



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, 2008**

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April 2010

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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, David Armstrong, Alison Bates, 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 nation’s economy, representing more than 9% 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 2008 and 2018. Not surprisingly, more than half of the fastest growing occupations in the U.S. over that same period are projected to be health occupations.

Between 2003 and 2008, health sector employment in New York grew at a much faster rate than all other employment sectors in the state, just over 9%, compared to 4%, respectively. Since 2003, only nursing homes and personal care facilities lost jobs in the health sector in New York. Ambulatory care, hospitals, and home health care employment all grew during this time period.

However, health care has not been immune to the effects of the recent economic downturn. Impacts of the recession on the state’s health care delivery system include:

- An increasing number of uninsured and underinsured New Yorkers who delay seeking care and lack resources to pay for the health care they receive;
- Greater demand for services from safety net providers;
- Tight credit markets that limit providers’ access to capital for needed investments or expansions;
- Revenue shortfalls that lead to staffing cuts;
- An easing of current shortages in some health professions and occupations as there are fewer vacant positions to fill and, in some instances, many candidates competing for these positions.

Health sector employment is a vital part of New York’s economy. As the economy slowly recovers from this recession, it is expected that health sector job growth will increase and the growing demand for health workers could precipitate future shortages 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

New York health care providers in all settings reported persistent problems recruiting and retaining experienced registered nurses (RNs).

Providers in all settings cited competition for experienced RNs as the primary reason for the recruitment and retention difficulties. County health departments also cited salary levels as another reason for the recruitment and retention difficulties.

Demand for newly-trained RNs dropped sharply in 2009.

Few providers reported difficulty either recruiting or retaining newly-trained RNs, except for nursing homes. This is consistent with findings from the most recent survey of nursing deans, in which significantly fewer deans reported “many jobs” for their graduates in 2009.

Hospitals in most regions of the state reported the most difficulty recruiting and retaining clinical laboratory technicians and technologists.¹

Clinical laboratory technicians and technologists were cited as categories of workers that posed the greatest recruitment and retention difficulties for hospitals in all regions except the Western New York region. Hospitals cited shortages of these workers and competition for clinical laboratory technicians and technologists as the main reasons for these difficulties. In addition to experienced RNs, hospitals also reported difficulty recruiting medical coders and pharmacists.

Nursing homes reported difficulty recruiting and retaining nursing staff.

Nursing homes across New York reported the most difficulty recruiting newly-trained RNs, licensed practical nurses (LPNs), and experienced RNs as well as retaining certified nursing aides (CNAs), newly-trained RNs, and LPNs. They also reported difficulty recruiting occupational therapists and physical therapists.

Home health agencies reported difficulty recruiting occupational therapists and physical therapists.

In addition to experienced RNs, home health agencies reported difficulty recruiting occupational therapists and physical therapists. Occupational therapists were also somewhat difficult to retain.

The number of licensed physician assistants and nurse practitioners increased the fastest between 2004 and 2008.

The number of licensed physician assistants (30%) and nurse practitioners (21%) grew the fastest in New York between 2004 and 2008. The number of speech-language pathologists (19%), physical therapists (14%), social workers (13%), and occupational therapists (10%) also showed

¹ These two categories of workers were combined on the survey. It is possible that there is greater unmet demand for one category of worker than the other.

significant growth during the same time period. While the number of RNs licensed in New York grew by nearly 19,000 between 2004 and 2008, it represented only an 8% increase in the total number licensed. Other health care occupations with much slower growth in licenses included LPNs (7%), pharmacists (6%), and dietitians/nutritionists (3%).

For the seventh consecutive year, the number of RN graduations in 2009 in New York increased over the previous year. RN graduations are projected to continue to rise in 2010.

After six consecutive years of declining RN graduations (1997 through 2002), overall RN graduations increased in each of the past seven years (2003 through 2009) and are projected to continue to increase in 2010.

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

Health workers comprised a growing share of New York's workforce. Between 2001 and 2008, the health sector in New York grew by more than 14% while the remaining employment sectors grew by slightly less than one-half of 1%. In 2008, more than one in nine jobs in New York was in the health sector. Employment in home health care grew the fastest among health sector jobs in New York. Employment in ambulatory care in the state also increased.

All New York regions experienced health sector job growth between 2003 and 2008.

All regions of New York experienced job growth in the health sector, led by Long Island (13%) and Mohawk Valley (11%). Jobs in the health sector also increased for both the New York City and Central New York regions by at least 9% during the same period.

Between 2006 and 2016, the New York State Department of Labor (NYS DOL) projected the most substantial job growth for home health aides; RNs; nursing aides, orderlies, and attendants; and LPNs.

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, NYS DOL projected over 2,400 average annual openings for nursing aides, orderlies, and attendants, and nearly 1,900 average annual openings for LPNs, during the same period.

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 nation’s economy, representing more than 9% 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 2008 and 2018. Not surprisingly, more than half of the fastest growing occupations in the U.S. over that same period are projected to be health occupations.

Between 2003 and 2008, health sector employment in New York grew at a much faster rate than all other employment sectors in the state, just over 9%, compared to 4%, respectively. Since 2003, only nursing homes and personal care facilities lost jobs in the health sector in New York. Ambulatory care, hospitals, and home health care employment all grew during this time period.

However, health care has not been immune to the effects of the recent economic downturn. Impacts of the recession on the state’s health care delivery system include:

- An increasing number of uninsured and underinsured New Yorkers who delay seeking care and lack resources to pay for the health care they receive;
- Greater demand for services from safety net providers;
- Tight credit markets that limit providers’ access to capital for needed investments or expansions;
- Revenue shortfalls that lead to staffing cuts;
- An easing of current shortages in some health professions and occupations as there are fewer vacant positions to fill and, in some instances, many candidates competing for these positions.

Health sector employment is a vital part of New York’s economy. As the economy slowly recovers from this recession, it is expected that health sector job growth will increase and the growing demand for health workers could precipitate future shortages 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 are:

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

The goals of this report are:

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

C. Data Sources and Terminology

Data Sources

All data sources for this report are cited unless the data is from primary data collection conducted by the Center for Health Workforce Studies. The data sources used in this report include the following:

1. Center for Health Workforce Studies
 - 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 nursing homes, diagnostic and treatment centers, and home health agencies across New York. 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. The Center worked with a number of provider organizations to both promote the surveys and develop appropriate questions, and they include: Continuing Care Leadership Coalition at the Greater New York Hospital Association, the New York Association of Homes and Services for the Aging, the New York State Health Facilities Association, the Community Health Center Association of New York State, and the Home Care Association of New York State, Inc. The Center partnered with the Healthcare Association of New York State, the Greater New York Hospital Association, and the five regional associations to survey hospitals, and used data from that survey for this report.

Findings from these surveys were 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, were fewer than five, no information was provided or contiguous regions were combined.

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

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

- Covered Employment and Wages Program (ES-202)

These data were used to describe regional changes in health care employment by setting. A number of conditions potentially affected 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 and by health care setting. National projections are for the period 2008 to 2018 and regional projections within New York are for the period 2006 to 2016. Regional projections for the period of 2008 to 2018 for New York should be available at the end of this year.

Annual openings reflect 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 indicate significant annual turnover within the occupation rather than expansion of the occupation.

3. State Education Department Licensure Data

The licensure data presented in this report reflect counts of licensed health care professionals in New York at five points in time: April 1, 2004; April 1, 2005; April 1, 2006; April 1, 2007, and April 1, 2008. These counts represent the maximum number of individuals who could be employed in the profession since some licensees may not have

been actively working in the profession. Counts by county are based on the mailing address in the licensure file, which could be either a home or a practice location. Additionally, certain individuals in the file may be licensed to practice in New York but live in another state.²

Physicians and dentists are not included in this report using any of the above datasets.

Terminology

The settings used in this report are 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 is as follows:

- Hospitals (public and private);
- Nursing and personal care facilities (excluding residential, mental retardation, mental health and substance abuse facilities, and other residential care facilities);
- Home health care services;
- Ambulatory care settings (excluding home health care services), including:
 - Medical and diagnostic laboratories;
 - Offices and clinics of doctors of medicine;
 - Offices and clinics of dentists;
 - Offices and clinics of other health practitioners;
 - Outpatient care centers; and
 - Other ambulatory health services.

This classification scheme provides standardization among the data sets presented but it has some limitations. By limiting the analyses to the NAICS health services industries, health care workers in hospital-sponsored ambulatory care sites may be 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, are excluded from the health sector counts. The Center estimates that, nationally, one-fourth of the health care workforce is employed outside of the health care settings that are included in the health care sector defined by BLS.

Occupations are usually grouped by BLS OES categories. These occupational categories also have limitations. For example, registered nursing makes no distinction between nurse practitioners, RN managers, and staff RNs. The nursing aides, orderlies, and attendants occupational category also includes multiple job titles, levels of training, and certifications.

Also, there are some job titles in a health setting that may not necessarily reflected similar OES occupational classifications and this may cause some problems in reporting. For example, confusion may result from the differences in defining a home health aide as any individual providing services in the home or as one who completes the certification requirements.

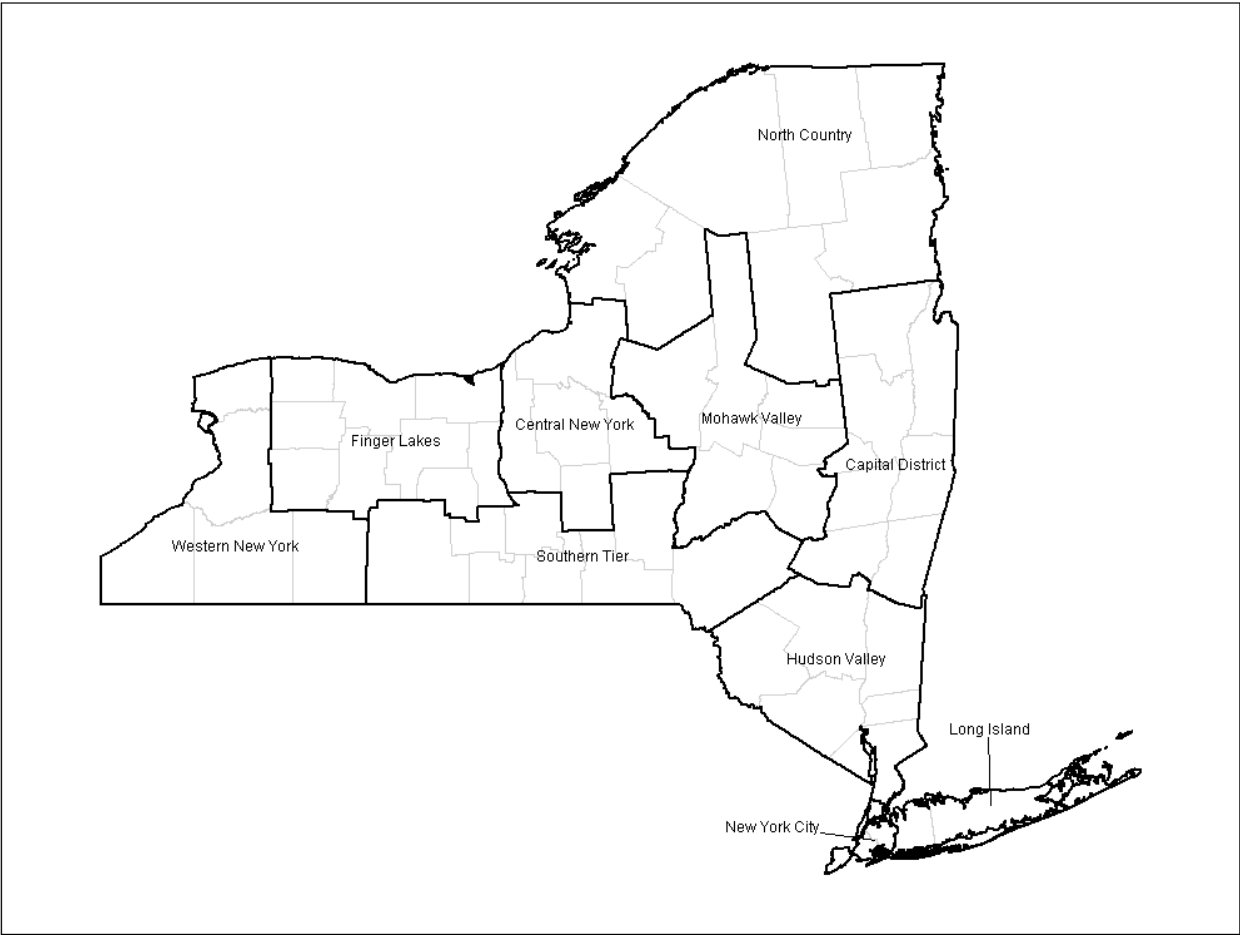
² Note: This total includes all New York licensed individuals regardless of whether the address given in the licensure file was a New York address, while tables of licensees by region include only those individuals with an address in the region.

Geographic Areas

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

- Capital District: The counties of Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Warren, and Washington.
- Central New York: The counties of Cayuga, Cortland, Madison, 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, Montgomery, Oneida, Otsego, 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, Schuyler, Steuben, Tioga, and Tompkins.
- Western New York: The counties of Allegany, Cattaraugus, Chautauqua, Erie, and Niagara.

Exhibit 1
New York State Labor Department Regions



III. THE HEALTH CARE WORKFORCE IN THE UNITED STATES

A. Total Employment

In 2008, there were almost 18.5 million jobs either in the health sector or in health occupations outside of the health sector, accounting for over 12% of the total U.S. workforce.

Of the 18.5 million jobs, slightly more than 13.6 million jobs, or 9.5% of U.S. employment, were in the health sector in 2008, including both health and non health-related occupations. The remaining 4.9 million jobs, or 3% of U.S. employment, were in health occupations outside of the health sector (Exhibits 2 and 3).

Exhibit 2
The U.S. Health Workforce, 2008, (in thousands)

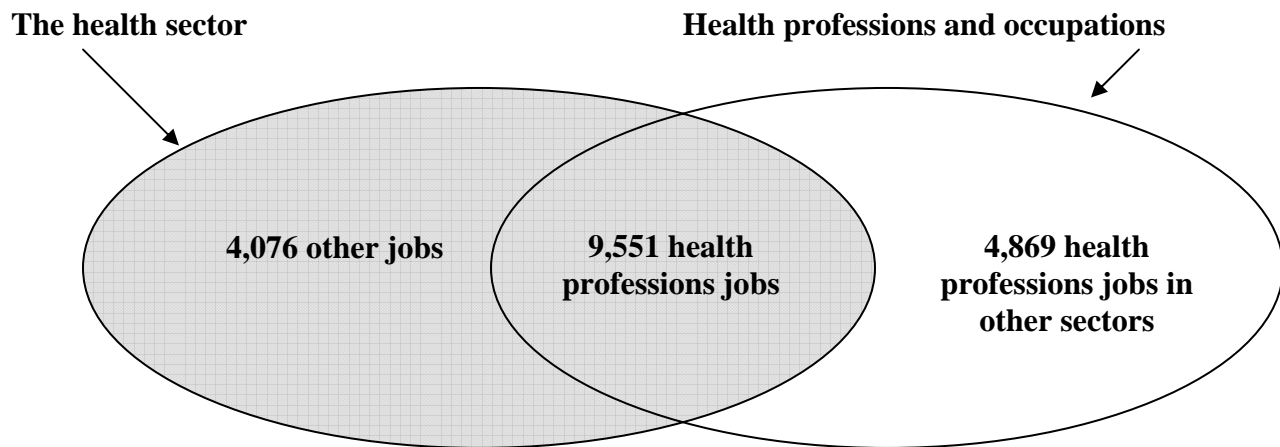


Exhibit 3
The U.S. Health Workforce, 2008 (in thousands)

	(In Thousands)		
	Health Professions Jobs	Other Jobs	Total Jobs
The Health Sector	9,550.7	4,075.9	13,626.6
Other Work Settings	4,869.0	132,436.1	137,305.1
All Work Settings	14,419.7	136,512.0	150,931.7

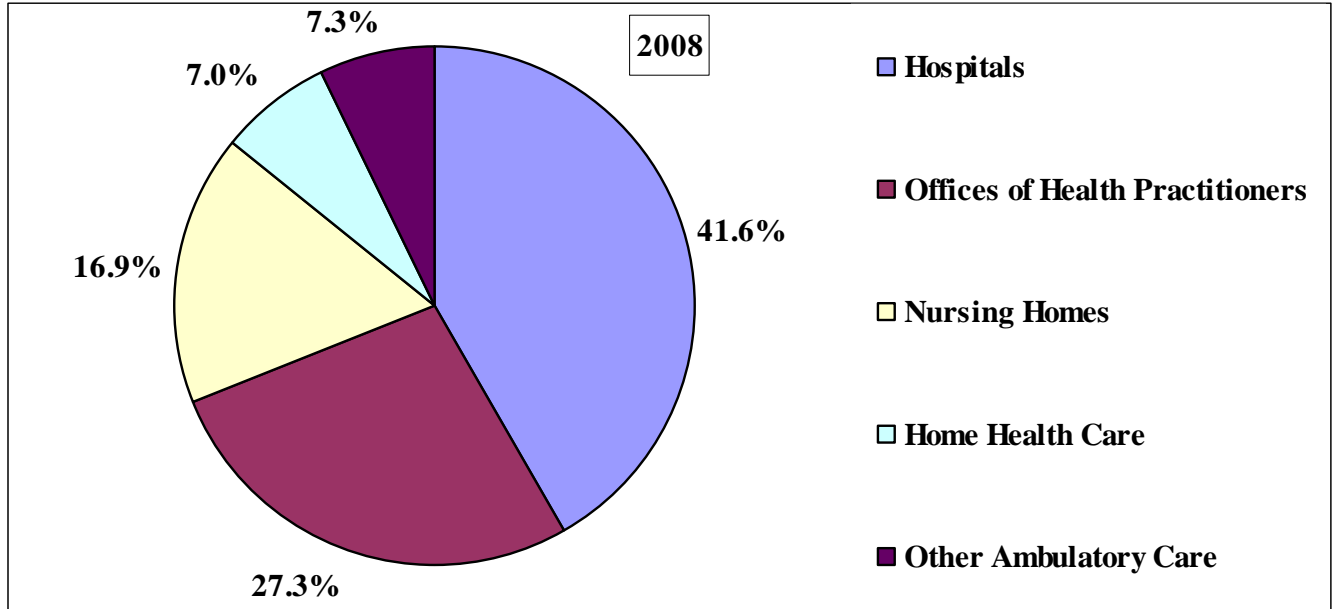
	Number	Percent of Civilian Labor Workforce
Health professions jobs in the health sector	9,550.7	6.3%
Other jobs in the health sector	4,075.9	2.7%
Health professions jobs in other settings	4,869.0	3.2%
Total U.S. Health Care Jobs	18,495.6	12.3%
U.S. Civilian Labor Force Jobs	150,931.7	100.0%

Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2008 and projected 2018.

B. By Settings

Hospitals continue to employ the most health workers in the U.S. (42%) followed by offices of health practitioners (27%) (Exhibit 4). Continued growth in ambulatory care settings are projected to increase the proportion of the workforce in that setting to nearly 30% by 2018.

Exhibit 4
Percent Distribution of the Workforce by Health Settings, 2008

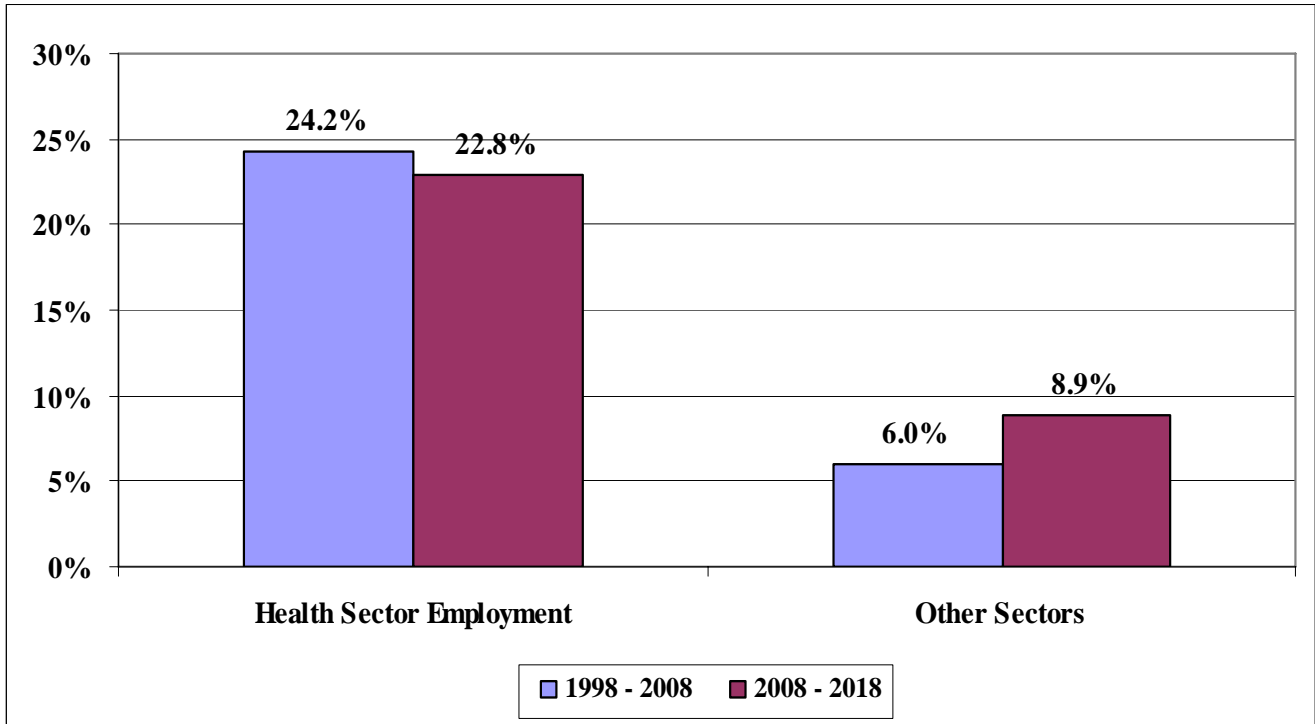


Source: 2008 – 18 National Employment Matrix, Bureau of Labor Statistics

According to the BLS, 9% of jobs nationally were in the health sector in 2008, and about three in every five new jobs created between 2008 and 2018 will be in the health care sector.

Health sector employment is projected to grow from over 13.6 million jobs in 2008 to nearly 16.7 million jobs by 2018. The health sector is expected to grow by nearly 23%, compared to almost 9% for all other employment sectors (Exhibit 5).

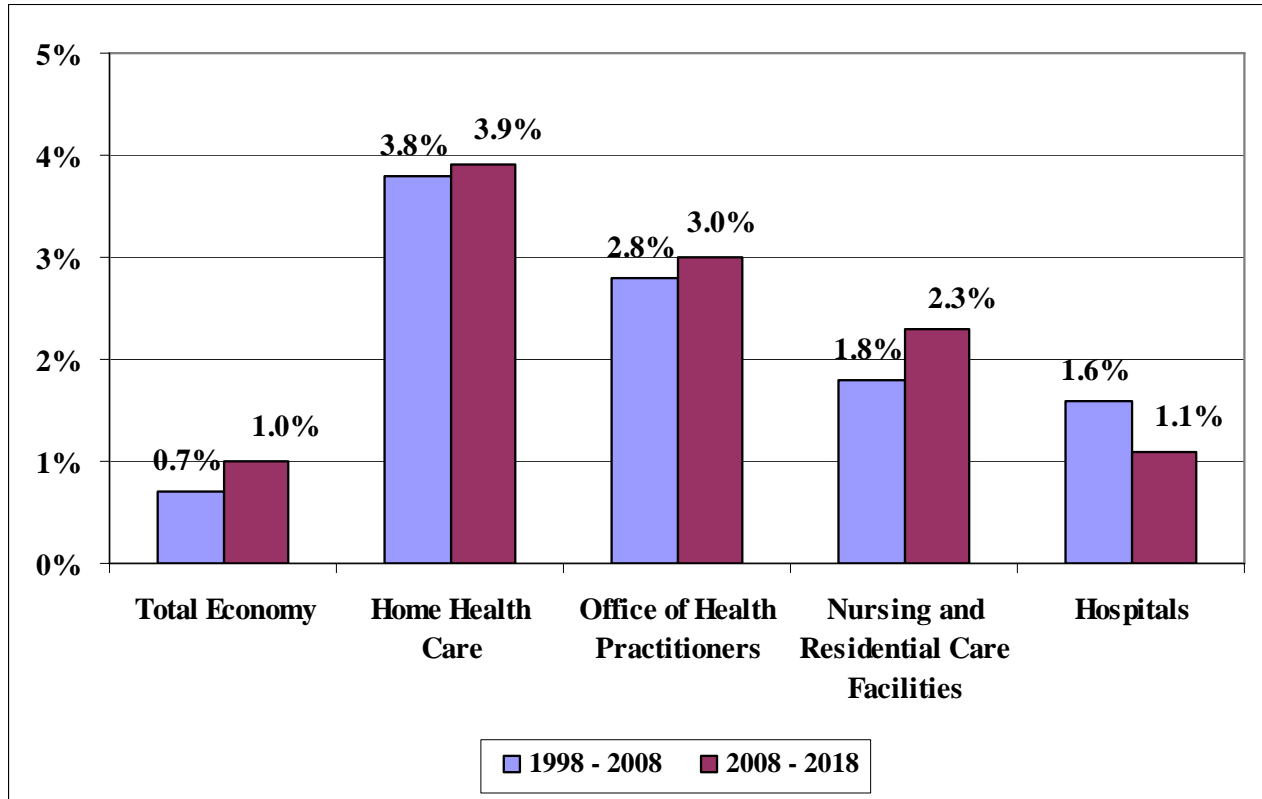
Exhibit 5
Job Growth in the Health Sector Compared to All Other Employment Sectors in the U.S.
1998 – 2008 and Projected 2008 – 2018



Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2008 and projected 2018.

Home health care is projected to experience the fastest job growth across all health settings, with an average annual growth of nearly 4% between 2008 and 2018. Additionally, jobs in offices of health practitioners are projected to grow by 3% annually and jobs in nursing homes are projected to increase by more than 2% annually between 2008 and 2018. Jobs in hospitals are projected to grow just over 1% annually during the same period (Exhibit 6).

Exhibit 6
Average Annual Growth of Selected Occupational Settings with the Health Care Sector, 1998 to 2008 and 2008 to 2018

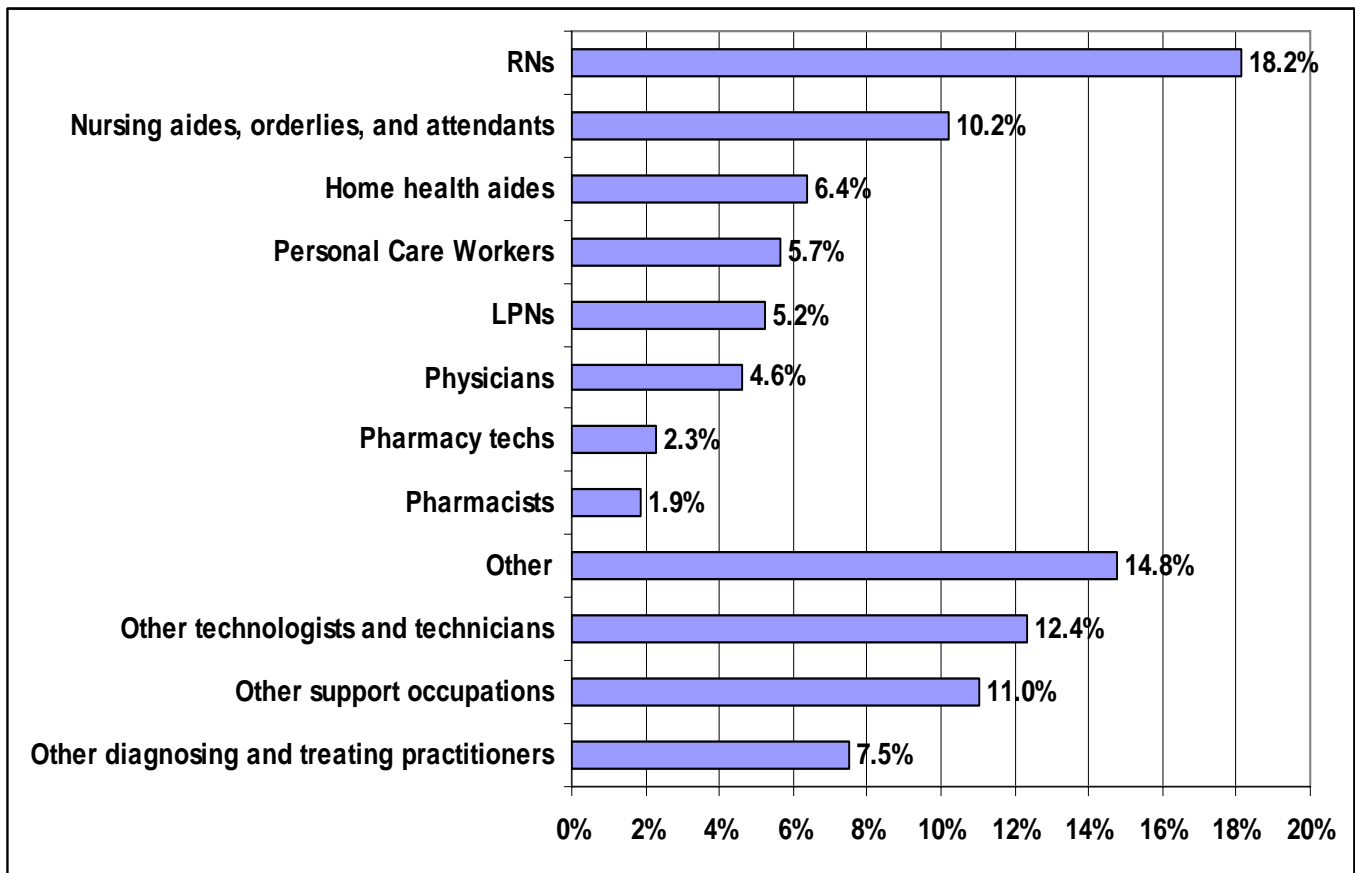


Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2008 and projected 2018.

C. By Occupations

Of the total health care workforce in the U.S. in 2008, RNs (18%) were the single largest health occupation, followed by nursing aides, orderlies, and attendants (10%), and home health aides (6%) (Exhibit7).

Exhibit 7
Health Care Occupations in the U.S., 2008



Source: 2008 – 18 National Employment Matrix, Bureau of Labor Statistics

Seventeen of the 30 occupations projected to grow the fastest between 2008 and 2018 are health occupations, including 12 of the top 20³:

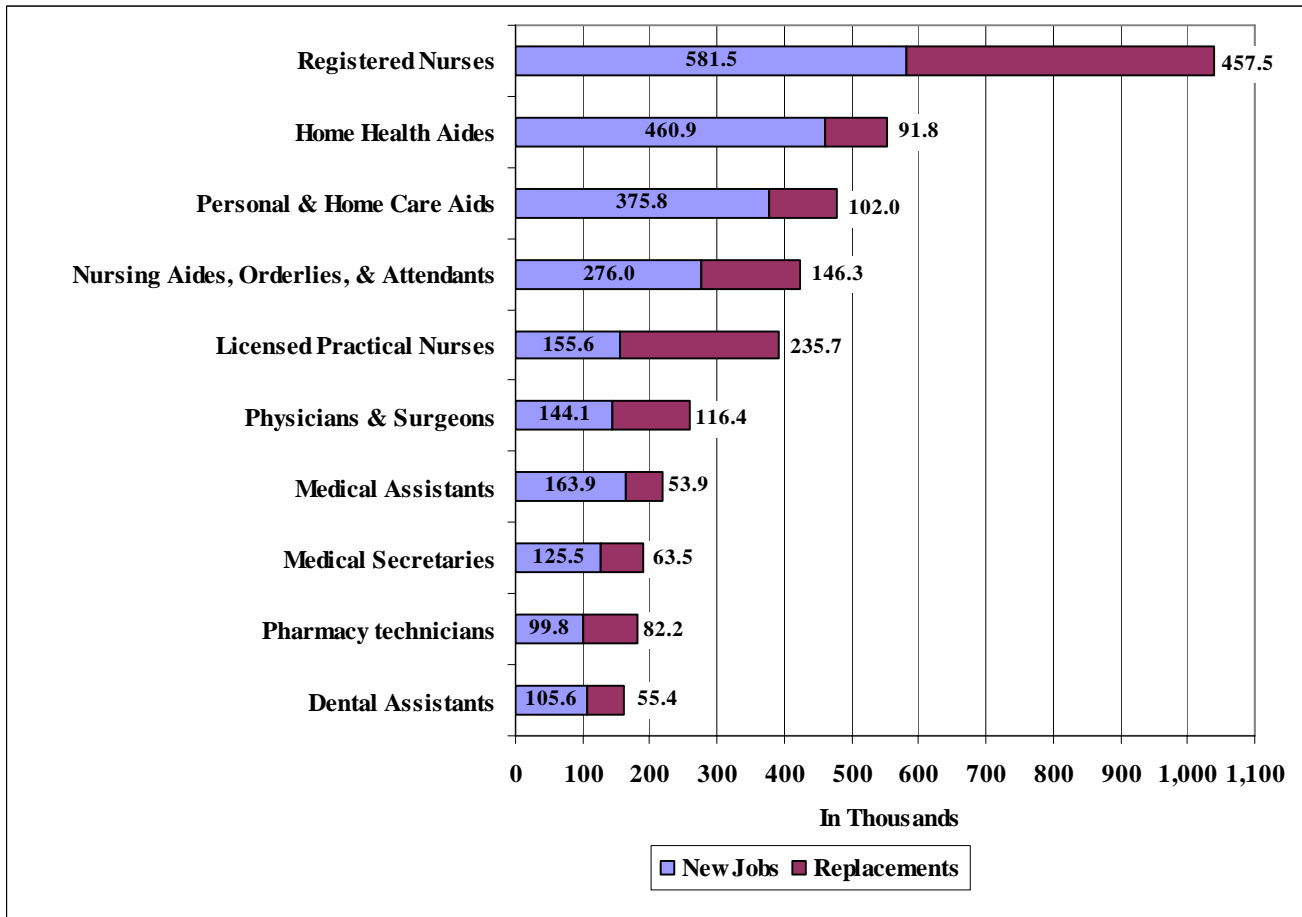
- Home health aides (50%);
- Personal and home care aides (46%);
- Medical scientists, excluding epidemiologists (40%);
- Physician assistants (PAs) (39%);
- Athletic trainers (37%);

³ Occupational Employment Projections to 2018, Monthly Labor Review, Bureau of Labor Statistics, November 2009.

- Physical therapy assistants (36%);
- Dental hygienists (36%);
- Veterinary technologists and technicians (36%);
- Dental assistants (36%); and
- Medical assistants (34%).

Over one million new RNs are estimated to be needed between 2008 and 2018, including 582,000 for new jobs and 458,000 to replace RNs leaving the profession. During the same period, nearly 553,000 home health aides; about 480,000 personal and home care aides; over 422,000 nursing aides, orderlies, and attendants; and slightly more than 391,000 LPNs will be needed to fill new and existing jobs (Exhibit 8).

Exhibit 8
Selected Health Occupations with the Largest Projected Job Need between 2008 and 2018



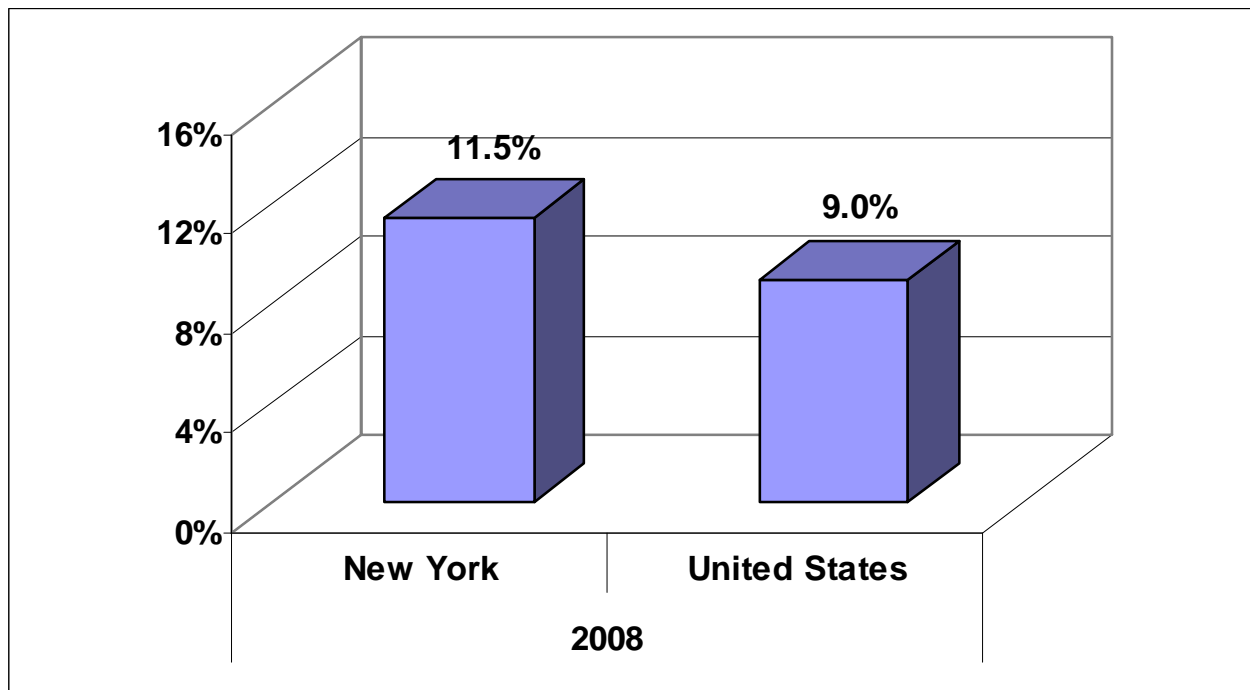
Sources: U.S. Department of Labor, Bureau of Labor Statistics, National Employment Matrix, employment by industry, occupation, and percent distribution, 2008 and projected 2018.

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 2008.⁴ 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, 2008



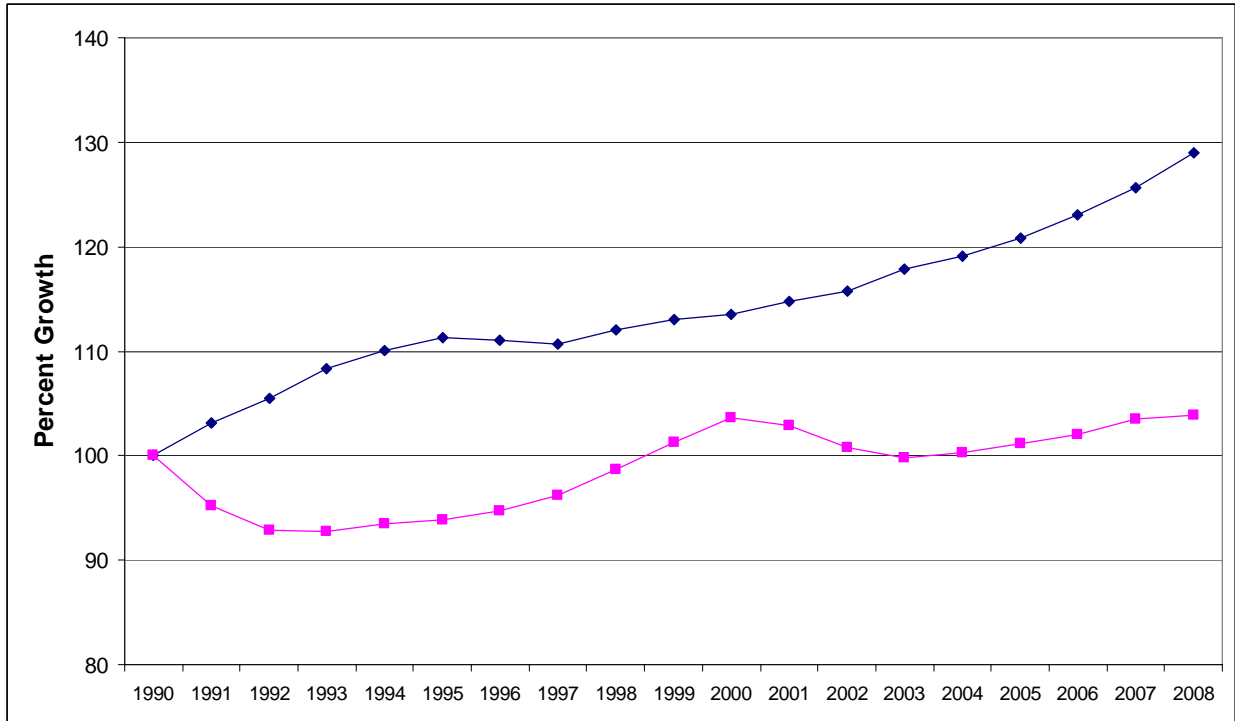
Source: NYS Department of Labor, ES-202; Industry Output and Employment Projections to 2016, Monthly Labor Review, Bureau of Labor Statistics, November 2008.

Between 1990 and 2008, employment in health care in New York expanded by more than 222,000 jobs, or over 29%, while employment in all other sectors grew by only 4%. Within the health sector, employment increased between 1990 and 1995, declined for two years between 1995 and 1997, then climbed steadily between 1997 and 2008. 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 2008, employment in health care jobs increased by over 2%.

⁴ 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 2008. Between 2001 and 2008, the health sector in New York grew by more than 14% while the remaining employment sectors grew by slightly more than one-half of 1% (Exhibit 10).

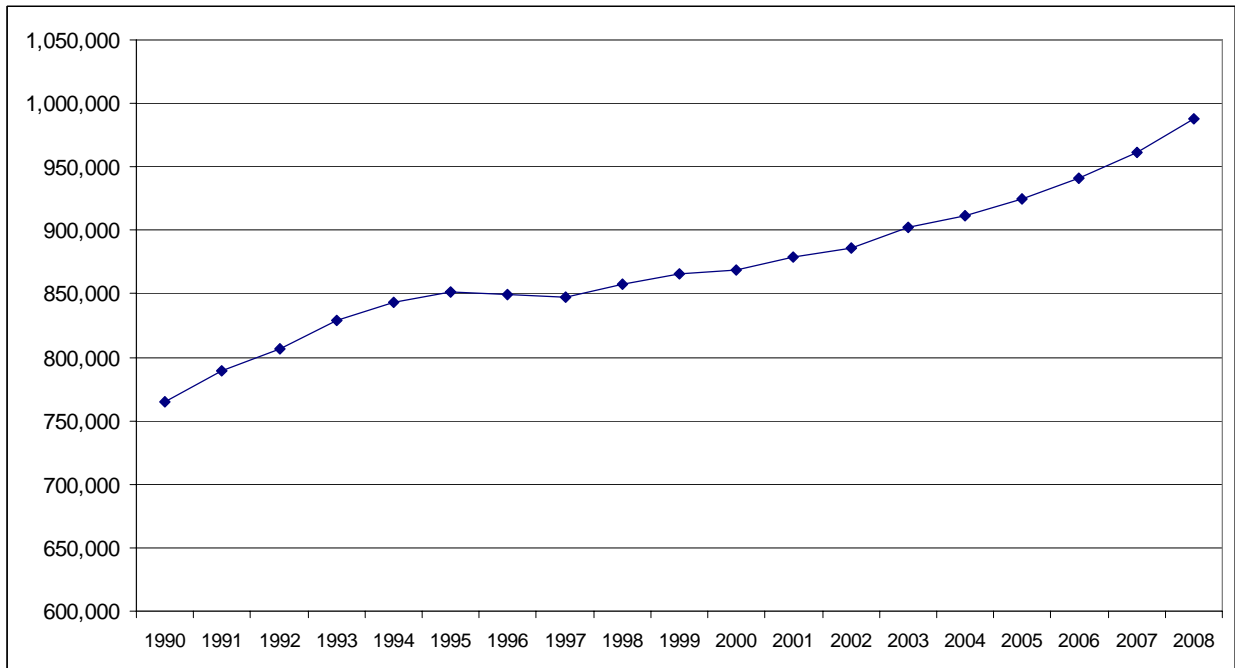
Exhibit 10
New York Employment Growth between 1990 and 2008, Standardized to 1990



Source: NYS Department of Labor, ES-202

Health sector employment in New York grew rapidly between 1997 and 2008 after leveling off between 1994 and 1996, with the addition of more than 140,000 jobs, or growth of 14%. Annual growth in the health sector has remained constant since 1997, with yearly growth of more than 1% (Exhibit 11).

Exhibit 11
Trends in Total New York Health Sector Employment, 1990-2008



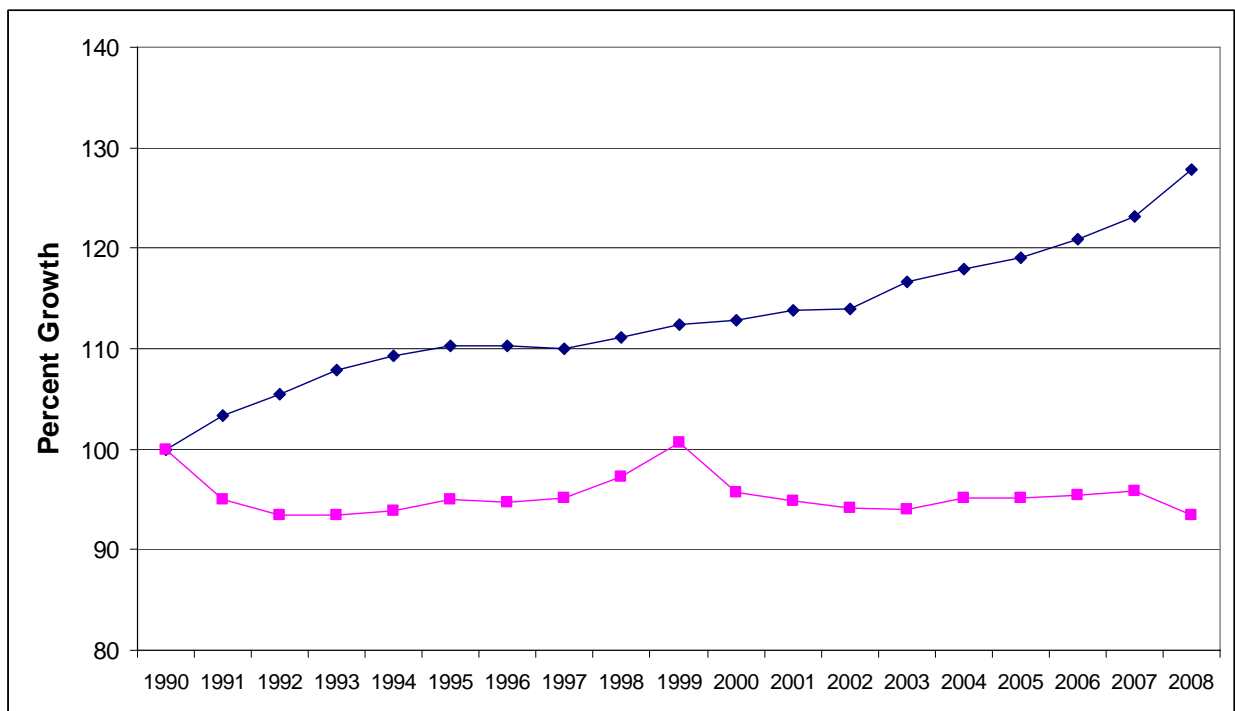
Source: NYS Department of Labor, ES-202

Employment Growth in Regions Outside of New York City⁵

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 almost 28% between 1990 and 2008, employment outside of the health care sector declined by close to 7% during that same period.

There was some job growth in non-health care sectors 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 - 2008,
(Standardized to 1990)

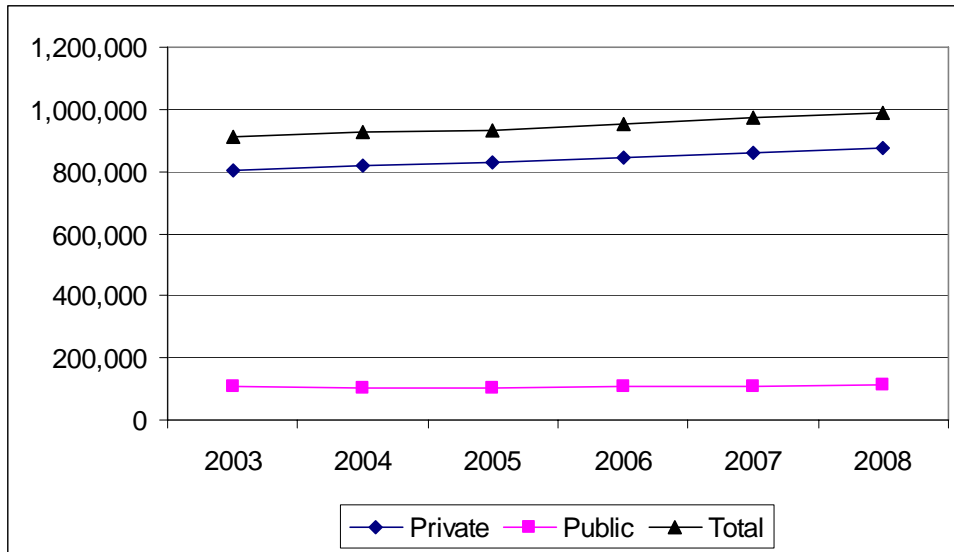


Source: NYS Department of Labor, ES-202

⁵ For New York City employment growth, please see page 41, Exhibit 32.

Both private and public health sector employment in New York has followed a pattern of steady growth between 2003 and 2008. Private sector health employment in the state increased by almost 9%, while public sector health employment increased by more than 6% (Exhibit 13).

Exhibit 13
Trends in Public and Private Health Employment for New York, 2003 – 2008

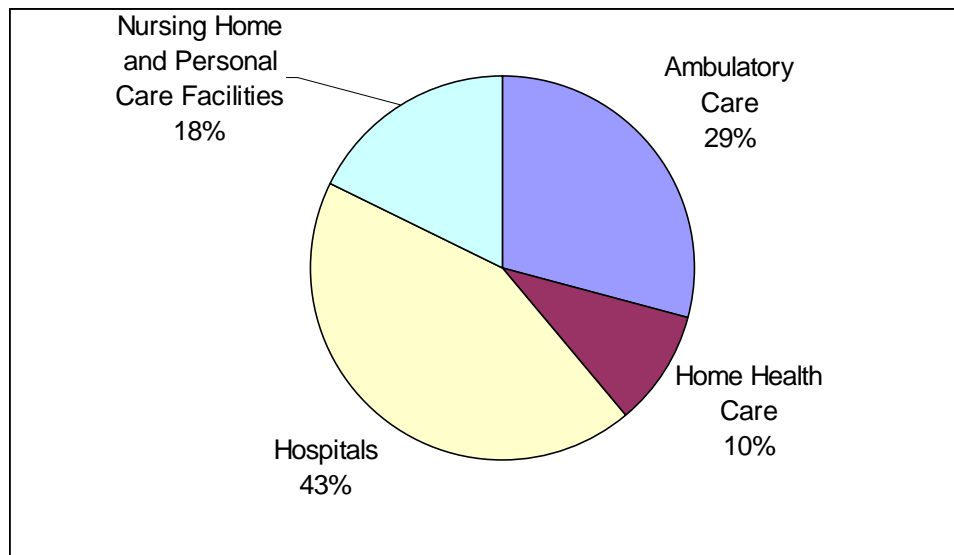


Sources: NYS Department of Labor, ES-202

B. By Setting

Hospitals employed the largest share of workers in the health sector in New York in 2008 (43% of all health sector employees), while most of the remainder worked either in ambulatory care (29%) or nursing and personal care facilities (18%) (Exhibit 14).

Exhibit 14
Health Sector Employment by Setting for New York, 2008



Sources: NYS Department of Labor, ES-202

Between 1990 and 2008, employment in the health care sector increased by nearly 30%. Employment in home health care (115%) more than doubled between 1990 and 2008, while employment in both ambulatory care settings (excluding home health care) and in nursing home and personal care facilities increased by over 60% during that same period. Employment in hospitals decreased by 3% between 1990 and 2008 (Exhibit 15).

Exhibit 15
Change in Health Sector Employment between 1990 and 2008 for New York

Setting	1990	2008	Number Change	Percent Change
Hospitals	439,900	427,228	-12,672	-2.9%
Ambulatory Care (Excluding Home Health)	170,000	286,610	116,610	68.6%
Nursing Home and Personal Care Facilities ⁶	107,800	175,504	67,704	62.8%
Home Health Care Services	44,800	96,097	51,297	114.5%
Totals⁷	765,500	985,439	219,939	28.7%

Sources: NYS Department of Labor, ES-202; U.S. Bureau of Labor Statistics, Current Employment Statistics

⁶ Excludes residential mental retardation, mental health, and substance abuse facilities and other residential facilities.

⁷ Includes jobs that were not classified into any of the categories.

C. By Region

Health sector employment in New York grew by almost 9% between 2003 and 2008. By 2008, the New York City region had more than 424,400 health sector jobs and the Long Island region had more than 152,300 health sector jobs, reflecting increases of 9% and 13%, respectively. The Mohawk Valley region had the second largest percentage increase in health sector employment (11%) (Exhibit 16).

Exhibit 16
Total Health Sector Employment in New York by Department of Labor Region,
2003 – 2008

Region	2003	2004	2005	2006	2007	2008	Change Between 2003 and 2008	
							Number	Percent
Capital District	53,712	53,741	54,338	53,506	54,580	55,439	1,727	3.2%
Central New York	34,826	35,944	36,678	37,212	37,617	37,973	3,147	9.0%
Finger Lakes	55,469	56,692	56,554	57,065	58,112	59,543	4,074	7.3%
Hudson Valley	99,420	100,983	101,916	103,376	105,832	107,478	8,058	8.1%
Long Island	134,750	137,782	138,786	144,061	148,190	152,359	17,609	13.1%
Mohawk Valley	26,073	26,254	26,907	27,976	28,368	28,805	2,731	10.5%
New York City	388,030	394,089	399,564	408,423	418,453	424,461	36,431	9.4%
North Country	16,142	16,373	16,389	16,400	16,093	16,332	189	1.2%
Southern Tier	28,276	28,507	28,534	28,597	29,227	30,024	1,748	6.2%
Western New York	70,809	72,451	72,587	72,402	72,593	73,025	2,216	3.1%
Totals	909,162	924,761	934,231	951,230	971,266	987,712	78,550	8.6%

Sources: NYS Department of Labor, ES-202

The Mohawk Valley region had the highest number of jobs per capita in 2008 with 5,862 jobs per capita, followed by the Long Island region with 5,320 jobs per capita. The North Country had the lowest number of jobs with 4,644 jobs per capita. The Long Island region had the largest percent increase in the number of jobs per capita (12%) between 2003 and 2008, followed by the Mohawk Valley and Central New York regions, with 11% and slightly more than 10%, respectively (Exhibit 17).

Exhibit 17
Total Health Sector Employment in New York by Department of Labor Region
Per 100,000, 2003 and 2008

Region	2003		2008		Change in Jobs Per 100k between 2004 and 2008
	Population	Rate of Jobs Per 100k	Population	Rate of Jobs Per 100k	
Capital District	1,044,888	5,140	1,061,782	5,221	1.6%
Central New York	779,641	4,467	771,919	4,919	10.1%
Finger Lakes	1,201,749	4,616	1,192,301	4,994	8.2%
Hudson Valley	2,240,658	4,437	2,282,116	4,710	6.1%
Long Island	2,839,842	4,745	2,863,849	5,320	12.1%
Mohawk Valley	493,620	5,282	491,365	5,862	11.0%
New York City	8,125,497	4,775	8,363,710	5,075	6.3%
North Country	425,675	3,792	429,238	3,805	0.3%
Southern Tier	654,562	4,320	646,582	4,644	7.5%
Western New York	1,424,745	4,970	1,387,435	5,263	5.9%
Totals	19,230,877	4,728	19,490,297	5,068	7.2%

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

1. Hospital Employment

Between 2003 and 2008, overall hospital employment in New York increased by over 20,000 jobs, or more than 5%. The Long Island region experienced the largest percentage increase in hospital employment between 2003 and 2008, followed by the Finger Lakes region. The Long Island region also experienced the largest growth in the number of new hospital jobs, with 8,832 new jobs, followed by the New York City region with an increase of 4,169 hospital jobs. No regions experienced a decline in hospital jobs between 2003 and 2008 (Exhibit 18).

Exhibit 18
Change in Hospital Employment in New York by Department of Labor Region,
2003 – 2008

Region	2003	2004	2005	2006	2007	2008	Change between 2003 and 2008	
							Number	Percent
Capital District	21,377	20,960	21,340	21,627	22,074	22,413	1,036	4.8%
Central New York	12,063	12,205	12,309	12,393	12,540	12,686	623	5.2%
Finger Lakes	24,720	25,540	25,975	26,469	27,022	27,984	3,264	13.2%
Hudson Valley	39,267	39,039	38,658	39,353	39,895	40,341	1,075	2.7%
Long Island	47,181	47,454	46,341	50,980	53,690	55,513	8,332	17.7%
Mohawk Valley	11,621	11,654	11,777	12,715	12,078	12,318	697	6.0%
New York City	202,804	202,373	203,342	203,168	204,949	206,973	4,169	2.1%
North Country	8,386	8,386	8,447	8,471	8,320	8,481	95	1.1%
Southern Tier	12,162	12,009	12,022	12,112	12,371	12,672	511	4.2%
Western New York	4,216	4,563	4,616	4,552	4,549	4,591	375	8.9%
Totals	383,797	384,182	384,826	391,840	397,488	403,972	20,175	5.3%

Sources: NYS Department of Labor, ES-202

2. Ambulatory Care

Employment in ambulatory care settings (excluding home health care) increased by almost 13% between 2003 and 2008, with more than 32,600 jobs added. The Mohawk Valley, Western New York, and New York City regions saw the largest percentage increases, with employment in ambulatory care in the Mohawk Valley growing by nearly 30% (Exhibit 19).

Exhibit 19
Change in Ambulatory Care Services Employment (Excluding Home Health Care)
in New York by Department of Labor Region, 2003 – 2008

Region	2003	2004	2005	2006	2007	2008	Change between 2003 and 2008	
							Number	Percent
Capital District	14,766	15,432	15,933	15,958	16,508	16,670	1,904	12.9%
Central New York	12,154	12,417	12,798	12,982	13,119	13,354	1,199	9.9%
Finger Lakes	13,914	14,173	14,264	14,647	15,073	15,638	1,724	12.4%
Hudson Valley	34,861	35,712	36,649	36,984	38,333	38,933	4,072	11.7%
Long Island	54,217	55,499	56,576	57,392	58,503	59,400	5,183	9.6%
Mohawk Valley	5,056	5,257	5,361	5,430	6,380	6,545	1,489	29.5%
New York City	88,558	92,544	94,822	95,940	99,447	101,666	13,108	14.8%
North Country	4,190	4,260	4,271	4,351	4,319	4,441	252	6.0%
Southern Tier	6,980	7,121	7,198	7,069	7,463	7,593	612	8.8%
Western New York	19,260	20,094	20,944	21,216	21,681	22,372	3,111	16.2%
Totals	253,955	262,509	268,816	271,968	280,827	286,610	32,655	12.9%

Sources: NYS Department of Labor, ES-202

3. Nursing and Personal Care Facility Employment

Employment in nursing and personal care facilities in New York increased by over 1,600 jobs between 2003 and 2008. The Central New York region had the largest percentage increase (15%) followed by the Long Island region (13%). Four regions experienced a loss of jobs in nursing and personal care facilities, with the Capital District and North Country regions decreasing by 9% and 6%, respectively. Nursing and personal care facilities in New York City lost nearly 2,100 jobs between 2003 and 2008 (Exhibit 20).

Exhibit 20
Change in Nursing and Personal Care Facility Employment
in New York by Department of Labor Region, 2003 – 2008

Region	2003	2004	2005	2006	2007	2008	Change between 2003 and 2008	
							Number	Percent
Capital District	14,628	14,635	14,339	13,125	13,092	13,369	-1,260	-8.6%
Central New York	9,284	10,076	10,197	10,532	10,734	10,660	1,376	14.8%
Finger Lakes	12,674	12,709	12,757	12,485	12,496	12,499	-174	-1.4%
Hudson Valley	18,948	19,815	19,641	19,893	20,016	20,107	1,159	6.1%
Long Island	22,519	23,863	24,994	25,878	25,236	25,475	2,956	13.1%
Mohawk Valley	8,267	8,171	8,437	8,434	8,506	8,531	264	3.2%
New York City	57,152	57,012	55,586	54,722	54,891	55,076	-2,076	-3.6%
North Country	3,014	3,142	3,065	2,945	2,827	2,822	-192	-6.4%
Southern Tier	8,155	8,301	8,192	8,301	8,360	8,747	592	7.3%
Western New York	19,245	19,556	19,725	19,413	19,193	18,217	-1,028	-5.3%
Totals	173,885	177,279	176,933	175,726	175,350	175,504	1,618	0.9%

Sources: NYS Department of Labor, ES-202

4. Home Health Care

Between 2003 and 2008, employment in home health care in New York grew by over 24,000 jobs, with the New York City region accounting for the vast majority of the increase, a 54% jump in home health care jobs.

The Hudson Valley region experienced the next largest increase in home health care jobs, growing by 1,751 jobs between 2003 and 2008, while, in contrast, the Finger Lakes region saw the largest decrease, losing over 700 jobs during the same period (18%) (Exhibit 21).

Exhibit 21
Change in Home Health Care Services Employment
in New York by Department of Labor Region, 2003 - 2008

Region	2003	2004	2005	2006	2007	2008	Change between 2003 and 2008	
							Number	Percent
Capital District	2,941	2,715	2,726	2,797	2,906	2,988	48	1.6%
Central New York	1,325	1,246	1,375	1,306	1,224	1,273	-52	-3.9%
Finger Lakes	4,161	4,269	3,558	3,465	3,522	3,422	-739	-17.8%
Hudson Valley	6,345	6,416	6,968	7,146	7,588	8,096	1,751	27.6%
Long Island	10,833	10,966	10,875	9,811	10,762	11,970	1,137	10.5%
Mohawk Valley	1,129	1,172	1,331	1,398	1,404	1,410	281	24.9%
New York City	39,516	42,160	45,815	54,594	59,166	60,746	21,230	53.7%
North Country	553	585	606	632	627	588	35	6.3%
Southern Tier	979	1,076	1,122	1,114	1,032	1,013	33	3.4%
Western New York	4,216	4,563	4,616	4,552	4,549	4,591	375	8.9%
Totals	71,998	75,169	78,991	86,814	92,779	96,097	24,100	33.5%

Sources: NYS Department of Labor, ES-202

D. By Occupation

1. Current Employment Data

Changes in the number of health care jobs in New York between 2003 and 2008 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.

- Pharmacy technician jobs increased by 3,600, or by nearly 37%;
- Social worker jobs increased by almost 11,000, or by more than 31%;
- Medical records and health information jobs increased by almost 2,200, or 31%;
- Pharmacist jobs increased by 3,400, or by nearly 27%;
- Surgical technology jobs increased by 1,050, or by more than 26%;
- Dietetic technician jobs decreased by almost 500, or by slightly more than 32%;

- Medical and clinical laboratory technicians jobs decreased by almost 2,600, or by more than 26%; and
- Medical secretary jobs decreased by more than 1,600, or by 13% (Exhibit 22).

Exhibit 22
Change in the Number of Jobs in Selected Health Occupations for New York,
2003 – 2008

Occupation	2003	2004	2005	2006	2007	2008	Change between 2003 to 2008	
							Number	Percent
HEALTH CARE TECHNICIANS AND TECHNOLOGISTS								
Cardiovascular Technologists and Technicians	3,620	3,820	3,520	3,320	3,640	3,300	-320	-8.8%
Dietetic Technicians	1,520	1,490	1,650	1,540	1,310	1,030	-490	-32.2%
Licensed Practical and Licensed Vocational Nurses	47,990	51,420	50,060	48,230	47,120	46,160	-1,830	-3.8%
Medical and Clinical Laboratory Technicians	9,750	9,910	10,080	9,650	7,590	7,180	-2,570	-26.4%
Medical and Clinical Laboratory Technologists	9,680	9,340	8,980	9,760	9,690	10,230	550	5.7%
Medical Records and Health Information Technicians	7,030	7,220	7,740	8,190	8,630	9,200	2,170	30.9%
Nuclear Medicine Technologists	1,180	1,170	1,100	1,260	1,300	1,450	270	22.9%
Pharmacy Technicians	9,870	11,950	11,260	11,960	12,790	13,470	3,600	36.5%
Radiologic Technologists and Technicians	10,700	11,160	10,570	10,870	12,050	12,880	2,180	20.4%
Surgical Technologists	4,100	4,380	4,730	5,040	5,320	5,150	1,050	25.6%
HEALTH CARE PROFESSIONALS								
Dental Hygienists	9,910	10,000	9,180	9,270	9,960	10,670	760	7.7%
Dietitians and Nutritionists	4,240	4,180	3,970	4,240	4,190	4,380	140	3.3%
Pharmacists	12,620	13,100	13,400	13,970	15,310	16,020	3,400	26.9%
Physical Therapists	11,340	12,400	12,390	11,810	11,710	12,780	1,440	12.7%
Registered Nurses	163,710	165,800	164,370	164,970	166,990	168,850	5,140	3.1%
Respiratory Therapists	4,430	4,500	4,780	5,210	5,310	5,530	1,100	24.8%
Social Workers	34,970	34,320	38,170	42,470	42,930	45,840	10,870	31.1%
MANAGERS/ADMINISTRATIVE SUPPORT								
Medical and Health Services Managers	22,100	23,120	23,320	25,460	24,090	25,150	3,050	13.8%
Medical Secretaries	12,510	11,920	11,160	11,140	10,470	10,860	-1,650	-13.2%
HEALTH CARE PARAPROFESSIONALS								
Dental Assistants	18,110	16,160	17,010	17,270	16,590	16,210	-1,900	-10.5%
Home Health Aides	105,790	103,840	114,690	130,960	145,490	131,700	25,910	24.5%
Medical Assistants	21,310	21,080	18,220	17,800	17,750	19,000	-2,310	-10.8%
Nursing Aides, Orderlies, and Attendants	97,700	96,490	100,660	99,660	98,540	100,340	2,640	2.7%

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

2. 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 2004 and 2008 in New York.

The number of physician assistants who were licensed increased by 2,172, or 30%, between 2004 and 2008. The number of nurse practitioners who were licensed increased by over 2,500 individuals during the same period, or more than 21%. The numbers of speech-language pathologists also grew between 2004 and 2008, by more than 19%.

Exhibit 23
Changes in the Number of Licensed Individuals in Selected Health Service Occupations for New York⁹, 2004 – 2008

Profession	2004	2005	2006	2007	2008	Change between 2004 and 2008	
						Number	Percent
Physician Assistants	7,229	7,747	8,221	8,660	9,401	2,172	30.0%
Nurse Practitioners	11,717	12,344	12,902	13,534	14,229	2,512	21.4%
Speech-Language Pathologists	10,914	11,342	11,846	12,400	12,998	2,084	19.1%
Physical Therapists	16,556	16,958	17,639	18,420	18,858	2,302	13.9%
Social Workers	41,413	42,929	49,400	50,055	46,735	5,322	12.9%
Occupational Therapists	8,946	9,137	9,367	9,615	9,875	929	10.4%
Respiratory Therapists	4,504	4,662	4,703	4,732	4,948	444	9.9%
Registered Nurses	238,192	242,067	246,958	255,382	257,186	18,994	8.0%
Dental Hygienists	9,150	9,395	9,521	9,672	9,870	720	7.9%
Licensed Practical Nurses	66,746	69,467	69,855	69,342	71,381	4,635	6.9%
Physical Therapy Assistants	4,367	4,365	4,458	4,579	4,649	282	6.5%
Pharmacists	19,136	19,243	19,832	20,405	20,289	1,153	6.0%
Dietitians/Nutritionists	4,622	4,559	4,642	4,800	4,736	114	2.5%
Occupational Therapy Assistants	3,614	3,592	3,626	3,657	3,693	79	2.2%

Source: NYS Education Department, Office of Professions

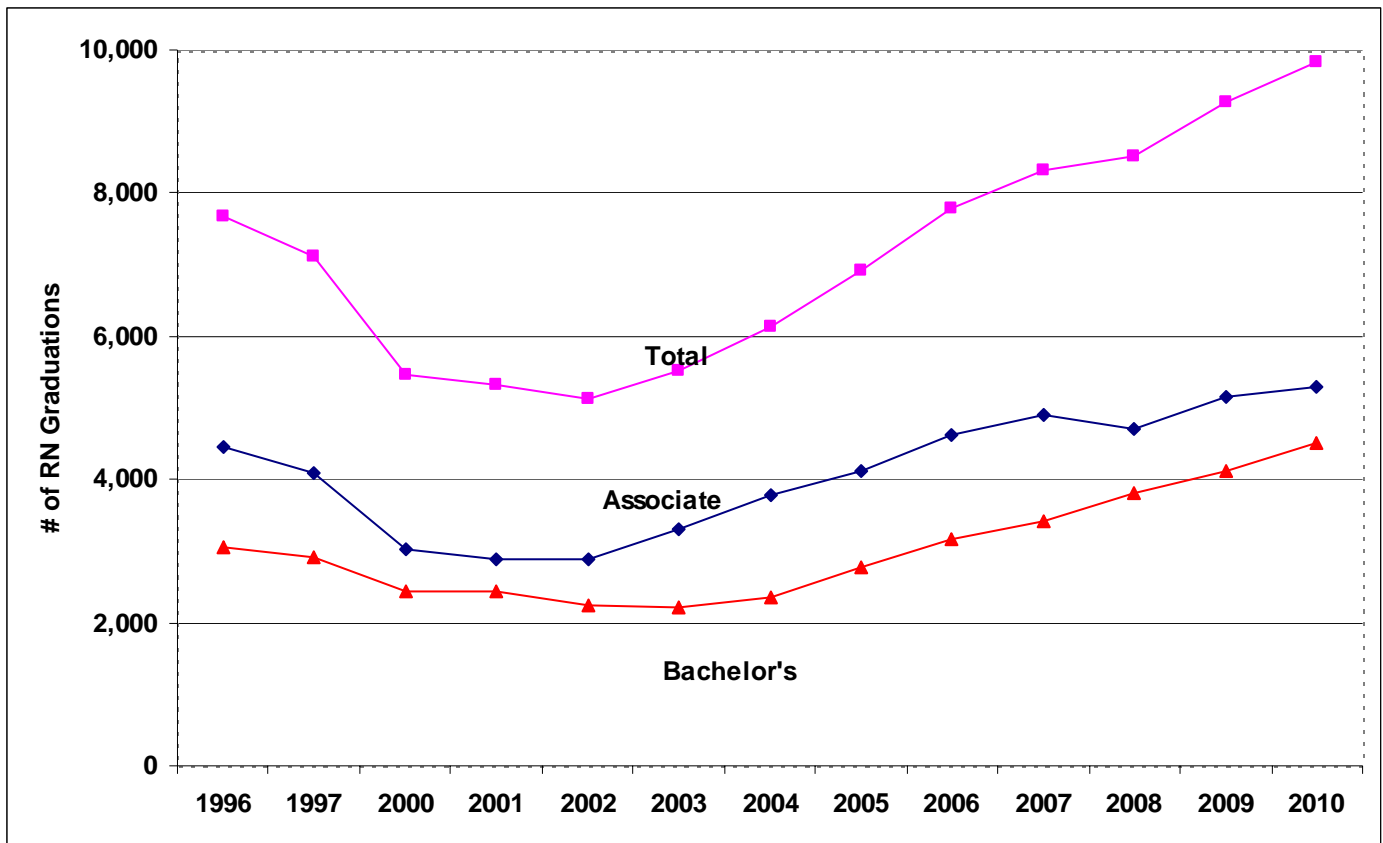
⁹Note: This total includes all New York licensed individuals regardless of whether the address given in the licensure file was a New York address, while tables of licensees by region include only those individuals with an address in the region.

E. Trends in New York Registered Nursing Education, 1996 – 2010

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 2010. Of the 115 nursing programs in New York, 107 returned the surveys for a 93% response rate. Data for the eight 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 – 2010*.)

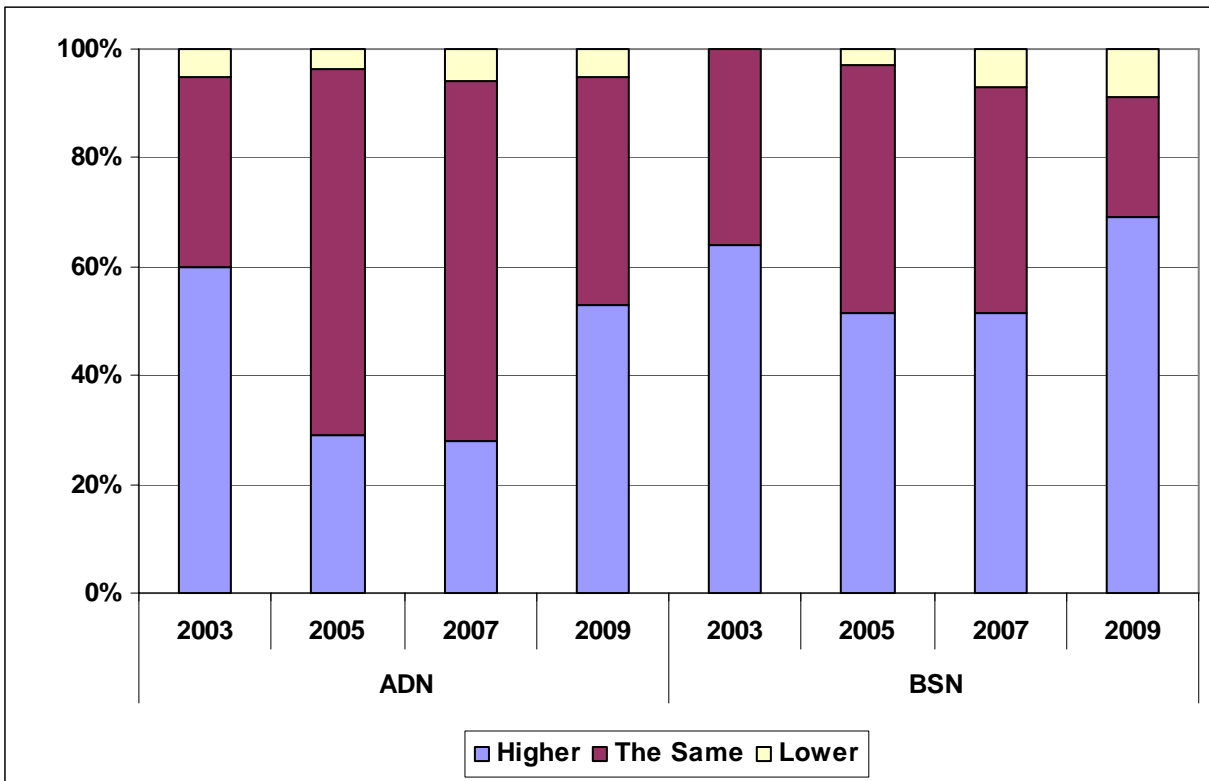
For the seventh consecutive year, the number of RN graduates in New York in 2009 increased over the number of RN graduations in the previous year. It is estimated that nearly 9,300 individuals graduated from RN education programs in New York in 2009. The number of RN graduates is projected to increase in 2010 as well (Exhibit 24).

Exhibit 24
New York RN Graduations by Degree Type, 1996 to 2010



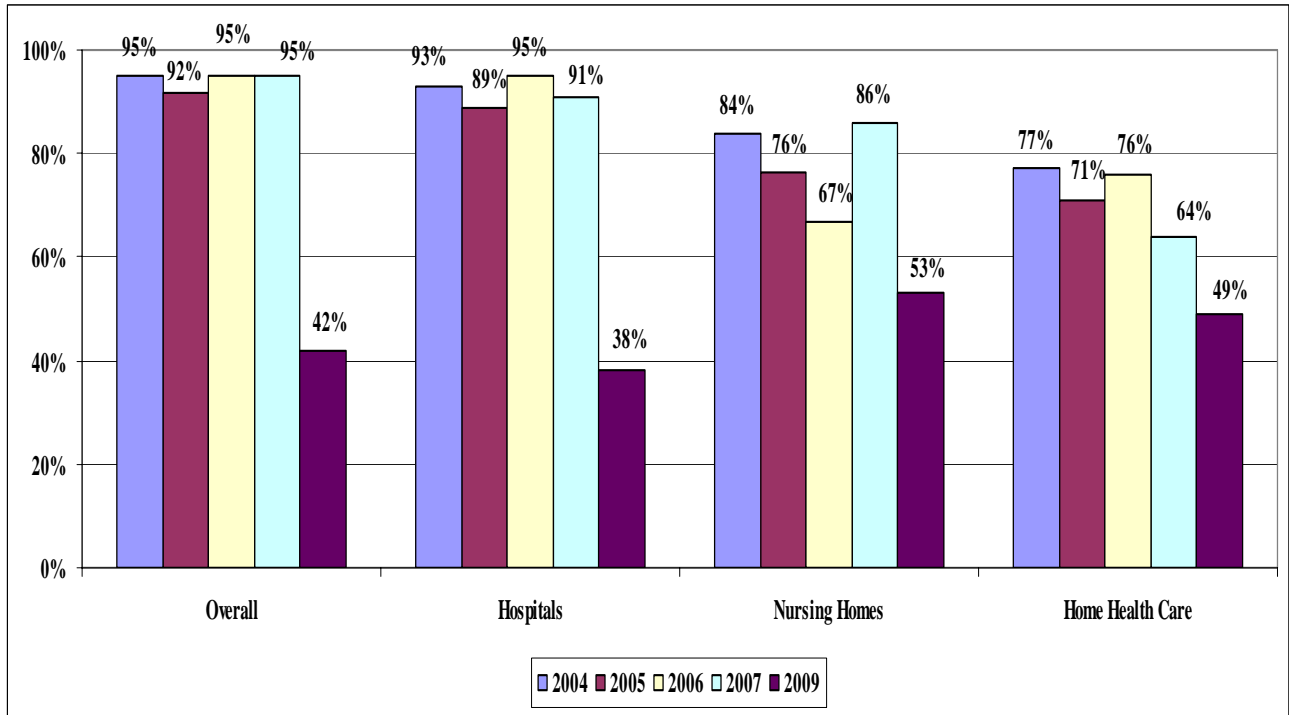
The percent of ADN program directors reporting an increase in the number of acceptances grew by 25% between the 2007 and 2009 surveys, and the percent of BSN program directors reporting an increase in the number of acceptances rose by 18% in 2009. The percent of ADN and BSN program directors that reported no change in the number of acceptances decreased between the 2007 and 2009 surveys (Exhibit 25).

Exhibit 25
Percent Change in Number of Acceptances by Program Type, 2003 – 2009



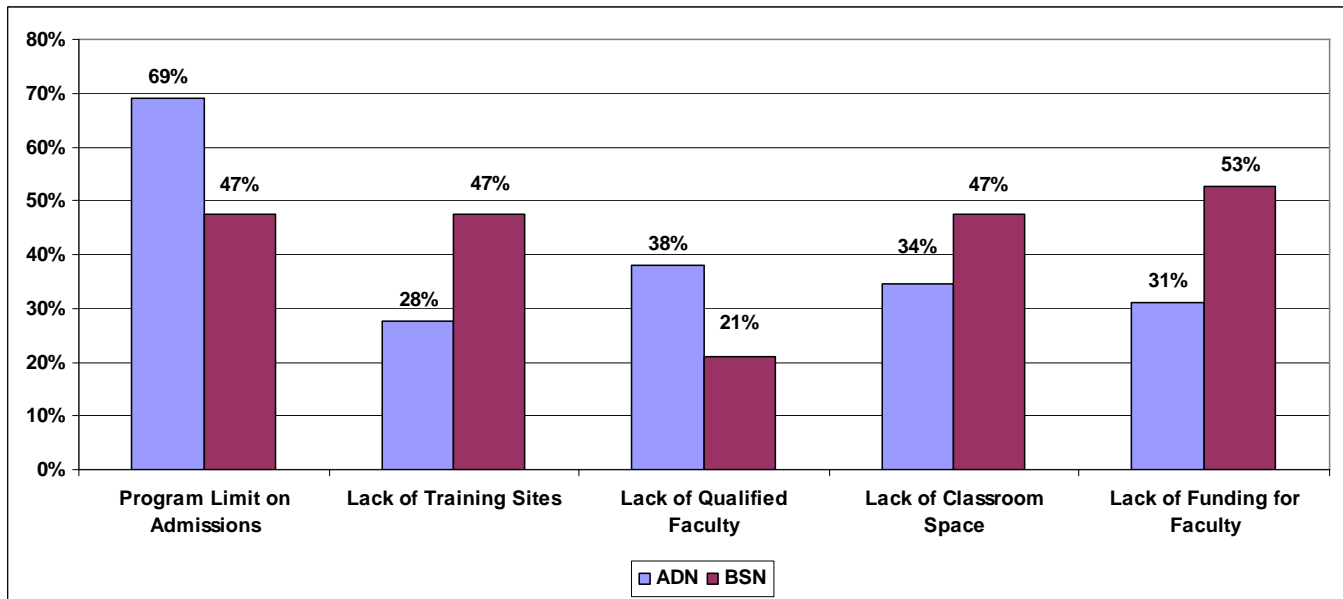
The vast majority of nursing program directors consistently reported a strong job market for their graduates in the 2004 - 2007 surveys. However, in the 2009 survey, the percentage of program directors reporting “many jobs” for their graduates dropped by more than 50% (Exhibit 26).

Exhibit 26
Percent of RN Program Directors Reporting a Strong Job Market, 2004 – 2009



The majority of ADN and BSN program directors reported that the primary reason for turning away qualified applicants from their programs was the limits on program admissions. Other reasons indicated by nursing education program directors included a lack of clinical training sites and lack of qualified faculty (Exhibit 27).

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



F. Demand for Workers

The Center worked with the Healthcare Association of New York State, the Greater New York Hospital Association, and the five regional associations to survey hospitals throughout New York. The Center also conducted surveys of nursing homes, home health agencies, and diagnostic and treatment centers to determine the current demand for health workers.⁸ These surveys were conducted in the winter of 2009 and 2010.

1. Hospitals

One hundred and seventeen hospitals in New York, or approximately 50%, responded to the survey. Hospitals across the state reported the most difficulty recruiting and retaining clinical lab technicians and technologists, with the shortage of and competition for these professionals cited most often as the reason for these difficulties. Hospitals also noted a problem recruiting and retaining medical coders, with over half the hospitals indicating a shortage of these workers. Experienced RNs were also cited as a recruitment and retention problem, with nearly three-fourths of the hospitals noting that competition for experienced RNs the main reason. Other

⁸ Recruitment and retention for each of the four health sectors were assessed on 1 to 5 scale, with 1 being very easy and 5 being very difficult.

health occupations with recruitment and retention issues included pharmacists and physical therapists (Exhibit 28).

Exhibit 28
Hospital Recruitment and Retention Difficulties for Selected Occupations

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reason for Difficulty			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Clinical Lab Technicians and Technologists	4.1	3.1	62%	60%	38%	4%
Dietitians/Nutritionists	3.0	2.0	34%	29%	12%	2%
Licensed Practical Nurses	1.7	1.6	9%	13%	7%	4%
Licensed Clinical Social Workers	2.3	2.0	11%	21%	12%	3%
Mammographers	2.9	2.1	30%	21%	12%	2%
Medical Coders	3.6	2.4	54%	35%	9%	2%
Nuclear Medicine Technologists	3.3	2.4	39%	35%	9%	2%
Nurse Practitioners	3.1	2.1	43%	40%	30%	1%
Patient Care Technicians/ Certified Nursing Aides	1.9	2.8	6%	27%	12%	19%
Pharmacists	3.5	2.1	47%	57%	48%	5%
Physical Therapists	3.5	2.2	56%	59%	36%	2%
Physician Assistants	3.0	2.1	35%	33%	37%	2%
Registered Nurses						
-Experienced	3.5	2.1	36%	73%	25%	1%
-Newly-trained	1.8	2.2	8%	35%	8%	3%
Respiratory Therapists	2.8	2.4	40%	41%	37%	4%
Sonographers	3.1	2.5	36%	34%	10%	2%
X-ray Technicians	2.1	1.9	16%	16%	10%	1%

According to the hospitals statewide, the economic downturn has had the following effects:

- 48% percent indicated that the overall supply of health workers increased due to the economic downturn and another 50% reported no change.
- 72% reported that health worker turnover decreased and another 26% reported no change in turnover.
- 46% indicated a decrease in the number of health worker retirements and another 51% reported no change.
- 18% reported laying off clinical health workers as a result of the economic downturn, and layoffs included RNs, LPNs, and CNAs.

2. Nursing Homes

One hundred and fifteen nursing homes in New York responded to the survey for a response rate of about 17%. Nursing homes across New York reported the most difficulty recruiting and retaining newly-trained RNs, noting the competition for newly-trained RNs and salary levels as the primary reasons for these difficulties. LPNs were also difficult to recruit, with nursing homes citing the competition for LPNs. While CNAs were slightly easier to recruit, they were much more difficult to retain, with the competition for CNAs indicated as the main reason (Exhibit 29).

Exhibit 29
Nursing Home Recruitment and Retention Difficulties for Selected Occupations

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	2.6	3.0	34%	50%	35%	15%
Clerical	1.7	1.6	2%	12%	18%	3%
Dietitians/Nutritionists	2.3	1.5	19%	17%	23%	6%
Licensed Practical Nurses	3.2	2.7	37%	50%	38%	11%
Occupational Therapists	3.1	2.1	33%	37%	32%	3%
Physical Therapists	3.1	2.1	37%	37%	31%	4%
Registered Nurses						
- <i>Experienced</i>	3.1	2.1	33%	37%	32%	3%
- <i>Newly-trained</i>	3.8	3.0	48%	56%	52%	10%
Respiratory Therapists	2.7	2.5	29%	45%	43%	10%
Social Workers						
- <i>LCSWs</i>	1.9	1.5	11%	15%	22%	2%
- <i>LMSWs</i>	2.0	1.6	14%	17%	26%	3%

Other information reported by nursing homes statewide includes:

- 49% reported difficulty hiring workers for off-shift positions.
- 37% indicated difficulty hiring part-time workers.
- 17% reported difficulty hiring bilingual workers.
- 10% of the nursing homes statewide indicated they were planning a service expansion and another 12% indicated they were planning a service reduction.

Nearly one-fourth of the nursing homes statewide reported that the current economic downturn resulted in worker layoffs, including support staff, physical therapists, CNAs, and maintenance workers.

3. Home Health Agencies

Forty-eight home health agencies in New York responded to the survey for a response rate of about 19%.⁹ Home health agencies reported the most difficulties recruiting and retaining experienced RNs, citing the competition for RNs as the main reason. Home health agencies statewide also noted that occupational therapists were difficult to recruit and retain, indicating the shortage of those professionals as the main reason (Exhibit 30).

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

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	2.4	1.8	29%	15%	13%	6%
Home Health Aides	1.9	1.7	27%	19%	21%	10%
Licensed Practical Nurses	1.4	1.1	13%	10%	13%	8%
Occupational Therapists	3.1	2.0	46%	31%	19%	17%
Personal Care Aides	1.1	1.1	19%	6%	15%	8%
Physical Therapists	2.7	1.9	31%	27%	25%	8%
Registered Nurses						
-Experienced	3.8	2.7	42%	67%	54%	19%
-Newly-trained	1.7	1.6	19%	27%	25%	8%
Respiratory Therapists	1.6	1.2	15%	8%	6%	0%
Social Workers						
-LMSWs	2.3	1.7	27%	15%	21%	13%
-LCSWs	2.0	1.7	27%	15%	19%	13%
Speech Pathologists	2.2	1.6	29%	21%	13%	10%

Other information reported by home health agencies statewide includes:

- 46% of home health agencies reported difficulty hiring off-shift workers.
- 31% indicated difficulties hiring part-time workers.
- 27% reported difficulty hiring bilingual workers.
- Approximately 38% of agencies statewide indicated an expected expansion of services in the near future while 23% indicated an expected reduction of services.

Slightly more than one-fourth of home health agencies reported that the economic downturn resulted in worker layoffs, including RNs, home health aides, and support staff.

⁹ For purposes of this report, home health agencies include Certified Home Health Agencies, Long Term Home Health Care Programs, and Hospices.

4. County Health Departments

Diagnostic and treatment centers (DTCs) licensed by New York State Department of Health were surveyed statewide. DTCs include county health departments, federally qualified health centers, and other community-based clinics. Nearly two-thirds of the respondents were county health departments and only a few were federally qualified health centers. Due to the limited number of responses from other types of DTCs, this report is only documenting responses at a statewide level from the county health departments.

Exhibit 31
County Health Department Recruitment and Retention Difficulties
for Selected Occupations

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dentists	0.6	0.3	9%	9%	6%	0%
Dental Hygienists	0.3	0.3	9%	6%	0%	0%
Licensed Practical Nurses	1.3	1.0	6%	13%	16%	3%
Medical Assistants	0.4	0.4	6%	3%	3%	0%
Nurse Practitioners	2.1	1.2	22%	25%	34%	0%
Occupational Therapists	2.4	1.7	28%	31%	28%	3%
Physical Therapists	2.4	1.6	31%	38%	31%	3%
Physician Assistants	0.6	0.4	13%	9%	9%	0%
Registered Nurses						
-Experienced	4.4	3.0	69%	66%	75%	13%
-Newly-trained	1.7	1.3	28%	31%	22%	0%
Social Workers						
-LCSWs	2.8	2.2	38%	41%	44%	3%
-LMSWs	1.8	1.2	25%	28%	25%	0%
Speech Pathologists	2.2	2.1	34%	28%	22%	0%

Other information reported included:

- 47% of facilities indicated a planned reduction of services in the near future.
- 22% reported a planned expansion of services.
- 25% indicated difficulty hiring workers for off-shifts.
- 16% reported difficulty hiring part-time workers.
- 28% reported difficulty hiring bilingual workers, especially Spanish-speaking.

The economic downturn has had the following effect on county health departments:

- 25% of county health departments reported that the economic downturn has resulted in worker layoffs, including RNs and support staff.
- 53% of county health departments indicated that the downturn has increased the demand for their services.

G. Projected Job Growth

Between 2006 and 2016, the NYS DOL projects the number of home health aide jobs in the state will increase by over 52,300 with 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 with over 5,200 average annual job openings (Exhibit 32).

Exhibit 32
Employment Projections for Health Care Occupations¹⁰
in New York, 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
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
Psychiatric Aides	6,080	6,080	0	0.0%	50

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

¹⁰ 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.

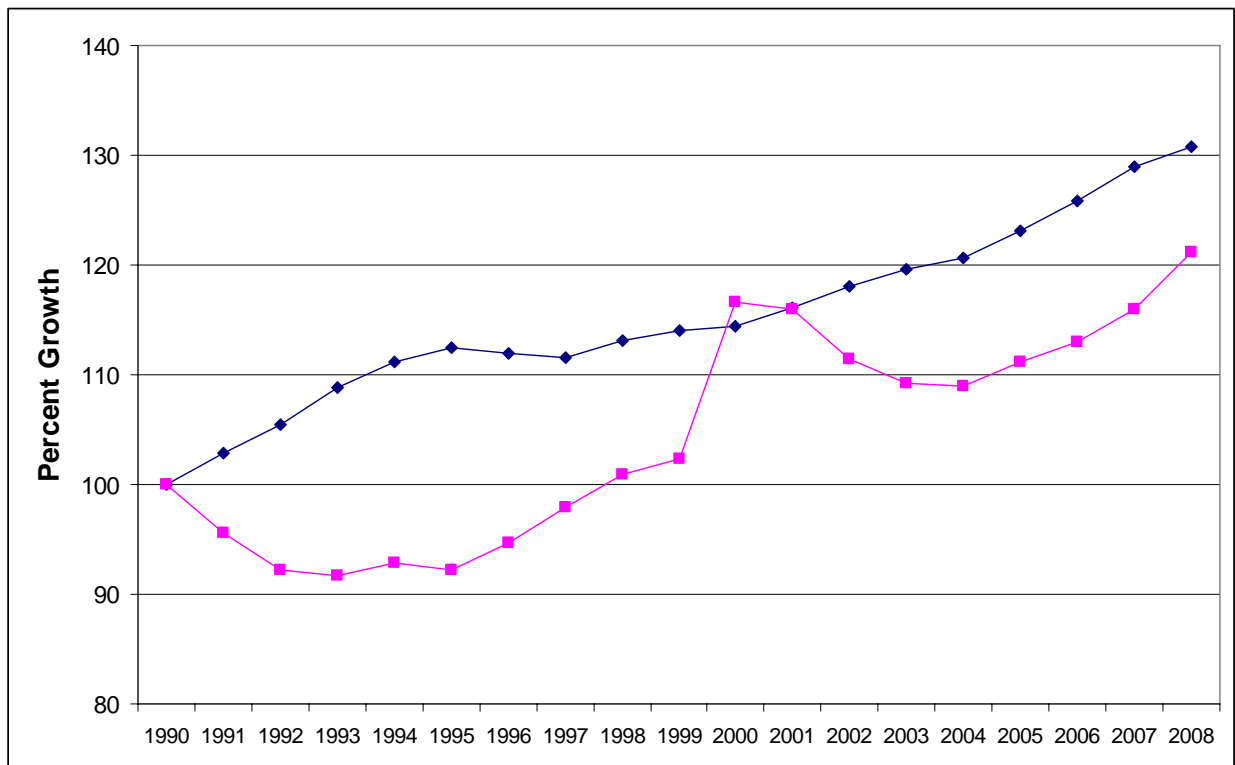
V. REGIONAL PROFILES

A. New York City

1. Total Employment

Between 1990 and 2008, 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 2008. Between 1990 and 2008, employment in the health sector in New York City rose by nearly 31%, while employment in all other sectors grew by 21% during the same period (Exhibit 33).

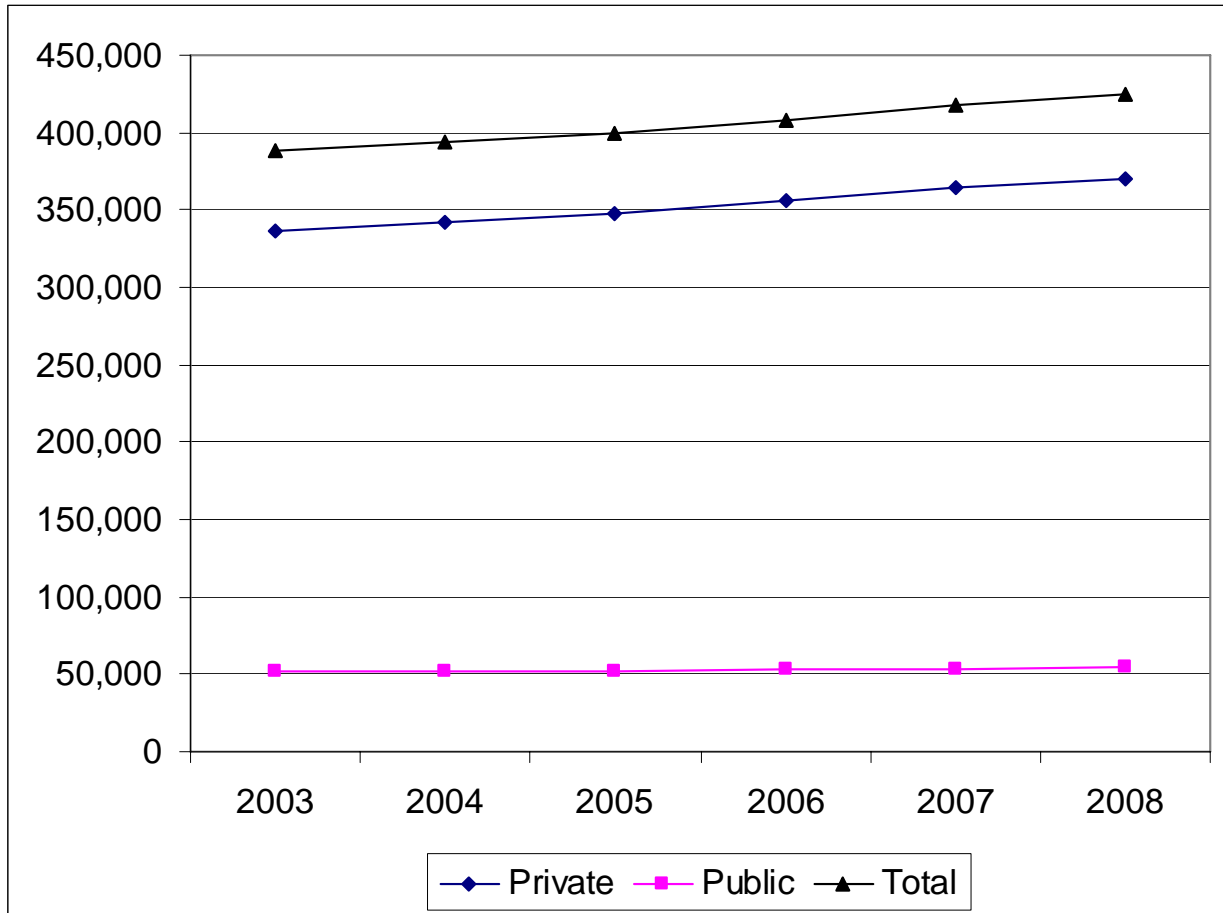
Exhibit 33
New York City Employment Growth between 1990 and 2008, Standardized to 1990



Source: NYS Department of Labor, ES-202

Between 2003 and 2008, total health sector employment increased by 9% in New York City. Private health sector employment increased by 10% during this time period, while public health sector jobs increased by 6% (Exhibit 34).

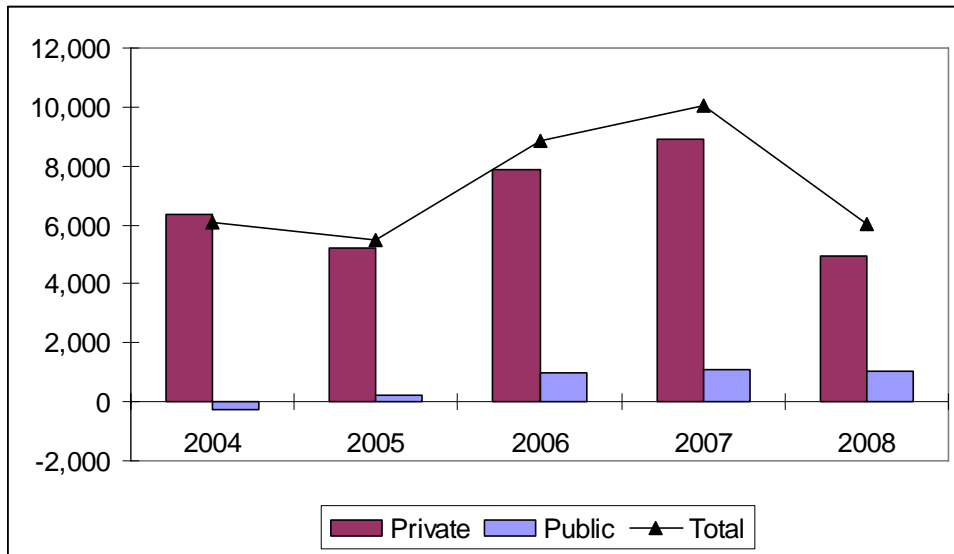
Exhibit 34
Trends in Public and Private Health Employment for New York City, 2003 – 2008



Source: NYS Department of Labor, ES-202

Between 2003 and 2008, private health sector employment increased each year in New York City. In contrast, public health sector employment decreased in 2004 and showed only modest growth in the years between 2005 and 2008 (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, 2003 – 2008

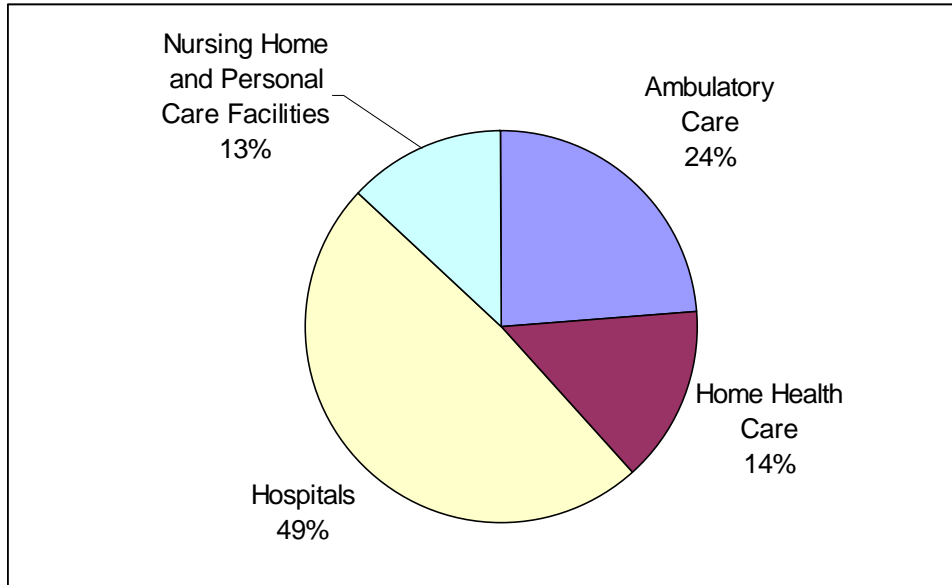


Source: NYS Department of Labor, ES-202

2. *By Setting*

Hospitals continued to be the largest employer of New York City health workers in 2008, accounting for nearly one-half of all health care jobs. Ambulatory care settings and home health agencies followed, at 24% and 14%, respectively (Exhibit 36).

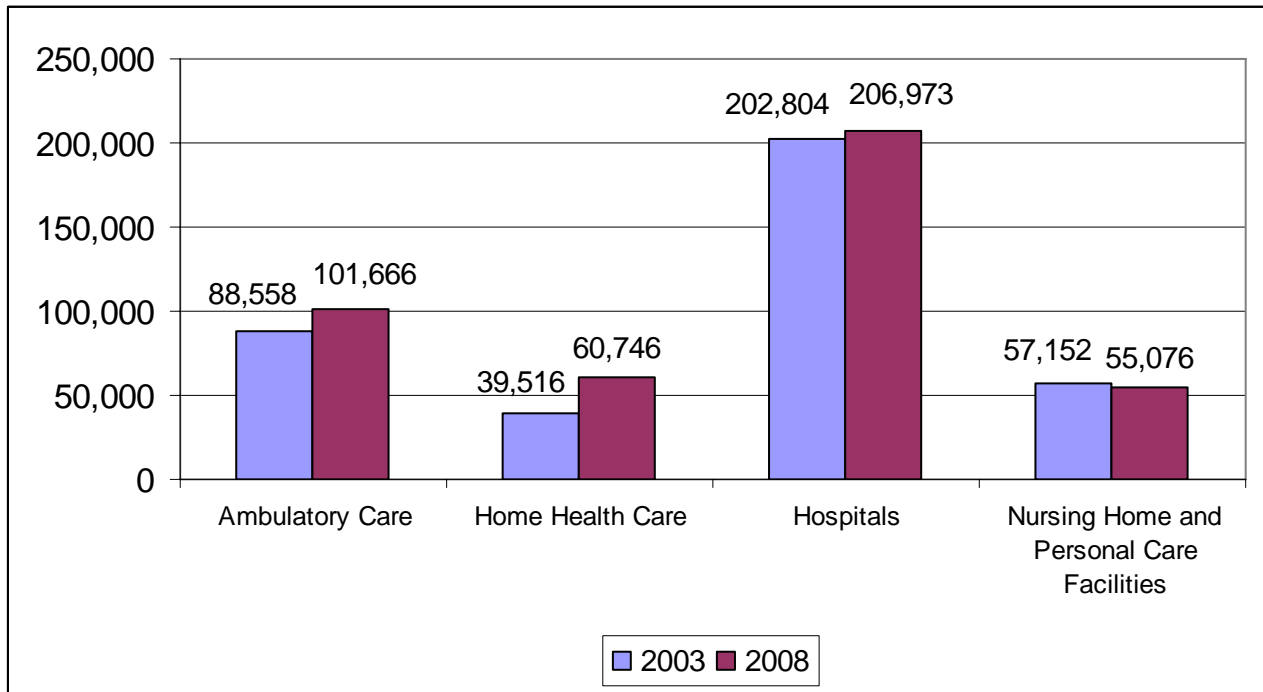
Exhibit 36
Health Sector Employment by Setting for New York City, 2008



Source: NYS Department of Labor, ES-202

Between 2003 and 2008, health sector employment increased in New York City in the health settings of ambulatory care, home health care, and hospitals. Nursing home and personal care facilities were the only settings to lose jobs during this time period. Home health care jobs grew by almost 54% between 2003 and 2008. Ambulatory care settings experienced the next largest job growth (14%), while the number of jobs in nursing homes and personal care facilities declined by almost 4% (Exhibit 37).

Exhibit 37
Number of Jobs by Health Care Setting in New York City, 2003 and 2008

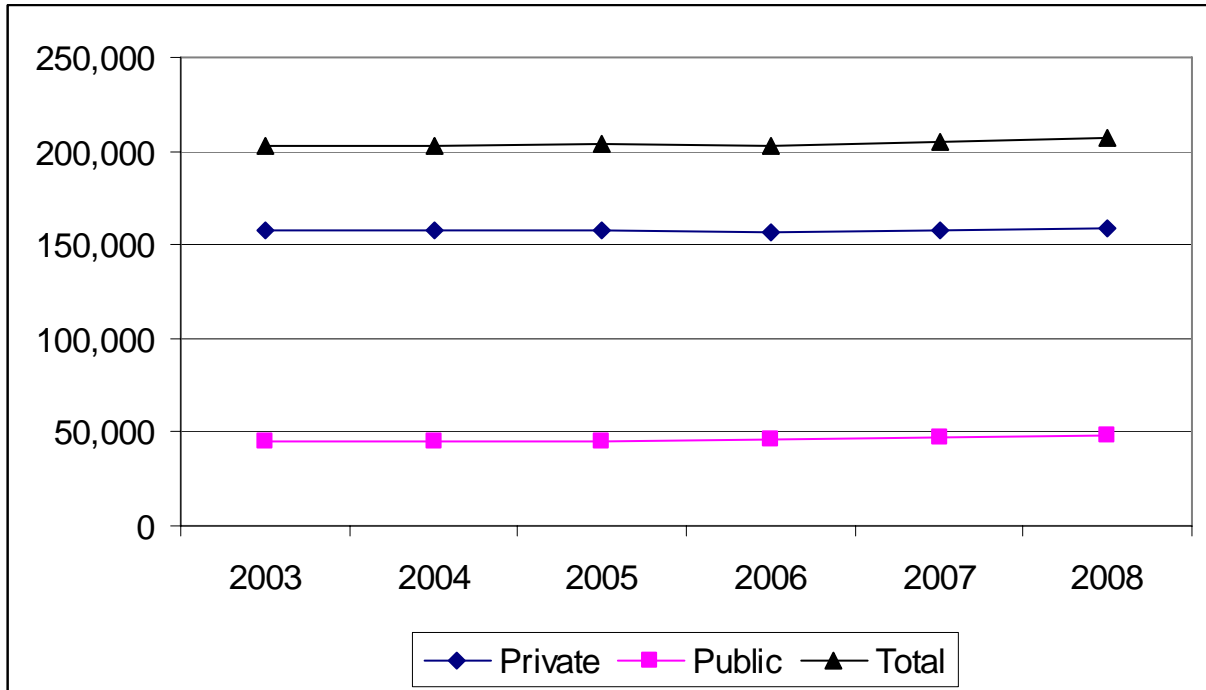


Source: NYS Department of Labor, ES-202

3. Hospital Employment Trends

Between 2003 and 2008 total hospital employment in New York City increased by 2%. The number of public sector hospital jobs increased by over 8% during this period, but the number of private sector hospital jobs remained the same (Exhibit 38%).

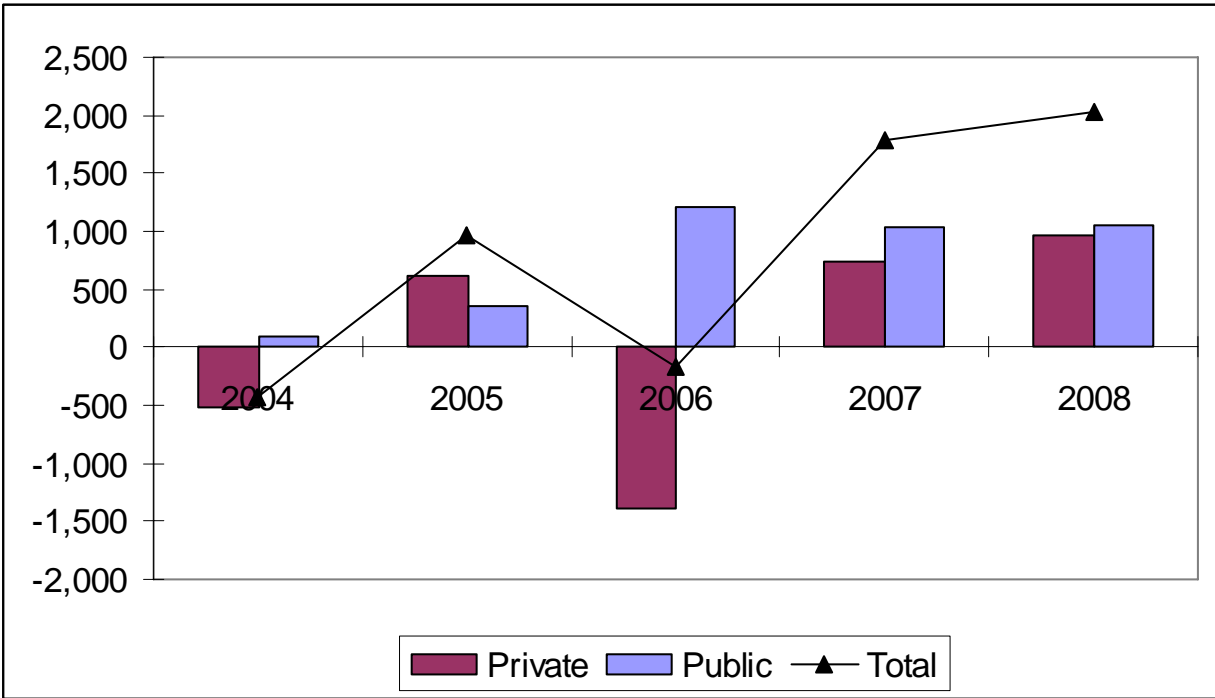
Exhibit 38
Trends in Hospital Employment for New York City, 2003 – 2008



Source: NYS Department of Labor, ES-202

Since 2006, total hospital employment has grown in New York City, with both the public and private hospital sectors showing modest growth (Exhibit 39).

Exhibit 39
Annual Change from the Prior Year in Hospital Employment for New York City,
Public and Private Employment, 2003 – 2008



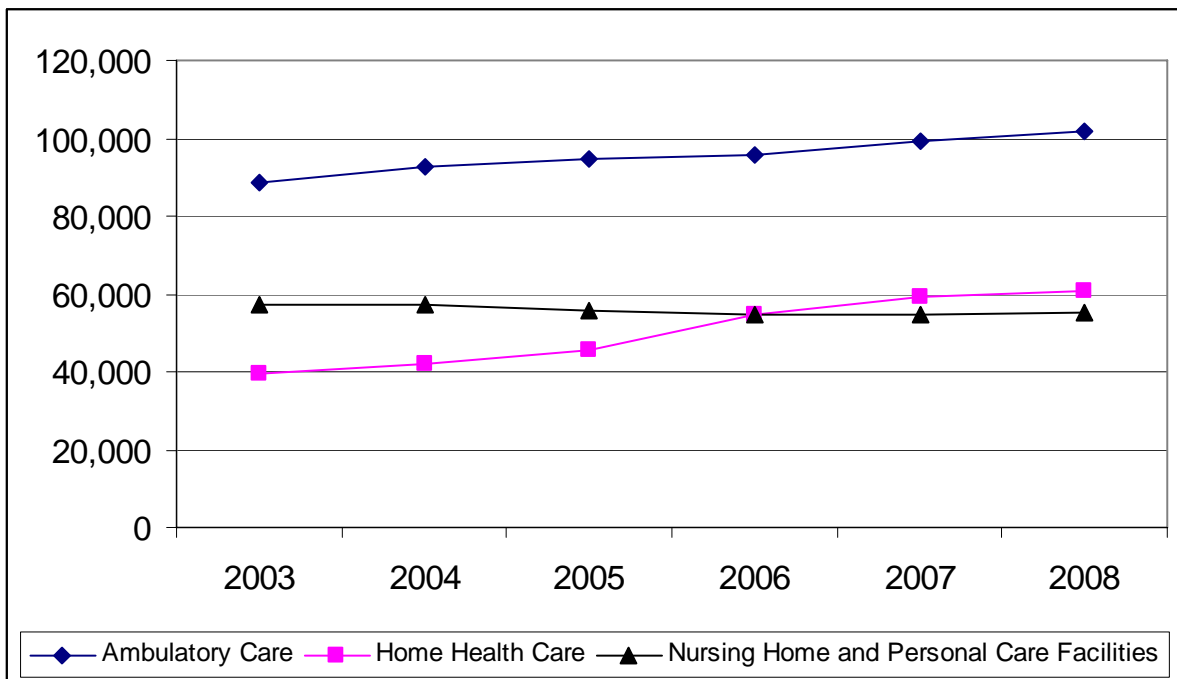
Source: NYS Department of Labor, ES-202

4. Non-Hospital Employment Trends

Between 2003 and 2008, the most significant health sector employment trends outside of hospitals were:

- A rise in home health care employment of more than 53%;
- An increase in ambulatory care employment of nearly 15%; and
- A decline in employment in nursing and personal care facilities by nearly 4% (Exhibit 40).

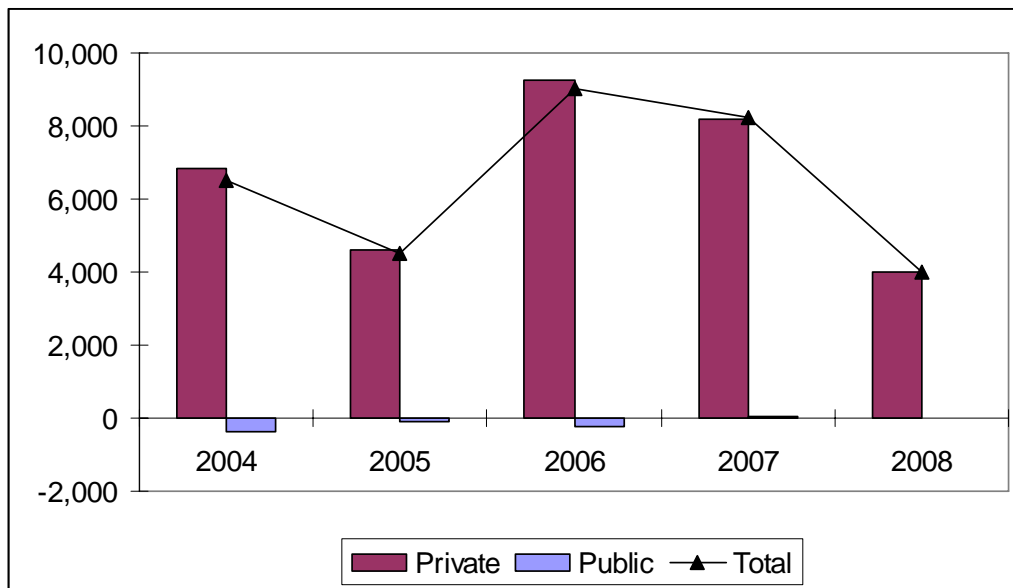
Exhibit 40
Trends in Non-Hospital Health Employment for New York City, 2003 – 2008



Source: NYS Department of Labor, ES-202

Between 2003 and 2008, annual changes in non-hospital health sector employment in New York City were driven by substantial year-to-year increases in private employment. The largest employment increases occurred in 2006 with more than 9,000 jobs added, in 2007 with over 8,000 jobs added, and in 2004 with almost 7,000 jobs added. Public employment in the non-hospital health sector declined slightly between 2003 and 2006 and again in 2008, and fewer than 100 jobs were added in 2007 (Exhibit 41).

Exhibit 41
Annual Change from the Prior Year in Non-Hospital Health Care Employment
for New York City, Public and Private, 2004 – 2008



Source: NYS Department of Labor, ES-202

5. By Occupation

Between 2003 and 2008, changes in the number of health care jobs in New York City varied widely by occupation. While these data represent positions and not individuals or full-time equivalents, they are useful in identifying trends in occupations or job titles.

- Medical secretary jobs increased by over 4,300, or by 104%;
- Radiologic technologist and technician jobs increased by almost 2,900, or by nearly 69%;
- Dental hygienist jobs increased by over 1,900, or by 63%;
- Pharmacy technician jobs increased by 2,500, or by 58%;
- Home health aide jobs increased by more than 31,260, or by 57%;
- LPN jobs decreased by nearly 2,300, or by 11%; and
- Medical and clinical laboratory technician jobs decreased by over 700, or by more than 13% (Exhibit 42).

Exhibit 42
Number of Jobs in Selected Health Occupations for the New York City
Primary Metropolitan Statistical Area¹¹

Occupation	2003	2004	2005	2006	2007	2008	Change between 2003 to 2008	
							Number	Percent
HEALTH CARE TECHNICIANS/TECHNOLOGISTS								
Cardiovascular Technologists and Technicians	1,800	1,880	1,960	1,880	1,840	1,740	-60	-3.3%
Dietetic Technicians	580	500	640	540	420	390	-190	-32.8%
Licensed Practical Nurses	20,370	22,830	22,860	20,630	19,430	18,090	-2,280	-11.2%
Medical and Clinical Laboratory Technicians	5,550	5,740	6,770	6,550	5,170	4,810	-740	-13.3%
Medical and Clinical Laboratory Technologists	5,100	5,160	6,510	6,940	6,670	6,920	1,820	35.7%
Medical Records and Health Information Technicians	3,070	3,270	3,930	3,840	3,870	4,280	1,210	39.4%
Nuclear Medicine Technologists	510	460	660	730	660	770	260	51.0%
Pharmacy Technicians	4,340	5,100	6,850	7,370	7,230	6,860	2,520	58.1%
Radiologic Technologists and Technicians	4,190	4,400	5,540	5,680	6,700	7,070	2,880	68.7%
Surgical Technologists	2,250	2,560	3,190	3,220	3,090	3,070	820	36.4%
HEALTH CARE PROFESSIONALS								
Dental Hygienists	3,080	3,600	3,900	4,050	4,220	5,020	1,940	63.0%
Dietitians and Nutritionists	2,190	2,100	2,350	2,510	2,380	2,500	310	14.2%
Pharmacists	5,950	6,230	7,630	7,850	8,410	8,700	2,750	46.2%
Physical Therapists	5,180	5,990	6,940	6,550	6,600	7,130	1,950	37.6%
Registered Nurses	79,990	83,240	99,010	96,720	96,560	97,790	17,800	22.3%
Respiratory Therapists	2,150	2,220	2,980	3,350	3,100	3,100	950	44.2%
Social Workers	21,340	20,760	26,280	27,960	27,620	29,460	8,120	38.1%
MANAGEMENT/ADMINISTRATIVE SUPPORT								
Medical and Health Services Managers	12,260	13,110	13,970	15,550	14,500	15,540	3,280	26.8%
Medical Secretaries	4,210	3,880	10,850	9,700	9,670	8,590	4,380	104.0%
HEALTH CARE PARAPROFESSIONALS								
Dental Assistants	8,730	7,230	9,330	9,550	9,550	9,510	780	8.9%
Home Health Aides	55,200	56,170	80,280	95,560	104,690	86,460	31,260	56.6%
Medical Assistants	9,690	8,750	11,270	10,900	12,010	12,080	2,390	24.7%
Nursing Aides, Orderlies, and Attendants	48,540	48,150	58,130	55,940	54,630	58,280	9,740	20.1%

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

¹¹ 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 2004 and 2008, the overall number of licensed health professionals in New York City grew with the largest percentage increases for speech-language pathologists (33%) and nurse practitioners (28%). The number of physician assistants grew by 18%; occupational therapists increased by 17%, and social workers grew by 17% over the same time period. The number of dietitians/nutritionists declined by 2% between 2004 and 2008 (Exhibit 43).

Exhibit 43
Changes in the Number of Licensed Individuals
in Selected Health Service Professions for New York City, 2004 – 2008

Profession	2004	2005	2006	2007	2008	Change between 2004 and 2008	
						Number	Percent
Speech-Language Pathologists	2,528	2,723	2,920	3,140	3,356	828	32.8%
Nurse Practitioners	2,197	2,331	2,469	2,658	2,821	624	28.4%
Physician Assistants	2,186	2,284	2,396	2,465	2,579	393	18.0%
Occupational Therapists	2,177	2,237	2,335	2,435	2,554	377	17.3%
Social Workers	15,156	15,488	21,638	23,461	17,745	2,589	17.1%
Dental Hygienists	1,434	1,464	1,498	1,560	1,573	139	9.7%
Physical Therapists	3,959	4,082	4,193	4,387	4,328	369	9.3%
Pharmacists	4,679	4,728	4,865	5,609	5,006	327	7.0%
Respiratory Therapists	1,149	1,161	1,170	1,164	1,227	78	6.8%
Occupational Therapy Assistants	834	839	849	866	870	36	4.3%
Registered Nurses	53,198	53,085	53,129	54,736	55,300	2,102	4.0%
Licensed Practical Nurses	14,615	14,659	14,702	14,502	14,785	170	1.2%
Physical Therapy Assistants	997	982	999	1,013	1,005	8	0.8%
Dietitians/Nutritionists	1,432	1,414	1,415	1,450	1,407	-25	-1.7%

Source: NYS Education Department, Office of Professions

7. Demand for Workers

Hospitals

Hospitals in the New York City reported the most difficulty recruiting and retaining clinical lab technicians and technologists and medical coders, with the primary reason cited for these difficulties being the shortage of workers in these occupations. Experienced RNs were also difficult to recruit, with hospitals citing the competition for these RNs as the main reason (Exhibit 44).

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

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reason for Difficulty			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Clinical Lab Technicians and Technologists	4.0	3.7	48%	28%	16%	0%
Dietitians/Nutritionists	2.9	2.8	8%	24%	16%	4%
License Practical Nurses	2.0	2.2	4%	4%	4%	4%
Licensed Clinical Social Workers	2.2	2.5	8%	32%	4%	4%
Mammographers	2.8	2.3	36%	24%	20%	4%
Medical Coders	4.0	3.7	48%	20%	16%	4%
Nuclear Medicine Technologists	2.9	2.2	24%	16%	8%	4%
Nurse Practitioners	3.2	2.7	16%	40%	24%	0%
Patient Care Technicians/ Certified Nursing Aides	1.6	1.7	0%	8%	0%	0%
Pharmacists	3.0	2.6	28%	48%	28%	8%
Physical Therapists	3.2	2.8	44%	36%	16%	4%
Physician Assistants	3.1	2.3	4%	36%	24%	4%
Registered Nurses						
-Experienced	3.8	2.2	20%	64%	12%	0%
-Newly-trained	2.0	2.6	12%	48%	0%	0%
Respiratory Therapists	2.9	2.8	12%	16%	20%	8%
Sonographers	2.2	2.4	28%	24%	12%	4%
X-ray Technicians	1.7	1.5	16%	16%	20%	4%

Nursing Homes

Nursing homes in New York City reported that LPNs were the most difficult to recruit, with the competition for LPNs cited as the main reason for these difficulties. Occupational therapists, physical therapists, and experienced RNs were also difficult to recruit.

Nursing homes in New York City indicated that LPNs were the most difficult to retain, with salary levels cited as the main reason. Experienced RNs were also difficult to retain, again salary levels were cited as the main reason (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 Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	1.8	1.6	0%	21%	21%	21%
Clerical	1.7	1.6	7%	21%	29%	7%
Dietitians/Nutritionists	2.4	1.7	29%	21%	36%	21%
Licensed Practical Nurses	3.2	2.0	14%	43%	29%	21%
Occupational Therapists	3.0	2.3	7%	36%	29%	14%
Physical Therapists	3.1	2.6	14%	29%	43%	21%
Registered Nurses						
- <i>Experienced</i>	2.9	2.5	14%	29%	43%	29%
- <i>Newly-trained</i>	1.6	2.0	7%	29%	36%	21%
Respiratory Therapists	1.4	1.4	7%	29%	21%	7%
Social Workers						
- <i>LCSWs</i>	1.9	2.0	0%	21%	29%	7%
- <i>LMSWs</i>	2.1	1.9	7%	29%	29%	7%

- 21% of nursing homes reported difficulty hiring workers for off-shifts.
- 21% indicated difficulties hiring part-time workers.
- 29% reported difficulty hiring bilingual workers, including those speaking Spanish, Chinese, or Italian.
- 14% of nursing homes reported an expected reduction in services in the future with RNs and CNAs being affected.
- 43% of New York City nursing homes reported that the economic downturn resulted in worker layoffs, including CNAs, management staff, environmental service workers, laundry service workers, and RNs.

Home Health Agencies

Home health agencies in New York City reported the most difficulty recruiting experienced RNs and some difficult retaining experienced RNs, with the competition for these RNs cited as the main reason. Half of the home health agencies in New York City noted a shortage of workers and also salary levels as reasons for recruiting and retention problems with experienced RNs. Occupational therapists were also difficult to recruit for home health agencies in New York City. Home health agencies in New York City noted the most difficulty retaining physical therapists, indicting the shortage of them as the primary reason (Exhibit 46).

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

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	1.8	1.0	0%	25%	0%	0%
Home Health Aides	1.8	1.0	50%	25%	25%	0%
Licensed Practical Nurses	0.0	0.0	0%	0%	0%	0%
Occupational Therapists	3.8	1.8	75%	25%	0%	50%
Personal Care Aides	0.0	0.0	0%	0%	0%	0%
Physical Therapists	3.3	2.3	50%	25%	0%	25%
Registered Nurses						
- <i>Experienced</i>	4.0	2.0	50%	75%	50%	25%
- <i>Newly-trained</i>	1.5	1.3	25%	25%	50%	0%
Respiratory Therapists	1.3	1.0	25%	25%	0%	0%
Social Workers						
- <i>LMSWs</i>	1.5	1.5	0%	0%	0%	25%
- <i>LCSWs</i>	1.8	1.8	25%	0%	0%	25%
Speech Pathologists	1.3	1.3	25%	0%	0%	25%

- Half of home health agencies reported difficulty hiring off-shift and part-time workers.
- 75% of agencies reported difficulty hiring bilingual workers, including those speaking Spanish or Russian.
- 75% of home health agencies in New York City indicated an expected expansion of services in the future and indicated that RNs, LPNs, physical therapists, and occupational therapists would be needed.
- 25% of agencies indicated an expected reduction of services in the near future with support staff positions being affected.
- 25% of home health agencies reported that the economic downturn resulted in worker layoffs, with support staff the most affected.

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 in the health care sector (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 limited. Some large occupations had lower percentage growth but are projected to add more jobs overall. The health occupations projected to have the largest average number of annual openings are:

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

Exhibit 47
Employment Projections for Health Care Occupations¹² 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

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.

B. Capital District

1. Employment by Setting

Between 2003 and 2008, health care employment in the Capital District region grew by more than 1,700 jobs, or slightly over 3%. Jobs in ambulatory care settings increased by 13%, while jobs in hospitals increased by almost 5%, and jobs in home health care services grew by less than 2%. Employment in nursing home and personal care facilities decreased by almost 9% during the same period (Exhibit 48).

Exhibit 48
Number of Workers by Health Care Setting in the Capital District Region
Between 2003 and 2008

Setting	2003	2004	2005	2006	2007	2008	Change between 2003 and 2008	
							Number	Percent
Hospitals	21,377	20,960	21,340	21,627	22,074	22,413	1,036	4.8%
Ambulatory Care (Excluding Home Health)	14,766	15,432	15,933	15,958	16,508	16,670	1,904	12.9%
Nursing Home and Personal Care Facilities	14,628	14,635	14,339	13,125	13,092	13,369	-1,260	-8.6%
Home Health Care Services	2,941	2,715	2,726	2,797	2,906	2,988	48	1.6%
Totals	53,712	53,741	54,338	53,506	54,580	55,439	1,727	3.2%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

The number of licensed physician assistants in the Capital District region grew significantly (16%) between 2004 and 2008, followed by speech-language pathologists (15%), nurse practitioners (13%), and social workers (10%). The number of RNs increased by more than 400 between 2004 and 2008, or by nearly 3%.

There were decreases in the number of physical therapy assistants (13%) and occupational therapy assistants (9%) in the Capital District region during the same period (Exhibit 49).

Exhibit 49
Change in the Number of Selected Licensed Health Care Occupations
in the Capital District Region, 2004 – 2008

Occupation	2004	2005	2006	2007	2008	Change between 2004 and 2008	
						Number	Percent
Physician Assistants	476	498	504	523	552	76	16.0%
Speech-Language Pathologists	754	777	803	835	868	114	15.1%
Nurse Practitioners	581	590	607	654	656	75	12.9%
Social Workers	2,043	2,121	2,651	2,805	2,247	204	10.0%
Pharmacists	1,233	1,258	1,294	1,377	1,342	109	8.8%
Respiratory Therapists	300	300	301	309	320	20	6.7%
Dietitians/Nutritionists	273	267	275	285	291	18	6.6%
Dental Hygienists	760	777	792	801	807	47	6.2%
Occupational Therapists	491	502	505	508	516	25	5.1%
Physical Therapists	926	932	947	980	966	40	4.3%
Licensed Practical Nurses	4,924	4,976	4,985	4,971	5,117	193	3.9%
Registered Nurses	14,792	14,816	14,707	15,143	15,196	404	2.7%
Occupational Therapy Assistants	328	313	307	292	298	-30	-9.1%
Physical Therapy Assistants	398	381	376	367	347	-51	-12.8%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the Capital District region reported the most difficulty recruiting and retaining clinical lab technicians and technologists, followed by physical therapists, nuclear medicine technologists, and experienced RNs. Patient care technicians/CNAs were difficult to retain, with salary levels cited by 80% of the hospitals as the main reason (Exhibit 50).

**Exhibit 50
Recruitment and Retention Difficulties for Hospitals in the Capital District**

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reason for Difficulty			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Clinical Lab Technicians and Technologists	4.2	3.6	40%	40%	40%	0%
Dieticians/Nutritionists	2.5	2.5	20%	20%	0%	0%
License Practical Nurses	3.4	2.8	40%	40%	0%	0%
Licensed Clinical Social Workers	1.4	1.8	0%	0%	40%	20%
Mammographers	2.8	2.6	20%	40%	40%	0%
Medical Coders	3.2	2.8	40%	40%	0%	0%
Nuclear Medicine Technologists	3.6	3.0	20%	80%	40%	0%
Nurse Practitioners	2.8	2.8	40%	20%	0%	0%
Patient Care Technicians/ Certified Nursing Aides	2.8	3.2	20%	0%	80%	20%
Pharmacists	3.2	3.0	40%	60%	40%	0%
Physical Therapists	3.8	3.4	60%	60%	60%	0%
Physician Assistants	2.8	2.8	40%	20%	0%	0%
Registered Nurses						
-Experienced	3.6	3.0	60%	60%	40%	0%
-Newly-Trained	2.0	2.2	20%	20%	0%	40%
Respiratory Therapists	3.0	2.6	40%	20%	0%	0%
Sonographers	3.0	2.8	20%	40%	0%	0%
X-ray Technicians	2.8	2.6	20%	40%	40%	0%

According to the hospitals in the Capital District, the economic downturn has had the following effects:

- 40% of the hospitals indicated that the overall supply of health workers decreased due to the economic downturn and another 60% reported no change.
- 80% of hospitals reported that health worker turnover decreased and another 20% reported no change in turnover.
- 20% of hospitals indicated a decrease in the number of health worker retirements while another 80% reported no change.
- No hospitals reported having to lay off clinical staff as a result of the economic downturn.

Nursing Homes

Nursing homes in the Capital District indicated they had the most difficulty recruiting experienced RNs and some difficult retaining them. CNAs and LPNs were also difficult to recruit and retain, with nearly two-thirds and over one-half, respectively, of hospitals indicating the competition for these workers as the primary reason (Exhibit 51).

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

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	3.5	4.1	36%	64%	36%	27%
Clerical	1.3	1.6	0%	9%	18%	0%
Dietitians/Nutritionists	1.7	1.0	9%	9%	9%	0%
Licensed Practical Nurses	3.5	2.6	36%	55%	36%	9%
Occupational Therapists	2.6	1.6	9%	9%	27%	0%
Physical Therapists	2.8	1.8	27%	18%	27%	0%
Registered Nurses						
- <i>Experienced</i>	3.9	2.6	45%	45%	45%	0%
- <i>Newly-trained</i>	2.0	2.1	9%	18%	27%	0%
Respiratory Therapists	0.2	0.4	0%	0%	0%	0%
Social Workers						
- <i>LCSWs</i>	1.5	1.2	9%	0%	18%	0%
- <i>LMSWs</i>	1.7	1.4	18%	18%	9%	9%

Other information reported by nursing homes in the Capital District included:

- 27% reported difficulty hiring for off-shifts.
- 36% indicated difficulties hiring part-time workers.
- 9% were planning a service expansion, with CNAs, RNs, and LPNs reported as being needed for the expansion.
- 27% reported planning a service reduction, with dietary, non-direct care, staff development, administrative, and direct care workers being affected.

- 9% indicated that the economic downturn resulted in worker layoffs, affecting the following occupations: CNAs, maintenance workers, RNs, therapeutic workers, recreation workers, and clerical workers.

Home Health Agencies

The response rates for home health agencies in the Capital District and Mohawk Valleys were too low to analyze separately, and so the responses for them were combined. Experienced RNs were the most difficult to recruit and were difficult to retain. Licensed clinical social workers were also difficult to recruit, with 60% of home health agencies noting a shortage of those workers contributing to these difficulties. Speech-language pathologists were the most difficult to retain, followed by dietitians/nutritionists and experienced RNs (Exhibit 52).

Exhibit 52
Recruitment and Retention Difficulties for Home Health Agencies
in the Capital District and Mohawk Valley Regions

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.1	2.4	20%	0%	20%	0%
Home Health Aides	2.0	1.7	40%	20%	40%	0%
Licensed Practical Nurses	2.2	1.7	20%	0%	20%	0%
Occupational Therapists	2.6	1.9	20%	0%	20%	0%
Personal Care Aides/Homemakers	0.5	0.8	20%	0%	20%	0%
Physical Therapists	2.7	1.5	40%	0%	40%	0%
Registered Nurses						
- <i>Experienced</i>	3.3	2.4	20%	40%	40%	0%
- <i>Newly-trained</i>	1.7	1.9	0%	20%	20%	0%
Respiratory Therapists	1.0	0.9	0%	0%	0%	0%
Social Workers						
- <i>LCSWs</i>	3.2	1.9	60%	20%	40%	0%
- <i>LMSWs</i>	2.8	1.8	40%	0%	20%	0%
Speech-Language Pathologists	1.8	3.8	20%	0%	0%	0%

Other information reported by nursing homes in the Capital District and Mohawk Valley regions includes:

- 40% of home health agencies reported difficulty hiring workers for off-shifts.
- 40% also reported difficulties hiring Spanish-speaking bilingual workers.
- 40% of the programs indicated they were planning for a service expansion and would need RNs, LPNs, and various therapeutic titles.

According to 80% of home health agencies in the Capital District and Mohawk Valley regions, the economic downturn has resulted in worker layoffs, including RNs, medical billers, and support staff.

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 2003 and 2008, health sector employment throughout the Central New York region grew by more than 3,100 jobs, or 9%. Employment in nursing home and personal care facilities increased by nearly 15%, or almost 1,400 jobs. Jobs in ambulatory care grew by 10% and jobs in hospitals grew by 5%. Home health care service jobs in the Central New York region declined by almost 4% (Exhibit 54).

Exhibit 54
Number of Workers by Health Care Setting in the Central New York Region
Between 2003 and 2008

Setting	2003	2004	2005	2006	2007	2008	Change between 2003 and 2008	
							Number	Percent
Hospitals	12,063	12,205	12,309	12,393	12,540	12,686	623	5.2%
Ambulatory Care (Excluding Home Health)	12,154	12,417	12,798	12,982	13,119	13,354	1,199	9.9%
Nursing Home and Personal Care Facilities	9,284	10,076	10,197	10,532	10,734	10,660	1,376	14.8%
Home Health Care Services	1,325	1,246	1,375	1,306	1,224	1,273	-52	-3.9%
Totals	34,826	35,944	36,678	37,212	37,617	37,973	3,147	9.0%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2004 and 2008, the number of dietitians/nutritionists increased by nearly 60% in the Central New York region. Physician assistants increased by nearly 33% and LPNs increased by 16% during the same period. There were slight declines in the number of dental hygienists and the number of occupational therapy assistants between 2003 and 2008 (Exhibit 55).

Exhibit 55
Change in the Number of Licensed Individuals in Selected Health Occupations
in the Central New York Region, 2004 - 2008

Occupation	2004	2005	2006	2007	2008	Change between 2004 and 2008	
						Number	Percent
Dietitians/Nutritionists	182	176	184	196	291	109	59.9%
Physician Assistants	246	268	279	303	326	80	32.5%
Licensed Practical Nurses	4,412	4,595	4,785	4,823	5,117	705	16.0%
Respiratory Therapists	304	322	331	342	350	46	15.1%
Physical Therapy Assistants	193	193	197	209	221	28	14.5%
Speech-Language Pathologists	391	278	415	424	445	54	13.8%
Physical Therapists	607	641	664	686	678	71	11.7%
Social Workers	1041	1061	1,164	1,214	1,144	103	9.9%
Nurse Practitioners	879	895	902	923	931	52	5.92%
Registered Nurses	9,877	9,953	10,029	10,230	10,336	459	4.7%
Occupational Therapists	282	287	280	287	295	13	4.6%
Pharmacists	635	627	649	658	659	24	3.8%
Dental Hygienists	563	561	553	549	538	-25	-4.4%
Occupational Therapy Assistants	102	108	105	100	97	-5	-4.9%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

The response rates for hospitals in the Central New York and Southern Tier regions were too low to analyze separately, so responses were aggregated for those two regions.

Hospitals in the Central New York and Southern Tier regions reported the most difficulty recruiting and retaining clinical lab technicians and technologists, with the competition for these professionals the principle reason. Hospitals also indicated a shortage of these workers as well as issues with salary levels. Physician assistants were also difficult to recruit, and medical coders, newly-trained RNs, and respiratory therapists were also difficult to retain (Exhibit 56).

Exhibit 56
Recruitment and Retention Difficulties for Hospitals
in the Central New York and Southern Tier Regions

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reason for Difficulty			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Clinical Lab Technicians and Technologists	4.0	3.3	75%	100%	75%	0%
Dietitians/Nutritionists	1.0	1.0	0%	0%	0%	0%
License Practical Nurses	1.5	2.0	0%	25%	0%	0%
Licensed Clinical Social Workers	2.0	2.0	25%	0%	25%	0%
Mammographers	2.3	2.3	0%	25%	25%	0%
Medical Coders	3.0	2.7	50%	25%	0%	0%
Nuclear Medicine Technologists	2.3	2.3	0%	25%	25%	0%
Nurse Practitioners	3.3	2.0	50%	25%	25%	0%
Patient Care Technicians/ Certified Nursing Aides	2.3	2.3	25%	25%	0%	0%
Pharmacists	2.0	2.0	0%	0%	25%	0%
Physical Therapists	3.7	2.3	50%	75%	25%	0%
Physician Assistants	4.0	2.5	25%	50%	25%	0%
Registered Nurses						
-Experienced	3.0	2.3	0%	75%	50%	0%
-Newly-trained	2.7	2.7	0%	50%	25%	0%
Respiratory Therapists	3.7	2.7	50%	75%	50%	0%
Sonographers	2.3	2.3	0%	25%	25%	0%
X-ray Technicians	2.3	2.3	0%	25%	25%	0%

According to the hospitals in the Central New York and Southern Tier regions, the economic downturn has had the following effects:

- 25% of the hospitals indicated that the overall supply of health workers decreased due to the economic downturn and another 75% reported no change.
- 50% of hospitals reported that health worker turnover decreased and another 50% reported no change in turnover.
- 25% of hospitals indicated a decrease in the number of health worker retirements and another 75% reported no change.

Nursing Homes

Nursing homes in the Central New York region reported the most difficulty recruiting experienced RNs and significant difficulty retaining RNs, with the primary reason cited for these difficulties the shortage of RNs. These nursing homes also indicated the competition for RNs and salary levels as reasons for recruitment and retention difficulties. CNAs were the most difficult to retain. Newly-trained RNs and LPNs were also difficult to retain (Exhibit 57).

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

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	3.3	4.3	75%	75%	75%	25%
Clerical	1.5	2.0	0%	0%	50%	0%
Dietitians/Nutritionists	1.3	1.0	0%	0%	25%	0%
Licensed Practical Nurses	3.8	3.5	75%	25%	50%	25%
Occupational Therapists	1.5	0.8	25%	0%	25%	0%
Physical Therapists	1.5	0.8	25%	0%	25%	0%
Registered Nurses						
- <i>Experienced</i>	4.8	4.0	100%	75%	75%	25%
- <i>Newly-trained</i>	4.0	4.0	50%	25%	50%	0%
Respiratory Therapists	0.3	0.3	0%	0%	0%	0%
Social Workers						
- <i>LCSWs</i>	3.3	3.3	0%	25%	75%	0%
- <i>LMSWs</i>	3.3	2.8	0%	25%	75%	0%

Other information reported by nursing homes in the Central New York region includes:

- 25% of nursing homes reported difficulty hiring off-shift workers.
- 50% indicated difficulty hiring part-time workers.
- 25% of nursing homes in the Central New York region reported a planned expansion of services in the near future and a need for CNAs and LPNs.
- According to 25% of nursing homes in the Central New York region, the economic downturn resulted in worker layoffs, including administrative staff and CNAs.

Home Health Agencies

Home health agencies in the Central New York region reported the most difficulty recruiting and retaining experienced RNs, with the shortage of and the competition for experienced RNs as the primary reasons for these difficulties. Social workers were also difficult to recruit and retain, with salary levels indicated as the main reason for these difficulties (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 Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	2.7	2.2	50%	17%	17%	0%
Home Health Aides	0.8	1.0	0%	0%	17%	0%
Licensed Practical Nurses	0.3	0.5	0%	0%	0%	0%
Occupational Therapists	3.5	2.3	67%	33%	0%	0%
Personal Care Aides/Homemakers	2.8	2.2	33%	33%	17%	0%
Physical Therapists	2.8	2.2	33%	33%	17%	0%
Registered Nurses						
- <i>Experienced</i>	4.7	3.8	100%	83%	50%	0%
- <i>Newly-trained</i>	2.8	2.5	67%	50%	33%	0%
Respiratory Therapists	1.0	1.0	17%	0%	0%	0%
Social Workers						
- <i>LCSWs</i>	3.3	2.8	0%	17%	50%	0%
- <i>LMSWs</i>	3.3	3.3	0%	17%	50%	0%
Speech-Language Pathologists	2.3	1.8	17%	17%	0%	0%

Other information reported by home health agencies in the Central New York region includes:

- 50% reported difficulty hiring off-shift workers.
- 33% indicated difficulty hiring part-time workers.
- 60% reported that hiring Spanish-speaking workers was difficult.
- 33% of home health agencies indicated a planned expansion of services in the future with a need for physical therapists, RNs, and clerical workers.
- According to the home health agencies in the Central New York region, the economic downturn resulted in worker layoffs, with support staff positions being affected.

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 increase by 1,260 jobs, with an average of 250 job openings per year. During the same period, there will be an average of 110 job openings for LPNs and an average of 100 job openings per year 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

Between 2003 and 2008, health sector employment throughout the Finger Lakes region grew by nearly 4,100 jobs. Employment in hospitals increased by over 13%, or 3,264 jobs, while jobs in ambulatory care grew by more than 12%, or 1,724 jobs. Jobs in home health care services declined in the Finger Lakes region by 18% between 2003 and 2008, and jobs in nursing home and personal care facilities declined by 1% during the same time period (Exhibit 60).

Exhibit 60
Number of Workers by Health Care Setting in the Finger Lakes Region
Between 2003 and 2008

Setting	2003	2004	2005	2006	2007	2008	Change between 2003 and 2008	
							Number	Percent
Hospitals	24,720	25,540	25,975	26,469	27,022	27,984	3,264	13.2%
Ambulatory Care (Excluding Home Health)	13,914	14,173	14,264	14,647	15,073	15,638	1,724	12.4%
Nursing Home and Personal Care Facilities	12,674	12,709	12,757	12,485	12,496	12,499	-174	-1.4%
Home Health Care Services	4,161	4,269	3,558	3,465	3,522	3,422	-739	-17.8%
Totals	55,469	56,692	56,554	57,065	58,112	59,543	4,074	7.3%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2004 and 2008, the number of physician assistants licensed in the Finger Lakes region increased by nearly 28%. The number of respiratory therapists licensed in the region grew by slightly more than 15%. The number of LPNs increased by over 550, or by 10% between 2004 and 2008 (Exhibit 61).

Exhibit 61
Change in the Number of Licensed Individuals in Selected Occupations
in the Finger Lakes Region, 2004 – 2008

Occupation	2004	2005	2006	2007	2008	Change between 2004 and 2008	
						Number	Percent
Physician Assistants	444	467	502	529	566	122	27.5%
Respiratory Therapists	235	248	254	256	271	36	15.3%
Social Workers	1,727	1,765	2,483	2,434	1,981	254	14.7%
Speech-Language Pathologists	795	820	852	864	907	112	14.1%
Nurse Practitioners	1,153	1,189	1,231	1,282	1,304	151	13.1%
Physical Therapy Assistants	237	248	250	254	266	29	12.2%
Physical Therapists	820	842	880	907	919	99	12.1%
Licensed Practical Nurses	5,575	5,453	5,860	5,913	6,132	557	10.0%
Occupational Therapists	538	555	569	576	578	40	7.4%
Dietitians/Nutritionists	233	231	240	261	249	16	6.9%
Pharmacists	915	931	955	1,064	977	62	6.8%
Dental Hygienists	978	987	995	1,016	1,018	40	4.1%
Occupational Therapy Assistants	208	207	206	209	213	5	2.4%
Registered Nurses	14,549	14,382	14,250	14,591	14,717	168	1.2%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the Finger Lakes region reported the most difficulty recruiting and retaining a number of health care professionals. Clinical laboratory technicians and technologists were the most difficult to recruit and also difficult to retain, with the shortage of them cited as the primary reason. Physical therapists, pharmacists, nuclear medicine technologists, experienced RNs, and sonographers were also difficult to recruit. Patient care technicians/CNAs were the most difficult to retain, with working conditions indicated as the main reason. Newly-trained RNs and nuclear medicine technologists were also difficult to retain (Exhibit 62).

Exhibit 62
Recruitment and Retention Difficulties for Hospitals in the Finger Lakes Region

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reason for Difficulty			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Clinical Lab Technicians and Technologists	4.6	2.6	78%	67%	67%	11%
Dieticians/Nutritionists	3.1	1.6	56%	56%	22%	11%
License Practical Nurses	1.0	1.2	0%	0%	22%	11%
Licensed Clinical Social Workers	1.7	1.3	11%	11%	11%	11%
Mammographers	3.0	2.1	22%	0%	0%	11%
Medical Coders	3.1	1.7	56%	44%	11%	11%
Nuclear Medicine Technologists	4.1	2.6	67%	44%	11%	11%
Nurse Practitioners	3.6	2.2	56%	44%	33%	11%
Patient Care Technicians/ Certified Nursing Aides	2.0	3.8	11%	33%	22%	56%
Pharmacists	4.2	2.0	89%	78%	67%	11%
Physical Therapists	4.4	2.2	89%	67%	56%	11%
Physician Assistants	3.4	2.0	56%	44%	56%	11%
Registered Nurses						
-Experienced	3.8	2.2	33%	78%	56%	0%
-Newly-trained	1.8	2.7	11%	33%	22%	11%
Respiratory Therapists	3.2	2.2	67%	67%	56%	11%
Sonographers	3.8	2.6	56%	44%	11%	11%
X-ray Technicians	2.3	2.3	0%	0%	0%	0%

According to the hospitals in the Finger Lakes region, the economic downturn has had the following effects:

- 33% of the hospitals indicated that the overall supply of health workers increased due to the economic downturn and another 33% reported no change.

- 56% of hospitals reported that health worker turnover decreased and another 22% reported no change in turnover.
- 44% of hospitals indicated a decrease in the number of health worker retirements and another 33% reported no change.
- 22% of hospitals reported having to lay off people as a result of the economic downturn, including RNs, LPNs, and clinical laboratory workers.

Nursing Homes

Nursing homes in the Finger Lakes region reported the most difficulty in recruiting and retaining experienced RNs, indicating that the competition for them was the primary reason. CNAs were the most difficult to retain, with the competition for them cited as the main reason. LPNs were also difficult to recruit and retain (Exhibit 63).

**Exhibit 63
Recruitment and Retention Difficulties for Nursing Homes 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 Nursing Aides	2.9	2.9	45%	60%	45%	5%
Clerical	1.3	1.0	0%	10%	10%	0%
Dietitians/Nutritionists	2.0	1.4	10%	25%	15%	0%
Licensed Practical Nurses	3.3	2.5	30%	60%	40%	5%
Occupational Therapists	2.9	1.7	30%	35%	30%	0%
Physical Therapists	2.7	1.8	25%	35%	25%	0%
Registered Nurses						
- <i>Experienced</i>	4.0	3.0	55%	65%	55%	10%
- <i>Newly-trained</i>	2.6	2.2	45%	45%	50%	10%
Respiratory Therapists	0.5	0.3	5%	5%	0%	0%
Social Workers						
- <i>LCSWs</i>	1.5	1.1	15%	5%	10%	0%
- <i>LMSWs</i>	1.6	1.1	20%	10%	20%	0%

Other information reported by nursing homes in the Finger Lakes region includes:

- 50% of nursing homes reported difficulty hiring workers for off-shifts.
- 35% indicated difficulty hiring part-time workers.
- 20% reported difficulty hiring Spanish-speaking bilingual workers.

According to the nursing homes in the Finger Lakes region, the economic downturn resulted in worker layoffs, including support staff, physical therapists, and maintenance staff.

Home Health Agencies

Home health agencies in the Finger Lakes region reported the most difficulty recruiting occupational therapists and physical therapists, citing salary levels as the main reason for these difficulties. Experienced RNs were also difficult to recruit, again, with agencies citing salary levels as the main reason. Experienced RNs were also the most difficult to retain, followed by home health aides (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 Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	2.3	1.3	25%	25%	0%	0%
Home Health Aides	3.5	3.5	50%	25%	25%	0%
Licensed Practical Nurses	2.0	1.8	0%	25%	0%	0%
Occupational Therapists	4.5	3.0	50%	75%	75%	0%
Personal Care Aides/Homemakers	2.0	2.0	25%	0%	25%	0%
Physical Therapists	4.5	2.8	50%	50%	75%	0%
Registered Nurses						
-Experienced	4.0	3.8	25%	50%	100%	50%
-Newly-trained	1.8	2.3	0%	0%	25%	25%
Respiratory Therapists	1.7	1.0	0%	25%	25%	0%
Social Workers						
-LCSWs	1.8	1.0	0%	0%	25%	50%
-LMSWs	1.8	1.0	0%	0%	25%	50%
Speech-Language Pathologists	3.0	1.0	0%	25%	25%	0%

Other information reported by home health agencies in the Finger Lakes region includes:

- 75% percent of home health agencies in the Finger Lakes region reported difficulty hiring workers for off-shifts.
- 50% reported difficulty hiring part-time workers.
- 75% percent of home health agencies reported difficulty hiring Spanish-speaking bilingual workers.

According to 25% home health agencies in the Finger Lakes region, the economic downturn resulted in worker layoffs with physical therapists being affected. Additionally, 25% of home health agencies reported a further reduction of services in the near future with RNs, physical therapists, LPNs, home health aides, and occupational therapists being affected.

4. Employment Projections by Health Occupation

The NYS DOL estimated that between 2006 and 2016, the number of RN jobs in the Finger Lakes region will increase by 1,410 jobs, with an average of 330 job openings per year. During the same period, there will be an average of 190 job openings for home health aides, and an average of 140 job openings for nursing aides, orderlies, and attendants. The total number of home health aide jobs is projected to increase by nearly 24% 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 8% between 2003 and 2008. All settings in the health sector experienced job growth between 2003 and 2008, with home health care having the largest percentage increase (28%) followed by ambulatory care (12%) (Exhibit 66).

Exhibit 66
Number of Workers by Health Care Setting in the Hudson Valley Region
Between 2003 and 2008

Setting	2003	2004	2005	2006	2007	2008	Change between 2003 and 2008	
							Number	Percent
Hospitals	39,267	39,039	38,658	39,353	39,895	40,341	1,075	2.7%
Ambulatory Care (Excluding Home Health)	34,861	35,712	36,649	36,984	38,333	38,933	4,072	11.7%
Nursing Home and Personal Care Facilities	18,948	19,815	19,641	19,893	20,016	20,107	1,159	6.1%
Home Health Care Services	6,345	6,416	6,968	7,146	7,588	8,096	1,751	27.6%
Totals	99,420	100,983	101,916	103,376	105,832	107,478	8,058	8.1%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

The number of physician assistants licensed in the Hudson Valley region rose by almost 25% between 2004 and 2008, followed by nurse practitioners (19%) and speech-language pathologists (18%). The number of dietitians/nutritionists licensed in the Hudson Valley region declined by 2% between 2004 and 2008 as did the number of pharmacists (Exhibit 67).

Exhibit 67
Change in the Number of Licensed Individuals in Selected Health Occupations
in the Hudson Valley Region, 2004 – 2008

Occupation	2004	2005	2006	2007	2008	Change between 2004 and 2008	
						Number	Percent
Physician Assistants	599	642	675	723	747	148	24.7%
Nurse Practitioners	1,405	1,505	1,544	1,618	1,673	268	19.1%
Speech-Language Pathologists	1,457	1,489	1,571	1,658	1,720	263	18.1%
Social Workers	6,402	6,539	8,317	8,792	7,043	641	10.0%
Occupational Therapists	1,176	1,183	1,223	1,259	1,285	109	9.3%
Occupational Therapy Assistants	599	613	616	642	654	55	9.2%
Respiratory Therapists	565	585	584	586	610	45	8.0%
Dental Hygienists	1,024	1,041	1,054	1,076	1,087	63	6.2%
Physical Therapists	2,084	2,121	2,155	2,226	2,201	117	5.6%
Licensed Practical Nurses	7,310	7,501	7,516	7,474	7,716	406	5.6%
Physical Therapy Assistants	446	441	449	465	461	15	3.4%
Registered Nurses	30,457	30,536	30,039	30,667	30,769	312	1.0%
Pharmacists	1,984	1,961	1,961	2,123	1,949	-35	-1.8%
Dietitians/Nutritionists	687	669	687	710	671	-16	-2.3%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the Hudson Valley region reported the most difficulty recruiting and retaining clinical laboratory technicians and technologists, followed by medical coders. Experienced RNs were also difficult to recruit, with the competition for and the shortage of them cited as the primary reasons. Patient care technicians/CNAs were also difficult to retain (Exhibit 68).

Exhibit 68
Recruitment and Retention Difficulties for Hospitals in the Hudson Valley Region

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reason for Difficulty			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Clinical Lab Technicians and Technologists	4.5	3.2	40%	40%	40%	0%
Dietitians/Nutritionists	3.0	2.2	40%	10%	30%	0%
License Practical Nurses	1.2	1.4	10%	10%	10%	0%
Licensed Clinical Social Workers	2.2	1.9	20%	10%	30%	0%
Mammographers	3.2	1.6	30%	0%	30%	0%
Medical Coders	4.0	2.6	20%	0%	10%	0%
Nuclear Medicine Technologists	2.3	1.3	10%	0%	10%	0%
Nurse Practitioners	1.8	1.6	10%	10%	10%	0%
Patient Care Technicians/ Certified Nursing Aides	1.8	3.1	10%	10%	20%	20%
Pharmacists	3.0	1.8	40%	10%	50%	0%
Physical Therapists	3.7	2.5	50%	60%	50%	0%
Physician Assistants	1.6	1.6	10%	10%	20%	0%
Registered Nurses						
-Experienced	3.9	2.2	70%	80%	30%	10%
-Newly-trained	1.9	2.1	0%	20%	30%	0%
Respiratory Therapists	2.7	2.2	20%	10%	30%	0%
Sonographers	2.7	1.8	20%	0%	10%	0%
X-ray Technicians	1.8	1.6	10%	0%	10%	0%

According to the hospitals in the Hudson Valley region, the economic downturn has had the following effects:

- 40% of the hospitals indicated that the overall supply of health workers increased due to the economic downturn and another 40% reported no change.
- 30% of hospitals reported that health worker turnover decreased and another 70% reported no change in turnover.

- 20% of hospitals indicated a decrease in the number of health worker retirements and another 80% reported no change.
- 30% of hospitals reported layoffs as a result of the economic downturn, including RNs, CNAs, radiology technicians, and respiratory therapists.

Nursing Homes

Nursing homes in the Hudson Valley region cited the most difficulty recruiting and retaining experienced RNs, citing salary levels as the primary reason. LPNs were also difficult to recruit and retain, noting the shortage of LPNs as the primary reason. Nursing homes in the Hudson Valley region also indicated that CNAs were difficult to retain (Exhibit 69).

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

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	2.5	2.8	31%	31%	38%	23%
Clerical	2.2	2.0	0%	15%	0%	8%
Dietitians/Nutritionists	2.8	1.9	15%	8%	23%	8%
Licensed Practical Nurses	3.5	2.9	46%	38%	38%	23%
Occupational Therapists	3.2	1.9	38%	23%	15%	0%
Physical Therapists	3.2	1.8	38%	23%	15%	0%
Registered Nurses						
-Experienced	4.2	3.2	38%	38%	54%	23%
-Newly-trained	3.2	2.6	38%	38%	54%	23%
Respiratory Therapists	1.2	0.8	23%	8%	15%	0%
Social Workers						
-LCSWs	1.4	1.2	8%	0%	0%	0%
-LMSWs	2.4	2.0	23%	0%	15%	0%

Other information reported by nursing homes in the Hudson Valley region includes:

- 46% of nursing homes reported difficulty hiring workers for off-shifts.
- 46% indicated difficulty hiring part-time workers.
- 23% reported difficulty hiring Spanish-speaking bilingual workers.
- 15% nursing homes the Hudson Valley region indicated an expected expansion of services, with RNs, physical therapists, and occupational therapists being needed.
- 15% also reported a reduction of services in the near future, with clerical workers and housekeepers being affected.

According to 31% of nursing homes in the Hudson Valley region, the economic downturn resulted in layoffs, including housekeepers, maintenance workers, and dietary workers.

Home Health Agencies

Home health agencies in the Hudson Valley region reported the most difficulty recruiting experienced RNs and some difficulty retaining experienced RNs, citing the competition for them as well as salary levels as the primary reasons. Occupational therapists were also difficult to recruit and retain, with the shortage of workers the main reason noted (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 Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	1.8	1.7	17%	0%	0%	0%
Home Health Aides	1.2	1.0	0%	0%	0%	0%
Licensed Practical Nurses	1.3	1.0	0%	0%	0%	0%
Occupational Therapists	3.0	2.0	50%	17%	17%	17%
Personal Care						
Aides/Homemakers	0.5	0.3	0%	0%	0%	0%
Physical Therapists	2.2	1.8	0%	17%	17%	0%
Registered Nurses						
-Experienced	3.3	1.7	17%	50%	50%	17%
-Newly-trained	0.5	0.3	0%	17%	0%	0%
Respiratory Therapists	2.0	1.5	17%	0%	0%	0%
Social Workers						
-LCSWs	0.2	0.2	0%	0%	0%	0%
-LMSWs	1.3	0.5	17%	0%	0%	0%
Speech-Language Pathologists	1.7	0.5	17%	0%	0%	0%

Other information reported by home health agencies in the Hudson Valley region includes:

- 33% of the home health agencies in the Hudson Valley region reported difficulty hiring part-time employees.
- 67% indicated difficulty hiring Spanish-speaking bilingual workers.
- 33% reported an expected expansion of services in the near future, including the need for RNs, home health aides, and respiratory therapists.
- 17% of respondents reported an expected reduction of services in the near future, indicating that home health aides would be affected.

One of three responding home health agencies in the Hudson Valley region indicated that the economic downturn resulted in layoffs, with home health aides, RNs, LPNs, and support staff being affected.

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 almost 13% between 2003 and 2008, adding more than 17,600 jobs. Employment in hospitals grew the fastest, increasing by nearly 18%. There was also growth in nursing homes and personal care facilities (13%), home health care services (11%), and ambulatory care (10%) (Exhibit 72).

Exhibit 72
Number of Workers by Health Care Setting in the Long Island Region
Between 2003 and 2008

Setting	2003	2004	2005	2006	2007	2008	Change between 2003 and 2008	
							Number	Percent
Hospitals	47,181	47,454	46,341	50,980	53,690	55,513	8,332	17.7%
Ambulatory Care (Excluding Home Health)	54,217	55,499	56,576	57,392	58,503	59,400	5,183	9.6%
Nursing Home and Personal Care Facilities	22,519	23,863	24,994	25,878	25,236	25,475	2,956	13.1%
Home Health Care Services	10,833	10,966	10,875	9,811	10,762	11,970	1,137	10.5%
Totals	134,750	137,782	138,786	144,061	148,190	152,359	17,609	13.1%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2004 and 2008, the number of physician assistants in Long Island increased by almost 34%, while the number of nurse practitioners grew by 21%. The number of speech-language pathologists grew by almost 12% during the same period. Between 2004 and 2008, the number of LPNs decreased by nearly 300, or by 3% (Exhibit 73).

Exhibit 73
Change in the Number of Individuals in Selected Health Occupations
in the Long Island Region, 2004 - 2008

Occupation	2004	2005	2006	2007	2008	Change between 2004 and 2008	
						Number	Percent
Physician Assistants	1,350	1,465	1,589	1,698	1,803	453	33.6%
Nurse Practitioners	2,103	2,236	2,350	2,490	2,546	443	21.1%
Speech-Language Pathologists	2,533	2,629	2,735	2,839	2,950	417	16.5%
Occupational Therapists	1,579	1,618	1,685	1,733	1,761	182	11.5%
Physical Therapists	2,855	2,935	3,040	3,185	3,154	299	10.5%
Occupational Therapy Assistants	323	320	338	342	355	32	9.9%
Social Workers	7,553	7,742	9,808	10,246	8,220	667	8.8%
Respiratory Therapists	793	820	821	830	861	68	8.6%
Physical Therapy Assistants	886	878	890	942	933	47	5.3%
Registered Nurses	36,598	36,668	37,268	38,198	38,496	1,898	5.2%
Pharmacists	3,371	3,387	3,472	3,777	3,543	172	5.1%
Dietitians/Nutritionists	885	869	898	932	914	29	3.3%
Dental Hygienists	1,634	1,647	1,647	1,677	1,670	36	2.2%
Licensed Practical Nurses	9,223	9,006	9,035	8,816	8,943	-280	-3.0%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the Long Island region reported the most difficulty recruiting and retaining clinical lab technicians and technologists and pharmacists, with the shortage of and competition for them as well as salary levels all cited as reasons. Hospitals in the Long Island region also reported recruitment issues for medical coders, sonographers, and nuclear medicine technologists and retention issues for sonographers, nuclear medicine technologists, and patient care technicians/CNAs (Exhibit 74).

Exhibit 74
Recruitment and Retention Difficulties for Hospitals in the Long Island Region

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reason for Difficulty			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Clinical Lab Technicians and Technologists	4.4	2.8	79%	75%	71%	0%
Dieticians/Nutritionists	3.4	1.6	58%	50%	13%	0%
License Practical Nurses	1.7	1.7	0%	13%	4%	0%
Licensed Clinical Social Workers	2.6	1.6	4%	8%	25%	4%
Mammographers	2.9	2.1	25%	21%	4%	0%
Medical Coders	4.1	1.6	79%	63%	8%	0%
Nuclear Medicine Technologists	3.8	2.8	63%	58%	4%	0%
Nurse Practitioners	3.0	1.9	50%	38%	29%	0%
Patient Care Technicians/ Certified Nursing Aides	1.9	2.8	4%	42%	13%	38%
Pharmacists	4.4	1.9	75%	79%	71%	0%
Physical Therapists	3.7	1.7	67%	71%	63%	0%
Physician Assistants	3.3	1.8	54%	25%	58%	0%
Registered Nurses						
-Experienced	3.2	1.4	29%	79%	29%	0%
-Newly-trained	1.5	1.7	8%	17%	8%	0%
Respiratory Therapists	3.0	2.3	63%	79%	75%	4%
Sonographers	3.9	2.9	54%	58%	17%	0%
X-ray Technicians	1.7	2.0	13%	13%	4%	0%

According to the hospitals in the Long Island region, the economic downturn has had the following effects:

- 21% of the hospitals indicated that the overall supply of health workers increased due to the economic downturn and another 71% reported no change.
- 96% of hospitals reported that health worker turnover decreased and another 4% reported no change in turnover.
- 83% of hospitals indicated a decrease in the number of health worker retirements and another 17% reported no change.

Nursing Homes

Nursing homes in the Long Island region reported the most difficulty recruiting occupational therapists and physical therapists, citing the shortage of them as the primary reason. Experienced RNs and LPNs were the most difficult to retain (Exhibit 75).

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

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	1.9	2.5	31%	31%	15%	15%
Clerical	1.6	1.4	0%	8%	15%	8%
Dietitians/Nutritionists	2.5	1.8	15%	15%	31%	8%
Licensed Practical Nurses	2.3	2.6	38%	38%	46%	15%
Occupational Therapists	3.5	2.2	69%	31%	46%	8%
Physical Therapists	3.3	2.2	62%	31%	38%	8%
Registered Nurses						
- <i>Experienced</i>	2.9	2.8	54%	46%	38%	0%
- <i>Newly-trained</i>	1.9	2.4	23%	38%	31%	0%
Respiratory Therapists	1.8	1.5	15%	15%	8%	0%
Social Workers						
- <i>LCSWs</i>	2.3	1.6	15%	8%	23%	8%
- <i>LMSWs</i>	2.2	2.2	8%	15%	46%	8%

Other information reported by nursing homes in the Long Island region includes:

- 31% of the nursing homes in the Long Island region cited difficulty hiring workers for off-shifts.
- 23% reported difficulty hiring part-time employees.
- 23% indicated difficulty in hiring bilingual workers, including Spanish, French Creole, and Polish speakers.
- 15% of nursing homes the Long Island region reported an expected expansion of services in the near future, with a need for physical therapists, clinical laboratory technicians, RNs, and occupational therapists.
- 15% also expected a reduction of services in the near future with support staff, physical therapists, CNAs, and dietitians being affected.

According to 23% of the nursing homes in the Long Island region, the economic downturn resulted in worker layoffs, with housekeepers, physical therapists, CNAs, support staff, managers, and dietary workers being affected.

Home Health Agencies

Home health agencies in the Long Island region reported the most difficulty recruiting and recruiting occupational therapists, dietitians/ nutritionists, and speech-language pathologists (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 Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	4.5	3.5	33%	0%	33%	0%
Home Health Aides	1.5	1.5	0%	0%	0%	0%
Licensed Practical Nurses	1.0	1.0	0%	0%	0%	0%
Occupational Therapists	5.0	3.5	0%	33%	0%	33%
Personal Care Aides/Homemakers	0.0	1.5	0%	0%	0%	0%
Physical Therapists	3.5	3.0	0%	33%	0%	0%
Registered Nurses						
- <i>Experienced</i>	3.0	2.7	0%	67%	33%	0%
- <i>Newly-trained</i>	0.7	0.0	0%	0%	0%	0%
Respiratory Therapists	0.0	0.0	0%	0%	0%	0%
Social Workers						
- <i>LMSWs</i>	1.7	0.7	33%	0%	0%	0%
- <i>LCSWs</i>	2.3	1.0	33%	0%	0%	33%
Speech-Language Pathologists	4.5	3.5	33%	33%	0%	33%

Other information reported by home health agencies in the Long Island region includes:

- 33% of the home health agencies in the Long Island region reported difficulty hiring workers for off-shifts.
- 67% reported difficulty hiring part-time employees.
- 67% indicated difficulty in hiring bilingual workers, including those who speak Spanish or Russian.
- 67% of home health agencies reported an expected expansion of services in the near future, with occupational therapists and physical therapists being needed.

One-third of home health agencies in the Long Island region reported that the economic downturn resulted in worker layoffs with clerical workers being affected.

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 nearly 11% between 2003 and 2008 adding slightly more than 2,700 jobs. Employment in all health care settings rose, with jobs in ambulatory care increasing by almost 30% between 2003 and 2008 and jobs in home health care settings growing by 25% during the same time period (Exhibit 78).

Exhibit 78
Number of Workers by Health Care Setting in the Mohawk Valley Region
Between 2003 and 2008

Setting	2003	2004	2005	2006	2007	2008	Change between 2003 and 2008	
							Number	Percent
Hospitals	11,621	11,654	11,777	12,715	12,078	12,318	697	6.0%
Ambulatory Care (Excluding Home Health)	5,056	5,257	5,361	5,430	6,380	6,545	1,489	29.5%
Nursing Home and Personal Care Facilities	8,267	8,171	8,437	8,434	8,506	8,531	264	3.2%
Home Health Care Services	1,129	1,172	1,331	1,398	1,404	1,410	281	24.9%
Totals	26,073	26,254	26,907	27,976	28,368	28,805	2,731	10.5%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2004 and 2008, the number of physician assistants in the Mohawk Valley region increased by 26%. Additionally, the number speech-language pathologists, respiratory therapists, social workers, physical therapists, and nurse practitioners all experienced double-digit growth during the same time period. The number of occupational therapy assistants declined by more than by 16% between 2004 and 2008, while the number of occupational therapists grew by less than 1% during the same period (Exhibit 79).

Exhibit 79
Change in the Number of Individuals in Selected Health Occupations
in the Mohawk Valley Region, 2004 - 2008

Occupation	2004	2005	2006	2007	2008	Change between 2004 and 2008	
						Number	Percent
Physician Assistants	123	127	137	151	155	32	26.0%
Speech-Language Pathologists	172	180	186	188	201	29	16.9%
Respiratory Therapists	147	152	155	156	170	23	15.6%
Social Workers	531	550	604	601	610	79	14.9%
Physical Therapists	280	285	304	314	316	36	12.9%
Nurse Practitioners	341	361	368	379	379	38	11.1%
Dietitians/Nutritionists	80	78	86	88	87	7	8.8%
Physical Therapy Assistants	191	188	187	195	205	14	7.3%
Pharmacists	417	421	423	428	436	19	4.6%
Registered Nurses	6,262	6,289	6,316	6,460	6,469	207	3.3%
Licensed Practical Nurses	3,493	3,510	3,527	3,504	3,592	99	2.8%
Dental Hygienists	245	251	247	250	249	4	1.6%
Occupational Therapists	293	311	303	306	295	2	0.7%
Occupational Therapy Assistants	196	185	179	178	164	-32	-16.3%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

The response rates for hospitals in the Mohawk Valley and North Country regions were too low to analyze separately, and so the responses for Mohawk Valley and North Country regions were combined.

Hospitals in the Mohawk Valley and North Country region reported the most difficulty recruiting clinical lab technicians and technologists, followed by pharmacists, experienced RNs, and physical therapists. Retention was most problematic for patient care technicians/CNAs, followed by clinical lab technicians and technologists (Exhibit 80).

Exhibit 80
Recruitment and Retention Difficulties for Hospitals in the Mohawk Valley and the North Country Regions

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reason for Difficulty			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Clinical Lab Technicians and Technologists	4.4	2.6	78%	67%	11%	22%
Dieticians/Nutritionists	2.3	1.8	11%	22%	0%	0%
License Practical Nurses	2.0	1.6	33%	33%	0%	11%
Licensed Clinical Social Workers	2.3	1.7	22%	11%	0%	0%
Mammographers	2.3	1.9	33%	11%	0%	0%
Medical Coders	2.6	1.9	44%	22%	11%	0%
Nuclear Medicine Technologists	2.5	1.9	44%	22%	11%	0%
Nurse Practitioners	2.8	1.8	67%	33%	11%	0%
Patient Care Technicians/ Certified Nursing Aides	2.4	3.1	0%	33%	11%	11%
Pharmacists	3.2	1.9	56%	78%	44%	22%
Physical Therapists	3.2	2.2	56%	44%	22%	0%
Physician Assistants	2.6	1.9	56%	33%	22%	0%
Registered Nurses						
-Experienced	3.2	2.3	44%	56%	22%	0%
-Newly-trained	1.4	2.4	11%	44%	0%	0%
Respiratory Therapists	2.3	2.1	33%	56%	33%	0%
Sonographers	2.6	1.9	22%	11%	0%	0%
X-ray Technicians	2.0	1.7	22%	11%	0%	0%

According to the hospitals in the Mohawk Valley and North Country regions, the economic downturn has had the following effects:

- 33% of the hospitals indicated that the overall supply of health workers decreased due to the economic downturn and another 67% reported no change.
- 44% of hospitals indicated a decrease in the number of health worker retirements and another 56% reported no change.
- 22% of hospitals reported having to lay off people as a result of the economic downturn, with the majority of the layoffs affecting LPNs, CNAs, radiology technicians, and medical coders.

Nursing Homes

Nursing homes in the Mohawk Valley reported difficulty recruiting physical therapists, with the competition for them cited as the main reason for this difficulty. LPNs were the most difficult to retain. Experienced RNs were also difficult to recruit and retain, with the competition for them indicated as the primary reason for these difficulties (Exhibit 81).

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

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	2.4	2.7	27%	40%	13%	0%
Clerical	1.7	1.9	7%	0%	0%	0%
Dietitians/Nutritionists	2.1	1.5	33%	20%	13%	7%
Licensed Practical Nurses	3.2	2.9	33%	40%	33%	0%
Occupational Therapists	3.4	2.3	33%	47%	40%	0%
Physical Therapists	3.7	2.5	47%	53%	40%	0%
Registered Nurses						
- <i>Experienced</i>	3.5	2.7	27%	60%	47%	0%
- <i>Newly-trained</i>	2.9	2.1	20%	60%	33%	0%
Respiratory Therapists	0.7	0.5	0%	20%	0%	0%
Social Workers						
- <i>LCSWs</i>	2.1	1.3	20%	27%	27%	0%
- <i>LMSWs</i>	1.7	1.0	20%	20%	27%	0%

Other information reported nursing homes in the Mohawk Valley region includes:

- Nearly half reported difficulty hiring workers for off-shifts.
- Nearly half indicated difficulty hiring part-time employees.
- 27% reported difficulty in hiring Spanish-speaking bilingual workers.
- 27% indicated an expected expansion of services in the near future, with nursing aides, dietary workers, laundry workers, RNs, LPNs, and CNAs being needed.

- 20% reported an expected reduction of services in the near future with clerical workers and other non-patient care positions being affected.

Home Health Agencies

The response rates for home health agencies in the Capital District and Mohawk Valleys were too low to analyze separately, and so the responses for them were combined. Experienced RNs were the most difficult to recruit for and were difficult to retain. Licensed clinical social workers were also difficult to recruit, with 60% of home health agencies noting a shortage of these social workers. Speech-language pathologists were the most difficult to retain, followed by dietitians/nutritionists and experienced RNs (Exhibit 82).

Exhibit 82
Recruitment and Retention Difficulties for Home Health Agencies
in the Capital District and Mohawk Valley Regions

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	3.1	2.4	20%	0%	20%	0%
Home Health Aides	2.0	1.7	40%	20%	40%	0%
Licensed Practical Nurses	2.2	1.7	20%	0%	20%	0%
Occupational Therapists	2.6	1.9	20%	0%	20%	0%
Personal Care Aides/Homemakers	0.5	0.8	20%	0%	20%	0%
Physical Therapists	2.7	1.5	40%	0%	40%	0%
Registered Nurses						
- <i>Experienced</i>	3.3	2.4	20%	40%	40%	0%
- <i>Newly-trained</i>	1.7	1.9	0%	20%	20%	0%
Respiratory Therapists	1.0	0.9	0%	0%	0%	0%
Social Workers						
- <i>LCSWs</i>	3.2	1.9	60%	20%	40%	0%
- <i>LMSWs</i>	2.8	1.8	40%	0%	20%	0%
Speech-Language Pathologists	1.8	3.8	20%	0%	0%	0%

Other information reported by nursing homes in the Capital District and Mohawk Valley regions includes:

- 40% of home health agencies reported difficulty hiring workers for off-shifts.
- 40% also reported difficulties hiring Spanish-speaking bilingual workers.
- 40% of the programs indicated planning a service expansion and a need for RNs, LPNs, various therapeutic titles.

According to 80% of home health agencies in the Capital District and Mohawk Valley regions, the economic downturn has resulted in worker layoffs, including RNs, medical billers, and support staff.

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 slightly more than 1% between 2003 and 2008, adding nearly 190 jobs. Employment in ambulatory care increased by more than 250 jobs, or by 6%, while employment in home health care services grew by 35 jobs, or 6%, during the same period. Jobs in nursing home and personal care facilities declined by 6% between 2003 and 2008 or by nearly 200 (Exhibit 84).

Exhibit 84
Number of Workers by Health Care Setting in the North Country Region
Between 2003 and 2008

Setting	2003	2004	2005	2006	2007	2008	Change between 2003 and 2008	
							Number	Percent
Hospitals	8,386	8,386	8,447	8,471	8,320	8,481	95	1.1%
Ambulatory Care (Excluding Home Health)	4,190	4,260	4,271	4,351	4,319	4,441	252	6.0%
Nursing Home and Personal Care Facilities	3,014	3,142	3,065	2,945	2,827	2,822	-192	-6.4%
Home Health Care Services	553	585	606	632	627	588	35	6.3%
Totals	16,142	16,373	16,389	16,400	16,093	16,332	189	1.2%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2004 and 2008, the number of occupational therapy assistants in the North Country region increased by more than 29%, while the number of physician assistants grew by 24%. The number of physical therapy assistants (15%), respiratory therapists (13%), social workers (11%), physical therapists (11%), and speech-language pathologists (10%) all experienced double-digit increases. The number of dietitians/nutritionists and the number of dental hygienists decreased slightly between 2004 and 2008 (Exhibit 85).

Exhibit 85
Change in the Number of Licensed Health Care Occupations
in the North Country Region, 2004 - 2008

Occupation	2004	2005	2006	2007	2008	Change between 2004 and 2008	
						Number	Percent
Occupational Therapy Assistants	65	66	72	83	84	19	29.2%
Physician Assistants	145	158	168	174	180	35	24.1%
Physical Therapy Assistants	131	131	147	151	150	19	14.5%
Respiratory Therapists	61	64	67	66	69	8	13.1%
Social Workers	307	321	441	448	342	35	11.4%
Physical Therapists	250	257	258	270	278	28	11.2%
Speech-Language Pathologists	182	184	191	198	201	19	10.4%
Nurse Practitioners	185	190	195	197	203	18	9.7%
Licensed Practical Nurses	2,424	2,488	2,493	2,507	2,607	183	7.5%
Pharmacists	294	294	299	344	316	22	7.5%
Registered Nurses	4,636	4,665	4,225	4,870	4,878	242	5.2%
Occupational Therapists	120	123	119	119	123	3	2.5%
Dental Hygienists	196	200	194	195	195	-1	-0.5%
Dietitians/Nutritionists	78	77	76	75	74	-4	-5.1%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

The response rates for hospitals in the North Country and Mohawk regions were too low to analyze separately, and so the responses these two regions were combined.

Hospitals in the North Country and Mohawk Valley regions reported the most difficulty recruiting clinical lab technicians and technologists, followed by pharmacists, experienced RNs, and physical therapists. Retention was most problematic for patient care technicians/CNAs, followed by clinical lab technicians and technologists (Exhibit 86).

Exhibit 86
Recruitment and Retention Difficulties for Hospitals
in the Mohawk Valley and North Country Region

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reason for Difficulty			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Clinical Lab Technicians and Technologists	4.4	2.6	78%	67%	11%	22%
Dietitians/Nutritionists	2.3	1.8	11%	22%	0%	0%
License Practical Nurses	2.0	1.6	33%	33%	0%	11%
Licensed Clinical Social Workers	2.3	1.7	22%	11%	0%	0%
Mammographers	2.3	1.9	33%	11%	0%	0%
Medical Coders	2.6	1.9	44%	22%	11%	0%
Nuclear Medicine Technologists	2.5	1.9	44%	22%	11%	0%
Nurse Practitioners	2.8	1.8	67%	33%	11%	0%
Patient Care Technicians/ Certified Nursing Aides	2.4	3.1	0%	33%	11%	11%
Pharmacists	3.2	1.9	56%	78%	44%	22%
Physical Therapists	3.2	2.2	56%	44%	22%	0%
Physician Assistants	2.6	1.9	56%	33%	22%	0%
Registered Nurses						
-Experienced	3.2	2.3	44%	56%	22%	0%
-Newly-trained	1.4	2.4	11%	44%	0%	0%
Respiratory Therapists	2.3	2.1	33%	56%	33%	0%
Sonographers	2.6	1.9	22%	11%	0%	0%
X-ray Technicians	2.0	1.7	22%	11%	0%	0%

According to the hospitals in the North Country and Mohawk Valley regions, the economic downturn has had the following effects:

- 33% of the hospitals indicated that the overall supply of health workers decreased due to the economic downturn and another 67% reported no change.
- 44% of hospitals indicated a decrease in the number of health worker retirements and another 56% reported no change.
- 22% of hospitals reported layoffs as a result of the economic downturn, with the majority of the layoffs affecting LPNs, CNAs, radiology technicians, and medical coders.

Nursing Homes

Nursing homes in the North Country reported the most difficulty recruiting experienced RNs and difficulty retaining experienced RNs, with the shortage of and competition for them cited as the primary reasons. LPNs and newly-trained RNs were also difficult to recruit. CNAs were the most difficult to retain, with the competition for them cited as the primary reason but the shortage of them, salary levels, and working conditions also indicated as difficulties (Exhibit 87).

Exhibit 87
Recruitment and Retention Difficulties for Nursing Homes in the North Country

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	3.0	3.8	67%	83%	67%	67%
Clerical	2.7	2.0	0%	33%	17%	0%
Dietitians/Nutritionists	3.2	1.8	67%	33%	33%	17%
Licensed Practical Nurses	3.8	3.2	50%	67%	50%	50%
Occupational Therapists	3.2	2.2	67%	50%	33%	0%
Physical Therapists	3.3	3.2	67%	50%	33%	0%
Registered Nurses						
- <i>Experienced</i>	4.3	3.3	83%	83%	67%	33%
- <i>Newly-trained</i>	3.7	3.3	33%	50%	83%	33%
Respiratory Therapists	0.7	0.5	17%	17%	0%	0%
Social Workers						
- <i>LCSWs</i>	1.8	1.2	33%	33%	17%	0%
- <i>LMSWs</i>	1.8	1.2	33%	33%	17%	0%

Other information reported by nursing homes in the Northern Country region includes:

- 83% cited difficulty hiring workers for off-shifts.
- 33% reported difficulty hiring part-time employees.

According to 33% of nursing homes in the North Country region, the economic downturn resulted in worker layoffs, including clerical workers, maintenance workers, and housekeepers.

Home Health Agencies

Home health agencies in the North Country reported difficulty recruiting and retaining experienced RNs, with the competition for them cited as the primary reason. Social workers were also difficult to recruit and retain, with the shortage of them indicated as the main reason (Exhibit 88).

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

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	2.6	2.0	44%	33%	11%	11%
Home Health Aides	1.6	1.7	33%	11%	11%	11%
Licensed Practical Nurses	1.3	1.1	11%	11%	11%	0%
Occupational Therapists	2.2	1.6	33%	33%	0%	0%
Personal Care Aides/Homemakers	1.3	1.4	33%	11%	11%	11%
Physical Therapists	2.0	1.6	22%	22%	11%	11%
Registered Nurses						
- <i>Experienced</i>	3.4	2.3	44%	78%	44%	0%
- <i>Newly-trained</i>	1.4	1.4	22%	33%	22%	0%
Respiratory Therapists	1.4	1.1	11%	11%	0%	0%
Social Workers						
- <i>LMSWs</i>	3.1	2.1	67%	44%	22%	0%
- <i>LCSWs</i>	2.8	2.1	44%	33%	11%	0%

Other information reported by home health agencies in the Northern Country region includes:

- 11% reported difficulty hiring part-time employees.
- 44% indicated difficulty hiring off-shift workers.
- 11% reported difficulty in hiring Spanish-speaking bilingual workers.
- 11% indicated an expected service expansion in the near future with RNs and LPNs being needed.
- 11% also reported an expected service reduction in the near future with nursing positions and home health aides being affected.

According to 11% of home health agencies in the North Country region, the economic downturn resulted in the reduction of the hours of the existing workforce and the implementation of a hiring freeze.

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, the number of home health aides is projected to increase by 840 jobs (31%), with 110 average annual job openings (Exhibit 89).

Exhibit 89
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

Between 2003 and 2008, health sector employment throughout the Southern Tier region grew by nearly 1,750 jobs, or by over 6%. Employment in ambulatory care had the largest increase, growing by 612 jobs, or 9%, followed by employment in nursing home and personal care facilities which increased by almost 600 jobs or by 7% during the same period (Exhibit 90).

Exhibit 90
Number of Workers by Health Care Setting in the Southern Tier Region,
2003 and 2008

Setting	2003	2004	2005	2006	2007	2008	Change between 2003 and 2008	
							Number	Percent
Hospitals	12,162	12,009	12,022	12,112	12,371	12,672	511	4.2%
Ambulatory Care (Excluding Home Health)	6,980	7,121	7,198	7,069	7,463	7,593	612	8.8%
Nursing Home and Personal Care Facilities	8,155	8,301	8,192	8,301	8,360	8,747	592	7.3%
Home Health Care Services	979	1,076	1,122	1,114	1,032	1,013	33	3.4%
Totals	28,276	28,507	28,534	28,597	29,227	30,024	1,748	6.2%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2004 and 2008, the number of physician assistants licensed in the region grew by nearly 41%. Social workers (16%), occupational therapists (15%), speech-language pathologist (14%), nurse practitioners (13%), and physical therapists (11%) all experienced double-digit growth between 2004 and 2008. There was a slight decline in the occupational therapy assistants, pharmacists, and dietitians/nutritionists during the same period (Exhibit 91).

Exhibit 91
Change in the Number of Licensed Individuals in Selected Health Occupations
in the Southern Tier Region, 2004-2008

Occupation	2004	2005	2006	2007	2008	Change between 2004 and 2008	
						Number	Percent
Physician Assistants	138	154	172	181	194	56	40.6%
Social Workers	1,037	1,050	1,179	1,214	1,206	169	16.3%
Occupational Therapists	236	252	264	266	271	35	14.8%
Speech-Language Pathologists	269	278	277	293	307	38	14.1%
Nurse Practitioners	438	453	470	488	496	58	13.2%
Physical Therapists	392	400	420	428	434	42	10.7%
Respiratory Therapists	143	145	150	149	154	11	7.7%
Dental Hygienists	434	444	443	448	458	24	5.5%
Licensed Practical Nurses	2,882	2,914	2,946	2,963	3,032	150	5.2%
Physical Therapy Assistants	190	185	184	188	198	8	4.2%
Registered Nurses	7,281	7,327	7,374	7,534	7,564	283	3.9%
Dietitians/Nutritionists	143	137	137	143	138	-5	-3.5%
Pharmacists	452	439	449	445	436	-16	-3.5%
Occupational Therapy Assistants	59	54	55	54	53	-6	-10.2%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

The response rates for hospitals in Southern Tier and Central New York regions were too low to analyze separately, and so responses were aggregated for those two regions.

Hospitals in the Southern Tier and Central New York regions reported the most difficulty recruiting and retaining clinical lab technicians and technologists, with the competition for these professionals the principle reason. Hospitals also indicated a shortage of these workers as well as issues with salary levels. Physician assistants were also difficult to recruit, and medical coders, newly-trained RNs, and respiratory therapists were difficult to retain (Exhibit 56).

Exhibit 56
Recruitment and Retention Difficulties for Hospitals
in the Central New York and Southern Tier Regions

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reason for Difficulty			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Clinical Lab Technicians and Technologists	4.0	3.3	75%	100%	75%	0%
Dieticians/Nutritionists	1.0	1.0	0%	0%	0%	0%
License Practical Nurses	1.5	2.0	0%	25%	0%	0%
Licensed Clinical Social Workers	2.0	2.0	25%	0%	25%	0%
Mammographers	2.3	2.3	0%	25%	25%	0%
Medical Coders	3.0	2.7	50%	25%	0%	0%
Nuclear Medicine Technologists	2.3	2.3	0%	25%	25%	0%
Nurse Practitioners	3.3	2.0	50%	25%	25%	0%
Patient Care Technicians/ Certified Nursing Aides	2.3	2.3	25%	25%	0%	0%
Pharmacists	2.0	2.0	0%	0%	25%	0%
Physical Therapists	3.7	2.3	50%	75%	25%	0%
Physician Assistants	4.0	2.5	25%	50%	25%	0%
Registered Nurses						
-Experienced	3.0	2.3	0%	75%	50%	0%
-Newly-trained	2.7	2.7	0%	50%	25%	0%
Respiratory Therapists	3.7	2.7	50%	75%	50%	0%
Sonographers	2.3	2.3	0%	25%	25%	0%
X-ray Technicians	2.3	2.3	0%	25%	25%	0%

According to the hospitals in the Central New York and Southern Tier regions, the economic downturn has had the following effects:

- 25% of the hospitals indicated that the overall supply of health workers decreased due to the economic downturn and another 75% reported no change.
- 50% of hospitals reported that health worker turnover decreased and another 50% reported no change in turnover.
- 25% of hospitals indicated a decrease in the number of health worker retirements and another 75% reported no change.

Nursing Homes

Nursing homes in the Southern Tier region reported the most difficulty recruiting experienced RNs and difficult retaining experienced RNs, citing the competition for them the primary reason. Nursing homes also reported difficult recruiting physical therapists and newly-trained RNs. CNAs were the most difficult to retain, with the competition for them was indicated as the main reason. Newly-trained RNs and LPNs were also difficult to retain (Exhibit 93).

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

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	3.2	3.6	50%	80%	30%	0%
Clerical	1.7	1.5	0%	10%	40%	10%
Dietitians/Nutritionists	2.0	1.4	20%	0%	10%	0%
Licensed Practical Nurses	3.0	3.1	30%	60%	40%	0%
Occupational Therapists	3.1	2.1	20%	70%	30%	0%
Physical Therapists	3.6	2.4	30%	70%	20%	0%
Registered Nurses						
- <i>Experienced</i>	4.2	3.5	60%	90%	60%	0%
- <i>Newly-trained</i>	3.6	3.2	40%	80%	30%	0%
Respiratory Therapists	1.9	1.0	20%	30%	30%	0%
Social Workers						
- <i>LCSWs</i>	2.2	2.2	10%	30%	30%	0%
- <i>LMSWs</i>	2.2	2.0	0%	20%	30%	0%

Other information reported by nursing homes in the Southern Tier region includes:

- 40% reported difficulty hiring workers for off-shifts.
- 40% indicated difficulty hiring part-time workers.

According to 40% of nursing homes in the Southern Tier region, the economic downturn resulted in worker layoffs, including supervisors, clerical workers, maintenance workers, transporters, and administrative workers.

Home Health Agencies

Home health agencies in the Southern Tier region reported difficulty in recruiting and retaining experienced RNs, citing the competition for them and salary levels as the primary reasons. Occupational therapists were also difficult to recruit and speech-language pathologists were also difficult to retain (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 Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	2.6	1.7	14%	14%	29%	14%
Home Health Aides	1.9	1.1	29%	29%	14%	14%
Licensed Practical Nurses	2.6	0.6	29%	14%	43%	14%
Occupational Therapists	3.4	1.7	57%	43%	29%	14%
Personal Care Aides/Homemakers	2.1	1.9	14%	0%	14%	0%
Physical Therapists	3.1	2.1	43%	29%	43%	29%
Registered Nurses						
- <i>Experienced</i>	4.4	3.1	6%	86%	71%	29%
- <i>Newly-trained</i>	2.7	2.1	14%	43%	43%	14%
Respiratory Therapists	2.3	1.5	29%	14%	14%	0%
Social Workers						
- <i>LCSWs</i>	2.4	1.6	14%	29%	29%	29%
- <i>LMSWs</i>	3.1	2.1	14%	43%	43%	14%
Speech-Language Pathologists	2.9	2.3	57%	57%	29%	43%

Other information reported by home health agencies in the Southern Tier region includes:

- 43% reported difficulty hiring off-shift workers.
- 43% indicated difficulty hiring part-time workers.
- 57% reported difficulty hiring Spanish-speaking bilingual workers.
- 29% indicated a planned expansion of services in the near future with a need for home health aides, RNs, LPNs and in therapy positions.
- 29% reported a planned service reduction in the near future with nursing positions being affected.
- 43% of agencies indicated that the economic downturn increased the demand for services.

4. Employment Projections by Health Occupation

The NYS DOL estimated that between 2006 and 2016, the number of RN jobs in the Finger Lakes region will increase by 790 jobs, with an average of 170 job openings per year. During this same period, there will be an average of 100 job openings for home health aides, and an average of 90 job openings for LPNs. The total number of medical assistant jobs is projected to increase by nearly 41% 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

Between 2003 and 2008, health sector employment throughout the Western New York region grew by more than 2,200 jobs, or 3%. This increase was led by job growth in ambulatory care (16%) and home health care services (9%). Employment in nursing home and personal care facilities declined by more than 5% during the same period, however, with a reduction of over 1,000 jobs (Exhibit 96).

Exhibit 96
Number of Workers by Health Care Setting in Western New York Region
Between 2003 and 2008

Setting	2003	2004	2005	2006	2007	2008	Change between 2003 and 2008	
							Number	Percent
Hospitals	28,088	28,239	27,302	27,221	27,170	27,846	-242	-0.9%
Ambulatory Care (Excluding Home Health)	19,260	20,094	20,944	21,216	21,681	22,372	3,111	16.2%
Nursing Home and Personal Care Facilities	19,245	19,556	19,725	19,413	19,193	18,217	-1,028	-5.3%
Home Health Care Services	4,216	4,563	4,616	4,552	4,549	4,591	375	8.9%
Totals	70,809	72,451	72,587	72,402	72,593	73,025	2,216	3.1%

Source: NYS Department of Labor, ES-202

2. Licensed Health Professionals

Between 2004 and 2008, dietitians/nutritionists had the largest percent increase, growing by nearly 32%. The number of social workers and the number of speech-language pathologists grew by 13% and 11%, respectively. While RNs declined by only 3% between 2004 and 2008, this represented a loss of newly licensed individuals. The number of occupational therapy assistants and the number of LPNs also declined between 2004 and 2008 (Exhibit 97).

Exhibit 97
Change in the Number of Licensed Individuals in Selected Health Occupations
in Western New York, 2004 - 2008

Occupation	2004	2005	2006	2007	2008	Change between 2004 and 2008	
						Number	Percent
Physician Assistants	404	437	462	495	532	128	31.7%
Nurse Practitioners	912	977	993	1,063	1,079	167	18.3%
Social Workers	1,576	1,638	2,093	2,219	1,786	210	13.3%
Speech-Language Pathologists	913	950	973	1,009	1,017	104	11.4%
Dental Hygienists	961	975	994	1,036	1,045	84	8.7%
Physical Therapy Assistants	261	265	269	267	279	18	6.9%
Pharmacists	1,455	1,447	1,498	1,658	1,545	90	6.2%
Respiratory Therapists	406	411	409	419	428	22	5.4%
Dietitians/Nutritionists	292	294	303	312	306	14	4.8%
Physical Therapists	1,181	1,203	1,214	1,236	1,235	54	4.6%
Occupational Therapists	740	732	737	748	760	20	2.7%
Licensed Practical Nurses	7,149	6,944	6,968	6,926	7,085	-64	-0.9%
Occupational Therapy Assistants	631	612	600	607	613	-18	-2.9%
Registered Nurses	18,603	18,088	17,817	18,046	18,011	-592	-3.2%

Source: NYS Education Department, Office of Professions

3. Demand for Health Workers

Hospitals

Hospitals in the Western New York region reported the most difficulty recruiting nuclear medicine technologists, citing a shortage of them and competition for them as the primary reasons. Nurse practitioners, X-ray technicians, mammographers, experienced RNs, and sonographers were also difficult to recruit. Retention was most problematic for patient care technicians and CNAs, with the competition for them indicated as the primary reason for this difficulty. Nuclear medicine technologists, physician assistants, and sonographers were also difficult to retain (Exhibit 98).

Exhibit 98
Recruitment and Retention Difficulties for Hospitals in the Western New York Region

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reason for Difficulty			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Clinical Lab Technicians and Technologists	2.9	2.7	55%	100%	0%	9%
Dietitians/Nutritionists	3.0	2.3	55%	9%	0%	0%
License Practical Nurses	1.9	1.2	36%	36%	0%	0%
Licensed Clinical Social Workers	2.3	2.4	0%	45%	0%	0%
Mammographers	3.6	2.1	45%	45%	0%	0%
Medical Coders	2.4	2.3	55%	45%	0%	0%
Nuclear Medicine Technologists	4.1	2.9	45%	45%	0%	0%
Nurse Practitioners	3.8	2.1	91%	91%	91%	0%
Patient Care Technicians/ Certified Nursing Aides	1.9	3.3	9%	55%	0%	0%
Pharmacists	3.1	1.3	18%	55%	45%	0%
Physical Therapists	2.9	1.6	36%	82%	0%	0%
Physician Assistants	3.1	2.9	55%	55%	55%	0%
Registered Nurses						
-Experienced	3.6	2.3	55%	91%	0%	0%
-Newly-trained	2.1	2.4	0%	55%	0%	0%
Respiratory Therapists	2.3	2.3	55%	9%	0%	0%
Sonographers	3.6	2.9	45%	45%	0%	0%
X-ray Technicians	3.7	2.1	45%	45%	0%	0%

According to the hospitals in the Southern Tier and Central New York regions, the economic downturn has had the following effects:

- 82% of hospitals reported that health worker turnover decreased and another 18% reported no change in turnover.
- 82% of hospitals indicated a decrease in the number of health worker retirements and another 18% reported no change.
- Nearly half of hospitals reported layoffs as a result of the economic downturn, including RNs, LPNs, nurse practitioners, and physical therapists.

Nursing Homes

Nursing homes in the Western New York region reported the most difficulty recruiting and retaining experienced RNs, with the shortage of them and salary levels as the primary reasons cited for these difficulties. LPNs were also difficult to recruit, with the competition for them indicated as the primary reason. Newly-trained RNs, LPNs, and CNAs, were also difficult to retain (Exhibit 99).

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

Occupation	Average Assessment of Difficulty		Percent of Respondents Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Certified Nursing Aides	2.4	3.1	22%	56%	56%	0%
Clerical	1.6	1.4	0%	22%	44%	0%
Dietitians/Nutritionists	2.8	1.7	0%	22%	44%	0%
Licensed Practical Nurses	3.6	3.3	56%	67%	33%	0%
Occupational Therapists	3.4	2.9	44%	56%	44%	0%
Physical Therapists	3.3	2.9	44%	56%	44%	11%
Registered Nurses						
-Experienced	4.2	3.6	67%	56%	67%	0%
-Newly-trained	3.2	3.4	33%	67%	67%	11%
Respiratory Therapists	0.8	0.7	11%	11%	0%	0%
Social Workers						
-LCSWs	2.1	1.8	0%	22%	22%	0%
-LMSWs	2.4	2.1	0%	22%	33%	0%

Other information reported by nursing homes in the Western New York region includes:

- Two-thirds reported difficulty hiring workers for off-shifts.
- 44% indicated difficulty hiring part-time workers.
- 22% reported anticipated service reductions in the near future with CNAs, physical therapists, and social workers being affected.

Home Health Agencies

Home health agencies in the Western New York region reported the most difficulty recruiting experienced RNs, with working conditions cited as the primary reason for this difficult. Home health aides were also difficult to recruit and were the most difficult to retain. Experienced RNs and social workers were also difficult to retain (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 Indicating Reasons for Difficulties			
	Recruitment	Retention	Shortage of Workers	Competition for Workers	Salary Levels	Working Conditions
Dietitians/Nutritionists	2.0	2.2	14%	0%	14%	14%
Home Health Aides	3.2	3.4	29%	43%	43%	43%
Licensed Practical Nurses	2.6	2.2	29%	29%	14%	43%
Occupational Therapists	2.4	2.0	29%	14%	29%	43%
Personal Care Aides/Homemakers	1.6	1.4	14%	29%	29%	29%
Physical Therapists	2.0	1.4	29%	43%	14%	14%
Registered Nurses						
- <i>Experienced</i>	3.6	2.6	6%	29%	29%	43%
- <i>Newly-trained</i>	1.8	1.6	14%	14%	14%	29%
Respiratory Therapists	1.3	0.8	14%	0%	14%	0%
Social Workers						
- <i>LCSWs</i>	1.8	2.0	0%	0%	0%	14%
- <i>LMSWs</i>	2.4	2.6	14%	1%	14%	14%
Speech-Language Pathologists	1.8	1.2	14%	0%	14%	0%

Other information reported by home health agencies in the Western New York region includes:

- 43% reported difficulty hiring for off-shifts.
- 43% indicated difficulty hiring part-time workers.
- 57% reported difficulty hiring Spanish-speaking bilingual workers.
- 29% indicated a planned expansion of services in the near future with a need for home health aides, RNs, LPNs, and various therapy positions.
- 40% of the home health agencies reported that the economic downturn increased the supply of workers.

4. Projected Demand for Health Occupations

The NYS DOL estimated that between 2006 and 2016, the number of RN jobs in the Western New York region will increase by 1,660 jobs, with an average of 410 job openings per year. During this same period, there will be an average of 250 job openings for home health aides and 210 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

VI. APPENDIX A: Trends in New York Registered Nursing Graduations, 1996 – 2009

Trends in New York Registered Nursing Graduations, 1996 – 2010

January 2010

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PREFACE

This report summarizes the results of the 2009 survey of New York registered nursing education programs, which was conducted by the New York Center for Health Workforce Studies (the Center). Deans and program directors 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 their assessment of 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 ninth annual survey of nursing education programs in New York and was conducted during the spring and summer of 2009.

This report was prepared by Robert Martiniano, Alison Bates, and Jean Moore from the Center. The Center is not-for-profit research center of the School of Public Health, University at Albany, State University of New York. The Center's mission is to provide timely accurate data and conduct policy-relevant research about the health workforce. 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, or the State University of New York.

BACKGROUND

The Center for Health Workforce Studies (the Center) surveys deans and program directors of registered nursing education programs in New York annually to better understand trends affecting the production of RNs in the state. The most recent survey was conducted in the spring and summer of 2009. The survey included questions about applications, acceptances, and graduations for 2008 as well as projected graduations through 2010. The survey also asked about barriers to admitting more students and perceptions about the local job market for new RNs. This report summarizes the findings from the 2009 survey.

Of the 115 nursing programs in New York, 107 responded to the survey for a 93% response rate. Data for the eight nonrespondents were imputed from responses to previous surveys; consequently, the following data reflect estimated enrollments and graduations for all registered nursing programs in the state. Not all RN graduations represent new RNs, however, as many RNs who have completed associate degrees (ADN) or diplomas in nursing return to school for bachelor's degrees in nursing (BSN). Based on survey responses, the Center estimates that approximately 26% of 2009 BSN graduates were already licensed RNs. Consequently, approximately 11% of all 2009 RN graduates in the state were already licensed as RNs.

While not every RN educated in New York practices 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 York.¹

¹ 2004 National Sample Survey of Registered Nurses.

FINDINGS

Summary of Findings

RN graduations in New York increased in 2009, rising by 762 or by nearly 9% over 2008 graduations, the seventh consecutive annual increase. Additionally, RN graduations are expected to continue to rise in 2010, with total graduations projected to be just over 15% higher than graduations in 2008, the previous high point for RN graduations in New York.

While graduations continue to rise, the current economic downturn has adversely impacted the job market for newly-trained RNs. In stark contrast to previous years, significantly fewer program directors reported many available job opportunities in their region for newly-trained RNs. While enrollments and graduations continue to increase, the perceived lack of available RN positions may result in a leveling off of RN graduations in the future.

Key Findings

- 1. For the seventh consecutive year, the number of RN graduates in New York in 2009 increased over the number of RN graduations in the previous year.**

It is estimated that nearly 9,300 individuals graduated from RN education programs in New York in 2009. This was the seventh successive year that RN graduations have increased, following six consecutive years of declines. The total graduations for 2009 represents an increase in RN graduations of nearly 81% since 2002 (Figure 1 and Table 1).

- 2. RN graduations in New York are projected to continue to rise in 2010.**

The number of RN graduations in New York in 2010 is expected to be almost 92% higher than the number of RN graduations in 2002. For the fourth consecutive year, the number of RN graduations eclipsed the previous high point of RN graduations in 1996 (Figure 1 and Table 1).

3. **Graduations in both ADN and BSN programs have steadily risen since 2003 with the exception of a slight decline in ADN graduations between 2007 and 2008. The number of graduations from both ADN and BSN programs in New York is projected to continue to rise between 2009 and 2010.**

In 2009, ADN and BSN graduations increased over 2008 graduations by 10% and 8% respectively. The number of graduations from both ADN and BSN programs are expected to continue to rise in 2010 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 2010

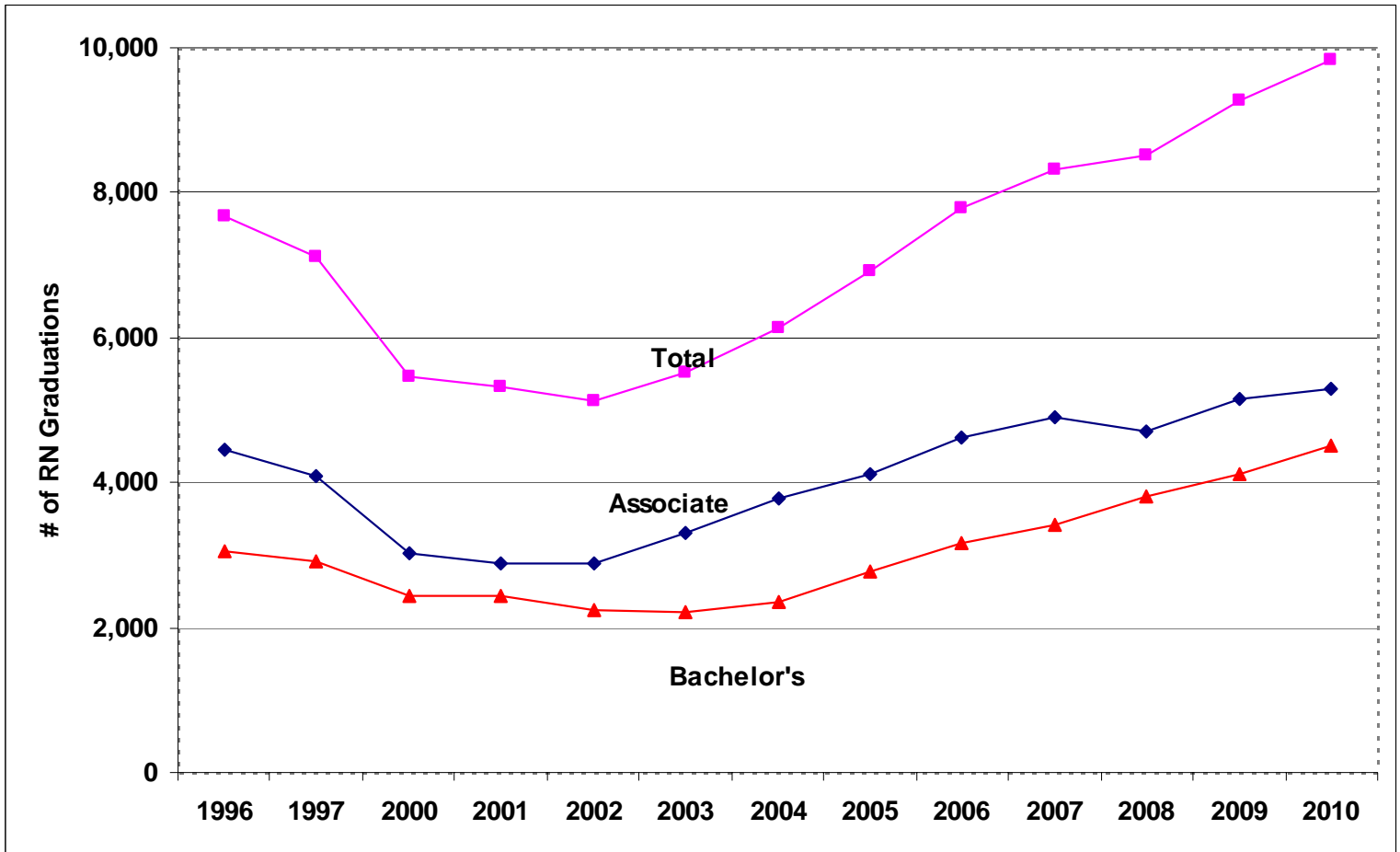


Table 1
New York RN Graduations by Degree Type, 1996 to 2010

School Year		Degree Type			Totals
		ADN	BSN	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
	2007	4,911	3,410	9	8,330
	2008	4,699	3,811	7	8,517
	2009	5,158	4,112	9	9,279
Projected Graduations	2010	5,299	4,509	12	9,820

4. Between 2002 and 2010, RN graduations are projected to increase in all regions of New York.

All regions² in New York are projected to experience significant increases in RN graduations between 2002 and 2010, ranging from nearly 17% in the North Country region to almost 160% in the Finger Lakes region. Two other regions are also projected to more than double their RN graduations between 2002 and 2010 (Southern Tier and Long Island). RN graduations in 2010 are projected to surpass 1996 RN graduations in eight of the 10 regions of the state (Figure 2 and Table 2).

² The 2008 New York State Department of Labor regions were used in this report.

Figure 2
Projected Percentage Increase in RN Graduations, 2002 – 2010, by Region

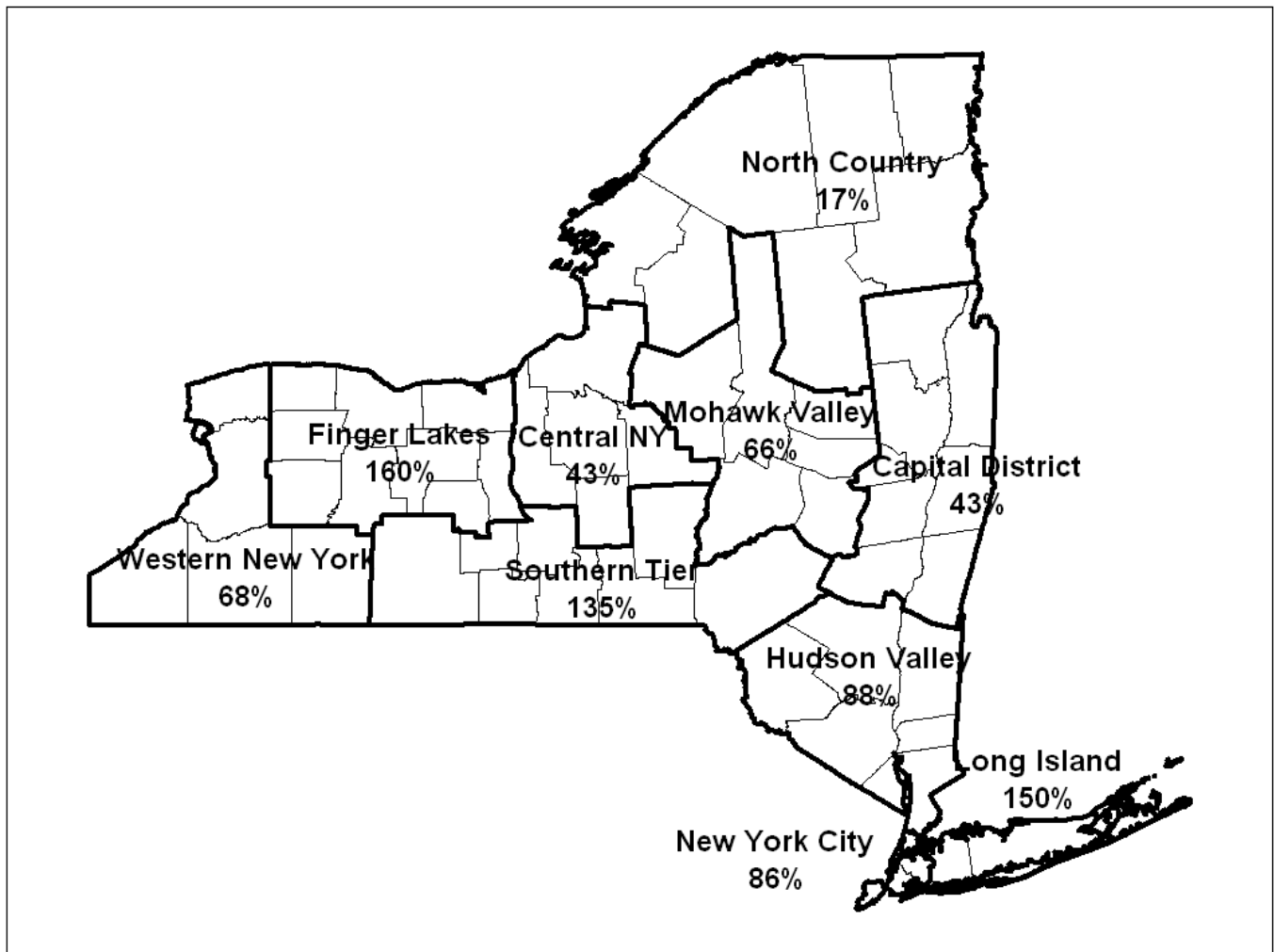


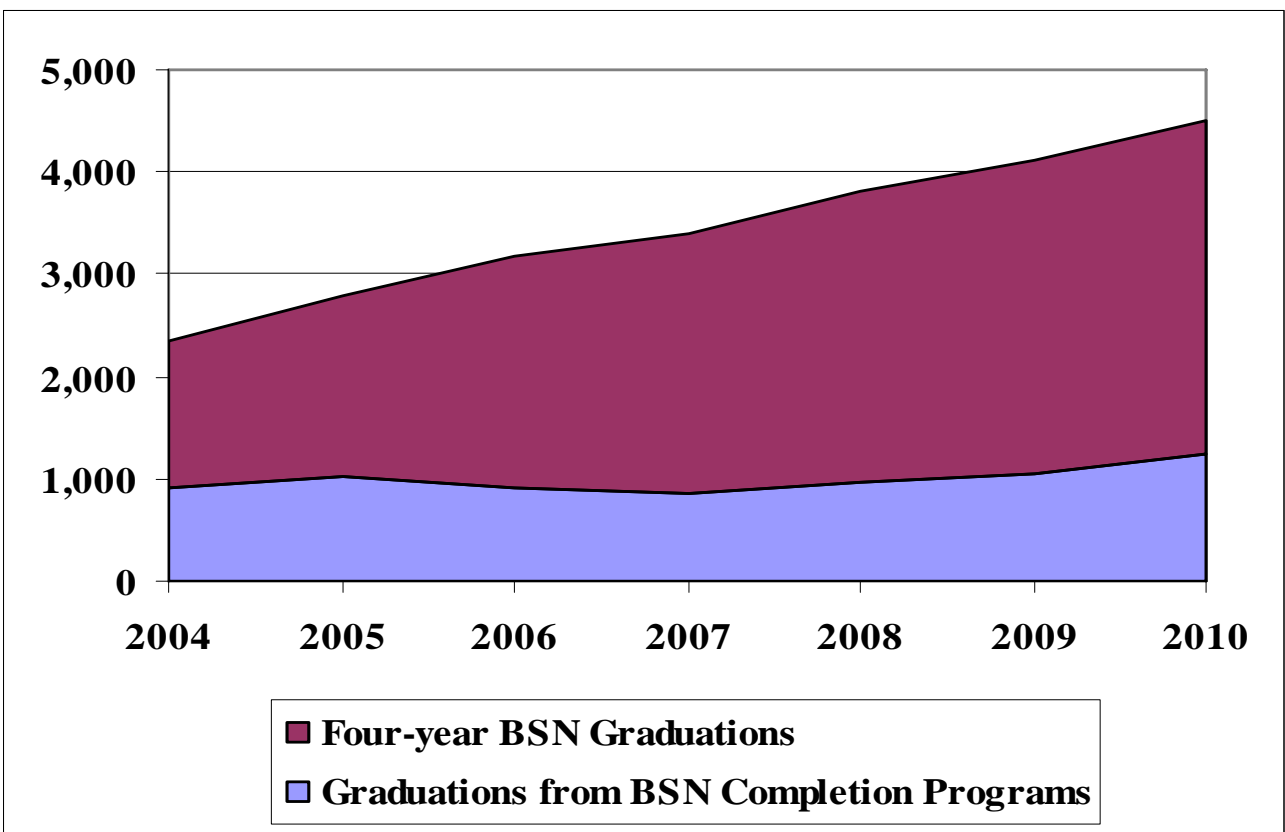
Table 2
Percent Change in the Number of RN Graduations by Region

Region	1996	2002	2003	2006	2007	2008	2009	2010 Projected	% Change		
									96 to 02	02 to 10	96 to 10
Capital District	404	358	395	458	456	449	465	511	-11.4%	42.7%	26.5%
Central New York	518	325	331	398	388	395	394	466	-37.3%	43.4%	-10.0%
Finger Lakes	518	385	431	657	698	793	880	999	-25.7%	159.5%	92.9%
Hudson Valley	1,058	616	689	1,045	1,005	1,053	1,103	1,157	-41.8%	87.8%	9.4%
Long Island	937	677	795	1,302	1,606	1,471	1,578	1,693	-27.7%	150.1%	80.7%
Mohawk Valley	299	210	226	305	284	330	338	349	-29.8%	66.2%	16.7%
New York City	2,258	1,544	1,605	2,244	2,438	2,584	2,791	2,867	-31.6%	85.7%	27.0%
North Country	232	170	166	227	208	161	185	198	-26.7%	16.5%	-14.7%
Southern Tier	377	236	335	462	490	470	514	555	-37.4%	135.2%	47.2%
Western New York	890	535	473	644	679	724	907	898	-39.9%	67.9%	0.9%

5. The number of graduates from BSN completion programs is projected to increase slightly between 2009 and 2010.

Between 2004 and 2010, the number of four-year BSN graduations is projected to more than double, increasing from 1,437 to 3,271. In addition, the number of graduations from BSN completion programs is expected to increase by nearly 37% over the same period. It is estimated that in 2010, BSN completers will represent almost 13% of all graduations (Figure 3). Most of the newly accredited nursing programs in New York are BSN completion programs, and, consequently, the proportion of BSN completers to all BSN graduates and to all RN graduates is likely to increase.

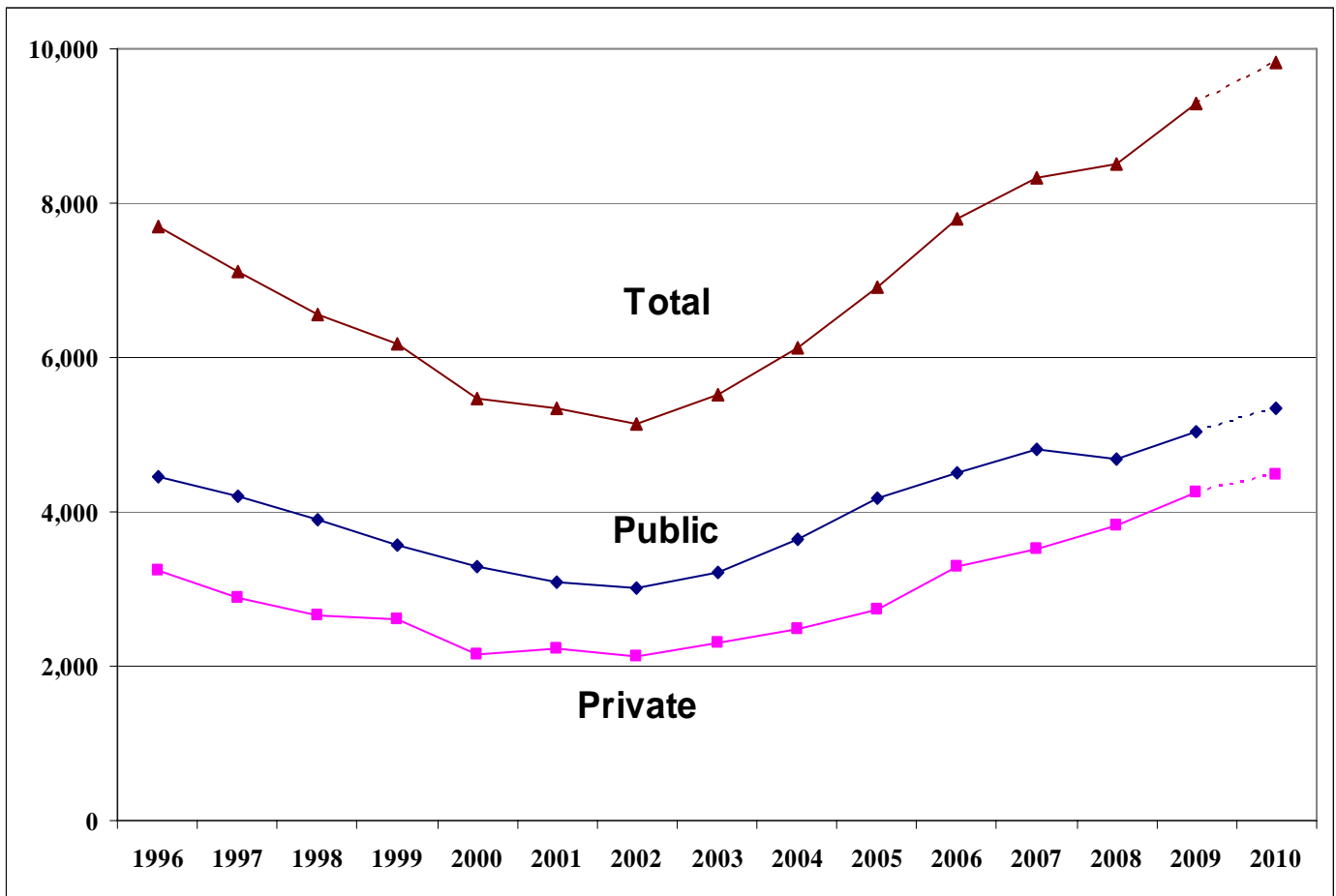
Figure 3
Graduations from BSN and BSN Completion Programs
2004-2010



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

Between 2002 and 2010, RN graduations from publicly sponsored programs – the State University of New York (SUNY) and the City University of New York schools (CUNY)) – are projected to increase by about 80% while RN graduations from privately sponsored programs (including hospital-run programs) are expected to grow by more than 110% (Figure 4).

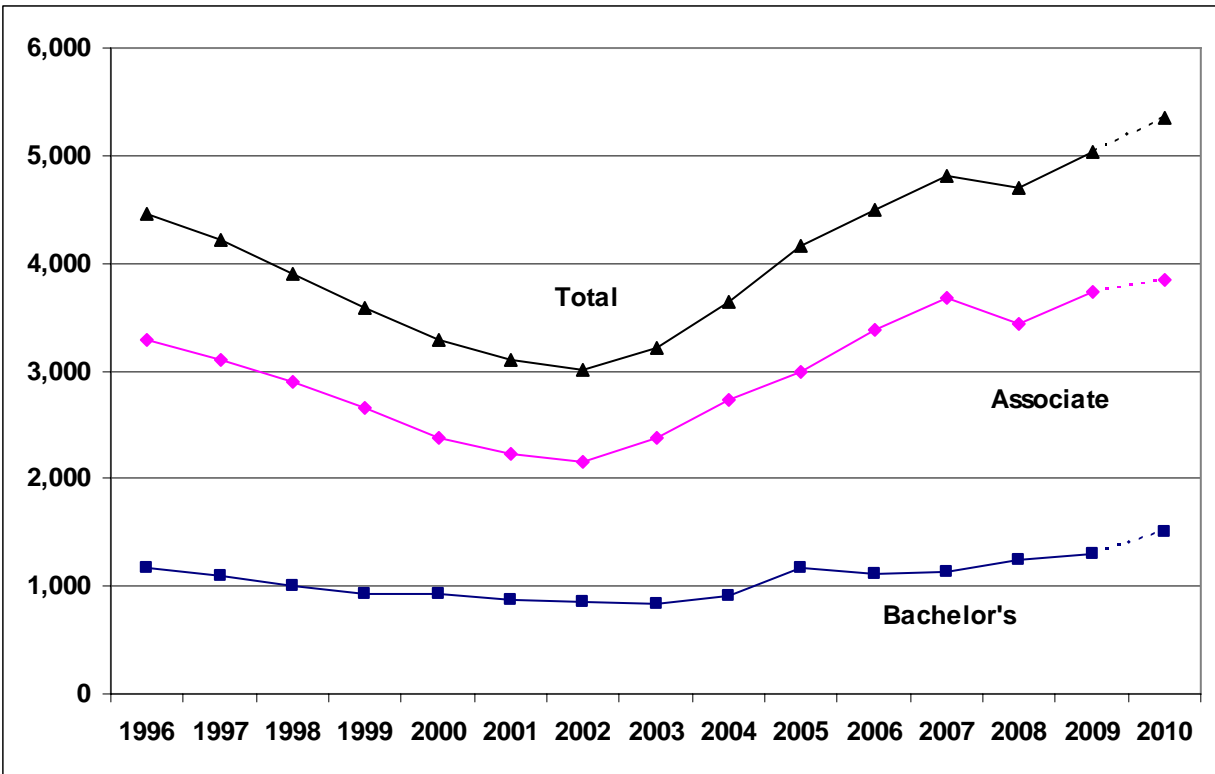
**Figure 4
Change in RN Graduations in Public and Private Nursing Programs, 1996 to 2010**



7. Graduations from publicly sponsored ADN programs are projected to increase by more than 1,700 between 2002 and 2010.

SUNY and CUNY sponsored ADN programs are projected to increase their graduations by slightly more than 1,700, or nearly 80% between 2002 and 2010. SUNY and CUNY sponsored BSN programs are projected to increase the number of their graduations by nearly 650, or 75%, during the same period (Figure 5).

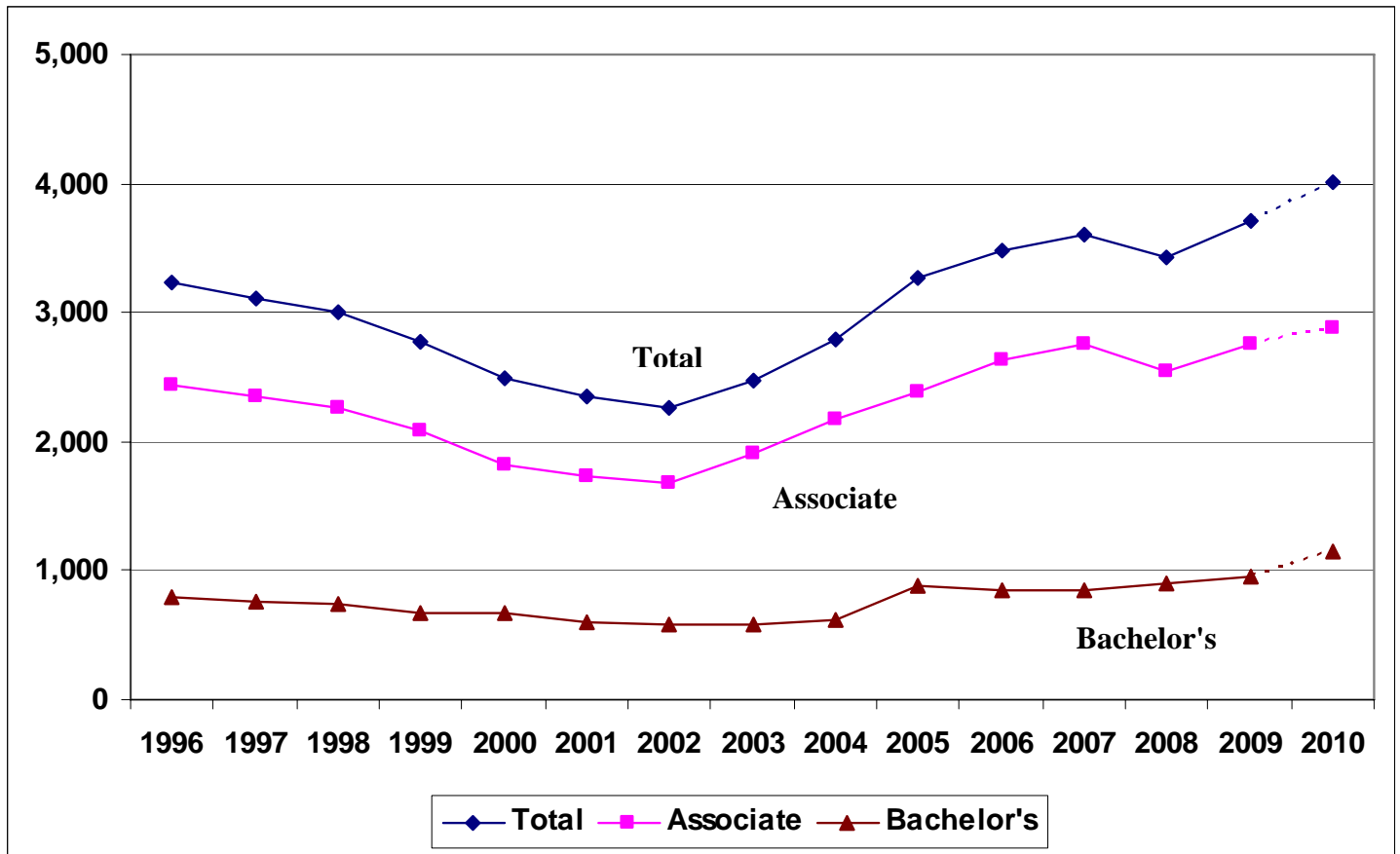
**Figure 5
Publicly Sponsored RN Graduations by Degree Type, 1996 to 2010**



8. Graduations from ADN programs at SUNY community colleges accounted for about 75% of total RN graduations in 2009 from SUNY sponsored programs.

In 2009, ADN graduations represented slightly more 74% of all graduations from SUNY sponsored RN education programs. It is projected that in 2010 ADN graduations will represent 71% of all graduations from SUNY sponsored RN education, the lowest proportion it has been since before 1996. SUNY sponsored BSN programs are projected to increase RN graduations by almost 94% between 2002 and 2010. All SUNY sponsored RN graduations (both ADN and BSN) are projected to be 20% higher in 2010 than they were in 1996 (Figure 6).

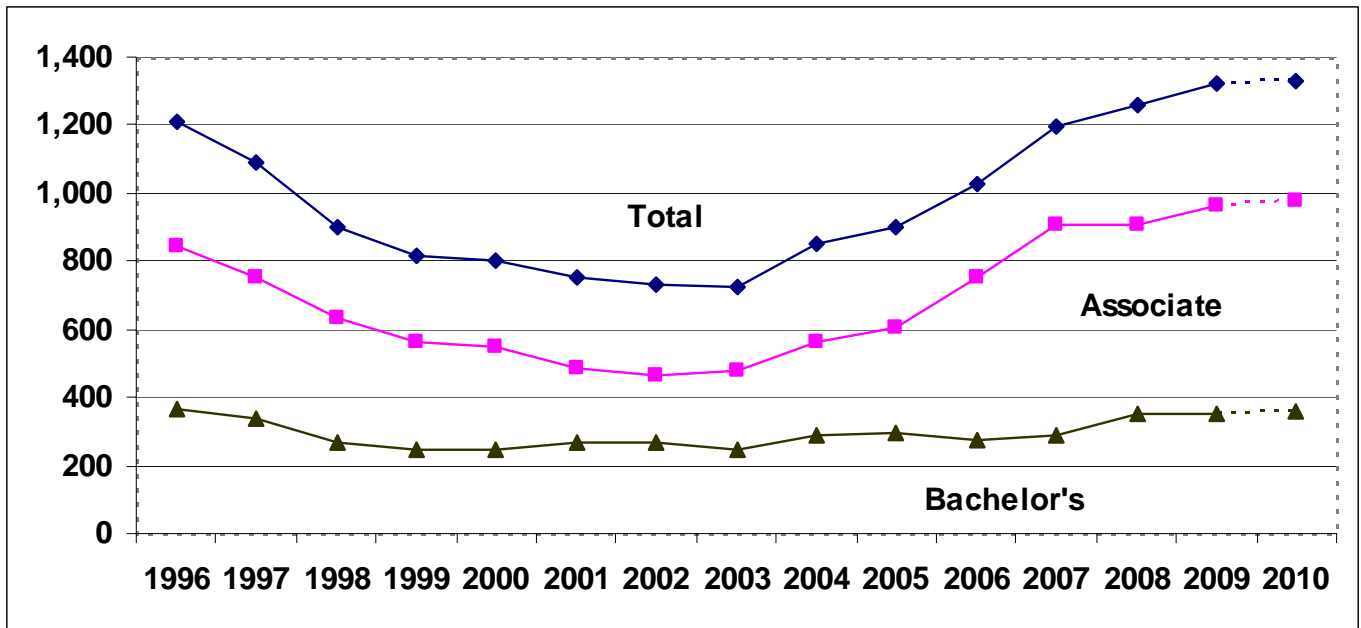
**Figure 6
State-sponsored RN Graduations by Degree Type, 1996 to 2010**



9. **Between 2002 and 2010, ADN graduations from CUNY RN programs are projected to increase at a faster rate than BSN graduations from CUNY RN programs.**

Between 2002 and 2010, ADN graduations at CUNY nursing programs are expected to more than double, while BSN graduations are projected to increase by 34%. Between 1996 and 2009, total CUNY RN graduations increased by 9%, with ADN graduations rising by slightly more than 14% and BSN graduations declining by nearly 3% (Figure 7).

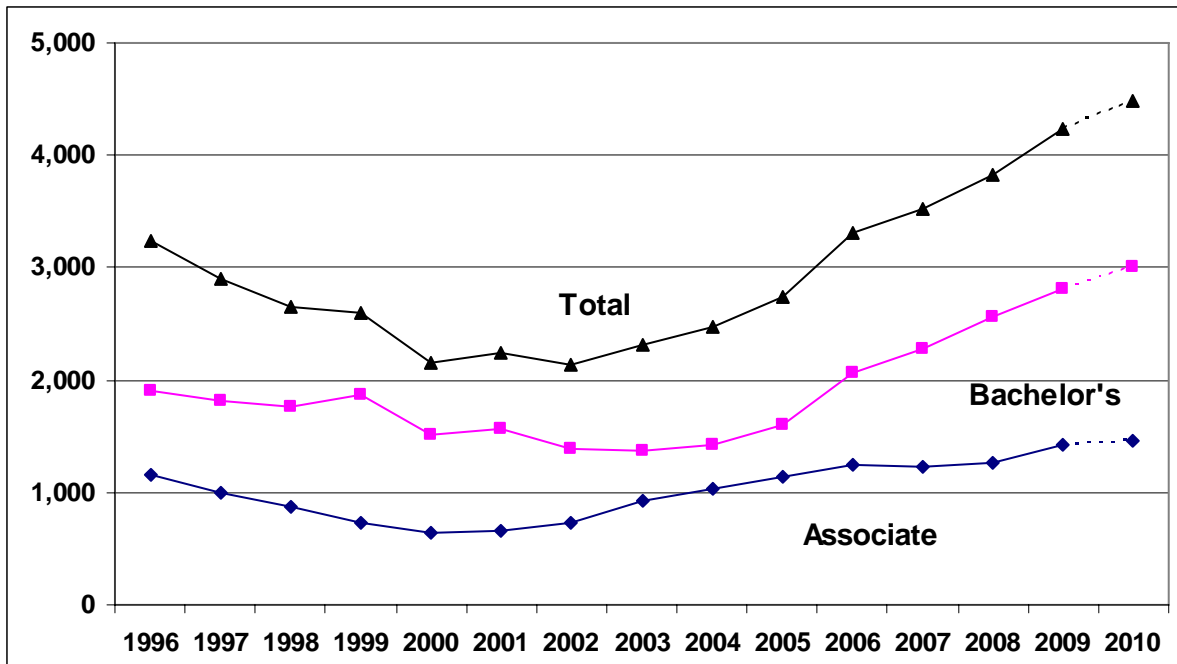
Figure 7
CUNY RN Graduations by Degree Type, 1996 to 2010



10. Graduations from privately sponsored RN education programs are projected to nearly double between 2002 and 2010.

Privately sponsored ADN and BSN program graduations are expected to rise by more than 110% between 2002 and 2010. The total number of RN graduations from privately sponsored RN education programs is expected to be more than 38% higher in 2010 than in 1996 (Figure 8). BSN programs accounted for nearly two-thirds of the total graduations from privately sponsored RN education programs in 2009.

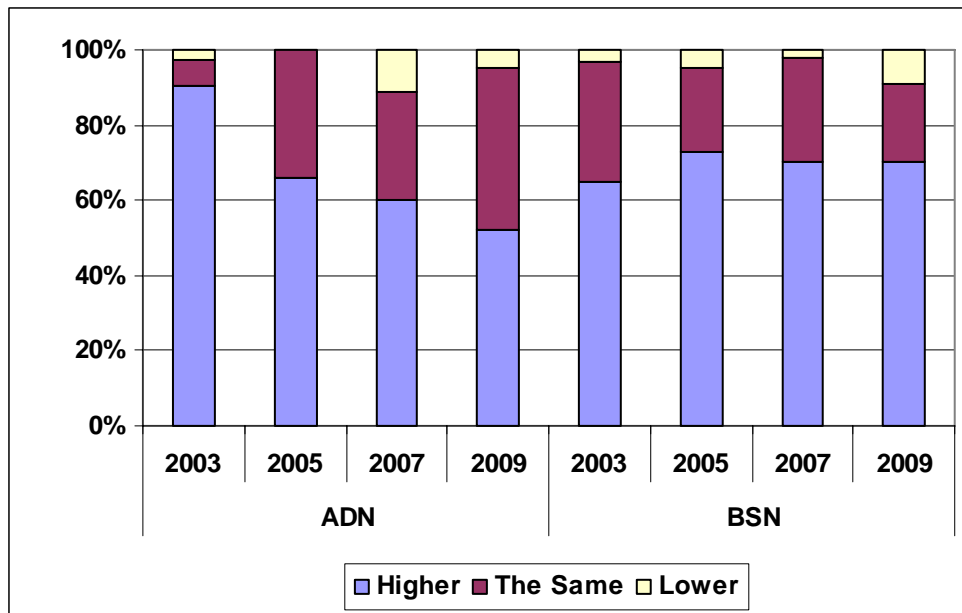
**Figure 8
Privately Sponsored RN Graduations by Degree Type, 1996 to 2010**



11. Fewer ADN program directors reported an increase in applications in 2009 than in 2007. BSN program directors reporting an increase in applications remained constant for those two years.

The percent of ADN program directors reporting a higher number of applications decreased 8% between the 2007 and 2009 surveys, while the percent of BSN program directors that reported an increase in the number of applications remained at 70% in 2009 (Figure 9). In 2009, the number of ADN program directors reporting no change in the number of program applications increased by 14%, while those reporting a decline in the number of applications decreased by 6%. Overall, fewer nursing program directors reported increases in the number of applications between 2007 and 2009 and more programs reported a decrease in the number of applications over that time period.

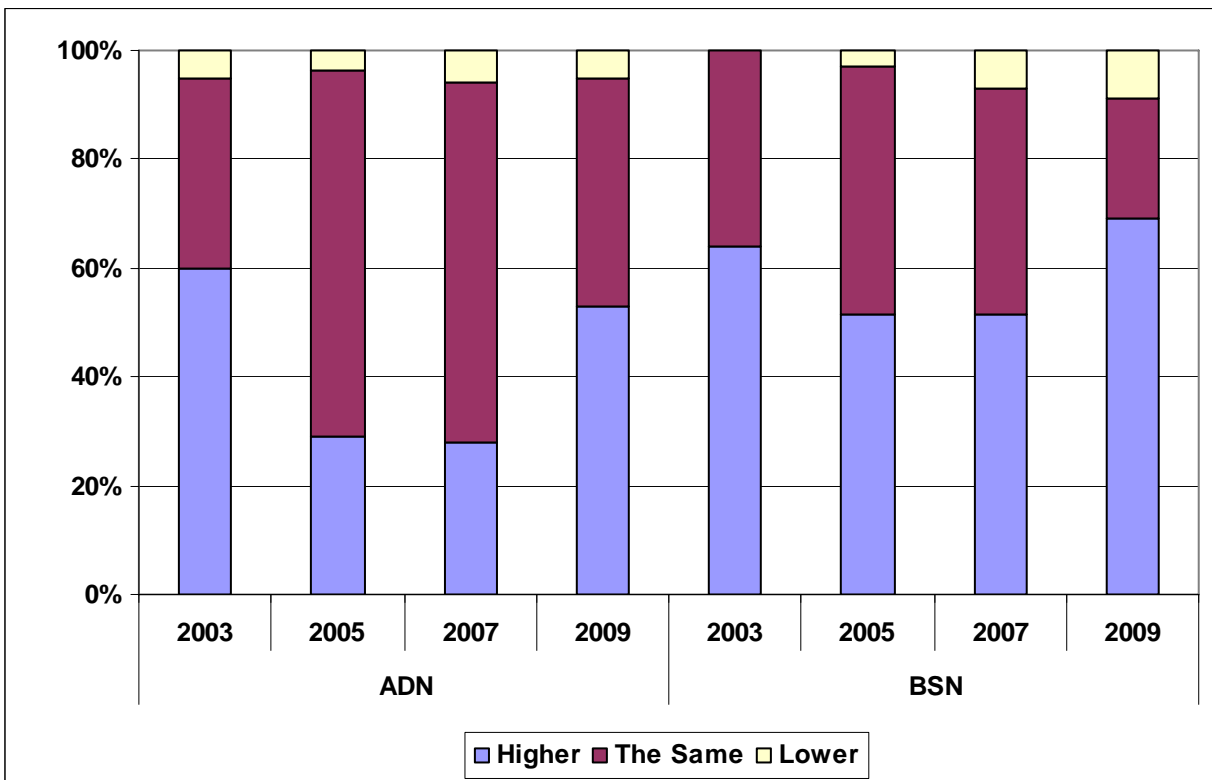
Figure 9
Percent Change in Number of Applications by Program Type, 2003 - 2009



12. The number of acceptances to RN education programs increased for both ADN and BSN programs between 2007 and 2009.

The percent of ADN program directors reporting a rise in the number of acceptances increased by 25% between the 2007 and 2009 surveys, and the percent of BSN program directors reporting an increase in the number of acceptances rose by 18% in 2009. The percent of ADN and BSN program directors that reported no change in the number of acceptances decreased between the 2007 and 2009 surveys. Overall, more nursing programs reported increases in the number of acceptances between the 2007 and 2009 surveys, while those reporting fewer acceptances remained the same (Figure 10).

Figure 10
Percent Change in Number of Acceptances by Program Type, 2004 – 2009



13. Half of nursing programs in New York wait-listed qualified applicants, with nearly two-thirds of ADN programs wait-listing qualified applicants.

Overall, 50% of RN education programs in New York placed qualified RN applicants on wait-lists rather than admitting them directly into the RN education program, with 62% of ADN programs and 35% of BSN programs placing qualified applicants on wait-lists. Nearly 42% of the ADN programs reported that a majority of the qualified applicants who were on a wait-list were expected to gain admission into the nursing program. In contrast, only 18% of BSN programs reported that a majority of the qualified applicants on a wait-list were expected to gain admission into the nursing program.

14. Compared to 2007, fewer nursing education programs reported turning away qualified applicants in 2009.

Forty-two percent of nursing program directors reported turning away qualified applicants in 2009, compared to 54% in 2007 and 59% in 2006. ADN programs were more likely to turn away qualified applicants than BSN programs. Nearly half of ADN programs and one-third of BSN programs reported turning away qualified applicants in 2009 (Table 3).

**Table 3
Percent of Respondents Reporting
Turning Away Qualified Applicants by Program Type, 2004 - 2009**

	2004	2005	2006	2007	2009
All Programs	57%	67%	59%	54%	42%
ADN	73%	80%	72%	65%	48%
BSN	39%	50%	43%	41%	33%

15. More qualified applicants were denied admission to nursing education programs in 2009 than in 2007.

While a lower percentage of programs reported turning away qualified applicants, those that did turn away qualified applicants reported turning away more of them (Table 4). Based on survey

responses, it was estimated that about 2,100 qualified applicants were turned away from New York’s nursing education programs in 2009; slightly higher than the number turned away in 2007, but down from nearly 2,200 in 2006 and about 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 were waited-listed.

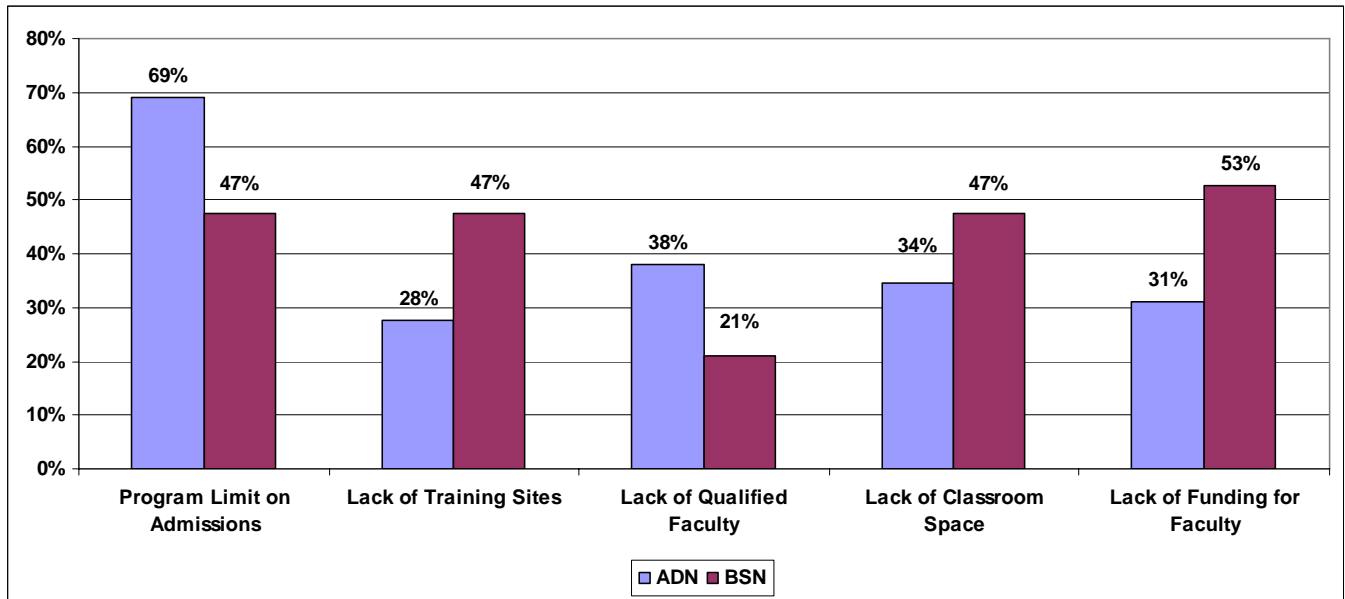
Table 4
Number of Qualified Applicants Turned Away
by Program Type

Number of Qualified Applicants Turned Away	Type of Program											
	All Nursing Programs				ADN				BSN			
	2005	2006	2007	2009	2005	2006	2007	2009	2005	2006	2007	2009
1 – 20	29%	23%	25%	15%	34%	35%	30%	19%	23%	9%	20%	10%
21 – 40	6%	12%	13%	10%	7%	17%	18%	12%	5%	7%	7%	8%
41 – 60	8%	9%	5%	2%	7%	6%	5%	3%	3%	14%	4%	0%
61 – 80	4%	4%	2%	0%	4%	4%	4%	0%	5%	5%	0%	0%
81 or More	16%	10%	10%	14%	20%	11%	9%	14%	10%	9%	11%	15%

- 16. In 2009, the primary reason nursing education programs reported turning away qualified applicants was a limit on program admissions.**

The majority of ADN and BSN programs that denied admission to qualified applicants cited limits on program admissions as the primary reason for doing so. Other reasons indicated by nursing education programs included lack of classroom space and lack of funding for faculty (Figure 11).

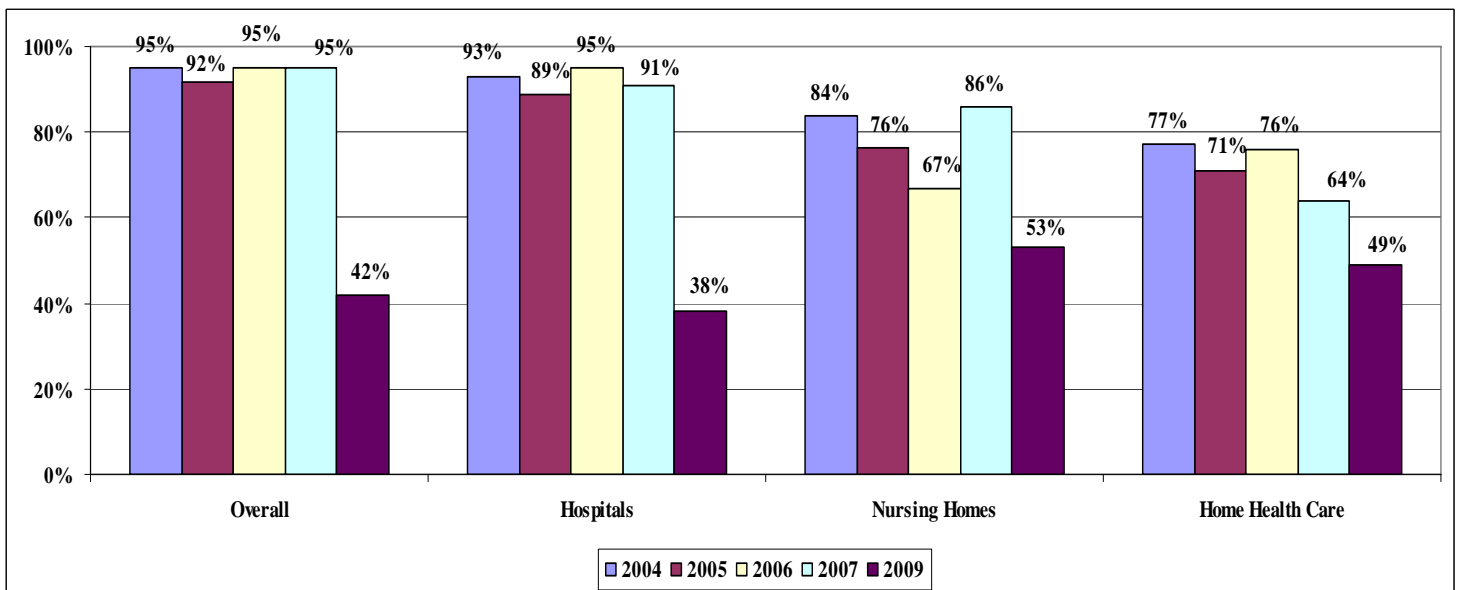
Figure 11
Reasons for Turning Away Qualified Applicants by Degree Program Type, 2009



17. Fewer nursing program directors reported “many jobs” available for new graduates.

The vast majority of nursing program directors consistently reported a strong job market for their graduates in the 2004 - 2007 surveys. However, in the 2009 survey, the percentage of program directors reporting “many jobs” for their graduates dropped by more than 50% (Figure 12).

Figure 12
Percent of RN Program Directors Reporting a Strong Job Market, 2004 - 2009



DISCUSSION

Both the supply of and demand for RNs have increased over the last decade. Until recently, the supply of RNs has not kept pace with demand for them. The current economic downturn has reduced the number of jobs available for newly-trained RNs and they now face a very competitive job market.

It is widely recognized that future demand for RNs is expected to continue to increase as the population grows and ages. Advances in technologies that require increased skills, a continuing focus on preventive health care services, and the aging of the nursing workforce will all contribute to increased demand. However, projections of future demand for RNs cannot easily account for future economic conditions or the impacts of health care reform, but both of these factors will affect the number of available nursing jobs and ultimately, the number of nurses available to fill them.

The short-term impacts of the economic downturn may have longer term consequences. If the job market for newly-trained RNs continues to be highly competitive, a possible market response to this perceived nursing surplus 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.

It is important for planners and policy makers to recognize the potential consequence of a decline in the production of new RNs, given projected future demand. Nursing shortages of the 21st century may be driven by a much more extensive set of factors than previous shortages: an aging population projected to require more services, fewer young workers, an aging workforce, a lack of racial and ethnic diversity in nursing, expanded career choices for women, the challenging work environment of RNs, consumer activism, and efforts to reform the current health care delivery system. These potential nursing shortages could prove much harder to reverse given the broad array of factors that may contribute to them.