New Jersey
Industry and Occupational Projections
2014-2024

Presented by:
Jason Timian, Labor Market Analyst 1
Part 1
Employment History

The Bureau of Labor Statistics (BLS) maintains employment records for total nonfarm employment dating back to 1939.
New Jersey generally tends to grow slower than the nation during periods of expansion and decline at a slower rate during recessions.

New Jersey largely kept pace with the nation through the 1960s.

New Jersey grew at a significantly slower pace during each period of expansion from 1970 and forward.

The United States grew 50 percent faster during the high growth 1990s.
Over the past 77 years since modern economic statistics have been compiled, the United States has experienced significant employment growth despite enduring 12 economic recessions.

Total Nonfarm Employment and Annual Change
United States: 1939-2016

Gray area denotes U.S. economic recession as defined by the National Bureau of Economic Research (NBER)

Source: Current Employment Statistics, Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development
While the depth of employment losses varies by recession, the length until full recovery has generally increased over time.
The United States has added nearly 35 million jobs from 1990 through 2016, averaging 1.1 percent growth per year.

The last 25 years of employment data can be broken down into three unique periods:

- **The widespread expansion of the 1990s when nearly 22.5 million jobs were added**
- **The period of slow growth during the 2000s bookended by two economic recessions**
- **The recovery from the Great Recession from 2007-2009, when employment has increased at a rate of 2.3 million jobs per year**

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

Gray area denotes U.S. economic recession as defined by the National Bureau of Economic Research (NBER)
Already well-established in 1939 when records started, New Jersey has more than tripled its employment base.
While New Jersey has typically fared well during past recessions, it has taken particularly long to recover from the most recent one.
New Jersey has added nearly 620,000 jobs from its employment trough in 1992

Again, there are three unique periods for employment change over the last 25 years:

- New Jersey shared in the robust job growth during the 1990s
- The 2000s marked the first decade in state history where New Jersey ended a decade with fewer jobs than it started
- The recovery from the Great Recession has been steady, but at a slower pace than the nation

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

Gray area denotes U.S. economic recession as defined by the National Bureau of Economic Research (NBER)
Similar to those before it, the most recent economic recession impacted states in many different ways.

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>Dec-08</td>
<td>322,900</td>
<td>Jan-06</td>
<td>310,200</td>
<td>327,900</td>
<td>-12,700 -3.5%</td>
<td>148</td>
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<tr>
<td>South Dakota</td>
<td>Aug-08</td>
<td>412,100</td>
<td>Jan-06</td>
<td>395,100</td>
<td>439,500</td>
<td>-17,000 -4.1%</td>
<td>43 26</td>
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<tr>
<td>North Dakota</td>
<td>Nov-08</td>
<td>368,900</td>
<td>Jan-06</td>
<td>348,300</td>
<td>437,200</td>
<td>-20,600 -5.6%</td>
<td>35 1</td>
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<tr>
<td>Massachusetts</td>
<td>Apr-08</td>
<td>3,331,500</td>
<td>Oct-09</td>
<td>3,190,100</td>
<td>3,609,700</td>
<td>-141,400 -4.2%</td>
<td>25 6</td>
</tr>
<tr>
<td>New York</td>
<td>Apr-08</td>
<td>8,810,600</td>
<td>Oct-09</td>
<td>8,481,400</td>
<td>9,486,200</td>
<td>-329,200 -3.7%</td>
<td>42 3</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>Apr-08</td>
<td>5,822,000</td>
<td>Feb-10</td>
<td>5,564,400</td>
<td>5,924,400</td>
<td>-257,600 -4.4%</td>
<td>39 8</td>
</tr>
<tr>
<td>New Jersey</td>
<td>Jan-08</td>
<td>4,092,600</td>
<td>Sep-10</td>
<td>3,833,200</td>
<td>4,115,700</td>
<td>-259,400 -6.3%</td>
<td>40 24</td>
</tr>
<tr>
<td>Alabama</td>
<td>Dec-07</td>
<td>2,014,900</td>
<td>Feb-10</td>
<td>1,860,300</td>
<td>1,997,900</td>
<td>-154,600 -7.7%</td>
<td>28 34</td>
</tr>
<tr>
<td>Connecticut</td>
<td>Mar-08</td>
<td>1,713,300</td>
<td>Feb-10</td>
<td>1,594,200</td>
<td>1,683,200</td>
<td>-119,100 -7.0%</td>
<td>22 31</td>
</tr>
<tr>
<td>Mississippi</td>
<td>Feb-08</td>
<td>1,161,800</td>
<td>Jan-10</td>
<td>1,084,200</td>
<td>1,144,900</td>
<td>-77,600 -6.7%</td>
<td>20 27</td>
</tr>
<tr>
<td>New Mexico</td>
<td>Feb-08</td>
<td>849,700</td>
<td>Sep-10</td>
<td>797,400</td>
<td>849,100</td>
<td>-52,300 -6.2%</td>
<td>14 22</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>Dec-06</td>
<td>495,700</td>
<td>Aug-09</td>
<td>455,900</td>
<td>494,600</td>
<td>-39,800 -8.0%</td>
<td>12 38</td>
</tr>
<tr>
<td>Texas</td>
<td>Aug-08</td>
<td>10,639,400</td>
<td>Jan-06</td>
<td>9,924,600</td>
<td>12,248,100</td>
<td>-714,800 -6.7%</td>
<td>48 28</td>
</tr>
<tr>
<td>Ohio</td>
<td>Mar-06</td>
<td>5,453,900</td>
<td>Feb-10</td>
<td>5,002,800</td>
<td>5,512,800</td>
<td>-451,100 -8.3%</td>
<td>46 41</td>
</tr>
<tr>
<td>California</td>
<td>Jul-07</td>
<td>15,502,800</td>
<td>Feb-10</td>
<td>14,186,500</td>
<td>16,681,200</td>
<td>-1,516,300 -8.5%</td>
<td>50 44</td>
</tr>
<tr>
<td>Florida</td>
<td>Mar-07</td>
<td>8,053,300</td>
<td>Dec-09</td>
<td>7,128,000</td>
<td>8,552,500</td>
<td>-925,300 -11.5%</td>
<td>49 47</td>
</tr>
<tr>
<td>Arizona</td>
<td>Oct-07</td>
<td>2,686,300</td>
<td>Sep-10</td>
<td>2,372,600</td>
<td>2,745,800</td>
<td>-313,700 -11.7%</td>
<td>41 48</td>
</tr>
<tr>
<td>Michigan</td>
<td>Jan-06</td>
<td>4,369,600</td>
<td>Jul-09</td>
<td>3,829,500</td>
<td>4,389,400</td>
<td>-540,100 -12.4%</td>
<td>47 49</td>
</tr>
<tr>
<td>Nevada</td>
<td>May-07</td>
<td>1,297,600</td>
<td>Sep-10</td>
<td>1,111,200</td>
<td>1,337,000</td>
<td>-186,400 -14.6%</td>
<td>34 50</td>
</tr>
</tbody>
</table>

**United States** | Jan-08 | 138,432,000 | Feb-10 | 129,733,000 | 146,063,000 | **-8,699,000 -6.3%** | --- | --- | **16,330,000 12.6%** | --- | **7,631,000 5.5%** | --- | **187.7%** |

Source: Current Employment Statistics, Seasonally Adjusted Estimates
Prepared by: New Jersey Department of Labor and Workforce Development
The types of jobs that exist in today’s economy have changed dramatically in both New Jersey and the United States.

The employment base has transformed over the past decades from one focused on producing physical goods (most often in manufacturing and construction) to one based in providing various types of services.

In 2016, New Jersey’s employment share in goods-producing industries has been nearly halved from 1990, and now nine of every ten jobs is classified as service-providing.

The same levels in the nation are not as drastic, but the trend is the same.

<table>
<thead>
<tr>
<th></th>
<th>New Jersey</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goods-Producing</td>
<td>18.7%</td>
<td>21.7%</td>
</tr>
<tr>
<td>Service-Providing</td>
<td>81.3%</td>
<td>78.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goods-Producing</td>
<td>19.7%</td>
<td>13.7%</td>
</tr>
<tr>
<td>Service-Providing</td>
<td>80.3%</td>
<td>86.3%</td>
</tr>
</tbody>
</table>

Source: Current Employment Statistics, Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development
This shift to a service-based economy is evident in the employment shares by industry sector

<table>
<thead>
<tr>
<th>Industry</th>
<th>1990</th>
<th>2016</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education and Health Services</td>
<td>10.0%</td>
<td>16.6%</td>
<td>+6.6%</td>
</tr>
<tr>
<td>Professional and Business Services</td>
<td>12.1%</td>
<td>16.3%</td>
<td>+4.2%</td>
</tr>
<tr>
<td>Leisure and Hospitality</td>
<td>7.4%</td>
<td>9.1%</td>
<td>+1.6%</td>
</tr>
<tr>
<td>Other Services</td>
<td>3.3%</td>
<td>4.2%</td>
<td>+0.9%</td>
</tr>
<tr>
<td>Construction</td>
<td>4.1%</td>
<td>3.8%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>6.4%</td>
<td>6.1%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Government</td>
<td>15.9%</td>
<td>15.1%</td>
<td>-0.8%</td>
</tr>
<tr>
<td>Information</td>
<td>3.3%</td>
<td>1.8%</td>
<td>-1.5%</td>
</tr>
<tr>
<td>Trade, Transportation, and Utilities</td>
<td>22.9%</td>
<td>21.2%</td>
<td>-1.7%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>14.6%</td>
<td>5.9%</td>
<td>-8.6%</td>
</tr>
</tbody>
</table>

The education and health services sector has experienced the largest jump, and is now the second largest industry sector in New Jersey (fifth in 1990).

The trade, transportation, and utilities sector has lost a bit of its employment share, but remains #1 in terms of employment, accounting for more than one of every five jobs.

Source: Current Employment Statistics, Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development
The employment shift trends at the national level have been very similar to New Jersey.

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<th>2016</th>
<th>Change</th>
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<td>+5.6%</td>
</tr>
<tr>
<td>Professional and Business Services</td>
<td>9.9%</td>
<td>14.0%</td>
<td>+4.0%</td>
</tr>
<tr>
<td>Leisure and Hospitality</td>
<td>8.5%</td>
<td>10.8%</td>
<td>+2.3%</td>
</tr>
<tr>
<td>Other Services</td>
<td>3.9%</td>
<td>3.9%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Construction</td>
<td>4.8%</td>
<td>4.7%</td>
<td>-0.2%</td>
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<td>6.0%</td>
<td>5.7%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Information</td>
<td>2.5%</td>
<td>1.9%</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Government</td>
<td>16.8%</td>
<td>15.4%</td>
<td>-1.4%</td>
</tr>
<tr>
<td>Trade, Transportation, and Utilities</td>
<td>20.7%</td>
<td>18.9%</td>
<td>-1.8%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>16.2%</td>
<td>8.6%</td>
<td>-7.6%</td>
</tr>
</tbody>
</table>

The professional & business services and leisure & hospitality sectors have each outpaced average growth and have added to their employment share.

The manufacturing sector has shed more than 5 million jobs since 1990 and its employment share has been nearly halved.

Source: Current Employment Statistics, Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development
Using a modified extrapolation of past industry trends, these estimates reflect a likely 10-year result that can be used to guide policy decisions today and in the future.
New Jersey is projected to grow at nearly the same pace as the United States over the next ten years.

Total nonfarm employment is projected to grow by an average of 0.6 percent per year from 2014-2024.

Net employment gains are projected to occur almost entirely among service-producing industries, increasing its employment share to 91 percent and 87 percent in New Jersey and the United States, respectively.

The United States is projected to add more than 9,000,000 jobs between 2014 and 2024.

Nearly all growth is projected to occur among service-providing industries, and its share of total employment is projected to increase to 87 percent of all jobs by 2024.

Goods-producing industries, consisting primarily of manufacturing, construction and mining, are projected to grow by only 56,500.

Prepared by: New Jersey Department of Labor and Workforce Development
All projected growth in employment in New Jersey is projected to occur among service-providing industries

New Jersey is projected to average roughly 26,000 employment growth per year from 2014 to 2024

Service-providing industries are projected to account for 91 percent of all jobs by 2024

Despite the lack of employment growth among goods-producing industries, a neutral projection would actually reverse an enduring trend of losses among this group

Prepared by: New Jersey Department of Labor and Workforce Development
New Jersey is projected to outpace the nation in several sectors including construction, trade, transportation & utilities, and professional & business services.
Employment among goods-producing industries is currently on its longest growth streak since at least 1990

Annual Growth Rate of Goods-Producing Industries
New Jersey: 1990-2016

These industries are often highly susceptible to significant downturns during times of economic recession.

Prior to the current expansion and dating back to 1990, these industries had never grown by more than 1 percent in any year, which it has now done four years in a row.

Gray area denotes U.S. economic recession as defined by the National Bureau of Economic Research (NBER)

Source: Current Employment Statistics, Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development
The employment losses in manufacturing are projected to be nearly entirely offset by gains in construction.

Construction, perhaps the most cyclical of all sectors, experienced particularly deep losses during the Great Recession.

The projected decline in manufacturing represents an historically slower pace of job loss, however, it is expected for employment to continue its downward trend as more advanced technologies increase efficiency and lessens the need for manpower.

Prepared by: New Jersey Department of Labor and Workforce Development
Nearly all of the sub-industries within manufacturing are projected to experience some level of decline.

More than half of these net losses is projected to occur within these four industries.

Only printing & related support manufacturing is not classified as advanced manufacturing, one of New Jersey’s seven key industry sectors.

Prepared by: New Jersey Department of Labor and Workforce Development
Employment in food manufacturing in New Jersey has been trending upward since 2008

Food manufacturing is the second largest sub-industry in the sector behind chemical manufacturing.

Employment growth averaged 0.7 percent from 2008-2014.

There was a sharp employment spike in 2015 and 2016 with rates of 3.2 percent and 4.7 percent, respectively.

Prepared by: New Jersey Department of Labor and Workforce Development
Employment growth during this recovery is outpacing the previous expansion during the 2000s

The ten year expansion during the 1990s led to average growth among service-providing industries exceeding 2 percent.

The six years prior to the Great Recession experienced only modest employment gains, as only one year exceeded 1 percent growth.

On the contrary, four of the last five years have surpassed 1 percent growth.

Gray area denotes U.S. economic recession as defined by the National Bureau of Economic Research (NBER)

Source: Current Employment Statistics, Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development
Trade, Transportation & Utilities is projected to remain the largest sector in New Jersey through 2024

Actual and Projected Employment by Industry Sector
New Jersey: 2014-2024

- **Trade, Transportation & Utilities**: 894,250
- **Educational & Health Services**: 753,350
- **Professional & Business Services**: 719,250
- **Leisure & Hospitality**: 395,200
- **Financial Activities**: 244,950
- **Other Services**: 177,850
- **Information**: 66,300

The top three sectors combined account for more than half (53.4%) of all employment in 2014.

The financial activities and information sectors are each projected to decline slightly over the ten year period.

Prepared by: New Jersey Department of Labor and Workforce Development
With nearly 110,000 projected new jobs, the educational and health services sector is projected to account for more than 40 percent of all net employment growth.
The health care industry has steadily gained employment over the last 25 years and will continue that trend through 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.

Prepared by: New Jersey Department of Labor and Workforce Development
Industry projections are combined with staffing patterns identified through the Occupational Employment Statistics (OES) survey program to develop estimates of long-term projections by occupation.
Occupational Highlights

• 6.6 percent employment growth from 2014-2024

• 277,450 additional occupational employment

• 131,000 average annual job openings

• More than 75 percent of these jobs openings will be due to replacement demand

Prepared by: New Jersey Department of Labor and Workforce Development
The fastest growing occupational groups are projected to be found in the health care and STEM fields.

**Projected Employment Change**

**New Jersey: 2014-2024**

- Healthcare Support: 22%
- Healthcare Practitioners and Technicians: 13%
- STEM: 9%
- Food and Personal Services: 9%
- Blue Collar: 7%
- Managerial and Professional Office: 6%
- Social Sciences: 5%
- Education, Training, and Library: 4%
- Sales and Office Support: 2%

Prepared by: New Jersey Department of Labor and Workforce Development
Despite very slow growth, sales and office support occupations will remain the largest group and account for one-quarter of all jobs by 2024.

Actual and Projected Employment by Occupational Group
New Jersey: 2014-2024

Sales and Office Support
Blue Collar
Food and Personal Services
Managerial and Professional Office
Education, Training, and Library
Healthcare Practitioners and Technical
STEM
Healthcare Support
Social Sciences

Prepared by: New Jersey Department of Labor and Workforce Development
An estimate of average annual job openings is calculated to show a measure of opportunities for employment.

Nearly each of these occupational groups will attribute more of these job openings to replacement demand rather than actual growth with an average ratio of three to one.

Healthcare support occupations are the only group to offer more opportunity due to growth than replacement demand.

Prepared by: New Jersey Department of Labor and Workforce Development
These top ten occupations measured by total employment account for nearly 20 percent of all jobs in 2014.

Top Ten Occupations by Employment
New Jersey: 2014

1. Retail Salespersons - 139,250
2. Cashiers - 96,950
3. Laborers of Freight and Stock - 83,850
4. Registered Nurses - 81,350
5. General Office Clerks - 79,050
6. Janitors and Cleaners - 72,250
7. Customer Service Representatives - 66,050
8. Secretaries and Administrative Assistants - 65,700
9. Stock Clerks and Order Fillers - 63,750
10. Food Preparation and Serving Workers - 58,350

Prepared by: New Jersey Department of Labor and Workforce Development
These ten occupations account for more than 30 percent of all projected net employment growth.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Projected Growth</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Health Aides</td>
<td>15,800</td>
<td>Less than high school</td>
</tr>
<tr>
<td>Laborers of Freight and Stock</td>
<td>11,500</td>
<td>Less than high school</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>10,800</td>
<td>Bachelor’s degree</td>
</tr>
<tr>
<td>Food Preparation and Serving Workers</td>
<td>9,500</td>
<td>Less than high school</td>
</tr>
<tr>
<td>Nursing Assistants</td>
<td>8,300</td>
<td>Postsecondary non-degree award</td>
</tr>
<tr>
<td>Retail Salespersons</td>
<td>8,150</td>
<td>Less than high school</td>
</tr>
<tr>
<td>Applications Software Developers</td>
<td>8,000</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Receptionists and Information Clerks</td>
<td>6,100</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Customer Service Representatives</td>
<td>5,600</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>Heavy and Tractor-Trailer Truck Drivers</td>
<td>4,850</td>
<td>Postsecondary non-degree award</td>
</tr>
</tbody>
</table>

Three of the top five occupations projected to add the most jobs are most commonly found in the healthcare sector.

Applications software developers require at least a bachelor’s degree and earn an average salary nearly $100,000 per year.
The groups of occupations which require moderate and high levels of education are projected to grow faster than those requiring a high school diploma or less.

![Projected Percentage Growth Rate 2014-2024](chart)

- **Total High Requirements**: 6.8%
- **Total Moderate Requirements**: 8.5%
- **Total Low Requirements**: 6.1%

**Projected Percentage Growth Rate 2014-2024**

- **Doctoral or professional degree**: 8.6%
- **Master's degree**: 8.6%
- **Bachelor's degree**: 6.5%
- **Associate's degree**: 7.9%
- **Postsecondary non-degree award**: 12.2%
- **Some college, no degree**: 0.9%
- **High school diploma or equivalent**: 3.5%
- **Less than high school**: 9.8%

Prepared by: New Jersey Department of Labor and Workforce Development
Questions or Comments?

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