

# ***New Jersey's Life Sciences Industry Sector***

Prepared by:  
New Jersey Department of Labor & Workforce Development  
Office of Research & Information  
**Bureau of Labor Market Information**  
**Winter 2020-2021**



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# THE GOAL OF THIS REPORT IS TO GET AN “IDEA” OF WHAT LIFE SCIENCES MEANS TO NEW JERSEY

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**Identify** the types of industries and establishments that make up the life sciences industry sector 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 sector 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 life sciences industry sector and provide an outlook for employment into the future.



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# **LIFE SCIENCES INDUSTRY SECTOR: OVERVIEW**



# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR

## MAJOR INDUSTRY COMPONENTS

New Jersey's Life Sciences employment in 2019 was identified within three primary components: pharmaceuticals (43.8%), biotechnology - R&D (40.9%), and medical device manufacturing (15.3%). The breakdown of the major segments are:

### Pharmaceuticals

- Pharmaceutical and medicine manufacturing
- Soap, cleaning compound, and toiletry manufacturing



Establishments that are primarily engaged in manufacturing or distribution of drug related products.

Consists of service-related establishments primarily engaged in scientific research, development and/or analytic.



### Biotechnology (R&D)

- Scientific research and development services

### Medical Devices

- Medical equipment and supplies manufacturing



Establishments primarily engaged in manufacturing medical equipment and supplies.



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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2019 Annual Averages  
Prepared by: New Jersey Department of Labor and Workforce Development, November 2020

# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR

## MAJOR NEW JERSEY EMPLOYERS

Some of New Jersey's well-known employers in this sector include:

### Pharmaceuticals

- Alberto-Culver Co.
- Bayer HealthCare Pharmaceutical
- Bristol-Myers Squibb
- Ethicon USA
- Glaxo Smith Kline
- Johnson & Johnson
- Merck & Co. Inc.
- Novartis Pharmaceuticals
- Pfizer, Inc.
- Sanofi Genzyme
- Teva Pharmaceuticals USA
- West-Ward Pharmaceutical

### Biotechnology (R&D)

- Bioclinica, Inc.
- Bioreference
- Community Medical Center
- Collagen Matrix, Inc.
- Covance, Inc.
- Genesis Biotech
- Immunomedics, Inc.
- Medical Laboratory Diagnostics
- Lab Corp
- Progenitor Cell Therapy
- Sandoz, Inc.
- SRI International

### Medical Devices

- Abbott Laboratories
- Bard International, Inc.
- Becton Dickinson & Co.
- Integra Life Sciences
- Micro Corporation
- Lohmann Therapy Systems Corporation
- Ortho McNeil Pharmaceutical
- Roche Molecular Diagnostics
- Safilo USA, Inc.
- Stryker Orthopedics
- Sony Electronics, Inc.



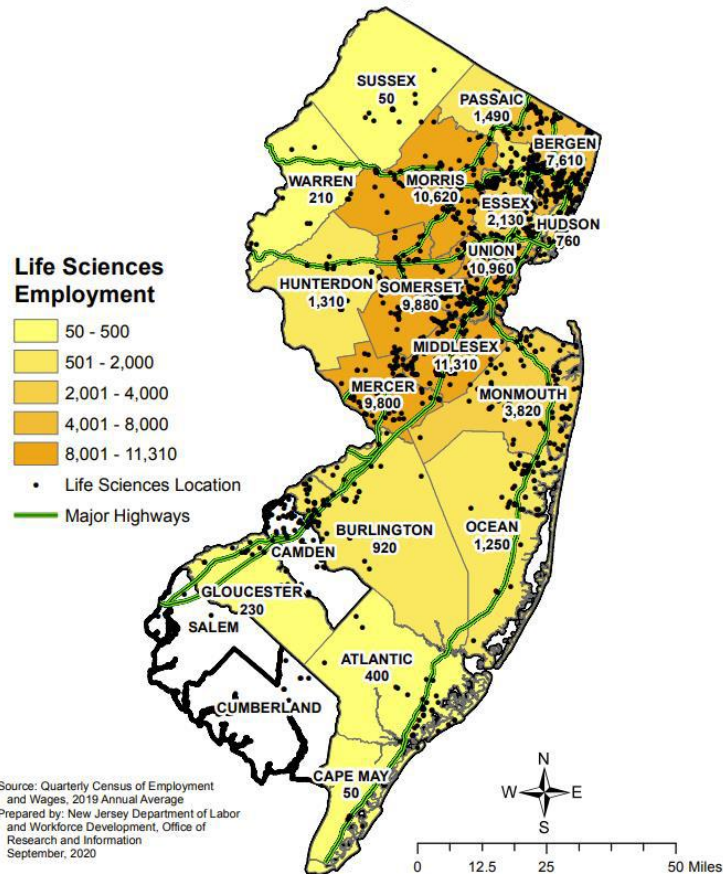
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Source: 2019 InfoUSA

Prepared by: New Jersey Department of Labor and  
Workforce Development, November 2020

# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR OVERALL STATE IMPACT

## *Life Sciences Employment and Establishment Locations New Jersey, 2019*



The Life Sciences Sector has an enormous impact on providing high quality jobs and adding significant value to the State's economic activities. Recent New Jersey highlights included:

- **Employment Total:** Averaged 76,430 or 2.2 percent of all private sector workers in the state for 2019. Nationally, the proportion was just 1.2 percent.
- **Well-paying Jobs:** Paid over \$12.4 billion in 2019 annual payrolls; 5.3 percent of the state's total wages.
- **Establishments total:** Nearly 1,600 in 2019. Over a five-year period (2014-2019) – even with numerous industry related reorganizations – New Jersey's pharmaceutical component still grew (by +15.1%).

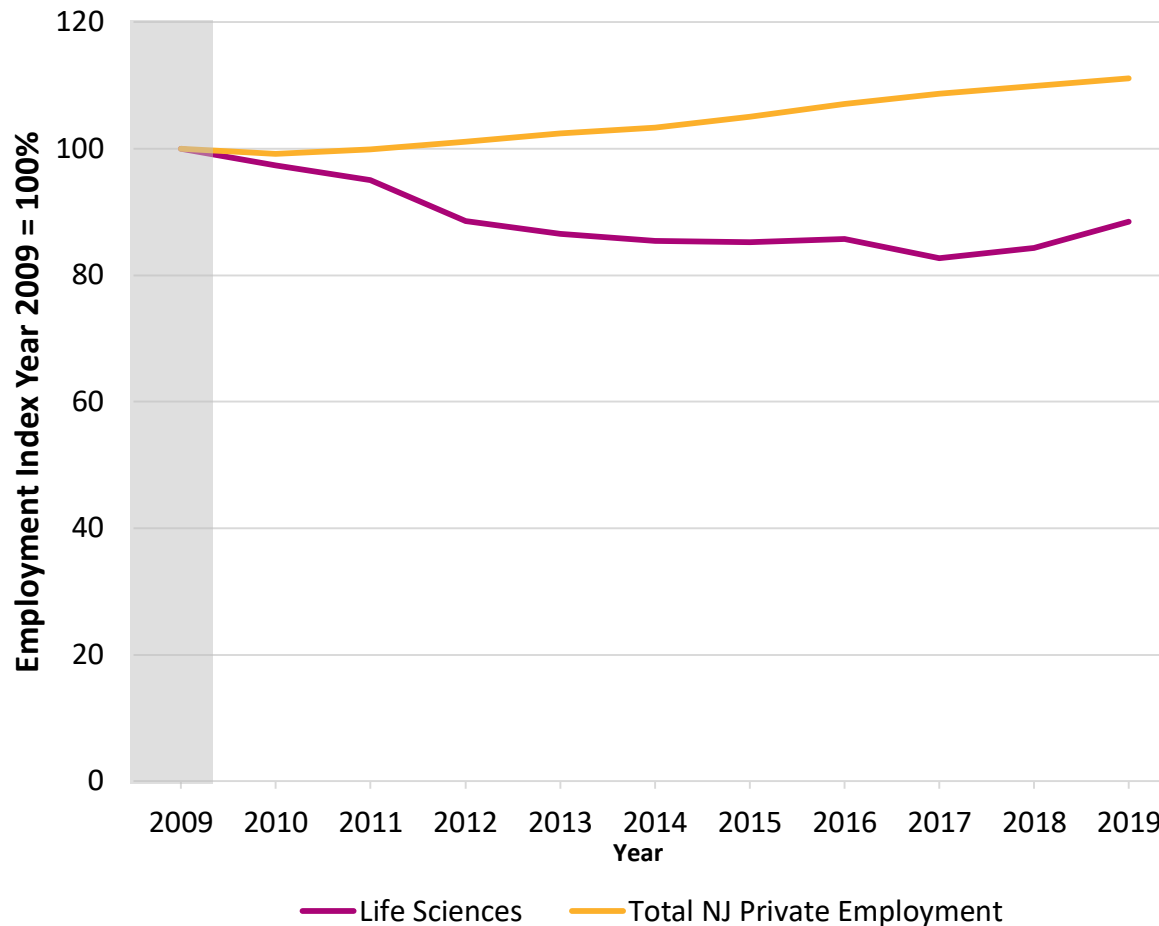


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2014-2019 Annual Averages  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR ALL PRIVATE VS. INDUSTRY SECTOR EMPLOYMENT



- The NJ life sciences industry experienced a steady decline from 2009 to 2014 (-14.6%), flattened out from 2014 to 2015 (-0.1%), increased from 2015 to 2016 (+0.4%), and is currently below the 2009 employment level (-11.5%).
- Total statewide private sector employment has led life sciences employment from 2010 to 2019 and is currently above the 2009 employment level by 11.2 percent.

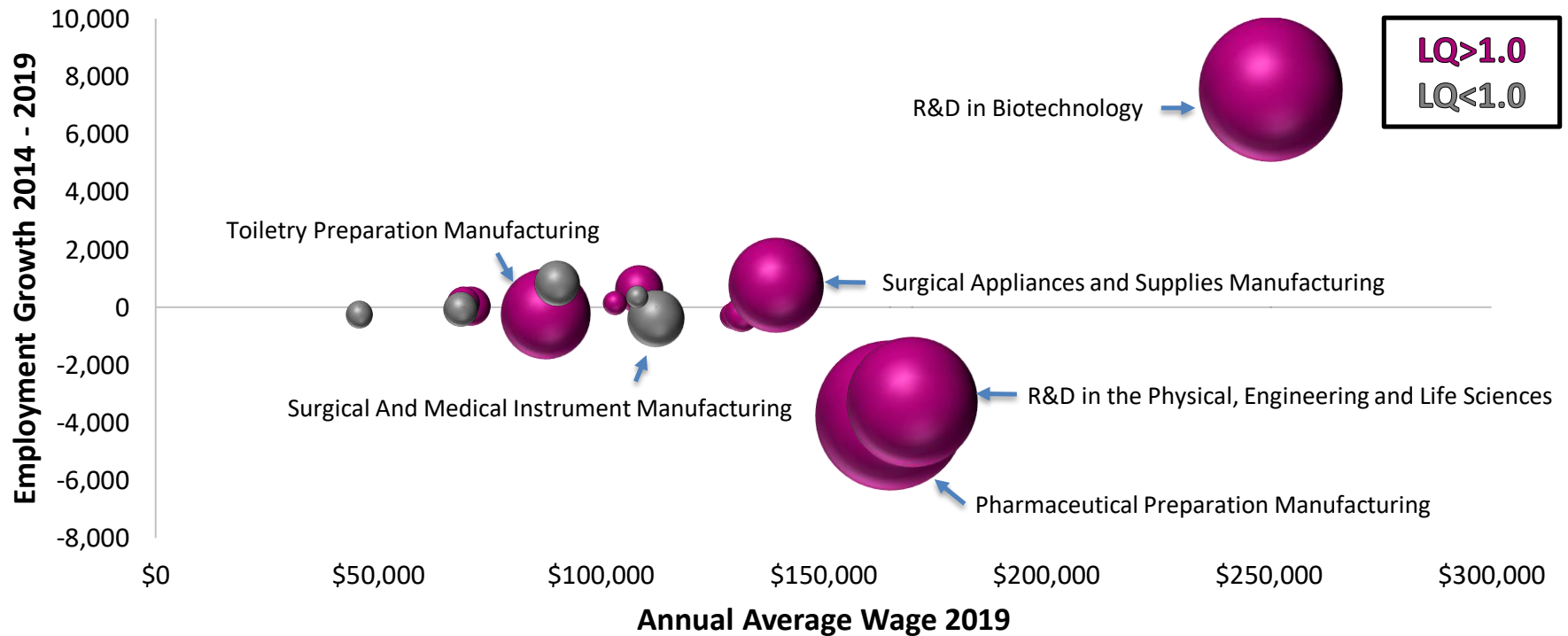
Gray area denotes U.S. economic recession as defined by the National Bureau of Economic Research (NBER)



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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2009-2019 Annual Averages  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR EMPLOYMENT SIZE, GROWTH, SALARY & LOCATION QUOTIENT



The above bubble graph has four elements:

1. Total 2019 employment - represented by the size of the bubble.
2. 2014-2019 employment growth- shown on the Y-axis, or vertical position.
3. 2019 annual average wages - shown on the X-axis, or horizontal position.
4. Location quotient - indicated by the color of the bubble. The location quotient compares the concentration of the industry subsectors in the state to those of the nation. Industries with a location quotient **above 1** are known as “basic industries” which (in theory) export a good or service from the state and in return, bring in wealth.



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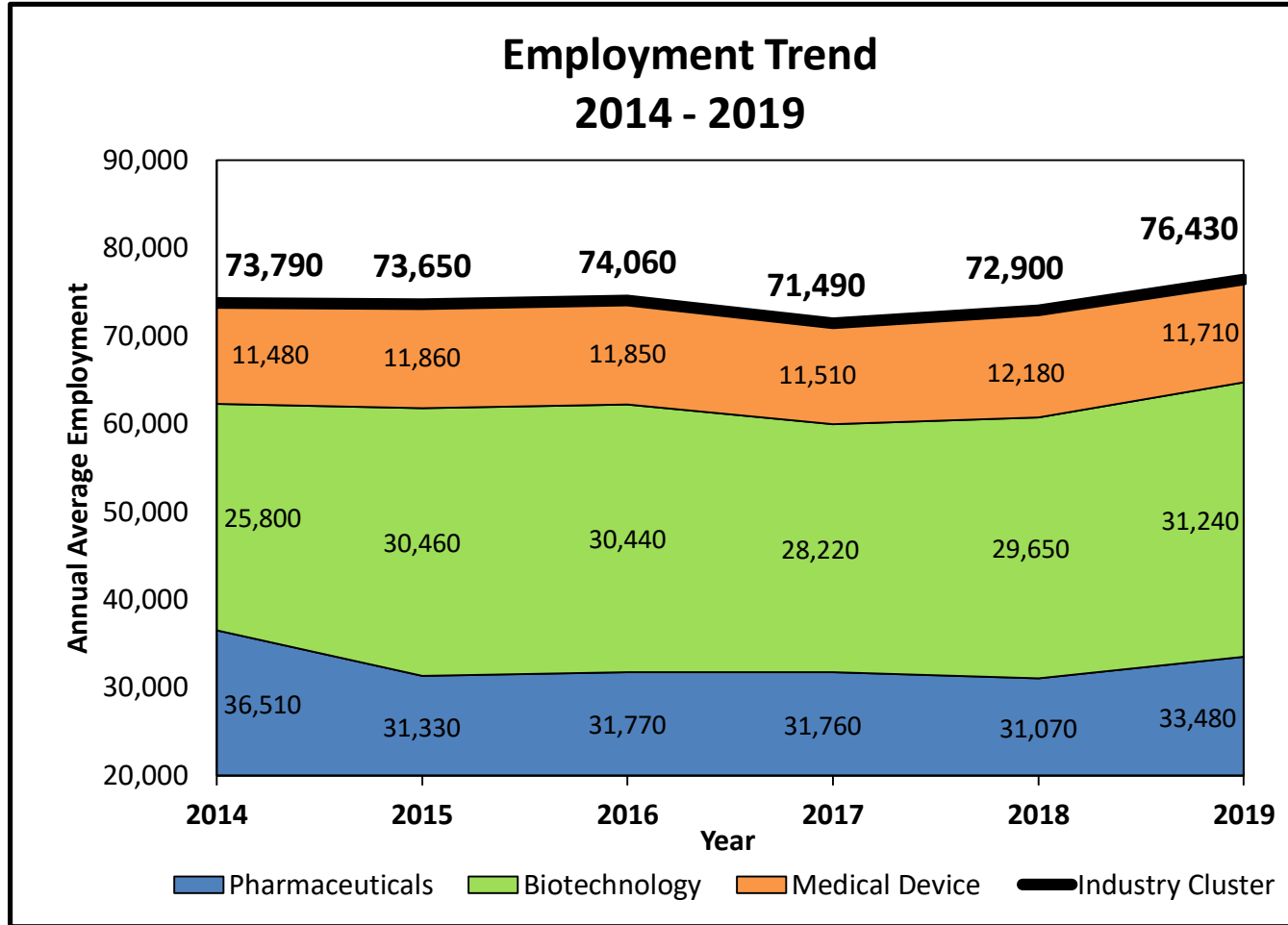
Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2014-2019 Annual Averages  
Prepared by: New Jersey Department of Labor and Workforce Development, November 2020



# **LIFE SCIENCES INDUSTRY SECTOR: EMPLOYMENT ANALYSIS**



# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR 5-YEAR EMPLOYMENT TREND



- With an average of 76,400 workers employed in this NJ cluster in 2019, the employment over the 5-year period experienced an increase of 3.6 percent.
- The pharmaceutical component experienced the largest total percent loss over the 5-year period (-8.3%).



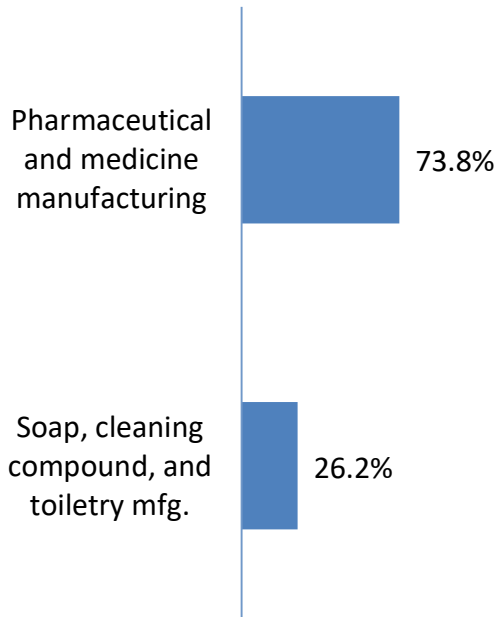
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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2014-2019 Annual Averages  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR SUB-SECTOR EMPLOYMENT

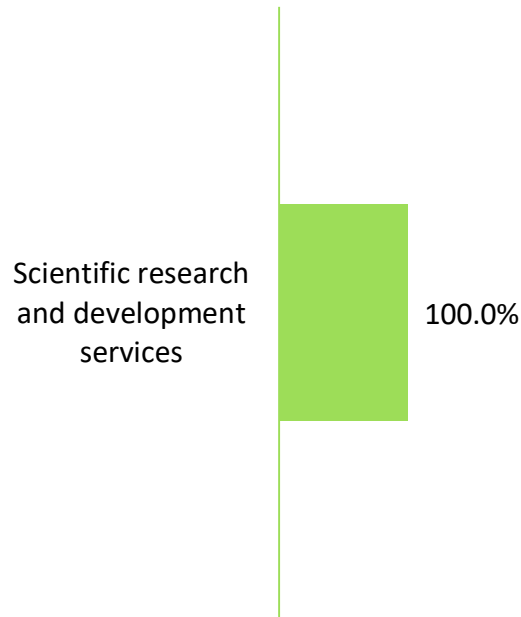
In 2019, the 76,430 jobs within this New Jersey sector were concentrated in:

## Pharmaceutical



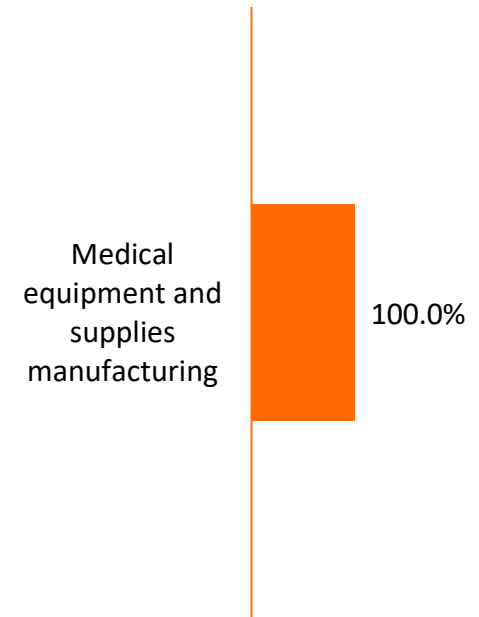
- 33,480 jobs
- The pharmaceuticals component accounted for 43.8 percent of the life sciences industry sector employment

## Biotechnology (R&D)



- 31,240 jobs
- Biotechnology (R&D) accounted for 40.9 percent of the life sciences sector employment

## Medical Devices



- 11,710 jobs
- Medical devices is the smallest of the three components and makes up 15.3 percent of the life sciences industry

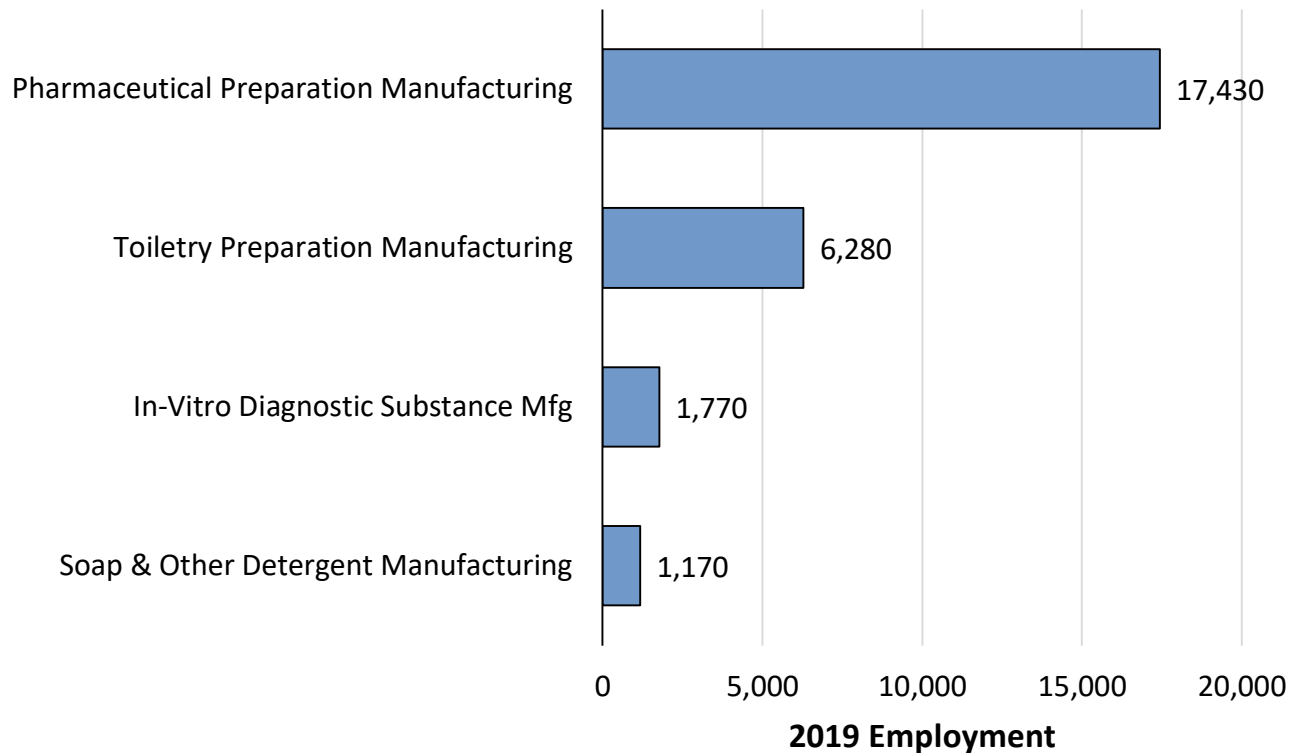


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2019 Annual Averages  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR PHARMACEUTICALS INDUSTRY EMPLOYMENT, 2019

## Pharmaceuticals Industry



Due to disclosure issues, medicinal and botanical mfg., surface active agent mfg., other biological product mfg., and polish and sanitation good manufacturing are not included in the chart above.

- Made up 43.8 percent of the life sciences industry sector's employment in 2019.
- Pharmaceutical & medicine manufacturing (-17.7%) and toiletry preparation manufacturing (-3.6%) encountered a decline from 2014 to 2019, while cleaning compound and other detergent manufacturing recorded an increase of 3.8%.

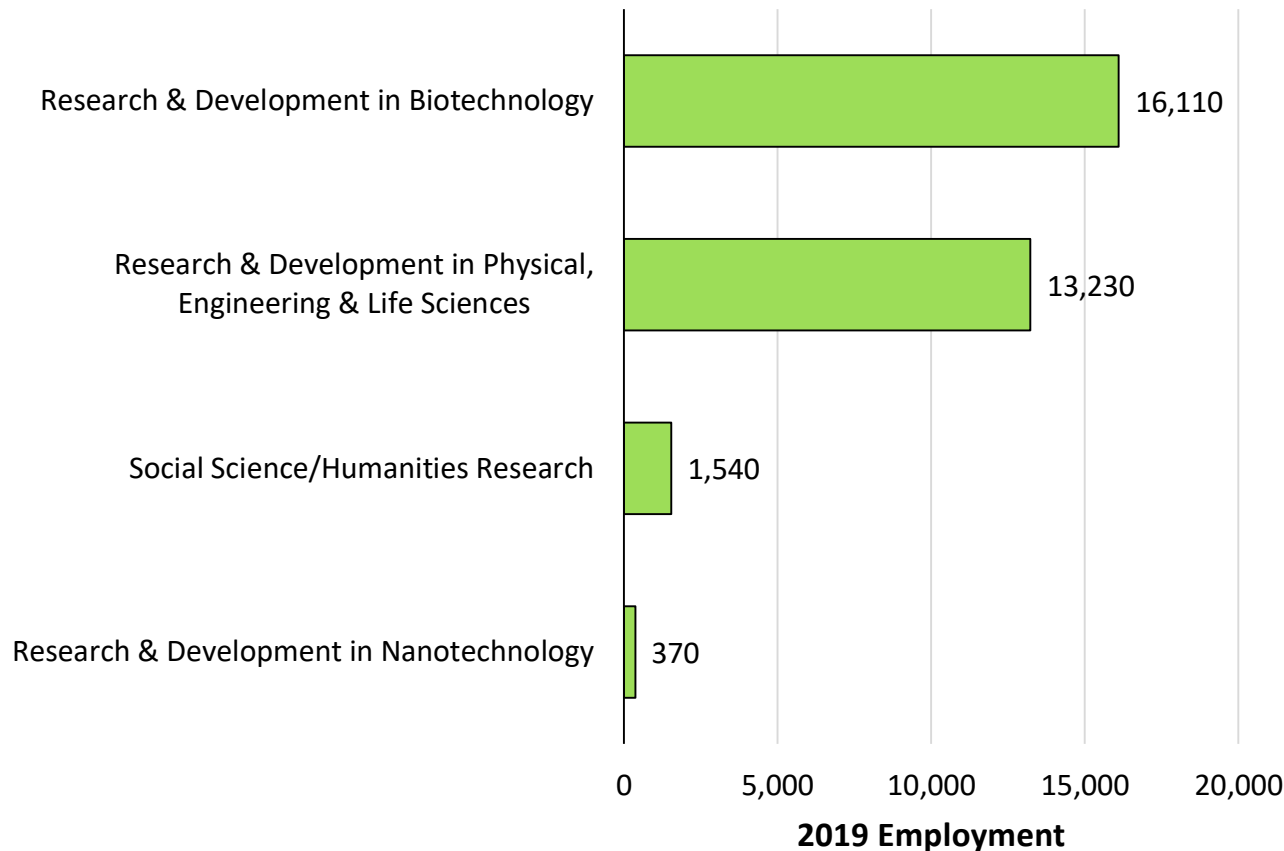


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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR BIOTECHNOLOGY INDUSTRY EMPLOYMENT, 2019

## Biotechnology



- Accounted for 40.9 percent of the life sciences industry cluster's employment in 2019.
- Research & development in biotechnology (87.9%) and social science & humanities research (117.1%) both experienced a significant growth over the 5-year period from 2014 to 2019.

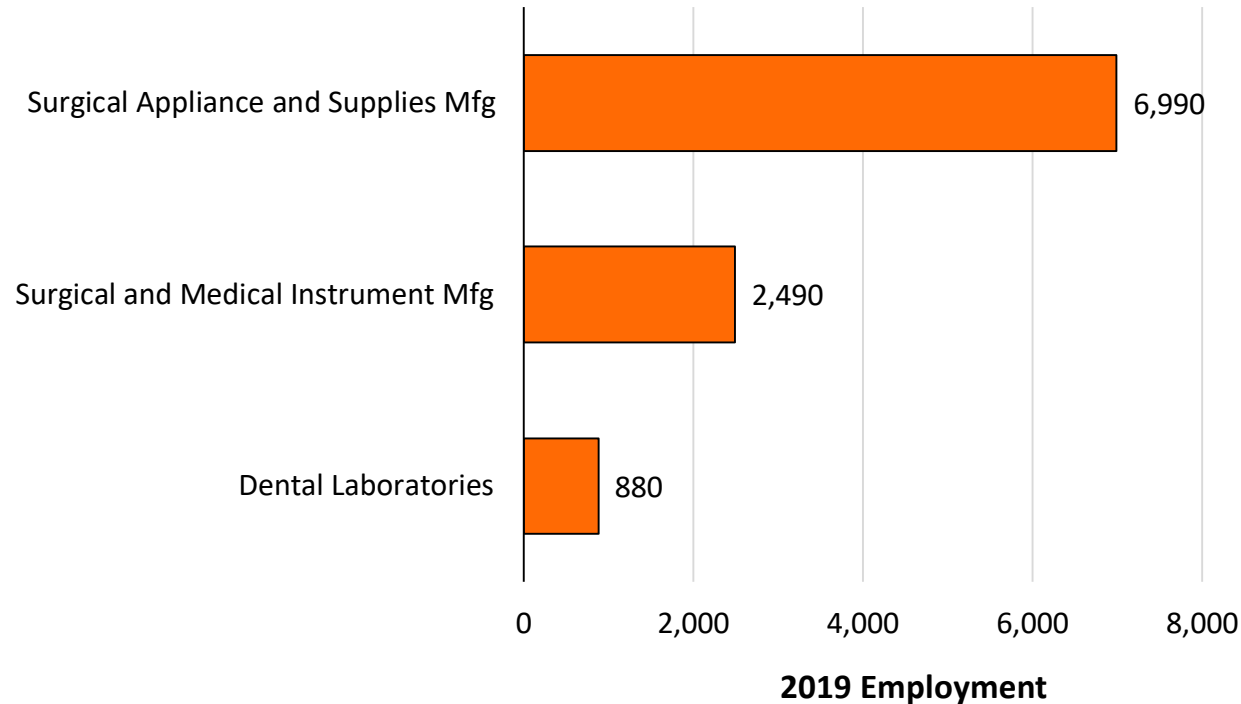


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2014-2019 Annual Averages  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR MEDICAL DEVICES INDUSTRY EMPLOYMENT, 2019

## Medical Devices



Due to disclosure issues, dental equipment and supplies manufacturing, and ophthalmic goods manufacturing are not included in the chart above.

- Represented 15.3 percent of the life sciences industry sector's employment in 2019.
- Surgical appliance and supplies manufacturing grew (+12.4%) over the 5-year period from 2014 to 2019, while dental laboratories (-7.2%) and surgical and medical instrument manufacturing (-13.4%) both declined during the same period.



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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2014-2019 Annual Averages  
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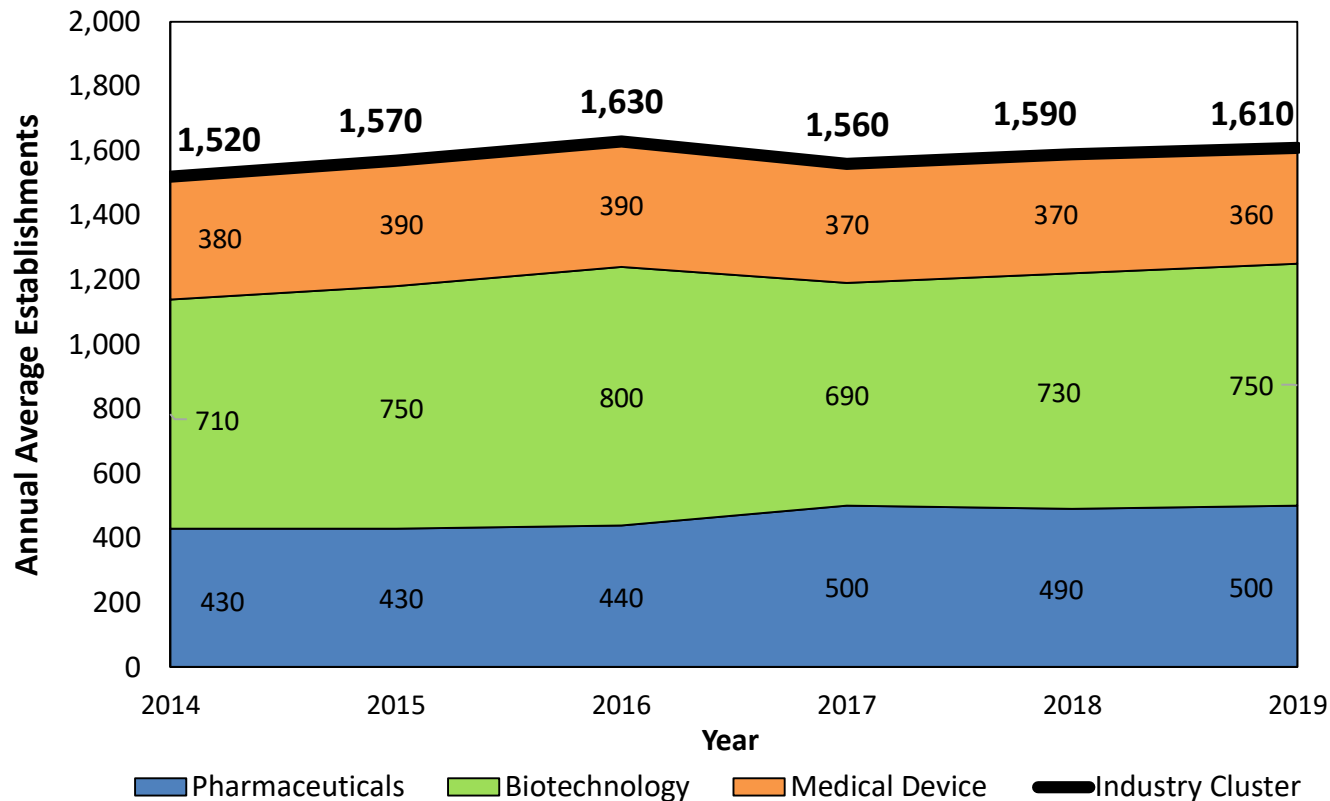


# **LIFE SCIENCES INDUSTRY SECTOR: ESTABLISHMENT ANALYSIS**



# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR 5-YEAR ESTABLISHMENT TREND

**Establishment Trend  
2014 - 2019**



- Establishments in this sector totaled 1,610 in 2019 after experiencing a notable growth (+5.9%) from 2014 – 2019.
- Pharmaceuticals sector has seen an upward trend from 2014 to 2019, adding an additional 70 establishments statewide.



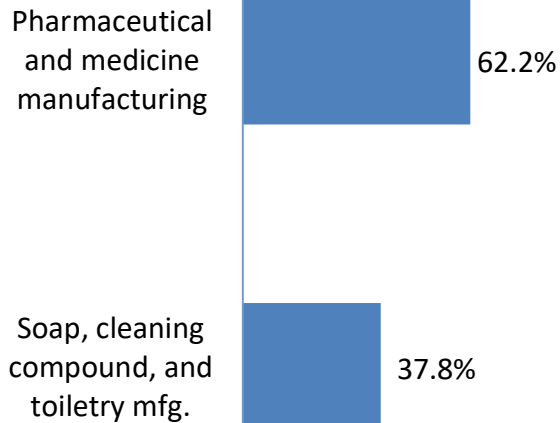
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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2014-2019 Annual Averages  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR SUB-SECTOR ESTABLISHMENTS

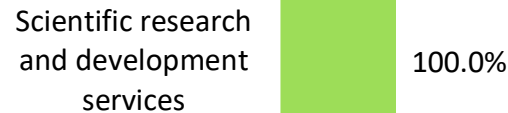
In 2019, New Jersey had 1,610 establishments in this sector engaged in:

## Pharmaceuticals



- 500 establishments.
- The pharmaceutical component accounts for one-third of all life sciences industry establishments.

## Biotechnology (R&D)



- 750 establishments.
- Biotechnology embraces almost half of all life sciences establishments in the state.

## Medical Devices



- 360 establishments.
- The medical devices component has the least establishments of all three life sciences industry components.

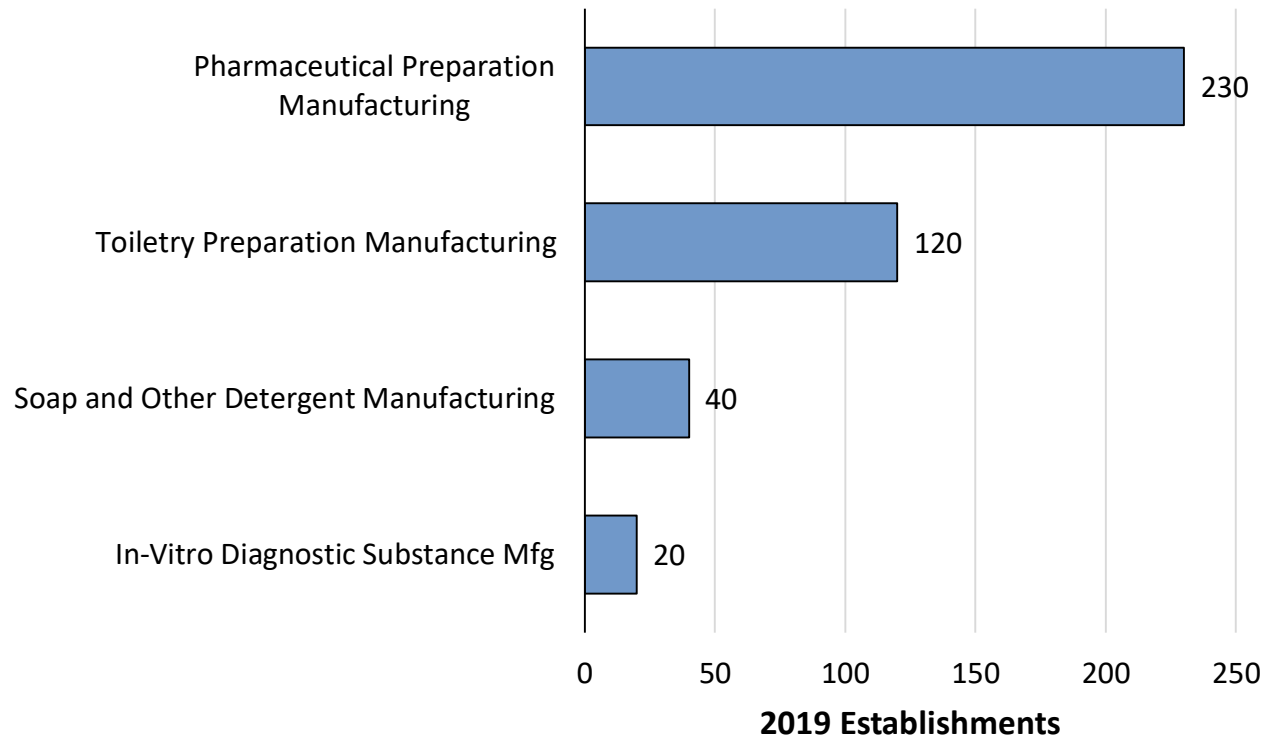


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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR PHARMACEUTICALS INDUSTRY ESTABLISHMENTS, 2019

## Pharmaceuticals Industry



Due to disclosure issues, medicinal and botanical mfg., surface active agent mfg., other biological product mfg., and polish and sanitation good manufacturing are not included in the chart above.

- Accounted for 30.8 percent of the life sciences industry sector's establishments in 2019.
- Establishments in the soap and cleaning compound manufacturing industries (+14.3%), toiletry manufacturing industries (+3.6%) and pharmaceutical preparation manufacturing (+26.8%) experienced a significant growth over the 5-year period from 2014 to 2019.

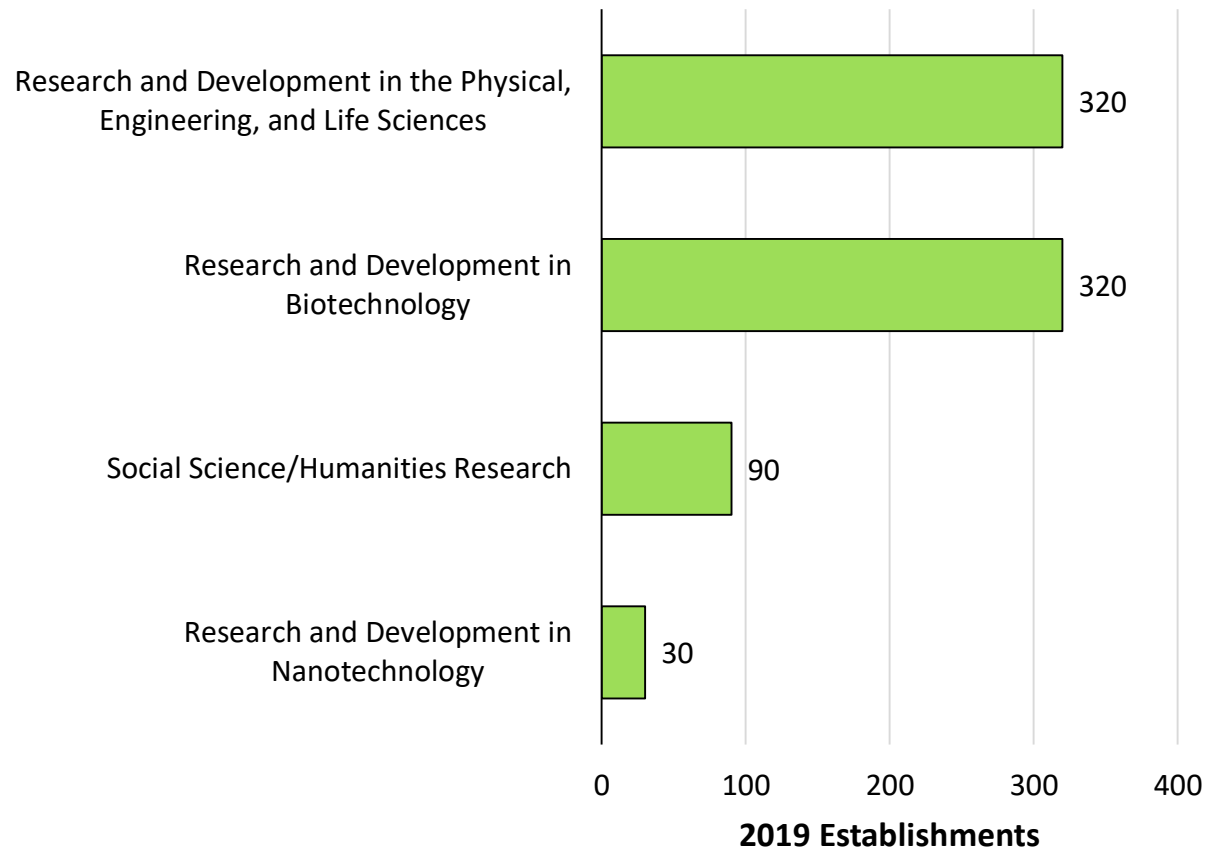


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2014-2019 Annual Averages  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR BIOTECHNOLOGY INDUSTRY ESTABLISHMENTS, 2019

## Biotechnology (R&D)



- Made up 46.9 percent of all establishments in the life sciences industry sector in 2019 with 750 establishments.
- R & D in biotechnology (+24.1%) and social science & humanities research (+5.7%) both experienced growth from 2014 to 2019 while R & D development in physical, engineering and life sciences (-13.4%) experienced a decline in establishments during the same period.

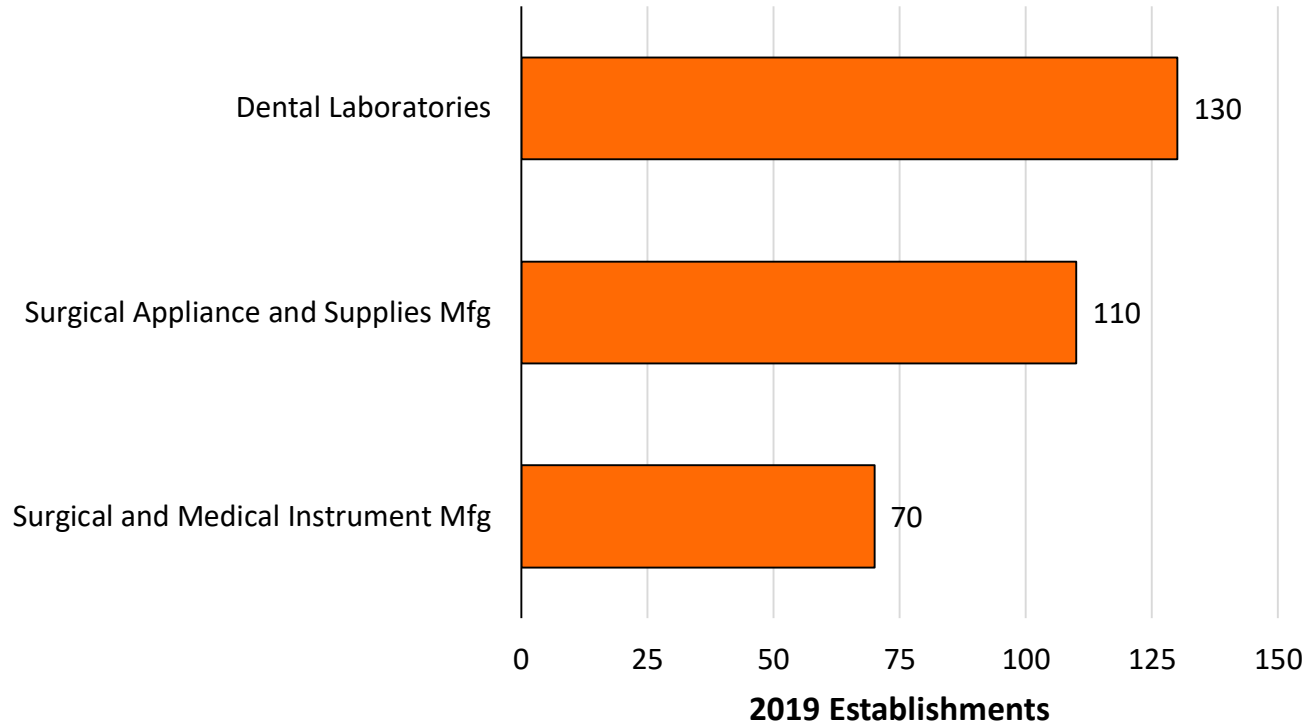


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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR MEDICAL DEVICES INDUSTRY ESTABLISHMENTS, 2019

## Medical Devices



Due to disclosure issues, dental equipment and supplies mfg., and ophthalmic goods mfg. are not included in the chart above.

- Represented 22.3 percent of the life sciences industry sector's establishments in 2019.
- Surgical appliance and supplies manufacturing grew (+25.3%) while surgical and medical instrument mfg. (-1.3%) and dental laboratories(-26.2%) experienced a decline in establishments over the 5-year period from 2014 to 2019.

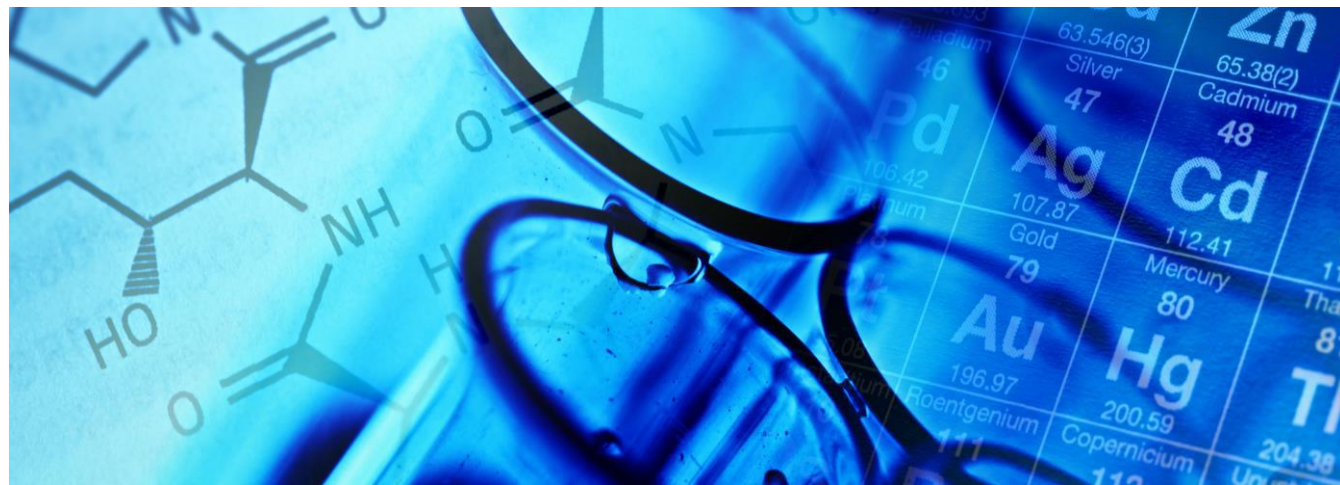


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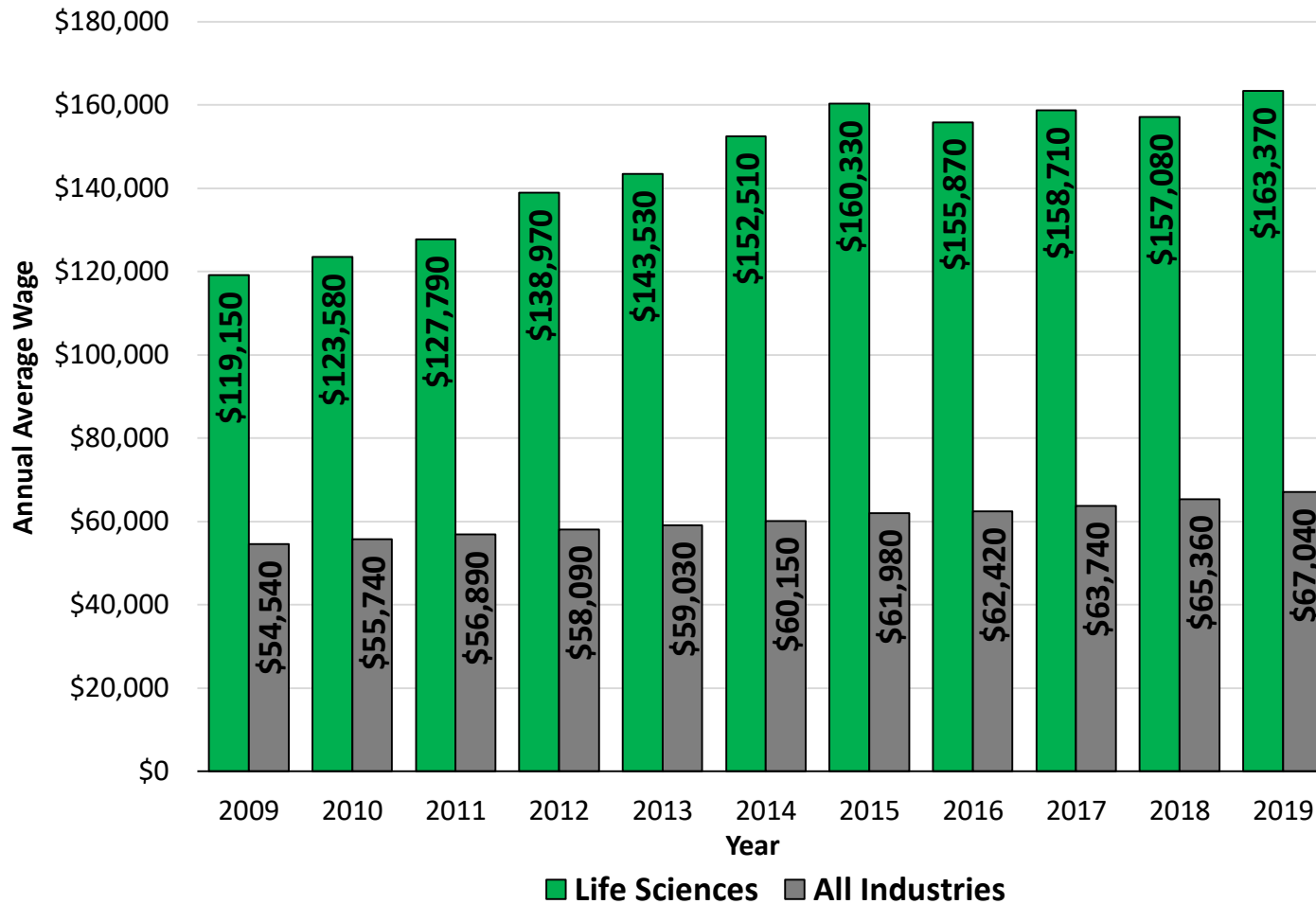
Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2014-2019 Annual Averages  
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# **LIFE SCIENCES INDUSTRY SECTOR: ANNUAL AVERAGE WAGE ANALYSIS**



# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR ALL PRIVATE SECTOR VS. LIFE SCIENCES ANNUAL AVERAGE WAGE



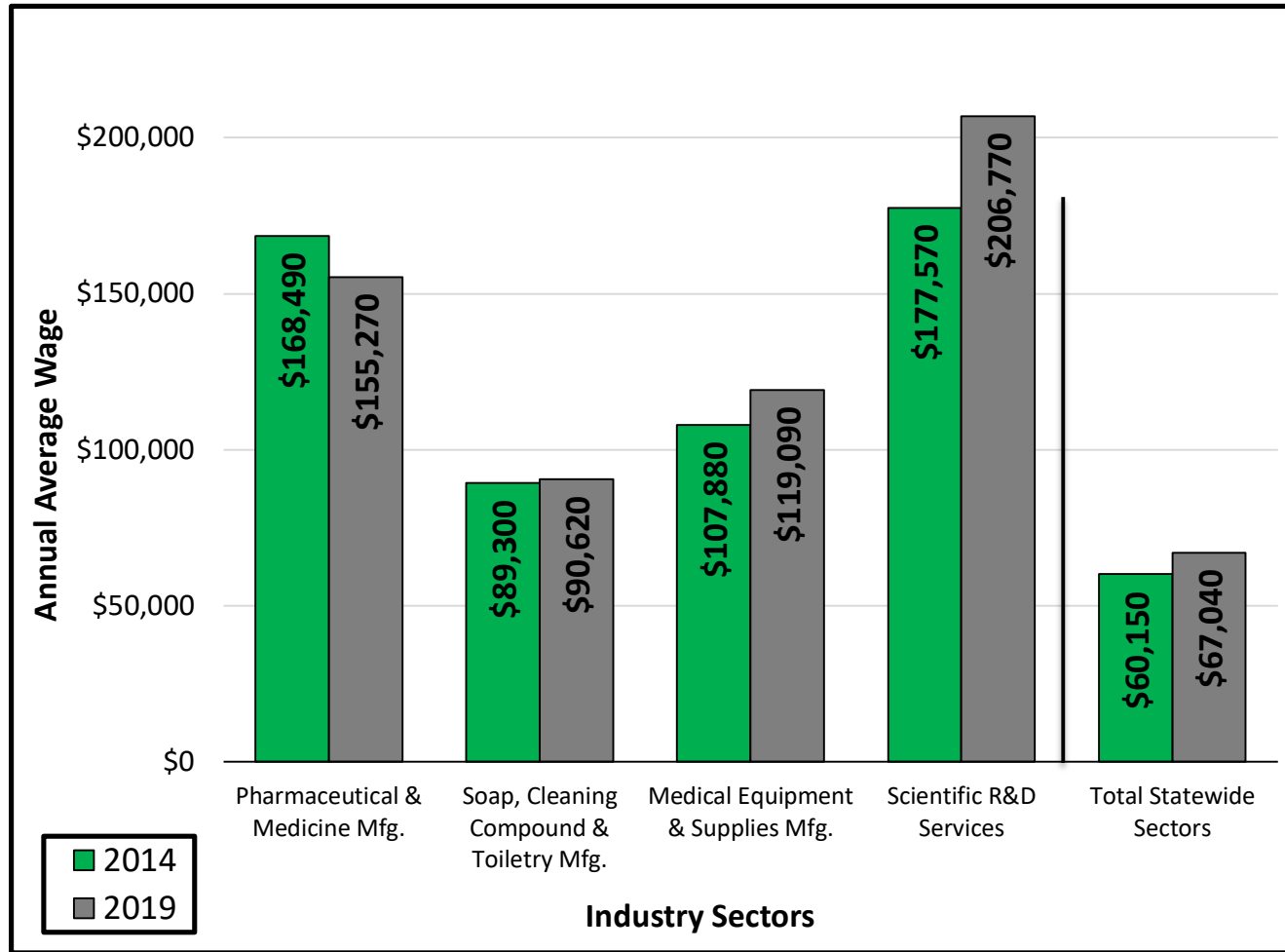
- Wages in the life sciences sector have averaged 240% of the statewide annual average wage since 2009.
- Annual average wages for the sector have risen +37.1% over the ten-year period from 2009 to 2019.



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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2009-2019 Annual Averages  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR 5-YEAR AVERAGE ANNUAL WAGES TREND



- This sector's average annual wage was \$163,370 in 2019, which was 143.7 percent higher than the state's total private sector's average annual wage of \$67,040.
- All three of this sector's components had 2019 wages that were significantly higher than the state's total average annual wage.



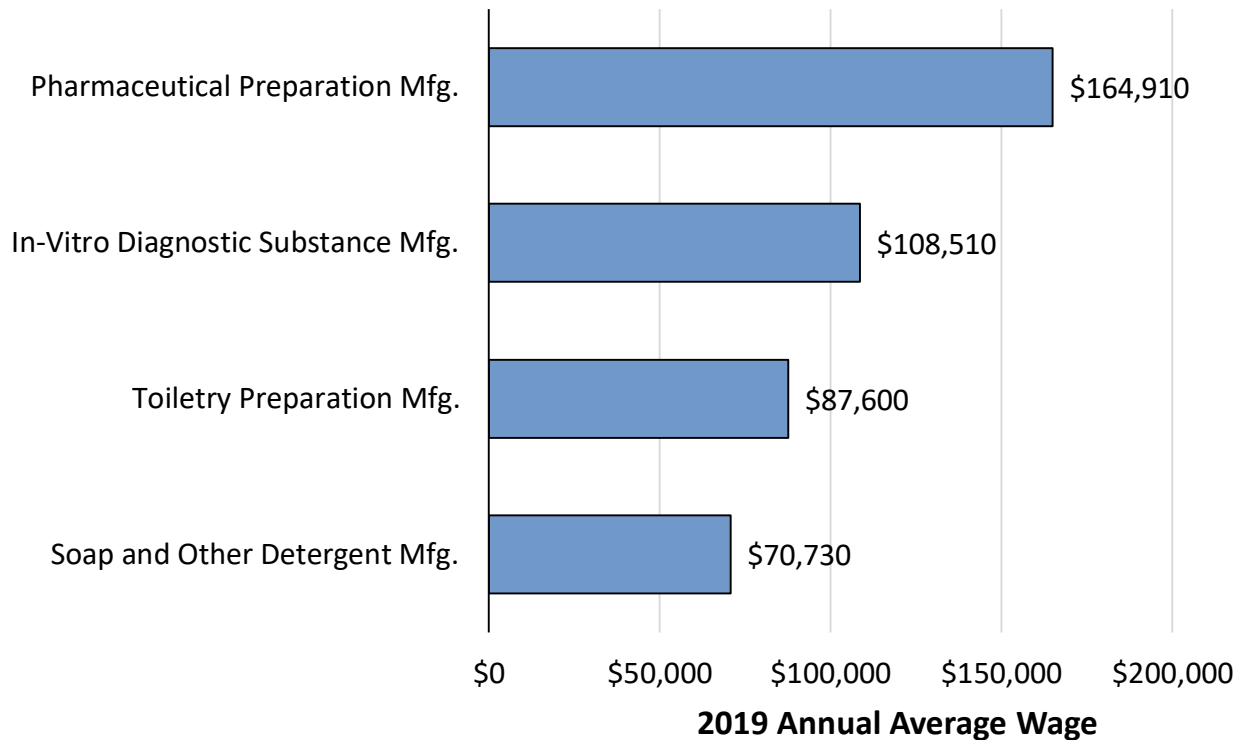
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR

## PHARMACEUTICALS INDUSTRY ANNUAL AVERAGE WAGE, 2019

### Pharmaceuticals Industry



Due to disclosure issues, medicinal and botanical mfg., surface active agent mfg., other biological product mfg., and polish and sanitation good manufacturing are not included in the chart above.

- Annual average wages decreased \$10,500 (or -7.1%), from \$148,840 in 2014 to \$138,340 in 2019.
- Changes in this industry ranged from soap, cleaning, compound, and toiletry manufacturing (+1.5%) to pharmaceutical & medicine manufacturing (-7.8%) in annual average wages from 2014 to 2019.

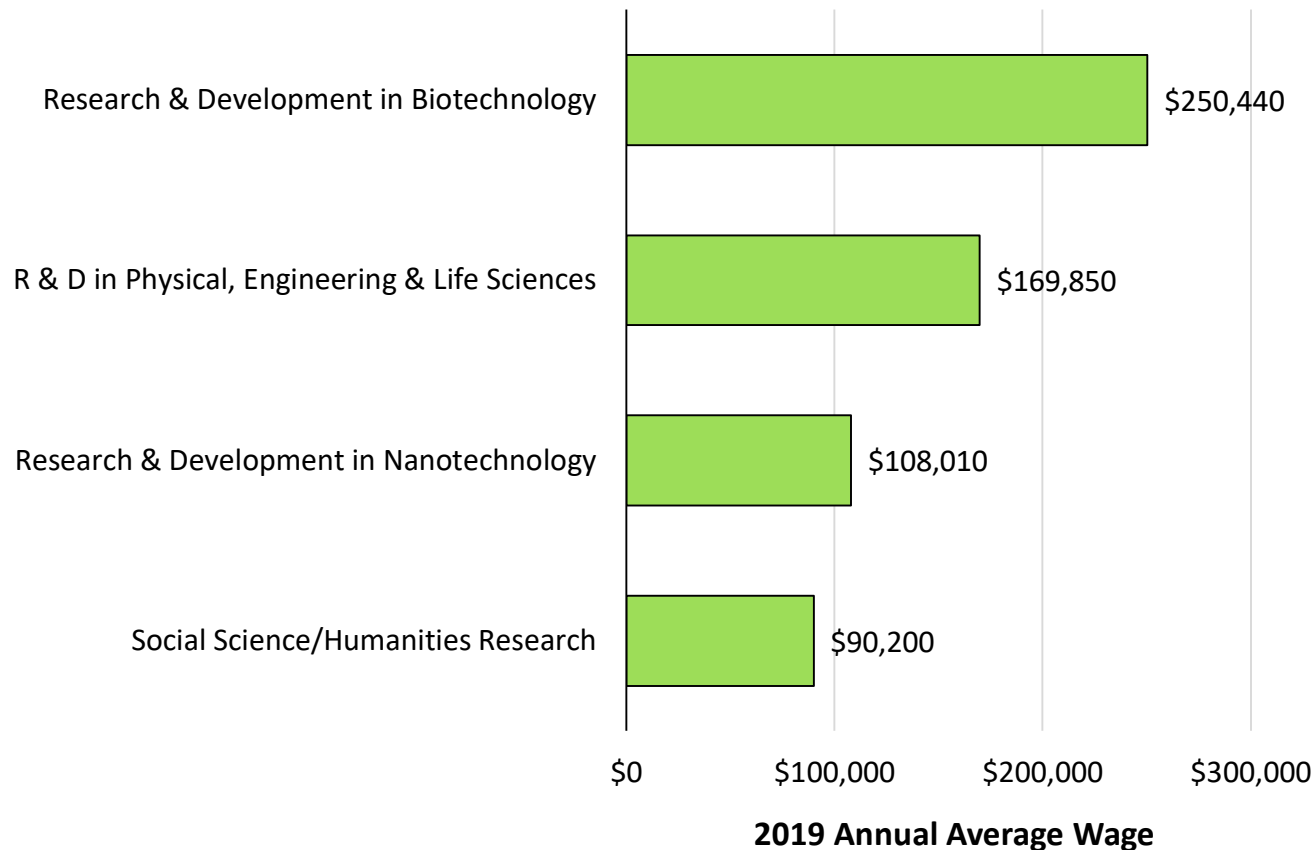


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2014-2019 Annual Averages  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR BIOTECHNOLOGY INDUSTRY ANNUAL AVERAGE WAGE, 2019

## Biotechnology (R&D)



- Annual average wages were \$206,770 in 2019, up +16.4 percent from \$177,570 in 2014.
- Research and development in biotechnology experienced the highest wages increase from \$210,410 in 2014 to \$250,440 in 2019. A total growth of +19%.

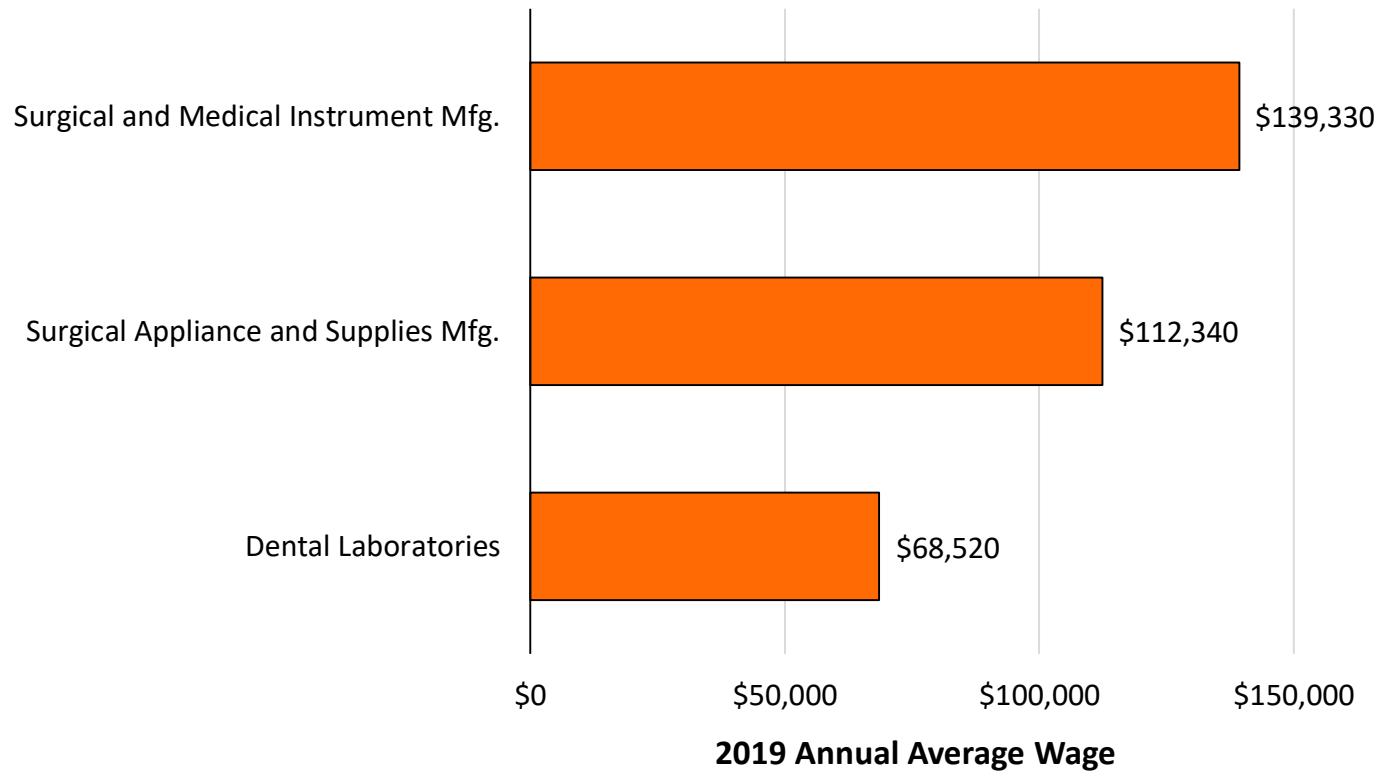


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2014-2019 Annual Averages  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR MEDICAL DEVICES INDUSTRY ANNUAL AVERAGE WAGE, 2019

## Medical Devices



- Annual average wages were \$119,090 in 2019, up +10.4% from \$107,880 in 2014.
- Dental laboratories experienced a significant wages increase from \$48,110 in 2014 to \$68,520 in 2019. A total growth of +42.4%.

Due to disclosure issues, dental equipment and supplies mfg., and ophthalmic goods mfg. are not included in the chart above.



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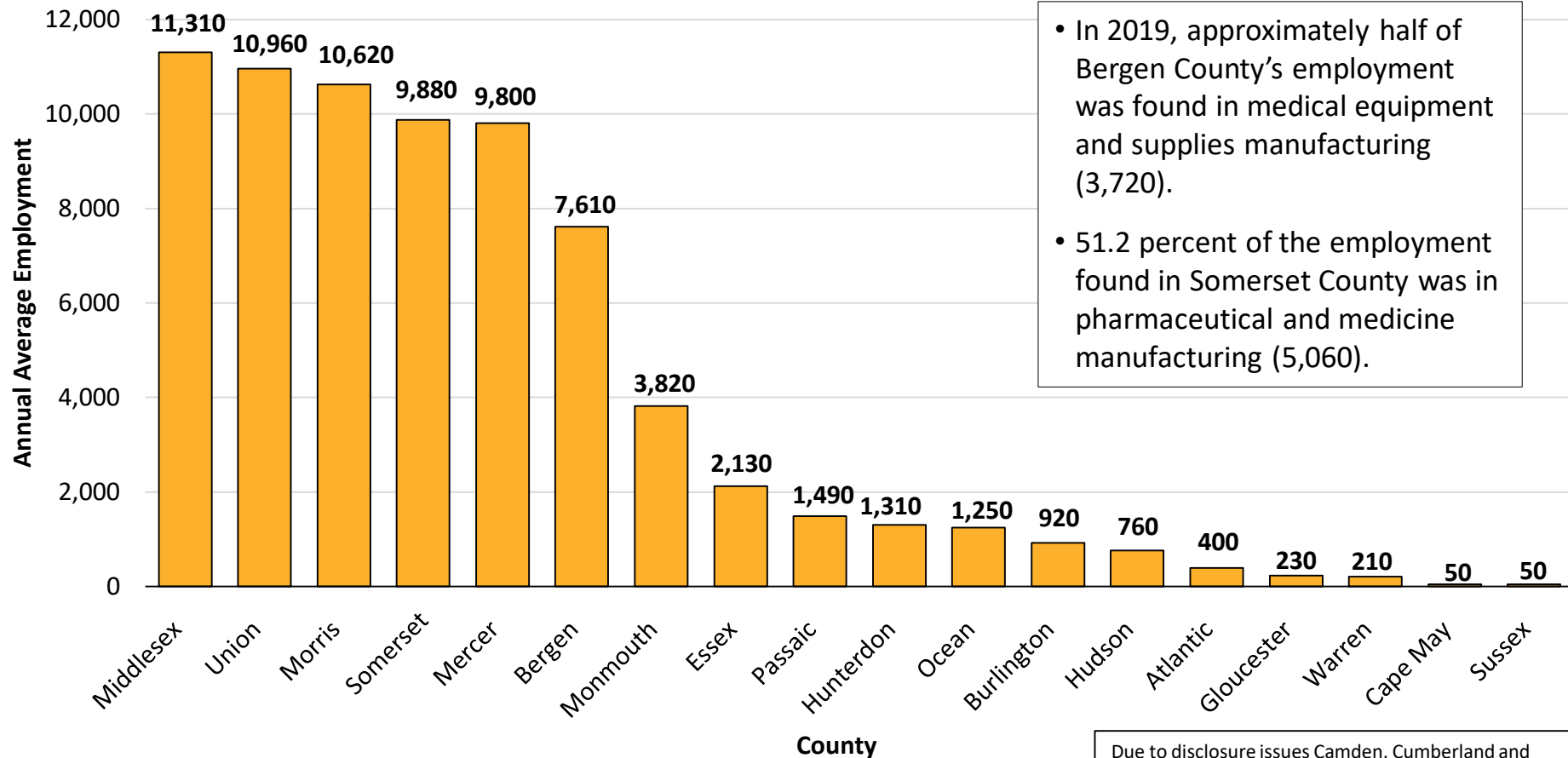
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# **LIFE SCIENCES INDUSTRY SECTOR: REGIONAL AND COUNTY ANALYSIS**



# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR EMPLOYMENT BY COUNTY, 2019 ANNUAL AVERAGES



Due to disclosure issues Camden, Cumberland and Salem Counties are not included in the chart above.

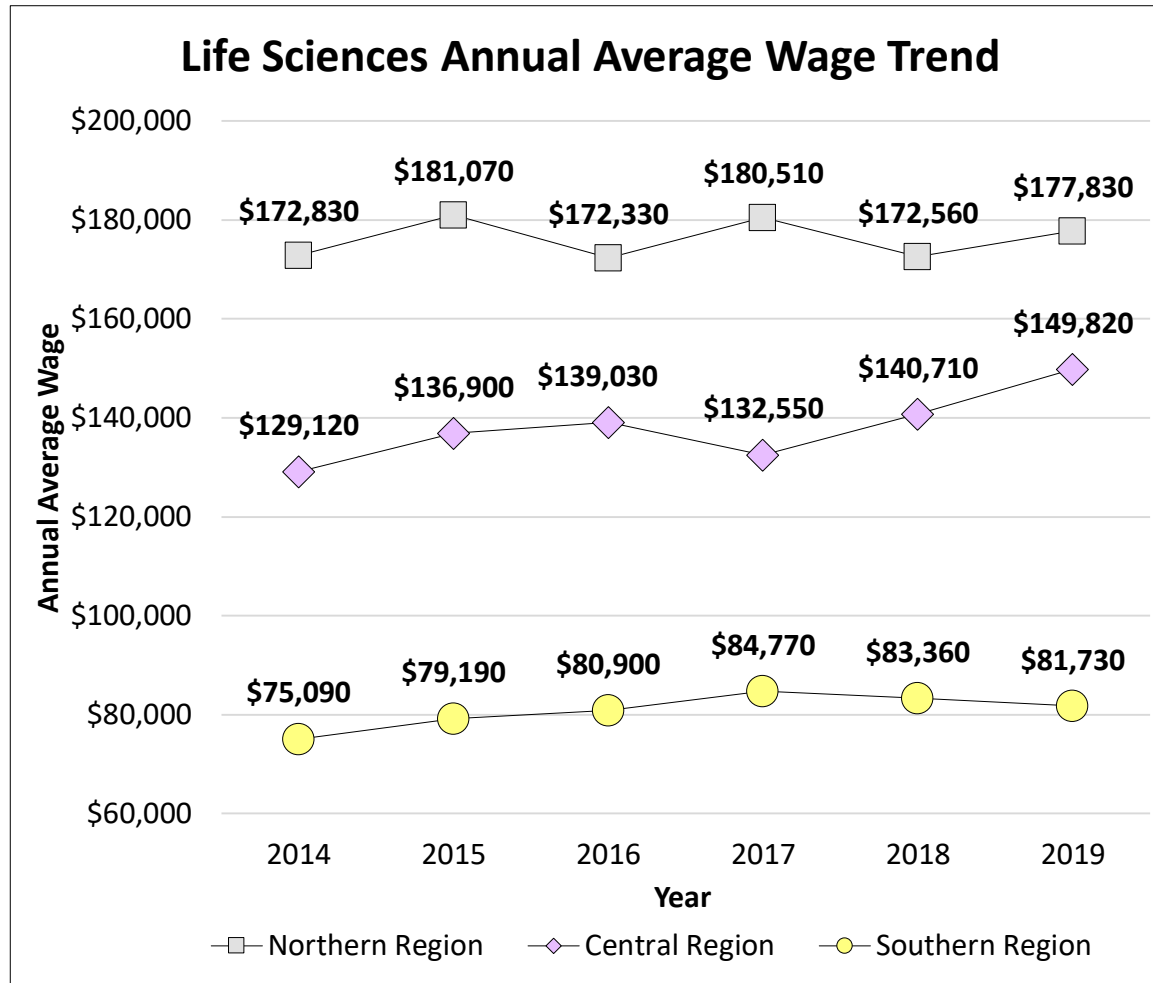


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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR

## LIFE SCIENCES ANNUAL AVERAGE WAGE BY REGION 5-YEAR TREND



- Northern Region - (Bergen, Essex, Hudson, Hunterdon, Morris, Passaic, Somerset, Sussex, Union, and Warren Counties) – Presented the smallest annual average wage increase (+2.9%) from 2014 - 2019.
- Central Region – (Mercer, Middlesex, Monmouth, and Ocean Counties) – This region experienced the highest growth in annual average wage over the five-year period. A total of 16 percent.
- Southern Region – (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem Counties) – Annual average wage for this region increased 8.8 percent over the same period.

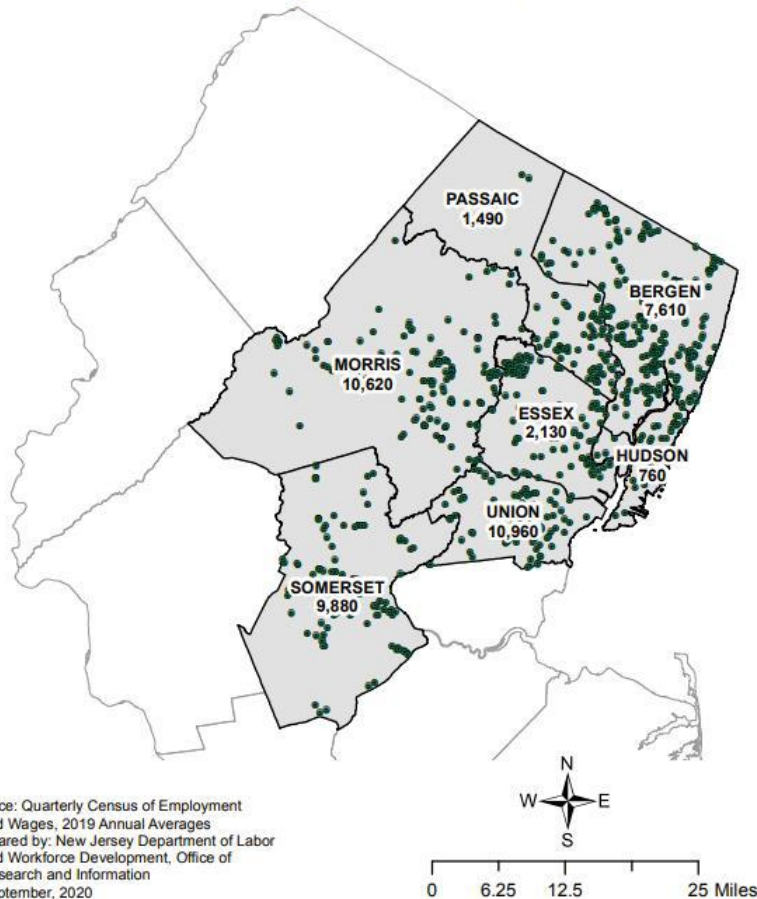


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2014-2019 Annual Averages  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR COUNTIES IN THE NORTHERN REGION

*Life Sciences Employment and Establishment Locations  
Northern Region of New Jersey, 2019*



The highlighted region to the left consists of Bergen, Essex, Hudson, Morris, Passaic, Somerset, and Union Counties.

- **Establishments** – A majority of the Life Sciences industry related establishments can be found along major highways in New Jersey within a close proximity to New York, New York.
- **Employment** – Represent more than half of the life sciences employment in New Jersey in 2019.
- **Average Wage** – The average wage for these counties in life sciences related industries is comparatively above the statewide total average in this sector (\$179,260 vs. \$163,370).

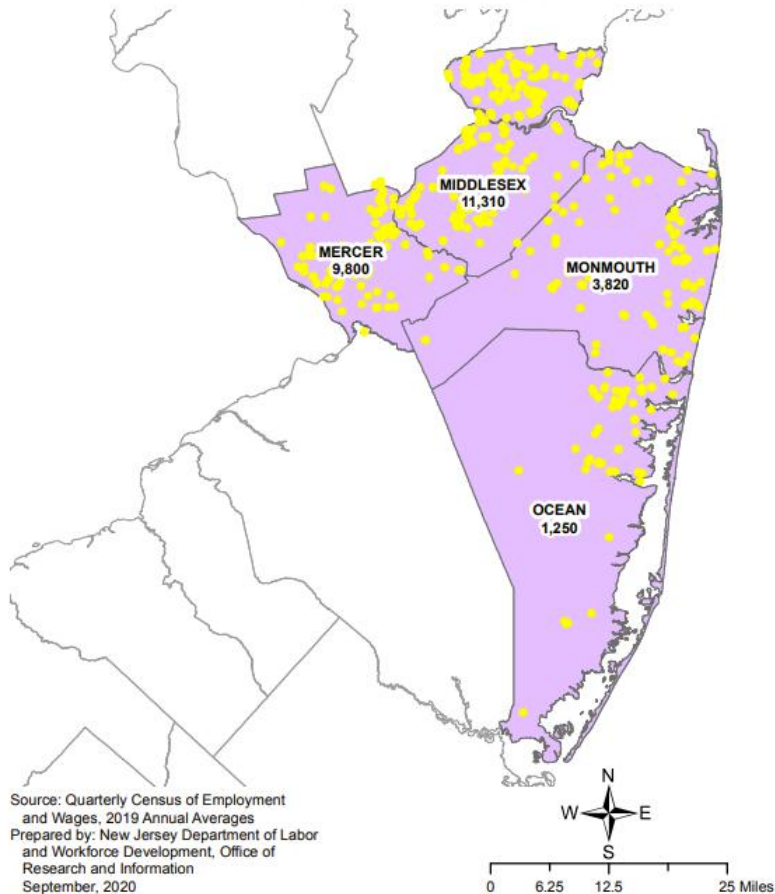


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2019 Annual Averages  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR COUNTIES IN THE CENTRAL REGION

*Life Sciences Employment and Establishment Locations  
Central Region of New Jersey, 2019*



The highlighted region to the left consists of Mercer, Middlesex, Monmouth, and Ocean Counties.

- **Establishments** - These counties account for more than a quarter of all establishments in the life sciences industry sector in New Jersey.
- **Employment** – Employment for these four counties makes up nearly one third of employment in the life sciences industry sector.
- **Average Wage** – The average wage for these counties in life sciences related industries is relatively below the statewide total average in this cluster (\$149,820 vs. \$163,370) in 2019.



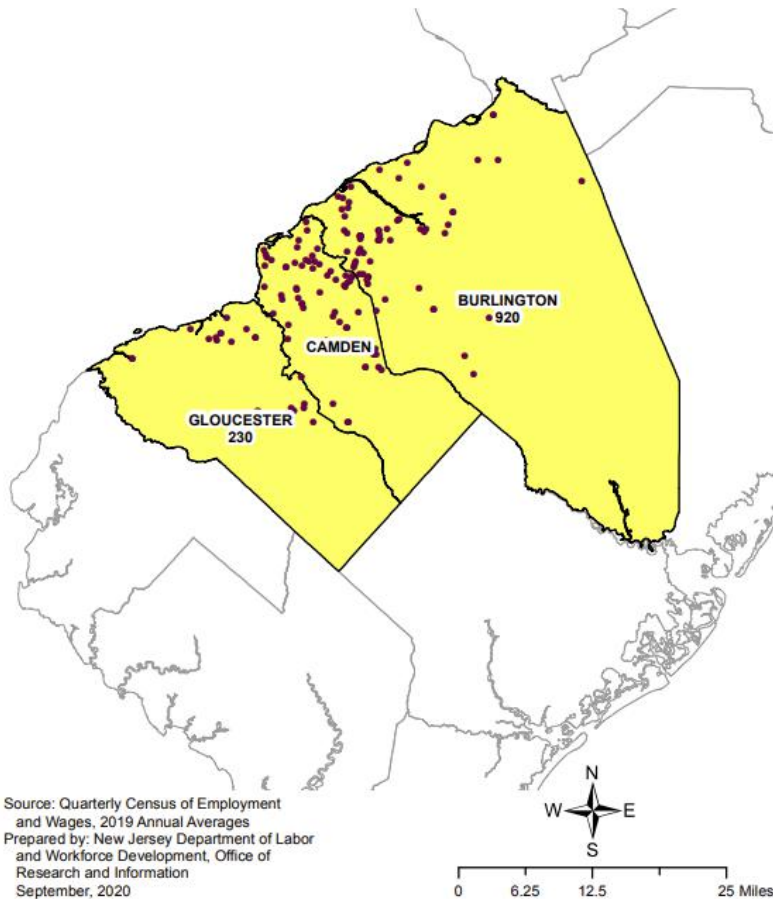
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR COUNTIES IN THE SOUTHERN REGION

*Life Sciences Employment and Establishment Locations  
Southern Region of New Jersey, 2019*



The highlighted region to the left consists of Burlington, Camden, and Gloucester Counties.

- **Establishments** – Having a close proximity to Philadelphia, PA these three counties account for 7 percent of all life sciences industry establishments in New Jersey.
- **Employment** – The three counties have slightly more than 3,200 employment.
- **Average Wage** – The average wage for these counties in life sciences related industries is below the statewide total average in this cluster (\$81,160 vs. \$163,370). These counties also account for 2.1 percent of total life sciences annual average wages paid in 2019.



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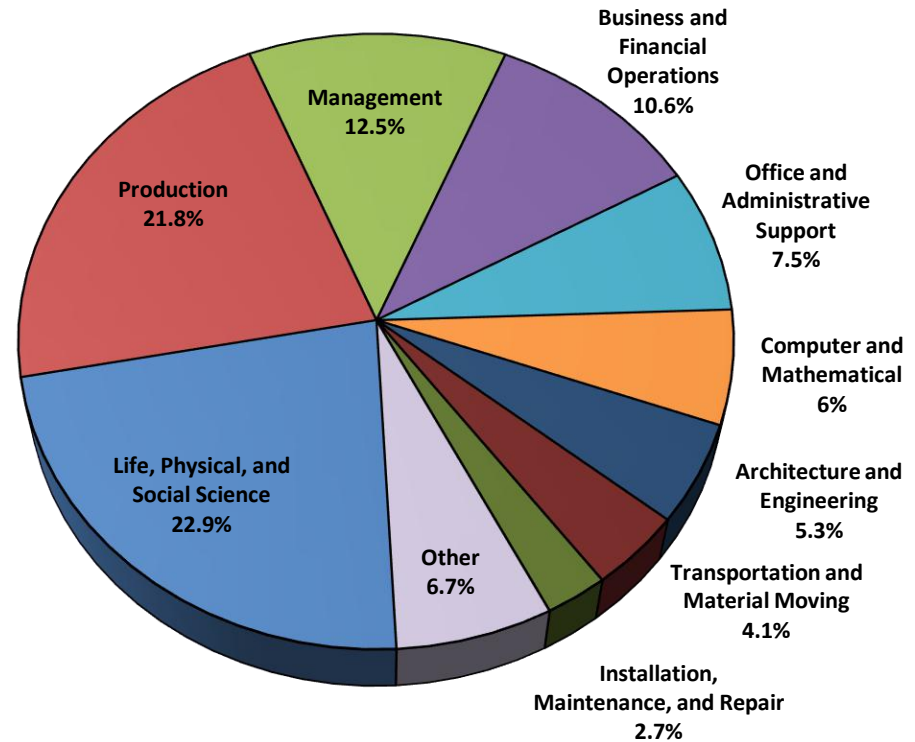
# **LIFE SCIENCES INDUSTRY SECTOR: OCCUPATIONAL ANALYSIS**



# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR TOP OCCUPATIONAL GROUPS, 2019

Occupational Title	2019 Employment	2019 Average Salary
<b>All Life Sciences Occupations</b>	<b>76,470</b>	<b>\$97,460</b>
Life, Physical, and Social Science	17,370	\$114,900
Production	16,520	\$42,650
Management	9,460	\$191,970
Business and Financial Operations	8,050	\$107,760
Office and Administrative Support	5,730	\$52,900
Computer and Mathematical	4,570	\$121,940
Architecture and Engineering	4,000	\$106,630
Transportation and Material Moving	3,090	\$36,920
Installation, Maintenance, and Repair	2,030	\$64,340
Sales and Related	1,730	\$114,430
Healthcare Support	1,010	\$34,600
Arts, Design, Entmt., Sports, and Media	650	\$100,160

## Life Sciences Industry Sector



Note: Due to disclosure issues, of the total 76,470 jobs identified, only 99.3% could be used for this occupational analysis.



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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2019

Prepared by: New Jersey Department of Labor and Workforce Development, November 2020

# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR TOP 20 OCCUPATIONS BY EMPLOYMENT, 2019

## New Jersey Life Sciences Sector's Top 20 Occupations

SOC and Occupational Title	2019 Employment	Education
19-1021 Biochemists and Biophysicists	4,970	Doctoral or professional degree
19-2031 Chemists	4,170	Bachelor's degree
51-9111 Packaging and Filling Machine Operators and Tenders	2,940	High school diploma or equivalent
11-9121 Natural Sciences Managers	2,790	Bachelor's degree
51-9011 Chemical Equipment Operators and Tenders	2,110	High school diploma or equivalent
19-1042 Medical Scientists, Except Epidemiologists	2,040	Doctoral or professional degree
19-4031 Chemical Technicians	1,970	Associate's degree
51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers	1,860	High school diploma or equivalent
51-2090 Miscellaneous Assemblers and Fabricators	1,820	High school diploma or equivalent
51-1011 First-Line Supervisors of Production and Operating Workers	1,440	High school diploma or equivalent
51-9023 Mixing and Blending Machine Setters, Operators, and Tenders	1,330	High school diploma or equivalent
13-1161 Market Research Analysts and Marketing Specialists	1,310	Bachelor's degree
41-4012 Sales Representatives, Wholesale and Manufacturing, Except Tech. and Scientific Products	1,270	High school diploma or equivalent
13-1041 Compliance Officers	1,200	Bachelor's degree
17-2112 Industrial Engineers	1,130	Bachelor's degree
11-2021 Marketing Managers	1,100	Bachelor's degree
13-2011 Accountants and Auditors	1,020	Bachelor's degree
49-9041 Industrial Machinery Mechanics	990	High school diploma or equivalent
11-3051 Industrial Production Managers	940	Bachelor's degree
53-7062 Laborers and Freight, Stock, and Material Movers, Hand	900	No formal educational credential



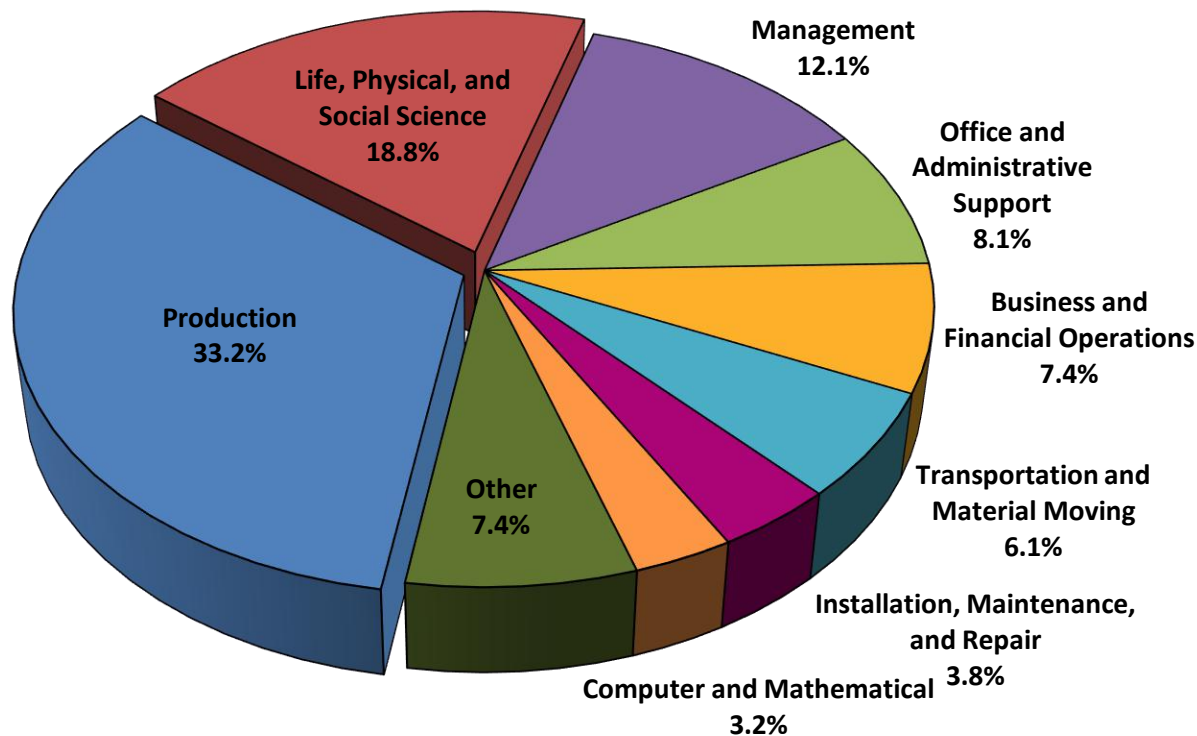
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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2019

Prepared by: New Jersey Department of Labor and Workforce Development, November 2020

# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR PHARMACEUTICAL COMPONENT, 2019

## Major Occupational Group Breakdown



An occupational analysis of 32,890 jobs revealed that five major occupational groups in this component accounted for nearly three-fourths (79,4%) of the employment.

Production and Life, Physical, and Social Science occupations employed the most in this component with 17,080 jobs in 2019.

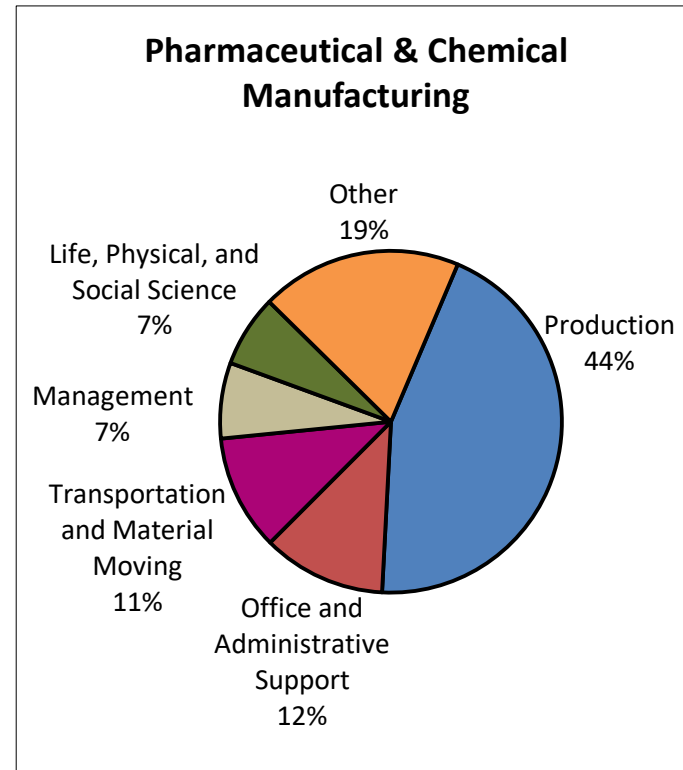
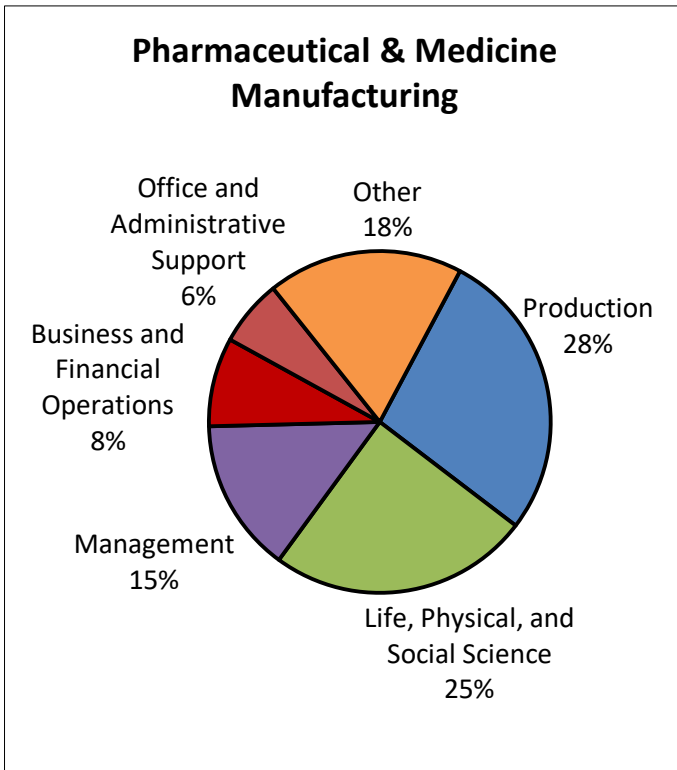
Note: Due to disclosure issues, of the total 33,110 jobs identified, only 32,890 could be used for this occupational analysis.



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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2019  
Prepared by: New Jersey Department of Labor and Workforce Development, November 2020

# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR PHARMACEUTICAL'S MAJOR OCCUPATIONAL GROUPS, 2019



- A majority of occupations in pharmaceutical & medicine manufacturing and pharmaceutical & chemical manufacturing are production related.
- In both industry groups, computer & mathematical and installation, maintenance and repair occupations account for a significant portion of the employment within the “Other” categories.

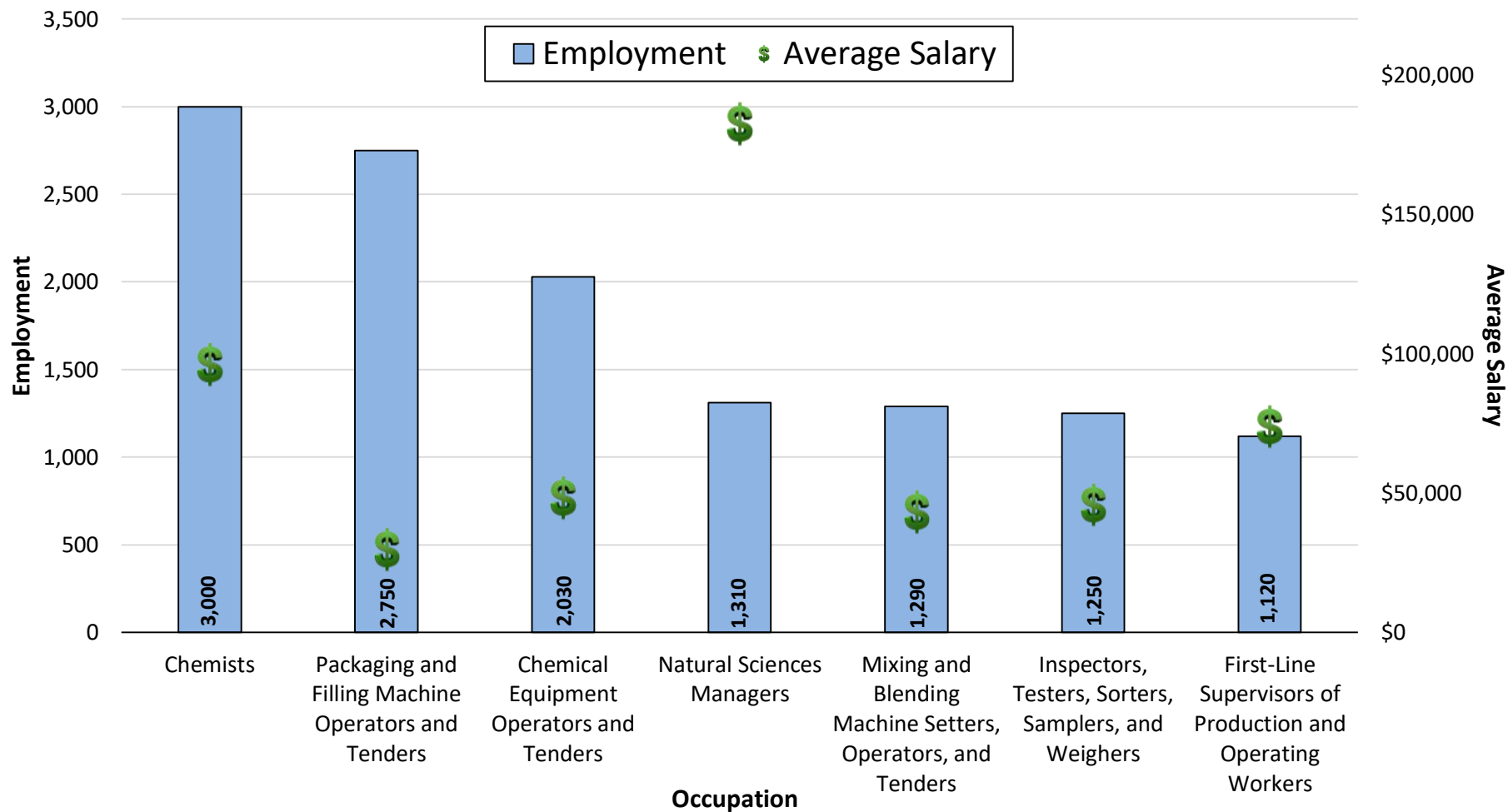


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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2019

Prepared by: New Jersey Department of Labor and Workforce Development, November 2020

# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR TOP PHARMACEUTICAL OCCUPATIONS, 2019



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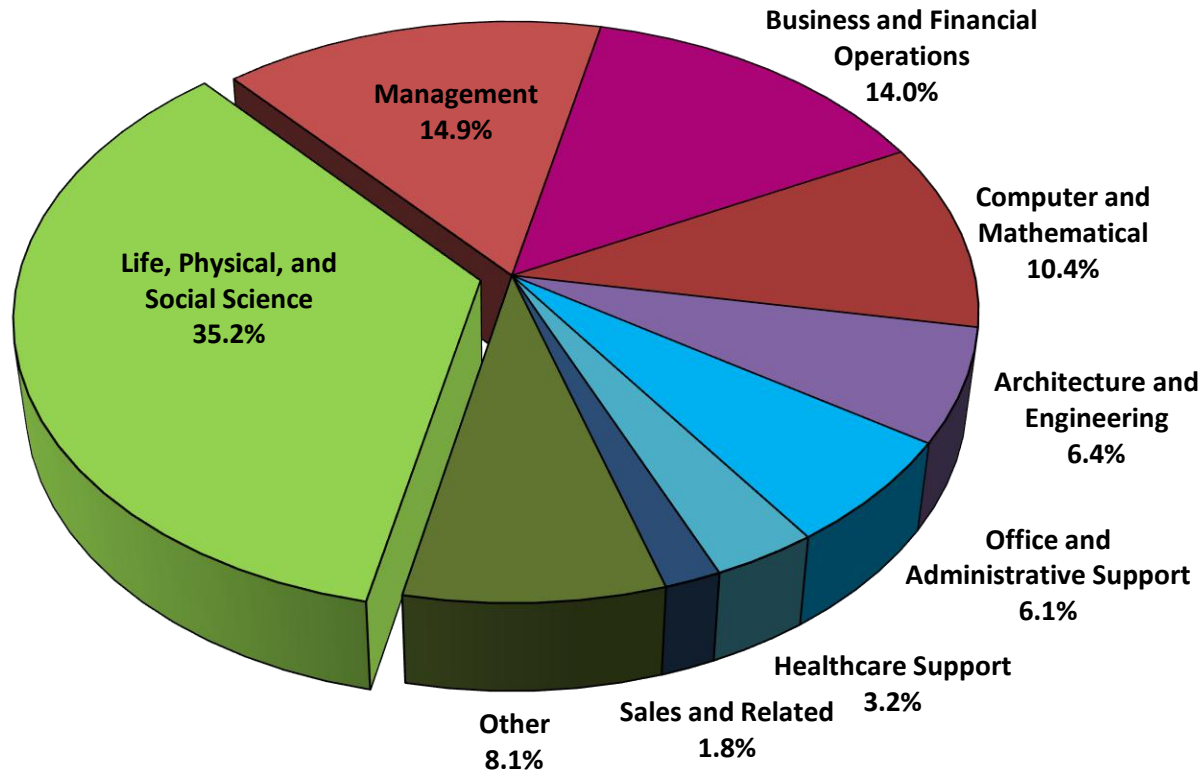
Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2019

Prepared by: New Jersey Department of Labor and Workforce Development, November 2020



# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR BIOTECHNOLOGY (R&D) COMPONENT, 2019

## Major Occupational Group Breakdown



An occupational analysis of 31,250 jobs revealed that five major occupational groups in this component accounted for nearly four-fifth (80.9%) of the employment.

Life, physical, and social science occupations employed the most in this component with approximately 11,000 jobs in 2019 and accounted for more than one-third of the component.

Note: Due to disclosure issues, of the total 31,500 jobs identified, only 31,250 could be used for this occupational analysis.

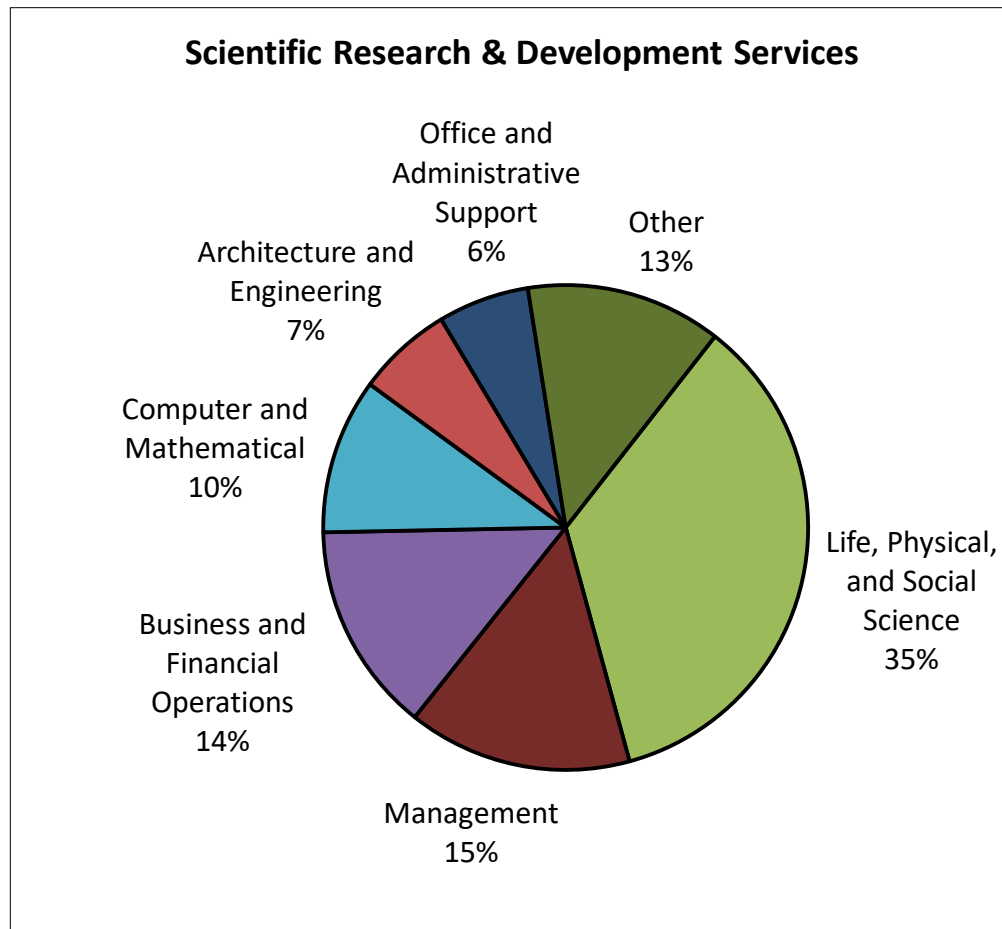


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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2019  
Prepared by: New Jersey Department of Labor and Workforce Development, November 2020

# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR BIOTECHNOLOGY (R&D) MAJOR OCCUPATIONAL GROUP, 2019

- The biotech's occupational group shows that this industry class holds a significant portion of professional, scientific, and technical workers with in-depth skills and knowledge related to science.
- In this bundle, healthcare support, sales and installation, maintenance & repair occupations account for a significant portion of the employment within the "Other" category.

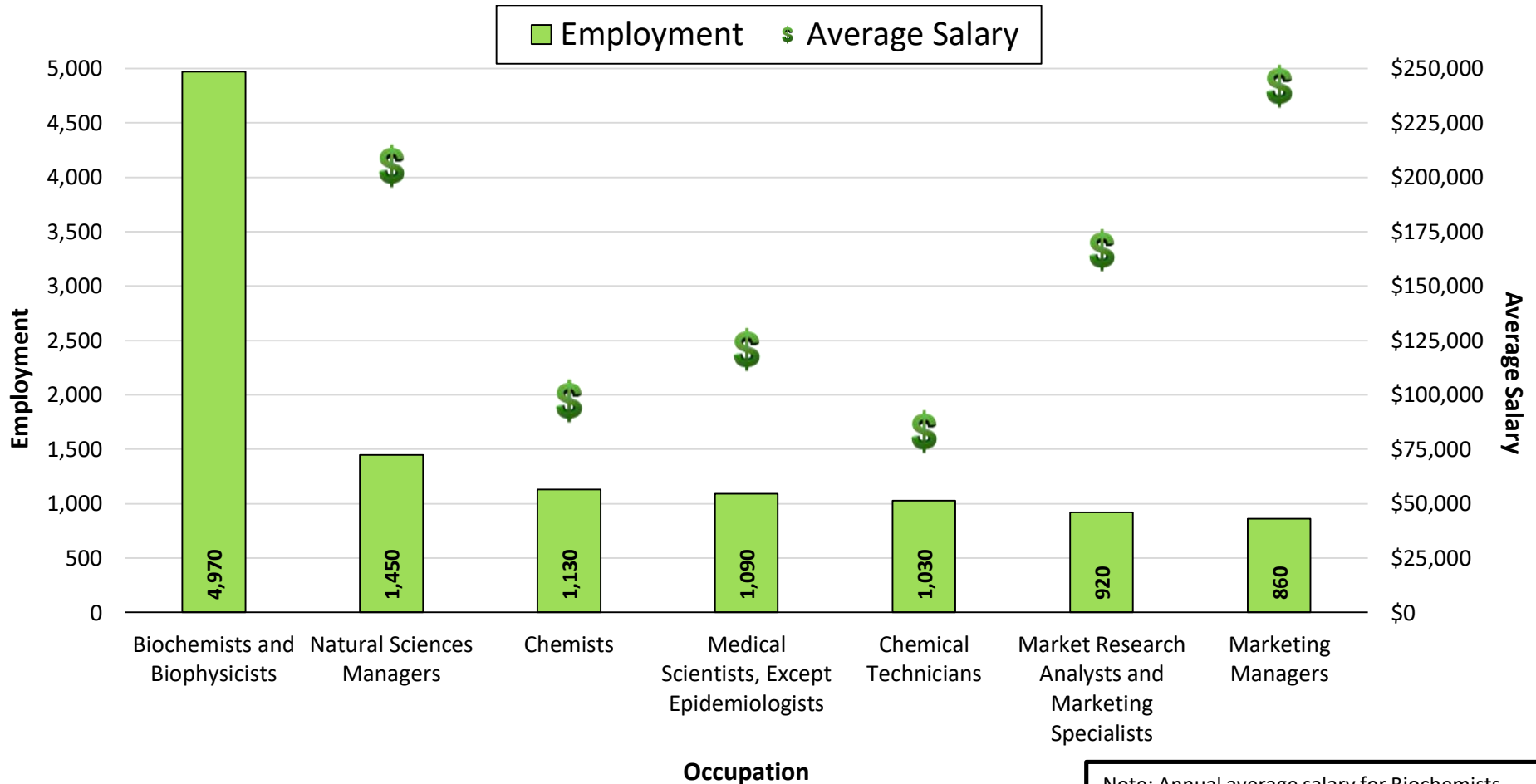


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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2019  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR TOP BIOTECHNOLOGY (R&D) OCCUPATIONS, 2019



Note: Annual average salary for Biochemists and Biophysicists is not available for year 2019.



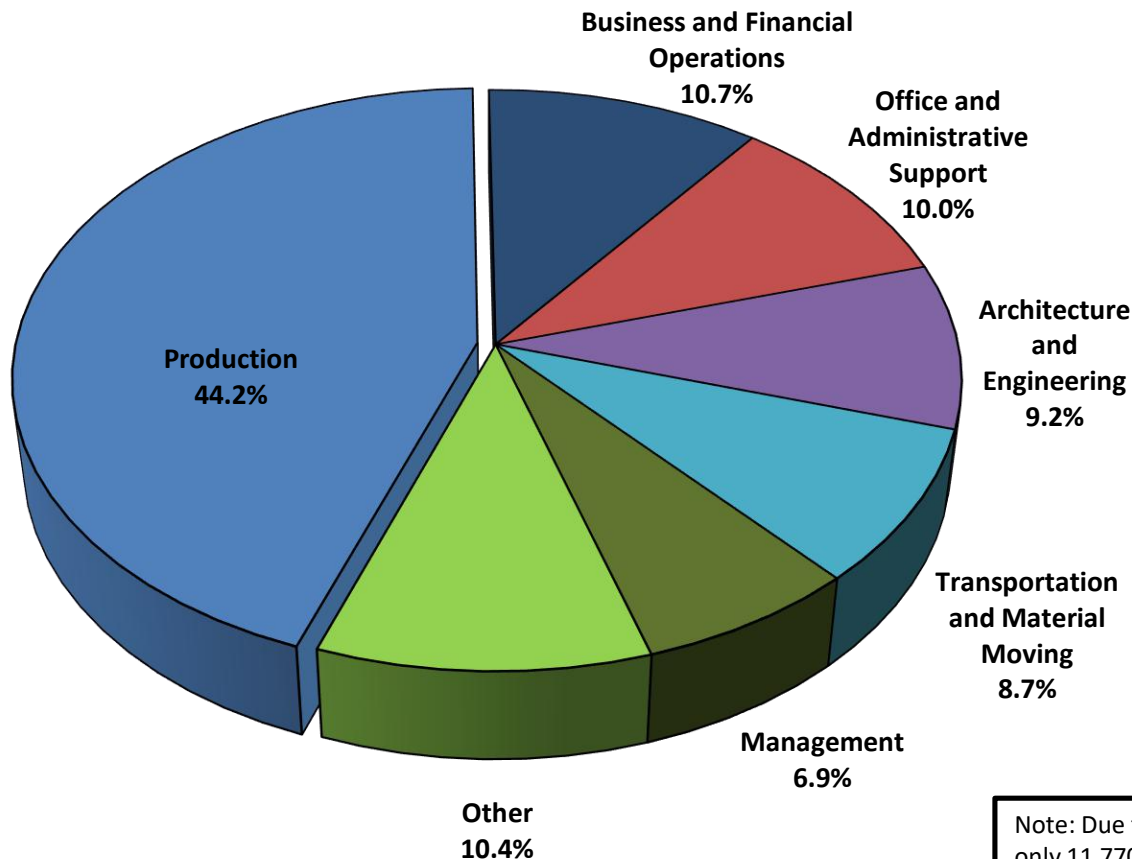
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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2019

Prepared by: New Jersey Department of Labor and Workforce Development, November 2020

# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR MEDICAL DEVICE COMPONENT, 2019

## Major Occupational Group Breakdown



An occupational analysis of 11,770 jobs revealed that five major occupational groups in this component accounted for more than four-fifths of the employment (82.8%).

Production occupations employed the most in this component with 5,200 jobs and accounted for nearly half of the component (44.2%).

Note: Due to disclosure issues, of the total 11,860 jobs identified, only 11,770 could be used for this occupational analysis.



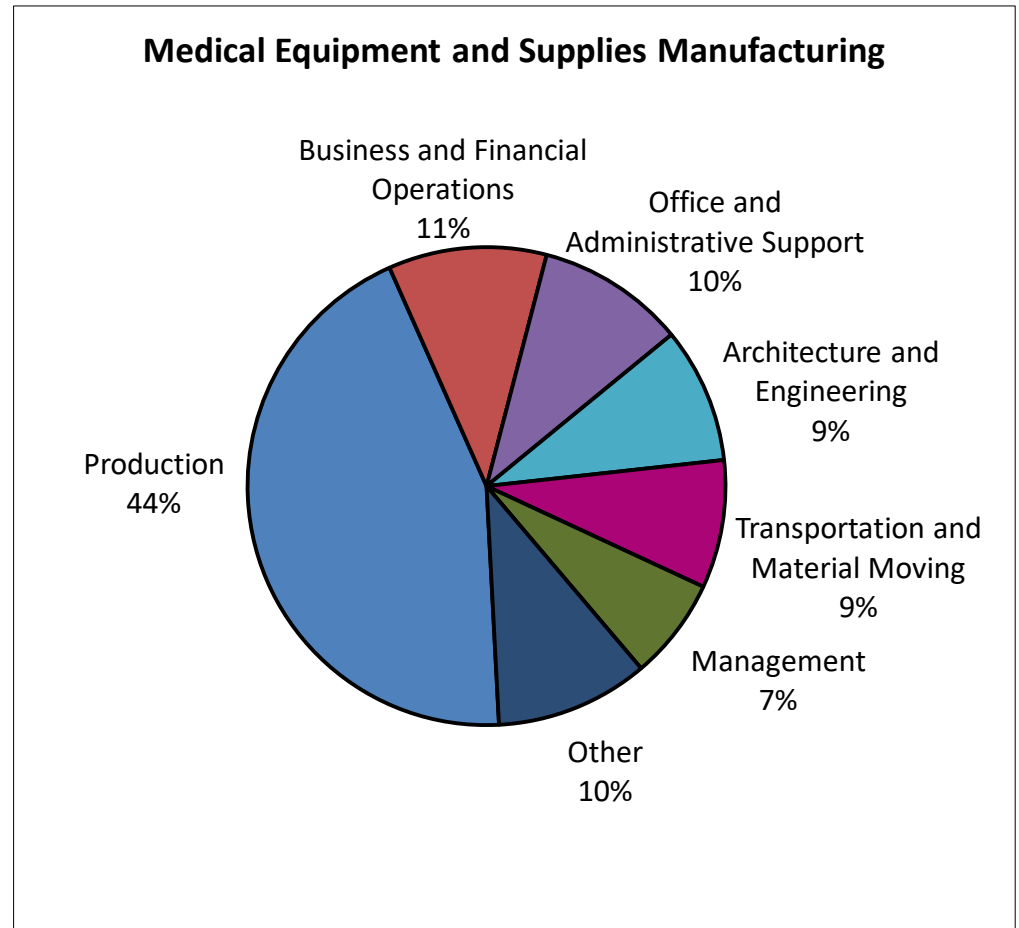
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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2019  
Prepared by: New Jersey Department of Labor and Workforce Development, November 2020

# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR

## MEDICAL DEVICES MAJOR OCCUPATIONAL GROUPS, 2019

- The medical devices' occupational group shows that this industry class holds a significant portion of technical workers with skills and knowledge related to production.
- In this bundle, the installation, maintenance & repair, computer & mathematical, and sales & related occupations account for a significant portion of the employment within the “Other” category.



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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2019  
Prepared by: New Jersey Department of Labor and Workforce Development, November 2020

# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR TOP MEDICAL DEVICE OCCUPATIONS, 2019



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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2019

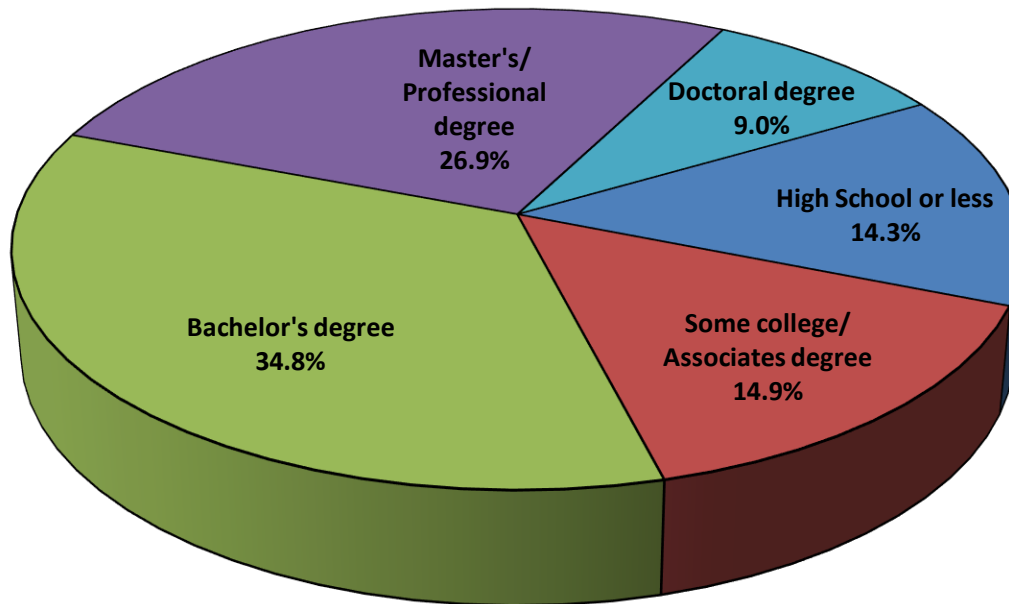
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# **LIFE SCIENCES INDUSTRY SECTOR: DEMOGRAPHIC OVERVIEW**



# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR EDUCATION CHARACTERISTICS

## Educational Breakdown



- It is often mentioned that life sciences related employers require a well-educated and highly skilled workforce to meet the high level and technical demands of many of the occupations they need to fill.
- Nearly two-thirds of New Jersey's workforce employed in this sector hold at least a Bachelor's degree, many holding even more advanced degrees.

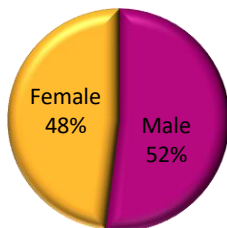


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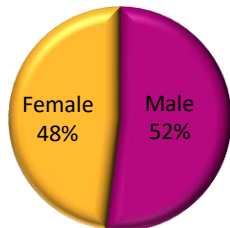
Source: U.S. Census Bureau, 2019 American Community Survey  
Prepared by: New Jersey Department of Labor and Workforce Development, November 2020

# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR GENDER, RACIAL, AND ETHNIC PROFILE

**Life Sciences**



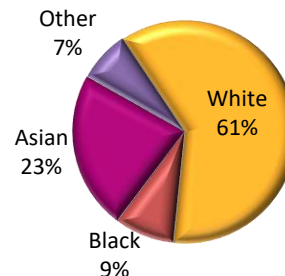
**All Industries**



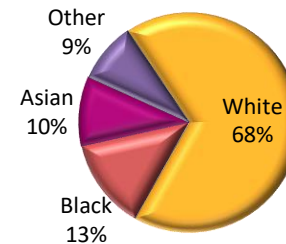
Males outnumber females by 4 % in this sector

The life sciences workforce has a greater proportion of NJ residents who are Asian (22.9%)

**Life Sciences**

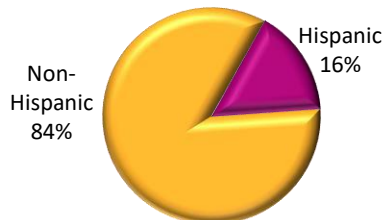


**All Industries**

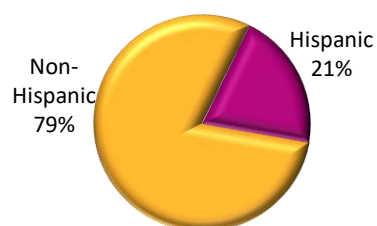


The life sciences workforce has fewer Hispanics than average

**Life Sciences**



**All Industries**



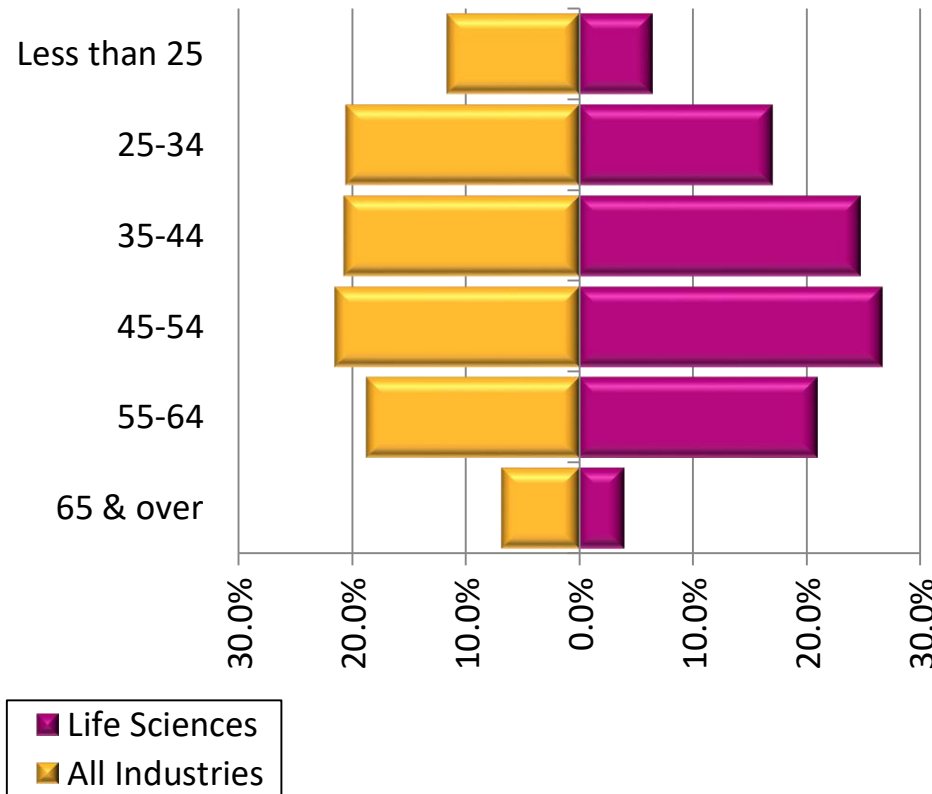
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Source: U.S. Census Bureau, 2019 American  
Community Survey  
Prepared by: New Jersey Department of Labor and  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR

## LIFE SCIENCES SECTOR VS. TOTAL NONFARM

Age Breakdown of Workers in Life  
Sciences and All Industries  
New Jersey, 2019



- The workforce of the life sciences industry is older than average with 51.7 percent aged *45 and up* compared to only 47.1 percent overall.
- The largest disparity among age cohorts occurs in the *35-44 and 45-54* year old age groups, where 51.4 percent of the life sciences industry sector is found.
- 4 percent of the current NJ resident life sciences workforce is aged *65 and older*.



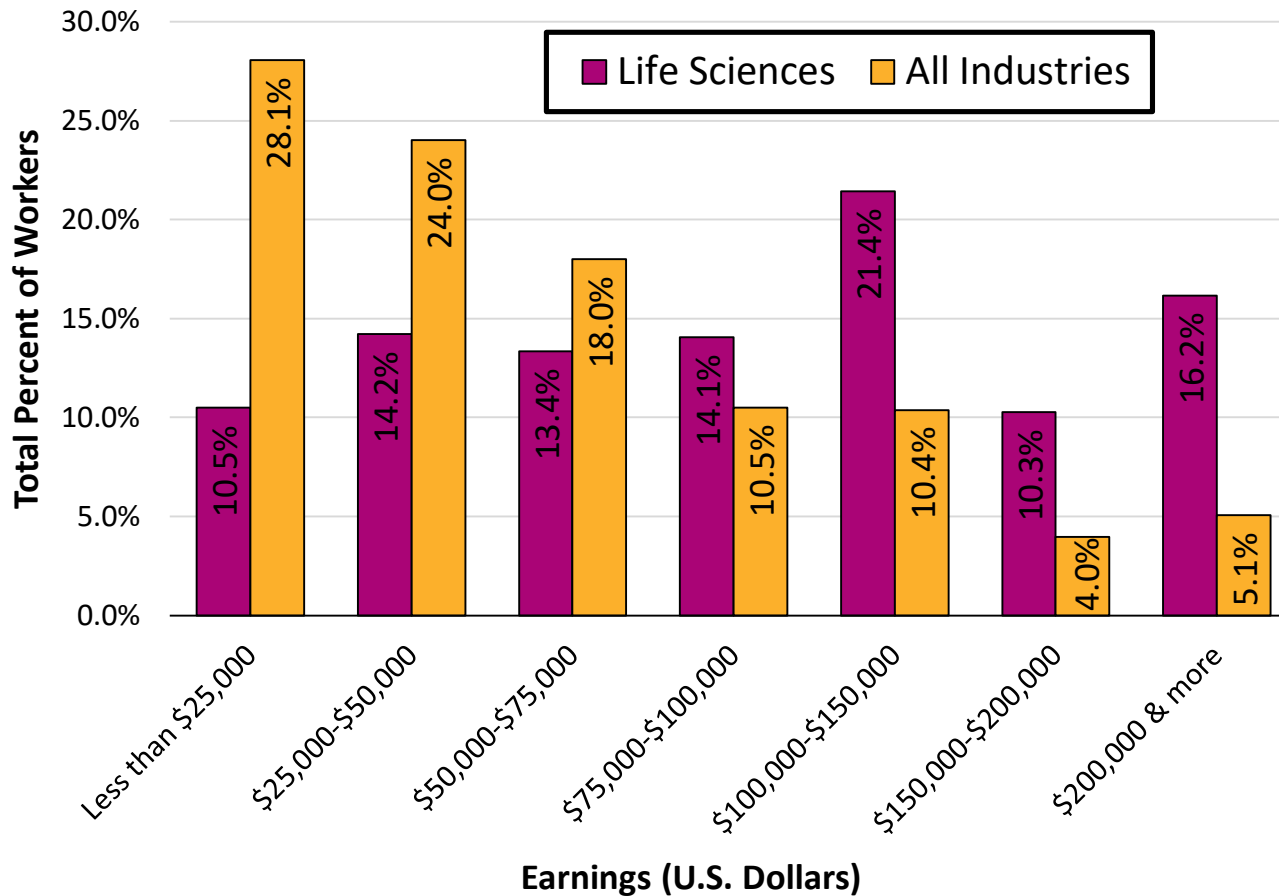
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Source: U.S. Census Bureau, 2019 American  
Community Survey  
Prepared by: New Jersey Department of Labor and  
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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR NJ RESIDENTS PERSONAL EARNINGS

## Personal Earnings in New Jersey, 2019



- Three-fourths of the workers (75.3%) in this sector earned over \$50,000, whereas 52.1% of all workers (in all industries combined) earned less than \$50,000.
- The percentage of workers making \$150,000 or greater is almost a 3:1 ratio in favor of this sector.



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Source: U.S. Census Bureau, 2019 American  
Community Survey  
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# **LIFE SCIENCES INDUSTRY SECTOR: TOP OCCUPATIONS OUTLOOK**



# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR

## TOP LIFE SCIENCES OCCUPATIONS OUTLOOK ACROSS ALL INDUSTRIES

Occupation Title	Employment				Annual Average			
	Actual 2018	Projected 2028	Change 2018-2028		Job Openings			
			Number	Percent	Exits	Transfers	Change	Total
Market Research Analysts and Marketing Specialists	20,290	24,170	3,880	19.1	520	1,750	390	2,660
Laborers and Freight, Stock, and Material Movers, Hand	141,760	156,860	15,100	10.7	6,740	13,990	1,510	22,240
Natural Sciences Managers	4,590	5,030	440	9.5	100	320	40	460
Industrial Engineers	4,940	5,400	460	9.4	100	250	50	400
Marketing Managers	12,120	13,240	1,120	9.2	260	870	110	1,240
Biochemists and Biophysicists	6,750	7,360	610	9.1	110	540	60	710
Industrial Machinery Mechanics	7,680	8,330	650	8.4	250	480	70	800
Medical Scientists, Except Epidemiologists	3,140	3,400	260	8.0	50	250	30	330
Packaging and Filling Machine Operators and Tenders	14,140	15,110	970	6.9	650	1,050	100	1,800
Accountants and Auditors	41,790	44,600	2,810	6.7	1,220	2,810	280	4,310
Compliance Officers	12,630	13,380	750	5.9	360	780	80	1,220
Chemists	7,780	8,240	460	5.8	130	590	50	770
Industrial Production Managers	5,330	5,610	280	5.4	120	280	30	430
Chemical Technicians	3,810	4,000	190	5.0	70	320	20	410
Sales Representatives, Wholesale and Manufacturing	44,130	46,320	2,190	4.9	1,380	3,370	220	4,970
First-Line Supervisors of Production and Operating Workers	12,970	13,390	420	3.2	420	930	40	1,390
Mixing and Blending Machine Setters, Operators, and Tenders	3,800	3,800	0	0.0	120	330	0	450
Chemical Equipment Operators and Tenders	3,440	3,320	-120	-3.6	90	300	-10	380
Assemblers and Fabricators	12,190	11,320	-870	-7.1	480	890	-90	1,280
Inspectors, Testers, Sorters, Samplers, and Weighers	13,950	12,510	-1,440	-10.3	530	1,110	-140	1,500



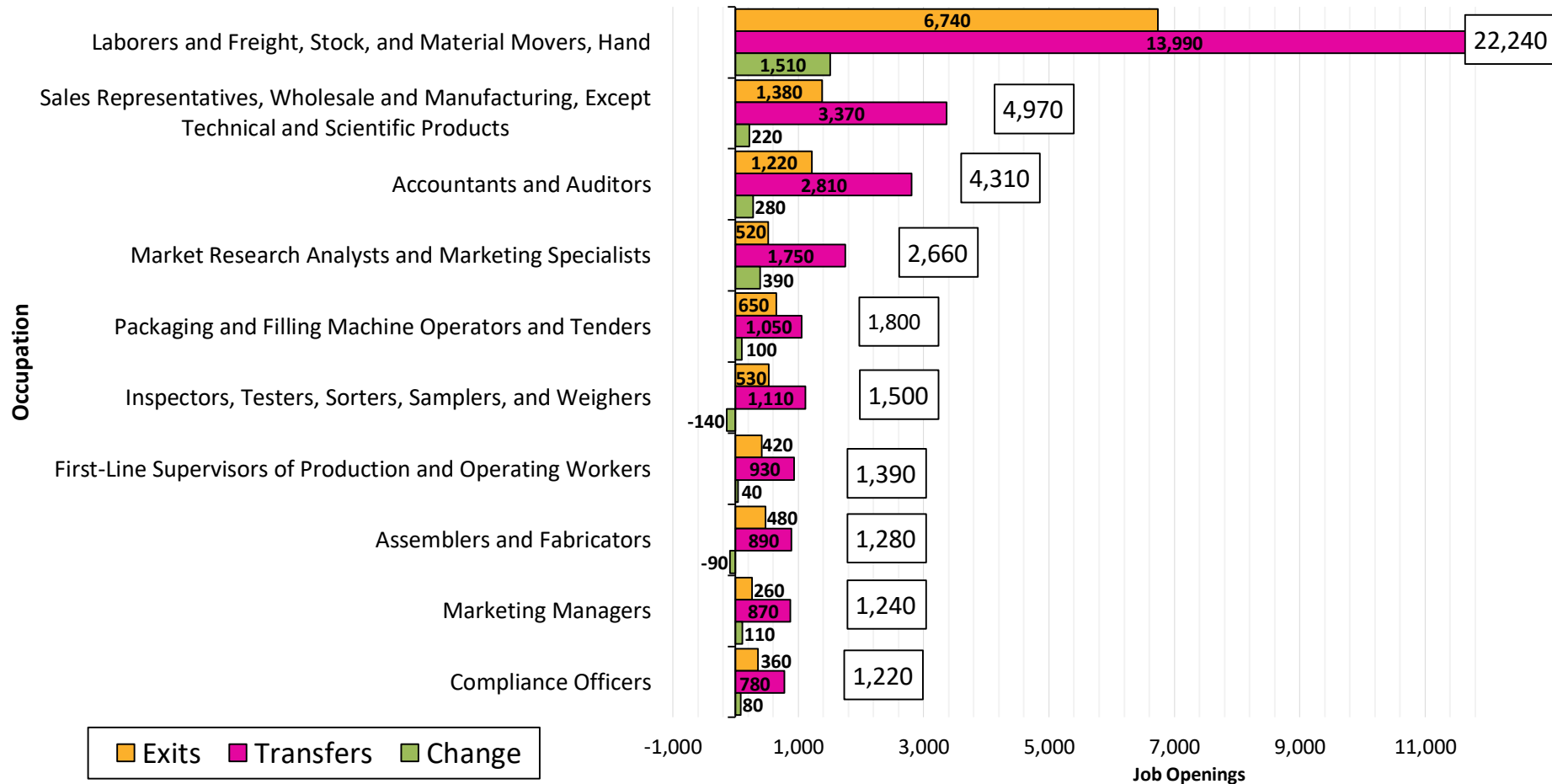
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Source: New Jersey Department of Labor and Workforce Development, 2018–2028 Industry and Occupational Employment Projections.

Prepared by: New Jersey Department of Labor and Workforce Development, November 2020

# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR PROJECTED ANNUAL AVERAGE OPENINGS FOR TOP OCCUPATIONS

## 2018-2028 Projected Annual Average Job Openings



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Source: New Jersey Department of Labor and Workforce Development, 2018–2028 Industry and Occupational Employment Projections.

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# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR CONTACT INFORMATION

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[http://lwd.dol.state.nj.us/labor/lpa/LMI\\_index.html](http://lwd.dol.state.nj.us/labor/lpa/LMI_index.html)

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