i>	3.9	3.1	67%	75%	50%	0%
- <i>Newly Trained</i>	3.4	2.7	25%	42%	42%	17%
Respiratory Therapists	3.5	2.7	8%	8%	0	0%
Social Workers						
- <i>MSWs</i>	2.6	2.0	8%	17%	33%	0%
- <i>BSWs</i>	2.6	2.4	8%	0%	42%	0%

In addition, 75% of the nursing homes in the Capital District region reported difficulty hiring for off-shifts positions, while 58% reported difficulty hiring for part-time jobs. Only 25% reported difficulty hiring bilingual workers.

Home Health Agencies

Home health agencies in the Capital District region reported the most difficulty recruiting dietitians/nutritionists and respiratory therapists. Home health agencies in the Capital District also reported recruitment problems for occupational therapists, physical therapists, BSWs, and speech-language pathologists. Retention was the most problematic for home health aides and personal care aides.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	4.4	3.0	20%	20%	13%	0%
Home Health Aides	3.5	3.6	20%	33%	40%	0%
Licensed Practical Nurses	2.4	2.5	7%	20%	20%	0%
Occupational Therapists	4.0	2.3	20%	14%	20%	0%
Personal Care Aides/Homemakers	3.6	3.6	20%	27%	33%	0%
Physical Therapists	4.0	2.3	20%	7%	13%	0%
Registered Nurses						
- <i>Experienced</i>	3.5	2.9	13%	33%	27%	0%
- <i>Newly Trained</i>	3.0	3.0	13%	13%	13%	0%
Respiratory Therapists	4.2	3.0	13%	0%	7%	0%
Social Workers						
- <i>MSWs</i>	3.8	2.5	13%	0%	7%	0%
- <i>BSWs</i>	4.0	3.0	13%	7%	7%	0%
Speech-Language Pathologists	4.0	3.0	13%	7%	7%	0%

In addition, 33% of the home health agencies in the Capital District region reported difficulty hiring part-time employees, while 20% reported difficulty hiring for off-shifts, and 20% reported difficulty hiring bilingual workers (Spanish-speaking).

4. Employment Projections by Health Occupation

The NYS DOL projected that between 2006 and 2016 the largest number of average annual job openings in the Capital District region will be for RNs (350), home health aides (150), and LPNs (140) (Exhibit 53).

Exhibit 53 Employment Projections for the Top 15 Health Care Growth Professions for the Capital District Region, 2006 - 2016

	2006	2016	Growth Between 2006 and 2016		Avg. Annual Openings
			Number	Percent	
Registered Nurses	10,270	12,020	1,750	17.0%	350
Home Health Aides	4,030	5,140	1,110	27.5%	150
Licensed Practical Nurses	3,540	3,950	410	11.6%	140
Nursing Aides, Orderlies, and Attendants	6,910	7,640	730	10.6%	130
Medical and Health Services Managers	2,190	2,320	130	5.9%	50
Medical and Public Health Social Workers	910	1,070	160	17.6%	40
Medical Assistants	780	1,060	280	35.9%	40
Medical Secretaries	970	1,130	160	16.5%	40
Pharmacy Technicians	750	910	160	21.3%	40
Clinical, Counseling, and School Psychologists	950	1,080	130	13.7%	30
Emergency Medical Technicians and Paramedics	970	1,170	200	20.6%	30
Medical Records and Health Information Technicians	600	700	100	16.7%	30
Pharmacists	940	1,060	120	12.8%	30
Physical Therapists	720	890	170	23.6%	30
Physician Assistants	670	840	170	25.4%	30

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2006-2016

C. Central New York

1. Employment by Setting

Between 2002 and 2007, health sector employment in the Central New York region grew by more than 3,400 jobs, or 11%. Employment in nursing homes and personal care facilities increased by almost 29%, or over 2,100 positions, while jobs in ambulatory care grew by nearly 10%.

Hospital employment grew slightly in the Central New York region while jobs in home health care declined over 7% (Exhibit 54).

Exhibit 54
Number of Workers by Health Care Setting in the Central New York Region
Between 2002 and 2007

Setting	2002	2003	2004	2005	2006	2007	Change 2002 to 2007	
							Number	Percent
Hospitals	11,300	11,187	11,273	11,394	11,481	11,641	341	3.0%
Ambulatory Care (Excluding Home Health)	11,357	11,609	11,722	12,159	12,352	12,465	1,108	9.8%
Nursing Home and Personal Care Facilities	7,339	7,267	8,080	8,935	9,285	9,442	2,103	28.7%
Home Health Care Services	1,318	1,278	1,221	1,373	1,306	1,224	-94	-7.1%
Totals	31,314	31,341	32,296	33,861	34,424	34,772	3,458	11.0%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2003 and 2007, the number of social workers increased by over 35% in the Central New York region, while physician therapists grew by 22% during the same period. The number of RNs grew slightly by 1% between 2003 and 2007. The number of occupational therapy assistants and dental hygienists declined, both by around 2%, in the Central New York region (Exhibit 55).

Exhibit 55
Change in the Number of Licensed Individuals in Selected Health Occupations
in the Central New York Region, 2003 - 2007

Occupation	2003	2004	2005	2006	2007	Change between 2003 and 2007	
						Number	Percent
Social Workers	982	975	993	1,241	1,328	346	35.2%
Physical Therapists	520	551	583	605	636	116	22.3%
Physician Assistants	229	220	237	248	269	40	17.5%
Speech-Language Pathologists	356	368	378	392	399	43	12.1%
Physical Therapy Assistants	181	180	179	184	197	16	8.8%
Dietitians/Nutritionists	168	168	159	167	180	12	7.1%
Pharmacists	592	580	574	598	632	40	6.8%
Nurse Practitioners	847	814	823	832	899	52	6.1%
Occupational Therapists	248	225	261	253	262	14	5.6%
Respiratory Therapists	301	285	299	307	318	17	5.6%
Licensed Practical Nurses	4,176	4,089	4,295	4,303	4,321	145	3.5%
Registered Nurses	9,204	9,304	9,234	9,144	9,321	117	1.3%
Dental Hygienists	494	502	497	487	486	-8	-1.6%
Occupational Therapy Assistants	90	89	94	92	88	-2	-2.2%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the upstate¹⁶ New York region reported the most difficulty recruiting pharmacists, experienced RNs, physical therapists, and medical laboratory technicians. Upstate hospitals also reported recruitment problems for nurse practitioners and physician assistants. Experienced RNs, nursing aides, and pharmacists were the occupations most difficult to retain.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.9	2.6	55%	27%	5%	0%
Medical Laboratory Technicians	4.3	3.0	50%	55%	27%	0%
Nursing Aides/Patient Care Associates	2.6	3.5	18%	14%	23%	18%
Nurse Practitioners	4.1	3.0	45%	27%	23%	0%
Pharmacists	4.6	3.4	64%	50%	36%	9%
Physical Therapists	4.5	3.1	59%	59%	36%	5%
Physician Assistants	4.1	3.1	36%	36%	18%	5%
Radiologic Technologists						
-mammographers	2.6	2.6	14%	27%	14%	0%
-nuclear medicine technologists	3.9	2.6	36%	45%	18%	5%
-sonographers	3.8	2.8	27%	50%	23%	0%
Registered Nurses						
-Experienced	4.5	3.6	73%	77%	27%	14%
-Newly Trained	3.3	3.3	59%	68%	23%	9%
Respiratory Therapists	3.8	3.1	41%	32%	18%	0%

In addition, 50% of the hospitals in upstate New York cited difficulty hiring part-time workers, 68% reported difficulty hiring workers for off-shifts, and 36% reported difficulty hiring bilingual employees (Spanish-speaking).

¹⁶ Since only 32 hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

Nursing Homes

Nursing homes in the Central New York region reported the most difficulty recruiting dietitians/nutritionist, experienced RNs, physical therapists, and occupational therapists. Certified nursing aides and LPNs were the most difficult to retain.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	3.2	4.0	45%	73%	18%	0%
Clerical	2.0	1.9	0%	0%	9%	0%
Dietitians/Nutritionists	4.0	2.9	45%	45%	27%	18%
Licensed Practical Nurses	3.3	3.0	18%	18%	18%	0%
Occupational Therapists	3.7	2.1	36%	27%	9%	0%
Physical Therapists	3.7	1.9	36%	27%	18%	0%
Registered Nurses - <i>Experienced</i>	4.0	2.9	73%	73%	55%	9%
- <i>Newly Trained</i>	3.1	2.9	18%	27%	18%	0%
Respiratory Therapists	3.0	2.7	9%	9%	0%	0%
Social Workers						
- <i>MSWs</i>	2.8	2.3	9%	9%	9%	0%
- <i>BSWs</i>	2.7	2.5	9%	9%	9%	0%

In addition, 64% of the nursing homes in the Central New York Region reported difficulty hiring for part-time positions and 82% reported difficulty hiring for off-shifts. Eleven percent indicated that hiring bilingual workers was also problematic.

Home Health Agencies

Home health agencies in the Central New York region reported the most difficulty recruiting occupational therapists, physical therapists, experienced RNs, and speech-language pathologists. Retention was most problematic for personal care aides, home health aides, and newly-trained RNs.

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

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

Occupation	Average Assessment Of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.5	2.3	20%	10%	30%	10%
Home Health Aides	3.6	3.9	50%	40%	40%	30%
Licensed Practical Nurses	3.0	2.6	10%	40%	30%	10%
Occupational Therapists	5.0	2.7	30%	10%	10%	0%
Personal Care Aides/Homemakers	3.6	4.0	20%	30%	0%	0%
Physical Therapists	4.3	2.0	10%	0%	0%	0%
Registered Nurses - <i>Experienced</i>	4.1	3.6	70%	50%	90%	30%
- <i>Newly Trained</i>	3.7	3.8	50%	50%	70%	20%
Respiratory Therapists	--	--	--	--	--	--
Social Workers - <i>MSWs</i>	3.5	3.0	10%	0%	10%	0%
- <i>BSWs</i>	3.3	2.3	10%	0%	0%	0%
Speech-Language Pathologists	4.0	2.0	0%	0%	0%	0%

In addition, 70% of the home health agencies in the Central New York region reported difficulty hiring part-time employees and 70% also reported difficulty hiring for off-shifts. Forty percent reported difficulty hiring bilingual workers.

Sixty percent of the respondents indicated an expected expansion of services in the future and indicated that LPNs, RNs, and home health aides would be needed for those expansions.

4. Employment Projections by Health Occupation

The NYS DOL estimated that between 2006 and 2016, the number of RN jobs in the Central New York region will grow by 1,260, with 250 average annual job openings. During the same period, there will be 110 average annual job openings for LPNs and 100 average annual job openings for nursing aides, orderlies, and attendants. The total number of medical assistant jobs is projected to increase by more than 34% between 2006 and 2016 (Exhibit 59).

Exhibit 59
Employment Projections for the Top 20 Health Care Growth Professions
in the Central New York Region, 2006 - 2016

	2006	2016	Growth Between 2006 and 2016		Avg. Annual Openings
			Number	Percent	
Registered Nurses	7,210	8,470	1,260	17.5%	250
Licensed Practical Nurse	3,100	3,440	340	11.0%	110
Nursing Aides, Orderlies, and Attendants	4,360	4,910	550	12.6%	100
Home Health Aides	2,470	3,089	619	25.1%	80
Dental Assistants	800	1,040	240	30.0%	30
Dental Hygienists	630	810	180	28.6%	30
Medical and Health Services Managers	1,000	1,100	100	10.0%	30
Medical Assistants	670	900	230	34.3%	30
Physical Therapists	630	800	170	27.0%	30
Clinical, Counseling, and School Psychologists	610	670	60	9.8%	20
Emergency Medical Technicians and Paramedics	510	590	80	15.7%	20
Medical and Clinical Laboratory Technicians	440	510	70	15.9%	20
Medical and Clinical Laboratory Technologists	380	440	60	15.8%	20
Medical and Public Health Social Workers	270	320	50	18.5%	20
Medical Records and health Information Technicians	430	510	80	18.6%	20
Medical Transcriptionists	390	470	80	20.5%	20
Occupational Therapists	350	410	60	17.1%	20
Pharmacists	510	620	110	21.6%	20
Pharmacy Technicians	450	530	80	17.8%	20
Radiologic Technologists and Technicians	500	580	80	16.0%	20

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2006 – 2016

D. Finger Lakes

1. Employment by Setting

Health sector employment in the Finger Lakes region grew by almost 10% between 2002 and 2007, with increases in nursing home and personal care facilities of nearly 17% each, and in ambulatory care of almost 14%. Employment in hospitals also grew by more than 2,660 jobs between 2002 and 2007, or 11%. These increases offset a substantial decrease in home health care employment of more than 25% (Exhibit 60).

Exhibit 60
Number of Workers by Health Care Setting in the Finger Lakes Region
Between 2002 and 2007

Setting	2002	2003	2004	2005	2006	2007	Change 2002 to 2007	
							Number	Percent
Hospitals	24,355	24,720	25,619	26,017	26,469	27,022	2,667	11.0%
Ambulatory Care (Excluding Home Health)	13,254	13,914	14,118	14,259	14,649	15,064	1,810	13.7%
Nursing Home and Personal Care Facilities	11,810	12,341	12,350	13,943	13,721	13,767	1,957	16.6%
Home Health Care Services	4,519	4,161	4,242	3,558	3,465	3,522	-1,197	-25.4%
Totals	53,938	55,135	56,329	57,777	58,304	59,375	5,237	9.7%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2003 and 2007, the number of social workers in the Finger Lakes region grew by almost 43%. The number of physician assistants and nurse practitioners grew by 24% and 15%, respectively.

The number of occupational therapy assistants declined by 5%, while the number of RNs grew only slightly between 2002 and 2007 (less than 1%) (Exhibit 61).

Exhibit 61
Change in the Number of Licensed Individuals in Selected Occupations
in the Finger Lakes Region, 2003 - 2007

Occupation	2003	2004	2005	2006	2007	Change between 2003 and 2007	
						Number	Percent
Social Workers	1,707	1,727	1,765	2,483	2,434	727	42.6%
Physician Assistants	426	444	467	502	529	103	24.2%
Nurse Practitioners	1,117	1,153	1,189	1,231	1,282	165	14.8%
Speech-Language Pathologists	771	795	820	852	864	93	12.1%
Physical Therapists	814	820	842	880	907	93	11.4%
Dietitians/Nutritionists	236	233	231	240	261	25	10.6%
Occupational Therapists	529	538	555	569	576	47	8.9%
Pharmacists	982	915	931	955	1,064	82	8.4%
Physical Therapy Assistants	235	237	248	250	254	19	8.1%
Respiratory Therapists	237	235	248	254	256	19	8.0%
Dental Hygienists	980	978	987	995	1,016	36	3.7%
Licensed Practical Nurses	5,780	5,575	5,453	5,860	5,913	133	2.3%
Registered Nurses	14,471	14,549	14,382	14,250	14,591	120	0.8%
Occupational Therapy Assistants	220	208	207	206	209	-11	-5.0%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the upstate¹⁷ New York region reported the most difficulty recruiting pharmacists, experienced RNs, physical therapists, and medical laboratory technicians. Upstate hospitals also reported recruitment problems for nurse practitioners and physician assistants. Retention was most problematic for experienced RNs, nursing aides, and pharmacists.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.9	2.6	55%	27%	5%	0%
Medical Laboratory Technicians	4.3	3.0	50%	55%	27%	0%
Nursing Aides/Patient Care Associates	2.6	3.5	18%	14%	23%	18%
Nurse Practitioners	4.1	3.0	45%	27%	23%	0%
Pharmacists	4.6	3.4	64%	50%	36%	9%
Physical Therapists	4.5	3.1	59%	59%	36%	5%
Physician Assistants	4.1	3.1	36%	36%	18%	5%
Radiologic Technologists						
-mammographers	2.6	2.6	14%	27%	14%	0%
-nuclear medicine technologists	3.9	2.6	36%	45%	18%	5%
-sonographers	3.8	2.8	27%	50%	23%	0%
Registered Nurses						
-Experienced	4.5	3.6	73%	77%	27%	14%
-Newly Trained	3.3	3.3	59%	68%	23%	9%
Respiratory Therapists	3.8	3.1	41%	32%	18%	0%

In addition, 50% of the hospitals in upstate New York cited difficulty hiring part-time workers, 68% reported difficulty hiring workers for off-shifts, and 36% reported difficulty hiring bilingual employees (Spanish-speaking).

¹⁷ Since only 32 hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

Nursing Homes

Nursing homes in the Finger Lakes region indicated they had the most difficulty recruiting experienced and newly-trained RNs, LPNs, and physical therapists. Newly-trained RNs, CNAs, experienced RNs, and LPNs were the most difficult to retain.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nurse Aides	3.4	3.5	63%	53%	47%	11%
Clerical	2.0	1.8	0%	5%	21%	11%
Dietitians/Nutritionists	3.3	2.5	32%	26%	5%	0%
Licensed Practical Nurses	3.6	3.3	47%	58%	37%	11%
Occupational Therapists	3.3	2.5	21%	37%	16%	0%
Physical Therapists	3.6	2.8	37%	47%	26%	0%
Registered Nurses						
- <i>Experienced</i>	4.2	3.4	79%	84%	42%	16%
- <i>Newly Trained</i>	3.8	3.8	58%	58%	32%	11%
Respiratory Therapists	1.0	--	0%	0%	0%	0%
Social Workers						
- <i>MSWs</i>	2.8	2.3	16%	5%	16%	0%
- <i>BSWs</i>	2.6	2.7	0%	16%	5%	0%

In addition, 84% of the nursing homes in the Finger Lakes region reported the most difficulty hiring for off-shifts, while 47% reported difficulty hiring part-time workers, and 21% reported difficulty hiring bilingual workers.

Home Health Agencies

Home health agencies in the Finger Lakes region reported the most difficulty recruiting respiratory therapists, experienced RNs, and home health aides. Home health agencies also reported recruiting difficulty with dietitians/nutritionists, personal care aides/homemakers, newly-trained RNs, and MSWs. Retention was most problematic for personal care aides/homemakers and MSWs.

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

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

Occupation	Average Assessment Of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	4.0	3.0	24%	24%	18%	0%
Home Health Aides	4.2	3.4	29%	35%	29%	24%
Licensed Practical Nurses	2.9	2.7	35%	35%	24%	0%
Occupational Therapists	3.9	3.0	24%	24%	24%	0%
Personal Care Aides/Homemakers	4.0	3.8	18%	18%	12%	12%
Physical Therapists	3.4	2.8	18%	24%	29%	0%
Registered Nurses -Experienced	4.3	2.9	53%	53%	53%	12%
-Newly Trained	4.0	3.6	29%	24%	35%	12%
Respiratory Therapists	4.5	3.0	12%	18%	12%	0%
Social Workers - MSWs	4.0	3.8	24%	18%	12%	6%
- BSWs	3.5	2.6	18%	18%	12%	6%
Speech-Language Pathologists	3.4	2.8	12%	18%	24%	6%

In addition, 65% percent of the home health agencies in the Finger Lakes region reported difficulty hiring part-time employees, while 59% reported difficulty hiring for the off-shifts, and 47% reported difficulty hiring bilingual workers (Spanish-speaking).

Fifty-three percent of the respondents stated an expected expansion of services in the future and indicated that additional LPNs and RNs would be needed for those expansions.

4. Employment Projections by Health Occupation

The NYS DOL estimated 330 average annual job openings for RNs; 190 average annual job openings for home health aides; 140 average annual job openings for nursing aides, orderlies, and attendants; and 130 average annual openings for LPNs between 2006 and 2016 (Exhibit 65).

Exhibit 65
Employment Projections for the Top 16 Health Care Growth Professions
in the Finger Lakes Region, 2006 – 2016

Occupation	2006	2016	Growth Between 2006 and 2016		Avg. Annual Openings
			Number	Percent	
Registered Nurses	11,260	12,670	1,410	12.5%	330
Home Health Aides	6,040	7,480	1,440	23.8%	190
Nursing Aides, Orderlies, and Attendants	7,140	7,970	830	11.6%	140
Licensed Practical Nurses	4,110	4,350	240	5.8%	130
Medical and Health Services Managers Clinical, Counseling, and School	1,480	1,580	100	6.8%	40
Psychologists	1,010	1,070	60	5.9%	30
Dental Assistants	1,040	1,090	50	4.8%	30
Pharmacists	870	930	60	6.9%	30
Dental Hygienists	1,060	1,100	40	3.8%	20
Medical and Public Health Social Workers	570	670	100	17.5%	20
Medical Assistants	680	760	80	11.8%	20
Medical Records and Health Information Technicians	840	870	30	3.6%	20
Medical Transcriptionists	730	820	90	12.3%	20
Occupation Therapists	660	720	60	9.1%	20
Physical Therapists	790	880	90	11.4%	20
Speech Language Pathologists	1,120	1,160	40	3.6%	20

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2006-2016

E. Hudson Valley

1. Employment by Setting

Health sector employment in the Hudson Valley region increased by 10% between 2002 and 2007. Home health care facilities experienced the largest job growth at 33%, while employment in nursing and personal care grew by more than 16% during the same period. Employment in hospitals grew slightly, adding more than 380 jobs between 2002 and 2007 (Exhibit 66).

Exhibit 66
Number of Workers by Health Care Setting in the Hudson Valley Region
Between 2002 and 2007

Setting	2002	2003	2004	2005	2006	2007	Change 2002 to 2007	
							Number	Percent
Hospitals	39,511	39,266	38,979	38,663	39,353	39,895	384	1.0%
Ambulatory Care (Excluding Home Health)	34,038	34,861	35,218	36,603	36,984	38,352	4,314	12.7%
Nursing Home and Personal Care Facilities	21,058	21,780	23,590	23,883	23,928	24,456	3,398	16.1%
Home Health Care Services	5,696	6,345	6,351	6,966	7,146	7,597	1,901	33.4%
Totals	100,302	102,252	104,116	106,115	107,411	110,300	9,997	10.0%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

The number of licensed social workers in the Hudson Valley region rose by more than 39% between 2003 and 2007, while the number of licensed physician assistants increased by slightly more than 21%. The number of licensed nurse practitioners increased by nearly 20% and the number of licensed speech-language pathologists rose by almost 19%.

The number of licensed RNs grew slightly between 2003 and 2007, while the number of LPNs (-1.6%) and licensed pharmacists (-0.1%) decreased slightly during the same period (Exhibit 67).

Exhibit 67
Change in the Number of Licensed Individuals in Selected Health Occupations
in the Hudson Valley Region, 2003 - 2007

Occupation	2003	2004	2005	2006	2007	Change between 2003 and 2007	
						Number	Percent
Social Workers	6,312	6,402	6,539	8,317	8,792	2,480	39.3%
Physician Assistants	597	599	642	675	723	126	21.1%
Nurse Practitioners	1,353	1,405	1,505	1,544	1,618	265	19.6%
Speech-Language Pathologists	1,396	1,457	1,489	1,571	1,658	262	18.8%
Physical Therapists	2,030	2,084	2,121	2,155	2,226	196	9.7%
Occupational Therapy Assistants	592	599	613	616	642	50	8.4%
Occupational Therapists	1,166	1,176	1,183	1,223	1,259	93	8.0%
Dental Hygienists	1,011	1,024	1,041	1,054	1,076	65	6.4%
Physical Therapy Assistants	439	446	441	449	465	26	5.9%
Dietitians/Nutritionists	684	687	669	687	710	26	3.8%
Respiratory Therapists	570	565	585	584	586	16	2.8%
Registered Nurses	30,322	30,457	30,536	30,039	30,667	345	1.1%
Pharmacists	2,135	1,984	1,961	1,961	2,123	-13	-0.1%
Licensed Practical Nurses	7,595	7,310	7,501	7,516	7,474	-121	-1.6%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the downstate¹⁸ New York reported the most difficulty recruiting pharmacists, physician assistants, and medical laboratory technicians. Retention of pharmacists and newly-trained RN was most problematic.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.8	1.8	30%	40%	30%	0%
Medical Laboratory Technicians	4.3	3.0	50%	40%	30%	0%
Nursing Aides/Patient Care Associates	2.0	2.4	0%	10%	10%	0%
Nurse Practitioners	3.6	1.6	30%	30%	30%	0%
Pharmacists	4.8	4.7	80%	60%	30%	0%
Physical Therapists	3.8	2.4	50%	50%	40%	10%
Physician Assistants	4.4	3.0	20%	20%	30%	0%
Radiologic Technologists						
<i>-mammographers</i>	2.9	2.1	20%	20%	20%	10%
<i>-nuclear medicine technologists</i>	3.1	2.2	20%	20%	20%	10%
<i>-sonographers</i>	2.8	2.1	20%	20%	20%	10%
Registered Nurses						
<i>-Experienced</i>	3.9	2.4	60%	60%	40%	0%
<i>-Newly Trained</i>	2.3	3.1	20%	40%	40%	0%
Respiratory Therapists	3.3	2.2	40%	10%	20%	0%

In addition, 30% of the hospitals in downstate New York cited difficulty hiring part-time workers, 30% reported difficulty hiring workers for off-shifts, and 30% reported difficulty hiring bilingual employees (Spanish-speaking).

¹⁸ Since only 32 hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

Nursing Homes

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

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nurse Aides	2.7	3.2	23%	38%	31%	15%
Clerical	1.4	1.5	0%	23%	0%	0%
Dietitians/Nutritionists	2.8	1.8	23%	8%	15%	0%
Licensed Practical Nurses	3.3	3.0	31%	38%	46%	0%
Occupational Therapists	4.2	3.3	54%	31%	23%	0%
Physical Therapists	4.5	3.3	54%	38%	31%	0%
Registered Nurses						
- <i>Experienced</i>	4.7	3.8	54%	54%	62%	8%
- <i>Newly Trained</i>	3.4	3.8	15%	38%	31%	0%
Respiratory Therapists	3.0	1.0	0%	0%	0%	0%
Social Workers						
- <i>MSWs</i>	2.8	2.1	0%	15%	15%	8%
- <i>BSWs</i>	2.8	2.3	0%	8%	15%	8%

In addition, 69% of the nursing homes in the Hudson Valley region reported difficulty hiring for off-shifts, while 38% reported difficulty hiring part-time workers, and 23% reported difficulty hiring bilingual workers.

Home Health Agencies

Home health agencies in the Hudson Valley region reported the most difficulty recruiting occupational therapists, physical therapists, respiratory therapists, and experienced RNs. Retention was most problematic for occupational therapists, home health aides, and personal care aides/homemakers.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.6	2.6	15%	15%	9%	0%
Home Health Aides	3.5	3.3	37%	56%	56%	11%
Licensed Practical Nurses	3.4	3.1	4%	19%	22%	4%
Occupational Therapists	4.6	3.5	33%	26%	22%	0%
Personal Care Aides/Homemakers	3.0	3.3	22%	33%	37%	4%
Physical Therapists	4.2	2.8	33%	26%	22%	0%
Registered Nurses - <i>Experienced</i>	3.9	3.0	33%	37%	48%	7%
- <i>Newly Trained</i>	3.3	3.2	26%	22%	26%	4%
Respiratory Therapists	4.1	3.2	4%	7%	4%	0%
Social Workers - <i>MSWs</i>	3.7	3.3	11%	7%	4%	4%
- <i>BSWs</i>	3.4	2.8	11%	11%	11%	4%
Speech-Language Pathologists	3.6	3.0	4%	4%	11%	7%

In addition, 56% of the home health agencies in the Hudson Valley region reported difficulty hiring part-time employees. Hudson Valley home health agencies also reported difficulty hiring bilingual workers (Russian- and Spanish-speaking) (63%) and employees for off-shifts (44%).

4. Employment Projections by Health Occupation

The NYS DOL estimated that between 2006 and 2016 there will be nearly 4,900 new jobs in the Hudson Valley region for home health aides, with 620 average annual job openings. During the same period, RN jobs are projected to have 570 average annual job openings and LPNs are projected to have 230 average annual job openings. Nursing aides, orderlies, and attendants and dental assistants are also expected to have more than 100 average annual job openings between 2006 and 2016 (Exhibit 71).

Exhibit 71
Employment Projections for the Top 15 Health Care Growth Occupations
in the Hudson Valley Region, 2006 – 2016

Occupation	2006	2016	Growth Between 2006 and 2016		Avg. Annual Openings
			Number	Percent	
Home Health Aides	14,800	19,680	4,880	33.0%	620
Registered Nurses	18,850	21,430	2,580	13.7%	570
Licensed Practical Nurses	5,710	6,430	720	12.6%	230
Nursing Aides, Orderlies, and Attendants	9,330	10,360	1,030	11.0%	180
Dental Assistants	3,010	3,660	650	21.6%	120
Medical Assistants	2,240	2,860	620	27.7%	90
Pharmacy Technicians	1,550	1,840	290	18.7%	80
Dental Hygienists	1,790	2,180	390	21.8%	70
Medical and Health Services Managers	2,570	2,740	170	6.6%	70
Pharmacists	1,490	1,770	280	18.8%	60
Clinical, Counseling, and School Psychologists	2,040	2,200	160	7.8%	50
Emergency Medical Technicians and Paramedics	1,790	2,180	390	21.8%	50
Medical and Public Health Social Workers	1,400	1,690	290	20.7%	40
Physical Therapists	1,420	1,660	240	16.9%	40
Speech Language Pathologists	1,310	1,380	70	5.3%	40

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2006-2016

F. Long Island

1. Employment by Setting

Health sector employment in the Long Island region grew by more than 12% between 2002 and 2007, adding more than 16,200 jobs. Employment in nursing home and personal care facilities grew the fastest, increasing by nearly 21%. There was also growth in hospital and ambulatory care employment of 14% and 10%, respectively (Exhibit 72).

Exhibit 72
Number of Workers by Health Care Setting in the Long Island Region
Between 2002 and 2007

Setting	2002	2003	2004	2005	2006	2007	Change 2002 to 2007	
							Number	Percent
Hospitals	46,939	47,181	47,475	46,334	50,980	53,690	6,751	14.4%
Ambulatory Care (Excluding Home Health)	53,287	54,217	54,768	56,525	57,400	58,547	5,260	9.9%
Nursing Home and Personal Care Facilities	20,376	20,947	22,427	24,448	25,225	24,609	4,233	20.8%
Home Health Care Services	10,773	10,833	10,919	10,868	9,811	10,741	-32	-0.3%
Totals	131,376	133,177	133,589	138,175	143,416	147,587	16,212	12.3%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2003 and 2007, the number of social workers in Long Island increased by more than 37%, while the number of physician assistants increased by nearly 36%. The number of nurse practitioners grew by more than 22% during the same period.

The number of RNs increased by almost 6% between 2003 and 2007, but the number of LPNs decreased by more than 8% (Exhibit 73).

Exhibit 73
Change in the Number of Individuals in Selected Health Occupations
in the Long Island Region, 2003 - 2007

Occupation	2003	2004	2005	2006	2007	Change between 2003 and 2007	
						Number	Percent
Social Workers	7,475	7,553	7,742	9,808	10,246	2,771	37.1%
Physician Assistants	1,252	1,350	1,465	1,589	1,698	446	35.6%
Nurse Practitioners	2,034	2,103	2,236	2,350	2,490	456	22.4%
Speech-Language Pathologists	2,400	2,533	2,629	2,735	2,839	439	18.3%
Dietitians/Nutritionists	820	885	869	898	932	112	13.7%
Occupational Therapists	1,532	1,579	1,618	1,685	1,733	201	13.1%
Physical Therapists	2,824	2,855	2,935	3,040	3,185	361	12.8%
Occupational Therapy Assistants	317	323	320	338	342	25	7.9%
Physical Therapy Assistants	878	886	878	890	942	64	7.3%
Pharmacists	3,556	3,371	3,387	3,472	3,777	221	6.2%
Registered Nurses	36,155	36,598	36,668	37,268	38,198	2,043	5.7%
Respiratory Therapists	803	793	820	821	830	27	3.4%
Dental Hygienists	1,636	1,634	1,647	1,647	1,677	41	2.5%
Licensed Practical Nurses	9,626	9,223	9,006	9,035	8,816	-810	-8.4%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the downstate¹⁹ New York reported the most difficulty recruiting pharmacists, physician assistants, and medical laboratory technicians. Retention was most problematic for pharmacists and newly-trained RNs.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.8	1.8	30%	40%	30%	0%
Medical Laboratory Technicians	4.3	3.0	50%	40%	30%	0%
Nursing Aides/Patient Care Associates	2.0	2.4	0%	10%	10%	0%
Nurse Practitioners	3.6	1.6	30%	30%	30%	0%
Pharmacists	4.8	4.7	80%	60%	30%	0%
Physical Therapists	3.8	2.4	50%	50%	40%	10%
Physician Assistants	4.4	3.0	20%	20%	30%	0%
Radiologic Technologists						
-mammographers	2.9	2.1	20%	20%	20%	10%
-nuclear medicine technologists	3.1	2.2	20%	20%	20%	10%
-sonographers	2.8	2.1	20%	20%	20%	10%
Registered Nurses						
-Experienced	3.9	2.4	60%	60%	40%	0%
-Newly Trained	2.3	3.1	20%	40%	40%	0%
Respiratory Therapists	3.3	2.2	40%	10%	20%	0%

In addition, 30% of the hospitals in downstate New York cited difficulty hiring part-time workers, 30% reported difficulty hiring workers for off-shifts, and 30% reported difficulty hiring bilingual employees (Spanish-speaking).

¹⁹ Since only 32 hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

Nursing Homes

Nursing homes in the Long Island region reported the most difficulty recruiting respiratory therapists, experienced RNs, occupational therapists, and physical therapists. Nursing homes in the Long Island region reported retention problems for respiratory therapists, experienced RNs, certified nursing aides, occupational therapists, and newly-trained RNs.

The competition for workers, the shortage of workers, and salary levels were the primary reasons cited for the recruitment and retention difficulties in these occupations (Exhibit 75).

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	2.7	3.4	40%	40%	10%	10%
Clerical	2.2	2.8	10%	0%	10%	0%
Dietitians/Nutritionists	3.1	2.7	10%	10%	30%	0%
Licensed Practical Nurses	3.6	3.3	50%	40%	30%	0%
Occupational Therapists	3.8	3.4	30%	40%	20%	0%
Physical Therapists	3.8	3.2	20%	30%	20%	0%
Registered Nurses						
- <i>Experienced</i>	4.1	3.9	50%	60%	50%	0%
- <i>Newly Trained</i>	3.4	3.4	50%	60%	20%	0%
Respiratory Therapists	5.0	5.0	10%	10%	20%	0%
Social Workers						
- <i>MSWs</i>	3.3	3.3	0%	10%	20%	0%
- <i>BSWs</i>	2.9	3.3	0%	10%	20%	0%

In addition, 80% of the nursing homes in the Long Island region cited difficulty hiring for off-shifts, 30% reported difficulty hiring part-time employees, and 10% indicated difficulty in hiring bilingual workers.

Home Health Agencies

Home health agencies in the Long Island region reported the most difficulty recruiting dietitians/nutritionists, occupational therapists, and MSWs. Home health agencies in the Long Island region also indicated recruiting problems for physical therapists, experienced RNs, and speech-language pathologists. It was most problematic in the Long Island region to retain home health aides and personal care aides/homemakers.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	5.0	1.0	36%	0%	9%	0%
Home Health Aides	3.7	3.9	27%	36%	27%	9%
Licensed Practical Nurses	3.3	2.8	18%	18%	27%	0%
Occupational Therapists	4.6	2.0	27%	9%	9%	9%
Personal Care Aides/Homemakers	3.6	3.8	18%	18%	18%	0%
Physical Therapists	4.2	2.0	36%	27%	18%	0%
Registered Nurses -Experienced	4.0	2.6	27%	45%	36%	9%
-Newly Trained	3.0	2.5	27%	27%	18%	0%
Respiratory Therapists	--	--	0%	0%	0%	0%
Social Workers - MSWs	4.6	2.0	27%	18%	9%	18%
- BSWs	3.2	2.0	18%	9%	0%	0%
Speech-Language Pathologists	4.0	2.0	0%	0%	0%	0%

In addition, 64% of the home health agencies in the Long Island region reported difficulty hiring bilingual workers (Spanish-speaking). Long Island home health agencies also cited difficulty hiring part-time employees (36%) and employees for off-shifts (45%).

4. Employment Projections by Health Occupation

The NYS DOL estimated that between 2006 and 2016 there will be over 4,500 new jobs for RNs in the Long Island region with 780 average annual job openings. The number of home health aide jobs will increase by nearly 5,000 with 610 average annual job openings. Employment of nursing aides, orderlies, and attendants will grow by more than 16% during the same time period, with 370 average annual job openings (Exhibit 77).

Exhibit 77 **Employment Projections for the Top 15 Health Care Growth Occupations** **in the Long Island Region, 2006 – 2016**

	2006	2016	Growth Between 2006 and 2016		Avg. Annual Openings
			Number	Percent	
Registered Nurses	23,790	27,660	3,870	16.3%	780
Home Health Aides	11,820	16,780	4,960	42.0%	610
Nursing Aides, Orderlies, and Attendants	14,920	17,350	2,430	16.3%	370
Licensed Practical Nurses	6,670	7,730	1,060	15.9%	290
Medical Assistants	5,000	6,510	1,510	30.2%	210
Dental Assistants	3,750	4,640	890	23.7%	160
Medical and Health Services Managers	3,790	4,160	370	9.8%	110
Pharmacists	2,380	2,810	430	18.1%	80
Pharmacy Technicians	1,620	1,940	320	19.8%	80
Dental Hygienists	1,530	1,890	360	23.5%	70
Medical Secretaries	2,460	2,720	260	10.6%	70
Medical and Public Health Social Workers	1,250	1,540	290	23.2%	60
Medical Records and Health Information Technicians	1,310	1,480	170	13.0%	60
Radiologic Technologists and Technicians	2,150	2,400	250	11.6%	60
Speech-Language Pathologists	1,790	1,940	150	8.4%	60

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2006-2016

G. Mohawk Valley

1. Employment by Setting

Health sector employment in the Mohawk Valley region increased by more than 15% between 2002 and 2007, adding nearly 3,300 jobs. Employment in all health care settings rose.

Jobs in ambulatory care increased by 32% between 2002 and 2007, and jobs in home health care settings grew by almost 18% during the same time period. Jobs in nursing home and personal care facilities grew by 11% and in hospitals by 9% between 2002 and 2007 (Exhibit 78).

Exhibit 78
Number of Workers by Health Care Setting in the Mohawk Valley Region
Between 2002 and 2007

Setting	2002	2003	2004	2005	2006	2007	Change 2002 to 2007	
							Number	Percent
Hospitals	9,330	9,414	9,466	9,461	10,245	10,199	869	9.3%
Ambulatory Care (Excluding Home Health)	4,840	5,099	5,315	5,456	5,543	6,365	1,525	31.5%
Nursing Home and Personal Care Facilities	6,529	6,482	6,444	7,222	7,133	7,246	717	11.0%
Home Health Care Services	1,052	1,076	1,080	1,212	1,254	1,240	188	17.9%
Totals	21,751	22,070	22,304	23,351	24,175	25,050	3,299	15.2%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2003 and 2007, the number of dietitians/nutritionists in the Mohawk Valley region increased more than 40%, and the number of social workers grew by 34%. Additionally, the number of physician assistants, speech-language pathologists, nurse practitioners, physical therapists, and respiratory therapists all experienced double-digit increases during the same time period.

The number of RNs grew by 2% between 2003 and 2007. However, the number of occupational therapy assistants decreased by more than 11%, while the numbers of LPNs remained steady (Exhibit 79).

Exhibit 79
Change in the Number of Individuals in Selected Health Occupations
in the Mohawk Valley Region, 2003 - 2007

Occupation	2003	2004	2005	2006	2007	Change between 2003 and 2007	
						Number	Percent
Dietitians/Nutritionists	62	72	77	85	87	25	40.3%
Social Workers	532	529	546	662	714	182	34.2%
Physician Assistants	109	110	120	129	141	32	29.4%
Speech-Language Pathologists	156	174	179	185	191	35	22.4%
Respiratory Therapists	138	140	149	156	157	19	13.8%
Nurse Practitioners	344	354	370	375	385	41	11.9%
Physical Therapists	309	302	307	324	336	27	8.7%
Pharmacists	437	415	413	413	456	19	4.3%
Occupational Therapists	293	294	309	303	303	10	3.4%
Dental Hygienists	277	277	286	282	286	9	3.2%
Physical Therapist Assistants	186	184	184	182	190	4	2.2%
Registered Nurses	6,380	6,408	6,345	6,356	6,507	127	2.0%
Licensed Practical Nurses	3,497	3,420	3,492	3,498	3,500	3	0.1%
Occupational Therapy Assistants	193	192	182	174	171	-22	-11.4%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the upstate²⁰ New York region reported the most difficulty recruiting pharmacists, experienced RNs, physical therapists, and medical laboratory technicians. Upstate hospitals also reported recruitment problems for nurse practitioners and physician assistants. Retention was most problematic for RNs, nursing aides, and pharmacists.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.9	2.6	55%	27%	5%	0%
Medical Laboratory Technicians	4.3	3.0	50%	55%	27%	0%
Nursing Aides/Patient Care Associates	2.6	3.5	18%	14%	23%	18%
Nurse Practitioners	4.1	3.0	45%	27%	23%	0%
Pharmacists	4.6	3.4	64%	50%	36%	9%
Physical Therapists	4.5	3.1	59%	59%	36%	5%
Physician Assistants	4.1	3.1	36%	36%	18%	5%
Radiologic Technologists						
-mammographers	2.6	2.6	14%	27%	14%	0%
-nuclear medicine technologists	3.9	2.6	36%	45%	18%	5%
-sonographers	3.8	2.8	27%	50%	23%	0%
Registered Nurses						
-Experienced	4.5	3.6	73%	77%	27%	14%
-Newly Trained	3.3	3.3	59%	68%	23%	9%
Respiratory Therapists	3.8	3.1	41%	32%	18%	0%

In addition, 50% of hospitals in upstate New York cited difficulty hiring part-time workers, 68% reported difficulty hiring workers for off-shifts, and 36% reported difficulty hiring bilingual employees (Spanish-speaking).

²⁰ Since only 32-two hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

Nursing Homes

Nursing homes in the Mohawk Valley reported difficulty recruiting respiratory therapists, physical therapists, experienced and newly-trained RNs, and occupational therapists. Retention was most problematic for experienced RNs and certified nursing aides.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	3.6	3.3	75%	63%	38%	13%
Clerical	2.1	2.8	0%	0%	13%	0%
Dietitians/Nutritionists	3.4	2.9	38%	25%	25%	13%
Licensed Practical Nurses	3.6	3.0	75%	63%	38%	13%
Occupational Therapists	4.0	2.6	50%	63%	38%	0%
Physical Therapists	4.2	2.6	38%	50%	38%	0%
Registered Nurses						
- <i>Experienced</i>	4.5	3.7	63%	50%	38%	13%
- <i>Newly Trained</i>	4.1	2.3	63%	50%	25%	13%
Respiratory Therapists	5.0	2.5	0%	0%	0%	0%
Social Workers						
- <i>MSWs</i>	3.7	2.7	13%	0%	0%	0%
- <i>BSWs</i>	3.7	2.3	25%	13%	0%	0%

In addition, 38% of the nursing homes in the Mohawk Valley region reported difficulty hiring part-time employees and 75% reported difficulty hiring employees for off-shifts.

Home Health Agencies

Home health agencies in Mohawk Valley region reported the most difficulty recruiting BSWs, MSWs, experienced RNs, and physical therapists. Retention was most problematic for BSWs, home health aides, and personal care aides/homemakers.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.7	2.5	23%	23%	15%	8%
Home Health Aides	3.5	3.7	23%	38%	38%	0%
Licensed Practical Nurses	2.3	2.3	15%	8%	15%	0%
Occupational Therapists	3.5	2.3	23%	23%	23%	8%
Personal Care Aides/Homemakers	3.4	3.5	23%	23%	15%	0%
Physical Therapists	4.0	3.3	38%	38%	46%	8%
Registered Nurses - <i>Experienced</i>	4.1	3.3	54%	62%	23%	8%
- <i>Newly Trained</i>	3.1	3.1	31%	23%	8%	0%
Respiratory Therapists	3.4	3.0	15%	0%	15%	8%
Social Workers - MSWs	4.1	2.8	31%	15%	15%	8%
- BSWs	4.3	4.3	38%	8%	15%	8%
Speech-Language Pathologists	3.3	3.3	15%	8%	8%	0%

In addition, 69% of the home health agencies in the Mohawk Valley region reported difficulty hiring part-time employees, 31% of respondents indicated difficulty hiring employees for off-shifts, and 31% hiring bilingual workers.

4. Employment Projections by Health Occupation

The NYS DOL estimated that between 2006 and 2016 there will be 740 new jobs for RNs in the Mohawk Valley region, with 150 average annual job openings. Total jobs for home health aides will increase by 29%, with 140 average annual job openings (Exhibit 83).

Exhibit 83 Employment Projections for the Top 18 Health Care Growth Occupations in the Mohawk Valley Region, 2006 - 2016

Occupation	2006	2016	Growth Between 2006 and 2016		Avg. Annual Openings
			Number	Percent	
Registered Nurses	4,810	5,550	740	15.4%	150
Home Health Aides	3,720	4,800	1,080	29.0%	140
Licensed Practical Nurses	2,240	2,410	170	7.6%	80
Nursing Aides, Orderlies, and Attendants	3,510	3,990	480	13.7%	80
Medical and Health Services Managers	610	660	50	8.2%	20
Medical and Public Health Social Workers	270	320	50	18.5%	20
Pharmacy Technicians					20
Physical Therapists	390	470	80	20.5%	20
Clinical, Counseling, and School Psychologists	370	390	20	5.4%	10
Dental Assistants	230	280	50	21.7%	10
Dental Hygienists	230	290	60	26.1%	10
Medical and Clinical Laboratory Technologists	370	400	30	8.1%	10
Medical Records and Health Information Technicians	220	240	20	9.1%	10
Medical Secretaries	310	340	30	9.7%	10
Occupational Therapists	280	330	50	17.9%	10
Pharmacists	420	460	40	9.5%	10
Physician Assistants	230	280	50	21.7%	10
Radiologic Technologists and Technicians	410	440	30	7.3%	10

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2006-2016

H. North Country

1. Employment by Setting

Total health sector employment in the North Country region grew by more than 6% between 2002 and 2007, adding over 1,000 jobs. Employment in ambulatory care increased by slightly more than 500 jobs, or by 13%, while employment in hospitals grew by more than 400 jobs, or 5%, during the same period. Jobs in home health care increased by 23% while jobs in nursing home and personal care facilities declined by 1% between 2002 and 2007 (Exhibit 84).

Exhibit 84
Number of Workers by Health Care Setting in the North Country Region
Between 2002 and 2006

Setting	2002	2003	2004	2005	2006	Change 2002 to 2007		
						2007	Number	Percent
Hospitals	8,066	8,386	8,399	8,381	8,471	8,471	405	5.0%
Ambulatory Care (Excluding Home Health)	4,161	4,189	4,265	4,254	4,745	4,701	540	13.0%
Nursing Home and Personal Care Facilities	3,250	3,192	3,340	3,463	3,319	3,216	-34	-1.0%
Home Health Care Services	512	553	577	606	632	627	115	22.5%
Totals	15,988	16,321	16,580	16,704	17,167	17,015	1,026	6.4%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2003 and 2007, the number of social workers in the North Country region increased by more than 47%, while the number of physician assistants grew by nearly 34%. The number of occupational therapy assistants also rose by over 28% during the same period. The number of RNs increased by more than 300 individuals, or by nearly 7%, between 2003 and 2007. The number of dental hygienists declined slightly during the same period (Exhibit 85).

Exhibit 85
Change in the Number of Licensed Health Care Occupations
in the North Country Region, 2003 - 2007

Occupation	2003	2004	2005	2006	2007	Change between 2003 and 2007	
						Number	Percent
Social Workers	304	307	321	441	448	144	47.4%
Physician Assistants	130	145	158	168	174	44	33.8%
Occupational Therapy Assistants	60	65	66	72	83	23	28.3%
Speech-Language Pathologists	171	182	184	191	198	27	15.8%
Physical Therapy Assistants	131	131	131	147	151	20	15.3%
Pharmacists	307	294	294	299	344	37	12.1%
Registered Nurses	4,557	4,636	4,665	4,225	4,870	313	6.9%
Physical Therapists	253	250	257	258	270	17	6.7%
Nurse Practitioners	185	185	190	195	197	12	6.5%
Respiratory Therapists	63	61	64	67	66	3	4.8%
Dietitians/Nutritionists	73	78	77	76	75	2	2.7%
Occupational Therapists	116	120	123	119	119	3	2.6%
Licensed Practical Nurses	2,483	2,424	2,488	2,493	2,507	24	1.0%
Dental Hygienists	200	196	200	194	195	-5	-2.5%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the upstate²¹ New York region reported the most difficulty recruiting pharmacists, experienced RNs, physical therapists, and medical laboratory technicians. Upstate hospitals also reported recruitment problems for nurse practitioners and physician assistants. Retention was most problematic for RNs, nursing aides, and pharmacists.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.9	2.6	55%	27%	5%	0%
Medical Laboratory Technicians	4.3	3.0	50%	55%	27%	0%
Nursing Aides/Patient Care Associates	2.6	3.5	18%	14%	23%	18%
Nurse Practitioners	4.1	3.0	45%	27%	23%	0%
Pharmacists	4.6	3.4	64%	50%	36%	9%
Physical Therapists	4.5	3.1	59%	59%	36%	5%
Physician Assistants	4.1	3.1	36%	36%	18%	5%
Radiologic Technologists						
-mammographers	2.6	2.6	14%	27%	14%	0%
-nuclear medicine technologists	3.9	2.6	36%	45%	18%	5%
-sonographers	3.8	2.8	27%	50%	23%	0%
Registered Nurses						
-Experienced	4.5	3.6	73%	77%	27%	14%
-Newly Trained	3.3	3.3	59%	68%	23%	9%
Respiratory Therapists	3.8	3.1	41%	32%	18%	0%

In addition, 50% of the hospitals in upstate New York cited difficulty hiring part-time workers, 68% reported difficulty hiring workers for off-shifts, and 36% reported difficulty hiring bilingual employees (Spanish-speaking).

²¹ Since only 32 hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

Nursing Homes

Since only two nursing homes in the North Country region responded to the survey, no information was completed on North Country nursing homes. These two nursing homes are, however, included in the statewide analysis.

Home Health Agencies

Home health agencies in the North Country region reported the most difficulty recruiting MSWs, experienced RNs, and personal care aides/homemakers. Home health agencies in the North Country region also reported problems recruiting newly-trained RNs, respiratory therapists, and BSWs. Retention was problematic for MSWs, personal care aides/homemakers, and speech-language pathologists.

Home health agencies in the North Country region indicated the primary reasons for these difficulties were salary levels within the specific occupations, the shortage of workers, and the competition for workers in these occupations (Exhibit 87).

**Exhibit 87
Recruitment and Retention Difficulties for Home Health Agencies
in the North Country Region**

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.8	2.0	50%	0%	13%	0%
Home Health Aides	3.6	3.5	38%	38%	38%	13%
Licensed Practical Nurses	2.5	2.0	13%	38%	38%	0%
Occupational Therapists	3.7	1.5	38%	0%	0%	0%
Personal Care Aides/Homemakers	4.3	4.3	25%	25%	13%	13%
Physical Therapists	3.5	2.0	25%	13%	13%	0%
Registered Nurses - <i>Experienced</i>	4.4	3.7	50%	50%	88%	12%
- <i>Newly Trained</i>	4.0	3.0	38%	50%	38%	0%
Respiratory Therapists	4.0	--	25%	0%	0%	0%
Social Workers - <i>MSWs</i>	4.5	5.0	25%	0%	12%	0%
- <i>BSWs</i>	4.0	3.7	38%	25%	38%	0%
Speech-Language Pathologists	3.0	4.0	25%	25%	25%	0%

In addition, 25% of the home health agencies in the North County region reported difficulty hiring part-time employees, 50% reported difficulty hiring employees for off-shifts, and 13% indicated difficulty in hiring bilingual workers.

4. Employment Projections by Health Occupation

The NYS DOL estimated that between 2006 and 2016 the number of jobs for RNs in the North Country will grow by nearly 18%, with 150 average annual job openings. During the same period, home health aide jobs are projected to increase by 840 jobs (31%), with 110 average annual job openings (Exhibit 88).

Exhibit 88
Employment Projections for the Top 13 Health Care Growth Occupations
in the North Country Region, 2006 – 2016

Occupation	2006	2016	Growth Between 2006 and 2016		Avg. Annual Openings
			Number	Percent	
Registered Nurses	4,200	4,950	750	17.9%	150
Home Health Aides	2,750	3,590	840	30.5%	110
Licensed Practical Nurses	1,400	1,500	100	7.1%	50
Nursing Aides, Orderlies, and Attendants	1,950	2,250	300	15.4%	50
Dental Assistants	410	530	120	29.3%	20
Clinical, counseling, and School					
Psychologists	330	360	30	9.1%	10
Dental Hygienists	220	280	60	27.3%	10
Emergency Medical Technicians and					
Paramedics	210	260	50	23.8%	10
Medical and Health Services Managers	320	350	30	9.4%	10
Medical Assistants	280	370	90	32.1%	10
Medical Secretaries	330	370	40	12.1%	10
Pharmacists	330	360	30	9.1%	10
Pharmacy Technicians	250	270	220	8.0%	10

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2006-2016

I. Southern Tier

1. Employment by Setting

Health sector employment in the Southern Tier region grew by more than 3% between 2002 and 2007, adding more than 1,000 jobs. Employment in home health grew the fastest, increasing by nearly 14%. Employment in ambulatory care increased by 953 jobs or slightly more than 13% over the same period. Employment in hospitals remained steady between 2002 and 2007, while employment in nursing homes declined slightly (Exhibit 89).

Exhibit 89
Number of Workers by Health Care Setting in the Southern Tier Region
Between 2002 and 2007

Setting	2002	2003	2004	2005	2006	2007	Change 2002 to 2007	
							Number	Percent
Hospitals	15,106	15,247	15,105	15,253	15,494	15,150	44	0.3%
Ambulatory Care (Excluding Home Health)	7,222	7,483	7,583	7,715	7,785	8,175	953	13.2%
Nursing Home and Personal Care Facilities	7,598	7,455	7,477	7,852	7,543	7,485	-113	-1.5%
Home Health Care Services	1,068	1,079	1,181	1,243	1,258	1,212	144	13.5%
Totals	30,994	31,265	31,346	32,063	32,080	32,022	1,028	3.3%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2003 and 2007, the number of social workers in the Southern Tier region increased by nearly 48%, the number of physician assistants grew by 28%, and the number of occupational therapists increased by 17%. Nurse practitioners and speech-language pathologists also experienced double-digit increases during that time period.

The number of RNs remained almost unchanged between 2003 and 2007, and the number of occupational therapy assistants (6%), physical therapy assistants (4%), respiratory therapists (3%), and dietitians/nutritionists (3%) all experienced small declines during the same period (Exhibit 90).

Exhibit 90
Change in the Number of Licensed Individuals in Selected Health Occupations
in the Southern Tier Region, 2003-2007

Occupation	2003	2004	2005	2006	2007	Change between 2003 and 2007	
						Number	Percent
Social Workers	1,083	1,105	1,122	1,437	1,599	516	47.6%
Physician Assistants	176	177	192	211	225	49	27.8%
Occupational Therapists	253	262	280	291	297	44	17.4%
Nurse Practitioners	493	494	516	533	570	77	15.6%
Speech-Language Pathologists	284	290	301	301	317	33	11.6%
Physical Therapists	433	426	436	459	469	36	8.3%
Dental Hygienists	459	463	473	474	484	25	5.4%
Licensed Practical Nurses	3,429	3,436	3,448	3,457	3,469	40	1.2%
Registered Nurses	8,389	8,260	8,205	8,219	8,401	12	0.1%
Pharmacists	557	513	500	510	549	-8	-1.4%
Dietitians/Nutritionists	165	165	155	155	160	-5	-3.0%
Respiratory Therapists	178	169	171	173	172	-6	-3.4%
Physical Therapy Assistants	216	210	203	202	207	-9	-4.2%
Occupational Therapy Assistants	78	76	71	73	73	-5	-6.4%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the upstate²² New York region reported the most difficulty recruiting pharmacists, experienced RNs, physical therapists, and medical laboratory technicians. Upstate hospitals also reported recruitment problems for nurse practitioners and physician assistants. Retention was most problematic for RNs, nursing aides, and pharmacists.

The shortage of workers, the competition for workers, and salary levels were the primary reasons cited for difficulties in recruitment and retention of workers (Exhibit 91).

Exhibit 91
Recruitment and Retention Difficulties for Upstate Hospitals
In Selected Occupations

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.9	2.6	55%	27%	5%	0%
Medical Laboratory Technicians	4.3	3.0	50%	55%	27%	0%
Nursing Aides/Patient Care Associates	2.6	3.5	18%	14%	23%	18%
Nurse Practitioners	4.1	3.0	45%	27%	23%	0%
Pharmacists	4.6	3.4	64%	50%	36%	9%
Physical Therapists	4.5	3.1	59%	59%	36%	5%
Physician Assistants	4.1	3.1	36%	36%	18%	5%
Radiologic Technologists						
-mammographers	2.6	2.6	14%	27%	14%	0%
-nuclear medicine technologists	3.9	2.6	36%	45%	18%	5%
-sonographers	3.8	2.8	27%	50%	23%	0%
Registered Nurses						
-Experienced	4.5	3.6	73%	77%	27%	14%
-Newly Trained	3.3	3.3	59%	68%	23%	9%
Respiratory Therapists	3.8	3.1	41%	32%	18%	0%

In addition, 50% of the hospitals in upstate New York cited difficulty hiring part-time workers, 68% reported difficulty hiring workers for off-shifts, and 36% reported difficulty hiring bilingual employees (Spanish-speaking).

²² Since only 32 hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

Nursing Homes

Nursing homes in the Southern Tier region reported the most difficulty recruiting respiratory therapists, experienced and newly-trained RNs, and physical therapists. Retention was most difficult for newly-trained RNs and certified nursing aides.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	3.8	3.7	100%	67%	40%	40%
Clerical	1.6	1.6	0%	0%	0%	0%
Dietitians/Nutritionists	3.8	3.0	33%	33%	50%	0%
Licensed Practical Nurses	3.6	3.4	50%	50%	50%	0%
Occupational Therapists	3.8	3.2	67%	40%	0%	0%
Physical Therapists	4.2	3.4	50%	50%	0%	0%
Registered Nurses						
- <i>Experienced</i>	4.5	3.5	100%	100%	67%	0%
- <i>Newly Trained</i>	4.5	4.6	100%	100%	75%	25%
Respiratory Therapists	5.0	--	100%	0%	100%	0%
Social Workers						
- <i>MSWs</i>	2.5	2.3	0%	0%	0%	0%
- <i>BSWs</i>	2.7	2.5	100%	100%	50%	0%

In addition, 67% of the nursing homes in the Southern Tier region reported difficulty hiring part-time employees, 100% reported difficulty hiring employees for off-shifts, and 50% reported difficulty hiring bilingual workers.

Home Health Agencies

Home health agencies in the Southern Tier region reported the most difficulty recruiting physical therapists, occupational therapists, personal care aides/homemakers, and MSWs. Home health agencies also reported difficulty in recruiting home health aides and experienced RNs. Retention was most problematic for personal care aides, respiratory therapists, and physical therapists.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.9	3.2	12%	8%	0%	0%
Home Health Aides	4.3	3.8	56%	52%	44%	8%
Licensed Practical Nurses	3.0	3.4	12%	24%	8%	4%
Occupational Therapists	4.5	3.8	24%	16%	4%	8%
Personal Care Aides/Homemakers	4.5	4.5	48%	48%	40%	16%
Physical Therapists	4.7	4.3	16%	20%	8%	8%
Registered Nurses -Experienced	4.2	3.1	48%	44%	44%	8%
-Newly Trained	3.8	3.1	20%	36%	32%	8%
Respiratory Therapists	4.0	4.5	4%	4%	4%	0%
Social Workers - MSWs	4.5	3.7	12%	16%	12%	4%
- BSWs	3.6	3.4	8%	20%	20%	4%
Speech-Language Pathologists	3.6	3.6	4%	20%	20%	0%

In addition, 76% of the home health agencies in Southern Tier region reported difficulty hiring part-time employees, 48% reported difficulty hiring off-shift employees, while 40% reported difficulty in hiring bilingual workers.

4. Employment Projections by Health Occupation

The NYS DOL estimated that between 2006 and 2016 there will be 170 average annual job openings for RNs in the Southern Tier region, and employment of RNs was projected to increase by nearly 800 new jobs. Employment of home health aides was projected to increase by 700 new jobs, with 100 average annual job openings between 2006 and 2016 (Exhibit 95).

Exhibit 95 Employment Projections for the Top 19 Health Care Growth Occupations in the Southern Tier Region, 2006 – 2016

Occupation	2006	2016	Growth Between 2006 and 2016		Avg. Annual Openings
			Number	Percent	
Registered Nurses	5,120	5,910	790	15.4%	170
Home Health Aides	2,830	3,530	700	24.7%	100
Licensed Practical Nurses	2,450	2,610	160	6.5%	90
Nursing Aides, Orderlies, and Attendants	3,280	3,590	310	9.5%	60
Dental Assistants	510	650	140	27.5%	20
Dental Hygienists	480	610	130	27.1%	20
Medical and Health Services Managers	590	640	50	8.5%	20
Medical Assistants	390	510	120	30.8%	20
Medical Secretaries	440	500	60	13.6%	20
Clinical, counseling, and School Psychologists	500	520	20	4.0%	10
Emergency Medical Technicians and Paramedics	240	290	50	20.8%	10
Medical and Public Health Social Workers	230	270	40	17.4%	10
Medical Records and Health Information Technicians	280	310	30	10.7%	10
Occupational Therapists	320	360	40	12.5%	10
Pharmacists	430	460	30	7.0%	10
Pharmacy Technicians	260	300	40	15.4%	10
Physical Therapists	320	380	60	18.8%	10
Radiologic Technologists and Technicians	360	400	40	11.1%	10
Speech-Language Pathologists	240	250	10	4.2%	10

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2006-2016

J. Western New York

1. Employment by Setting

Health care employment in the Western New York region increased by slightly more than 4% between 2002 and 2007, led by job growth in ambulatory care (16%) and home health care services (11%). Employment in hospitals declined by nearly 3% during the same period, however, with a reduction of nearly 780 jobs (Exhibit 96).

Exhibit 96
Number of Workers by Health Care Setting in Western New York Region
Between 2002 and 2007

Setting	2002	2003	2004	2005	2006	2007	Change 2002 to 2007	
							Number	Percent
Hospitals	27,946	28,088	28,203	27,302	27,221	27,167	-779	-2.8%
Ambulatory Care (Excluding Home Health)	18,663	19,260	19,621	20,941	21,218	21,684	3,021	16.2%
Nursing Home and Personal Care Facilities	17,584	17,673	18,063	18,866	17,998	17,686	102	0.6%
Home Health Care Services	4,107	4,216	4,540	4,614	4,552	4,549	442	10.8%
Totals	68,300	69,237	70,427	71,723	70,989	71,086	2,786	4.1%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2003 and 2007, the number of social workers in the Western New York region increased by nearly 39%, while the number of physician assistants grew by slightly more than 29%. The number of nurse practitioners and speech-language pathologists grew by 18% and 12%, respectively.

The number of LPNs, occupational therapy assistants, and RNs declined between 2003 and 2007 (Exhibit 97).

Exhibit 97
Change in the Number of Licensed Individuals in Selected Health Occupations
in Western New York, 2003 - 2007

Occupation	2003	2004	2005	2006	2007	Change between 2003 and 2007	
						Number	Percent
Social Workers	1,598	1,576	1,638	2,093	2,219	621	38.9%
Physician Assistants	383	404	437	462	495	112	29.2%
Nurse Practitioners	902	912	977	993	1,063	161	17.8%
Speech-Language Pathologists	899	913	950	973	1,009	110	12.2%
Dental Hygienists	948	961	975	994	1,036	88	9.3%
Dietitians/Nutritionists	293	292	294	303	312	19	6.5%
Pharmacists	1,584	1,455	1,447	1,498	1,658	74	4.7%
Physical Therapists	1,194	1,181	1,203	1,214	1,236	42	3.5%
Occupational Therapists	730	740	732	737	748	18	2.5%
Physical Therapy Assistants	261	261	265	269	267	6	2.3%
Respiratory Therapists	413	406	411	409	419	6	1.5%
Registered Nurses	18,683	18,603	18,088	17,817	18,046	-637	-3.4%
Occupational Therapy Assistants	636	631	612	600	607	-29	-4.6%
Licensed Practical Nurses	7,404	7,149	6,944	6,968	6,926	-478	-6.5%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the upstate²³ New York region reported the most difficulty recruiting pharmacists, experienced RNs, physical therapists, and medical laboratory technicians. Upstate hospitals also reported recruitment problems for nurse practitioners and physician assistants. Retention was most problematic for experienced RNs, nursing aides, and pharmacists.

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

Exhibit 98
Recruitment and Retention Difficulties for Upstate Hospitals
In Selected Occupations

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.9	2.6	55%	27%	5%	0%
Medical Laboratory Technicians	4.3	3.0	50%	55%	27%	0%
Nursing Aides/Patient Care Associates	2.6	3.5	18%	14%	23%	18%
Nurse Practitioners	4.1	3.0	45%	27%	23%	0%
Pharmacists	4.6	3.4	64%	50%	36%	9%
Physical Therapists	4.5	3.1	59%	59%	36%	5%
Physician Assistants	4.1	3.1	36%	36%	18%	5%
Radiologic Technologists						
-mammographers	2.6	2.6	14%	27%	14%	0%
-nuclear medicine technologists	3.9	2.6	36%	45%	18%	5%
-sonographers	3.8	2.8	27%	50%	23%	0%
Registered Nurses						
-Experienced	4.5	3.6	73%	77%	27%	14%
-Newly Trained	3.3	3.3	59%	68%	23%	9%
Respiratory Therapists	3.8	3.1	41%	32%	18%	0%

In addition, 50% of the hospitals in upstate New York cited difficulty hiring part-time workers, 68% reported difficulty hiring workers for off-shifts, and 36% reported difficulty hiring bilingual employees (Spanish-speaking).

²³ Since only 32 hospitals statewide responded to the survey, hospital survey responses were aggregated and data are reported for the downstate and upstate regions.

Nursing Homes

Nursing homes in the Western New York region indicated that they experienced difficulty recruiting experienced and newly-trained RNs, LPNs, and physical therapists. Newly-trained RNs and certified nursing aides were the most difficult occupations to retain.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	3.6	4.1	50%	50%	50%	50%
Clerical	1.9	2.1	0%	0%	0%	0%
Dietitians/Nutritionists	2.2	2.0	0%	0%	0%	0%
Licensed Practical Nurses	4.0	3.4	50%	100%	100%	67%
Occupational Therapists	3.9	2.7	67%	100%	100%	33%
Physical Therapists	4.0	2.8	67%	100%	100%	33%
Registered Nurses						
- <i>Experienced</i>	4.3	3.6	67%	67%	67%	33%
- <i>Newly Trained</i>	4.2	4.4	75%	80%	75%	20%
Respiratory Therapists	3.0	2.5	0%	25%	25%	0%
Social Workers						
- <i>MSWs</i>	3.0	2.5	0%	0%	25%	0%
- <i>BSWs</i>	2.7	2.3	0%	0%	25%	0%

In addition, 50% of the nursing homes in the Western News York region reported difficulty hiring for off-shifts, 67% reported difficulty hiring part-time employees, and 33% reported difficulty hiring bilingual workers.

Home Health Agencies

Home health agencies in the Western New York region reported recruitment difficulties for a large number of health professions, including experienced and newly-trained RNs, home health aides, respiratory therapists, and personal care aides/homemakers. These agencies also reported that retention of home health aides, personal care aides/homemakers, and newly-trained RNs was difficult.

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

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

Occupation	Average Assessment of Difficulty		Percent of Respondents who Indicated Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	4.0	3.0	6%	19%	19%	6%
Home Health Aides	4.3	4.1	50%	31%	50%	25%
Licensed Practical Nurses	3.8	3.7	50%	50%	38%	6%
Occupational Therapists	3.3	3.5	6%	6%	6%	6%
Personal Care Aides/Homemakers	4.1	4.1	31%	6%	13%	13%
Physical Therapists	3.4	3.7	6%	6%	6%	6%
Registered Nurses - <i>Experienced</i>	4.7	3.7	63%	56%	50%	6%
- <i>Newly Trained</i>	4.3	4.0	38%	31%	25%	6%
Respiratory Therapists	4.2	3.2	13%	13%	6%	6%
Social Workers - MSWs	3.2	3.2	0%	6%	6%	6%
- BSWs	3.5	2.9	6%	13%	6%	0%
Speech-Language Pathologists	4.0	3.7	6%	6%	6%	6%

In addition, 67% of the home health agencies in the Western New York region reported difficulty hiring part-time employees, off-shift employees, and bilingual workers.

4. Projected Demand for Health Occupations

The NYS DOL estimated that between 2006 and 2016, there will be an average of 410 annual job openings in Western New York for RNs, 250 average annual job openings for home health aides, and 210 average annual job openings for LPNs. Home health aide jobs are projected to increase the fastest in Western New York, growing by nearly 25% or 1,800 new jobs (Exhibit 101).

Exhibit 101 Employment Projections for the Top 17 Health Care Growth Occupations in the Western New York Region, 2006 - 2016

Occupation	2006	2016	Growth Between 2006 and 2016		Avg. Annual Openings
			Number	Percent	
Registered Nurses	14,350	16,010	1,660	11.6%	410
Home Health Aides	7,320	9,120	1,800	24.6%	250
Licensed Practical Nurses	5,930	6,440	510	8.6%	210
Nursing Aides, Orderlies, and Attendants	9,000	10,000	1,000	11.1%	180
Pharmacy Technicians	1,180	1,370	190	16.1%	60
Dental Assistants	1,440	1,670	230	16.0%	50
Dental Hygienists	940	1,090	150	16.0%	40
Medical and Health Services Managers	1,540	1,610	70	4.5%	40
Medical and Public Health Social Workers	830	950	120	14.5%	30
Medical Assistants	920	1,110	190	20.7%	30
Medical Secretaries	1,280	1,340	60	4.7%	30
Pharmacists	1,320	1,420	100	7.6%	30
Physical Therapists	1,130	1,310	180	15.9%	30
Medical Records and Health Information Technicians	730	770	40	5.5%	20
Occupational Therapists	650	710	60	9.2%	20
Physician Assistants	430	500	70	16.3%	20
Speech-Language Pathologists	860	890	30	3.5%	20

Source: NYS Department of Labor, Labor Market Information, Occupational Outlook, 2006-2016

APPENDIX A

Trends in New York Registered Nursing Graduations, 1996 – 2009

March 2009

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PREFACE

This report summarizes the results of the 2007 survey of New York registered nursing education programs, which was conducted by the New York Center for Health Workforce Studies (the Center). Deans of nursing education programs are surveyed annually and asked questions about applications, admissions, and registered nurse (RN) graduations from their programs as well as barriers to expanding student capacity and the local job market for newly-trained RNs. The primary goal of the survey is to document trends in nursing graduations statewide and regionally in New York and understand how these trends affect the supply of RNs. This survey is the eighth survey of nursing education programs in New York.

This report was prepared by Robert Martiniano and Jean Moore of the Center. The Center is a 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 (SUNY), and Health Research, Incorporated (HRI). The ideas expressed in this report are those of the Center for Health Workforce Studies and do not necessarily represent views or positions of the School of Public Health, the University at Albany, SUNY, 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 RNs in the state. The most recent survey was conducted in the spring and summer of 2008. The brief survey included questions on applications, acceptances, and graduations for 2007 as well as projected graduations through 2009. The survey also asked about barriers to admitting more students and perceptions about the local job market for new RNs. This report summarizes the responses to the 2007 survey.

Of the 114 nursing programs in New York, 104 responded to the survey for a 91% response rate. Data for the 10 nonrespondents were imputed from responses to previous surveys; consequently, the following data reflect enrollments and graduations for all registered nursing programs in the state. It is important to note that not all RN graduations represent new RNs as many RNs who have completed an associate degree (ADN) or diploma program return to school to obtain a bachelor's degree in nursing (BSN). Based on survey responses, the Center estimates that approximately 30% of 2007 bachelor's degree graduates were already 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 RNs indicated that more than 82% of RNs actively practicing in New York received their initial nursing degree in New York²⁴.

²⁴ 2004 National Sample Survey of Registered Nurses.

SUMMARY OF FINDINGS

RN graduations in New York increased in 2007, rising by more than 400 or 5% over 2006 graduations, the fifth consecutive annual increase. Additionally, RN graduations are expected to continue to rise in 2008 and 2009, with 2009 total graduations projected to be 24% higher than graduations in 1996, the previous high point for RN graduations in New York.

After sharp gains in RN graduations in 2005 and 2006, the increase in 2007 and projected increases in 2008 and 2009 are expected to be smaller than they were in 2005 and 2006. This, coupled with fewer programs reporting increases in the number of acceptances into their programs, may indicate a leveling off of RN graduations.

In addition, the current economic downturn may adversely impact the job market for newly-trained RNs. Job losses in other sectors could result in an increasing number of experienced RNs returning to direct care nursing. Also, part-time and per diem RNs may either increase hours or move into permanent positions. The data presented here are retrospective and may not account for the effect of the current economic downturn on the demand for newly-trained RNs.

NURSING EDUCATION PROGRAM FINDINGS

- 1. For the fifth consecutive year, the number of RN graduates in New York in 2007 increased over the number of RN graduations in the previous year.**

It is estimated that over 8,200 individuals graduated from RN education programs in New York in 2007. This was the fifth successive year that RN graduations have increased, following six consecutive years of declines. This represents an increase in RN graduations of more than 60% since 2002 (Figure 1 and Table 1).

2. RN graduations in New York are projected to continue to rise in 2008 and 2009.

The number of RN graduations in New York in 2008 is expected to be nearly 74% higher than the number of RN graduations in 2002, and the number of RN graduations in 2009 is projected to be almost 88% higher than in 2002. For the second consecutive year, the number of RN graduations eclipsed the previous high point of RN graduations in 1996 (Figure 1 and Table 1).

3. The number of graduations from both ADN and BSN programs in New York rose in 2007 and is projected to continue to rise through 2009.

In 2007, ADN and BSN graduations each increased by 5% over 2006 graduations. Graduations from both ADN and BSN programs are expected to continue to rise in 2008 and 2009 and are projected to exceed 1996 ADN and BSN graduation levels (Figure 1 and Table 1).

**Figure 1
New York RN Graduations by Degree Type, 1996 to 2009**

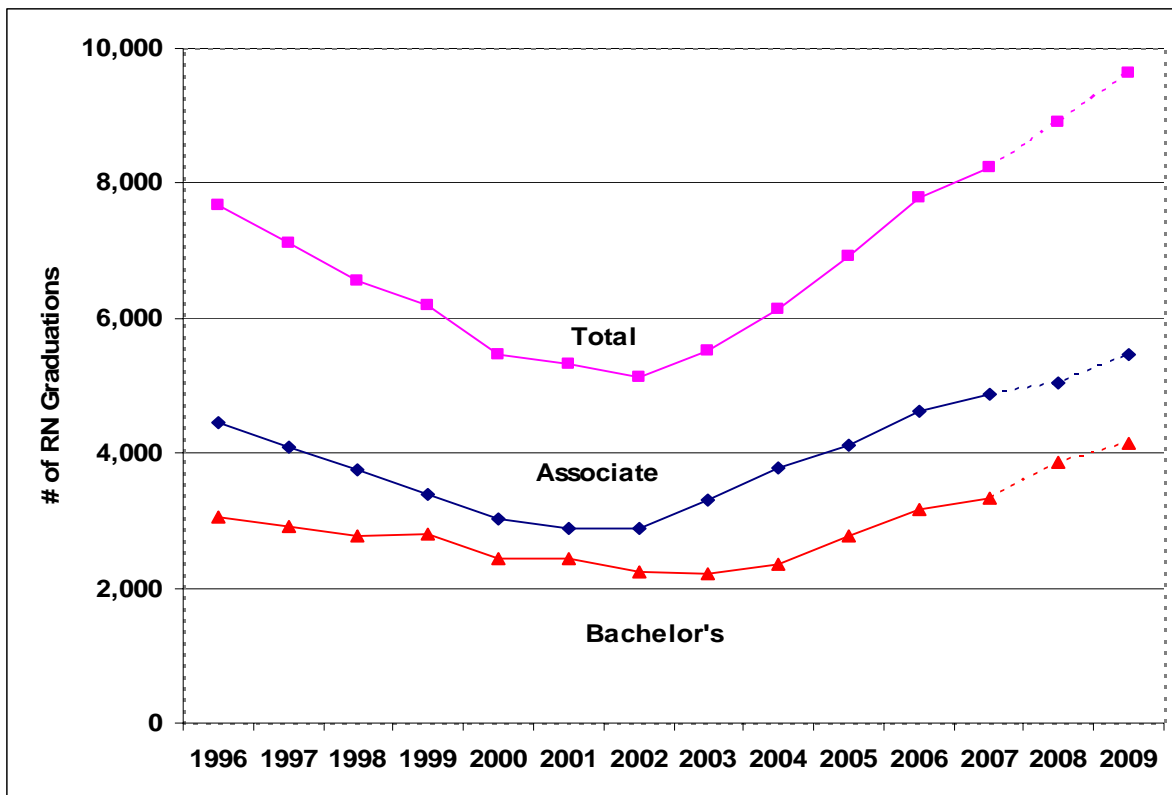


Table 1
New York RN Graduations by Degree Type, 1996 to 2009

School Year		Degree Type			Totals
		Associate	Bachelor's	Diploma	
Actual Graduations	1996	4,447	3,062	176	7,685
	1997	4,102	2,911	94	7,107
	1998	3,763	2,780	13	6,556
	1999	3,381	2,792	4	6,177
	2000	3,015	2,437	4	5,456
	2001	2,885	2,437	12	5,334
	2002	2,877	2,248	3	5,128
	2003	3,311	2,199	3	5,513
	2004	3,772	2,344	11	6,127
	2005	4,119	2,779	14	6,912
	2006	4,620	3,173	8	7,801
Projected Graduations	2007	4,872	3,341	9	8,222
	2008	5,049	3,853	7	8,909
	2009	5,464	4,158	12	9,634

4. Between 2002 and 2009 RN graduations are projected to increase in all regions of New York.

All regions²⁵ in New York are projected to experience significant increases in RN graduations between 2002 and 2009, ranging from 24% in the Central New York region to nearly tripling in the Long Island region. Two other regions are projected to more than double their RN graduations between 2002 and 2009 (Finger Lakes and Southern Tier). RN graduations in 2009 are projected to surpass 1996 RN graduations in eight of the ten regions of the state (Figure 2 and Table 2).

²⁵ The 1997 New York State Department of Labor regions were used in this report.

Figure 2
Projected Percentage Increase in RN Graduations, 2002 – 2009, by Region

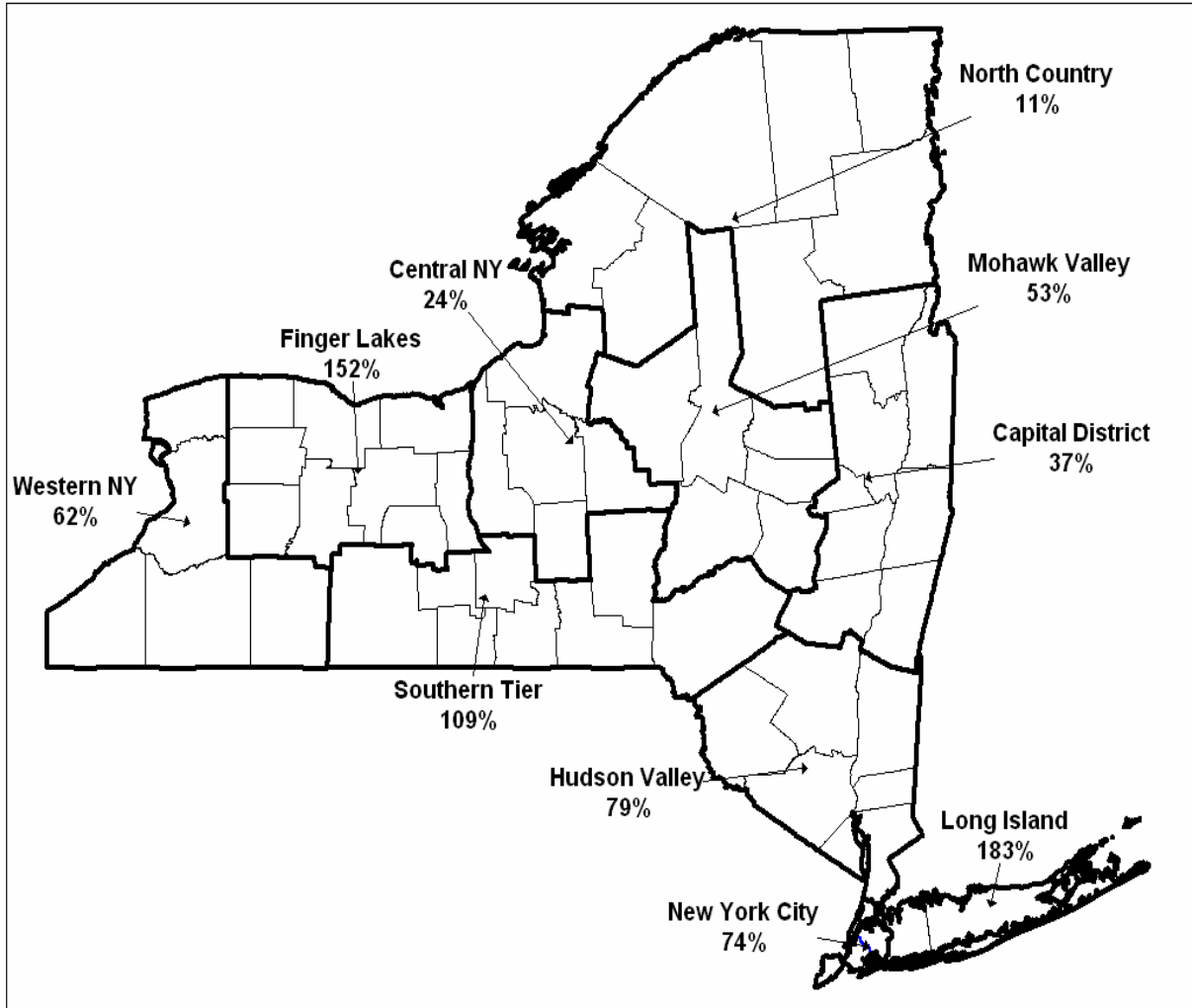


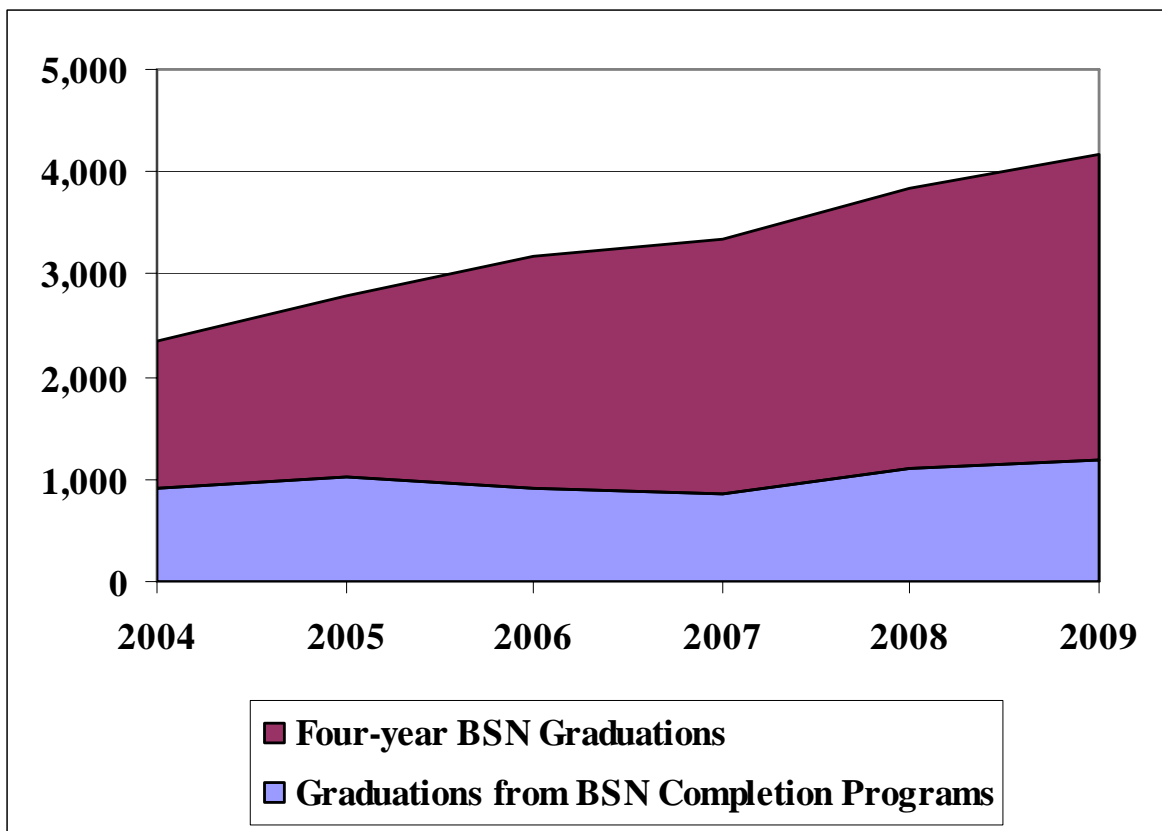
Table 2
Percent Change in the Number of RN Graduations by Region

Region	1996	2002	2003	2006	2007	Projected		% Change		
						2008	2009	96 to 02	02 to 09	96 to 09
Capital District	404	358	395	458	456	451	491	-11.4%	37.2%	21.5%
Central New York	476	289	303	366	376	370	359	-39.3%	24.2%	-24.6%
Finger Lakes	518	385	431	657	698	791	970	-25.7%	151.9%	87.3%
Hudson Valley	1,058	616	689	1,045	1,001	1,057	1,103	-41.8%	79.1%	4.3%
Long Island	937	677	795	1,302	1,571	1,783	1,918	-27.7%	183.3%	104.7%
Mohawk Valley	301	234	231	313	283	349	357	-22.3%	52.6%	18.6%
New York City	2,258	1,544	1,605	2,244	2,350	2,543	2,692	-31.6%	74.4%	19.2%
North Country	232	170	166	227	219	177	188	-26.7%	10.6%	-19.0%
Southern Tier	417	248	358	486	515	501	517	-40.5%	108.5%	24.0%
Western NY	890	535	473	644	672	724	864	-39.9%	61.5%	-2.9%

5. The number of graduations from RN to BSN completion programs is projected to remain constant through 2009.

Between 2004 and 2009, the number of four-year BSN graduations is projected to more than double, going from 1,437 to nearly 3,000. In addition, the number of graduations from BSN completion programs is expected to increase by nearly 31% over the same period. It is projected that in 2009, BSN completers will represent slightly more than 28% of all graduations (Figure 3).

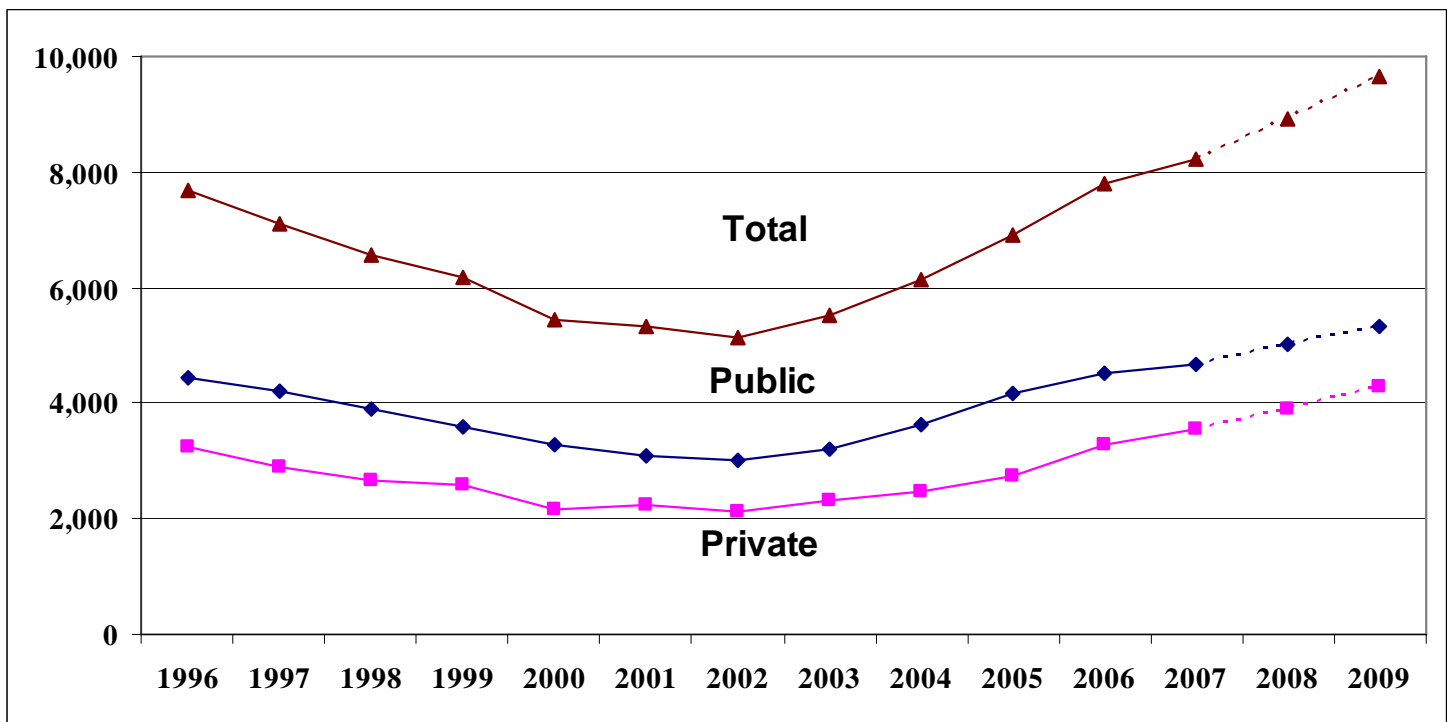
Figure 3
Graduations from BSN and BSN Completion Programs
2004 – 2009



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

Between 2002 and 2009, RN graduations from publicly sponsored programs (State University of New York and City University of New York schools (CUNY)) are projected to increase by nearly 78%, while RN graduations from privately sponsored programs (including hospital-run programs) are expected to more than double (Figure 4).

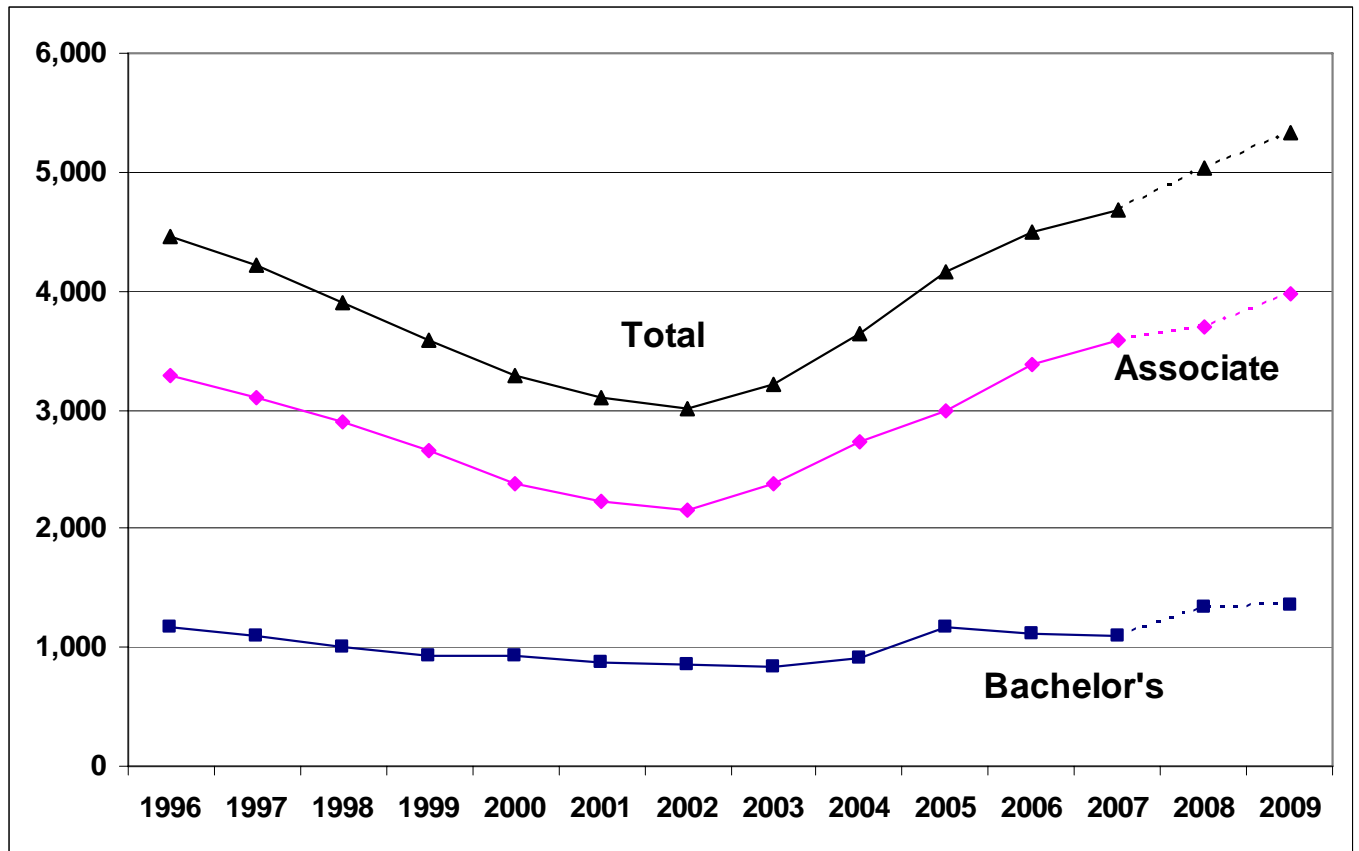
Figure 4
Change in RN Graduations in Public and Private Nursing Programs, 1996 to 2009



7. Graduations from publicly sponsored ADN programs are projected to increase by 85% between 2002 and 2009.

Publicly sponsored ADN graduations are projected to increase by more than 1,800 between 2002 and 2009, or 85%. Publicly sponsored BSN graduations are projected to increase by almost 60% during the same period (Figure 5).

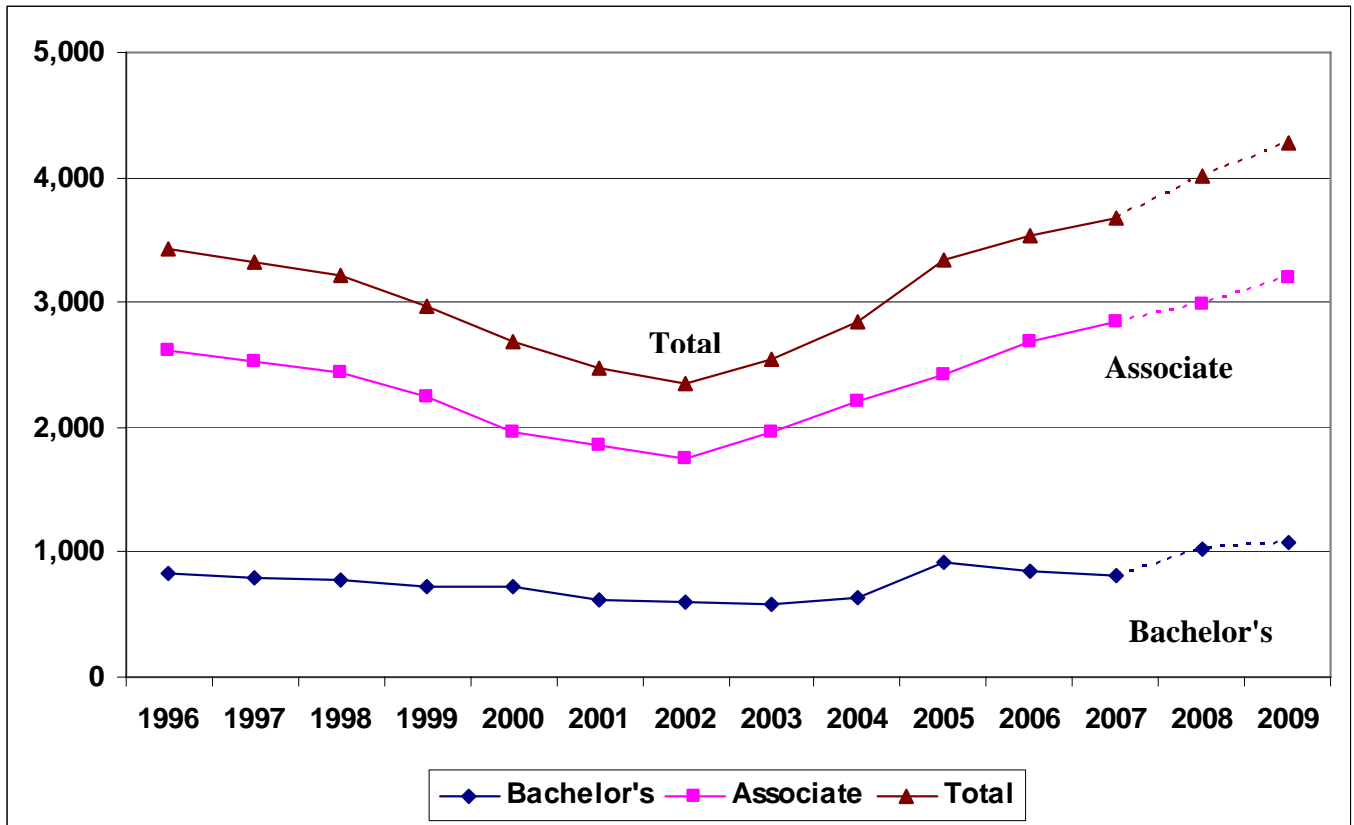
**Figure 5
Publicly Sponsored RN Graduations by Degree Type, 1996 to 2009**



8. State-sponsored ADN graduations are projected to increase by 85% between 2002 and 2009.

In 2007, nearly 78% of all state-sponsored RN graduations were from ADN programs based in community colleges²⁶. This trend is projected to continue through 2009. Between 2002 and 2009, state-sponsored ADN graduations are projected to increase by 85% and state-sponsored BSN graduations are projected to increase by 59%. All state-sponsored RN graduations are projected to be 20% higher in 2009 than they were in 1996 (Figure 6).

**Figure 6
State-sponsored RN Graduations by Degree Type, 1996 to 2009**

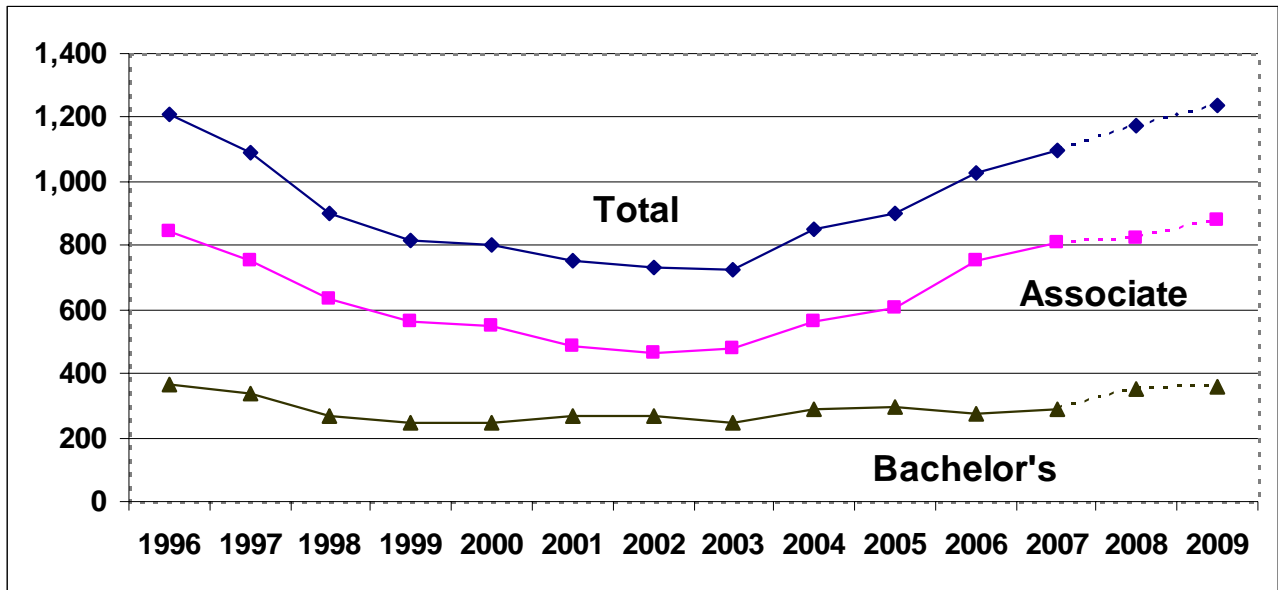


²⁶ ADN programs at state-sponsored community colleges receive both state and county funding.

9. Between 2002 and 2009, ADN graduations at CUNY programs are projected to increase at a faster rate than BSN graduations.

Between 2002 and 2009, ADN graduations at CUNY nursing programs are expected to increase by nearly 90% while BSN graduations are projected to increase by 35%. Between 1996 and 2009, CUNY RN graduations increased by about 2%, with ADN graduations rising by nearly 4% and BSN graduations declining by just over 1% (Figure 7).

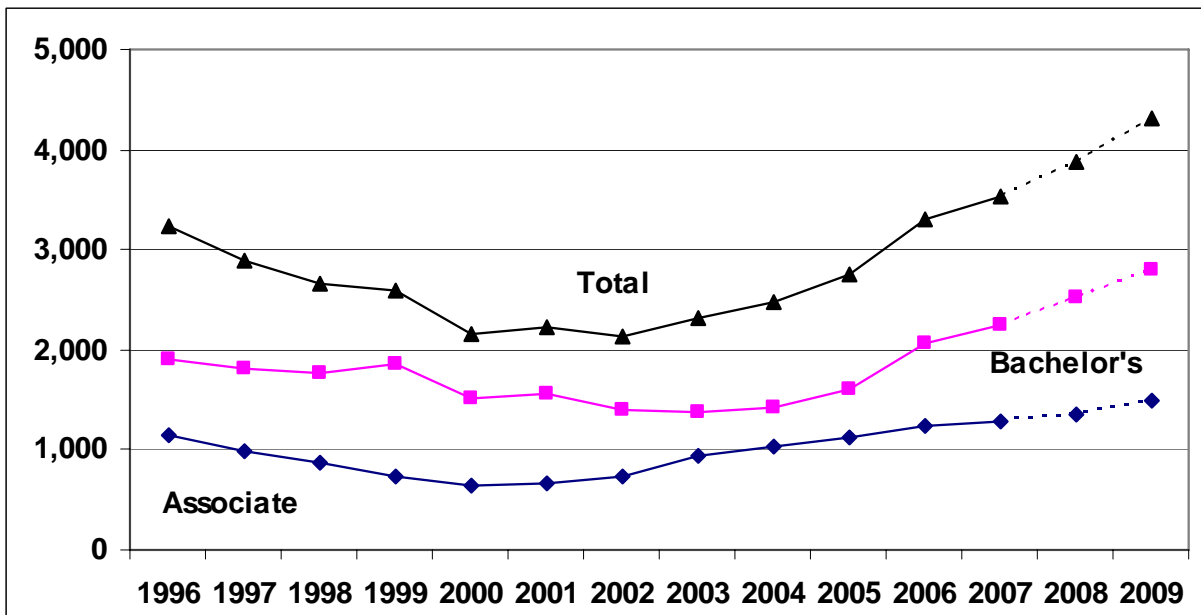
Figure 7
CUNY RN Graduations by Degree Type, 1996 to 2009



10. Graduations from privately sponsored ADN and BSN programs are projected to more than double between 2002 and 2009.

Privately sponsored ADN and BSN program graduations are expected to rise by more than 102% between 2002 and 2009. The total number of privately sponsored RN graduations is expected to be 33% higher in 2009 than in 1996 (Figure 8).

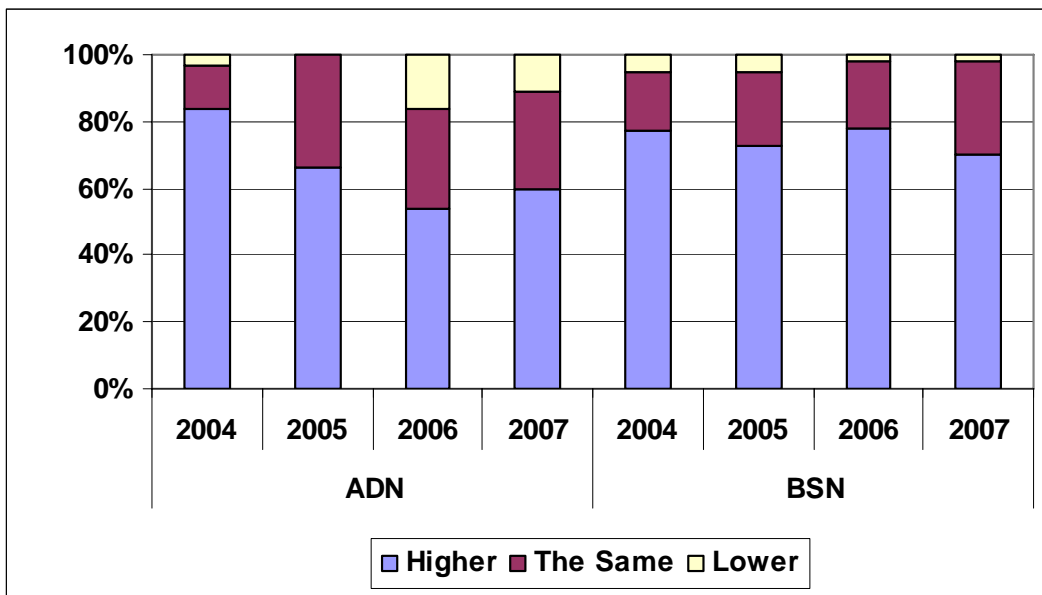
**Figure 8
Privately Sponsored RN Graduations by Degree Type, 1996 to 2009**



11. While a higher number of ADN programs reported an increase in applications between 2006 and 2007, an increased number of BSN programs reported a decline in applications during the same period.

The percent of ADN programs that reported a rise in applications increased by 6%, while the percent of BSN programs that reported an increase in applications declined by 8% (Figure 9). Overall, the number of nursing education programs that saw increases in applications remained the same between 2006 and 2007.

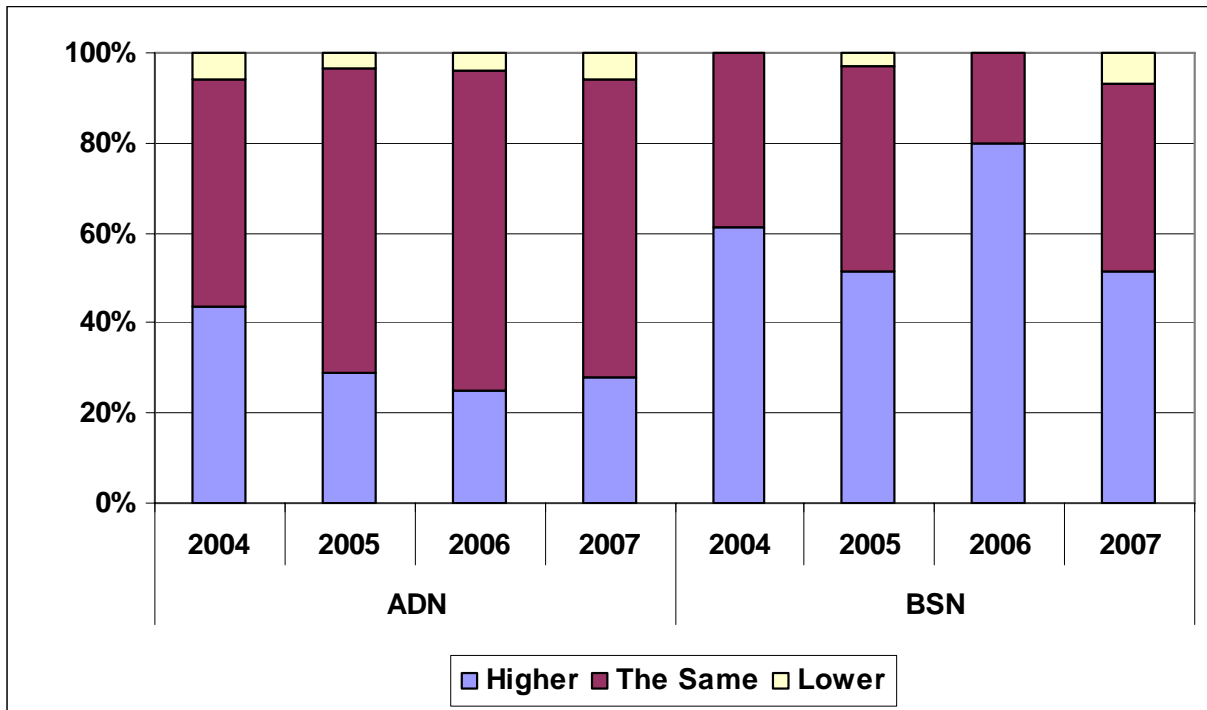
Figure 9
Percent Change in Number of Applications by Program Type, 2004 - 2007



12. A majority of ADN programs reported no change in the number of acceptances between 2006 and 2007, and an increased number of BSN programs reported no change in the number of acceptances during the same period.

Nearly two-thirds of ADN programs reported the same number of acceptances in 2006 and 2007, while another 28% reported an increase in acceptances during the same period. The number of BSN programs reporting the same number of acceptances doubled between 2006 and 2007, while the number of BSN reporting increases in acceptances dropped by 33%. Overall, fewer nursing programs report increases in acceptances between 2006 and 2007.

Figure 10
Percent Change in Number of Acceptances by Program Type, 2004 – 2007



13. Compared to 2006, fewer nursing education programs reported turning away qualified applicants in 2007.

Fifty-four percent of nursing education programs reported turning away qualified applicants in 2007, compared to 59% in 2006 and 67% in 2005. ADN programs were more likely to turn away qualified applicants than BSN programs. Nearly two-thirds of ADN programs and slightly more than 40% of BSN programs reported turning away qualified applicants in 2007 (Table 3).

Table 3
Percent of Respondents Reporting
Turning Away Qualified Applicants by Program Type, 2004 - 2007

	2004	2005	2006	2007
All Programs	57%	67%	59%	54%
ADN	73%	80%	72%	65%
BSN	39%	50%	43%	41%

14. Fewer qualified applicants were denied admission to nursing education programs in 2007 than in 2006 or 2005.

Both ADN and BSN programs reported turning away fewer qualified applicants in 2007 than in 2006. The percent of ADN and BSN programs that turned away 41 or more qualified applicants declined from 28% to 17% between 2005 and 2007 (Table 4). Based on survey responses, it was estimated that about 2,000 qualified applicants were turned away from New York’s nursing education programs in 2007, down from nearly 2,200 in 2006 and around 3,000 in 2005. Since applicants may apply to more than one nursing education program, these numbers do not represent an unduplicated count of qualified applicants denied admission to nursing education programs in the state. Additionally, the estimate does not consider students who are waited-listed.

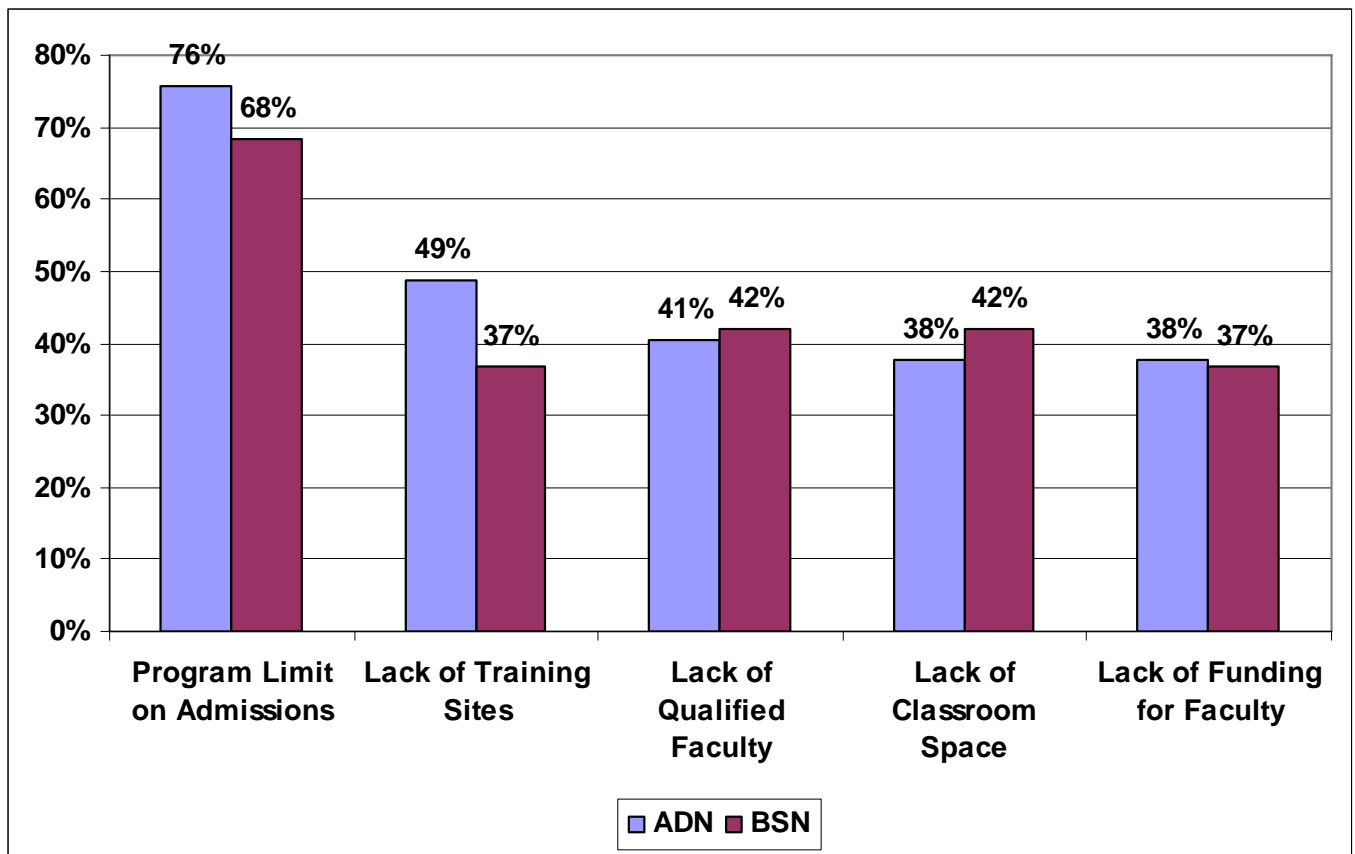
**Table 4
Number of Qualified Applicants Turned Away
by Program Type**

Number of Qualified Applicants Turned Away	Type of Program								
	All Nursing Programs			Associate Degree			Bachelor’s Degree		
	2005	2006	2007	2005	2006	2007	2005	2006	2007
1 – 20	29%	21%	25%	34 %	35%	30%	23%	9%	20%
21 – 40	6%	11%	13%	7%	17%	18%	5%	7%	7%
41 – 60	8%	8%	5%	7%	6%	5%	3%	14%	4%
61 – 80	4%	4%	2%	4%	4%	4%	5%	5%	0%
81 or More	16%	9%	10%	20%	11%	9%	10%	9%	11%

15. The primary reason nursing education programs reported turning away qualified applicants was limits on program capacity (i.e., slots for new students in their programs.)

The majority of ADN and BSN programs that denied admissions to qualified applicants cited limits on program admissions as the primary reason for doing so. Other reasons included a lack of clinical training sites and a lack of qualified faculty (Figure 11).

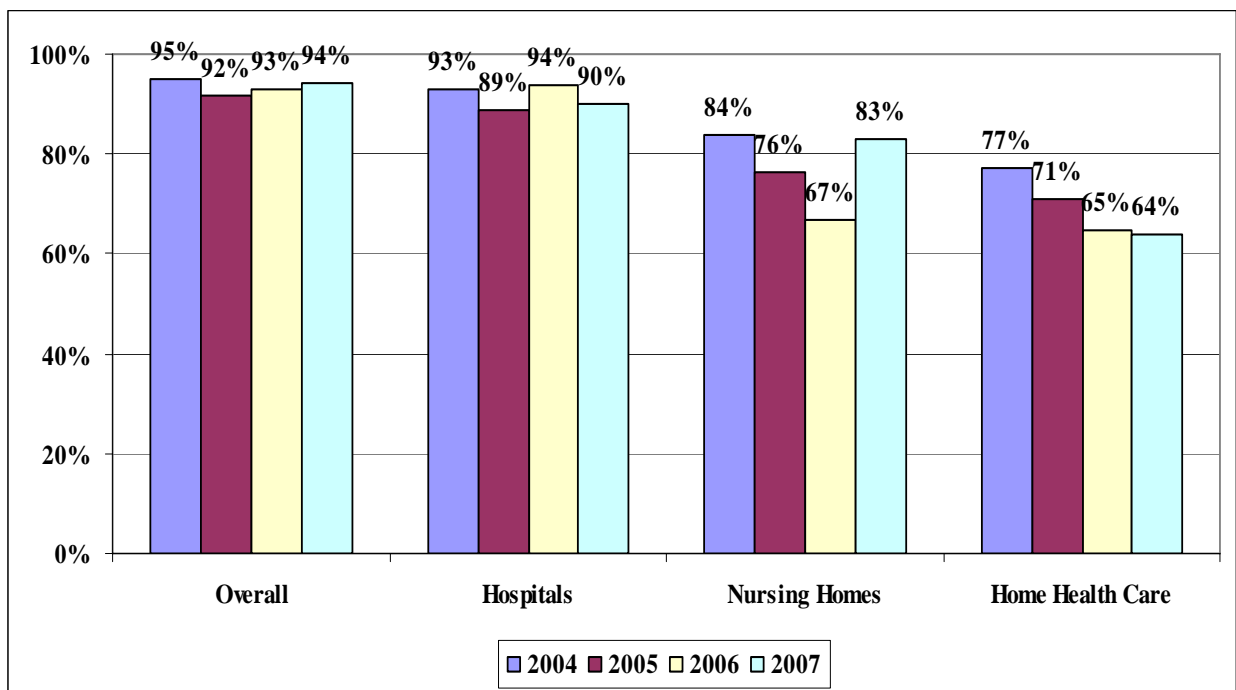
Figure 11
Reasons for Turning Away Qualified Applicants by Degree Program Type



16. Demand for newly-trained RNs was reported to be strong, but this may be changing.

The vast majority of New York’s nursing programs reported continued high demand for newly-trained RNs in 2007. More than 90% of the respondents indicated that, overall, many jobs were available for newly-trained RNs. From 2004 to 2007, demand for newly-trained RNs remained relatively constant in the hospital sector but declined in the home health sector (Figure 12). However, this assessment was made prior to the current economic downturn, which could impact on the demand for newly-trained RNs.

Figure 12
Demand for Newly-trained RNs between 2004 and 2006



HOSPITAL NURSE RECRUITER SURVEY FINDINGS

Despite the fact that nursing program deans reported a strong job market for their graduates, anecdotal evidence suggests that new RNs are having a harder time finding jobs this year than they have in past years. In an effort to better understand the job market for new RNs, the Center surveyed nurse recruiters from downstate hospitals in late 2008. Thirty-eight recruiters, primarily representing hospitals, responded to the survey. Key findings from this survey are:

- More than two-thirds of the nurse recruiters reported an increase in the number of new RN graduates applying for direct care nursing positions and over one-third cited an increase in the number of experienced RNs applying for these positions.
- About 60% of respondents reported an increase in the number of per diem and traveler RNs hired for permanent nursing positions.
- Over 42% of respondents saw an increase in the number of experienced RNs hired for direct care nursing positions.

The results of this survey indicate that new RN graduates may face a more competitive nursing job market. This may be due, in part, to the current economic downturn which could result in more experienced RNs competing for available direct care nursing jobs or remaining longer in direct care positions with more predictable number of hours.

DISCUSSION

RN graduations have steadily increased since 2002, but it is unclear whether this trend will continue or whether the increase in the number of RN graduations will eliminate the current and projected shortage of RNs in the state. Based on information from a recent Center's report²⁷ on forecasting the supply and demand of RNs, New York will be about 30,000 RNs short by 2020 if existing trends continue through 2020. Using up-to-date RN production data, New York would need to graduate an additional 3,100 RNs each year between 2009 and 2019 to eliminate the projected shortage of RNs by 2020.

Estimates of nursing supply and demand, however, cannot account for changing economic conditions, which could clearly affect the number of available jobs or the number of RNs looking for positions. Some of the potential impacts of the current recession on the state's health care delivery system are:

- rising numbers of uninsured and underinsured New Yorkers who may delay seeking care and be unable to cover the cost of health care they receive;
- tight credit markets that may limit providers' ability to borrow funds for needed investments in, among others, health information technology;
- the potential for revenue shortfalls that could lead to staffing cuts; and
- the easing of current nursing shortages if there are fewer vacant positions to fill.

These short-term impacts may have long-term consequences. If the job market for newly-trained RNs becomes more competitive, a possible market response is a decline in interest in RN careers, leading to declines in RN enrollments and graduations. As a result, if the supply of RNs declines and the projections of future demand are accurate, then shortages will worsen.

²⁷ "Toward a Methodology for Substate Projections of Registered Nurse Supply and Demand in New York: Data, Methods, and Preliminary Findings for Counties and County Groups, 2005 – 2020.