

# *New Jersey's Health Care Industry Cluster*

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Office of Research & Information  
**Bureau of Labor Market Information**  
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STATE OF NEW JERSEY  
DEPARTMENT OF LABOR AND  
WORKFORCE DEVELOPMENT



NEW JERSEY DEPARTMENT OF  
**LWD**  
LABOR AND WORKFORCE DEVELOPMENT  
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# THE GOAL OF THIS REPORT IS TO GET AN “IDEA” OF WHAT HEALTH CARE MEANS TO NEW JERSEY

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**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

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- The health care cluster contributed more than \$36 billion to the Gross Domestic Product in 2014, roughly 7.2 percent of all output
- From 1990 through 2016, the health care sector has added 213,200 new jobs, while all other private sector employment has had a net increase of 190,100 jobs
- Health care is the only industry that has added jobs in the state every year from 1990 through 2016 while increasing its share of jobholding from 7.5 percent in 1990 to 11.9 percent in 2016
- The outlook for health care employment is bright. From 2014 through 2024, it is projected that 85,300 jobs will be added, an annual increase of 1.7 percent
- Health care employers paid nearly \$25.5 billion in total wages in 2015, or about 12.4 percent of all wages paid in the private sector



# OVERVIEW

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There are roughly 21,520 establishments employing nearly 461,800 people of all ages, genders, races, and educational backgrounds in New Jersey in 2015. The majority of these establishments are smaller offices of health care professionals, however, nearly 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 and possesses at least some postsecondary education. The workforce is more racially diverse than average, and does not currently face the magnitude of unemployment as is felt in some other industries.

# INDUSTRY ANALYSIS



# 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

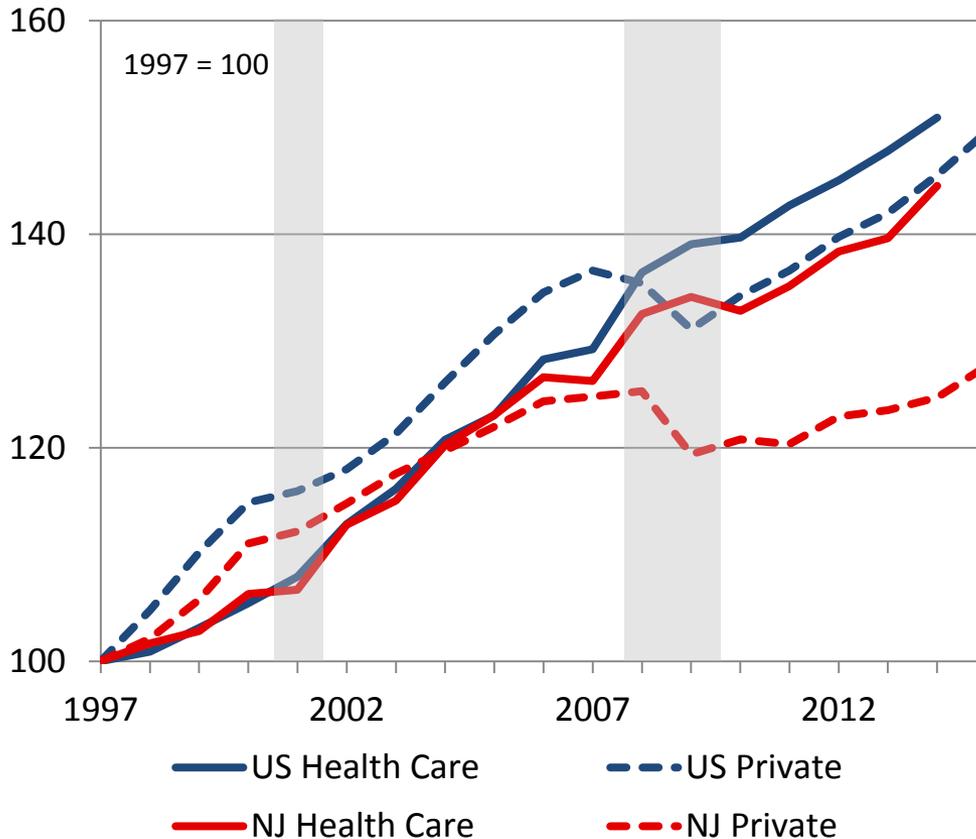
## Nursing and Residential Care Services

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



# Gross Domestic Product growth created by the health care industry has been strong and steady over the past 15 years

Indices of GDP in Chained 2009 Dollars  
New Jersey and United States: 1997-2015



Output generated from the health care industry in New Jersey has increased steadily from roughly \$25 billion in 1997 to over \$36 billion in 2014

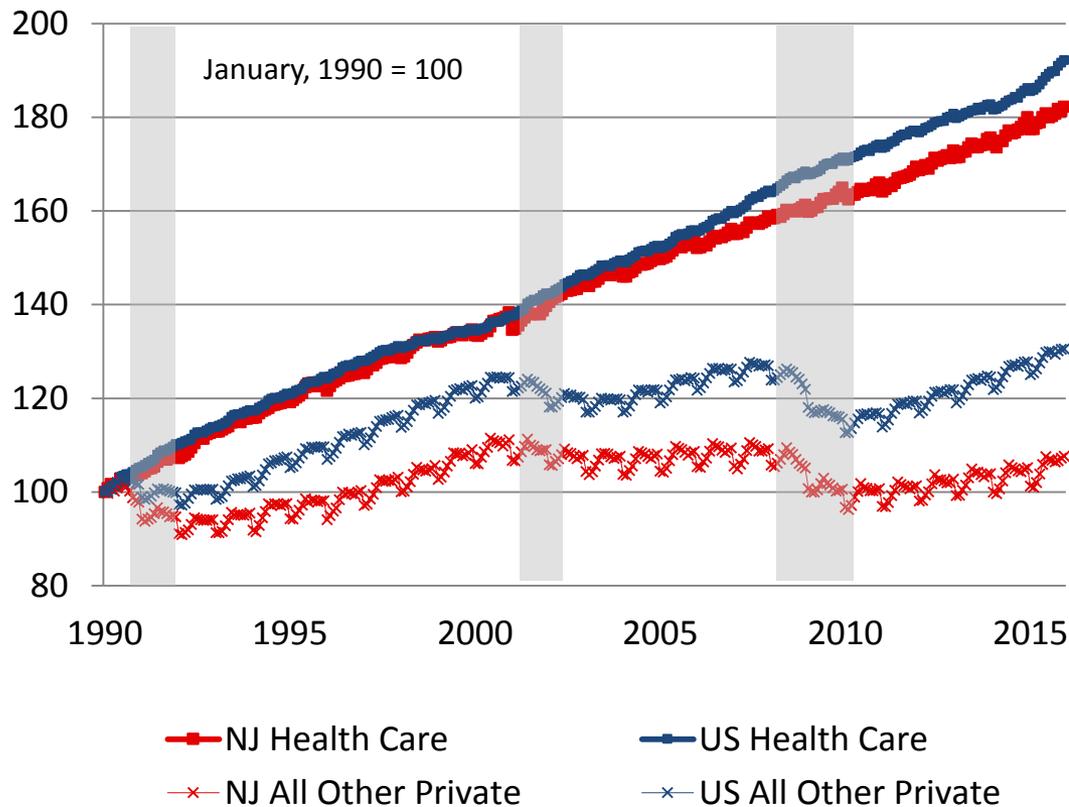
GDP in the health care industry in the United States exceeded \$1 trillion in 2012

There remains a sizable gap in GDP growth between New Jersey and the United States for both the health care industry and all private industries

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

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

**Health Care and Other Private Sector Employment  
New Jersey & United States: 1990-2015**



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

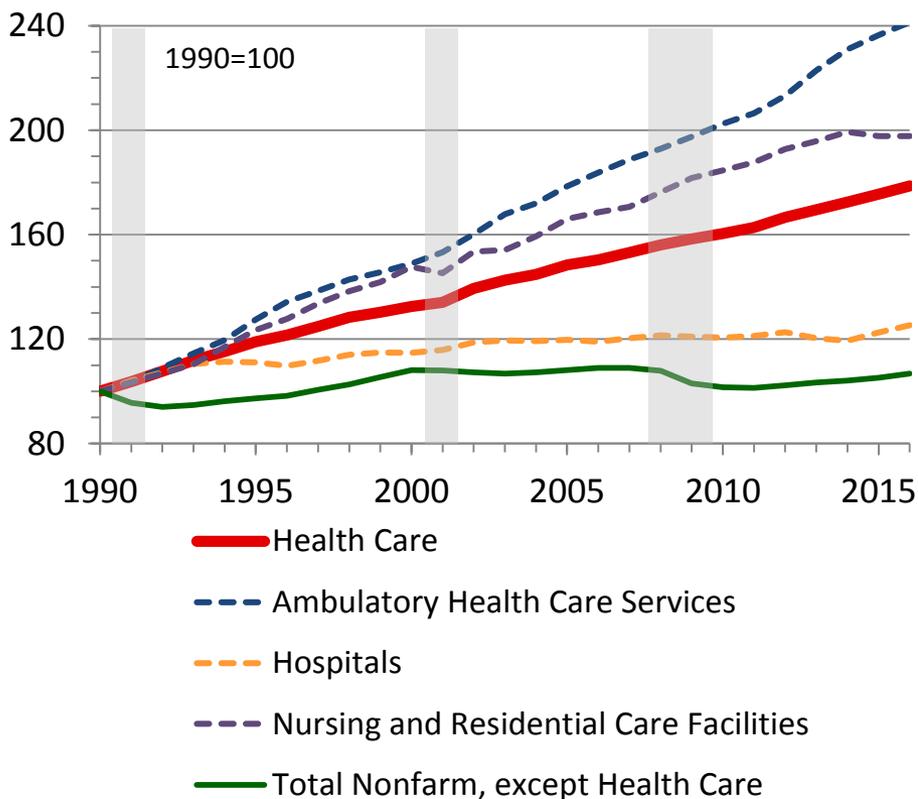
All other private sector employment has grown at a much slower pace, has experienced seasonal ebbs and flows, and has been susceptible to downturns during recessions

From 2000 to 2015, New Jersey has added 117,500 new health care jobs while the rest of the private sector has lost approximately 115,100

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

# 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: 1990-2016



From 1990 through 2016, the health care sector has added 213,200 new jobs, accounting for nearly half of all total nonfarm job growth during that time

Employment in Ambulatory Health Care Services more than doubled over the last 26 years

Employment in Nursing and Residential Care Facilities has nearly doubled from 1990 to 2016

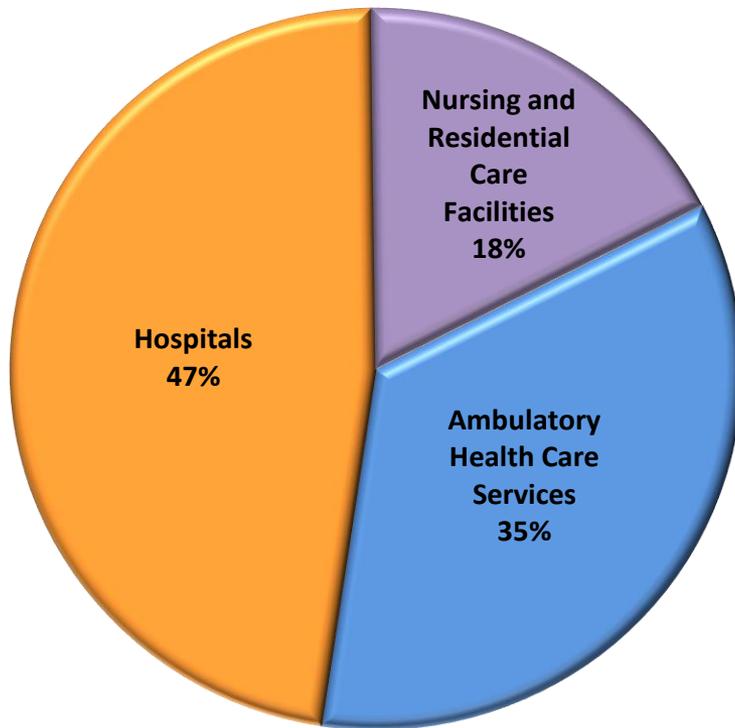
Slow yet steady growth in Hospital employment has led to it being the laggard among health care’s three major components

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

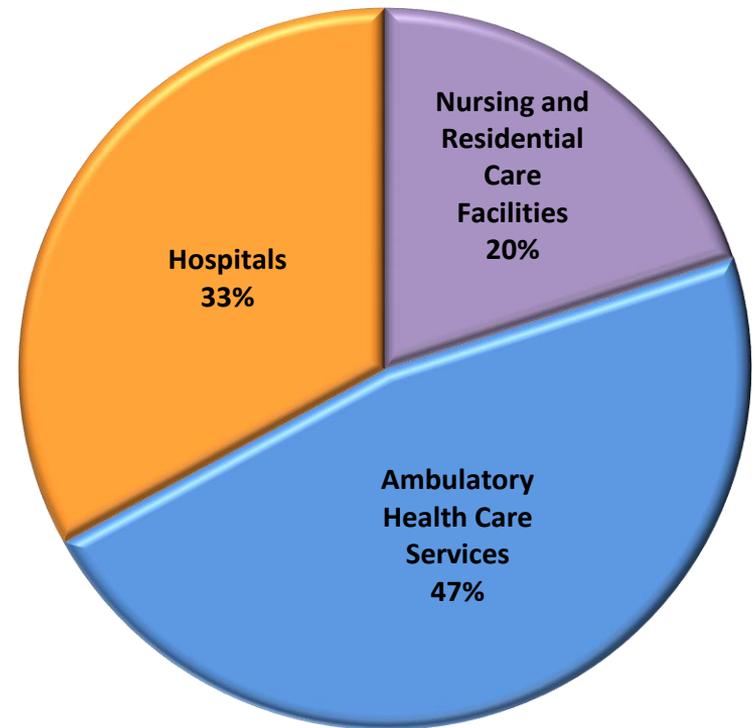
# The landscape of health care delivery has changed dramatically over the past 26 years

Employment of Components as a Percentage of Total Health Care  
New Jersey, 1990 & 2016

1990



2016



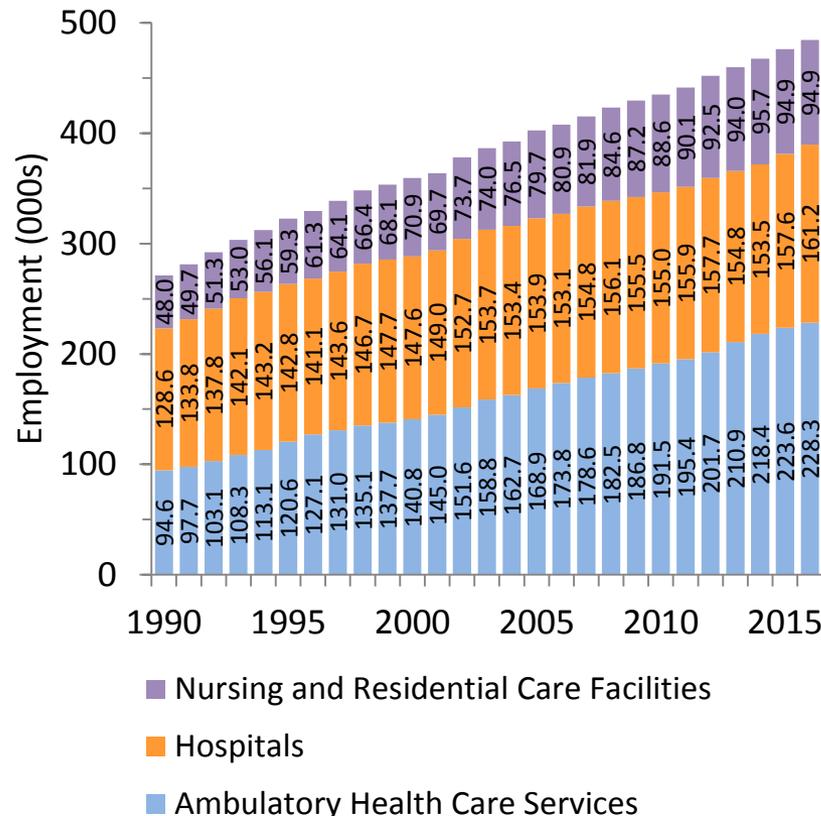
# With employment surpassing 484,000, the health care sector accounted for 11.9% of all employment in the state in 2016, up from 7.5% in 1990

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 three times the annual rate (2.7%) of Hospitals (0.9%) since 1990

Together, the three Health Care components have grown by 2.3 percent annually since 1990, compared to only 0.3 percent for all other total nonfarm employment

Employment in Health Care Components  
New Jersey, 1990-2016



# A closer view of the Great Recession and subsequent recovery highlights the stability of health care employment compared to the rest of the private sector

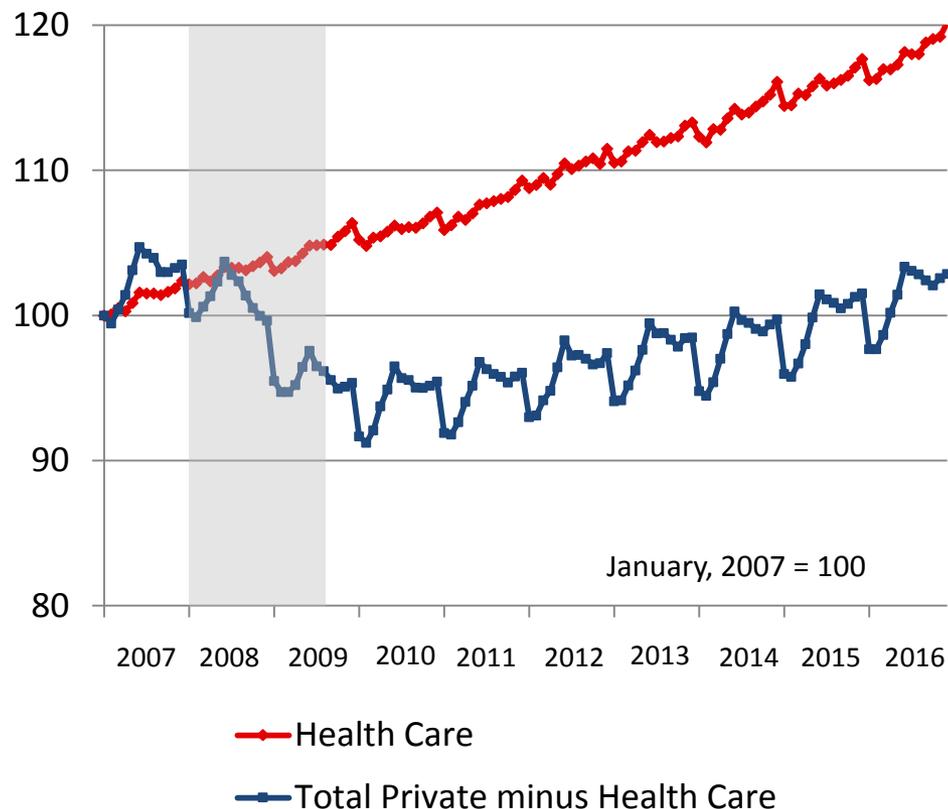
New Jersey's private sector employment reached its not seasonally adjusted pre-Recession peak of nearly 3.5 million jobs in June of 2007

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 in June of 2009, the health care industry has continued its steady growth while all other private sector employment is just surpassing the point of full recovery

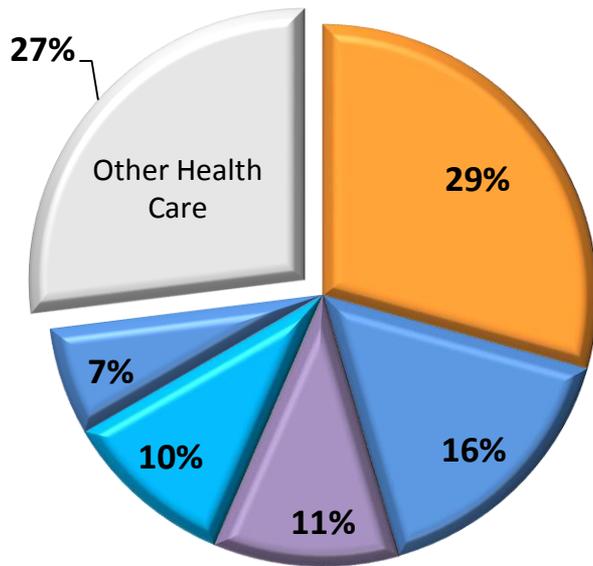
Shaded areas indicate recessionary periods as determined by the National Bureau of Economic Research

Employment in Health Care and All Other Private Sector  
New Jersey: January, 2007-December, 2016



# In 2015, roughly 73 percent of all health care employment in New Jersey is found in these top five industries

Percentage of Employment  
By Detailed Industry  
New Jersey, 2015



At the national level, these same five industries make up roughly 72 percent of all health care employment

The health care cluster as a whole makes up 13.8 percent of all employment at the state level, up from 13.4 percent in 2010

Employment in general medical and surgical hospitals has increased by almost 2,000 jobs in New Jersey, but accounts for only 29.4 percent of all health care employment in 2015, down from 31.8 percent in 2010

- General Medical And Surgical Hospitals
- Offices Of Physicians
- Nursing Care Facilities
- Home Health Care Services
- Offices Of Dentists



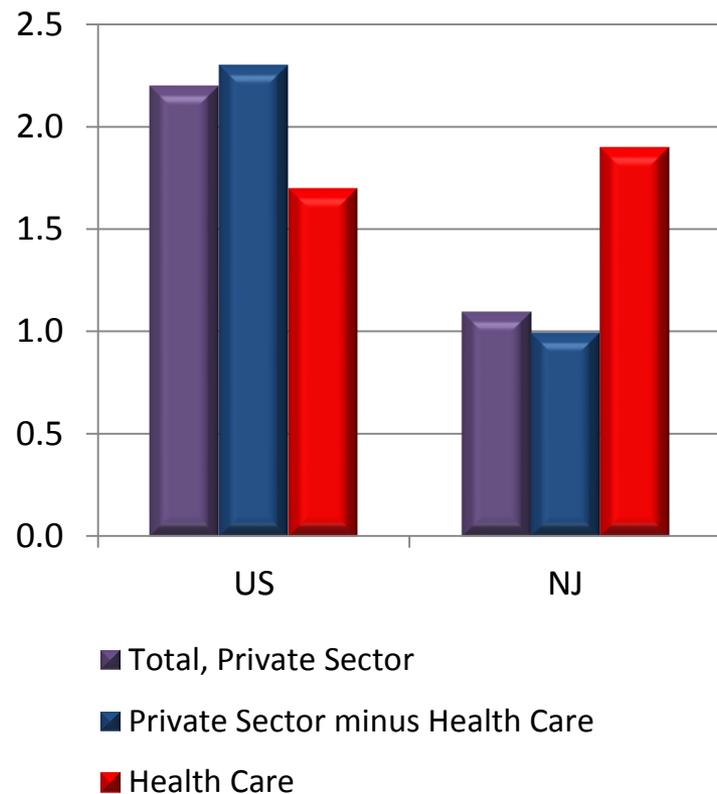
# Employment in the health care cluster experienced robust growth of 1.9% in New Jersey from 2010 through 2015

Home Health Care Services, Continuing Care Retirement Facilities, and Nursing Care Facilities together added more than 14,000 workers from 2010 to 2015 as they attempted to keep with the demand for care from an aging Baby Boomer generation.

Nationally, these three industries added nearly 290,000 jobs over the five-year period.

Freestanding Emergency Medical Centers and Home Health Care Services were among the fastest growing health care industries in New Jersey, growing annually by 8.1 and 6.3 percent, respectively

Annual Percentage Change in Employment  
New Jersey, 2010-2015



# Narrative explaining bubble chart

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

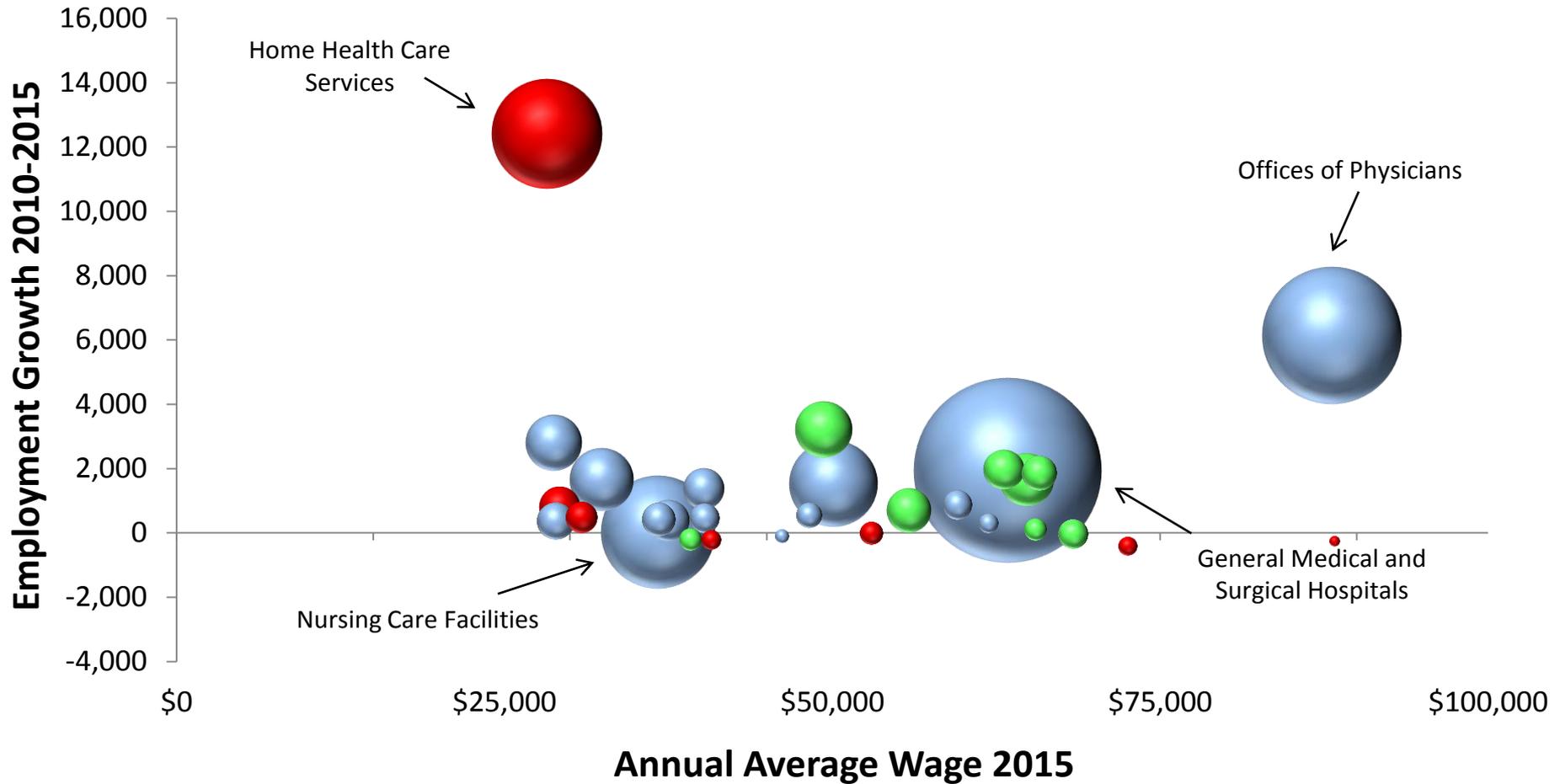
1. **Total 2015 employment** is represented by the **size** of the bubble
2. **Employment change from 2010-2015** is shown by the **position on the Y-axis**, or vertical position
3. **Annual average wages** in 2015 is shown by the **position on the X-axis**, or horizontal position
4. **Location quotient** is indicated by the **color** of the bubble
  - A **green bubble** signifies an industry with a location quotient over 1.2, 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 0.8, 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 relatively 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>1.2

Red bubble=LQ<0.8



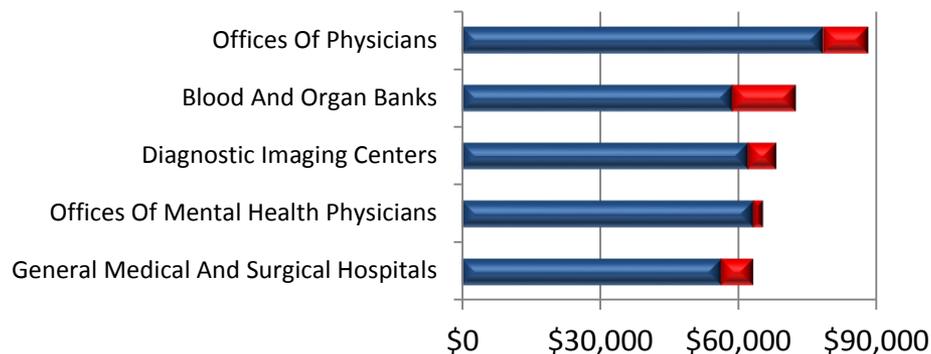
# The annual average wage in New Jersey in the health care sector in 2015 was \$55,190, up from \$50,770 in 2010, an increase of \$4,420 or 1.7% per year

Nationally, the health care industry paid an annual average wage of \$51,280 in 2014, up 1.8% per year from \$46,900 in 2009

Generally, the highest paying industries provide outpatient services and non-emergency care, like diagnostic imaging and offices of doctors or other specialists

Many of the lowest paying industries are involved with care for the elderly

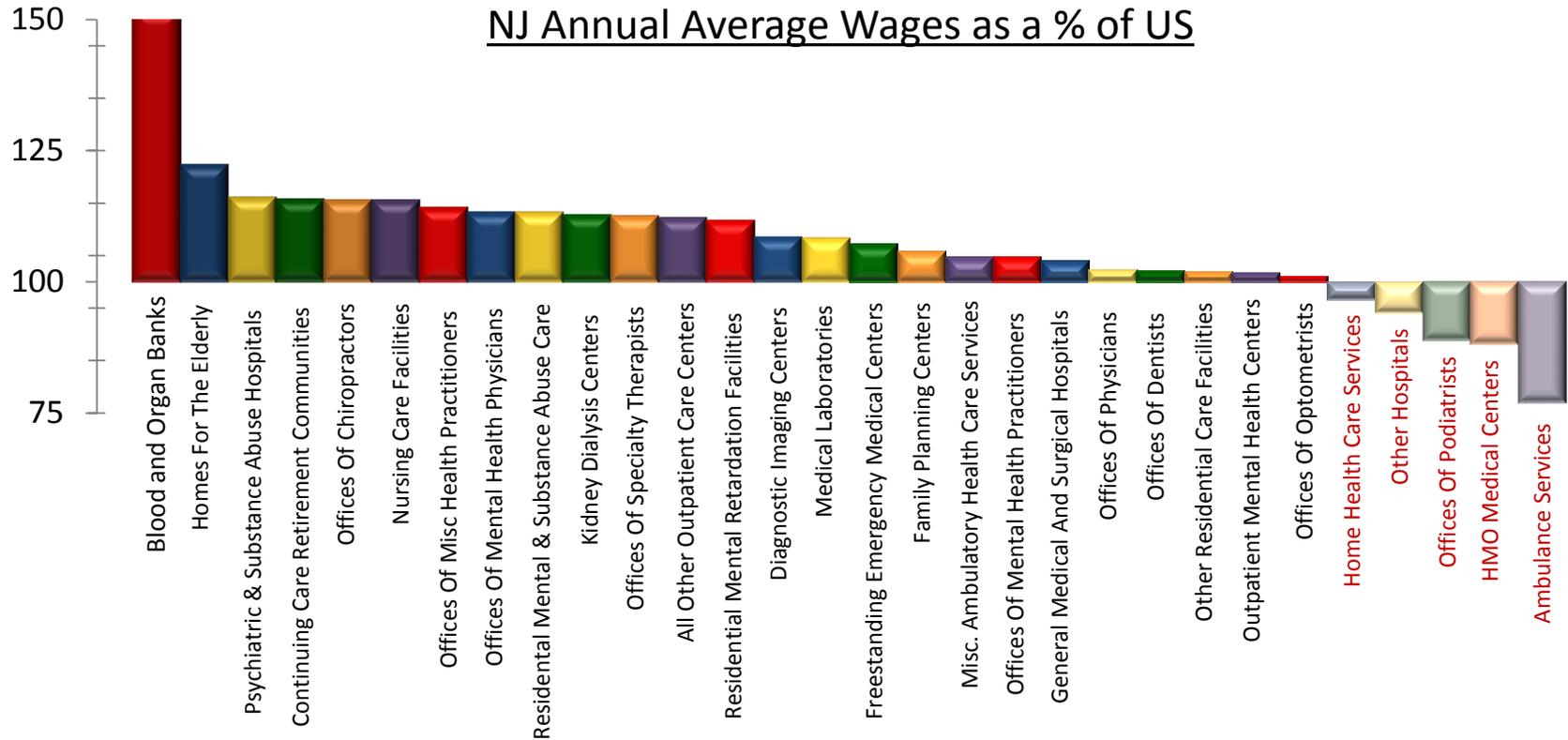
Highest Five Annual Average Wages, NJ, 2015



Lowest Five Annual Average Wages, NJ, 2015



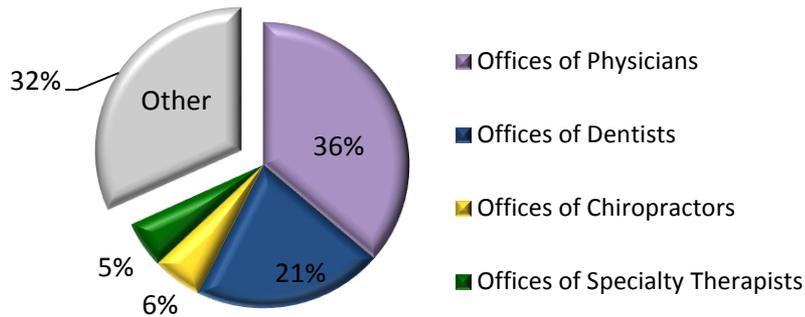
**25 out of 30 health care industries in New Jersey have a higher annual average wage than the nation. Overall, the sector paid 4.1% more in New Jersey in 2015 than nationally**



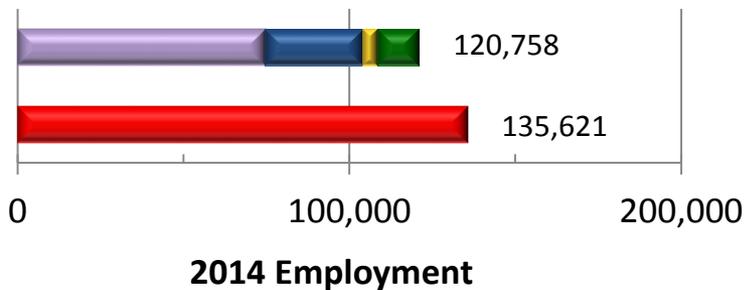
The wage disparity has decreased in 14 of the 30 industries since 2010, when the sector was paid an average of 6.9% more in New Jersey

# There were 21,517 health care establishments in New Jersey in 2015, employing 461,800 people

68% of all Health Care establishments fall into these four industries...



...yet the 75 General Medical and Surgical Hospitals (<1% of establishments) employed 12% more in 2015



From 2010 to 2015, New Jersey had a net increase of 207 health care establishments, an increase of 0.2 percent annually (1.5 percent nationally)

Reflecting a nationwide trend from 2010 to 2015, the number of Freestanding Emergency Medical Centers in New Jersey increased from 209 to 244

General Medical and Surgical Hospitals averaged nearly 1,810 employees per establishment in 2015

# GEOGRAPHIC ANALYSIS



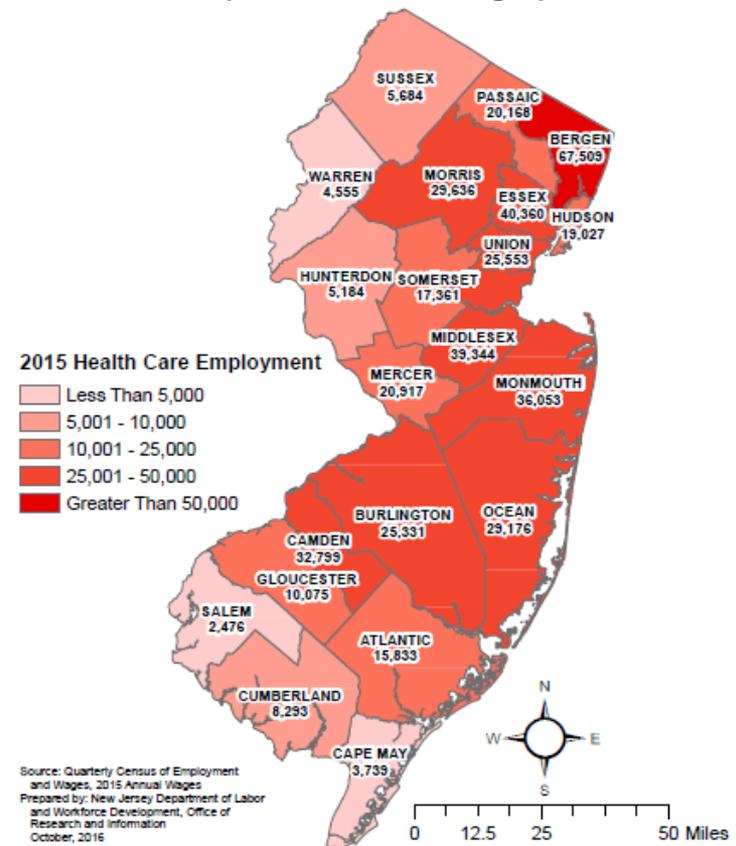
# On average, New Jersey employs about one health care worker for every twenty of its residents

## Health Care Population to Employment Ratio

Bergen	13.9	Cumberland	18.8	Hunterdon	24.2
Camden	15.6	Somerset	19.2	Sussex	25.3
Morris	16.9	Essex	19.8	Passaic	25.3
Atlantic	17.3	Ocean	20.2	Cape May	25.3
Monmouth	17.4	Middlesex	21.4	Salem	25.9
Mercer	17.8	Union	21.8	Gloucester	28.9
Burlington	17.8	Warren	23.5	Hudson	35.5

While health care employment by county tends to mirror population, there are outliers. Morris, Camden, and Mercer Counties employ a disproportionately high number of workers to serve its population, and may be viewed as service exporters. Conversely, Hudson and Gloucester Counties have fewer workers per resident and may be more reliant on surrounding areas for health care service.

*Health Care Employment  
New Jersey Counties  
(2015 Annual Averages)*



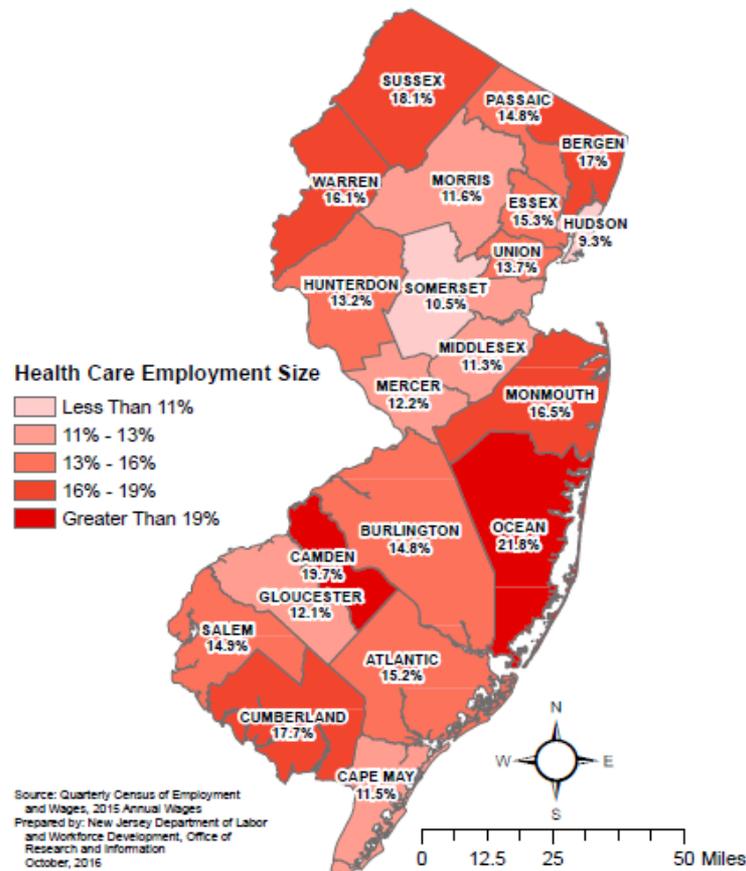
# While each county has a very different industrial mix, some are more reliant than others on health care employment

## Health Care Share of Total County Employment

Ocean	21.8%	Essex	15.3%	Mercer	12.2%
Camden	19.7%	Atlantic	15.2%	Gloucester	12.1%
Sussex	18.1%	Salem	14.9%	Morris	11.6%
Cumberland	17.7%	Burlington	14.8%	Cape May	11.5%
Bergen	17.0%	Passaic	14.8%	Middlesex	11.3%
Monmouth	16.5%	Union	13.7%	Somerset	10.5%
Warren	16.1%	Hunterdon	13.2%	Hudson	9.3%

Ocean and Camden Counties have the largest proportion, roughly 1 of every 5, of their employment in some form of health care. Hudson and Somerset have very different compositions and engage less than 11 percent of total employment in the health care industry.

Health Care Employment as a Percentage of Total County Employment



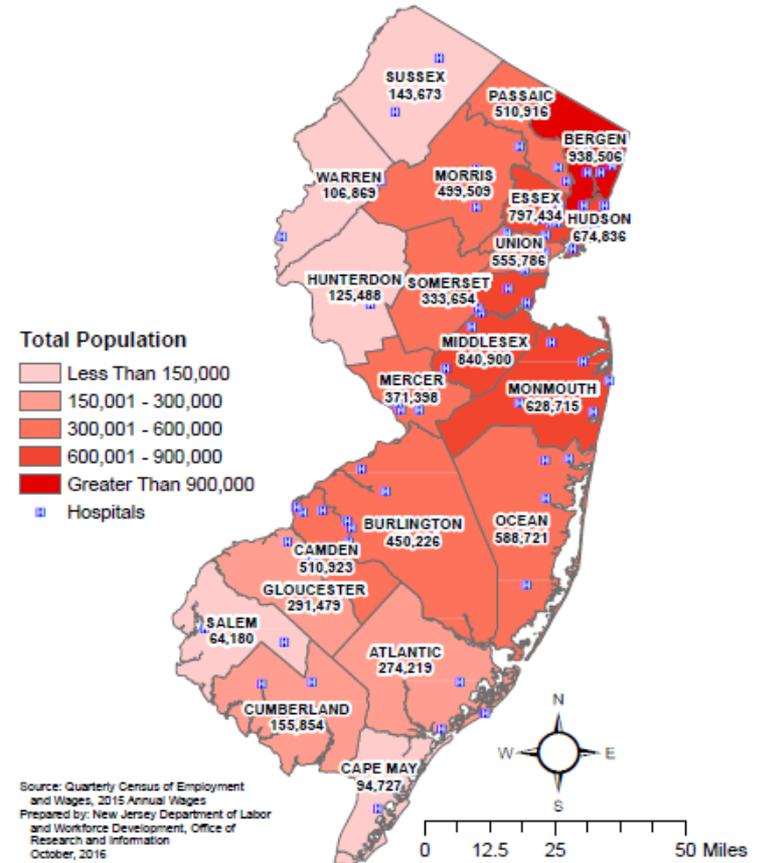
# There are 75 hospitals in New Jersey that serve the state's population of more than 8.9 million residents

## Number of Hospitals by County

Essex	9	Mercer	4	Passaic	2
Middlesex	7	Morris	4	Salem	2
Bergen	6	Ocean	4	Sussex	2
Hudson	6	Atlantic	3	Warren	2
Camden	5	Union	3	Cape May	1
Monmouth	5	Cumberland	2	Hunterdon	1
Burlington	4	Gloucester	2	Somerset	1

The hospital locations tend to be clustered around the state's two primary highways, the New Jersey Turnpike (Interstate 95) and the Garden State Parkway, and near high population centers across state boundaries from New York City and Philadelphia.

Hospital Locations and County Population  
New Jersey, 2015



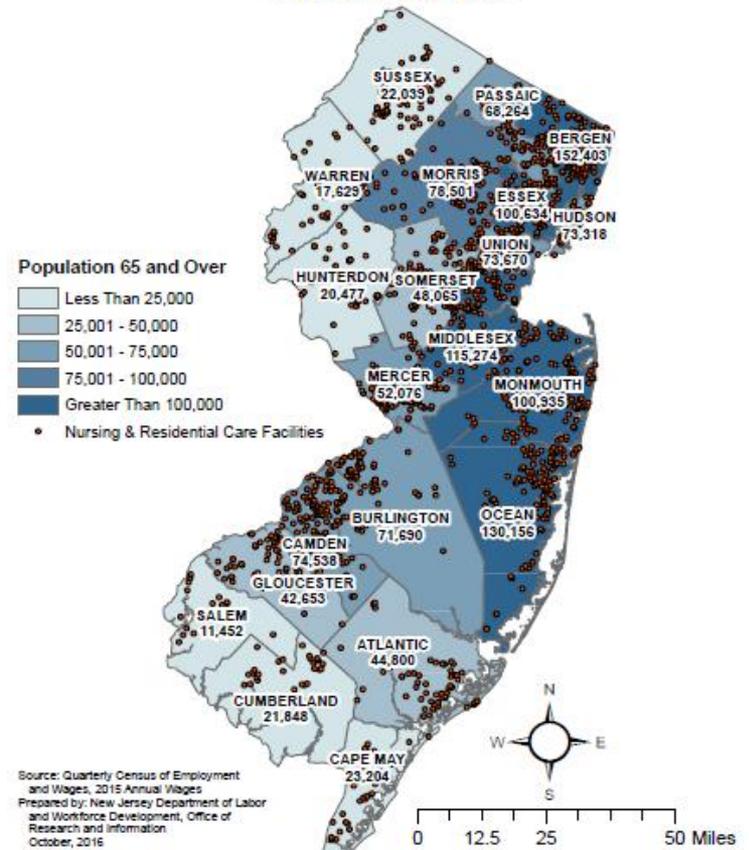
# New Jersey's aging population has created increased demand for health care services, especially in the areas of nursing and residential care

## Percentage of County Population Aged 65 and Over

Cape May	24.5%	Monmouth	16.1%	Mercer	14.0%
Ocean	22.1%	Burlington	15.9%	Cumberland	14.0%
Salem	17.8%	Morris	15.7%	Middlesex	13.7%
Warren	16.5%	Sussex	15.3%	Passaic	13.4%
Atlantic	16.3%	Gloucester	14.6%	Union	13.3%
Hunterdon	16.3%	Camden	14.6%	Essex	12.6%
Bergen	16.2%	Somerset	14.4%	Hudson	10.9%

Nursing and residential care facilities are well positioned throughout the state, providing coverage to even the less populated areas. Clusters of locations are found near the population centers and along the coast, where a larger share of those aged 65 and over reside.

*Nursing and Residential Care Facility Locations and County Population 65 and Over New Jersey, 2015*



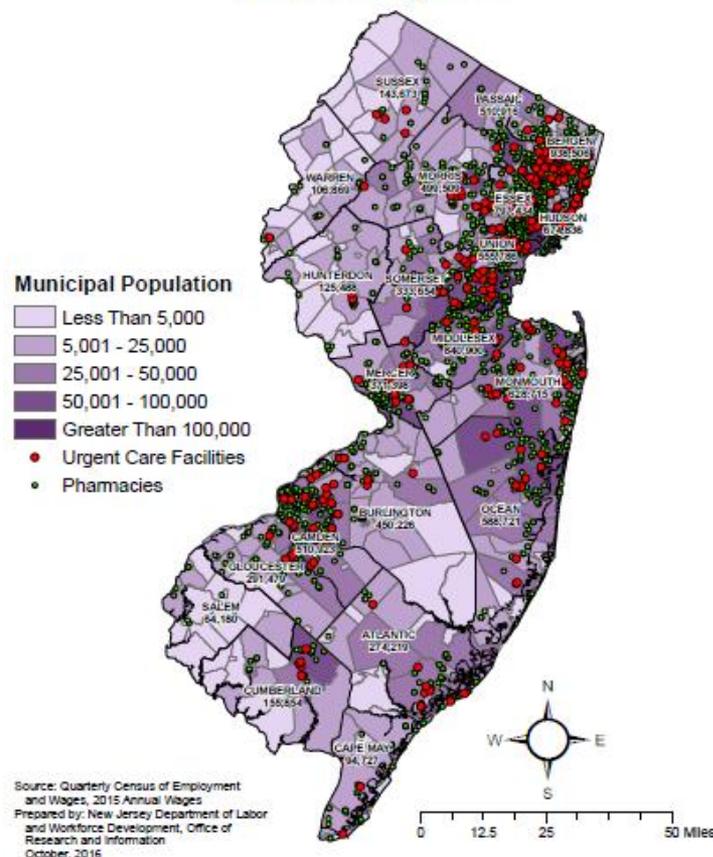
# Urgent care facilities and pharmacies provide support to the health care system and their proximity can be a large convenience to residents

The number of urgent care facilities (aka. freestanding emergency medical centers) has nearly doubled from 139 in 2004 to 244 in 2015. These centers provide triage care for non life-threatening emergencies and alleviate the stress on traditional emergency rooms in hospitals

Employment in these urgent care facilities has more than doubled from 2,712 in 2004 to 6,107 in 2015 as their popularity continues to spread

The number of pharmacies has increased by nearly 50 percent from 2004 to 2015 and most New Jersey residents now live within a short drive of the nearest location

Urgent Care Facility and Pharmacy Locations and Municipal Population  
New Jersey, 2015



# There are ten hospitals with trauma centers in New Jersey; three level 1 and seven level 2

Trauma is any physical injury caused by violence or other forces. The three types of serious trauma are penetrating, blunt, or burns. Trauma centers are specially equipped hospital where the immediate availability of specialized personnel, equipment and capabilities is guaranteed 24 hours a day.

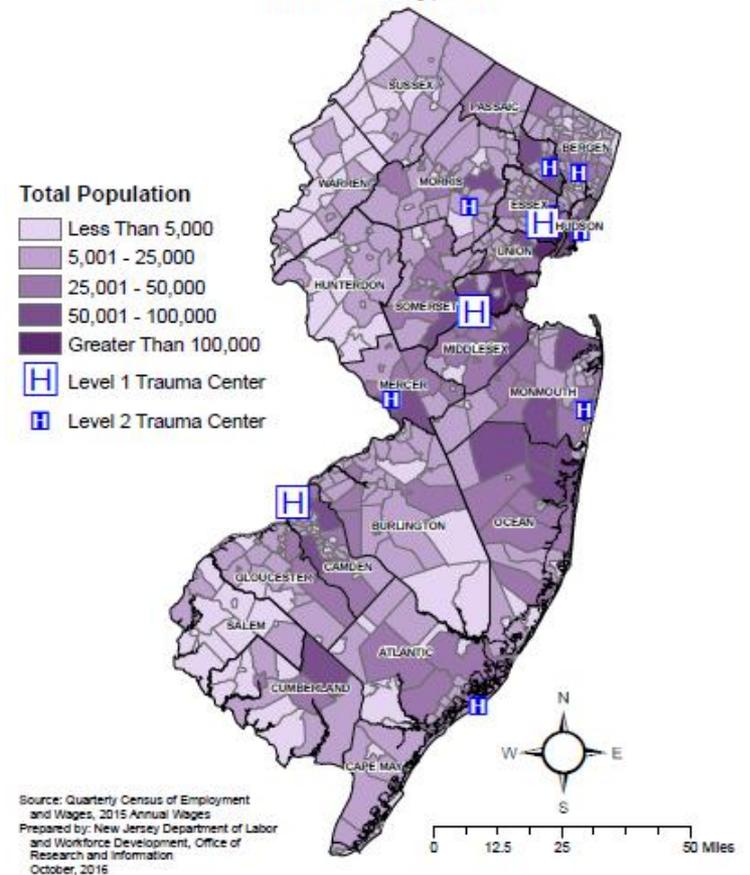
**Level 1 trauma centers** must treat a minimum of 600 patients per year and are university-affiliated teaching hospitals:

- ❖ University Hospital, Newark
- ❖ Robert Wood Johnson Hospital, New Brunswick
- ❖ Cooper Hospital, Camden

**Level 2 trauma centers** also provide definitive trauma care and must treat a minimum of 350 patients per year:

- ❖ Hackensack University Medical Center, Hackensack
- ❖ St. Joseph's Hospital, Paterson
- ❖ Jersey City Medical Center, Jersey City
- ❖ Morristown Memorial Hospital, Morristown
- ❖ Capital Health System at Fuld, Trenton
- ❖ Jersey Shore Medical Center, Neptune
- ❖ AtlantiCare Regional Medical Center, Atlantic City

Trauma Center Locations and Municipal Population  
New Jersey, 2015



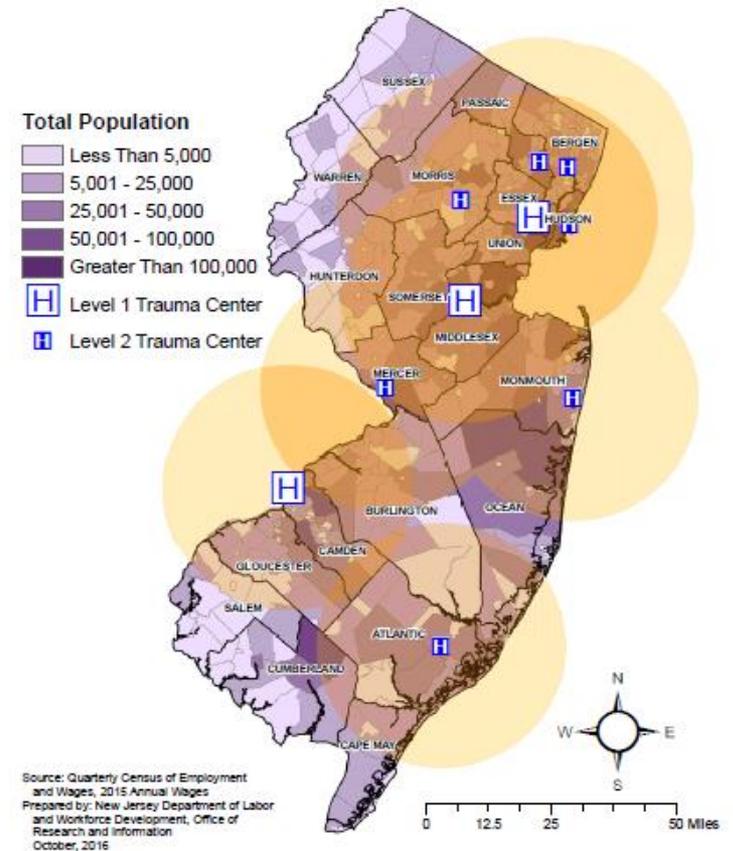
# This map shows the general proximity of each of the ten trauma centers to the population of the state's municipalities

82 percent of the state's population resides in municipalities within 25 miles of a level 1 trauma center, and 96 percent live within 25 miles of either a level 1 or level 2 trauma center

There are gaps in coverage in the more sparsely populated northwest and extreme southern parts of the state

The only municipality of more than 50,000 outside the 25 mile radius is Vineland in Cumberland County. Neighboring cities of Millville and Bridgeton, each with more than 25,000 residents, are also located outside the 25 mile radius

25 Mile Radius Around Trauma Center Locations and Municipal Population  
New Jersey, 2015

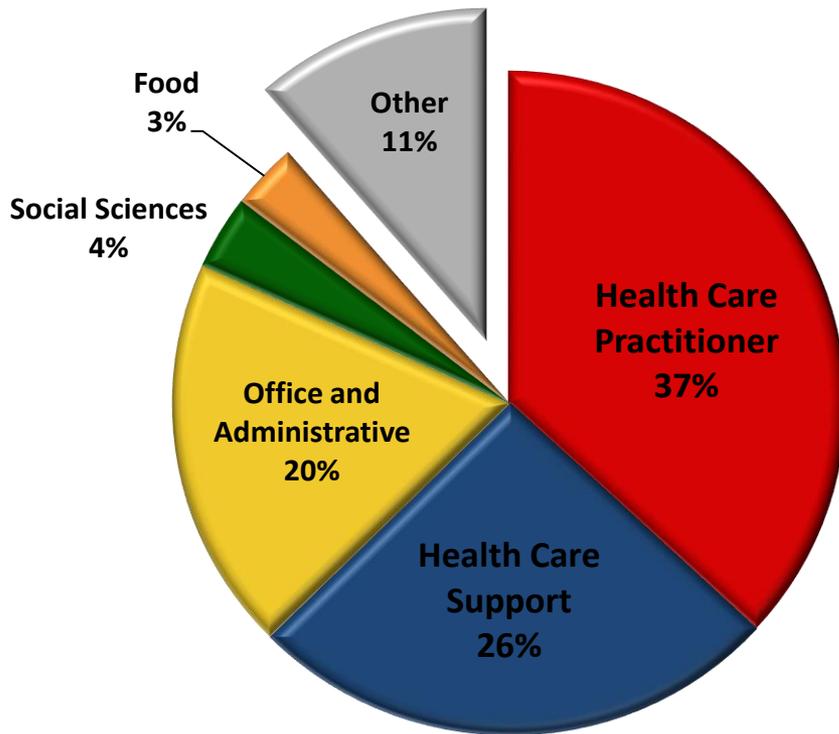


# OCCUPATIONAL ANALYSIS



# Nearly two-thirds of workers in the health care industry are directly involved with patient care in 2015

Breakdown of Major Occupational Groups within  
Health Care Industry:  
New Jersey, 2015



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.

Social sciences and food related occupations make up a relatively small, but integral portion of the workforce

Most of the remainder of the workforce is comprised of management and other service occupations



# The top twenty occupations found in health care make up more than two-thirds of all employment in the industry

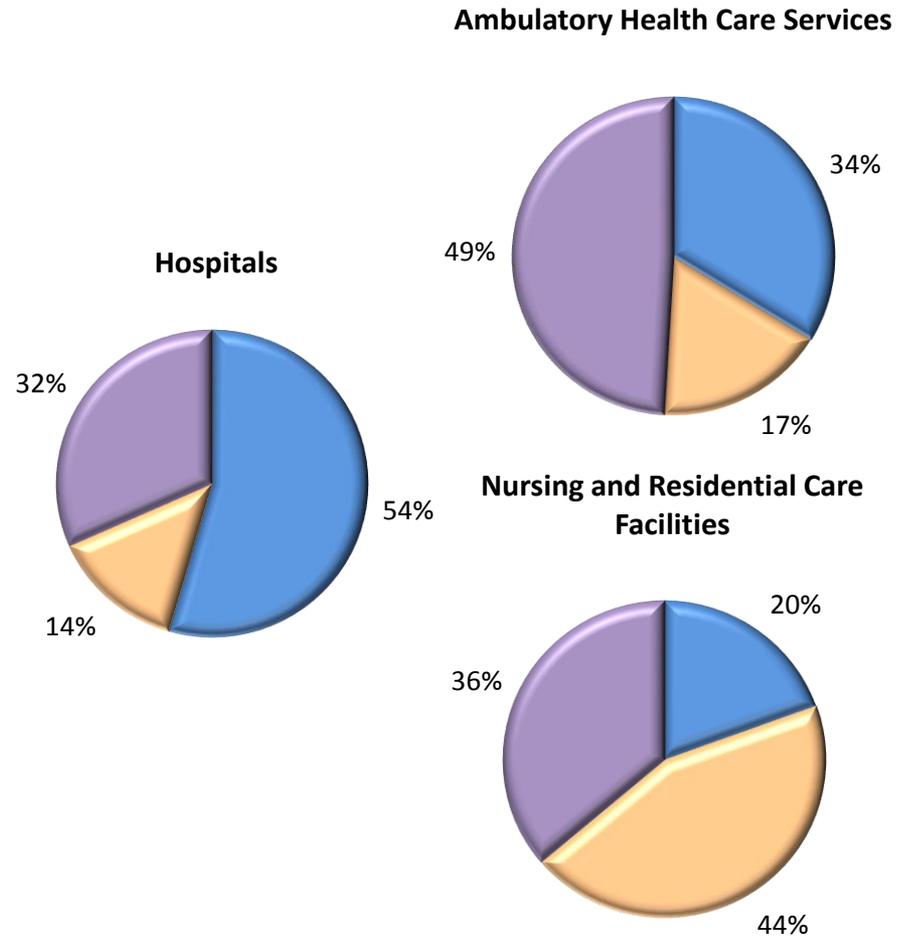
Occupation	2015 Employment	Share of Industry	Average Salary	Minimum Educational Requirement
<b>Total All Health Care Occupations</b>	<b>486,600</b>	<b>100.0%</b>	<b>\$54,950</b>	
<b>Top 20 Occupations</b>	<b>328,090</b>	<b>67.4%</b>	<b>\$55,720</b>	
Registered Nurses	71,210	14.6%	\$79,840	Associate's degree
Nursing Assistants	47,300	9.7%	\$28,310	Postsecondary non-degree award
Receptionists and Information Clerks	33,640	6.9%	\$30,350	High school diploma or equivalent
Home Health Aides	29,950	6.2%	\$23,000	Less than high school
Medical Assistants	15,260	3.1%	\$34,330	Postsecondary non-degree award
Physicians and Surgeons	14,640	3.0%	\$196,760	Doctoral or professional degree
Medical Secretaries	13,460	2.8%	\$40,930	High school diploma or equivalent
Licensed Practical and Licensed Vocational Nurses	13,090	2.7%	\$53,300	Postsecondary non-degree award
Nonrestaurant Food Servers	9,700	2.0%	\$23,800	Less than high school
Dental Assistants	9,510	2.0%	\$40,000	Postsecondary non-degree award
Billing and Posting Clerks	9,090	1.9%	\$39,770	High school diploma or equivalent
Medical and Health Services Managers	8,700	1.8%	\$117,780	Bachelor's degree
Maids and Housekeeping Cleaners	8,200	1.7%	\$24,200	Less than high school
Supervisors of Office and Administrative Workers	8,190	1.7%	\$60,440	High school diploma or equivalent
Physical Therapists	6,940	1.4%	\$95,150	Doctoral or professional degree
Dental Hygienists	6,640	1.4%	\$82,720	Associate's degree
Social and Human Service Assistants	6,350	1.3%	\$36,280	High school diploma or equivalent
Emergency Medical Technicians and Paramedics	5,910	1.2%	\$35,370	Postsecondary non-degree award
Radiologic Technologists	5,490	1.1%	\$65,050	Associate's degree
Secretaries and Administrative Assistants	4,820	1.0%	\$40,730	High school diploma or equivalent

■ Health Care Practitioner
 ■ Health Care Support

■ Office & Administrative

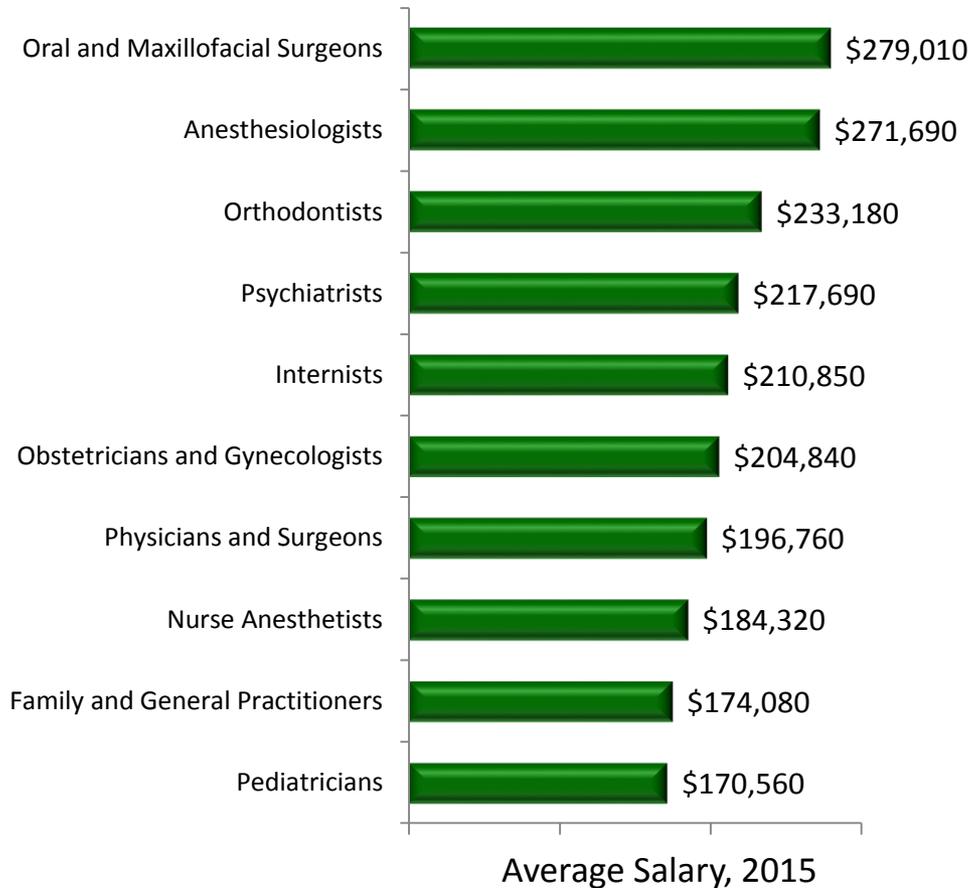
# The health care sector offers opportunities for employment for all levels of education and experience...

Minimum Education Requirements	2015 Employment	% of Total
<b>Total Health Care Occupations</b>	<b>486,600</b>	<b>100.0%</b>
<b>Total High Requirements</b>	<b>185,340</b>	<b>38.1%</b>
Doctoral or professional degree	38,770	8.0%
Master's degree	18,900	3.9%
Bachelor's degree	31,570	6.5%
Associate's degree	96,100	19.7%
<b>Total Moderate Requirements</b>	<b>103,980</b>	<b>21.4%</b>
Postsecondary non-degree award	103,230	21.2%
Some college, no degree	750	0.2%
<b>Total Low Requirements</b>	<b>197,280</b>	<b>40.5%</b>
High school diploma or equivalent	136,370	28.0%
Less than high school	60,920	12.5%

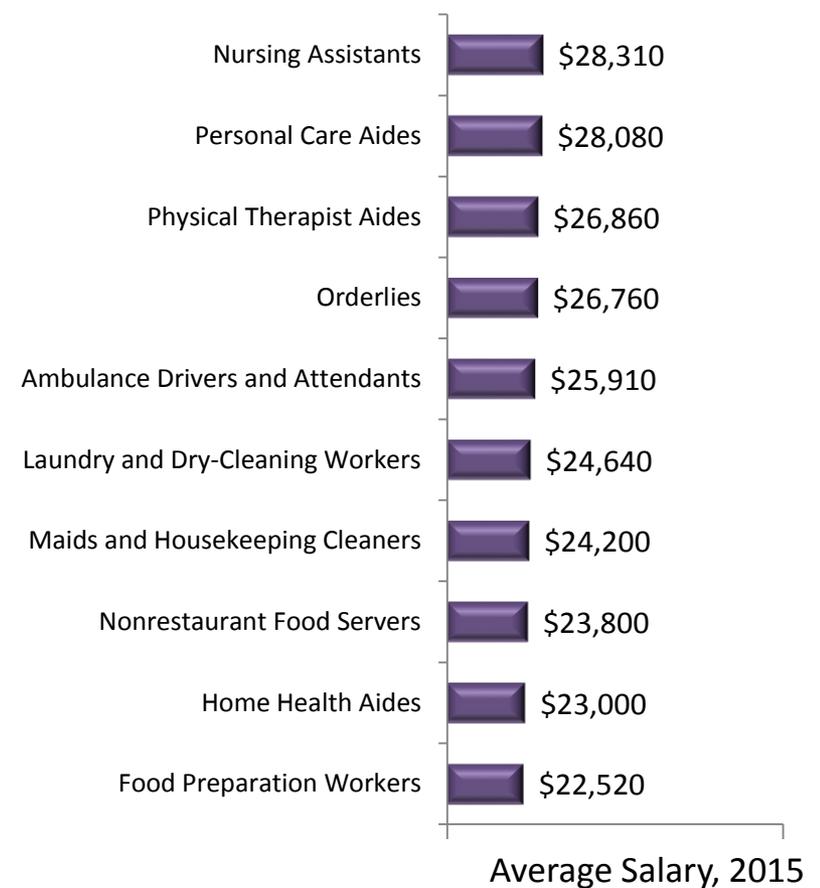


# ...and the average salary can vary greatly among a myriad of different occupations

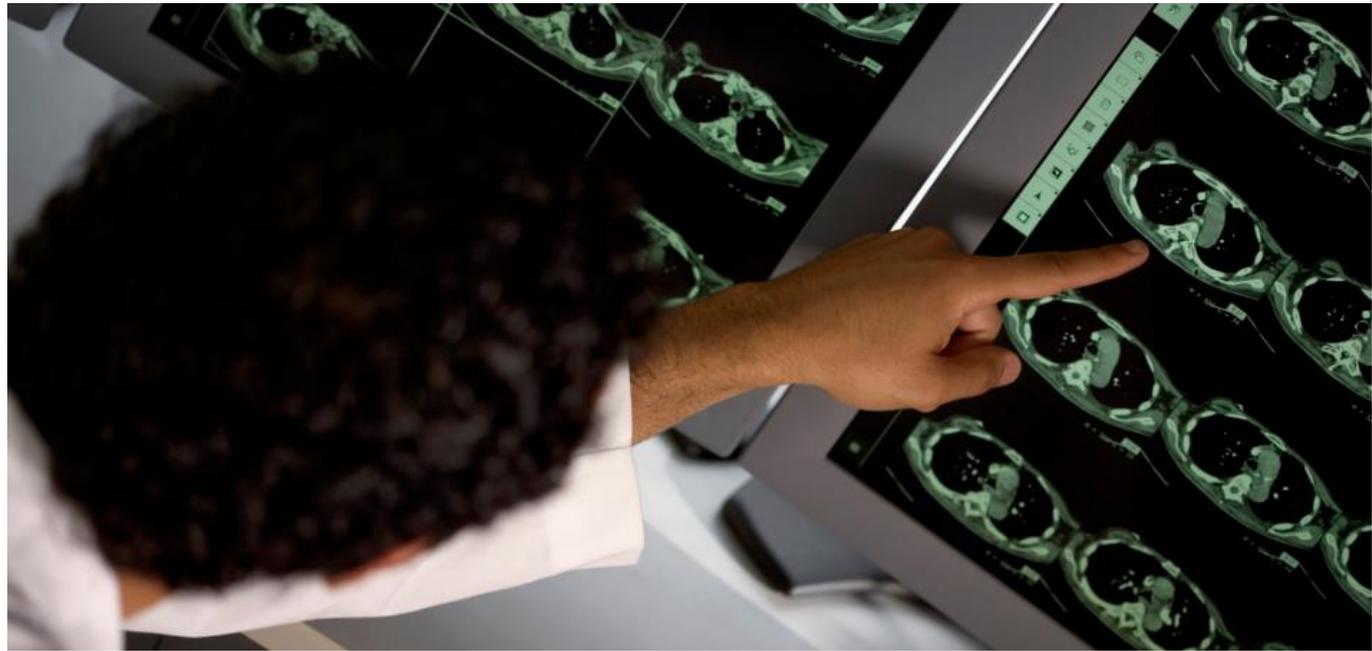
## Occupations on the Higher End of the Salary Scale



## Occupations on the Lower End of the Salary Scale



# DEMOGRAPHIC PROFILE



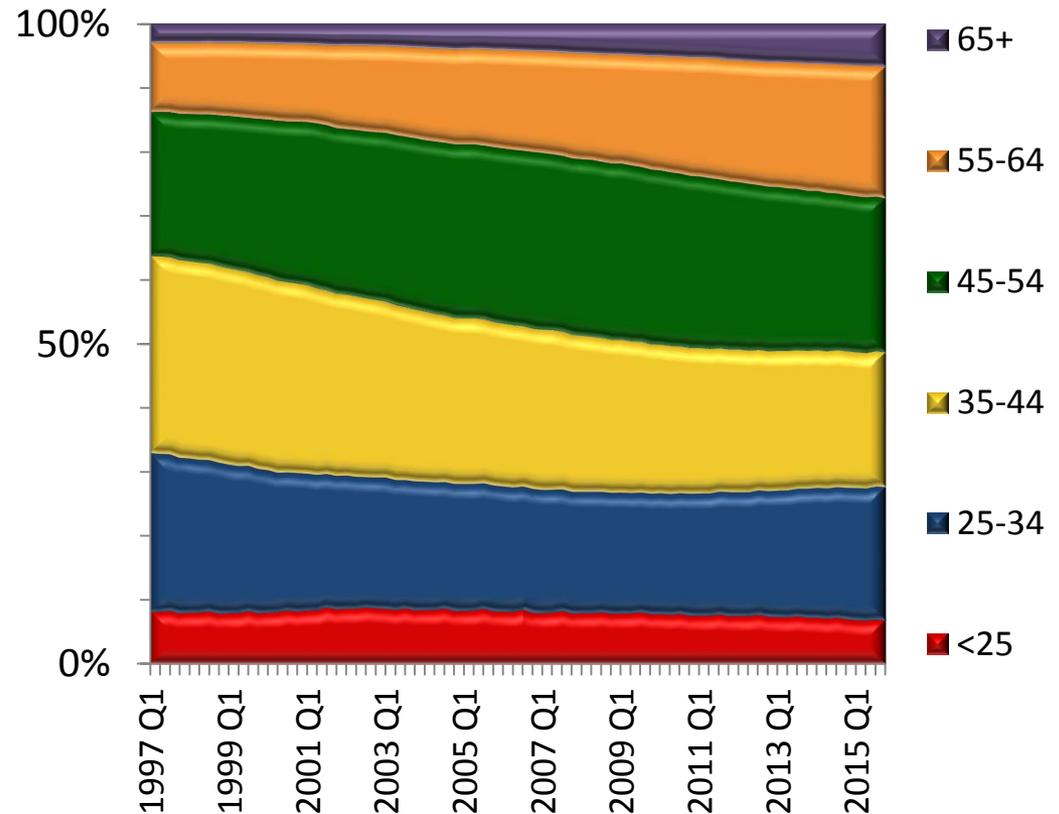
# Data shows a steady and gradual change toward an older workforce in nearly every age cohort

Breakdown of Workforce by Age  
New Jersey: 1997-2015

The number of healthcare workers aged 65 and older has tripled from 1997 to 2015

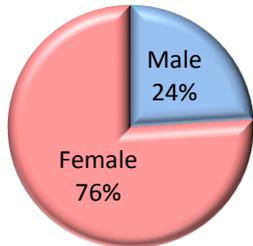
From 1997 to 2015, the number of workers aged 55-64 has increased by more than 60,000

The only age cohort with fewer workers in 2015 than in 1997 were those between the ages of 35-44

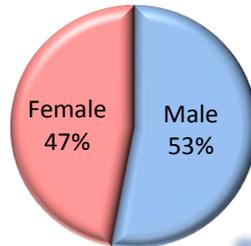


# Gender, racial, and ethnic profile of New Jersey residents within health care workforce

**Health Care**



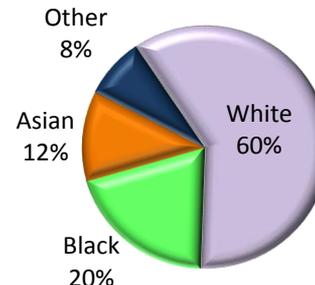
**All Industries**



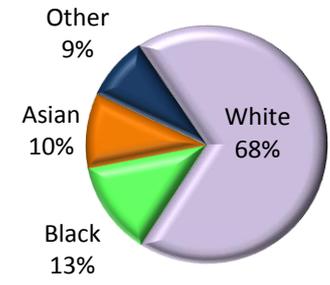
Females outnumber males by a 3 to 1 margin in the health care workforce

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

**Health Care**

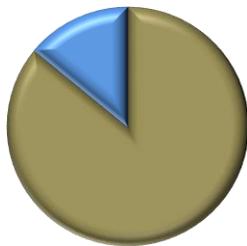


**All Industries**



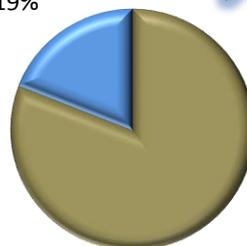
The workforce has just slightly fewer Hispanics than average

**Health Care**



**Health Care**

**All Industries**

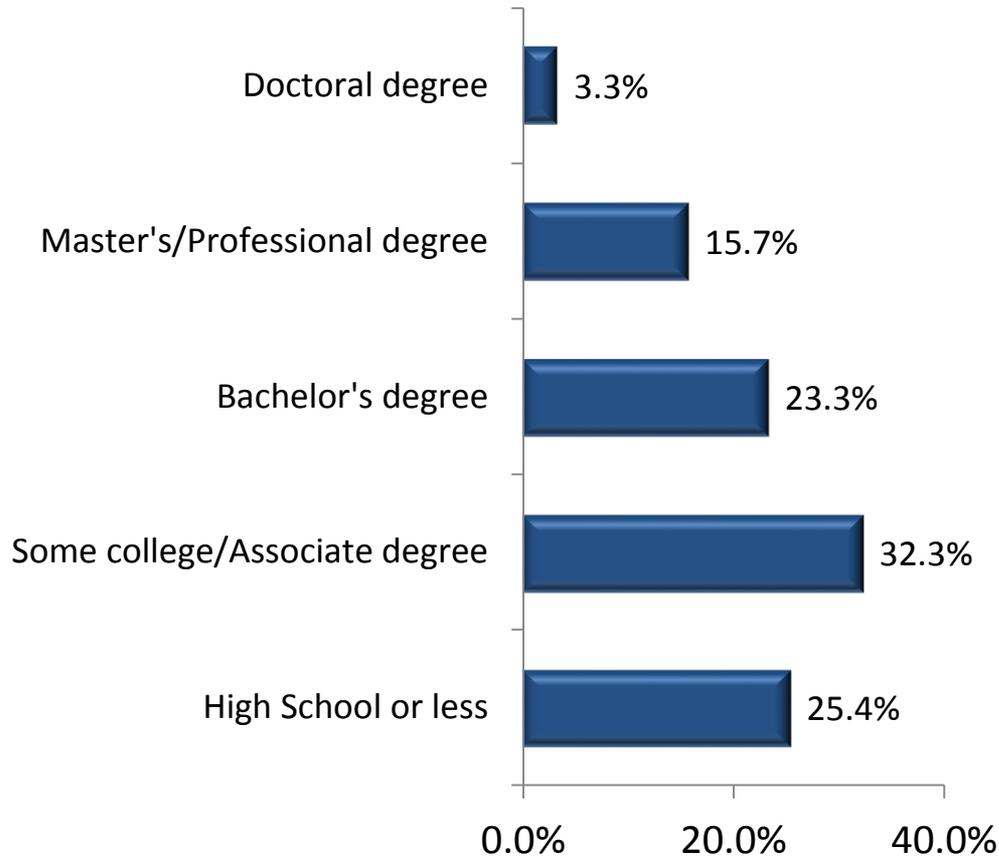


**All Industries**

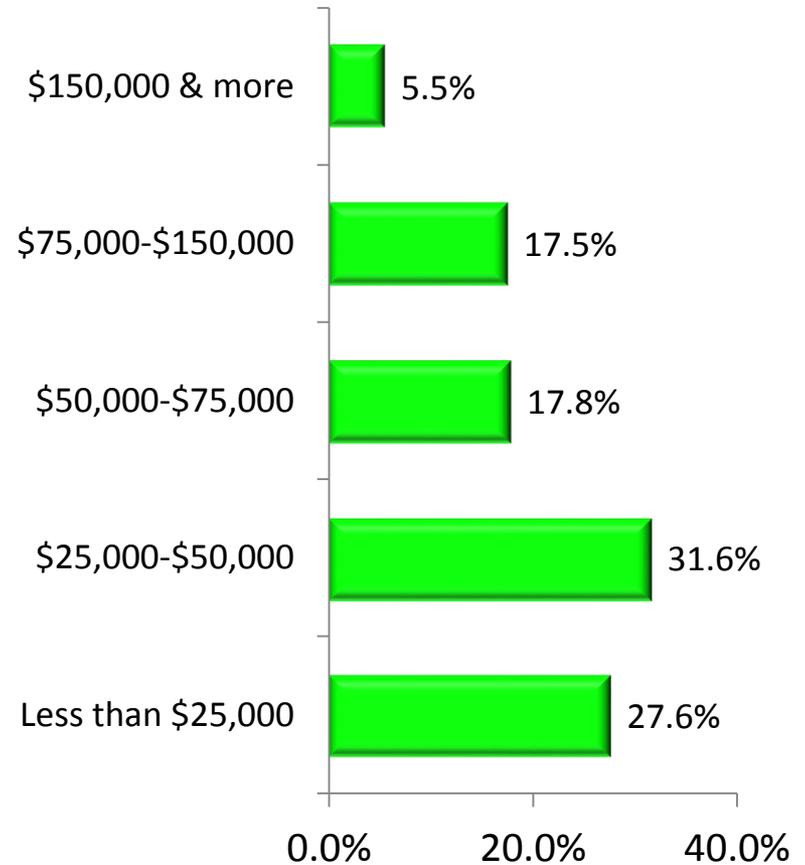


# Employment status and personal earnings of NJ residents in the health care industry

## Education Level



## Personal Earnings

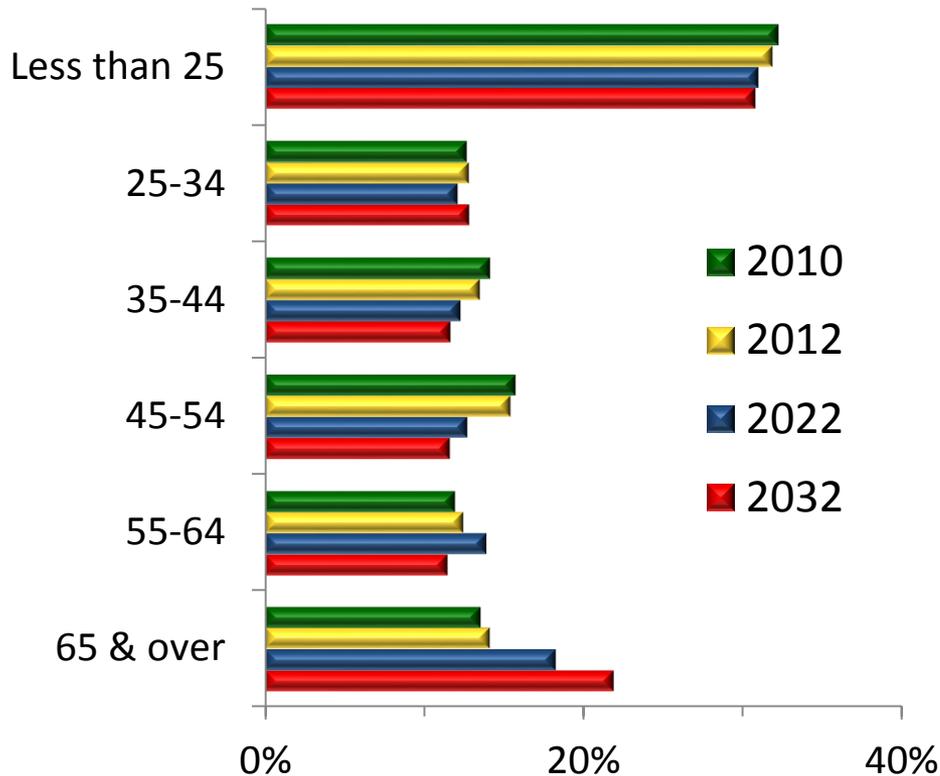


# OUTLOOK



# 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  
2010-2032



The percentage of New Jersey residents aged 65 or over are projected to reach 22 percent by 2032

The working age (aged 25-64) population is projected to decline from 54 percent in 2010 to 47 percent in 2032

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

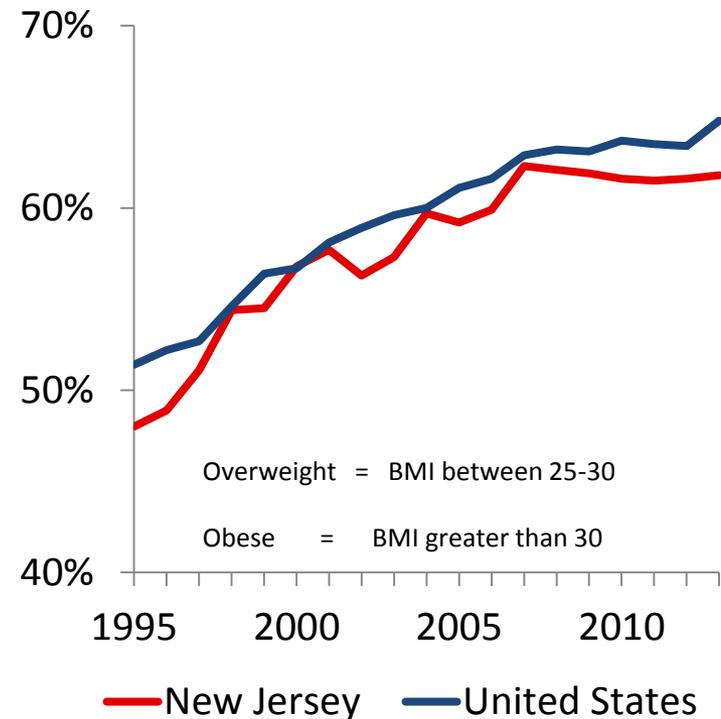
# A second key driver is the population's ongoing struggle with weight and obesity

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 31 percent from 1995 to 2013

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 26 percent in 2013

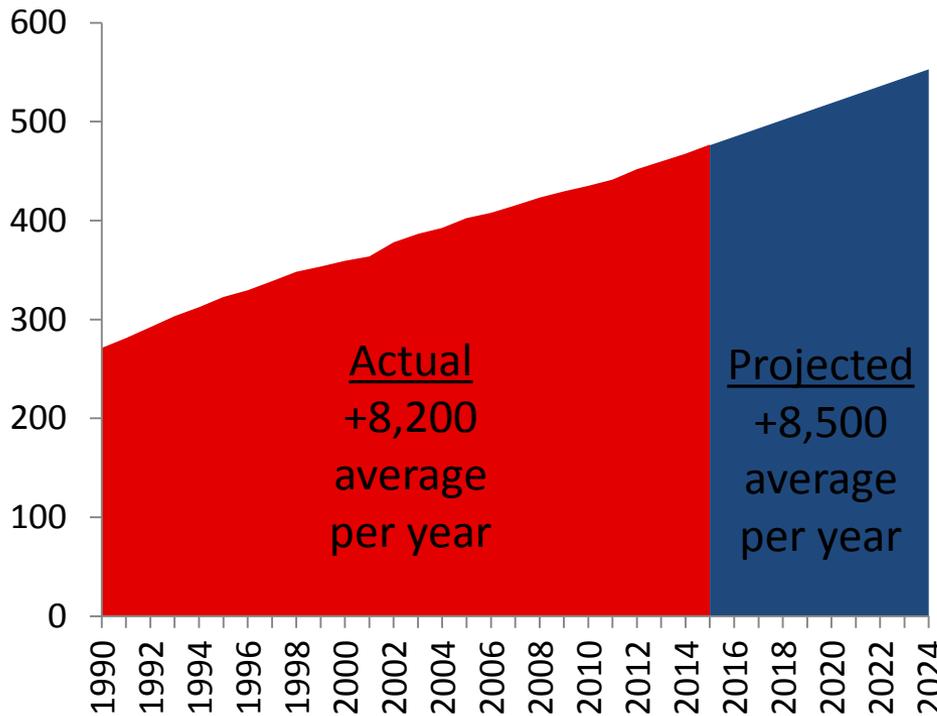
Employment opportunities in nutrition, physical therapy and cardiovascular disease should be robust as the state and the nation attempt to manage the obesity epidemic

Percentage of Population Obese or Overweight in New Jersey and United States  
1995-2013



# The health care industry has steadily gained employment over the last 25 years and will continue that trend through 2024

Actual and Projected Employment in Health Care (thousands):  
New Jersey, 1990-2024



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

- Grew by 3 percent per year during 1990s
- Grew by 2 percent per year during 2000s
- *Projected to grow by 1.7 percent from 2014-2024*

There will 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 roughly 85,300 jobs, and account for more than 32 percent of net job growth in New Jersey from 2014-2024



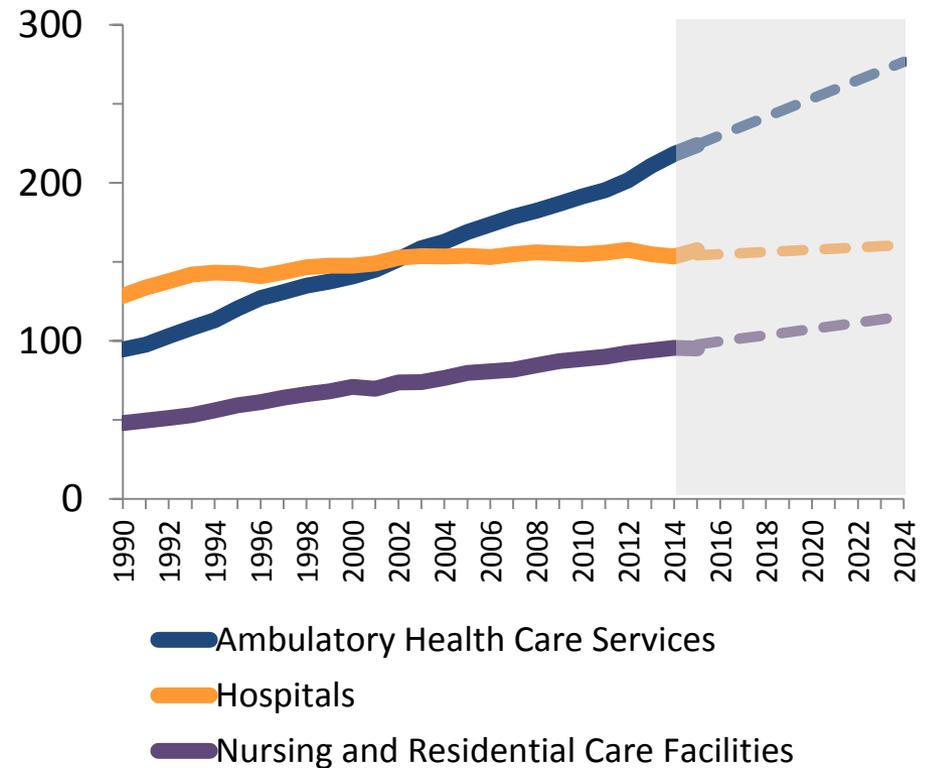
# All three components of the health care industry are projected to experience employment gains through 2024

Ambulatory health care services became the largest component in 2003 and will continue to grow at a robust annual rate of 2.4 percent, adding roughly 58,200 jobs from 2014 through 2024

The hospital component is the slowest growing segment and is projected to add only 7,150 through 2024, at an annual rate of 0.5 percent

Nursing and residential care facilities has experienced steady and above average gains since 1990, and will continue on this trend as the aging Baby Boomer population increases demand for these services

**Employment and Projected Estimates by Health Care Component  
New Jersey: 1990-2024**



Gray area denotes projected period from 2012-2022

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