

NEW JERSEY DEPARTMENT OF

LWD

LABOR AND WORKFORCE DEVELOPMENT

n j . g o v / l a b o r



## New Jersey's Health Care Cluster Winter 2011

Presented by: Jason Timian, Labor Market Analyst

# The goal of this report is to get an “IDEA” of what health care means to New Jersey

***Identify*** the types of industries and establishments that make up the health care cluster based on a standard industry classification system

***Describe*** any similarities and differences among its components with regard to such variables as employment, wage, occupation type, education, and demographic characteristics

***Examine*** any present distinctions within the cluster and its components that give New Jersey a competitive advantage compared to neighboring states, regions or the nation, or show areas where New Jersey could improve to add to the state’s economy

***Analyze*** the current state of the health care cluster and provide an outlook for employment into the future

# New Jersey Health Care Highlights

- The health care cluster contributed approximately \$34 billion to the Gross Domestic Product in 2009, roughly 7 percent of all output
- From 1990 through 2010, the health care sector has added 164,700 new jobs, while all other private sector employment has had a net decline of 11,100 jobs
- Health care is the only industry that has added jobs in the state every year from 1990 through 2010 while increasing its share of jobholding from 7.5 percent in 1990 to 11.3 percent in 2010
- The outlook for health care employment is bright. From 2008 through 2018, it is projected that more than 56,000 jobs will be added, an annual increase of 1.3 percent
- Health care employers paid more than \$21.3 billion in total wages in 2010, or about 12.2 percent of all wages paid

# Overview



There are roughly 21,300 establishments employing about 421,000 people of all ages, genders, races, and educational backgrounds in New Jersey in 2010. The majority of these establishments are smaller offices of health care professionals, however, nearly 34 percent of all employment is found in hospitals.

Occupations found in the healthcare industry vary as much as any other industry. Professionals who have earned the most advanced educational degrees frequently work in teams with those with lesser training. In fact, the majority of occupations in health care do not even require a two-year degree. Average salary tends to correlate with education; the more you learn, the more you make.

The profile of the average worker in the health care industry is overwhelmingly female, aged 35-54, and possesses at least some postsecondary education. The workforce is more diverse than average, and does not currently face the magnitude of unemployment as is felt in some other industries.

# Industry Analysis

Health Care Cluster

# The health care sector can be divided into three major components

## Ambulatory Health Care Services

- Offices of Physicians
- Offices of Mental Health Physicians
- Offices of Dentists
- Offices of Chiropractors
- Offices of Optometrists
- Offices of Mental Health Practitioners
- Offices of Specialty Therapists
- Offices of Podiatrists
- Offices of Miscellaneous Health Practitioners
- Family Planning Centers
- Outpatient Mental Health Centers
- HMO Medical Centers
- Kidney Dialysis Centers
- Freestanding Emergency Medical Centers
- Medical Laboratories
- Diagnostic Imaging Centers
- Home Health Care Services
- Ambulance Services
- Blood and Organ Banks

## Hospitals

- General Medical and Surgical Hospitals
- Psychiatric and Substance Abuse Hospitals
- Other Hospitals

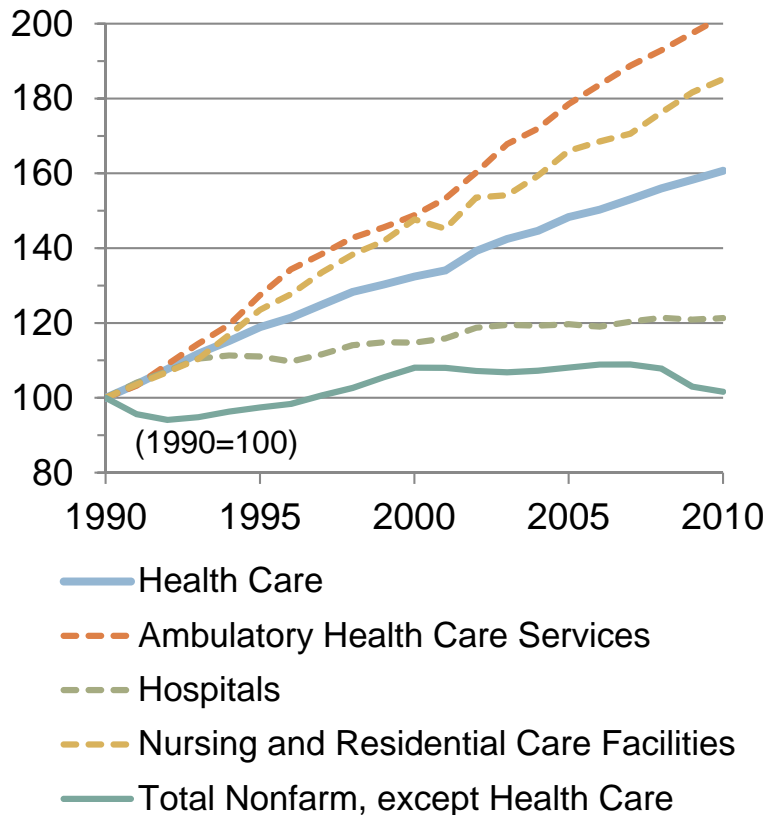
## Nursing and Residential Care Services

- Nursing Care Facilities
- Residential Mental Retardation Facility
- Residential Mental and Substance Abuse Care
- Continuing Care Retirement Communities
- Homes for the Elderly



# The health care industry has been the driving force of employment in New Jersey over the last two decades

**Employment Index for Health Care  
vs. All "other" Industries  
New Jersey: 1990-2010**



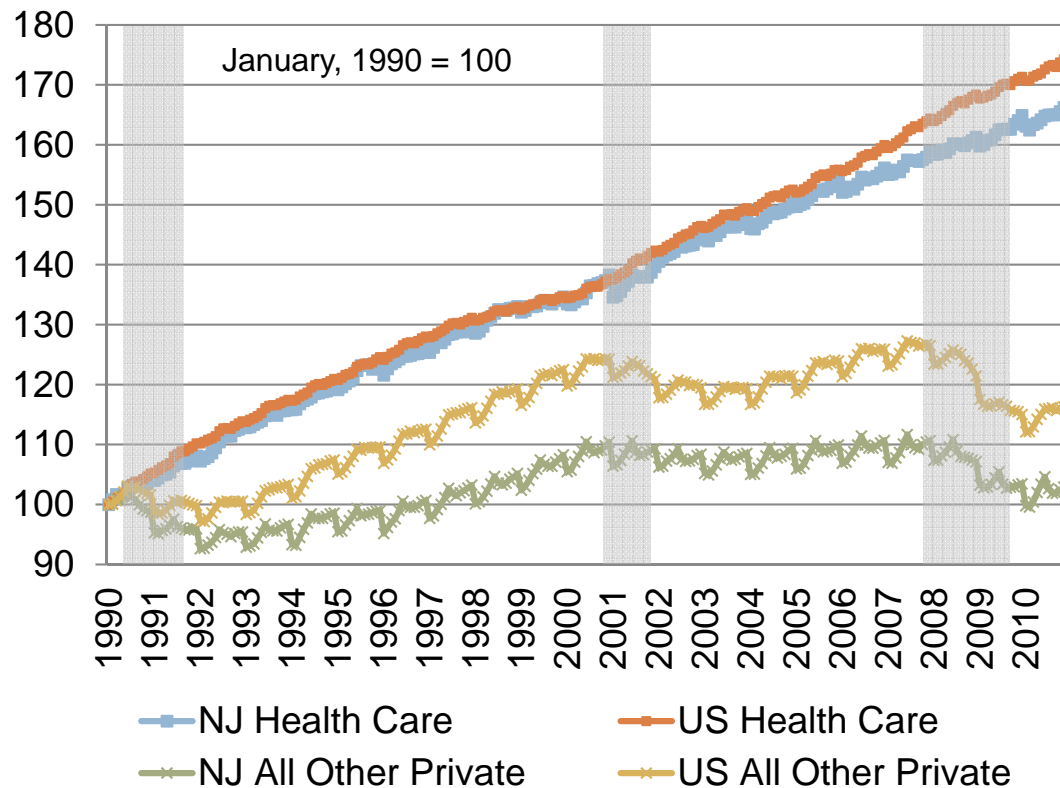
From 1990 through 2010, the health care sector has added 164,700 new jobs, while all other industries combined have had a net gain of only 54,700

Employment in Ambulatory Health Care Services and Nursing and Residential Care Facilities has nearly doubled over the last 20 years

Slow, and recently stagnant, growth in Hospital employment has led to it being the laggard among Health Care's three major components

# The health care industry has been the key driver of private sector employment at both the state and national level

**Health Care and Other Private Sector Employment  
New Jersey & United States: 1990-2010**



New Jersey has followed the national trend very closely, and only in the last six years has fallen slightly behind in employment growth in the health care industry

All other private sector employment has grown at a much slower pace, and has been susceptible to downturns during recessions

From 2000 to 2010, New Jersey has added nearly 77,000 new health care jobs while the rest of the private sector has lost over 270,000



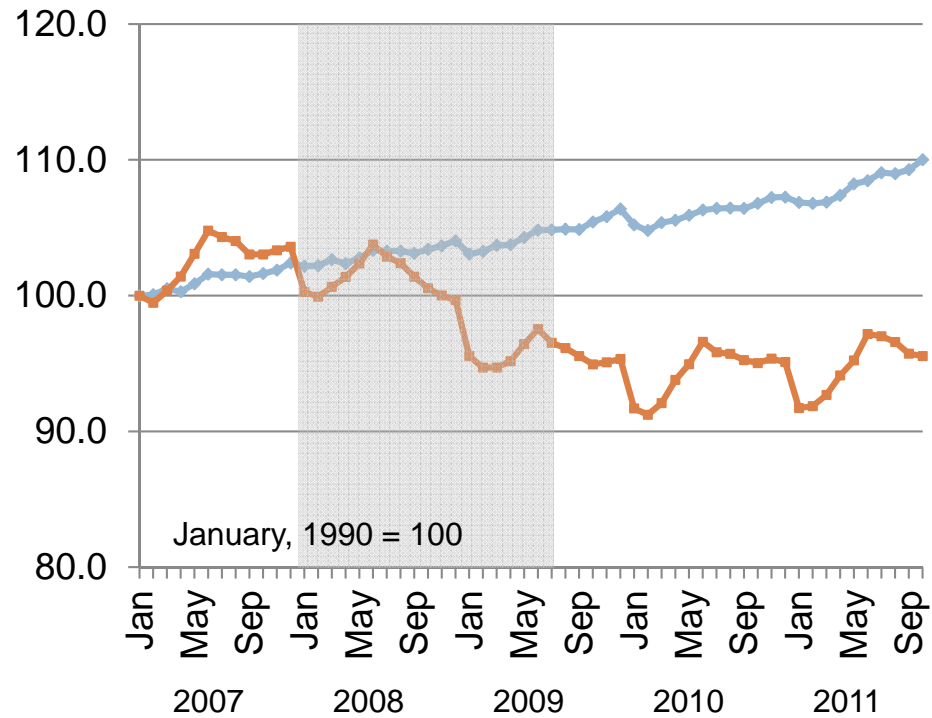
# A closer view of the last few years highlights the stability of health care employment compared to the rest of the private sector

New Jersey's private sector employment reached its historical peak of nearly 3.5 million jobs in June of 2007

During the 18 months when the recession officially occurred, the health care sector still added nearly 10,000 jobs while the remainder of the private sector lost nearly 180,000

Since October of 2009, the health care industry has accounted for more than half of all job growth in the private sector

**Total Employment, Not Seasonally Adjusted  
New Jersey: January, 2007-October, 2011**



— Health Care  
— Total Private minus Health Care

Source: NJLWD, Current Employment Statistics  
Prepared by: New Jersey Department of Labor and Workforce Development,  
December, 2011

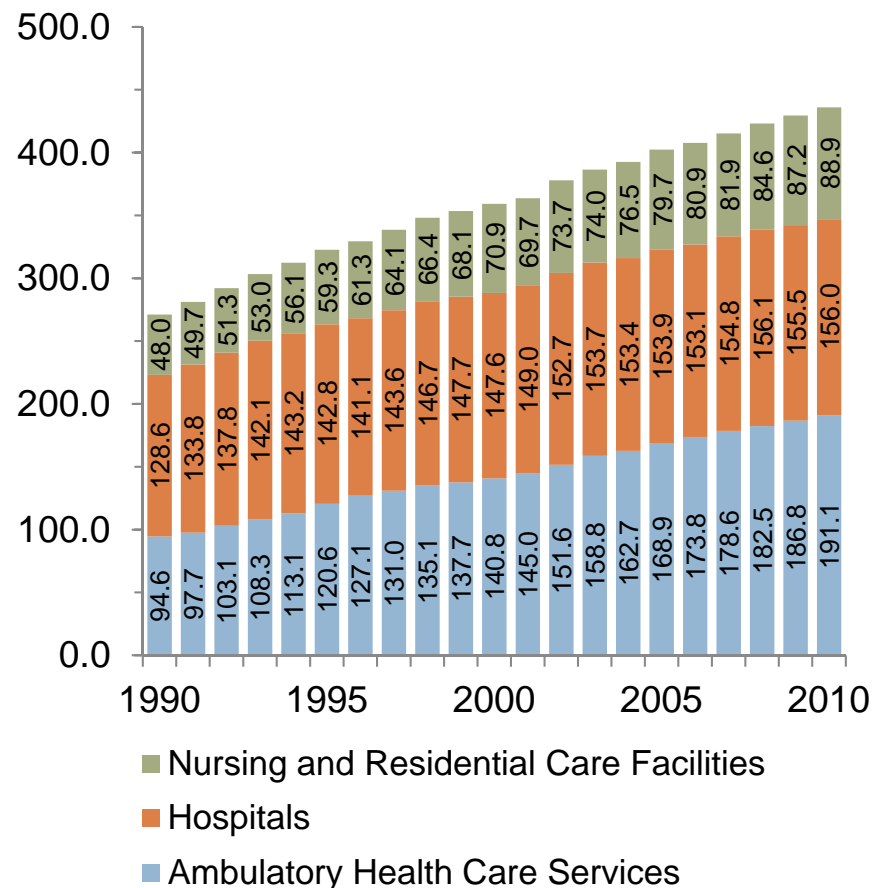
With employment surpassing 420,000, the health care sector accounts for over 11% of all employment in the state in 2010, up from 7.5% in 1990

Ambulatory Health Care Services surpassed Hospitals as the top employer in the Health Care sector in 2003, and has widened the gap every subsequent year

Nursing and Residential Care Facilities, the smallest component, has grown more than three times the rate (3.1%) of Hospitals (1.0%) since 1990

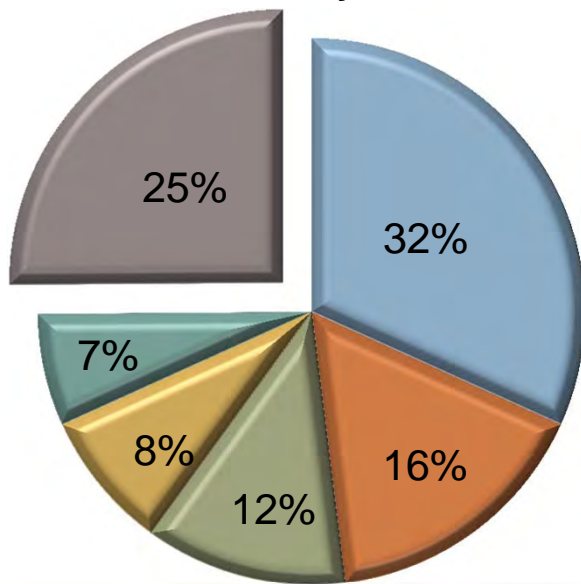
Together, the three Health Care components have grown by 2.4% annually since 1990, compared to only 0.3% for total nonfarm employment and a job decline for all private sector excluding health care

Employment in Health Care Components  
New Jersey, 1990-2010



# In 2010, 75% of all health care employment in New Jersey is found in these top five industries

**Percentage of Employment  
By Detailed Industry  
New Jersey, 2010**



At the national level, these same five industries make up 74% of all health care employment

The health care cluster as a whole makes up 13% of all employment at both the state and national level, up from 11% in 2005

While still growing moderately, general medical and surgical hospitals account for 32% of all health care employment in New Jersey in 2010, down from 34% in 2005

- General Medical and Surgical Hospitals
- Offices of Physicians, ex. Mental Health
- Nursing Care Facilities
- Home Health Care Services
- Offices of Dentists

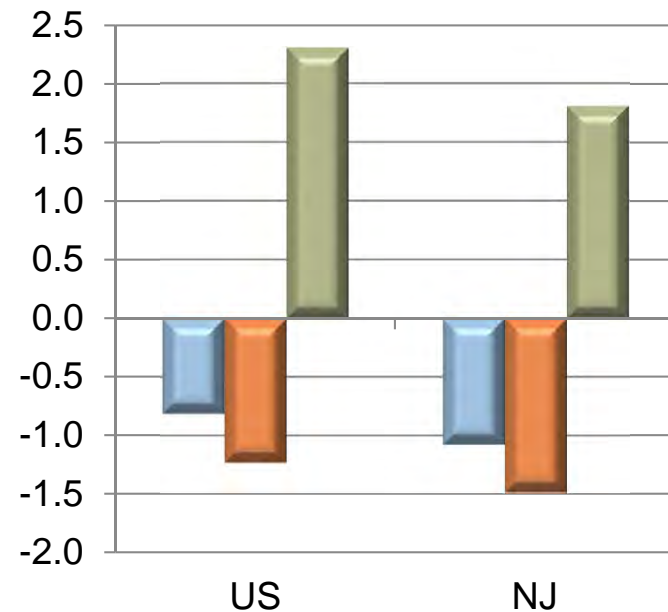
# Despite the severe national recession, employment in the health care cluster experienced robust growth of 2.3% nationally from 2005 through 2010, 1.8% in New Jersey

Home Health Care Services, Offices of Physicians, and Nursing Care Facilities were the largest gainers in New Jersey from 2005 through 2010, together adding nearly 18,000 jobs

Nationally, General Medical and Surgical Hospitals added the most new jobs of any health care industry, over 281,000 over the five year period (only 1,600 in New Jersey)

Psychiatric and Substance Abuse Hospitals and Ambulance Services were the fastest growing health care industries in New Jersey, growing annually by 14.0 and 11.2 percent, respectively

**Annual Percentage Change in Employment  
New Jersey, 2005-2010**



- Total, All Industries
- All, except Health Care
- Health Care

# Narrative explaining bubble chart

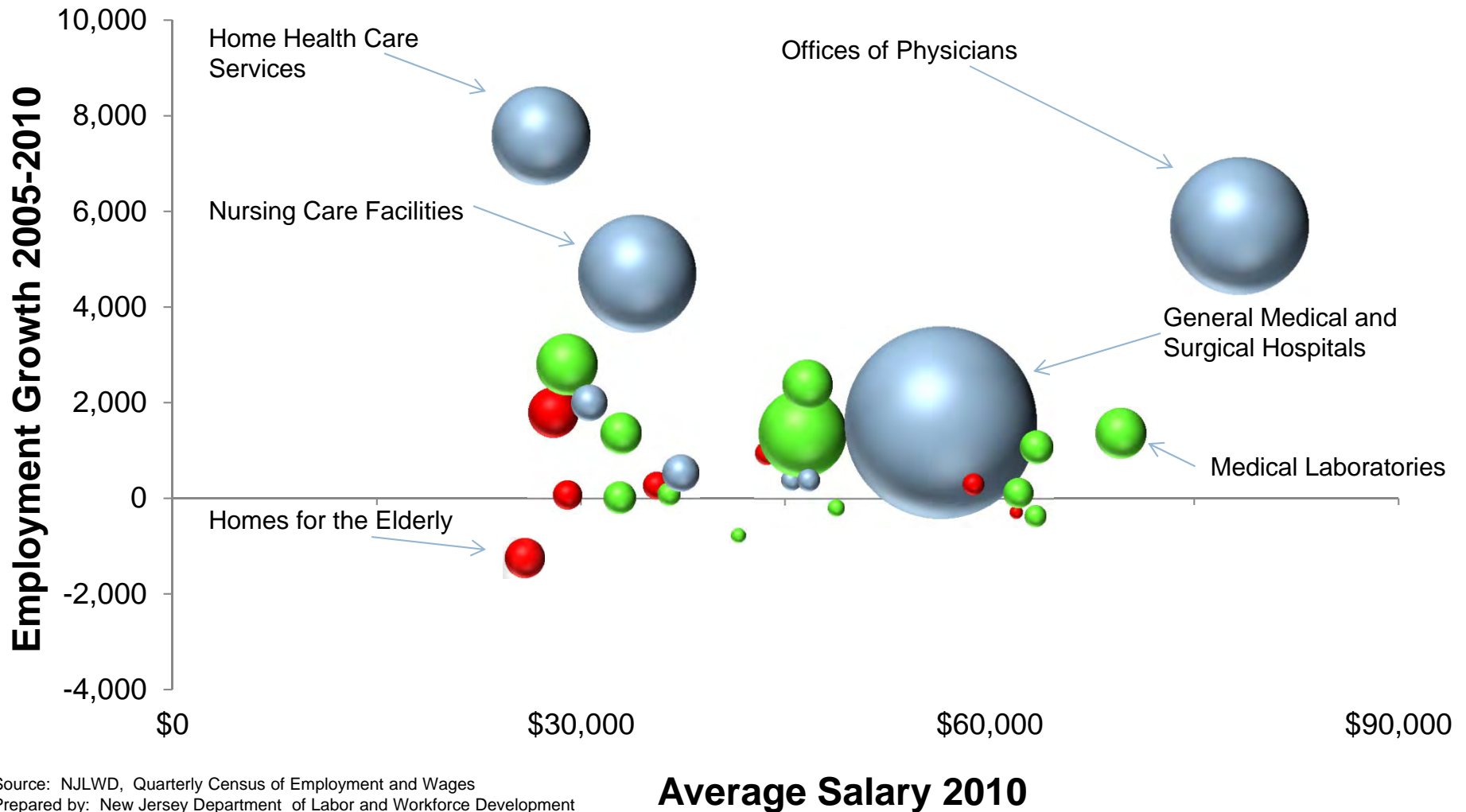
There are four elements of data depicted in the bubble chart on the next page:

1. Total 2010 employment is represented by the size of the bubble
2. Employment change from 2005-2010 is charted by the position on the Y-axis, or vertical position
3. Annual average wages in 2010 is charted by the position on the X-axis, or horizontal position
4. Location quotient is indicated by the color of the bubble
  - A **green bubble** signifies an industry with a location quotient over 1.1, which indicates that employment share in New Jersey is meaningfully greater than its counterpart at the national level
  - A **red bubble** signifies an industry with a location quotient less than 0.9, which indicates that employment share in New Jersey is meaningfully less than its counterpart at the national level
  - A **blue bubble** indicates that employment share is nearly equal at the state and national level

# Employment size, growth, average salary, and location quotient of 30 industries that make up health care sector

Green bubble=LQ>1.1

Red bubble=LQ<0.9





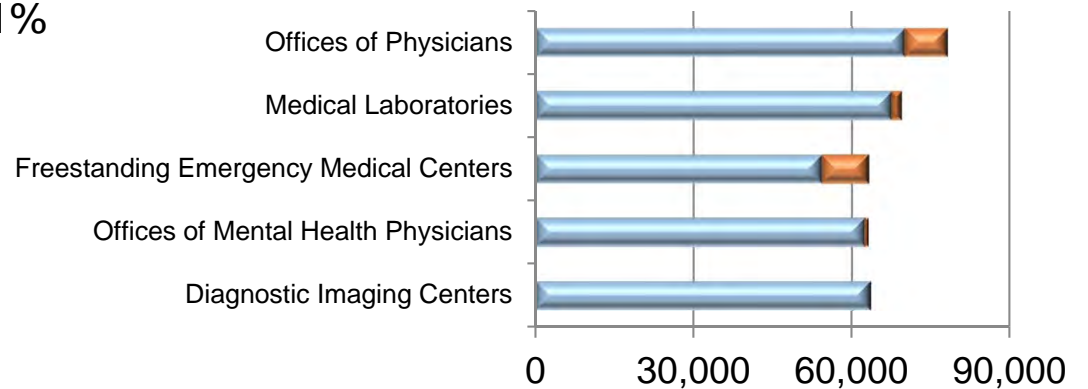
# The average annual wage in New Jersey in the health care sector in 2010 is \$50,772, up from \$45,784 in 2005, an increase of \$4,988 or 2.1% per year

Nationally, the Health Care industry paid an average of \$47,503 in 2010, up 3.1% per year from \$40,824 in 2005

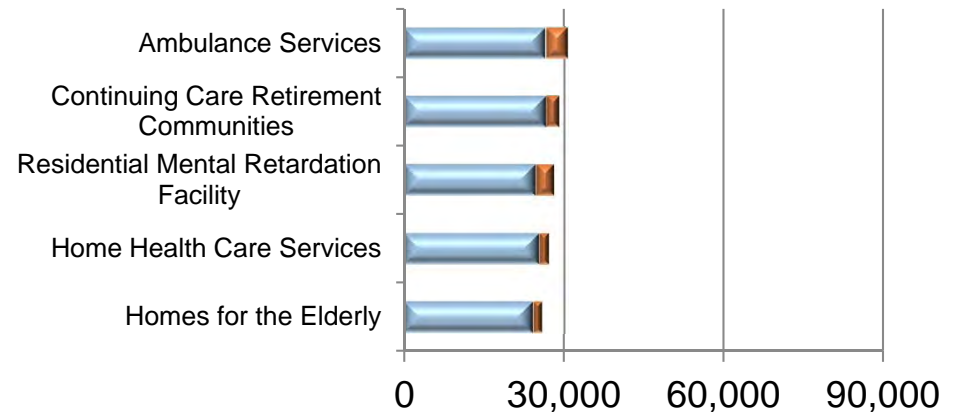
Nationally, average wages paid in health care were on par or slightly above the average for all private sector employment

In New Jersey, wages paid in private sector industries outside of healthcare are higher by about \$5,000 per year in both 2005 and 2010

Highest Five Average Annual Wages, NJ, 2010

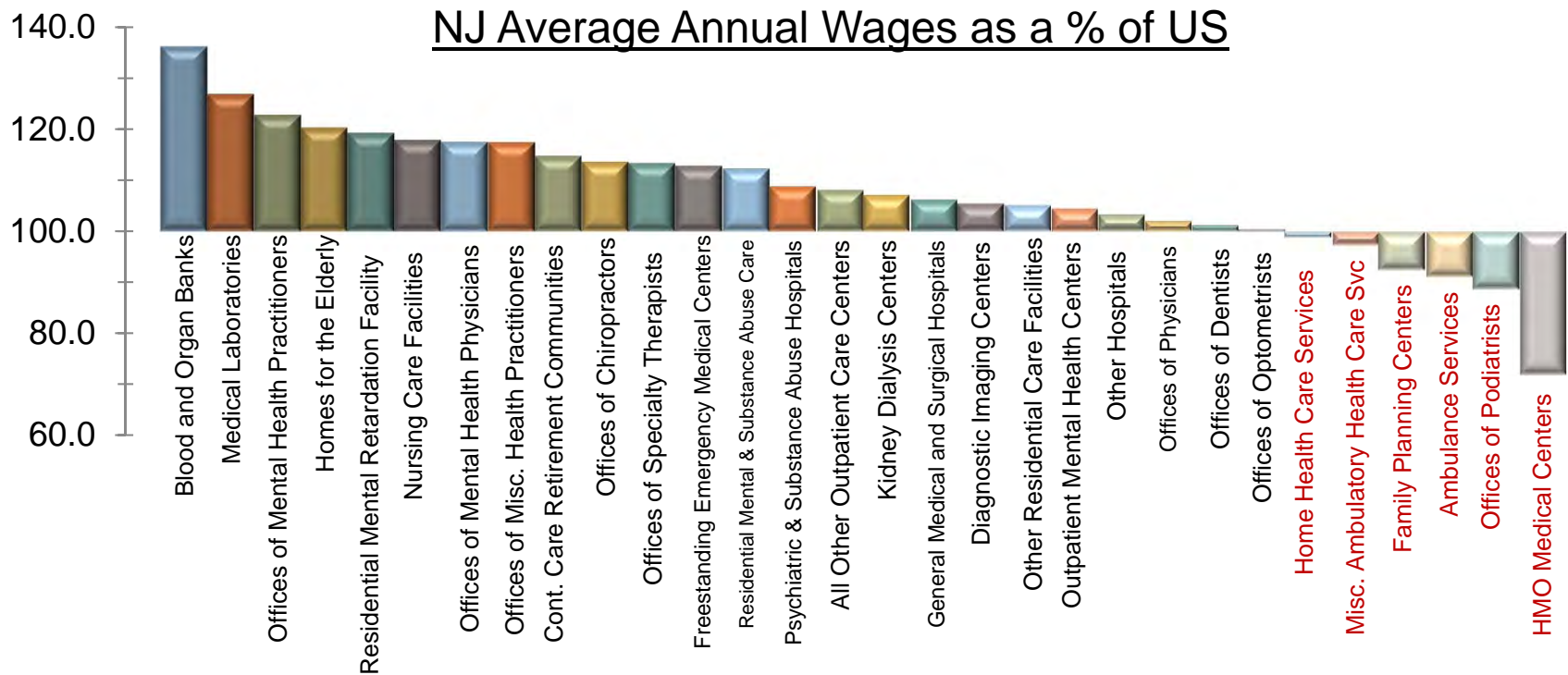


Lowest Five Average Annual Wages, NJ, 2010



■ 2005 Annual Wage    ■ Growth 2005-2010

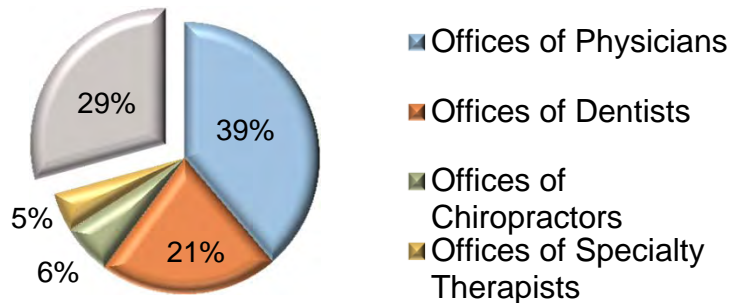
Four out of five health care industries in New Jersey have a higher average salary than the nation. Overall, the sector paid 6.9% more in New Jersey in 2010



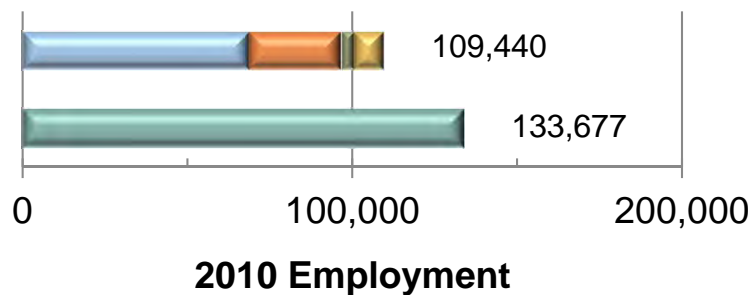
The salary disparity has decreased in 23 of the 30 industries since 2005, when the sector was paid an average of 12.1% more in New Jersey

# There are 21,310 health care establishments in New Jersey in 2010, employing 420,860 people

71% of all Health Care establishments fall into these four industries...



...yet the 113 General Medical and Surgical Hospitals alone employed 22% more in 2010



From 2005 to 2010, New Jersey had a net increase of 1,893 establishments, an increase of 1.9 percent annually (2.0 percent nationally)

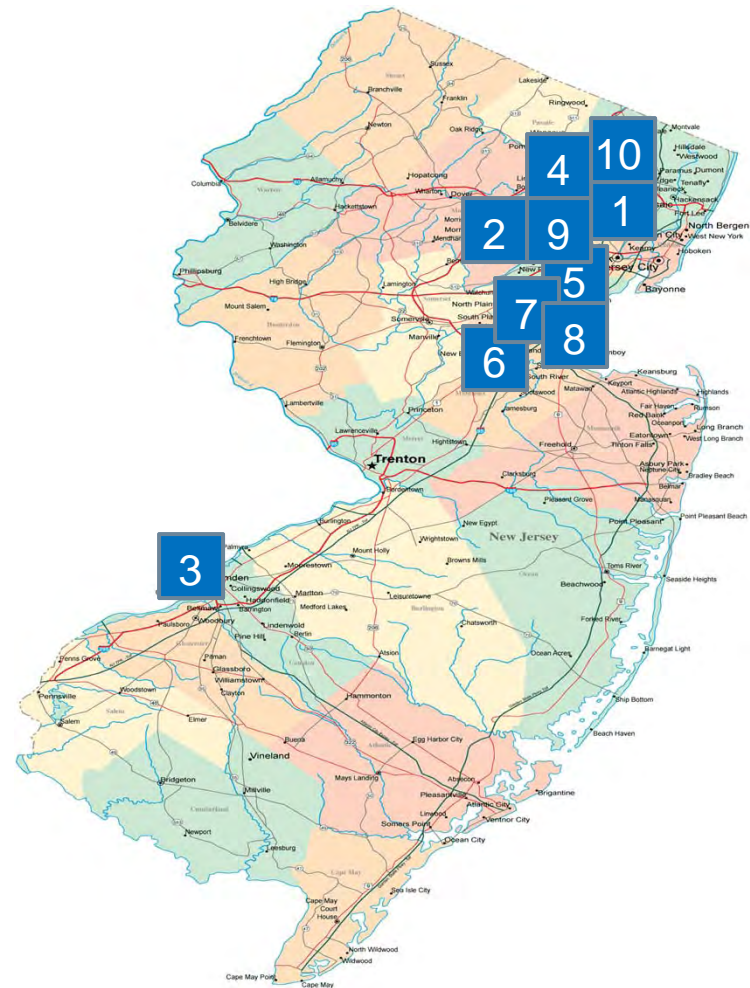
Reflecting a nationwide trend from 2005 to 2010, the number of Kidney and Dialysis Centers in New Jersey more than doubled from 56 to 105

Due to closings and consolidations, General Medical and Surgical Hospitals increased their average of employees per establishment from 1,008 in 2005 to 1,183 in 2010

# The largest health care employers in New Jersey are all general medical and surgical hospitals

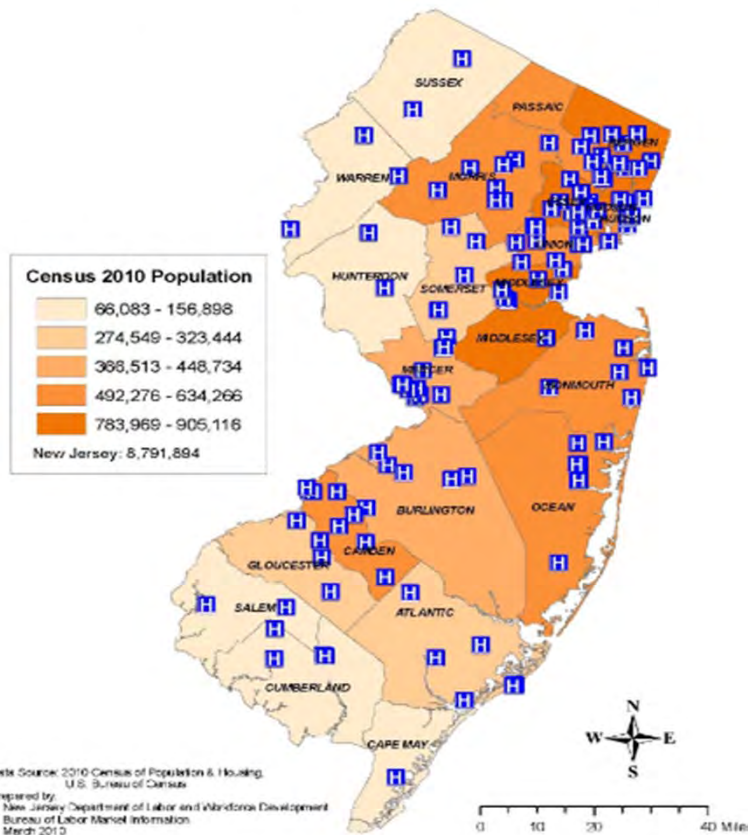
1. Hackensack University Medical Center
2. Morristown Memorial Hospital
3. Cooper Health System at Camden
4. St. Joseph's Hospital and Medical Center
5. The University Hospital – UMDNJ
6. Robert Wood Johnson University Hospital
7. John F. Kennedy Medical Center
8. Newark Beth Israel Medical Center
9. St. Barnabas Medical Center at Livingston
10. The Society of the Valley Hospital

Note that half of the top ten hospitals are located in Essex and Middlesex Counties, and all but Cooper Health Systems at Camden service the highly populated New York City area



The majority of the state's hospitals are found in the most densely populated counties.

**County Population vs. Hospital Locations**



County	Population Rank	Hospital Employment	County	Population Rank	Hospital Employment
Bergen	1	1	Atlantic	15	12
Essex	3	2	Burlington	11	13
Middlesex	2	3	Somerset	13	14
Camden	8	4	Gloucester	14	15
Morris	10	5	Cumberland	16	16
Monmouth	5	6	Hunterdon	18	17
Mercer	12	7	Warren	19	18
Hudson	4	8	Sussex	17	19
Union	7	9	Cape May	20	20
Ocean	6	10	Salem	21	21
Passaic	9	11			

Camden, Mercer, and Morris Counties each have a significantly higher number of those employed in a hospital than their total population would warrant

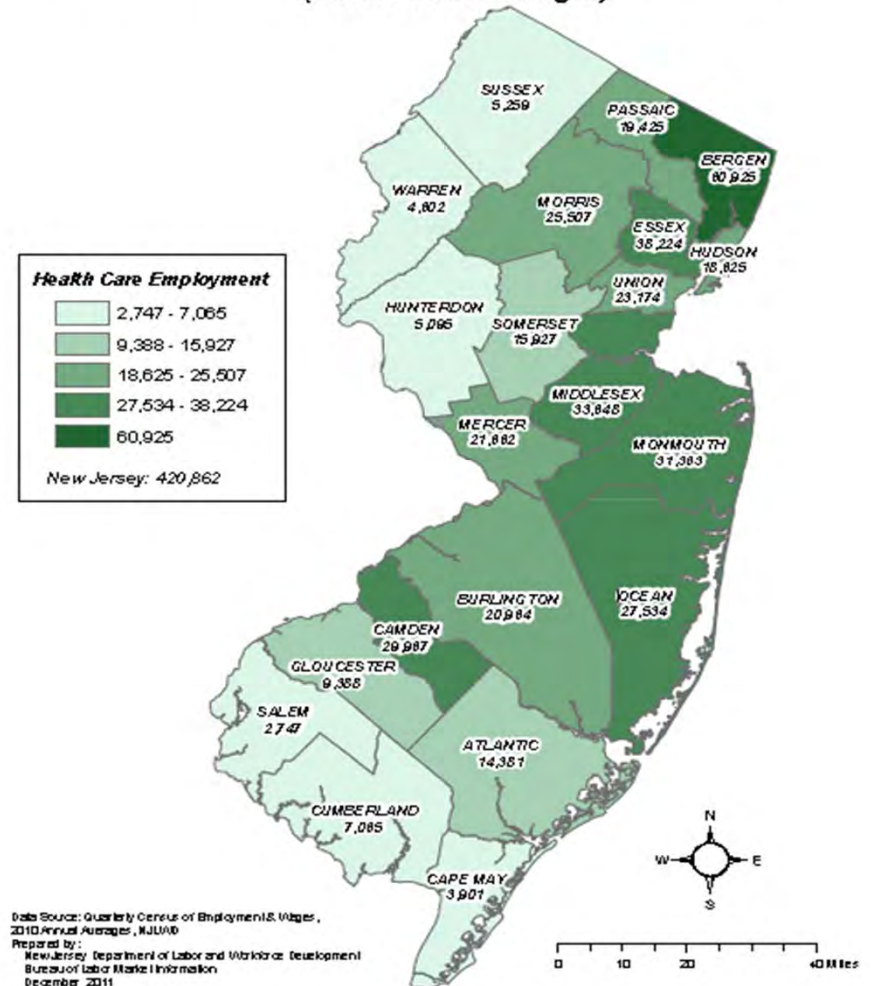
Source: NJLWD, Quarterly Census of Employment and Wages, U.S. Census Bureau, Census 2010  
Prepared by: New Jersey Department of Labor and Workforce Development, Bureau of Labor Market Information, December, 2011



# Nearly 75% of all employment in the health care sector is found in Mercer, Monmouth and northern counties

Area	Emp	Pop/Emp	Area	Emp	Pop/Emp
Bergen	60,925	14.9	Cumberland	7,065	22.2
Mercer	21,662	16.9	Union	23,174	23.2
Camden	29,967	17.1	Warren	4,602	23.6
Atlantic	14,381	19.1	Salem	2,747	24.1
Morris	25,507	19.3	Middlesex	33,648	24.1
Monmouth	31,363	20.1	Cape May	3,901	24.2
Somerset	15,927	20.3	Hunterdon	5,095	25.2
Essex	38,224	20.5	Passaic	19,425	25.8
Ocean	27,534	20.9	Sussex	5,259	28.4
New Jersey	420,860	20.9	Gloucester	9,388	30.7
Burlington	20,964	21.4	Hudson	18,625	34.1

**Health Care Employment - New Jersey Counties  
(2010 Annual Averages)**



Nearly one quarter (23.6%) of all health care employment in the state is found in the populous Bergen and Essex Counties

Camden County in the south and Mercer County in central New Jersey serve as regional hubs for health care in the state

Source: NJLWD, Quarterly Census of Employment and Wages  
Prepared by: New Jersey Department of Labor and Workforce Development  
December, 2011

Data Source: Quarterly Census of Employment & Wages,  
2010 Annual Averages, NJLWD  
Prepared by:  
New Jersey Department of Labor and Workforce Development  
Bureau of Labor Market Information  
December 2011

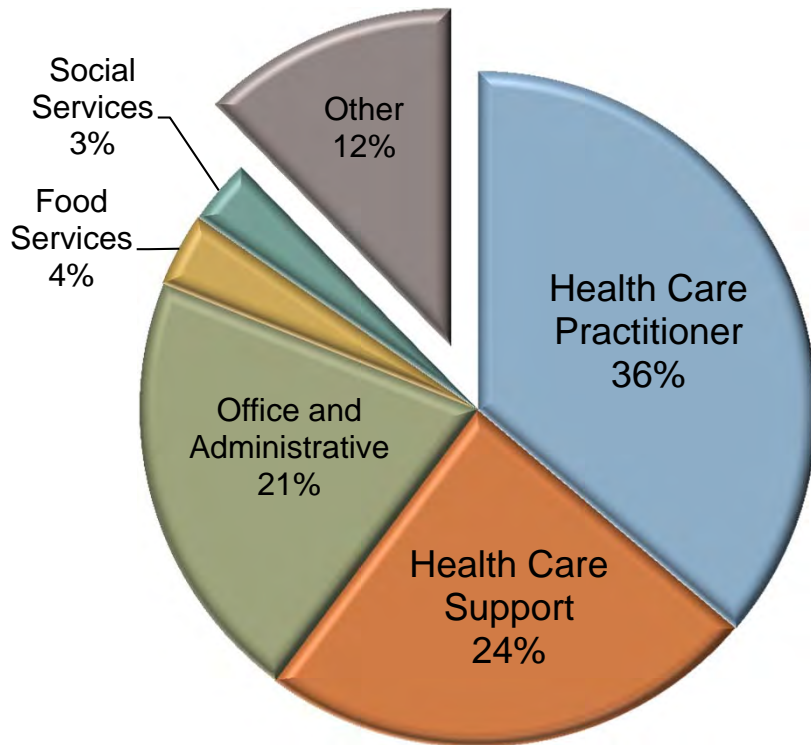


# Occupational Analysis

Health Care Cluster

## Roughly three out of five workers in the health care industry are directly involved with patient care

**Breakdown of Major Occupational Groups  
within Health Care Industry:  
New Jersey, 2010**



Office and administrative occupations are the third largest group, employing more than one-fifth of the health care workforce. Receptionists, medical secretaries and billing clerks are the most prominent occupations.

Food and social services make up a relatively small, but integral portion of the workforce

The bulk of the remainder of the workforce is comprised of management and other service occupations

# The top twenty occupations found in health care make up 70 percent of all employment in the industry

Occupation	2010 Employment	Share of Industry	Average Salary	Education/Training Requirements
00-0000 Total, All Occupations	448,042	100.0%	\$50,890	
Top 20 Occupations	314,032	70.1%	\$54,815	
Registered Nurses	69,118	15.4%	\$75,990	Associate degree
Nursing Aides, Orderlies, and Attendants	46,777	10.4%	\$26,480	Postsecondary vocational training
Receptionists and Information Clerks	27,340	6.1%	\$27,960	Short-term on-the-job training
Home Health Aides	23,092	5.2%	\$22,930	Short-term on-the-job training
Physicians and Surgeons	19,546	4.4%	\$189,956	First professional degree
Medical Secretaries	17,556	3.9%	\$37,120	Moderate-term on-the-job training
Licensed Practical and Licensed Vocational Nurses	12,635	2.8%	\$50,840	Postsecondary vocational training
Medical Assistants	12,331	2.8%	\$32,480	Moderate-term on-the-job training
Food Servers, Nonrestaurant	10,167	2.3%	\$21,580	Short-term on-the-job training
Billing and Posting Clerks and Machine Operators	9,563	2.1%	\$35,720	Short-term on-the-job training
Dental Assistants	9,475	2.1%	\$37,350	Moderate-term on-the-job training
Maids and Housekeeping Cleaners	7,923	1.8%	\$23,530	Short-term on-the-job training
Radiologic Technologists and Technicians	7,002	1.6%	\$62,810	Associate degree
Medical and Health Services Managers	6,955	1.6%	\$105,680	Bachelor's or higher degree, plus work experience
Supervisors of Office and Administrative Support Workers	6,574	1.5%	\$50,860	Work experience in a related occupation
Secretaries, Except Legal, Medical, and Executive	6,328	1.4%	\$35,480	Moderate-term on-the-job training
Emergency Medical Technicians and Paramedics	6,002	1.3%	\$36,130	Postsecondary vocational training
Physical Therapists	5,774	1.3%	\$87,040	Master's degree
Interviewers, Except Eligibility and Loan	5,100	1.1%	\$33,220	Short-term on-the-job training
Medical and Clinical Laboratory Technologists	4,774	1.1%	\$62,310	Bachelor's degree

Health care practitioners
  Health care support
  Office/Administrative support

# Skills, Knowledge and Abilities most important to the top 20 occupations found in health care

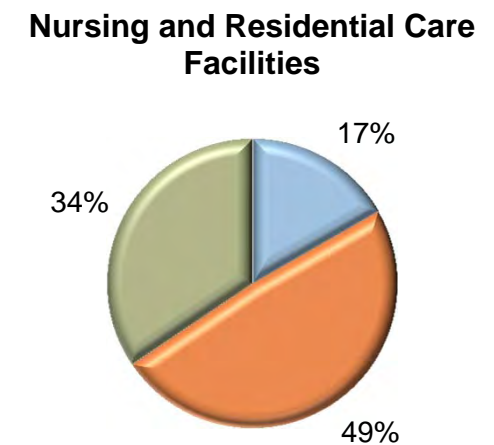
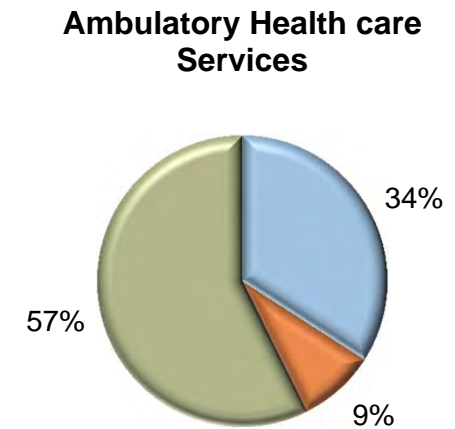
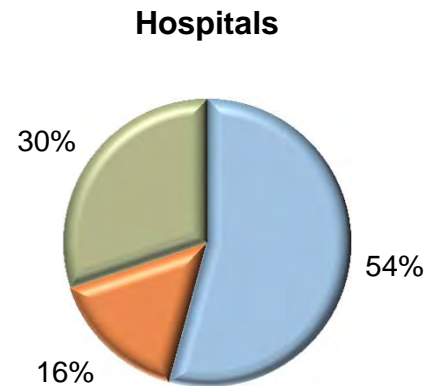
Skills	Knowledge	Abilities
Active listening Speaking Social perceptiveness Service orientation Reading comprehension Critical thinking Monitoring Coordination Time management Writing	Customer and personal service English language Psychology Clerical Medicine and dentistry Education and training Administration and management Mathematics Public safety and security Computers and electronics	Oral comprehension Oral expression Speech clarity Problem sensitivity Speech recognition Written comprehension Near vision Deductive reasoning Information ordering Written expression

**\*\*In addition to industry specific SKAs, effective communication is key\*\***



# The health care sector offers opportunities for employment for all levels of education and experience...

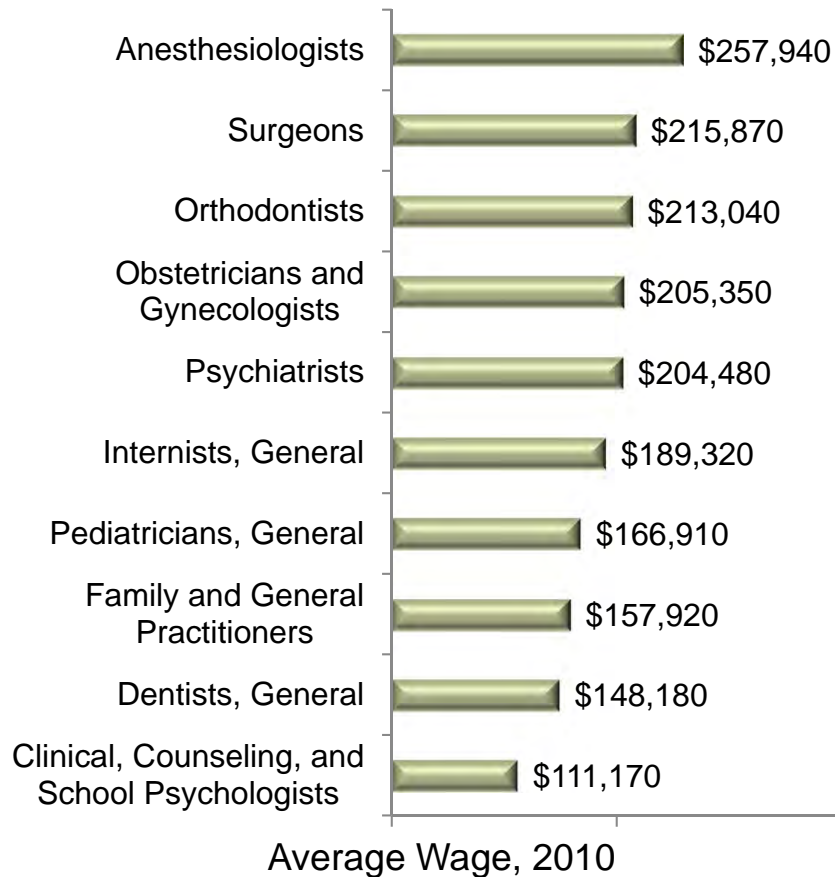
Education/Training Requirement	2010 Employment	% of Total
<b>Total, All Occupations</b>	<b>448,042</b>	
<b>Total High Requirements</b>	<b>171,122</b>	<b>38.2%</b>
First professional degree	27,195	6.1%
Doctoral degree	2,302	0.5%
Master's degree	14,489	3.2%
Bachelor's or higher degree, plus work experience	10,697	2.4%
Bachelor's degree	22,702	5.1%
Associate degree	93,737	20.9%
<b>Total Moderate Requirements</b>	<b>86,172</b>	<b>19.2%</b>
Postsecondary vocational training	72,532	16.2%
Work experience in a related occupation	11,811	2.6%
Long-term on-the-job training	1,829	0.4%
<b>Total Low Requirements</b>	<b>190,748</b>	<b>42.6%</b>
Moderate-term on-the-job training	64,423	14.4%
Short-term on-the-job training	126,325	28.2%



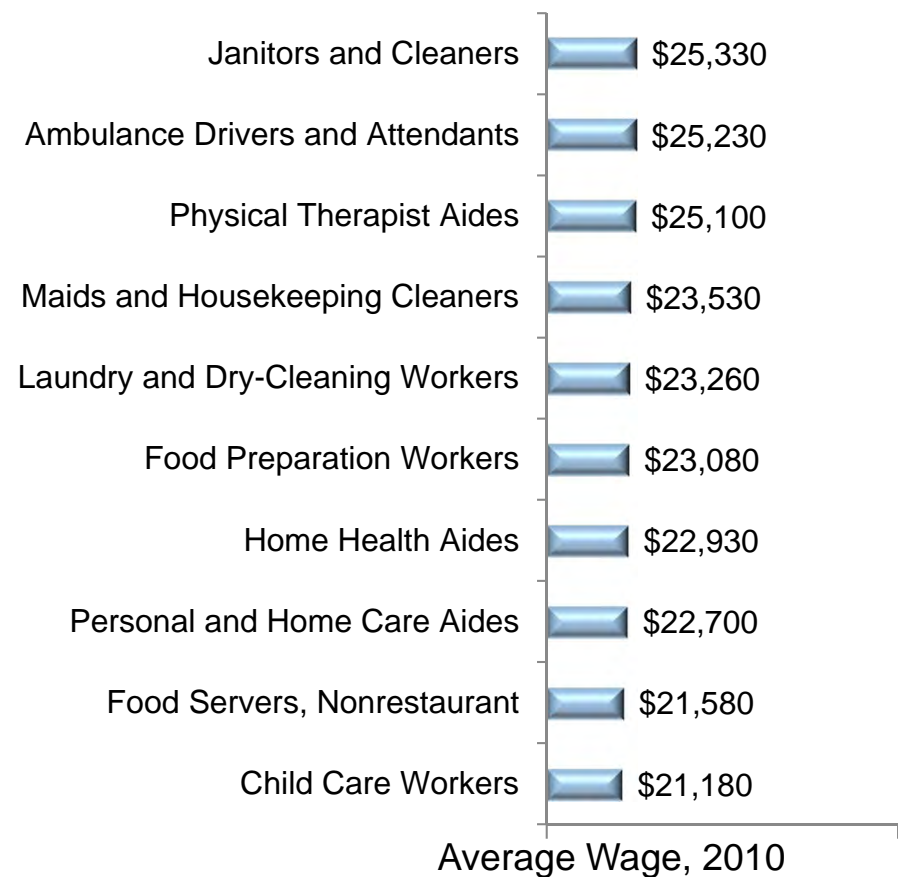
Source: NJLWD, Occupational Employment Statistics Survey  
 Prepared by: New Jersey Department of Labor and Workforce Development  
 December, 2011

...and the average wages can vary greatly among a myriad of different occupations

### Occupations on the Higher End of the Wage Scale



### Occupations on the Lower End of the Wage Scale



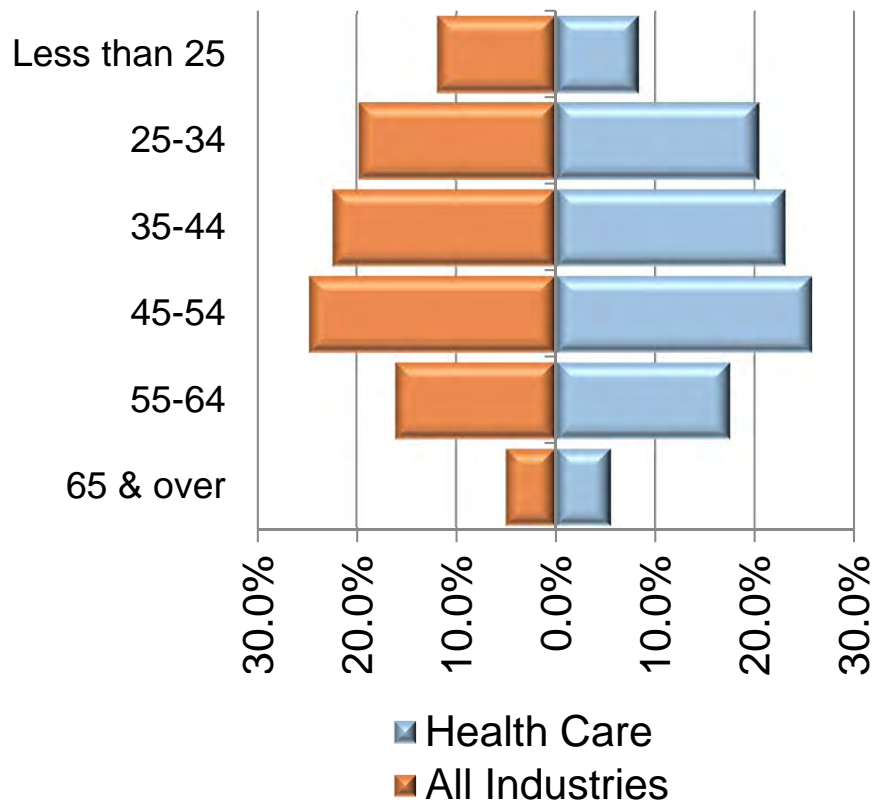


# Demographic Profile

Health Care Cluster

# Comparison by age group of the health care cluster and total nonfarm employment

**Age Breakdown of Workers in Health Care Industry  
New Jersey, 2010**



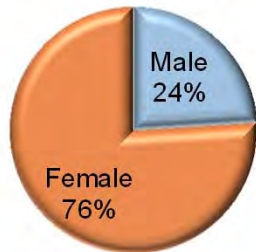
The workforce of the health care industry is older than average with about 49% aged 45 and up compared to only 46% overall

The largest disparity among age cohorts occurs in the youngest group, where only 8% of the health care workforce is 25 years old or younger

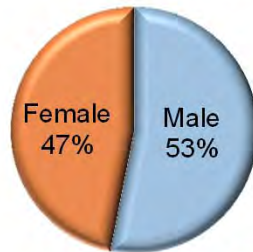
Roughly 5% of the current workforce is aged 65 and older

# Gender, racial, and ethnic profile of New Jersey's health care workforce

**Health Care**



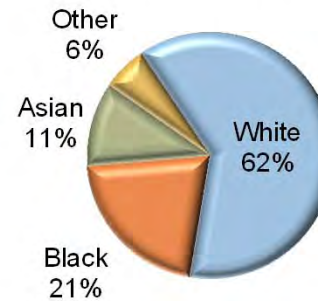
**All Industries**



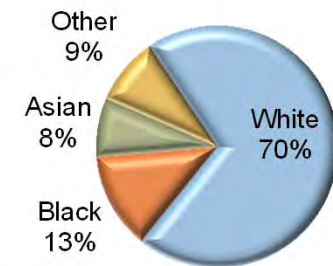
Females outnumber males by a 3 to 1 margin in the health care workforce

The workforce is far more diverse than average, particularly among the black and Asian population

**Health Care**



**All Industries**



The workforce has just slightly fewer Hispanics than average

Hispanic 13%



**Health Care**

Hispanic 17%



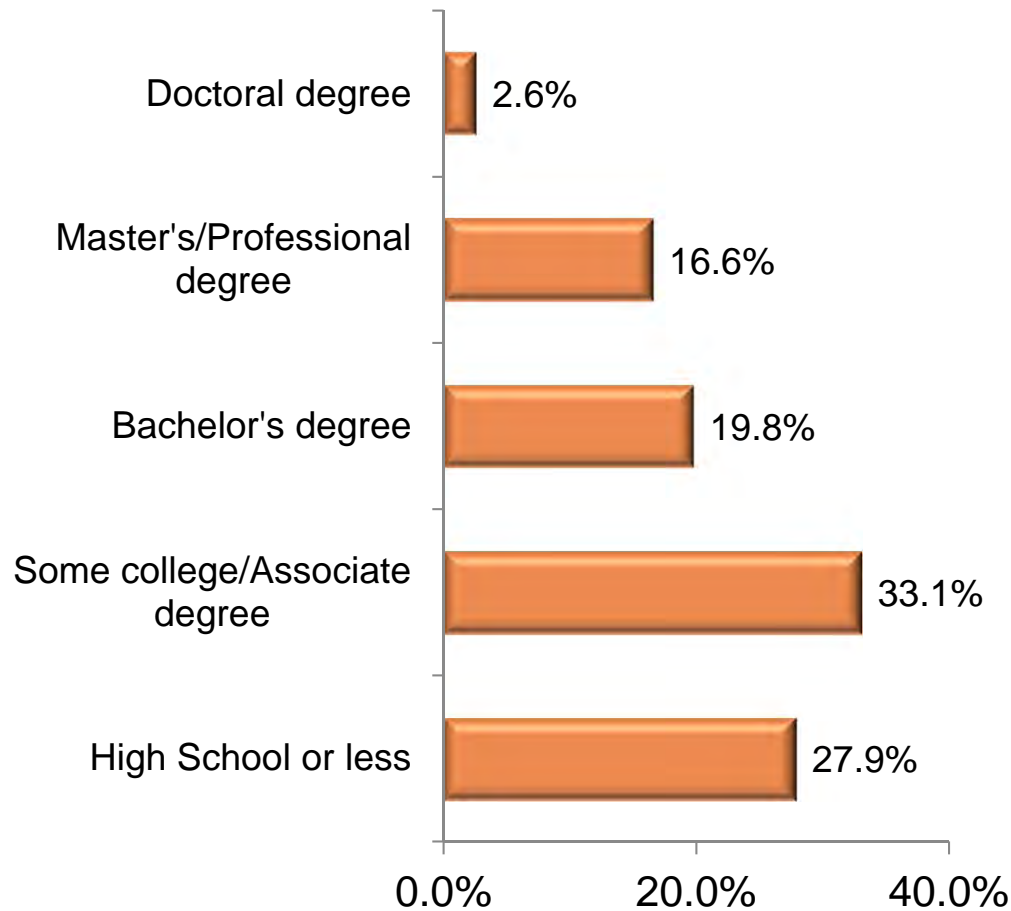
**All Industries**

Non-Hispanic 87%

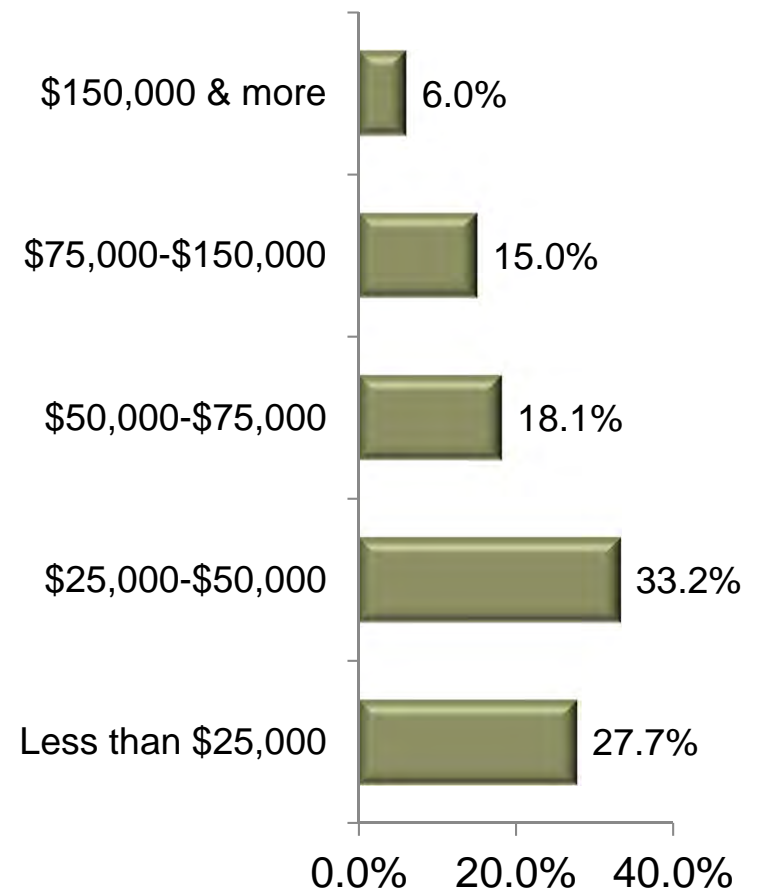
Non-Hispanic 83%

# Employment status and personal earnings of individuals in the health care industry

### Education Level



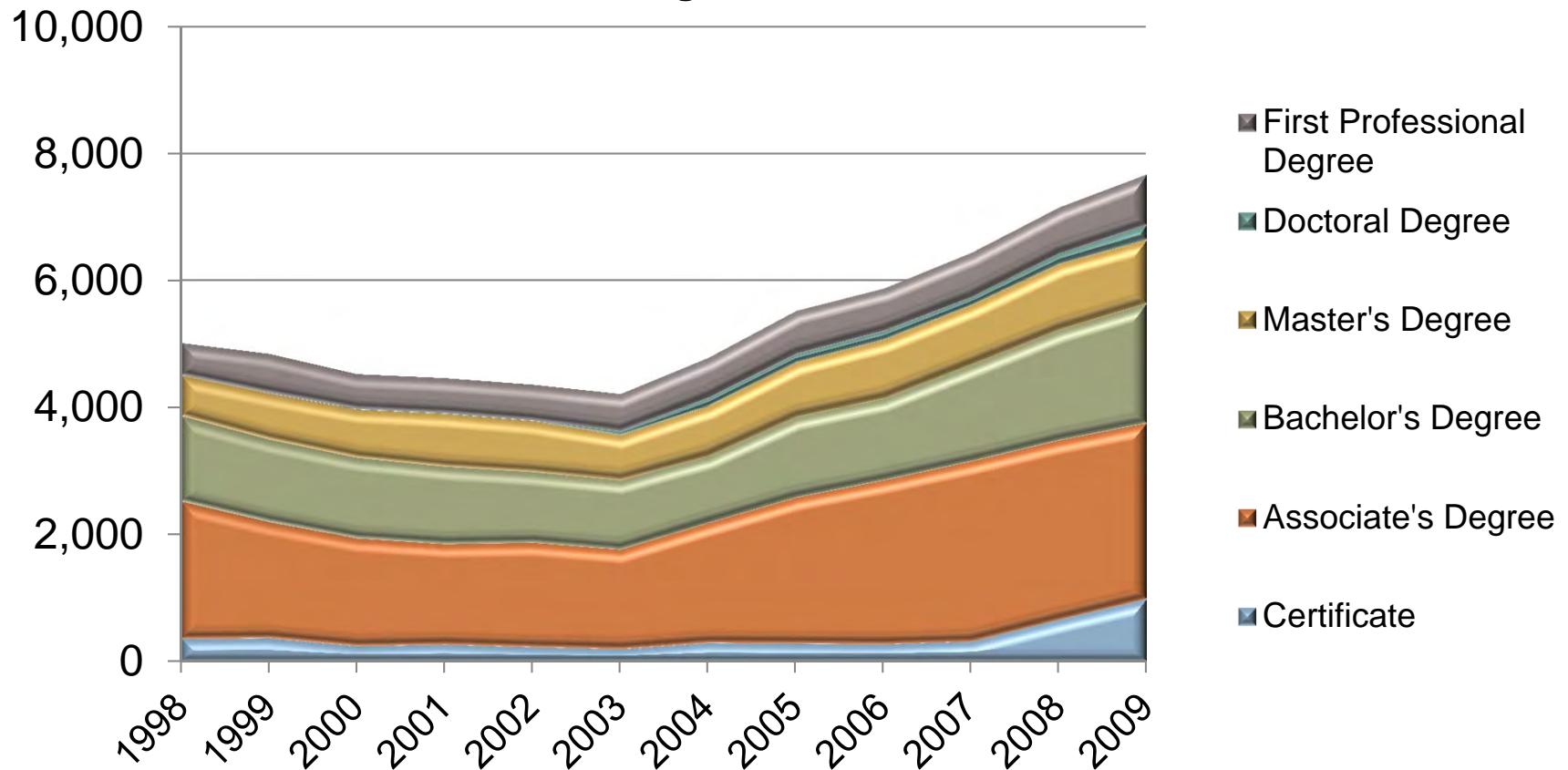
### Average Wage



Source: U.S. Census Bureau, 2010 American Community Survey  
Prepared by: New Jersey Department of Labor and Workforce Development,  
December, 2011

From 2003 to 2009, the total number of degrees and certificates awarded has increased by 82%

### Certificates and Degrees Awarded by New Jersey Institutions of Higher Education



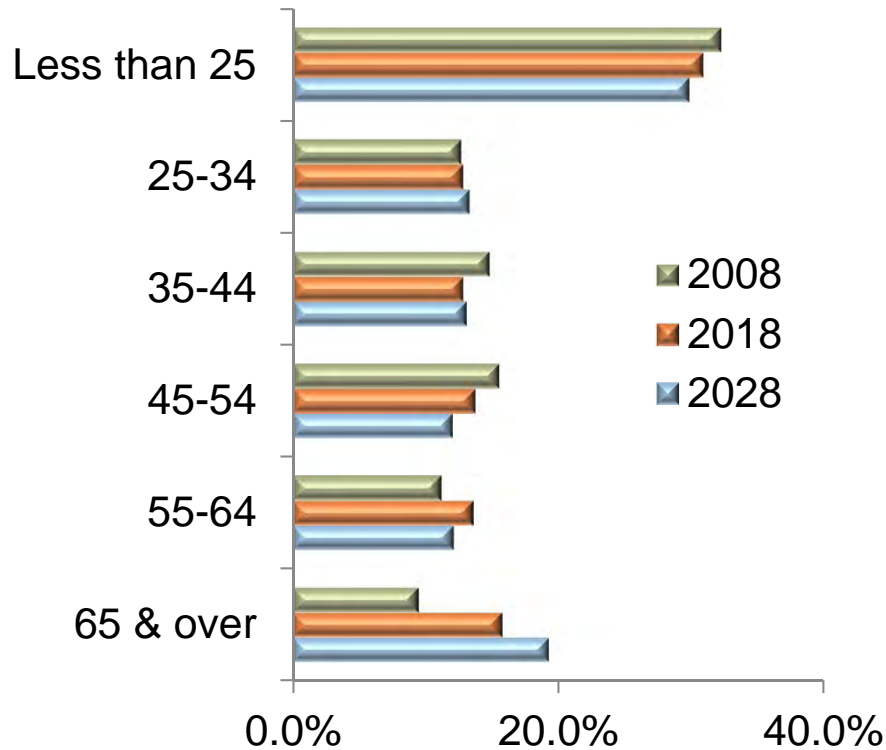
# Outlook

Health Care Cluster



# The first of two key drivers that will increase the demand for health care is the aging population in New Jersey

**Population Estimates and Projections in New Jersey 2008-2028**



The percentage of New Jersey residents aged 65 or over are projected to more than double from 2008 to 2028

As the Baby Boomer generation continues to age, the demands they will place on the health care system will drive employment higher

This should result in large increases in employment for areas such as gerontology, physical therapy and residential and nursing home care

Source: NJLWD, Population and Labor Force Projection, 2008-2028  
Prepared by: New Jersey Department of Labor and Workforce Development, December, 2011

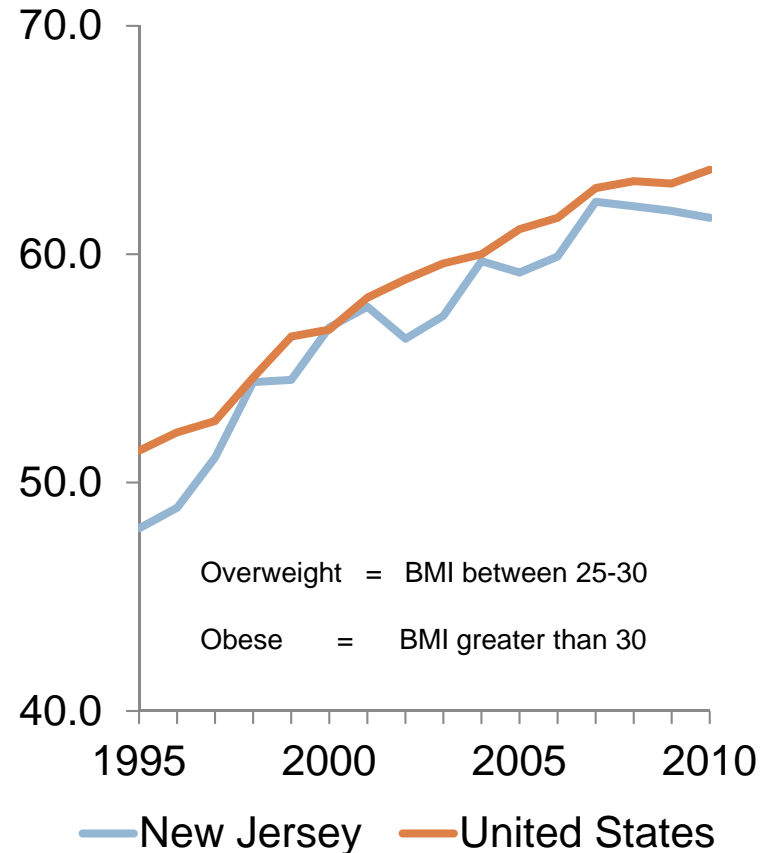
## The second key driver is the population's ongoing struggle with weight and obesity

Although New Jersey continues to lag the nation in terms of the percentage of people who are overweight or obese, the trend line shows that the percentage of the population in “at risk” groups has increased by 28% from 1995 to 2010

A closer view of the data shows that New Jersey's percentage of overweight has increased only slightly while the percentage of the obese has nearly doubled to 25% in 2010

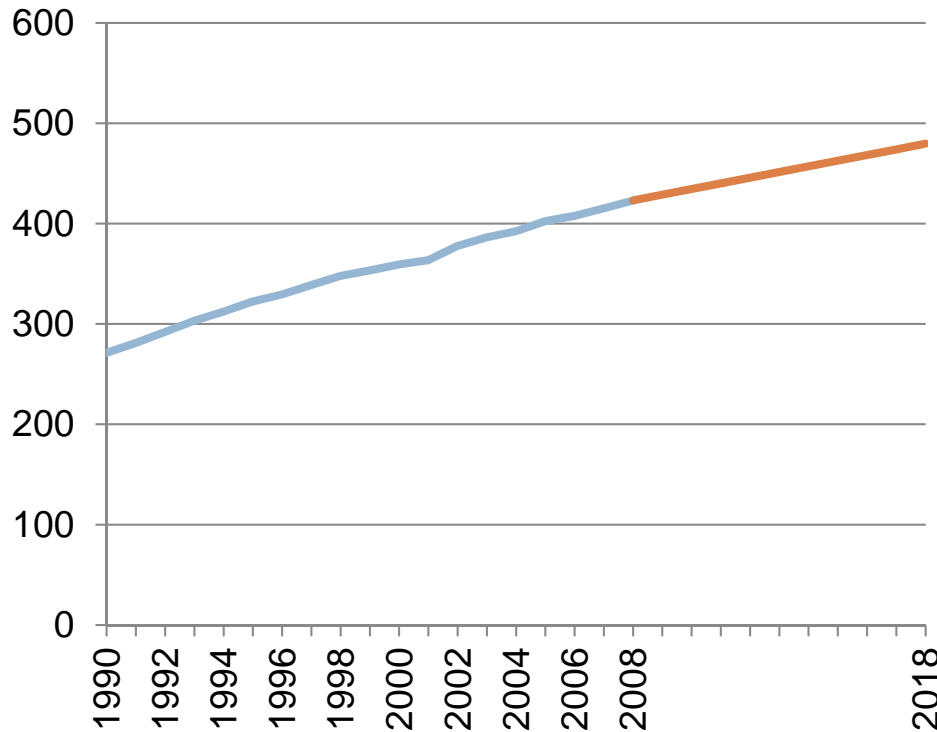
Employment opportunities in nutrition, physical therapy and cardiovascular disease should be robust as the state and the nation attempt to manage the obesity epidemic

**Percentage of Population Obese or Overweight in New Jersey and United States 1995-2010**



# The health care industry has steadily gained employment over the last 20 years and will continue that trend through 2018

**Actual and Projected Employment in Health Care (thousands): New Jersey, 1990-2018**



Employment is still growing, but getting slower

- Grew by 3% per year during 1990s
- Grew by 2% per year during 2000s
- *Projected to grow by 1.3% from 2008-2018*

There will still be many opportunities for employment as the industry struggles to increase workforce for growing demand while also replacing workers who will retire

The health care cluster is projected to add over 56,000 jobs, and account for more than 45% of net job growth from 2008-2018

These occupations are projected to add the most jobs over this ten-year period

### Most Projected Jobs Added Among Practitioners From 2008-2018

Occupational Title	Employment				Average Annual Job Openings			Education/Training Requirement
	Actual 2008	Projected 2018	Change 2008-2018 Number	Percent	Total	Growth	Replacement	
Registered Nurses	79,500	89,650	10,150	12.8	2,400	1,010	1,390	Associate degree
Physicians and Surgeons	22,600	24,950	2,350	10.4	640	250	400	First professional degree
Licensed Practical and Licensed Vocational Nurses	16,050	18,400	2,350	14.5	740	230	500	Postsecondary vocational training
Physical Therapists	6,750	8,150	1,400	20.2	220	140	80	Master's degree
Dental Hygienists	4,500	5,550	1,050	22.5	190	100	90	Associate degree

### Most Projected Jobs Added Among Support Workers From 2008-2018

Occupational Title	Employment				Average Annual Job Openings			Education/Training Requirement
	Actual 2008	Projected 2018	Change 2008-2018 Number	Percent	Total	Growth	Replacement	
Home Health Aides	28,700	40,600	11,900	41.6	1,480	1,190	290	Short-term on-the-job training
Nursing Aides, Orderlies, and Attendants	51,350	58,500	7,150	14.0	1,230	720	510	Postsecondary vocational training
Medical Assistants	12,500	15,200	2,700	21.5	410	270	140	Moderate-term on-the-job training
Dental Assistants	9,300	11,400	2,100	22.8	390	210	170	Moderate-term on-the-job training
Physical Therapist Aides	2,500	3,050	550	21.9	90	60	40	Short-term on-the-job training

These occupations are projected to increase by the largest percentage over the ten-year period

### Highest Projected Percentage Growth Among Practitioners From 2008-2018

Occupational Title	Employment				Average Annual Job Openings			Education/Training Requirement
	Actual 2008	Projected 2018	Change 2008-2018 Number	Percent	Total	Growth	Replacement	
Physician Assistants	1,050	1,300	250	27.1	50	30	20	Master's degree
Dental Hygienists	4,500	5,550	1,050	22.5	190	100	90	Associate degree
Physical Therapists	6,750	8,150	1,400	20.2	220	140	80	Master's degree
Pharmacy Technicians	7,000	8,200	1,200	17.1	300	120	180	Moderate-term on-the-job training
Occupational Therapists	3,250	3,800	550	16.4	110	50	60	Master's degree

### Highest Projected Percentage Growth Among Support Workers From 2008-2018

Occupational Title	Employment				Average Annual Job Openings			Education/Training Requirement
	Actual 2008	Projected 2018	Change 2008-2018 Number	Percent	Total	Growth	Replacement	
Home Health Aides	28,700	40,600	11,900	41.6	1,480	1,190	290	Short-term on-the-job training
Physical Therapist Assistants	1,100	1,400	300	24.0	40	30	20	Associate degree
Dental Assistants	9,300	11,400	2,100	22.8	390	210	170	Moderate-term on-the-job training
Physical Therapist Aides	2,500	3,050	550	21.9	90	60	40	Short-term on-the-job training
Medical Assistants	12,500	15,200	2,700	21.5	410	270	140	Moderate-term on-the-job training

Source: NJLWD, New Jersey Industry and Occupational Projections 2008 -2018  
 Prepared by: New Jersey Department of Labor and Workforce Development  
 December, 2011



New Jersey Department of  
Labor and Workforce Development  
Division of Labor Market and Demographic Research  
Bureau of Labor Market Information  
<http://lwd.dol.state.nj.us>

Jason Timian  
Labor Market Analyst  
Tel: 609-633-0553  
E-mail: [jason.timian@dol.state.nj.us](mailto:jason.timian@dol.state.nj.us)

Contact Information