



# New Jersey's Health Care Cluster Spring 2014

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# 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 \$30 billion to the Gross Domestic Product in 2011, roughly 7 percent of all output
- From 1990 through 2013, the health care sector has added 186,300 new jobs, while all other private sector employment has had a net increase of only 74,800 jobs
- Health care is the only industry that has added jobs in the state every year from 1990 through 2013 while increasing its share of jobholding from 7.5 percent in 1990 to 11.6 percent in 2013
- The outlook for health care employment is bright. From 2010 through 2020, it is projected that nearly 62,000 jobs will be added, an annual increase of 1.3 percent
- Health care employers paid more than \$22.8 billion in total wages in 2012, or about 12.3 percent of all wages paid

# Overview



There are roughly 21,430 establishments employing nearly 435,300 people of all ages, genders, races, and educational backgrounds in New Jersey in 2012. The majority of these establishments are smaller offices of health care professionals, however, roughly one-third 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 earn.

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

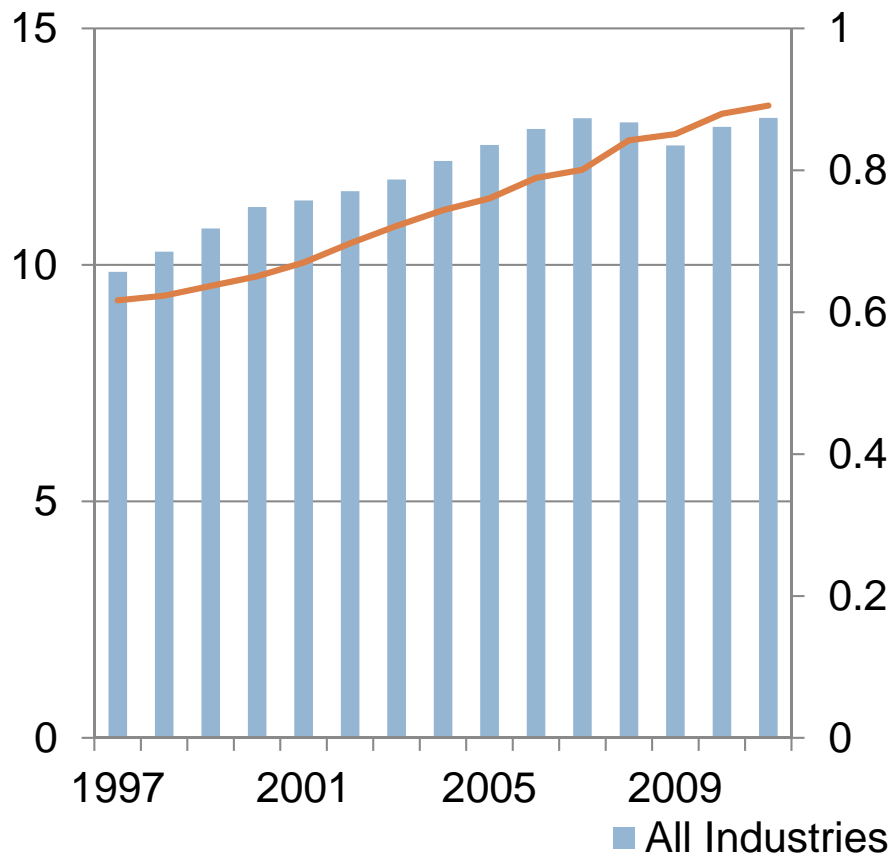
- General Medical and Surgical Hospitals
- Psychiatric and Substance Abuse Hospitals
- Other Hospitals

## Nursing and Residential Care Services

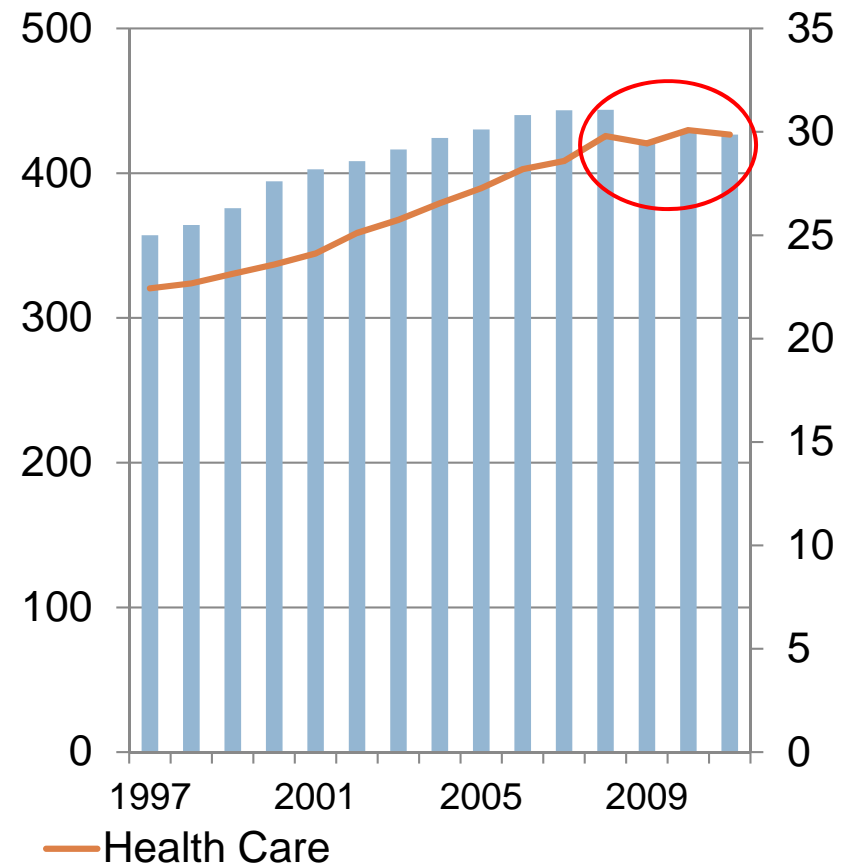
- Nursing Care Facilities
- Residential Mental Retardation Facility
- Residential Mental and Substance Abuse Care
- Continuing Care Retirement Communities
- Homes for the Elderly

# The economies of the United States and New Jersey behaved similarly until 2007 and the Great Recession

## Real GDP in Trillions of US\$ United States: 1997-2011



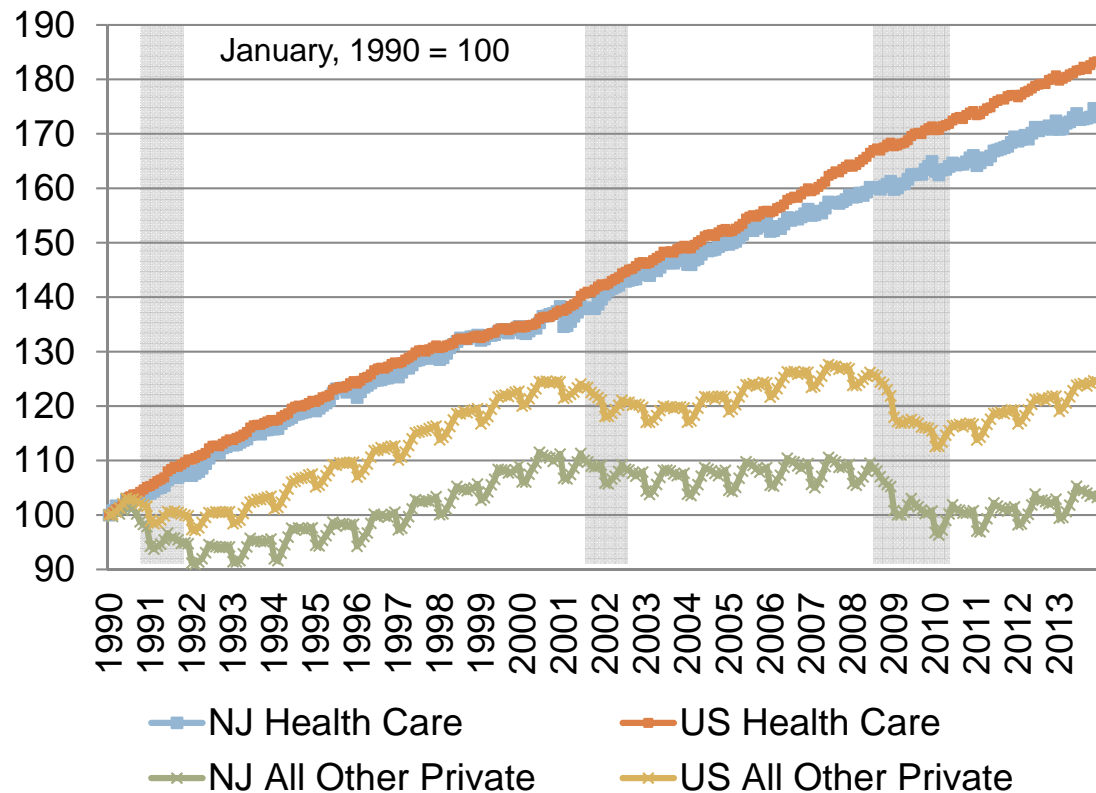
## Real GDP in Billions of US\$ New Jersey: 1997-2011



Source: Bureau of Economic Analysis (US BEA)  
Prepared by: New Jersey Department of Labor and Workforce Development  
April, 2014

# 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: 1990-2013**



New Jersey has followed the national trend very closely, but starting in 2005 the nation pulled ahead in terms of faster growth

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

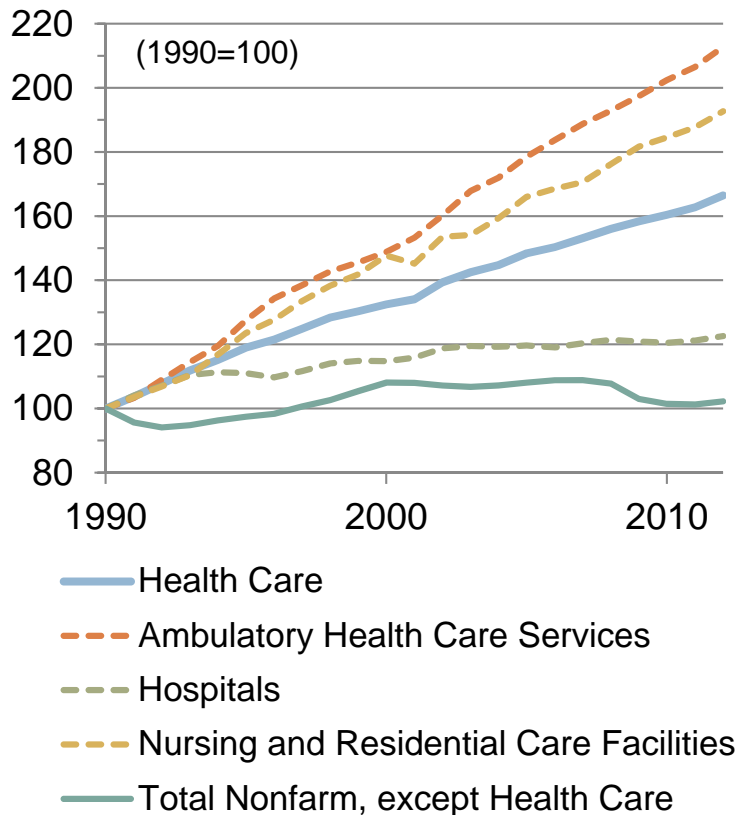
From 2000 to 2013, New Jersey has added 98,200 new health care jobs while the rest of the private sector has lost approximately 184,400

Shaded areas indicate recessionary periods as determined by the National Bureau of Economic Research

Source: NJLWD, Current Employment Statistics, Monthly Estimates, Not Seasonally Adjusted  
Prepared by: New Jersey Department of Labor and Workforce Development  
April, 2014

# 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: 1990-2013**



From 1990 through 2013, the health care sector has added 186,300 new jobs, while all other industries combined have had a net gain of only 113,400

Employment in Ambulatory Health Care Services more than doubled over the last 23 years

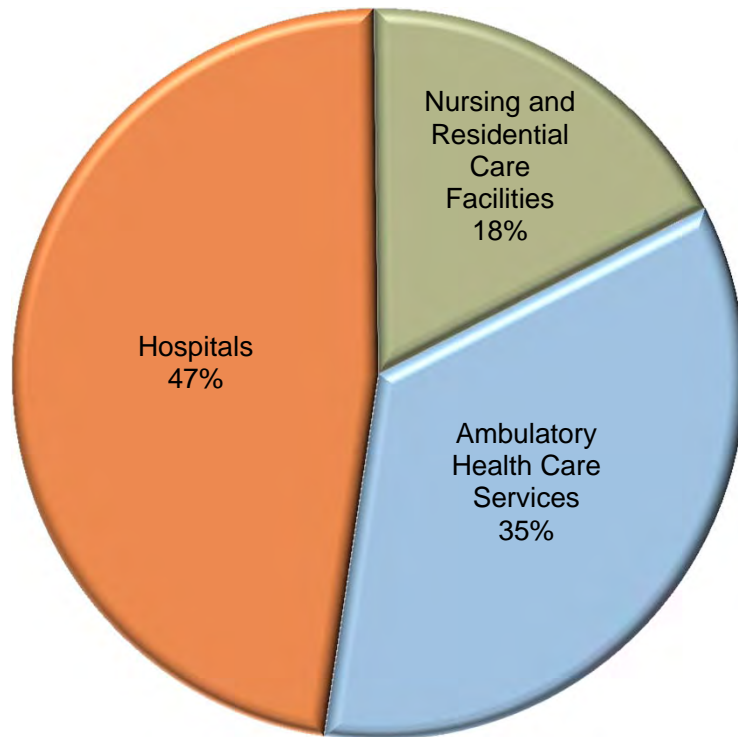
Employment in Nursing and Residential Care Facilities is on pace to double by 2015

Slow yet steady growth in Hospital employment has led to it being the laggard among health care's three major components

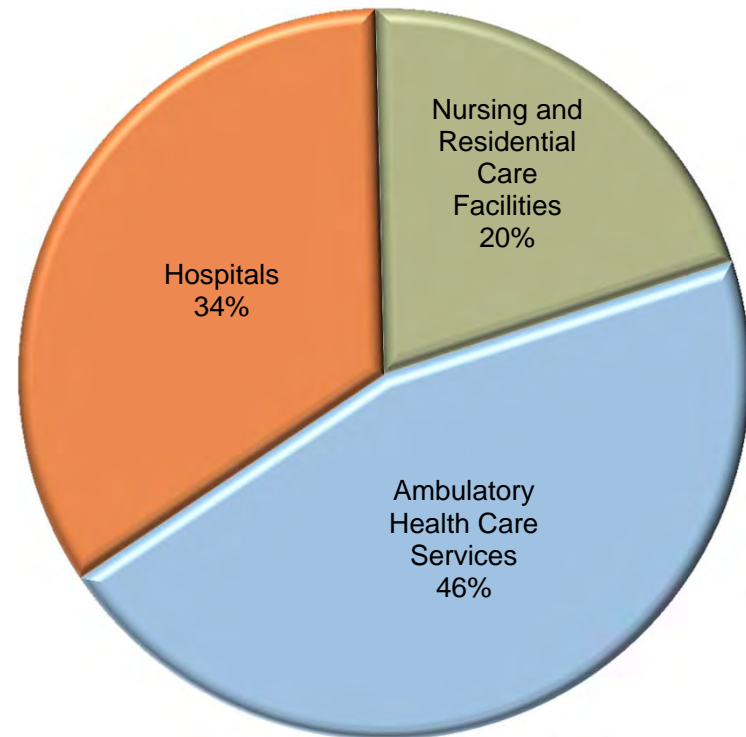
# The landscape of health care delivery has changed dramatically over the past 23 years

Employment of Components as a Percentage of Total Health Care  
New Jersey, 1990 & 2013

**1990**



**2013**



Source: NJLWD, Current Employment Statistics, Annual Averages  
Prepared by: New Jersey Department of Labor and Workforce Development  
April, 2014

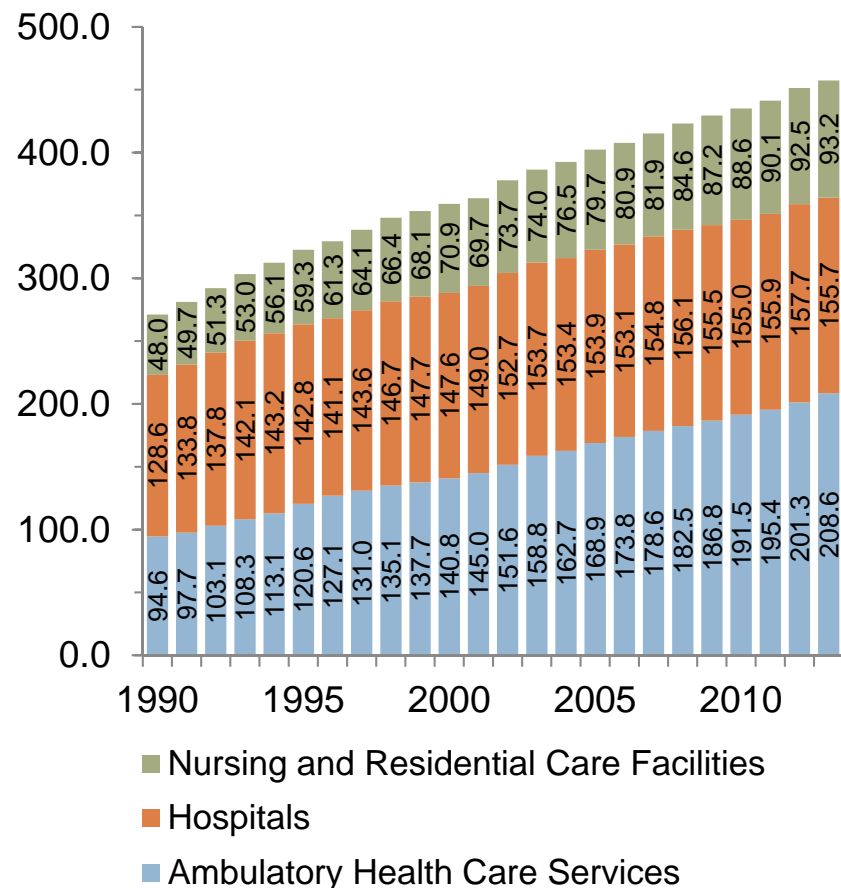
With employment nearing 460,000, the health care sector accounted for 11.6% of all employment in the state in 2013, up from 7.5% in 1990

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 faster than three times the rate (2.9%) of Hospitals (0.8%) since 1990

Together, the three Health Care components have grown by 2.3% annually since 1990, compared to only 0.1% for all other total nonfarm employment

**Employment in Health Care Components  
New Jersey, 1990-2013**



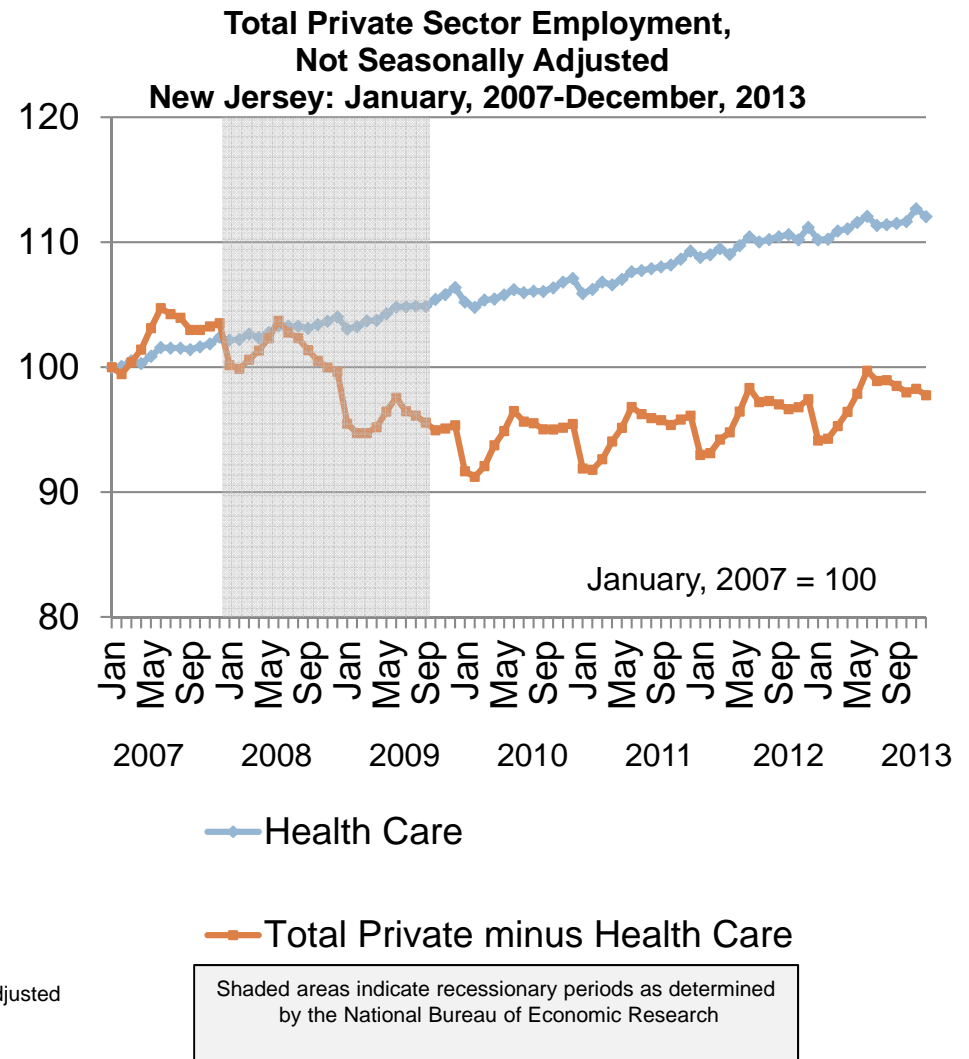
Source: NJLWD, Current Employment Statistics, Annual Averages  
Prepared by: New Jersey Department of Labor and Workforce Development  
April, 2014

# 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 roughly 175,000

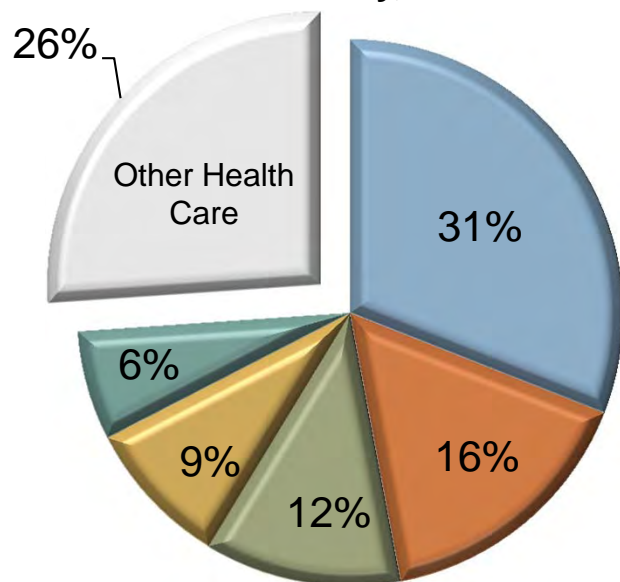
Since the official end of the recession June of 2009, the health care industry has continued to expand while the remainder of the private sector has regained about half of the jobs it lost



Source: NJLWD, Current Employment Statistics, Monthly Estimates, Not Seasonally Adjusted  
Prepared by: New Jersey Department of Labor and Workforce Development  
April, 2014

## In 2012, nearly 75% of all health care employment in New Jersey is found in these top five industries

**Percentage of Employment  
By Detailed Industry  
New Jersey, 2012**



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 13.6% of all employment at the state level, up from 12% in 2007

While still growing moderately, general medical and surgical hospitals account for 31% of all health care employment in New Jersey in 2012, down from 33.4% in 2007

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

# Despite the severe national recession, employment in the health care cluster experienced robust growth of 2.0% nationally from 2007 through 2012, 1.7% in New Jersey

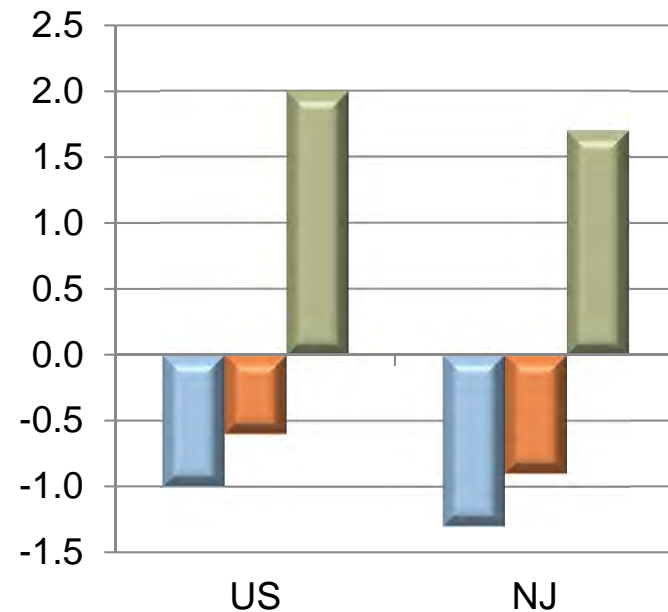
Home Health Care Services, Nursing Care Facilities, and Offices of Physicians were the largest gainers in New Jersey from 2007 through 2012, together adding about 17,500 jobs

Nationally, Home Health Care Services and General Medical and Surgical Hospitals added nearly of a half million new jobs over the five year period

Psychiatric and Substance Abuse Hospitals and Kidney Dialysis Center were the fastest growing health care industries in New Jersey, growing annually by 8.4 and 7.0 percent, respectively

Source: NJLWD, Quarterly Census of Employment and Wages, Annual Averages  
Prepared by: New Jersey Department of Labor and Workforce Development  
April, 2014

**Annual Percentage Change in Employment  
New Jersey, 2007-2012**



- Total, Private Sector
- Private Sector minus Health Care
- Health Care

# Narrative explaining bubble chart

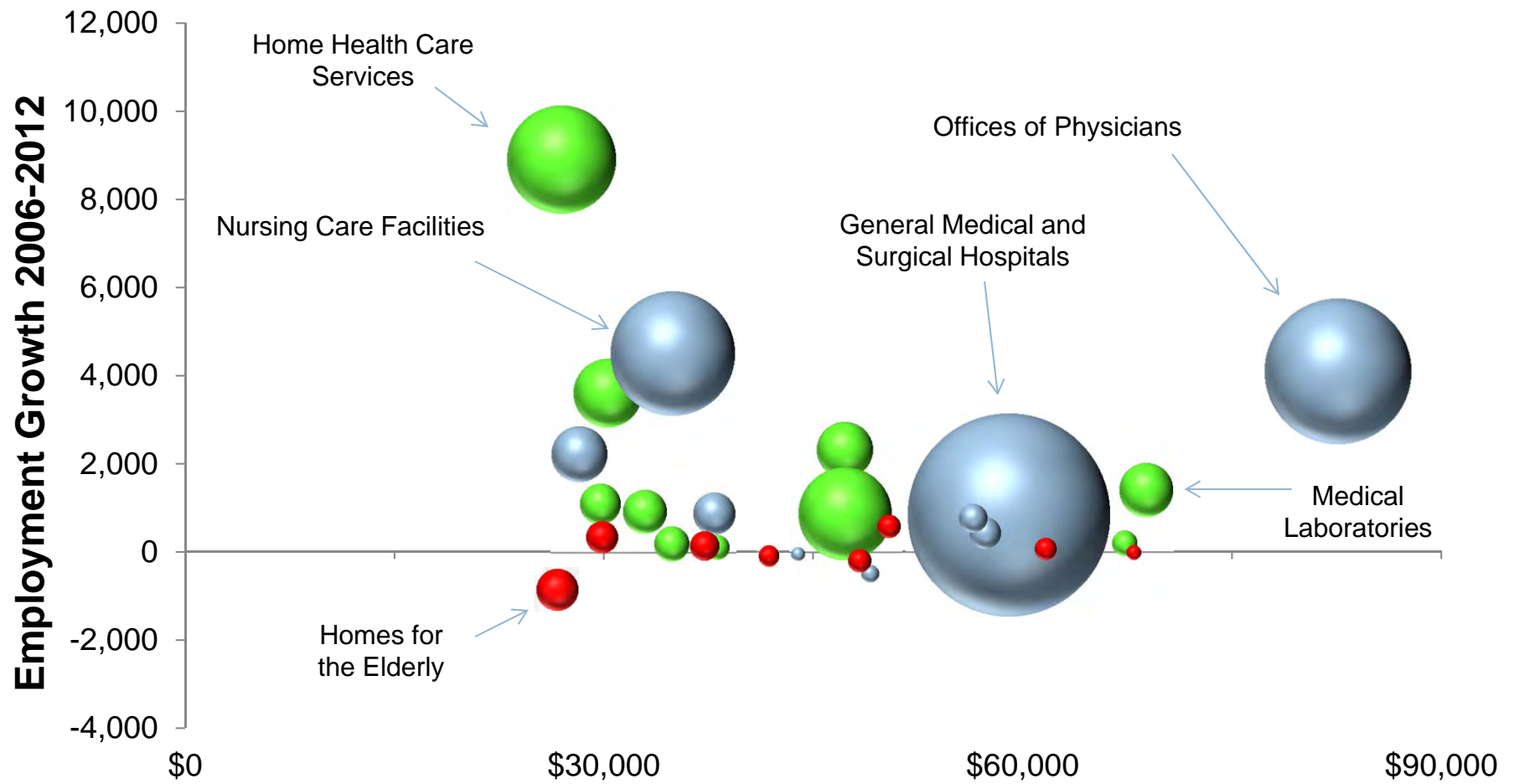
There are four elements of data depicted in the bubble chart on the next page:

1. Total 2012 employment is represented by the size of the bubble
2. Employment change from 2007-2012 is charted by the position on the Y-axis, or vertical position
3. Annual average wages in 2012 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= $LQ \geq 1.1$

Red bubble= $LQ < 0.9$



Source: NJLWD, Quarterly Census of Employment and Wages, Annual Wage  
Prepared by: New Jersey Department of Labor and Workforce Development  
April, 2014

**Annual Average Wage 2012**

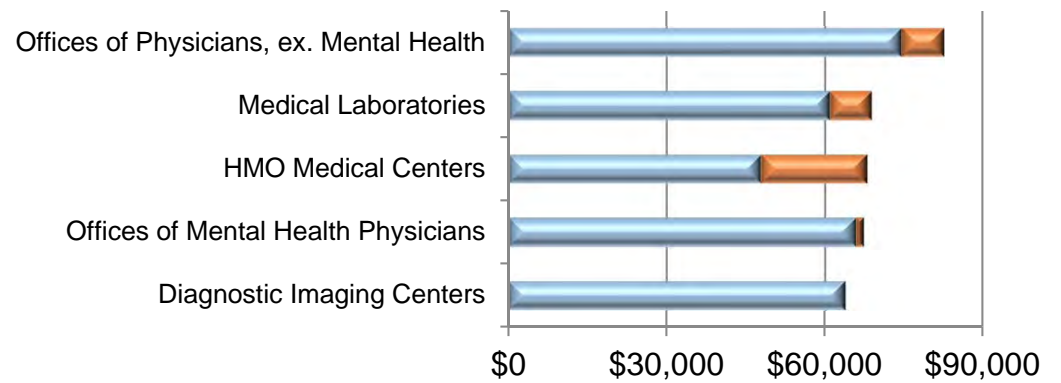
# The annual average wage in New Jersey in the health care sector in 2012 was \$52,320, up from \$48,580 in 2007, an increase of \$3,740 or 1.5% per year

Nationally, the Health Care industry paid an annual average wage of \$49,450 in 2012, up 2.3% per year from \$44,050 in 2007

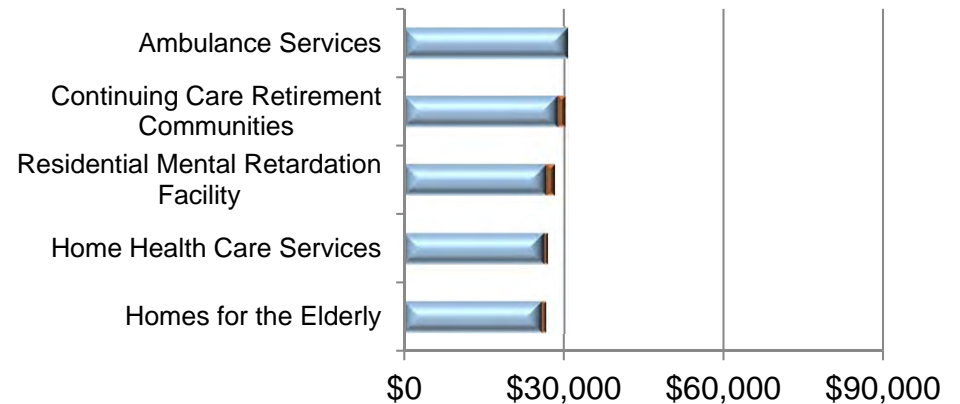
Nationally, annual average wages paid in health care were on par or slightly above the average for all private sector employment

In New Jersey, annual average wages paid in private sector industries outside of health care are higher by about \$6,000 per year in both 2007 and 2012

### Highest Five Annual Average Wages, NJ, 2012



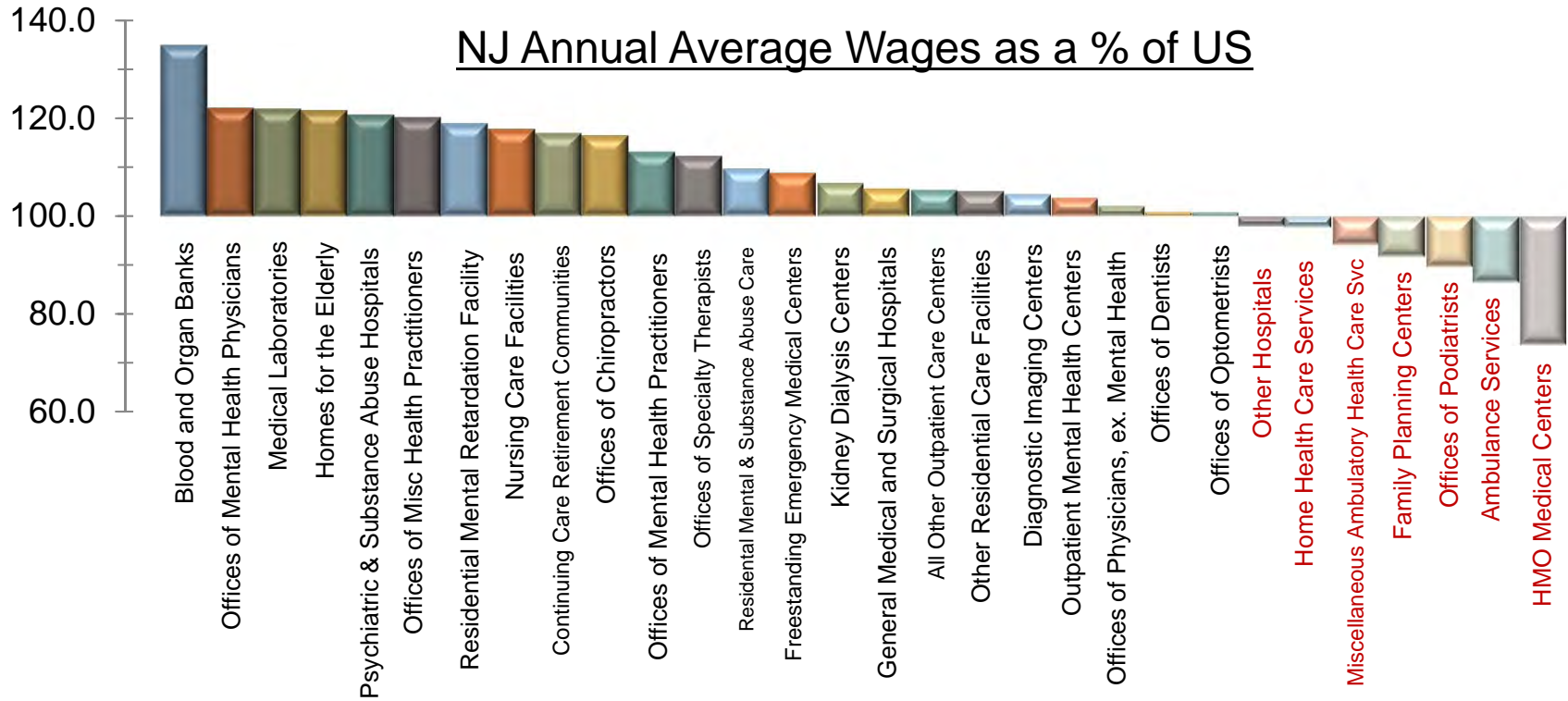
### Lowest Five Annual Average Wages, NJ, 2012



■ 2007 Annual Wage ■ Growth 2007-2012

Source: NJLWD, Quarterly Census of Employment and Wages, Annual Averages  
Prepared by: New Jersey Department of Labor and Workforce Development  
April, 2014

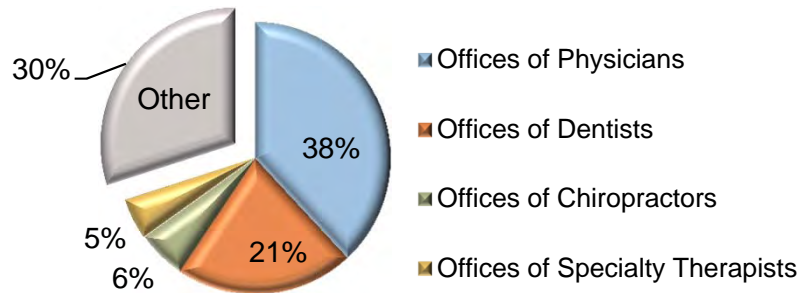
23 out of 30 health care industries in New Jersey have a higher annual average wage than the nation. Overall, the sector paid 5.8% more in New Jersey in 2012 than nationally



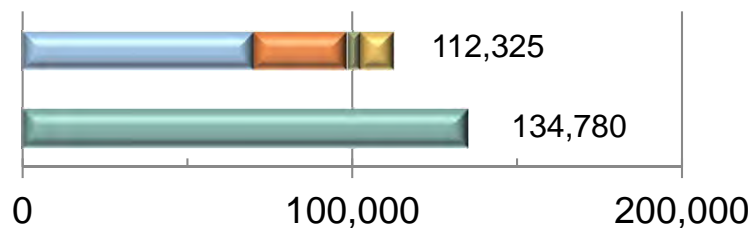
The wage disparity has decreased in 23 of the 30 industries since 2007, when the sector was paid an average of 10.3% more in New Jersey

# There were 21,430 health care establishments in New Jersey in 2012, employing 435,300 people

70% of all Health Care establishments fall into these four industries...



...yet the 135 General Medical and Surgical Hospitals (<1% of establishments) employed 20% more in 2012



2012 Employment

From 2007 to 2012, New Jersey had a net increase of 970 health care establishments, an increase of 0.9 percent annually (1.7 percent nationally)

Reflecting a nationwide trend from 2007 to 2012, the number of Kidney and Dialysis Centers in New Jersey increased from 82 to 114

General Medical and Surgical Hospitals averaged nearly 1,000 employees per establishment in 2012

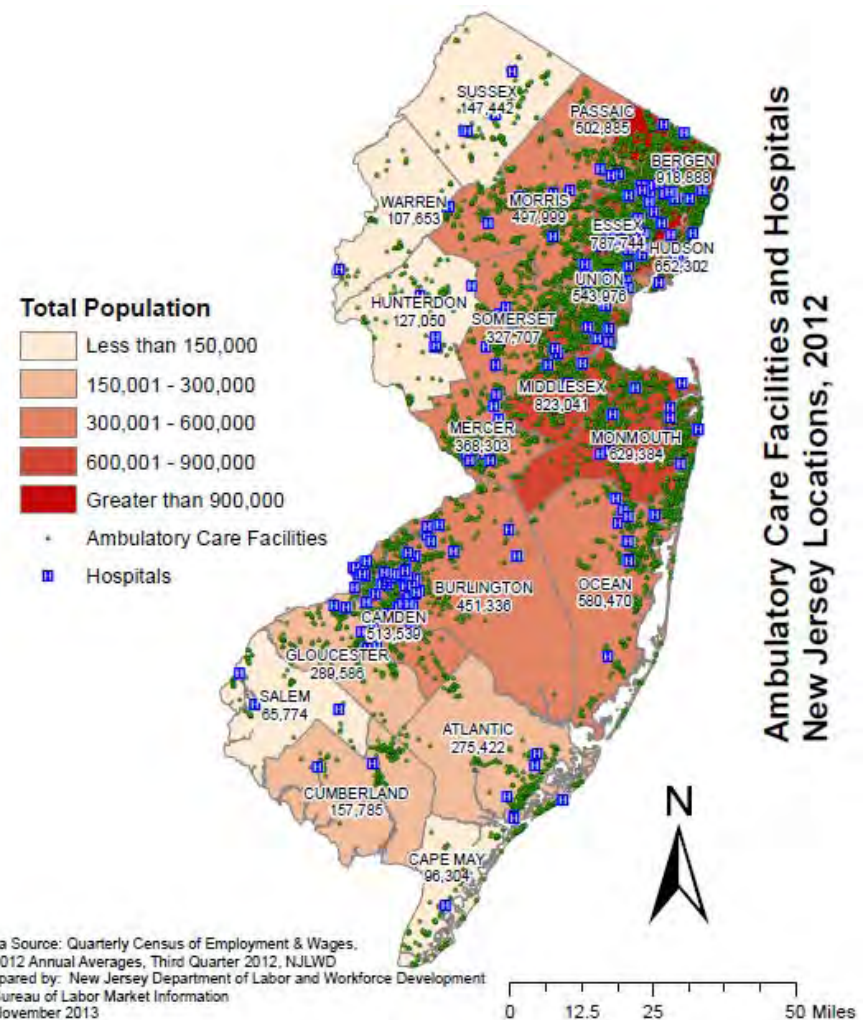
# There are more than 200 hospitals and nearly 20,000 ambulatory care facilities in New Jersey

**Primary Care Employment and Population Estimates  
By County: New Jersey, 2012**

County	Primary Care Employment	Emp/Pop Ratio	County	Primary Care Employment	Emp/Pop Ratio
BERGEN	53,354	17.2	BURLINGTON	15,667	28.8
MERCER	18,193	20.2	MIDDLESEX	28,252	29.1
CAMDEN	25,177	20.4	OCEAN	19,761	29.4
ATLANTIC	11,749	23.4	SOMERSET	11,078	29.6
MONMOUTH	26,500	23.8	WARREN	3,269	32.9
MORRIS	20,776	24.0	PASSAIC	14,908	33.7
ESSEX	31,262	25.2	CAPE MAY	2,658	36.2
<b>NEW JERSEY</b>	<b>343,300</b>	<b>25.8</b>	SALEM	1,658	39.7
UNION	20,508	26.5	GLOUCESTER	7,213	40.1
CUMBERLAND	5,758	27.4	HUDSON	15,872	41.1
HUNTERDON	4,470	28.4	SUSSEX	3,282	44.9

Bergen and Essex counties account for 24.6 percent of primary care employment, but only 19.2 percent of resident population

Source: NJLWD, Quarterly Census of Employment and Wages, Annual Average; U.S. Census Bureau, 2011 Population Estimates  
Prepared by: New Jersey Department of Labor and Workforce Development  
April, 2014



The geographies of highest demand for nursing and residential care facilities are typically located in the most populous areas and along New Jersey's shore towns

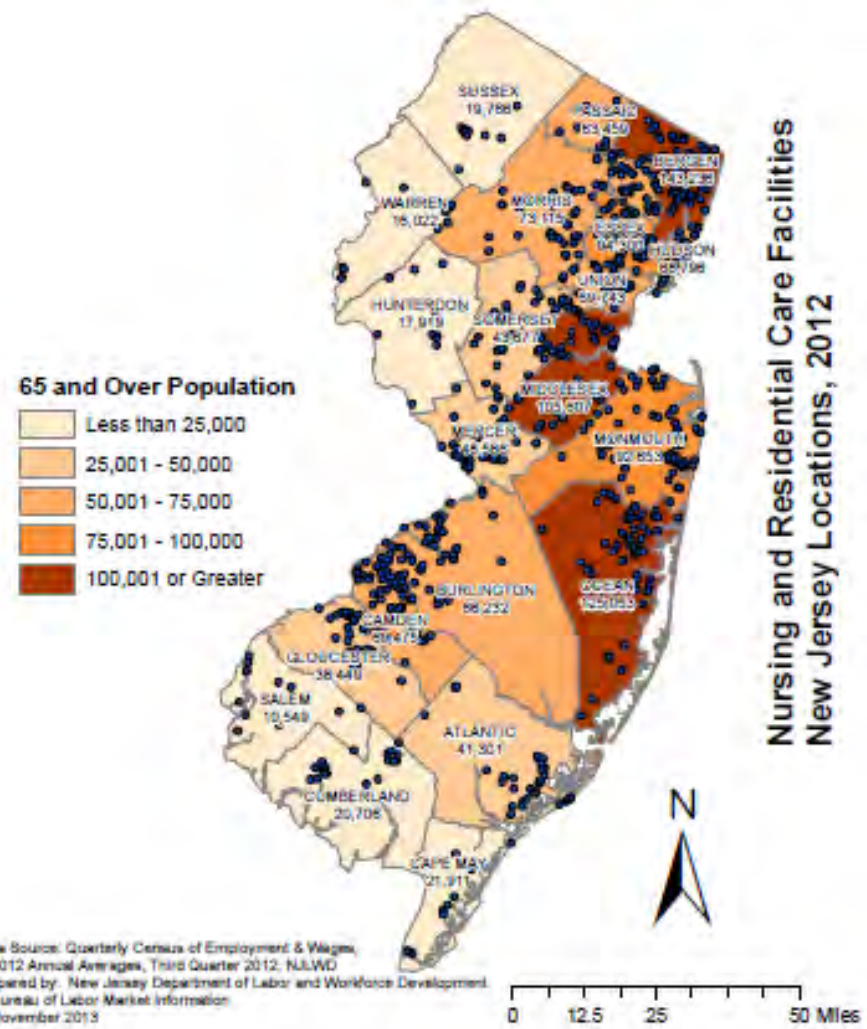
**Total Number of Nursing and Residential Care Facilities By County: New Jersey, 2012**

BERGEN	141	BURLINGTON	96	ATLANTIC	63
MONMOUTH	126	MERCER	95	HUNTERDON	46
OCEAN	117	MORRIS	91	HUDSON	41
CAMDEN	109	UNION	87	WARREN	39
ESSEX	108	GLOUCESTER	79	CAPE MAY	30
MIDDLESEX	107	PASSAIC	77	CUMBERLAND	28
SOMERSET	103	SUSSEX	70	SALEM	13

Bergen, Ocean, and Middlesex Counties each have greater than 100,000 residents aged 65 and older

Cape May and Ocean are New Jersey's two oldest counties in terms of the percent of population aged 65 and older, 23 and 22 percent, respectively

Source: NJLWD, Quarterly Census of Employment and Wages, Annual Averages  
 U.S. Census Bureau, 2011 Population Estimates  
 Prepared by: New Jersey Department of Labor and Workforce Development  
 April, 2014

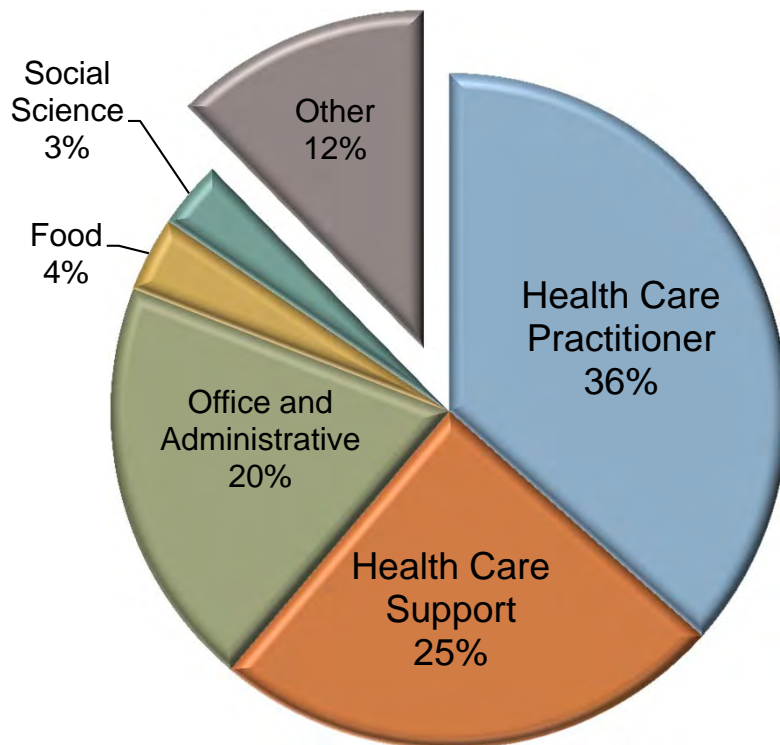


# Occupational Analysis

Health Care Cluster

# Roughly three out of five workers in the health care industry are directly involved with patient care in 2012

**Breakdown of Major Occupational Groups within Health Care Industry: New Jersey, 2012**



Office and administrative occupations are the third largest group, employing about 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 almost 70 percent of all employment in the industry

Occupation	2012 Employment	Share of Industry	Average Salary	Minimum Educational Requirement
Total, All Occupations	463,500	100.0%		
Top 20 Occupations	320,986	69.3%	\$56,420	
Registered Nurses	72,527	15.6%	\$75,820	Associate's degree
Nursing Aides, Orderlies, and Attendants	47,868	10.3%	\$27,760	Postsecondary non-degree award
Receptionists and Information Clerks	30,765	6.6%	\$28,200	High school diploma or equivalent
Home Health Aides	24,612	5.3%	\$22,610	Less than high school
Physicians and Surgeons	19,839	4.3%	\$193,350	Doctoral or professional degree
Medical Assistants	13,679	3.0%	\$32,090	High school diploma or equivalent
Medical Secretaries	13,361	2.9%	\$38,360	High school diploma or equivalent
Licensed Practical and Licensed Vocational Nurses	12,083	2.6%	\$51,350	Postsecondary non-degree award
Food Servers, Nonrestaurant	10,997	2.4%	\$22,040	Less than high school
Billing and Posting Clerks	9,283	2.0%	\$37,720	High school diploma or equivalent
Maids and Housekeeping Cleaners	8,724	1.9%	\$22,890	Less than high school
Dental Assistants	8,617	1.9%	\$38,690	Postsecondary non-degree award
Supervisors of Office and Administrative Support Workers	7,866	1.7%	\$56,970	High school diploma or equivalent
Medical and Health Services Managers	7,353	1.6%	\$110,340	Bachelor's degree
Radiologic Technologists and Technicians	6,631	1.4%	\$62,810	Associate's degree
Physical Therapists	6,033	1.3%	\$89,830	Doctoral or professional degree
Emergency Medical Technicians and Paramedics	5,687	1.2%	\$35,410	Postsecondary non-degree award
Dental Hygienists	5,437	1.2%	\$80,300	Associate's degree
Interviewers, Except Eligibility and Loan	4,820	1.0%	\$32,090	High school diploma or equivalent
Medical and Clinical Laboratory Technologists	4,804	1.0%	\$65,680	Bachelor's degree

Health care practitioners
  Health care support
  Office/Administrative support

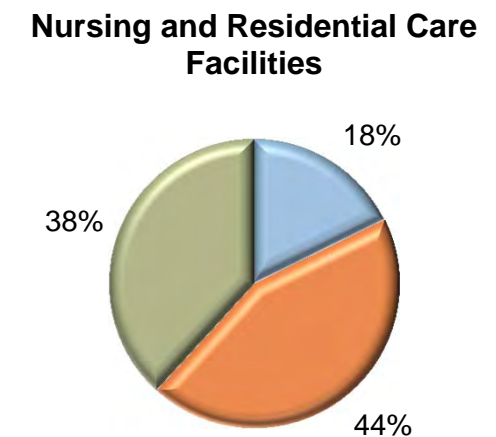
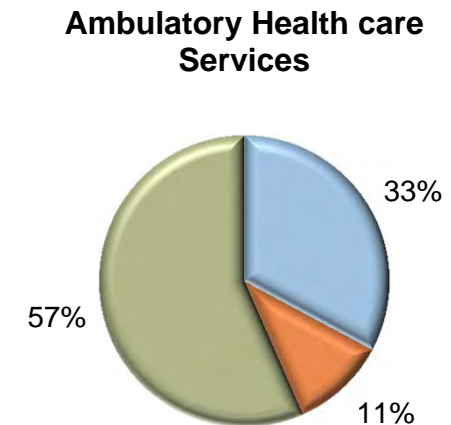
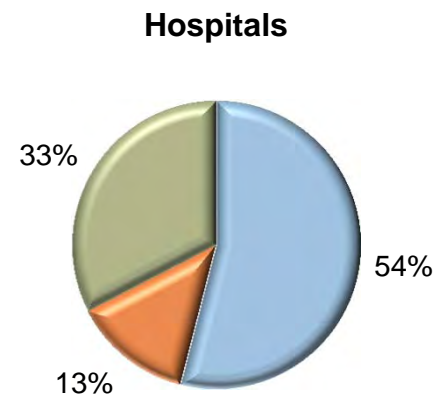
# Skills, Knowledge and Abilities most important to the top 20 occupations found in health care

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...

Minimum Education Requirements	2012 Employment	% of Total
<b>Total Health Care Occupations</b>	<b>463,500</b>	<b>100.0%</b>
<b>Total High Requirements</b>	<b>174,151</b>	<b>37.6%</b>
Doctoral or professional degree	35,418	7.6%
Master's degree	10,972	2.4%
Bachelor's degree	30,272	6.5%
Associate's degree	97,489	21.0%
<b>Total Moderate Requirements</b>	<b>84,952</b>	<b>18.3%</b>
Some college, no degree	636	0.1%
Postsecondary non-degree award	84,316	18.2%
<b>Total Low Requirements</b>	<b>204,397</b>	<b>44.1%</b>
High school diploma or equivalent	144,447	31.2%
Less than high school	59,950	12.9%



Source: NJLWD, Occupational Employment Statistics Survey, May 2011  
 Prepared by: New Jersey Department of Labor and Workforce Development  
 April, 2014

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

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



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



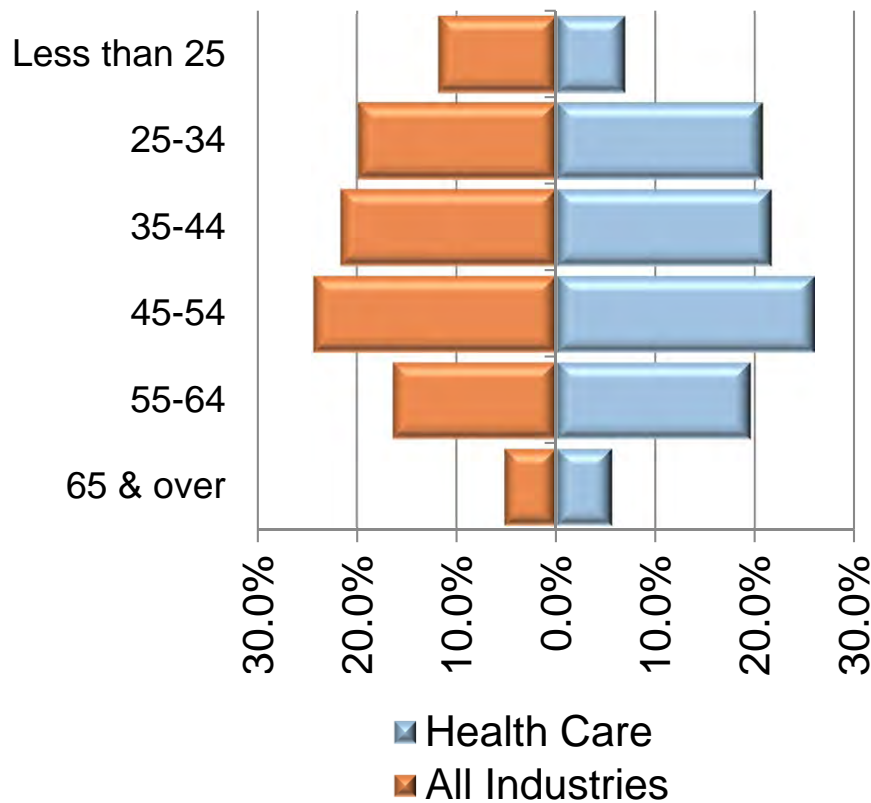
Source: NJLWD, Occupational Employment Statistics Survey, May 2012  
Prepared by: New Jersey Department of Labor and Workforce Development  
April, 2014

# Demographic Profile

Health Care Cluster

# Comparison by age group of the health care cluster and total nonfarm employment (NJ residents)

**Age Breakdown of Workers in Health Care Industry  
New Jersey, 2012**



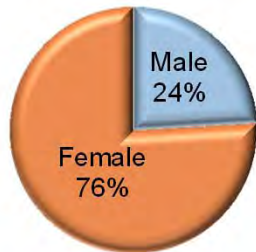
The workforce of the health care industry is older than average with about 51% aged 45 and up compared to only 46% overall

The largest disparity among age cohorts occurs in the youngest group, where only 7% of the health care workforce is 25 years old or younger

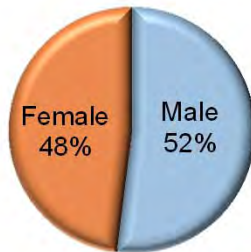
Roughly 5% of the current workforce is aged 65 and older

# Gender, racial, and ethnic profile of New Jersey residents within health care workforce

**Health Care**



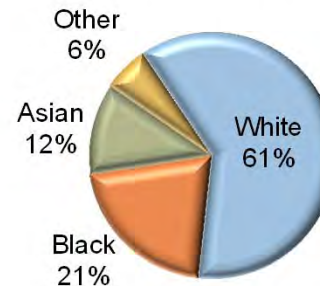
**All Industries**



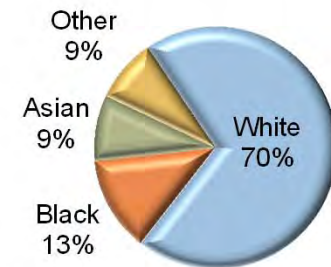
Females outnumber males by a 3 to 1 margin in the health care workforce

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

**Health Care**



**All Industries**



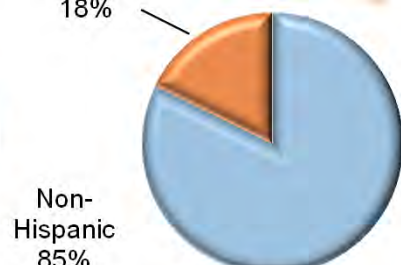
The workforce has just slightly fewer Hispanics than average

Hispanic 15%



**Health Care**

Hispanic 18%

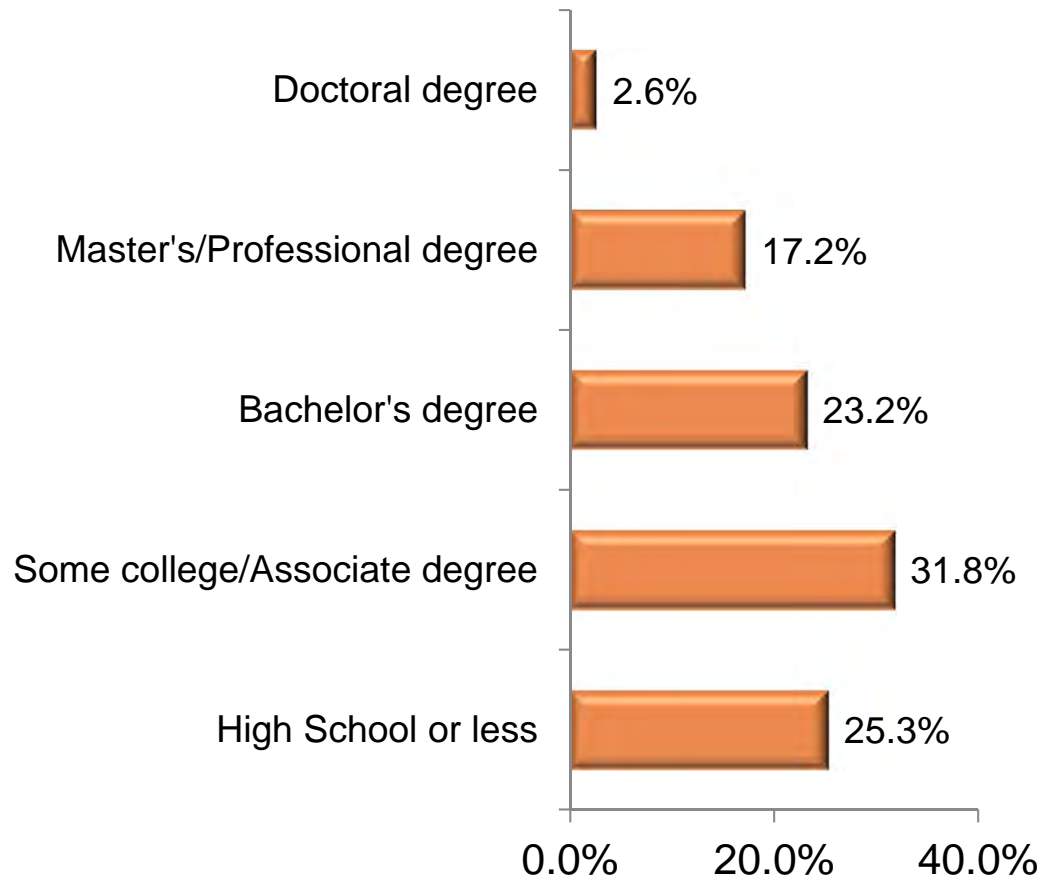


**All Industries**

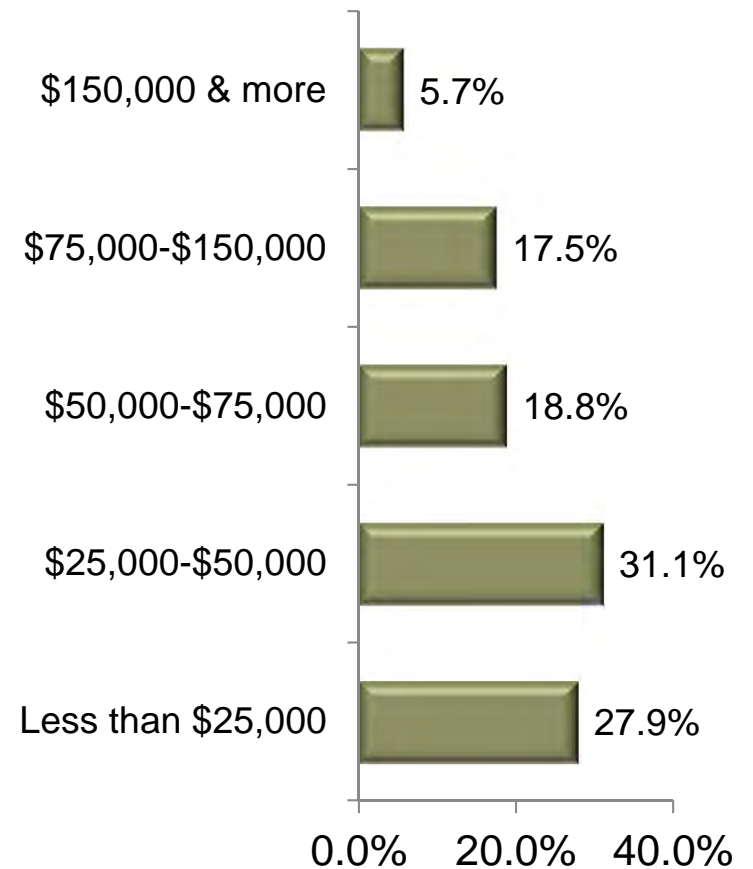
Non-Hispanic 82%

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

## Education Level



## Personal Earnings

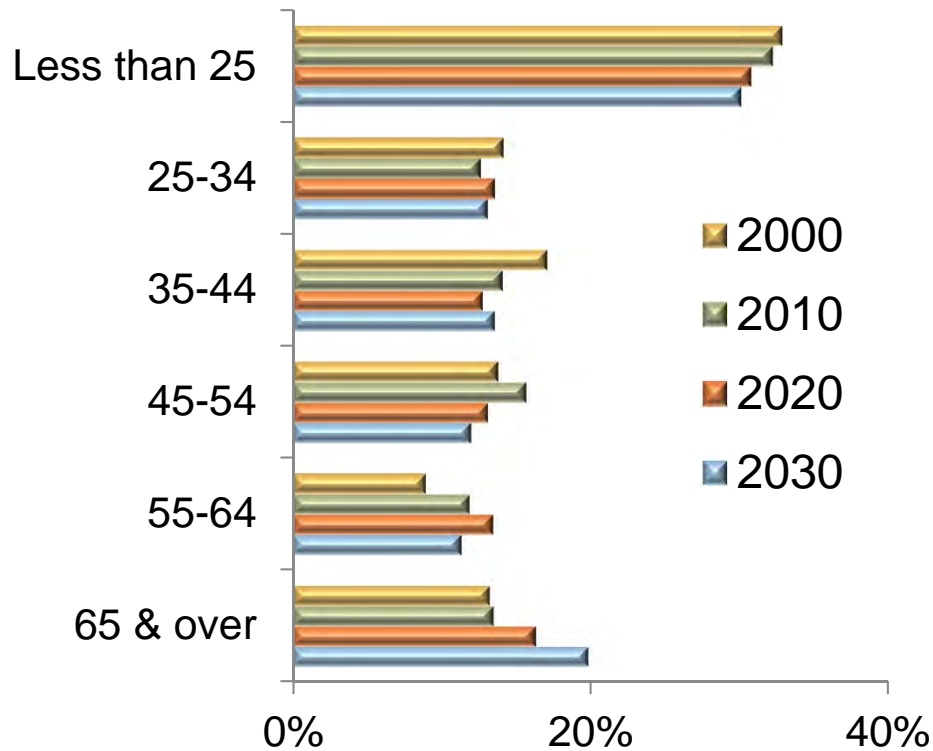


# Outlook

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 2000-2030**



The percentage of New Jersey residents aged 65 or over are projected to reach 20% by 2030

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

## 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

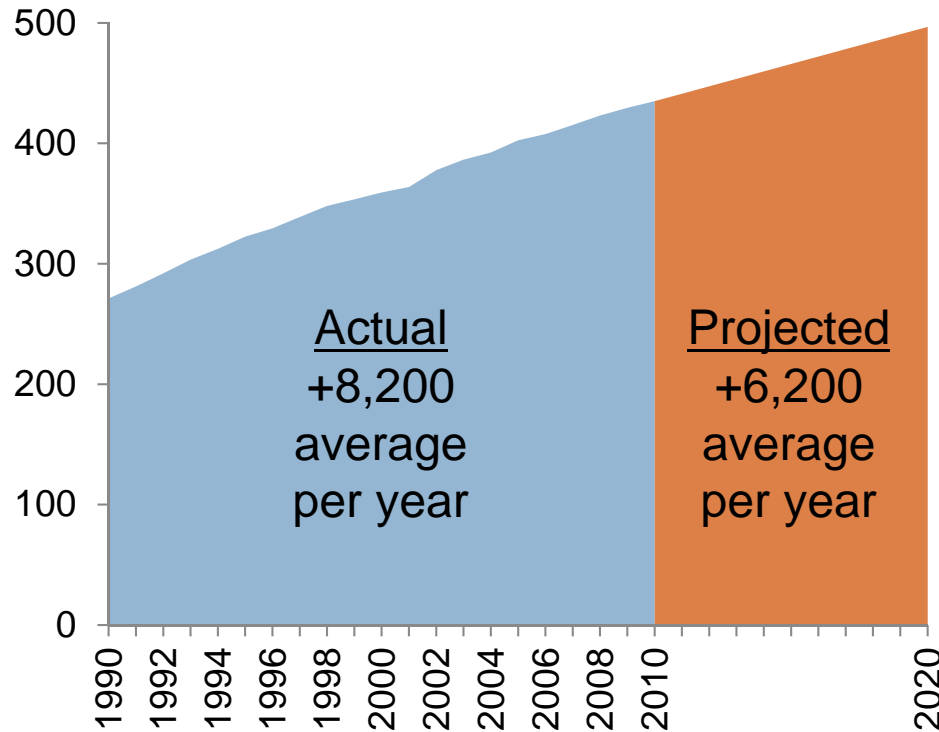
Employment opportunities in nutrition, physical therapy and cardiovascular disease should be robust as the state and the nation attempt to manage the obesity epidemic

**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 2020

**Actual and Projected Employment in Health Care (thousands): New Jersey, 1990-2020**



Employment is still growing, but rate of growth is slowing:

- Grew by 3% per year during 1990s
- Grew by 2% per year during 2000s
- *Projected to grow by 1.3% from 2010-2020*

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

The health care cluster is projected to add nearly 62,000 jobs, and account for more than 19% of net job growth in New Jersey from 2010-2020

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

### Most Projected Jobs Added Among Practitioners From 2010-2020

Occupational Title	Employment				Annual Average			Minimum Education Requirements
	Actual 2010	Projected 2020	Change 2010-2020 Number	Total %	Total Job Openings	Growth	Replacement	
Registered Nurses	81,600	90,600	9,000	11.1	2,390	910	1,480	Associate's degree
Licensed Practical and Licensed Vocational Nurses	15,500	17,500	2,000	13.0	610	200	410	Postsecondary non-degree award
Emergency Medical Technicians and Paramedics	7,500	9,400	1,900	24.8	340	190	150	Postsecondary non-degree award
Pharmacists	8,700	9,800	1,100	12.2	330	110	220	Doctoral or professional degree
Pharmacy Technicians	6,300	7,300	1,000	15.9	210	100	110	High school diploma or equivalent

### Most Projected Jobs Added Among Support Workers From 2010-2020

Occupational Title	Employment				Annual Average			Minimum Education Requirements
	Actual 2010	Projected 2020	Change 2010-2020 Number	Total %	Total Job Openings	Growth	Replacement	
Home Health Aides	31,300	44,700	13,400	42.7	1,740	1,340	400	Less than high school
Nursing Aides, Orderlies, and Attendants	53,500	61,300	7,800	14.4	1,460	770	690	Postsecondary non-degree award
Medical Assistants	12,600	14,200	1,600	12.9	350	160	190	High school diploma or equivalent
Dental Assistants	9,300	10,200	900	9.1	290	90	200	Postsecondary non-degree award
Healthcare Support Workers, All Other	9,400	10,300	900	8.9	230	80	150	High school diploma or equivalent

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

### Highest Projected Percentage Growth Among Practitioners From 2010-2020

Occupational Title	Employment				Annual Average			Minimum Education Requirements
	Actual 2010	Projected 2020	Change 2010-2020 Number	Total %	Total Job Openings	Growth	Replacement	
Diagnostic Medical Sonographers	2,000	2,600	600	28.8	90	60	30	Associate's degree
Emergency Medical Technicians and Paramedics	7,500	9,400	1,900	24.8	340	190	150	Postsecondary non-degree award
Pharmacy Technicians	6,300	7,300	1,000	15.9	210	100	110	High school diploma or equivalent
Dental Hygienists	4,700	5,300	600	14.6	160	70	90	Associate's degree
Radiologic Technologists and Technicians	6,800	7,700	900	13.7	200	90	110	Associate's degree

### Highest Projected Percentage Growth Among Support Workers From 2010-2020

Occupational Title	Employment				Annual Average			Minimum Education Requirements
	Actual 2010	Projected 2020	Change 2010-2020 Number	Total %	Total Job Openings	Growth	Replacement	
Home Health Aides	31,300	44,700	13,400	42.7	1,740	1,340	400	Less than high school
Physical Therapist Aides	3,000	3,600	600	19.6	110	60	50	High school diploma or equivalent
Pharmacy Aides	2,700	3,100	400	15.9	80	40	40	High school diploma or equivalent
Nursing Aides, Orderlies, and Attendants	53,500	61,300	7,800	14.4	1,460	770	690	Postsecondary non-degree award
Medical Assistants	12,600	14,200	1,600	12.9	350	160	190	High school diploma or equivalent

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