

New Jersey Industry and Occupational Projections 2014-2024

Presented by:

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NEW JERSEY DEPARTMENT OF

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LABOR AND WORKFORCE DEVELOPMENT
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Part 1

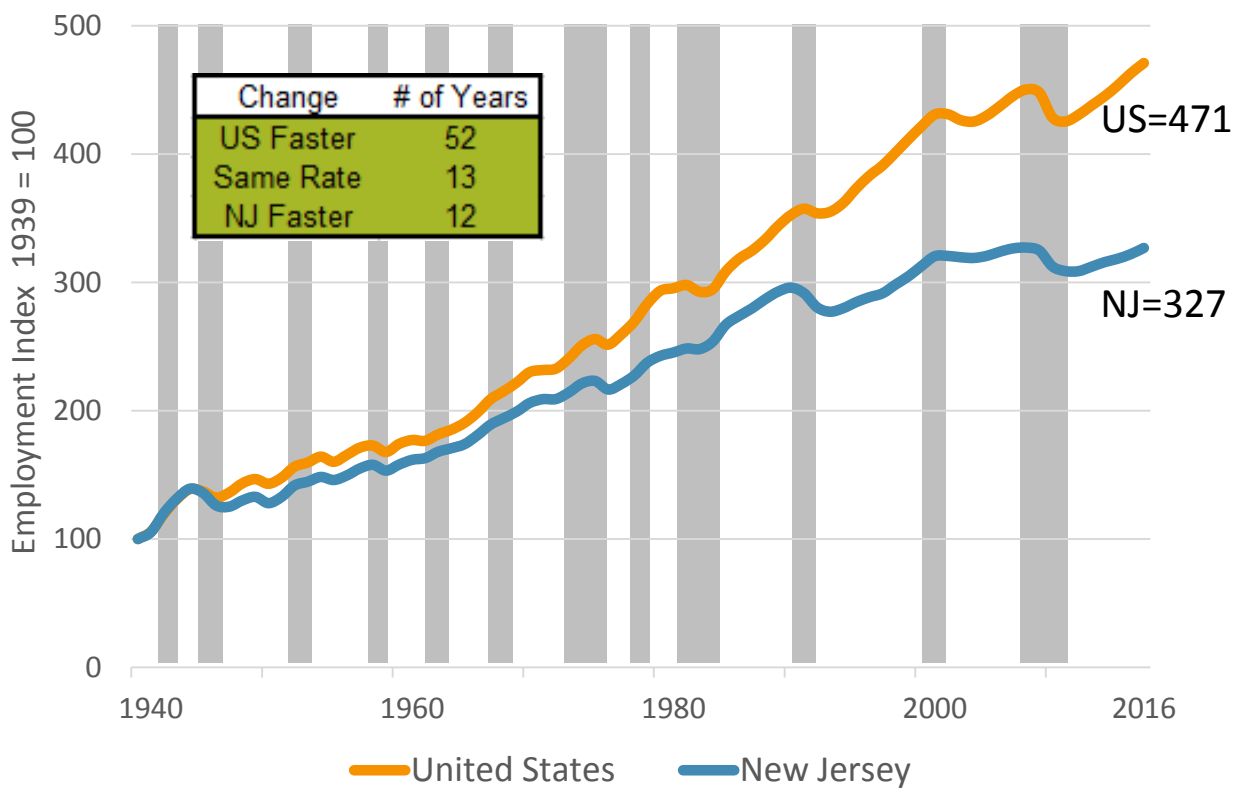
Employment History



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

Employment Indexed to 1939
New Jersey and United States: 1939-2016



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

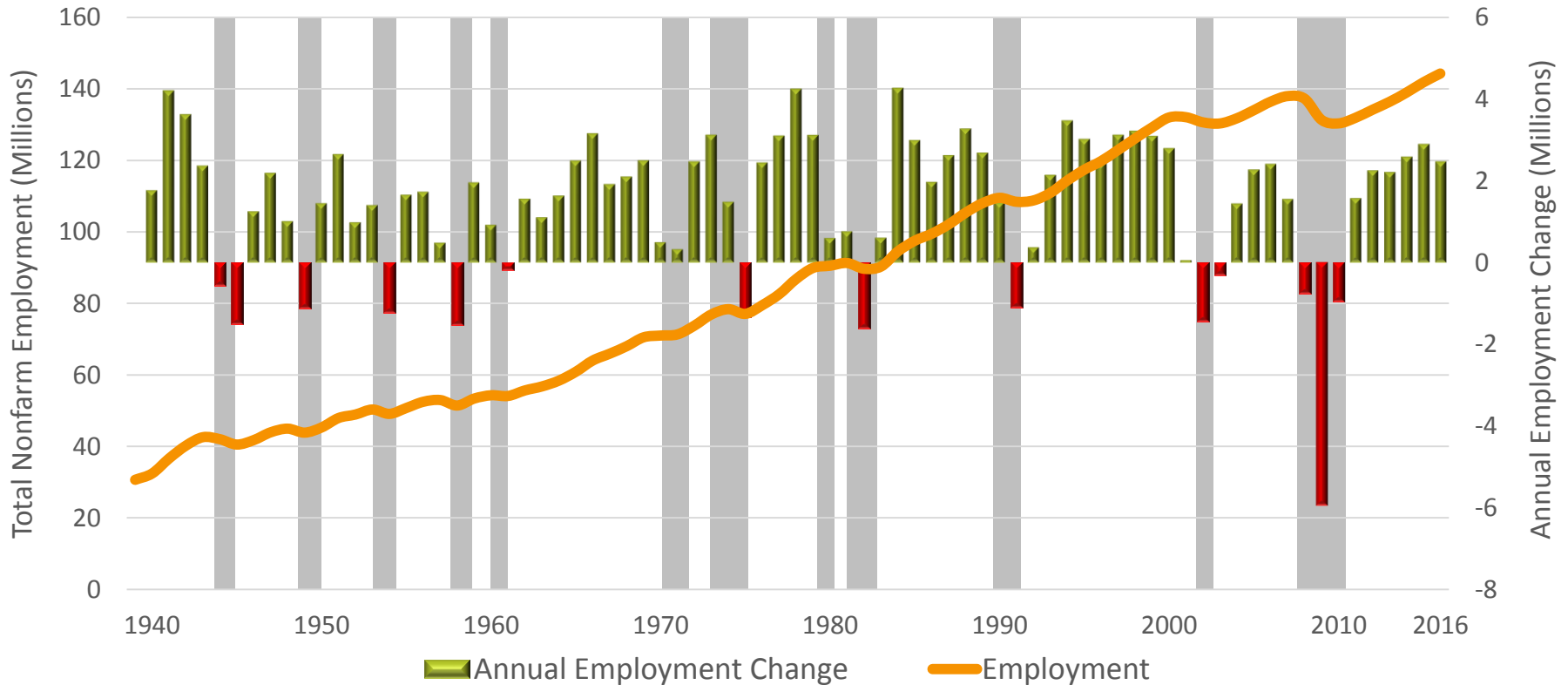
The United States grew 50 percent faster during the high growth 1990s

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

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

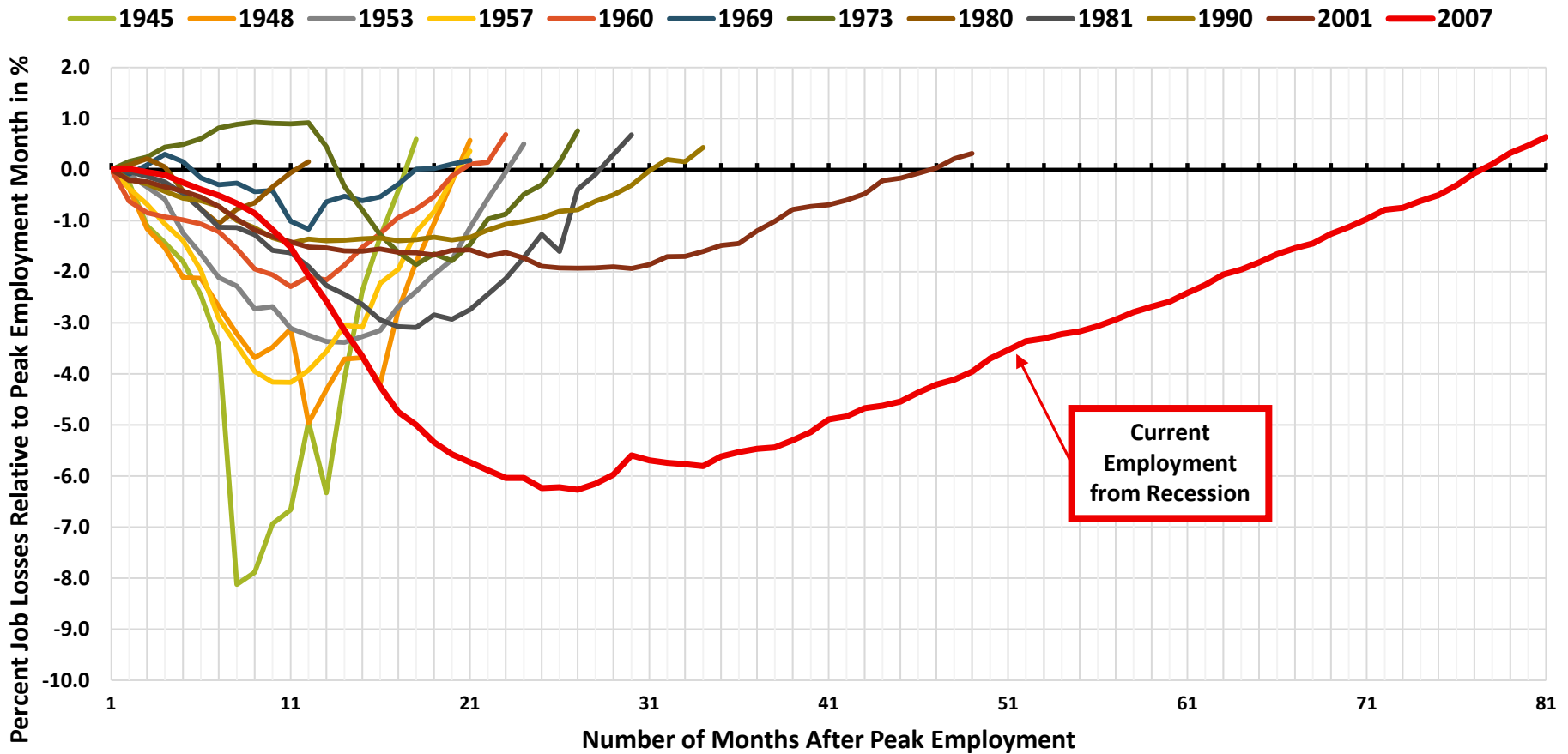


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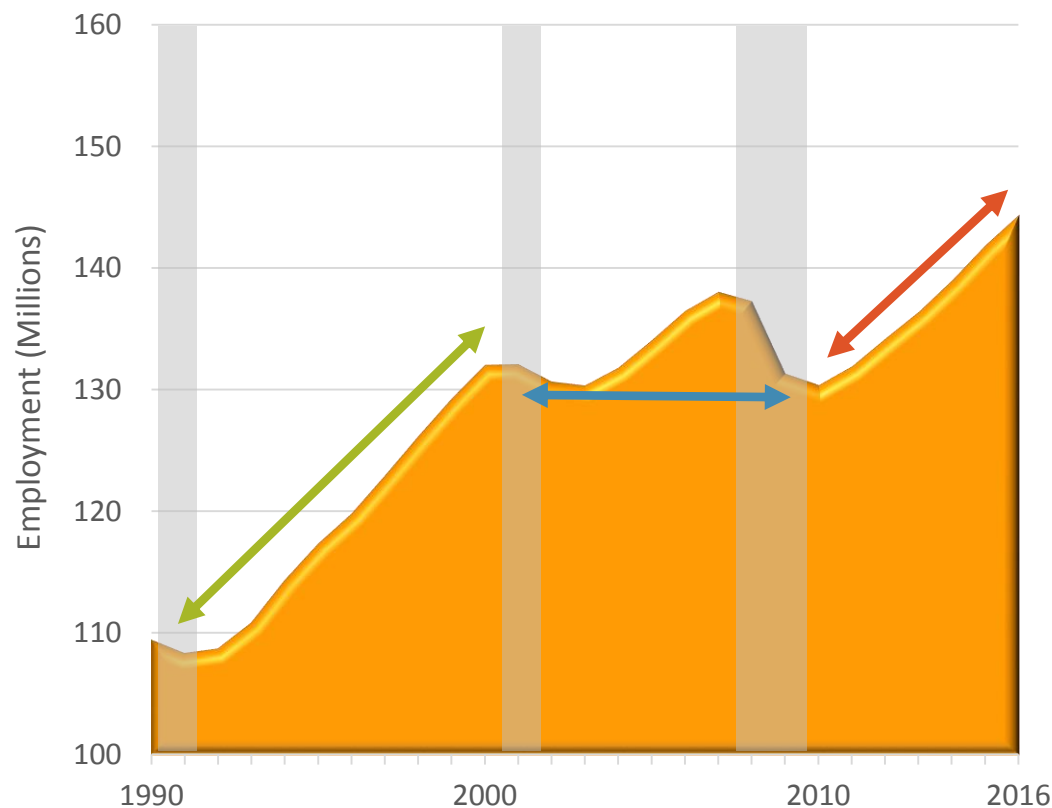
While the depth of employment losses varies by recession, the length until full recovery has generally increased over time

Percent Job Losses During Recessions in the United States



The United States has added nearly 35 million jobs from 1990 through 2016, averaging 1.1 percent growth per year

Total Nonfarm Employment
United States: 1990-2016



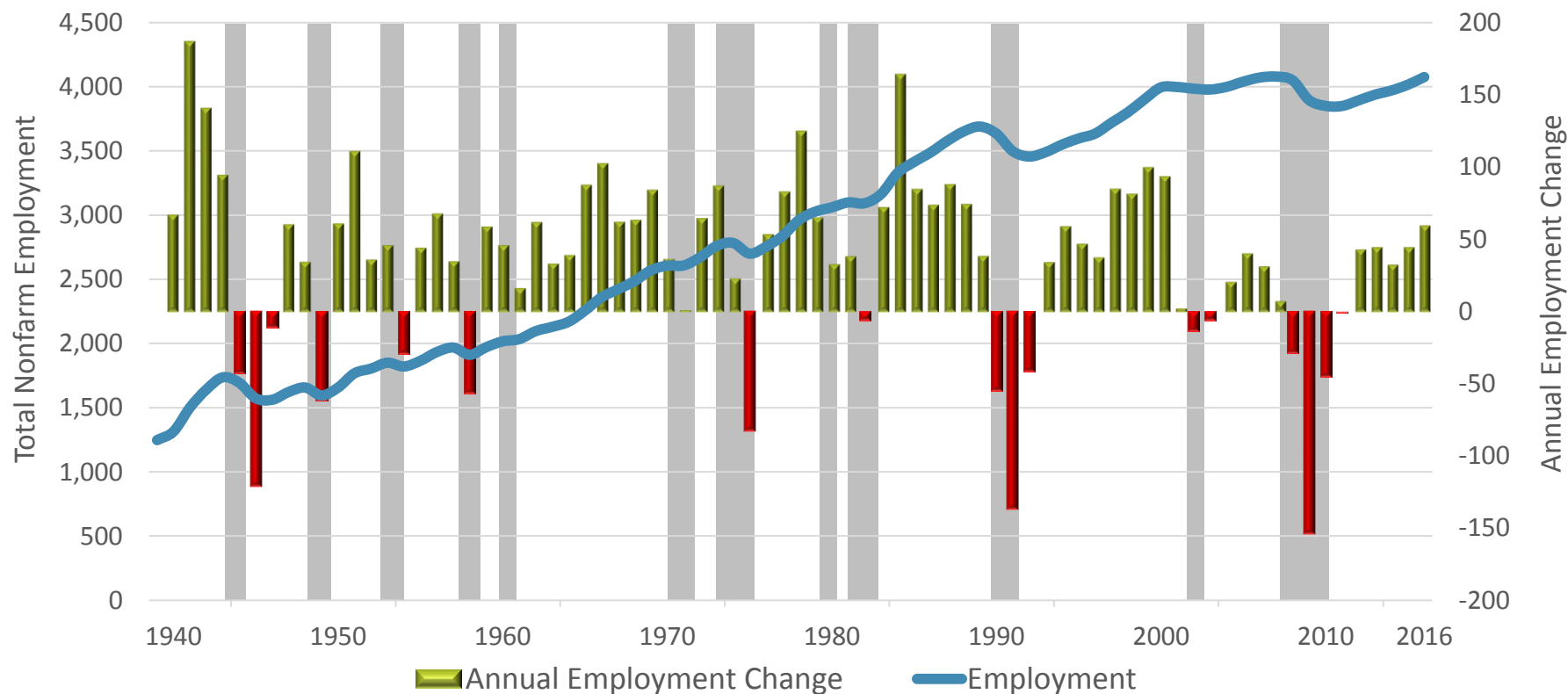
Gray area denotes U.S. economic recession as defined by the National Bureau of Economic Research (NBER)

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

Already well-established in 1939 when records started, New Jersey has more than tripled its employment base

Total Nonfarm Employment and Annual Change New Jersey: 1939-2016

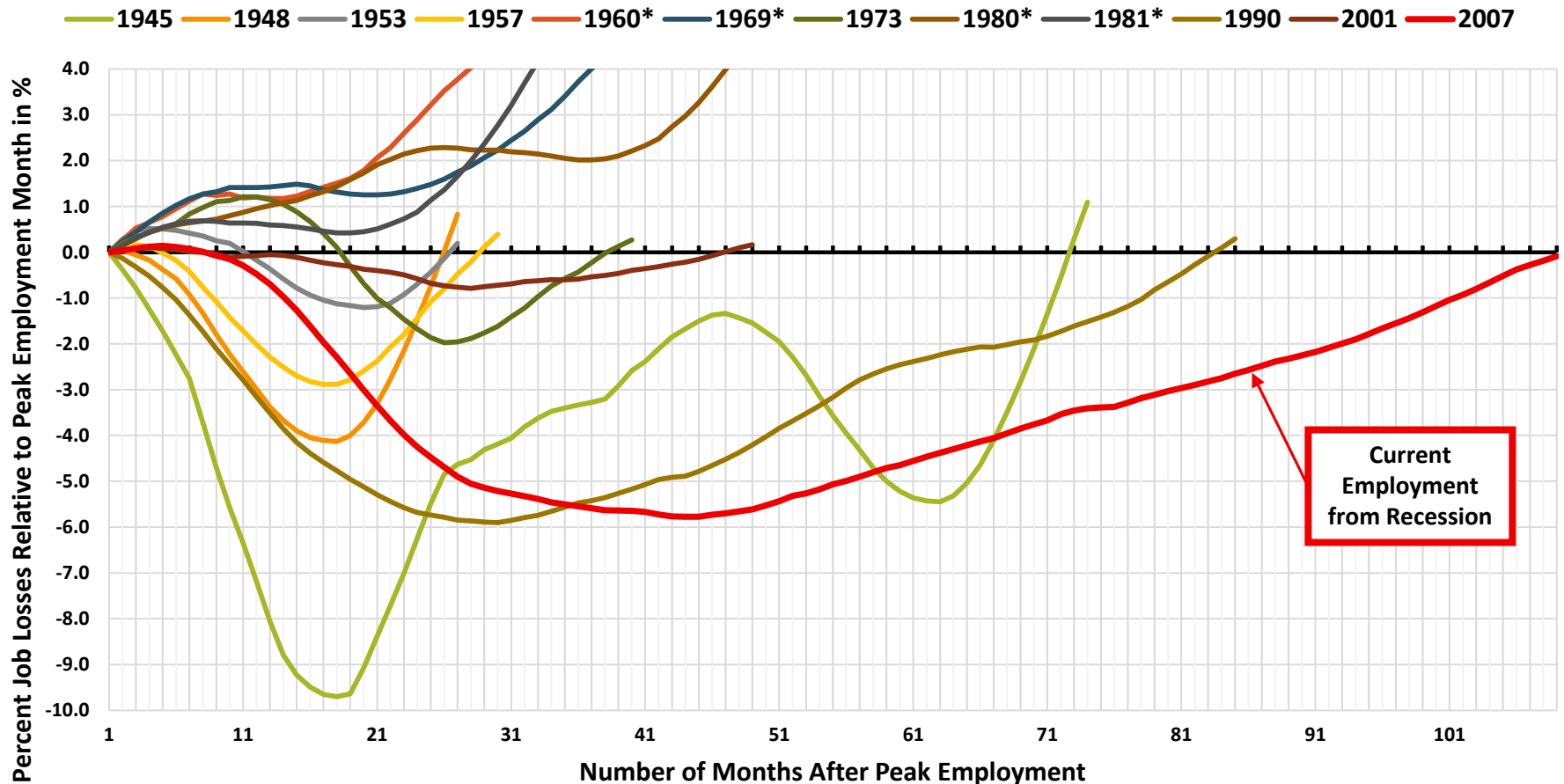


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Source: Current Employment Statistics, Annual Averages
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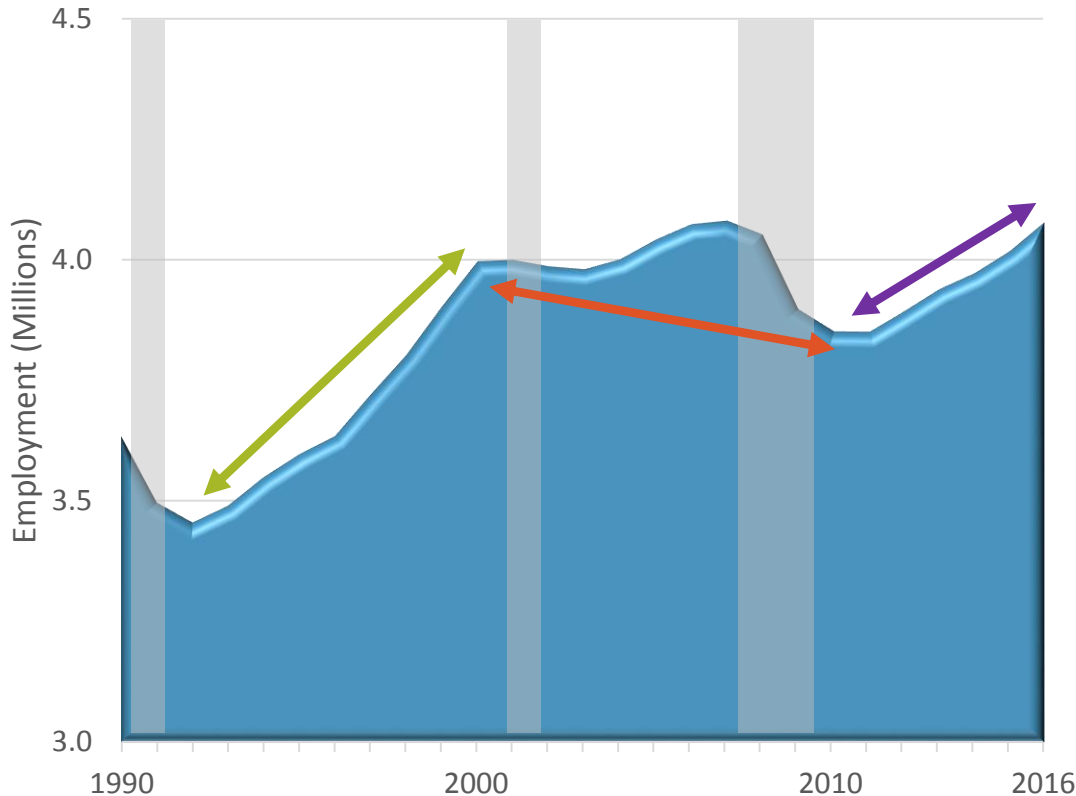
While New Jersey has typically fared well during past recessions, it has taken particularly long to recover from the most recent one

Percent Job Losses During Recessions in New Jersey



New Jersey has added nearly 620,000 jobs from its employment trough in 1992

Total Nonfarm Employment
New Jersey: 1990-2016



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

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**

Similar to those before it, the most recent economic recession impacted states in many different ways

State	Employment Peak 2006-2009		Recessionary Low Point 2006-2017		April 2017 Employment	Change from Employment Peak in 2006-2009 to Recessionary Low Point in 2006-2017				Change from Recessionary Low Point in 2006-2017 to April 2017 Employment				Change from Employment Peak in 2006-2009 to April 2017 Employment				Percent of Employment Recovered from Employment Peak after Recessionary Low Point
	Month and Year	Number	Month and Year	Number		Number	Percentage	Rank by Number	Rank by Percentage	Number	Percentage	Rank by Number	Rank by Percentage	Number	Percentage	Rank by Number	Rank by Percentage	
Alaska	Dec-08	322,900	Jan-06	310,200	327,900	-12,700	-3.9%	1	4	17,700	5.7%	48	44	5,000	1.5%	41	36	139.4%
South Dakota	Aug-08	412,100	Jan-06	395,100	439,500	-17,000	-4.1%	3	5	44,400	11.2%	43	26	27,400	6.6%	34	13	261.2%
North Dakota	Nov-08	368,900	Jan-06	348,300	437,200	-20,600	-5.6%	4	17	88,900	25.5%	35	1	68,300	18.5%	21	1	431.6%
Massachusetts	Apr-08	3,331,500	Oct-09	3,190,100	3,609,700	-141,400	-4.2%	25	6	419,600	13.2%	12	17	278,200	8.4%	7	6	296.7%
New York	Apr-08	8,810,600	Oct-09	8,481,400	9,486,200	-329,200	-3.7%	42	3	1,004,800	11.8%	4	22	675,600	7.7%	3	8	305.2%
Pennsylvania	Apr-08	5,822,000	Feb-10	5,564,400	5,924,400	-257,600	-4.4%	39	8	360,000	6.5%	15	43	102,400	1.8%	18	34	139.8%
New Jersey	Jan-08	4,092,600	Sep-10	3,833,200	4,115,700	-259,400	-6.3%	40	24	282,500	7.4%	21	39	23,100	0.6%	37	41	108.9%
Alabama	Dec-07	2,014,900	Feb-10	1,860,300	1,997,900	-154,600	-7.7%	28	34	137,600	7.4%	29	38	-17,000	-0.8%	47	45	89.0%
Connecticut	Mar-08	1,713,300	Feb-10	1,594,200	1,683,200	-119,100	-7.0%	22	31	89,000	5.6%	34	46	-30,100	-1.8%	50	48	74.7%
Mississippi	Feb-08	1,161,800	Jan-10	1,084,200	1,144,900	-77,600	-6.7%	20	27	60,700	5.6%	39	45	-16,900	-1.5%	46	47	78.2%
New Mexico	Feb-08	849,700	Sep-10	797,400	840,100	-52,300	-6.2%	14	22	42,700	5.4%	44	48	-9,600	-1.1%	45	46	81.6%
Rhode Island	Dec-06	495,700	Aug-09	455,900	494,600	-39,800	-8.0%	12	38	38,700	8.5%	45	33	-1,100	-0.2%	44	44	97.2%
Texas	Aug-08	10,639,400	Jan-06	9,924,600	12,248,100	-714,800	-6.7%	48	28	2,323,500	23.4%	2	3	1,608,700	15.1%	1	3	325.1%
Ohio	Mar-06	5,453,900	Feb-10	5,002,800	5,512,800	-451,100	-8.3%	46	41	510,000	10.2%	8	27	58,900	1.1%	23	38	113.1%
California	Jul-07	15,502,800	Feb-10	14,186,500	16,681,200	-1,316,300	-8.5%	50	44	2,494,700	17.6%	1	8	1,178,400	7.6%	2	9	189.5%
Florida	Mar-07	8,053,300	Dec-09	7,128,000	8,552,500	-925,300	-11.5%	49	47	1,424,500	20.0%	3	5	499,200	6.2%	4	15	154.0%
Arizona	Oct-07	2,686,300	Sep-10	2,372,600	2,745,800	-313,700	-11.7%	41	48	373,200	15.7%	14	14	59,500	2.2%	22	31	119.0%
Michigan	Jan-06	4,369,600	Jul-09	3,829,500	4,389,400	-540,100	-12.4%	47	49	559,900	14.6%	6	15	19,800	0.5%	38	42	103.7%
Nevada	May-07	1,297,600	Sep-10	1,111,200	1,337,000	-186,400	-14.4%	34	50	225,800	20.3%	25	4	39,400	3.0%	28	27	121.1%
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%

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

	1990	2016
New Jersey		
Goods-Producing	18.7%	9.7%
Service-Providing	81.3%	90.3%
United States		
Goods-Producing	21.7%	13.7%
Service-Providing	78.3%	86.3%

This shift to a service-based economy is evident in the employment shares by industry sector

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

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

The employment shift trends at the national level have been very similar to New Jersey

Industry	1990	2016	Change
Education and Health Services	10.1%	15.7%	+5.6%
Professional and Business Services	9.9%	14.0%	+4.0%
Leisure and Hospitality	8.5%	10.8%	+2.3%
Other Services	3.9%	3.9%	0.0%
Construction	4.8%	4.7%	-0.2%
Financial Activities	6.0%	5.7%	-0.3%
Information	2.5%	1.9%	-0.5%
Government	16.8%	15.4%	-1.4%
Trade, Transportation, and Utilities	20.7%	18.9%	-1.8%
Manufacturing	16.2%	8.6%	-7.6%

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

Part 2

Industry Projections

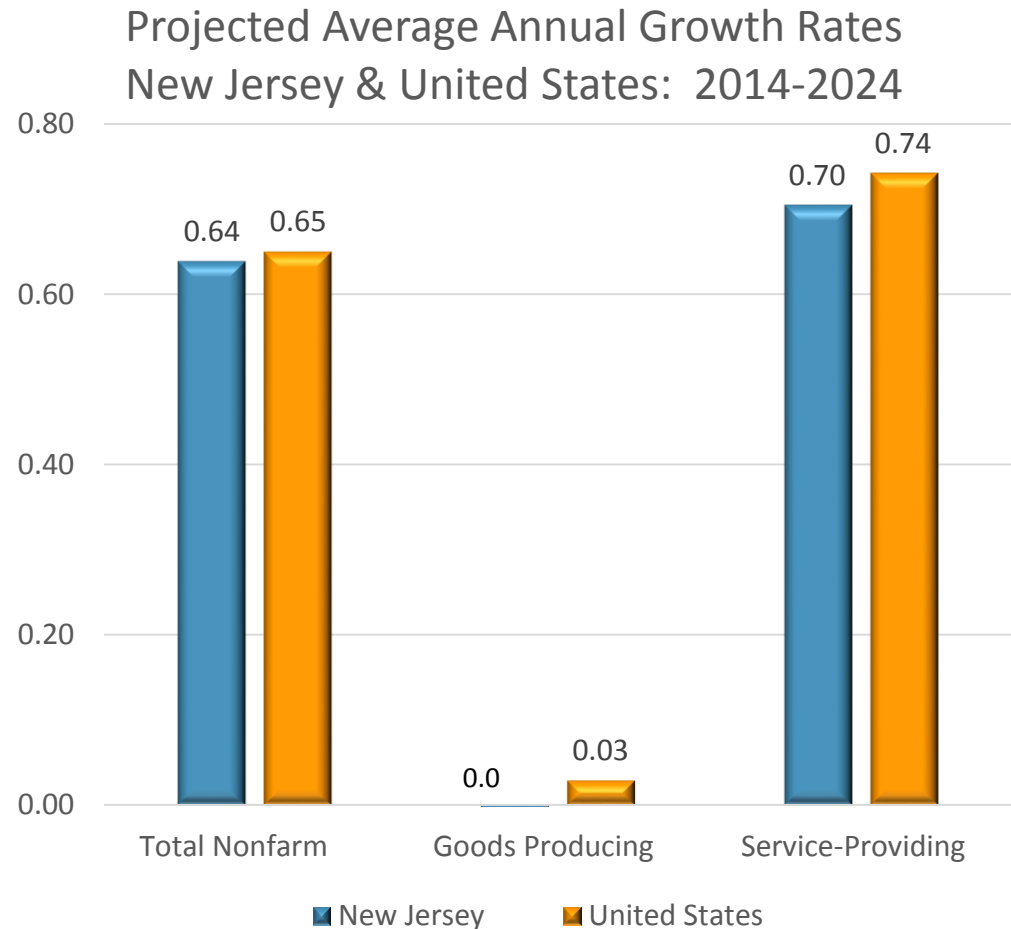


Using a modified extrapolation of past industry trends, these estimates reflect a likely 10-year result that can be used to guide policy decisions today and in the future

New Jersey is projected to grow at nearly the same pace as the United States over the next ten years

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

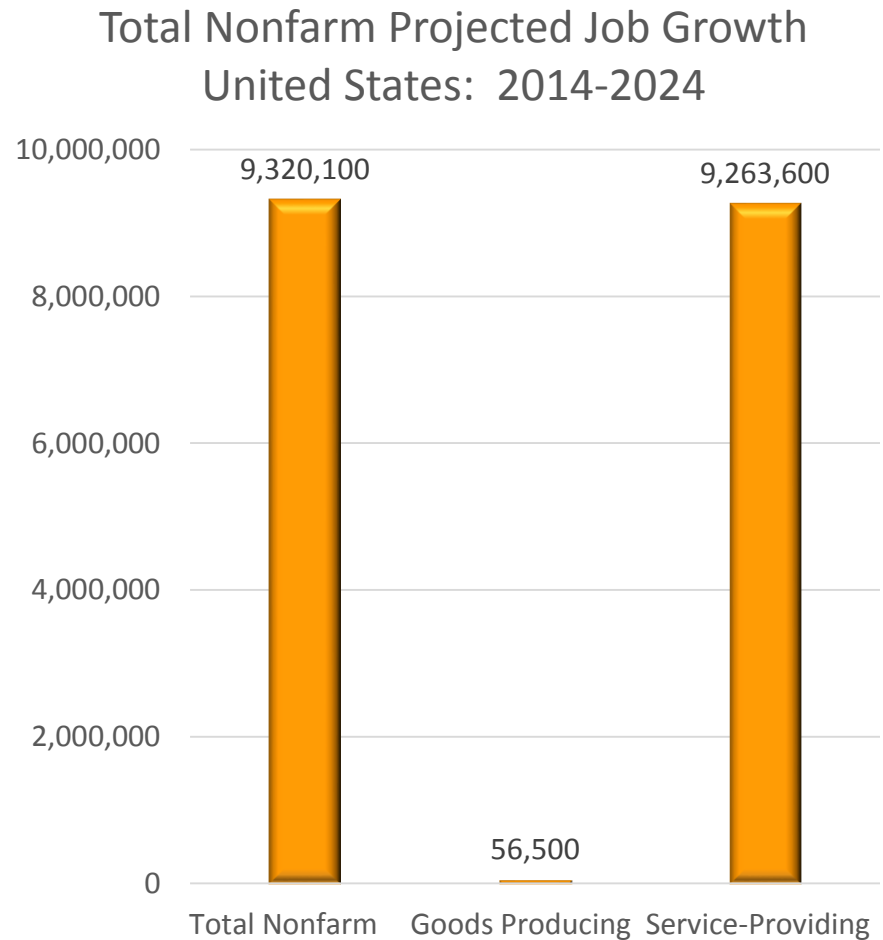
Net employment gains are projected to occur almost entirely among service-producing industries, increasing its employment share to 91 percent and 87 percent in New Jersey and the United States, respectively



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



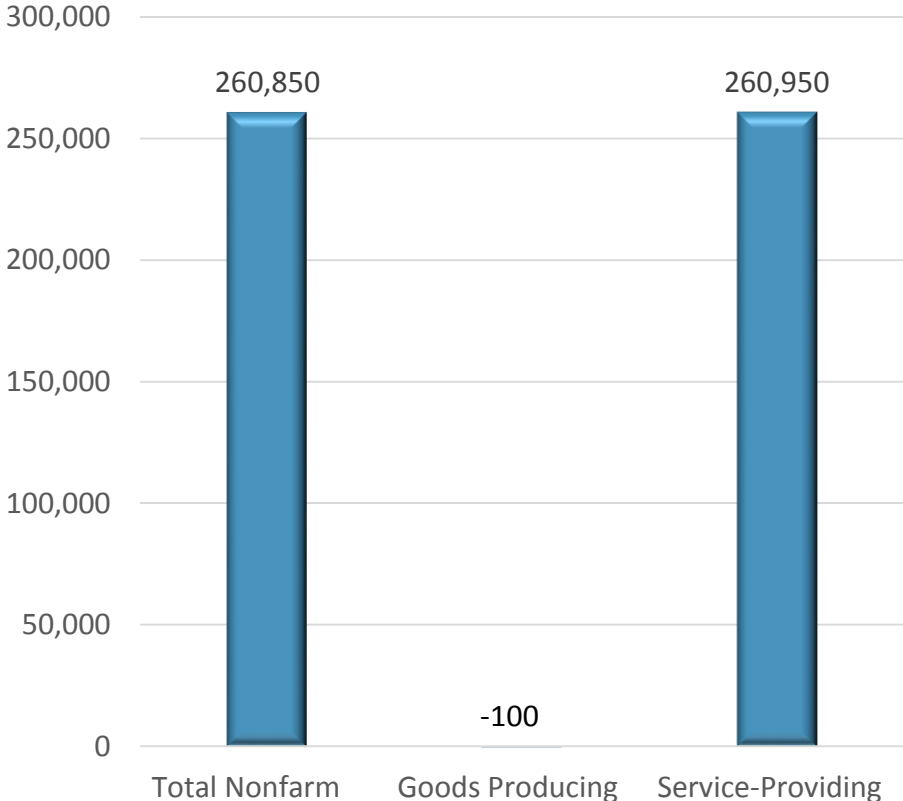
All projected growth in employment in New Jersey is projected to occur among service-providing industries

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

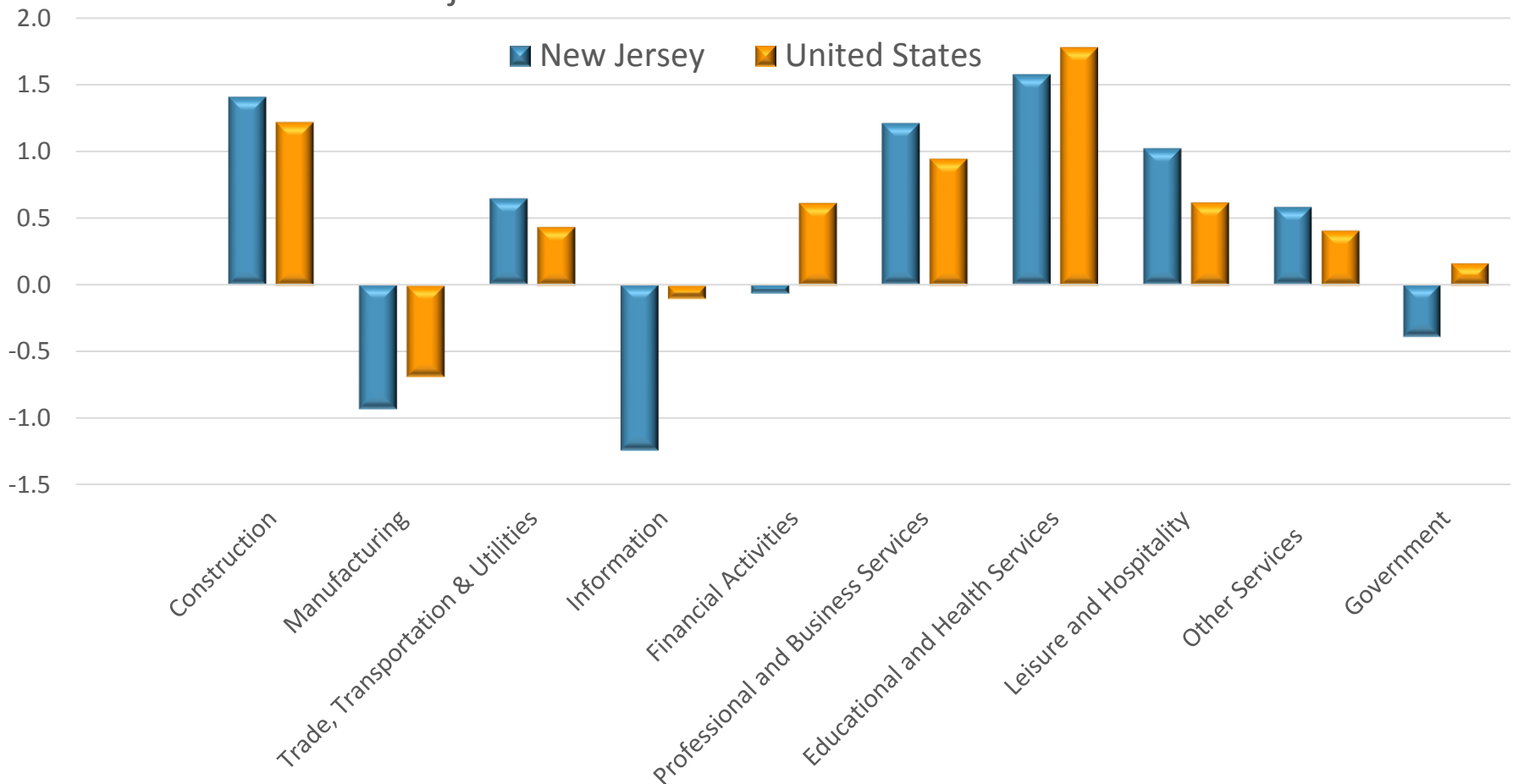
Total Nonfarm Projected Job Growth
New Jersey: 2014-2024



Source: 2014-2024 Industry and Occupational Employment Projections
Prepared by: New Jersey Department of Labor and Workforce Development

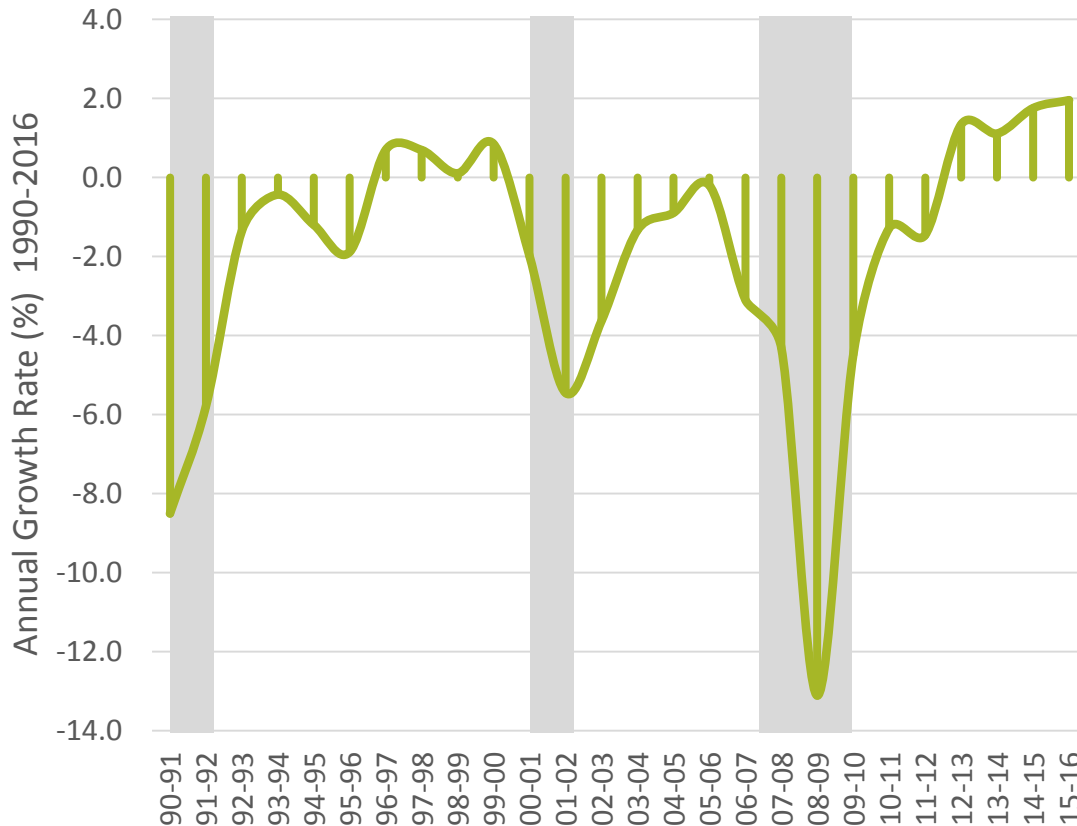
New Jersey is projected to outpace the nation in several sectors including construction, trade, transportation & utilities, and professional & business services

Projected Annual Growth Rates: 2014-2024



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

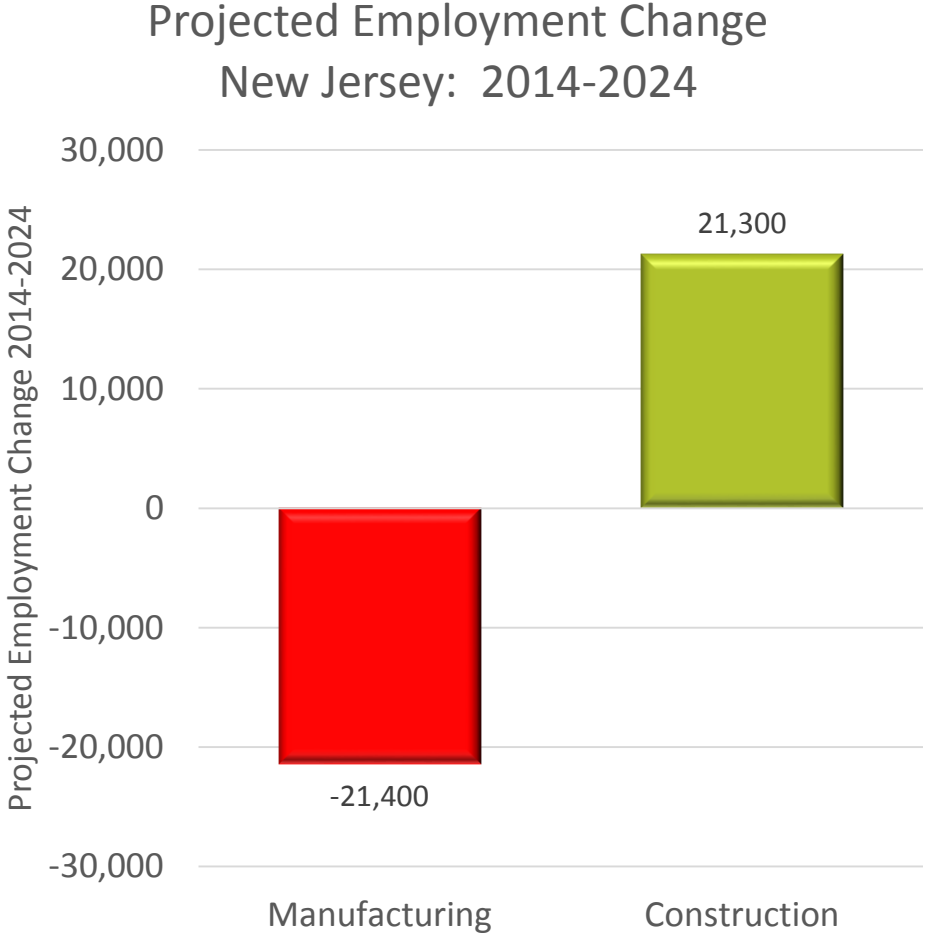
Prior to the current expansion and dating back to 1990, these industries had never grown by more than 1 percent in any year, which it has now done four years in a row

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

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



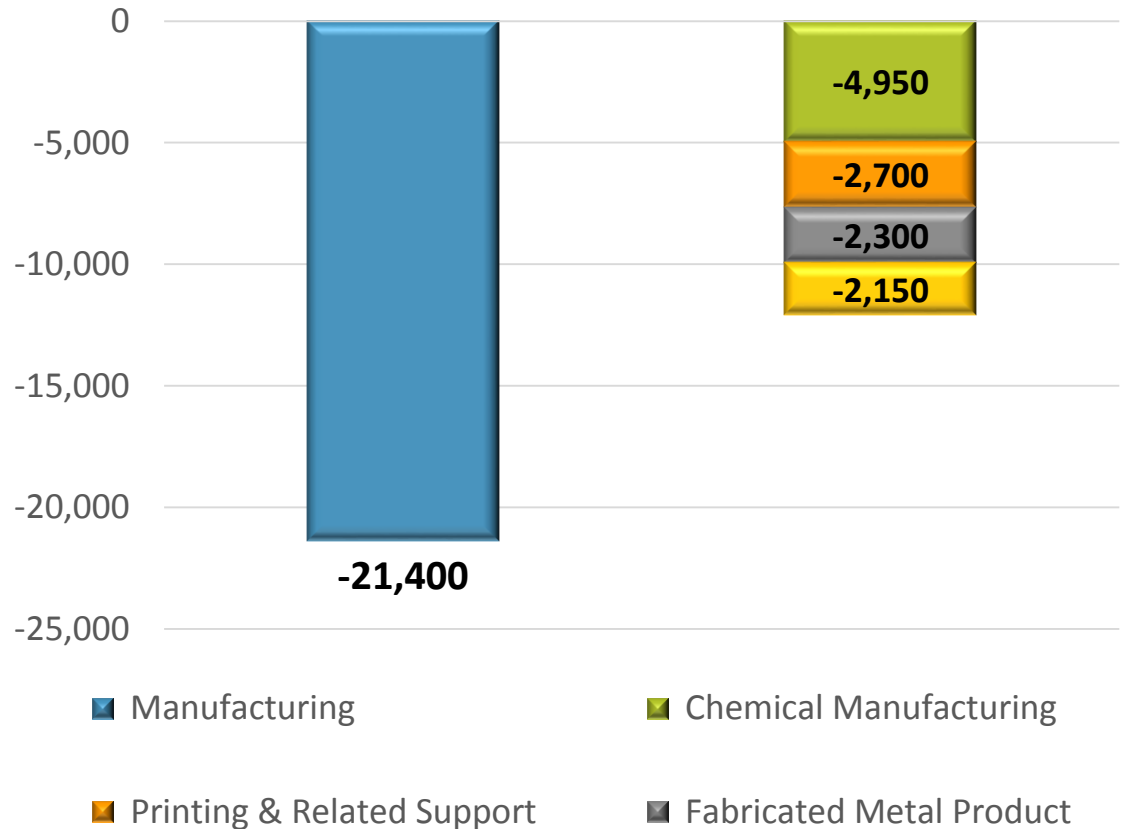
Source: 2014-2024 Industry and Occupational Employment Projections
Prepared by: New Jersey Department of Labor and Workforce Development

Nearly all of the sub-industries within manufacturing are projected to experience some level of decline

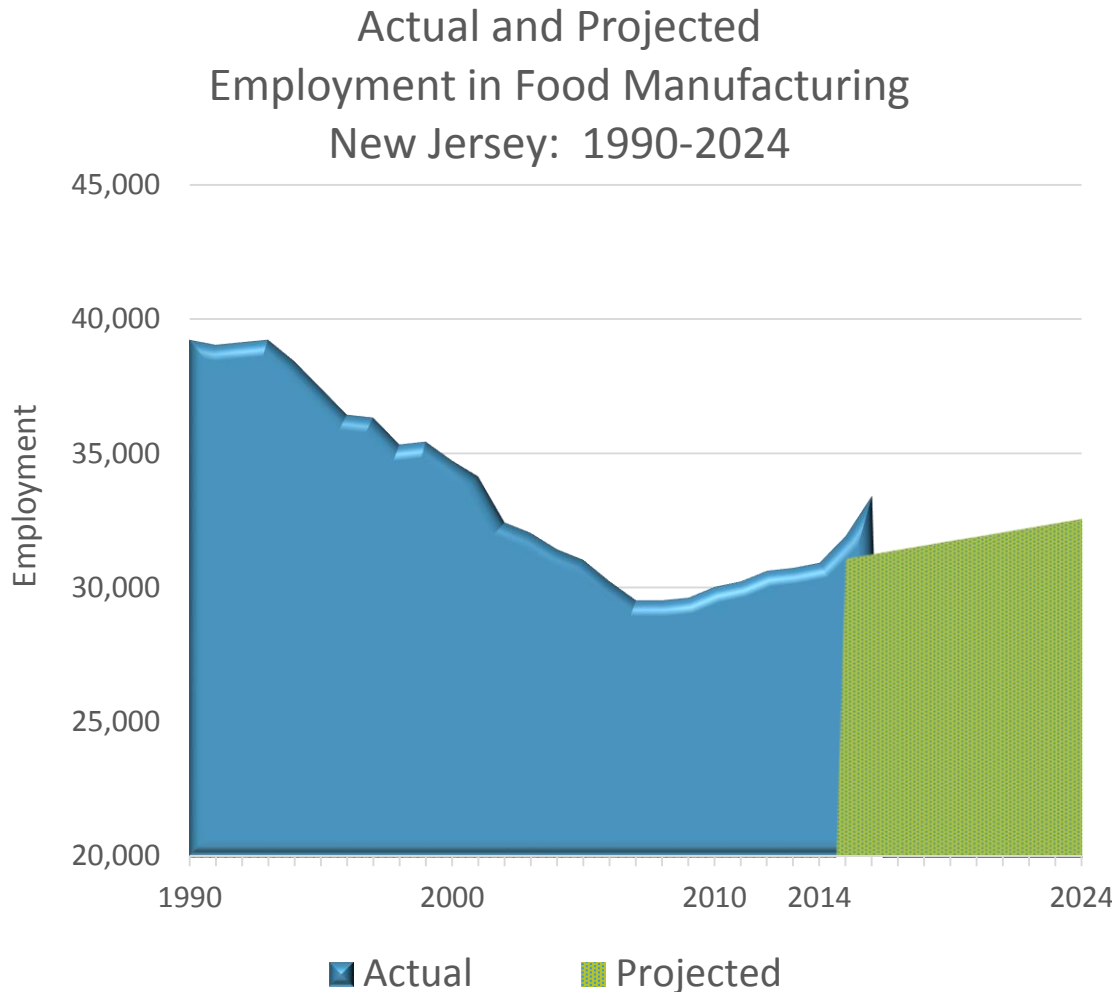
More than half of these net losses is projected to occur within these four industries

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

Projected Employment Losses in Manufacturing
New Jersey: 2014-2024



Employment in food manufacturing in New Jersey has been trending upward since 2008

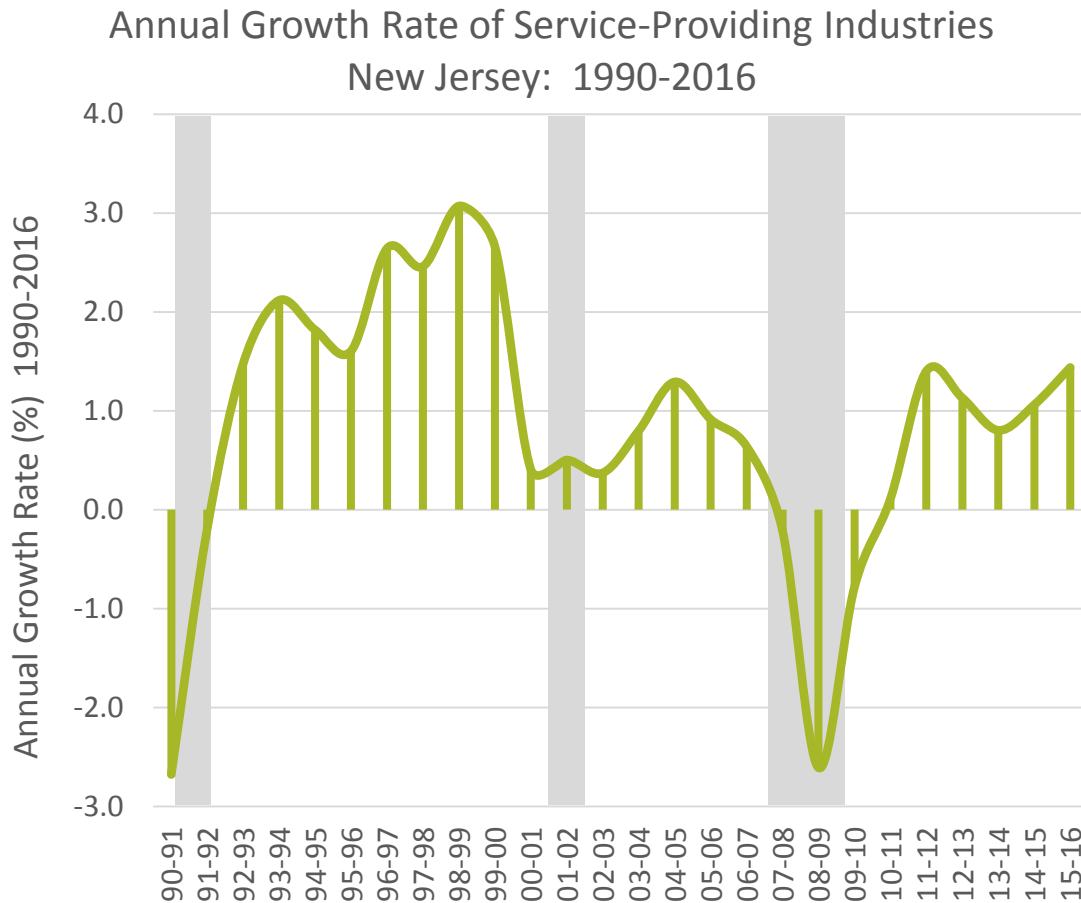


Food manufacturing is the second largest sub-industry in the sector behind chemical manufacturing

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

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

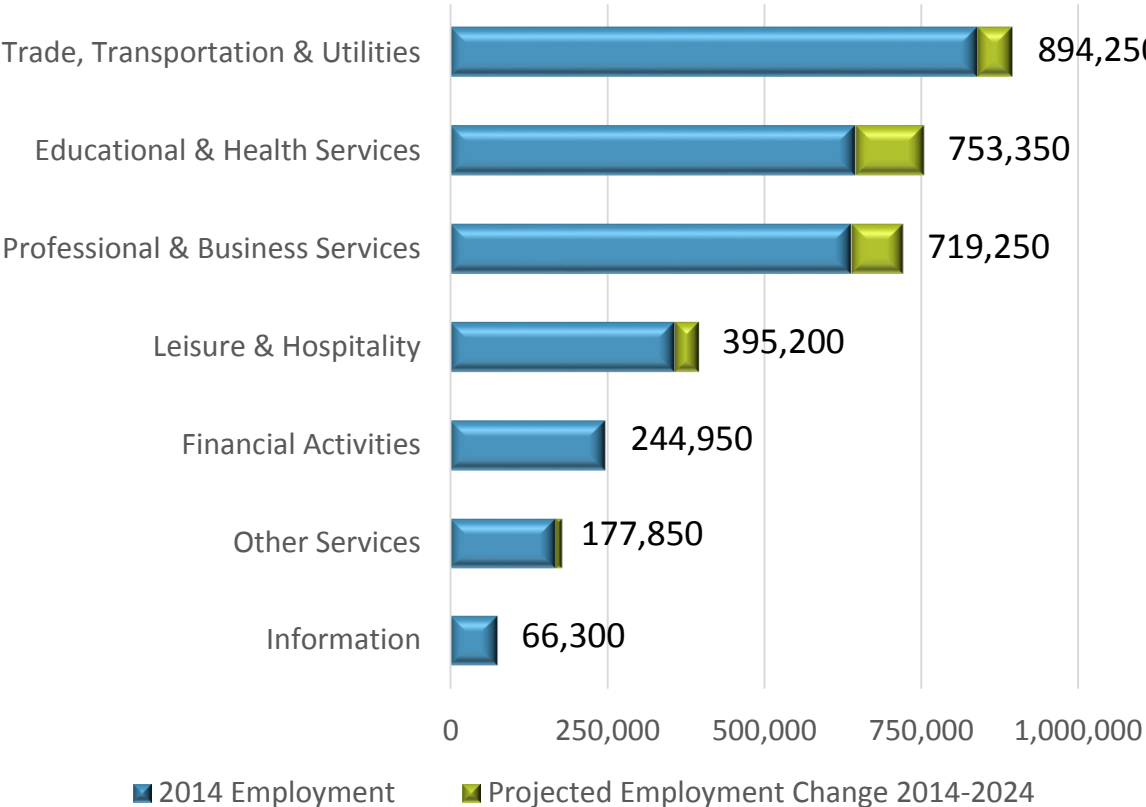
The six years prior to the Great Recession experienced only modest employment gains, as only one year exceeded 1 percent growth

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)

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

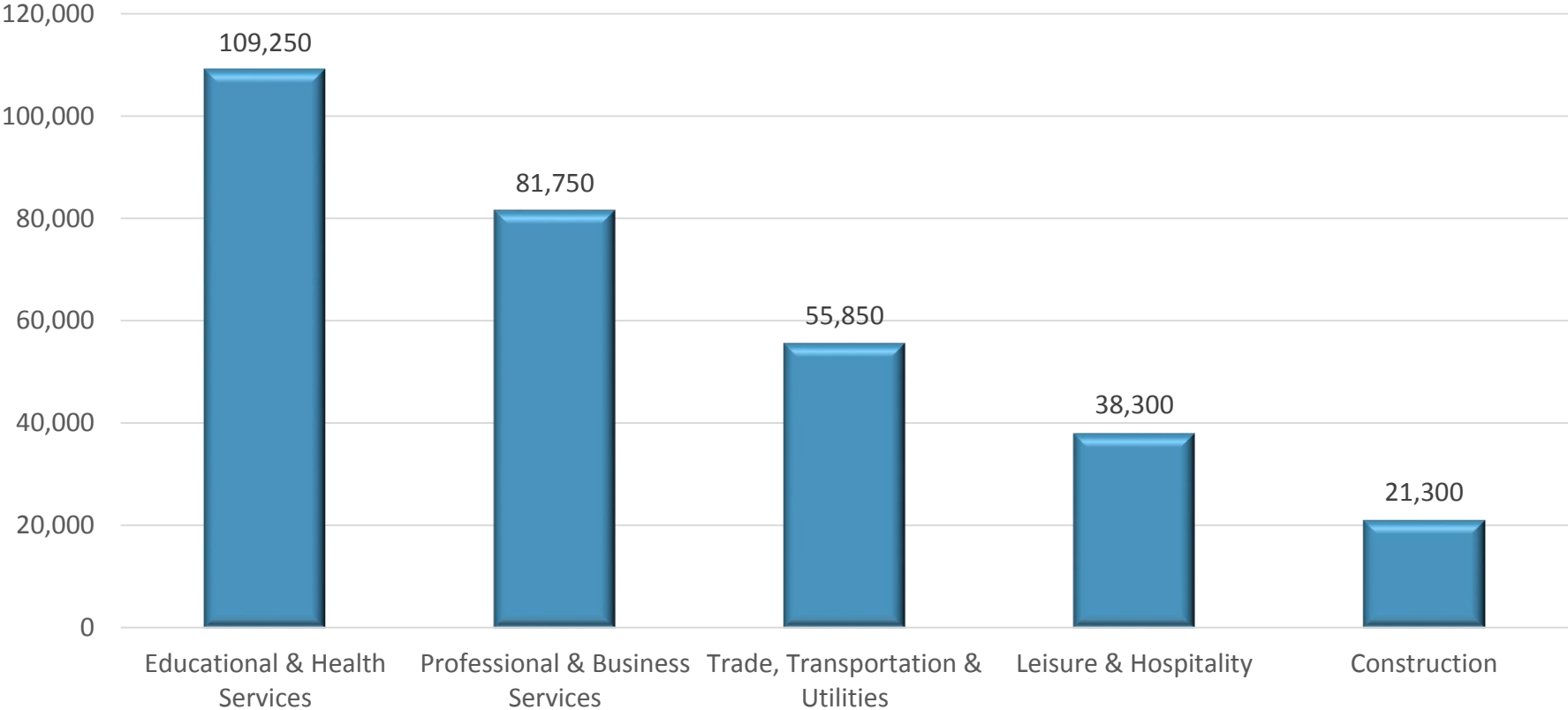


The top three sectors combined account for more than half (53.4%) of all employment in 2014

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

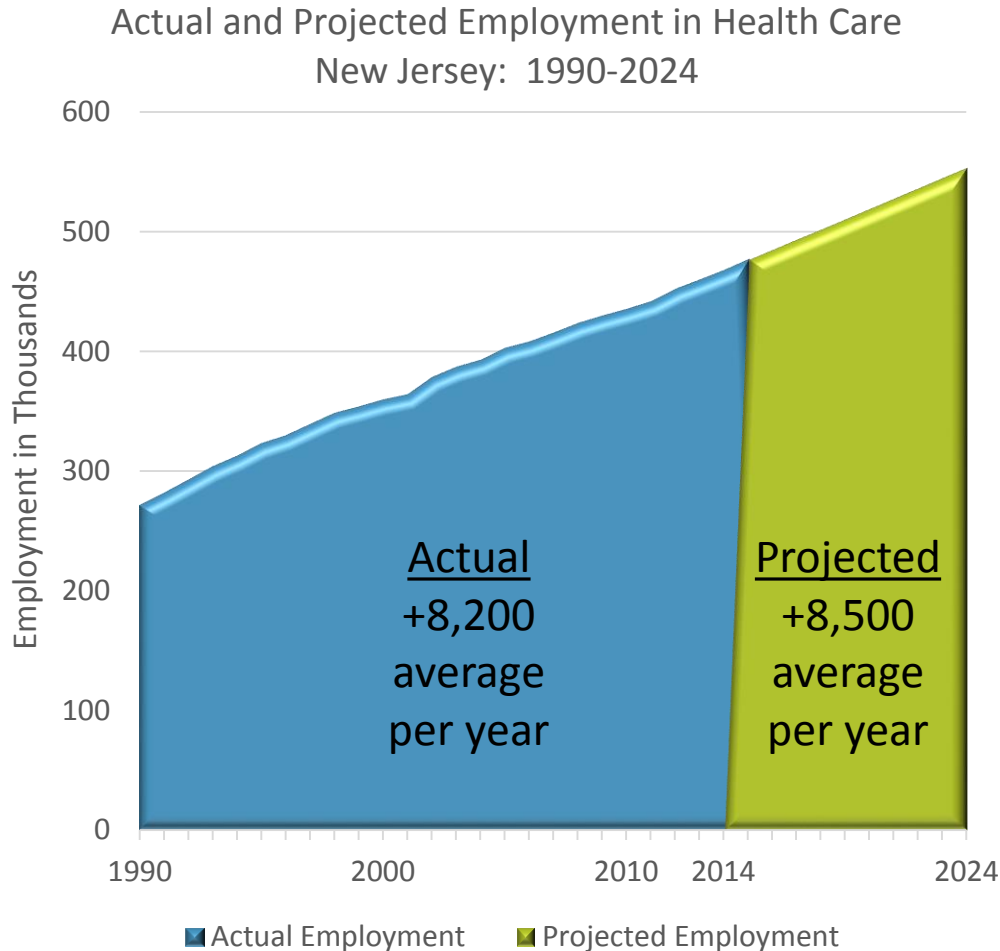
With nearly 110,000 projected new jobs, the educational and health services sector is projected to account for more than 40 percent of all net employment growth

Projected Employment Change by Sector
New Jersey: 2014-2024



Source: 2014-2024 Industry and Occupational Employment Projections
Prepared by: New Jersey Department of Labor and Workforce Development

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

Part 3

Occupational Projections



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

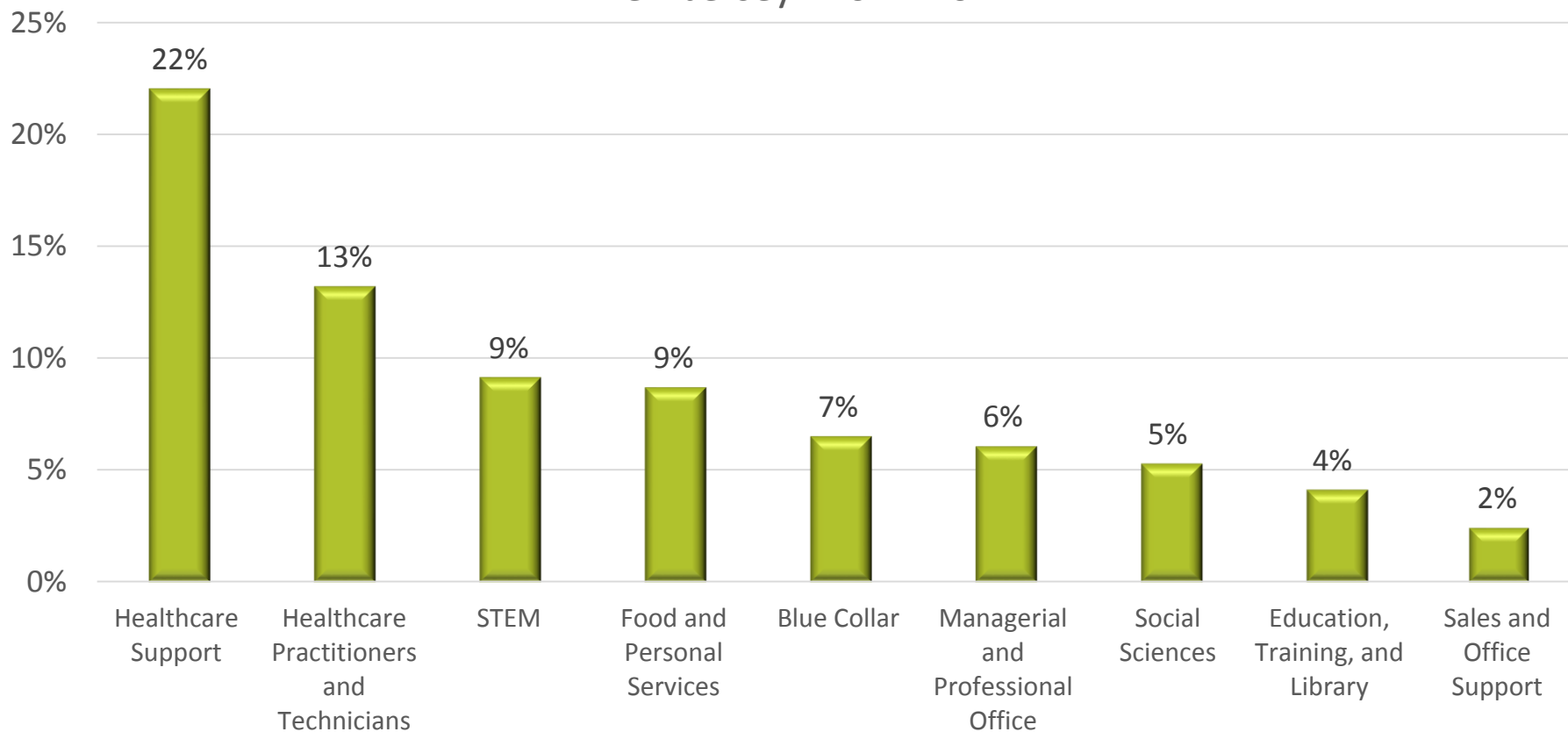
Occupational Highlights

- 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



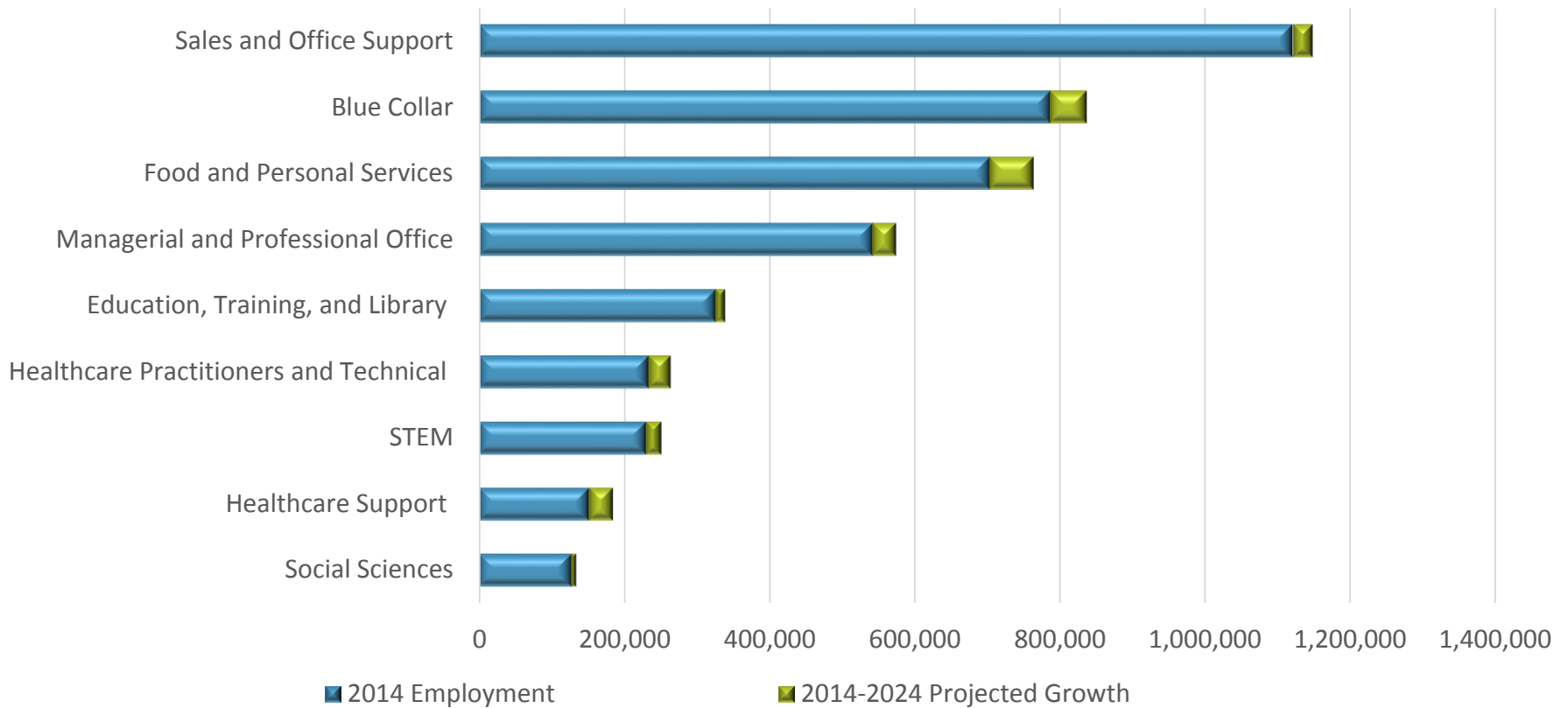
The fastest growing occupational groups are projected to be found in the health care and STEM fields

Projected Employment Change
New Jersey: 2014-2024



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



An estimate of average annual job openings is calculated to show a measure of opportunities for employment

Projected Average Annual Job Openings
New Jersey: 2014-2024

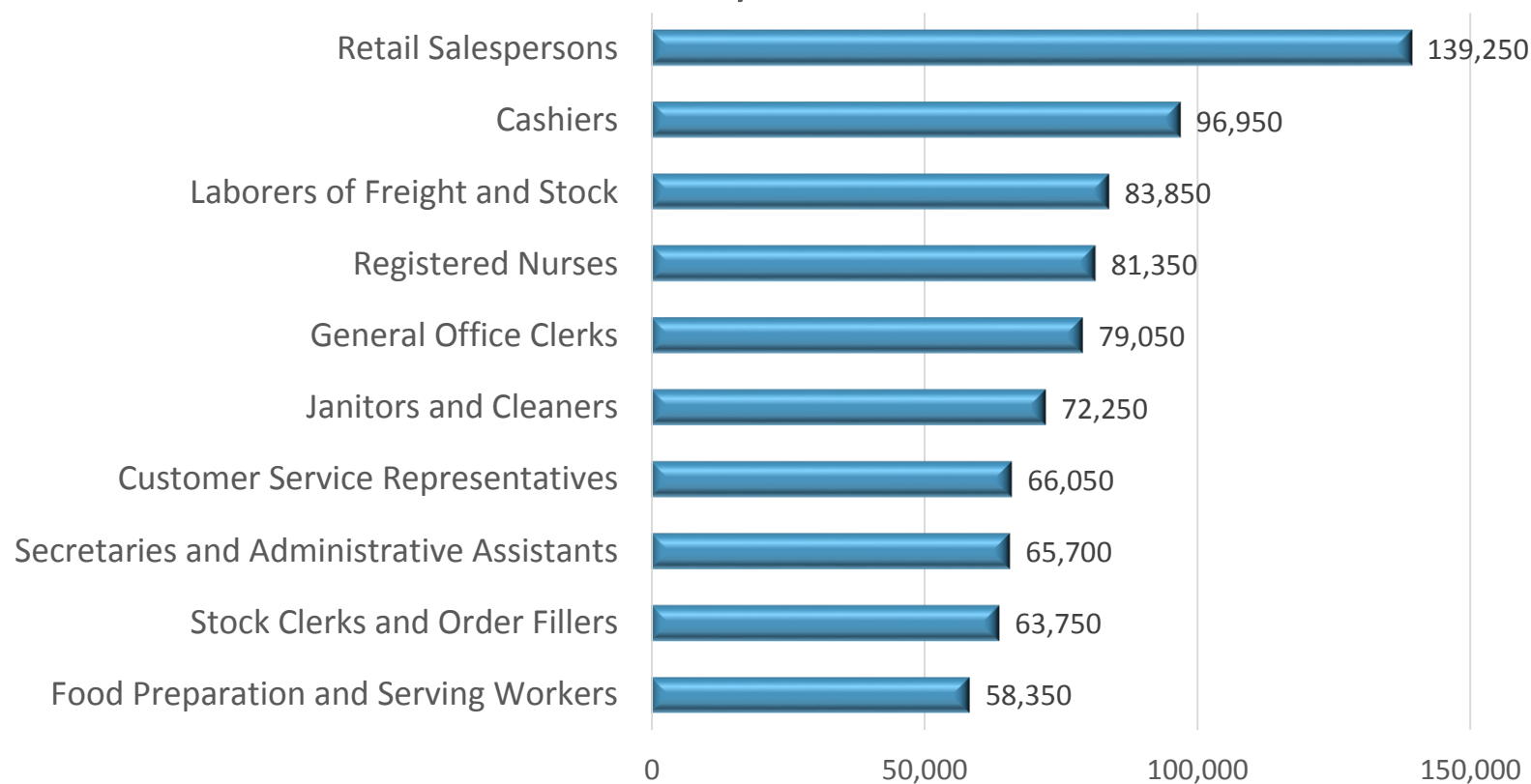


Nearly each of these occupational groups will attribute more of these job openings to replacement demand rather than actual growth with an average ratio of three to one

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

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



These ten occupations account for more than 30 percent of all projected net employment growth

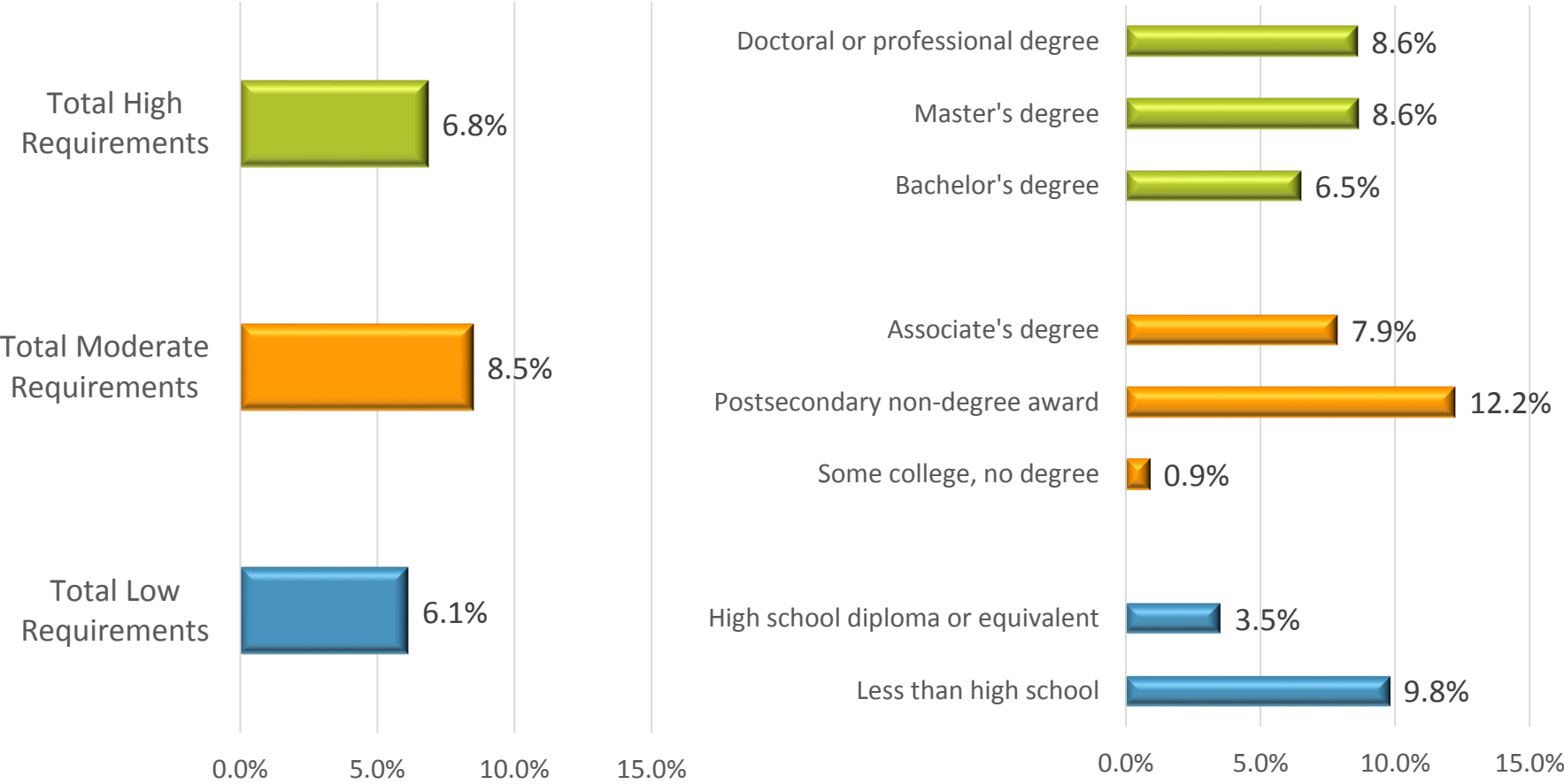
Three of the top five occupations projected to add the most jobs are most commonly found in the healthcare sector

Applications software developers require at least a bachelor's degree and earn an average salary nearly \$100,000 per year

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

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



Source: 2014-2024 Industry and Occupational Employment Projections
 Prepared by: New Jersey Department of Labor and Workforce Development

Questions or Comments?

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