

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 2019-2020



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

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 2018 was identified within three primary components: pharmaceuticals (42.6%), biotechnology - R&D (40.7%) and medical device manufacturing (16.7%). 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, 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 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.

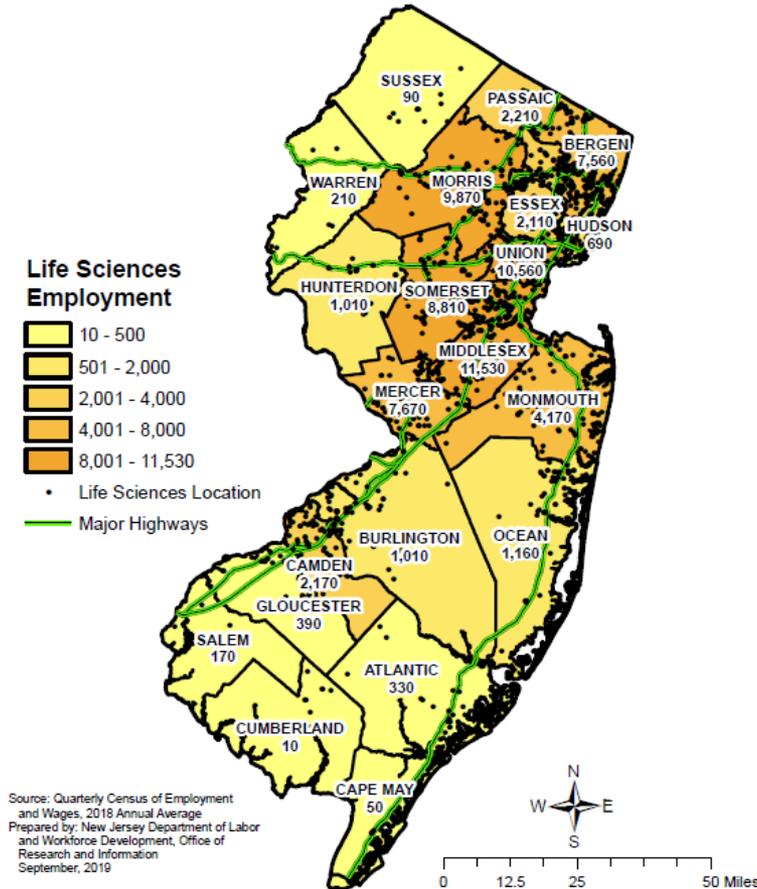


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Source: 2019 InfoUSA
Prepared by: New Jersey Department of Labor and
Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR OVERALL STATE IMPACT

Life Sciences Employment and Establishment Locations New Jersey, 2018



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:

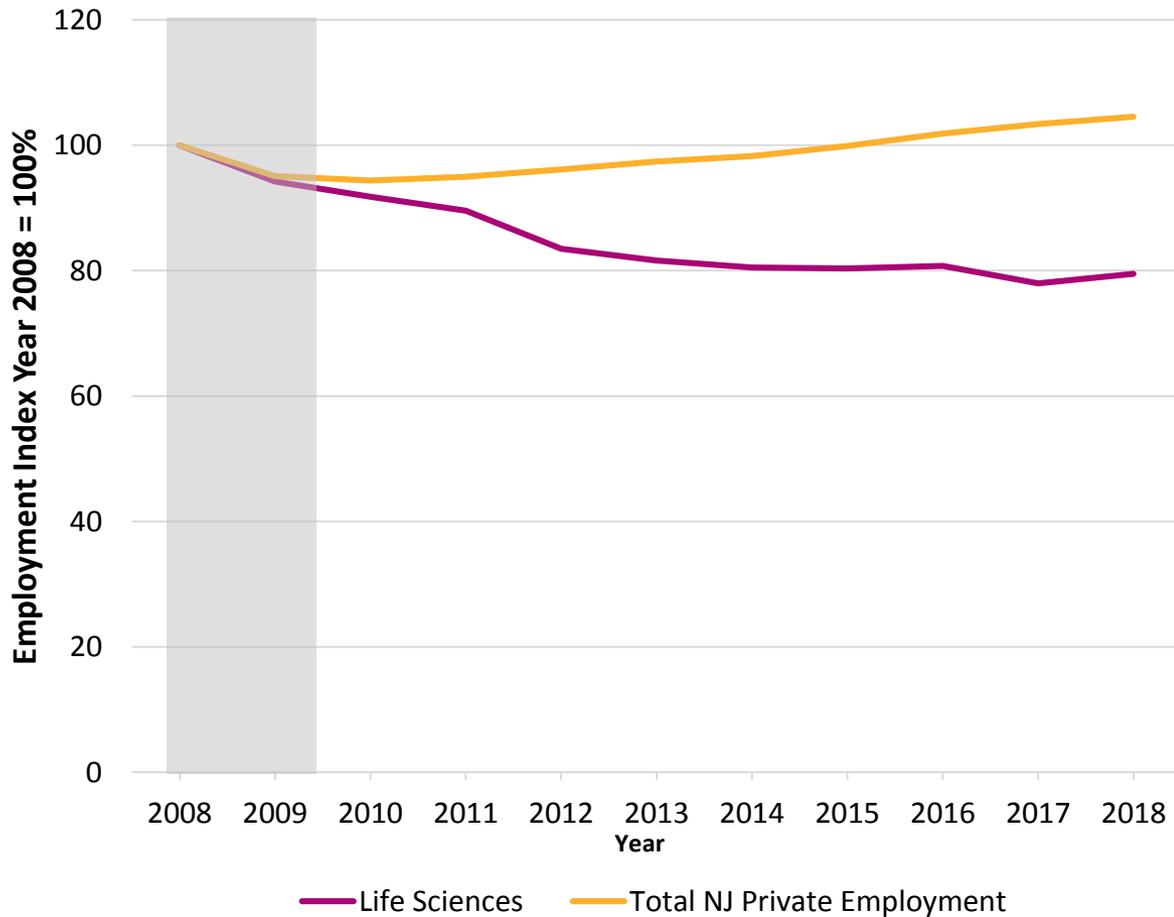
- **Employment Total:** averaged 72,900 or 2.1 percent of all private sector workers in the state for 2018. Nationally, the proportion was just 1.1 percent.
- **Well-paying Jobs:** Paid over \$11.4 billion in 2018 annual payrolls; 5 percent of the state's total wages.
- **Establishments total:** nearly 1,600 in 2018. Over a five year period (2013-2018) – even with numerous industry related reorganizations – New Jersey's pharmaceutical component still grew (by +14.7%).



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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR ALL PRIVATE VS. INDUSTRY SECTOR EMPLOYMENT



- The NJ life sciences industry experienced a steady decline from 2008 to 2014 (-19.5%), flattened out from 2014 to 2015 (-0.1%), increased from 2015 to 2016 (+0.4%), and is currently below the 2008 employment level (-20.4%).
- Total statewide private sector employment has led life sciences employment from 2010 to 2018 and is currently above the 2008 employment level by 4.5 percent.

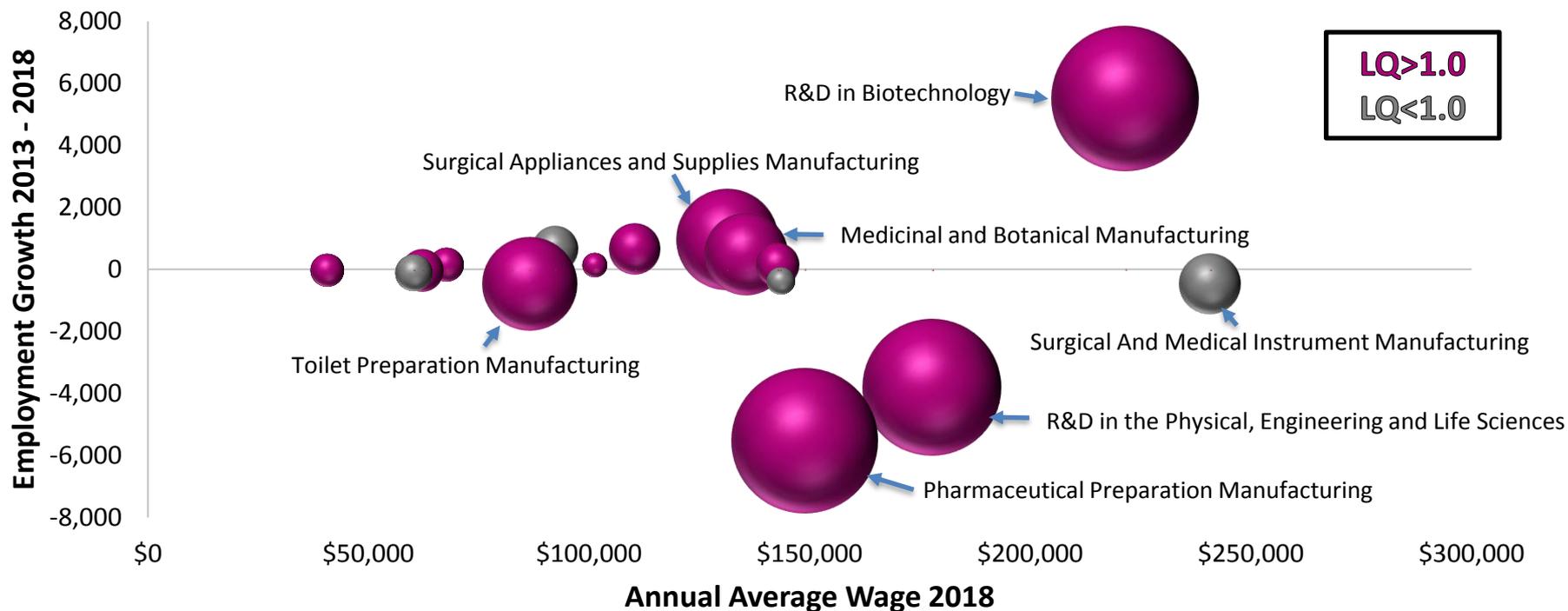
Gray area denotes U.S. economic recession as defined by the National Bureau of Economic Research (NBER)



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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2008 - 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR EMPLOYMENT SIZE, GROWTH, SALARY & LOCATION QUOTIENT



The above bubble graph has four elements:

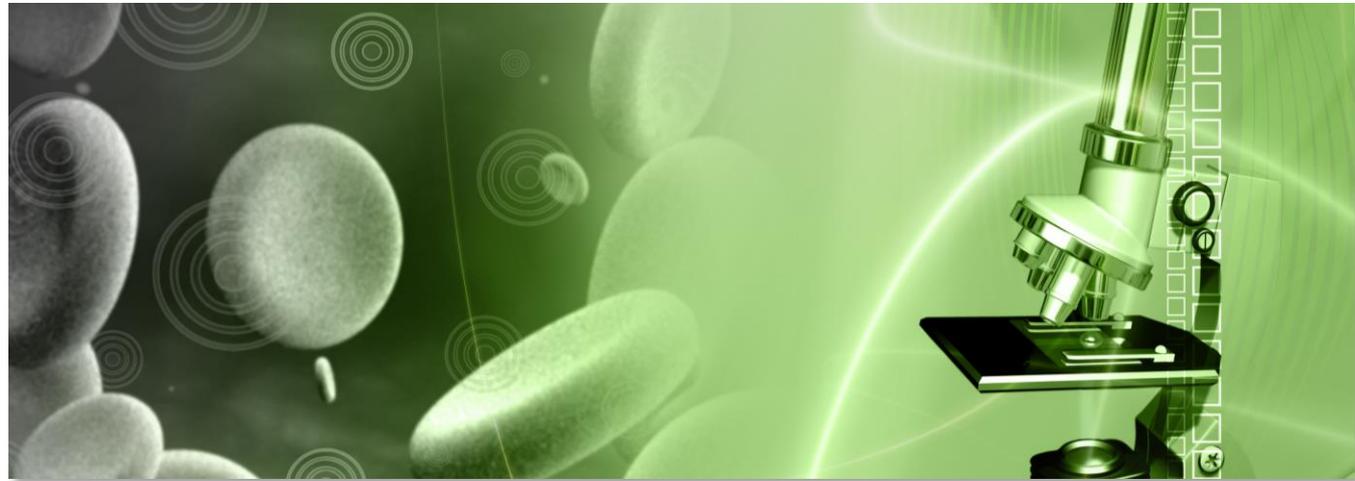
1. Total 2018 employment - represented by the size of the bubble.
2. 2013-2018 employment growth- shown on the Y-axis, or vertical position.
3. 2017 annual average wages - shown on the X-axis, or horizontal position.
4. Location quotient - indicated by the color of the bubble. The location quotient compares 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.



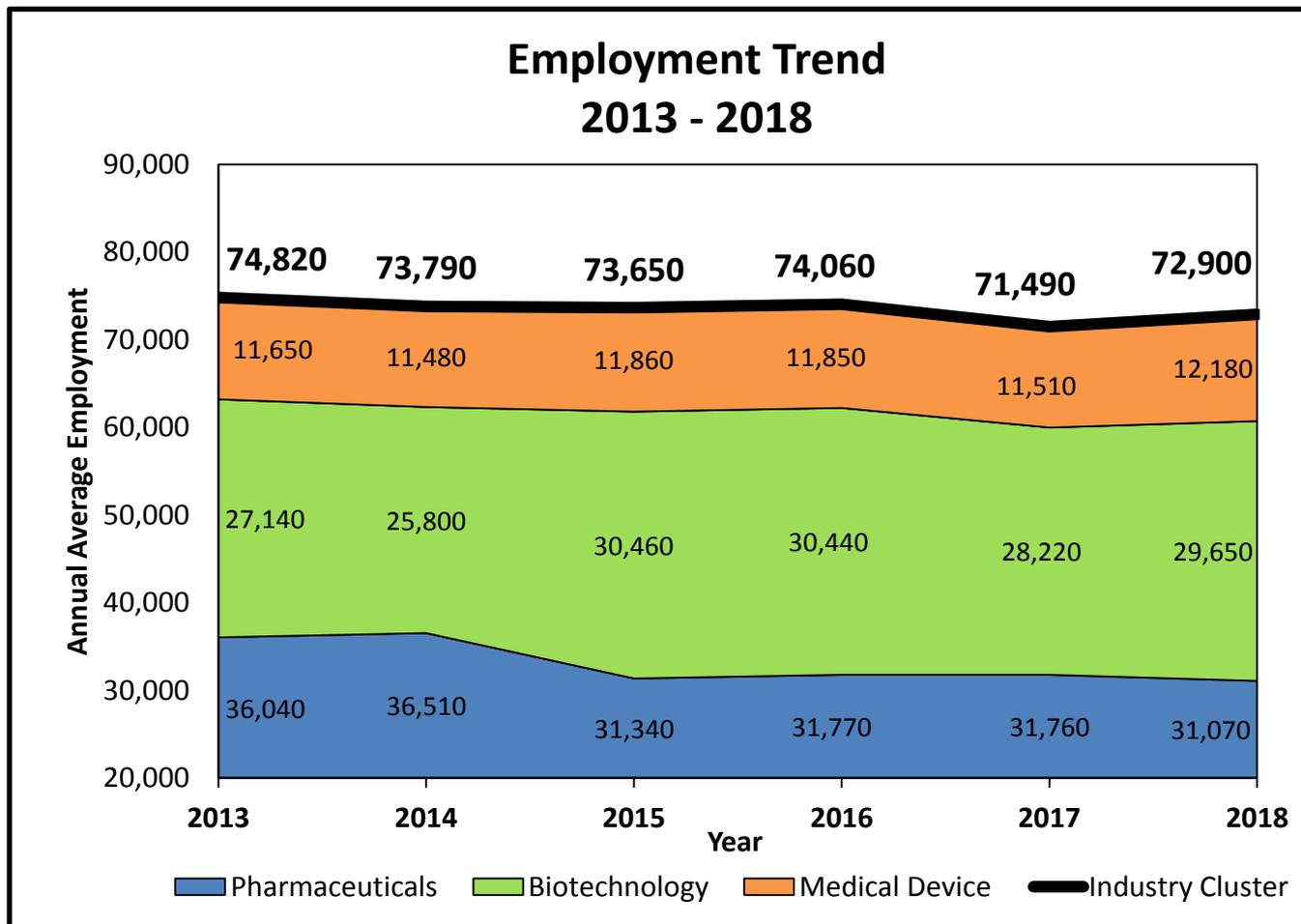
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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

LIFE SCIENCES INDUSTRY SECTOR: EMPLOYMENT ANALYSIS



NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR 5-YEAR EMPLOYMENT TREND



- With an average of 72,900 workers employed in this NJ sector in 2018, the employment over the 5-year period experienced a decline of 2.6 percent.
- The pharmaceutical component experienced the largest total percent loss over the 5-year period (-13.8%).

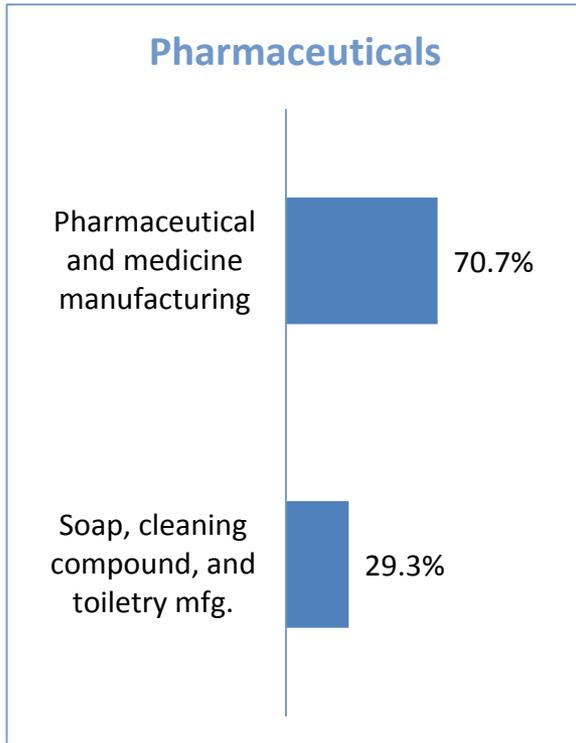


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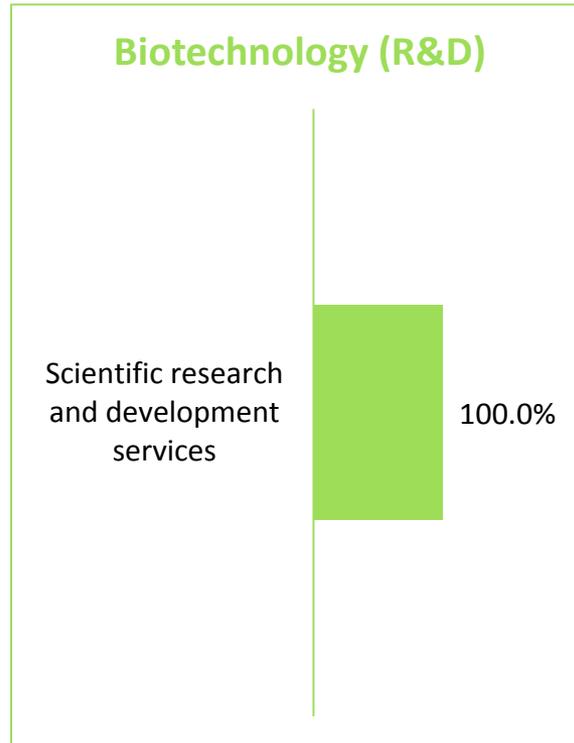
Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR SUB-SECTOR EMPLOYMENT

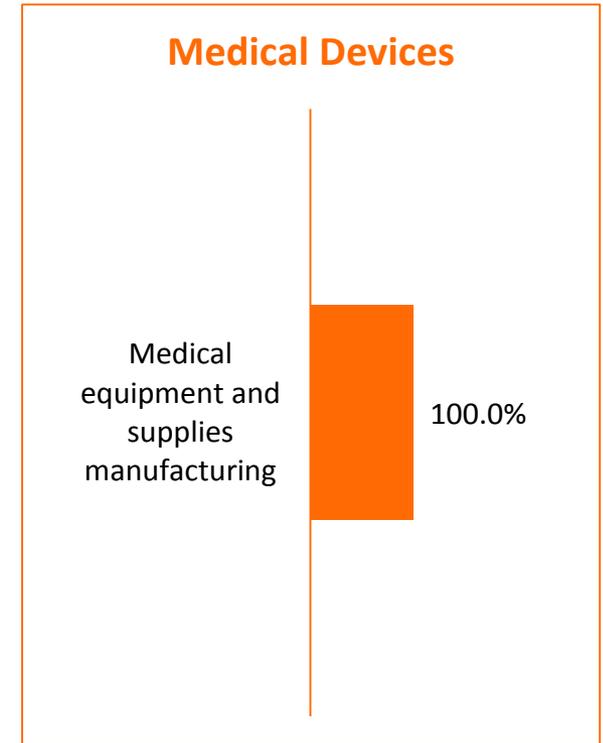
In 2018, the 72,900 jobs within this New Jersey sector were concentrated in:



- 31,070 jobs
- The pharmaceuticals component accounted for 42.6 percent of the life sciences industry sector employment



- 29,650 jobs
- Biotechnology (R&D) accounted for 40.7 percent of the life sciences sector employment



- 12,180 jobs
- Medical devices is the smallest of the three components and makes up 16.7 percent of the life sciences industry

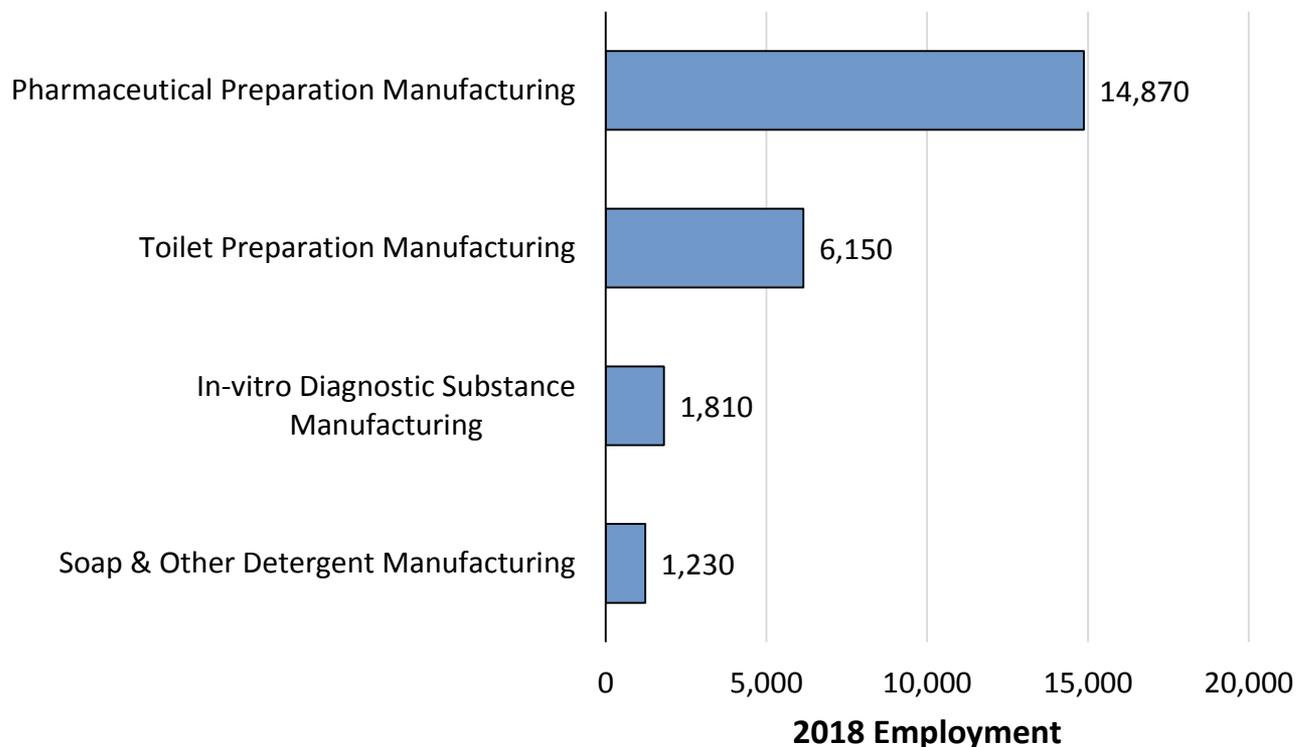


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR PHARMACEUTICALS INDUSTRY EMPLOYMENT, 2018

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 42.6 percent of the life sciences industry sector's employment in 2018.
- Pharmaceutical & medicine manufacturing (-27.1%) and soap, cleaning compound, and toiletry manufacturing (-3.5%) and toilet preparation manufacturing (-7.0%) encountered a decline in employment from year 2013 to 2018.

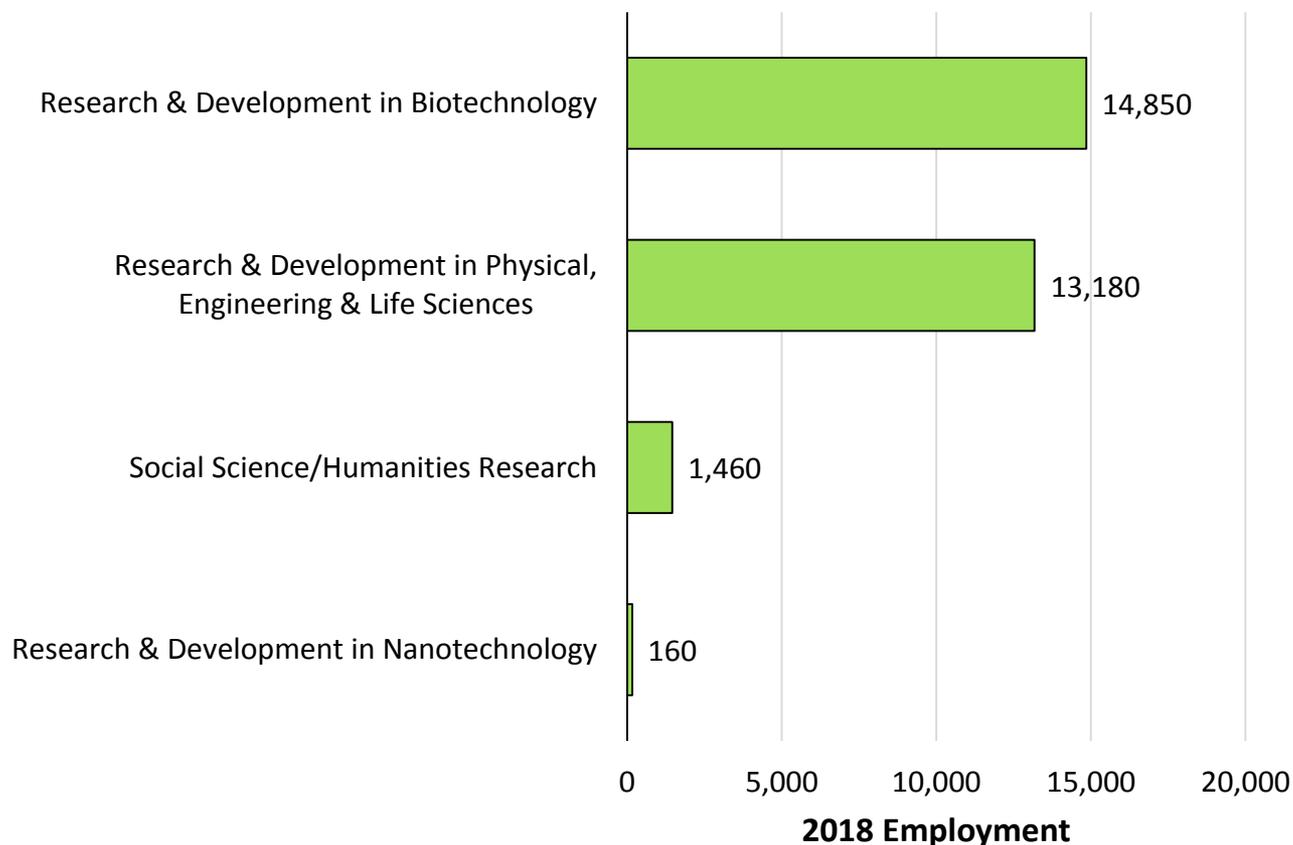


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
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NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR BIOTECHNOLOGY INDUSTRY EMPLOYMENT, 2018

Biotechnology



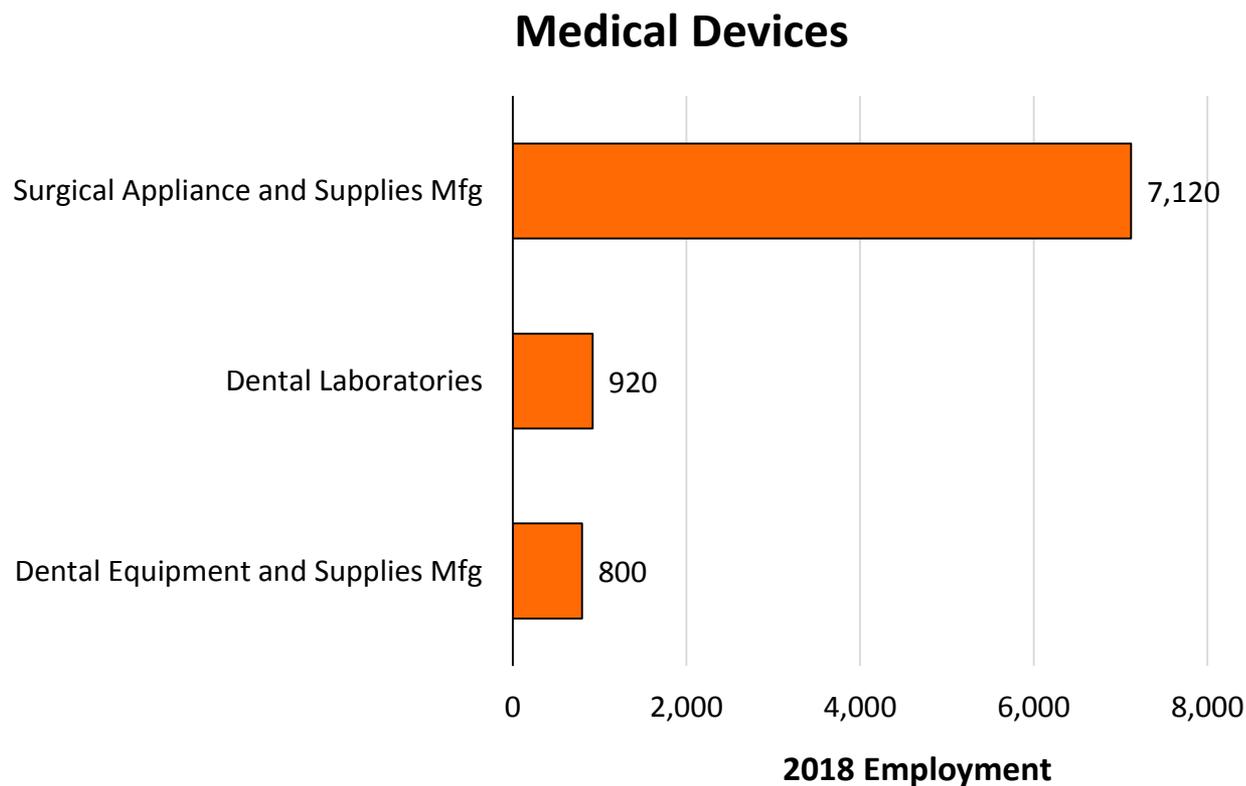
- Accounted for 40.7 percent of the life sciences industry sector's employment in 2018.
- Research & development in biotechnology (58.7%) and social science & humanities research (81.4%) both experienced a significant growth over the 5-year period from 2013 to 2018.



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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR MEDICAL DEVICES INDUSTRY EMPLOYMENT, 2018



Due to disclosure issues, surgical and medical instrument manufacturing, and ophthalmic goods manufacturing are not included in the chart above.

- Represented 16.7 percent of the life sciences industry sector's employment in 2018.
- Surgical appliance and supplies manufacturing grew (+15.5%) over the 5-year period from 2013 to 2018, while dental laboratories declined (-9.2%) during the same period.



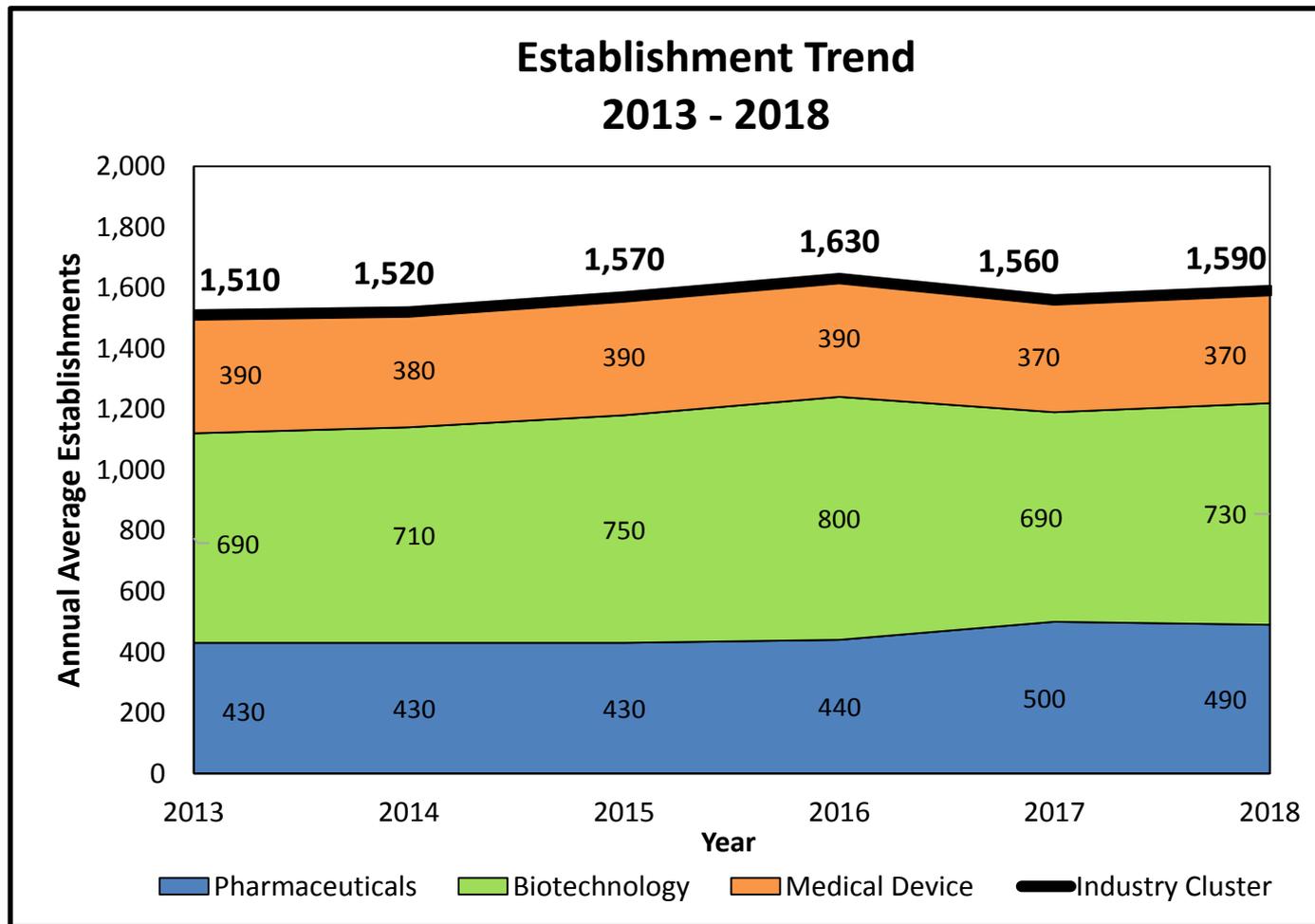
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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

LIFE SCIENCES INDUSTRY SECTOR: ESTABLISHMENT ANALYSIS



NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR 5-YEAR ESTABLISHMENT TREND



- Establishments in this sector totaled 1,590 in 2018 after experiencing a notable growth (+5.3%) from 2013 – 2018.
- Pharmaceuticals sector has seen an upward trend from 2013 to 2018, adding an additional 60 establishments statewide.

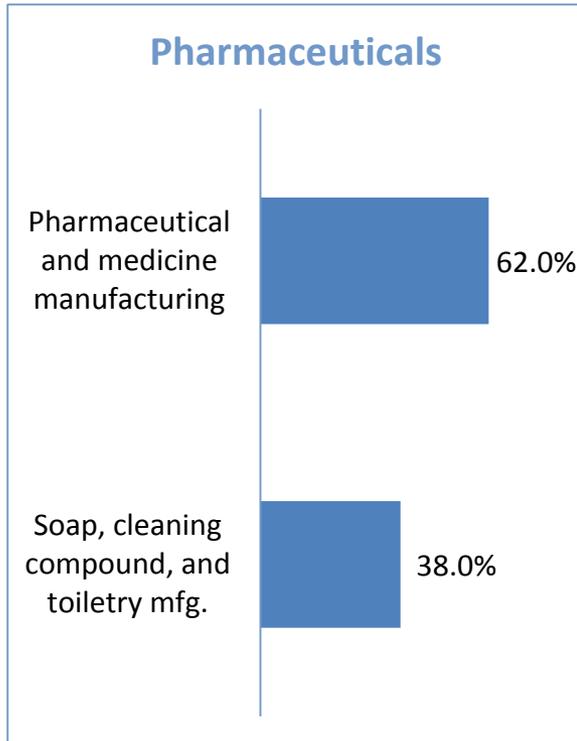


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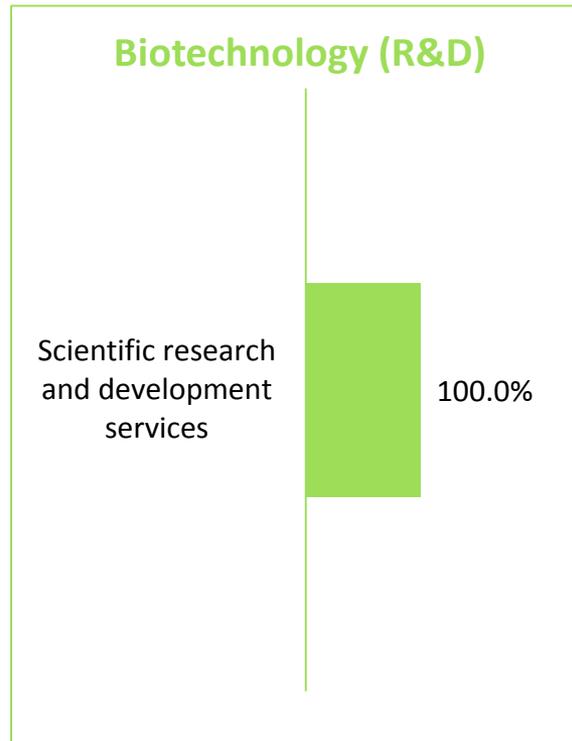
Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR SUB-SECTOR ESTABLISHMENTS

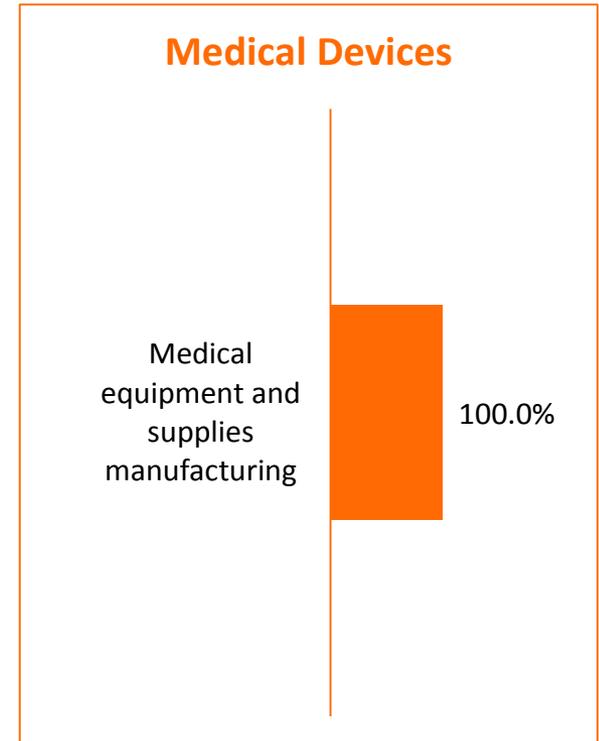
In 2018, New Jersey had 1,590 establishments in this sector engaged in:



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



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



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

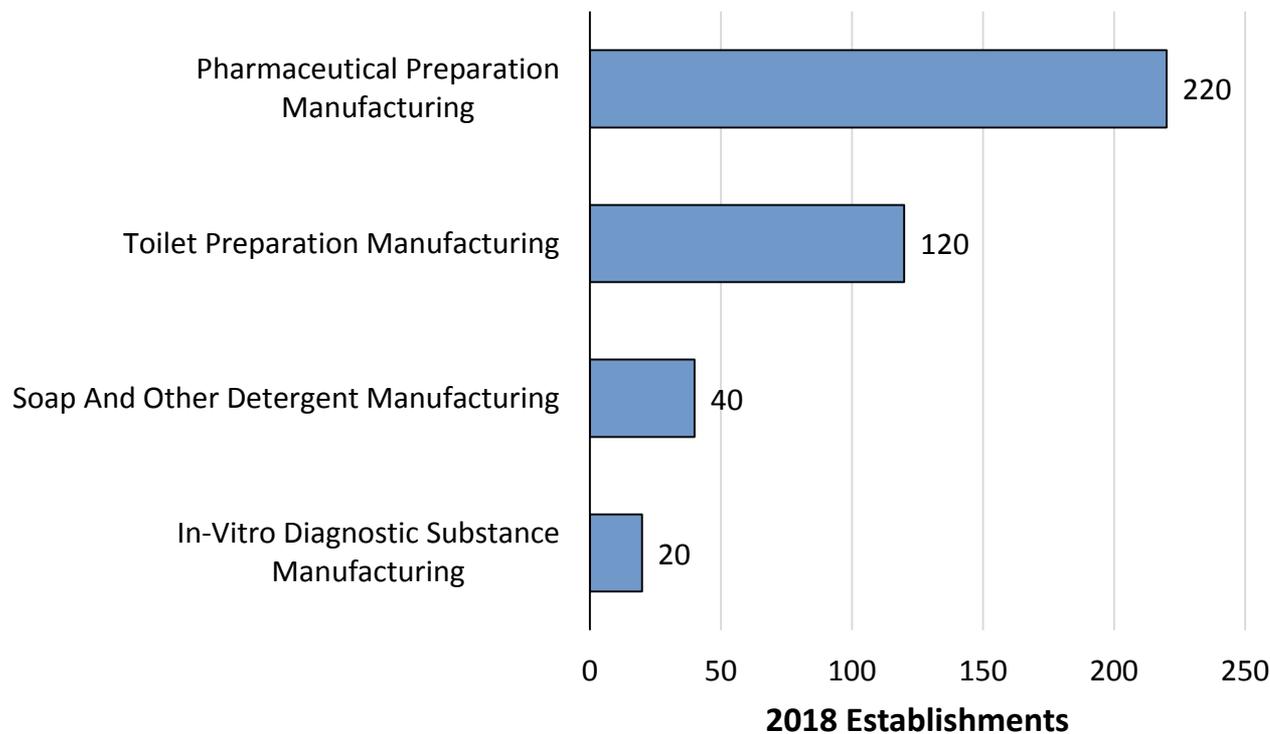


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR PHARMACEUTICALS INDUSTRY ESTABLISHMENTS, 2018

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 30.9 percent of the life sciences industry sector's establishments in 2018.
- Establishments in the soap and cleaning compound manufacturing industries (-33.9%) declined from 2013 to 2018, while toiletry manufacturing industries (+9.5%) and pharmaceutical preparation manufacturing (+36.0%) both realized growth during the same period.

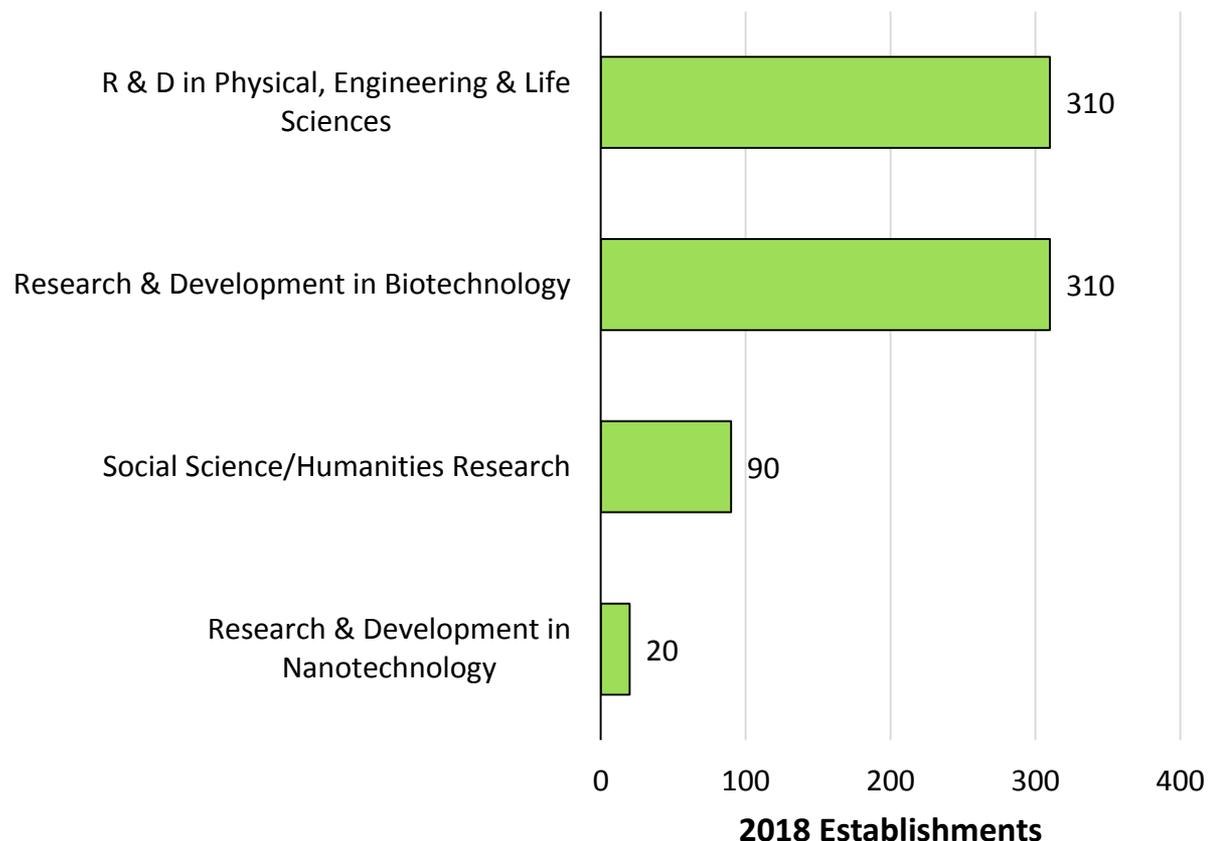


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR BIOTECHNOLOGY INDUSTRY ESTABLISHMENTS, 2018

Biotechnology (R&D)



- Made up 45.9 percent of all establishments in the life sciences industry sector in 2018 with 730 establishments.
- R & D in biotechnology (+22.3%) and social science & humanities research (+7.1%) both experienced growth from 2013 to 2018, while R & D development in physical, engineering and life sciences (-10.1%) experienced a decline in establishments during the same period.

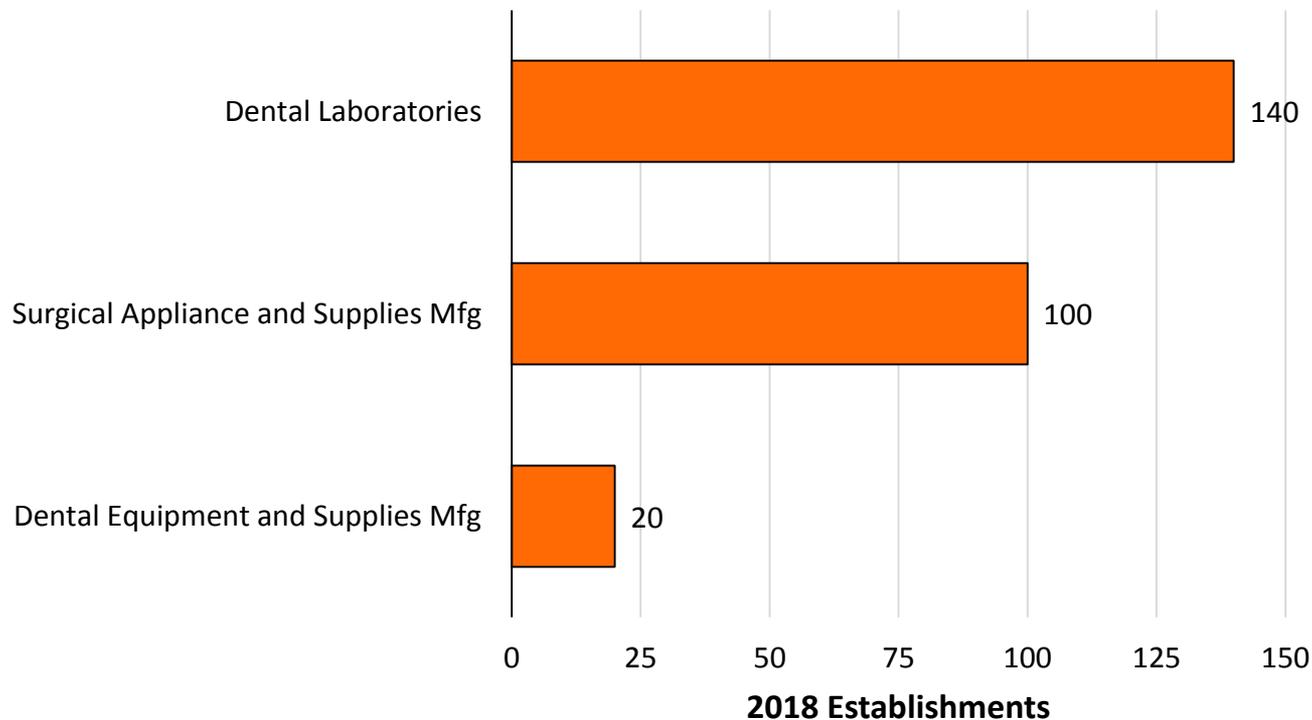


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
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NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR MEDICAL DEVICES INDUSTRY ESTABLISHMENTS, 2018

Medical Devices



Due to disclosure issues, surgical and medical instrument mfg., and ophthalmic goods mfg. are not included in the chart above.

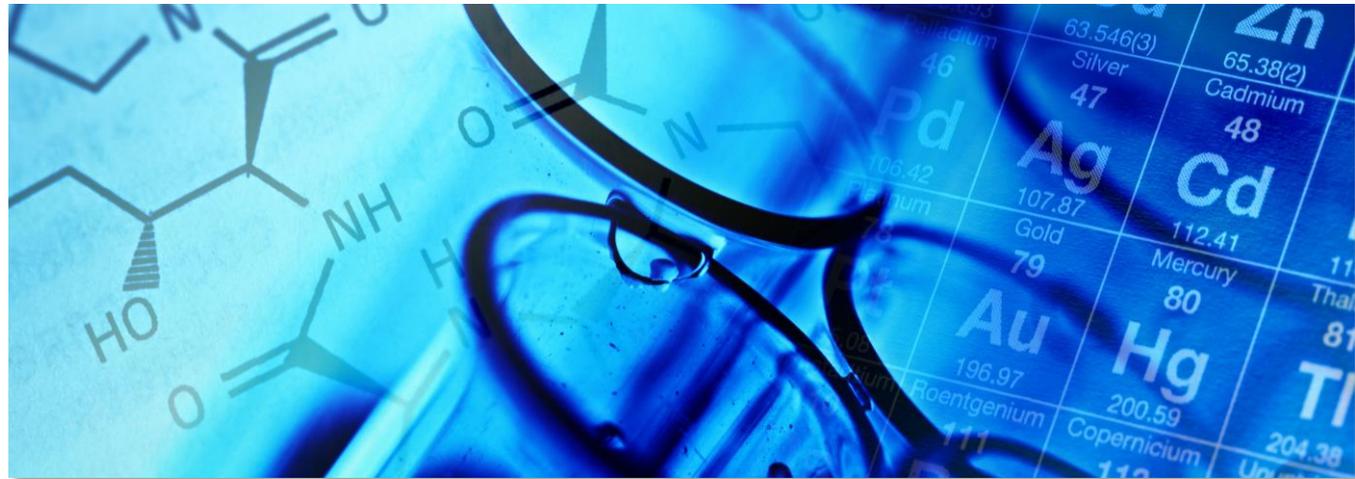
- Represented 23.1 percent of the life sciences industry sector's establishments in 2018.
- Surgical appliance and supplies manufacturing grew (16.9%), while dental laboratories (-24.6%) experienced a decline in establishments over the 5-year period from 2013 to 2018.



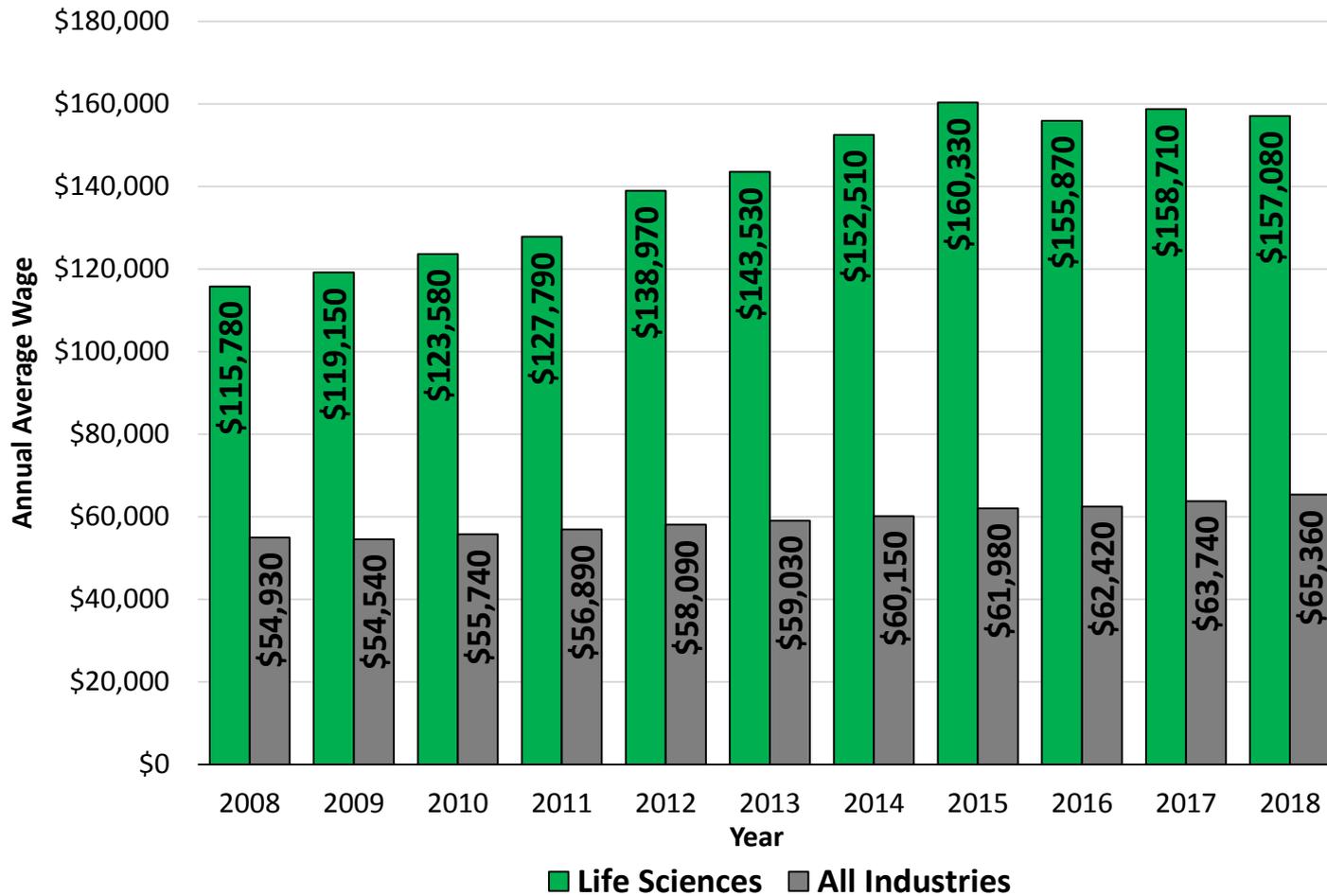
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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
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LIFE SCIENCES INDUSTRY SECTOR: ANNUAL AVERAGE WAGE ANALYSIS



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



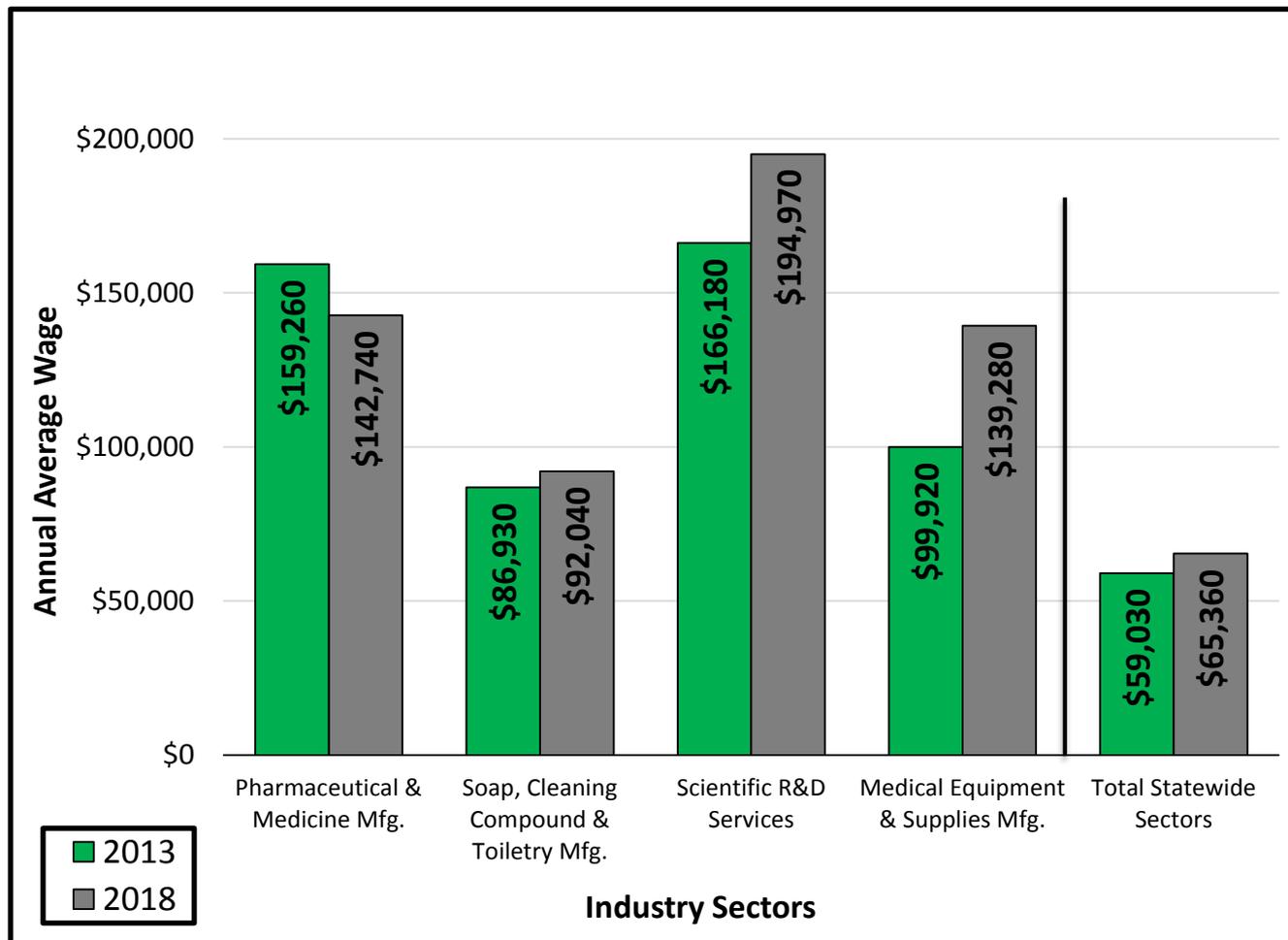
- Wages in the life sciences sector have averaged 237% of the statewide annual average wage since 2008.
- Annual average wages for the sector have risen +35.7% over the ten year period from 2008 to 2018.



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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2008 - 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR 5-YEAR AVERAGE ANNUAL WAGES TREND



- This sector's average annual wage was \$157,080 in 2018, which was 140.3 percent higher than the state's total private sector's average annual wage of \$65,360.
- All three of this sector's components had 2018 wages that were significantly higher than the state's total average annual wage.

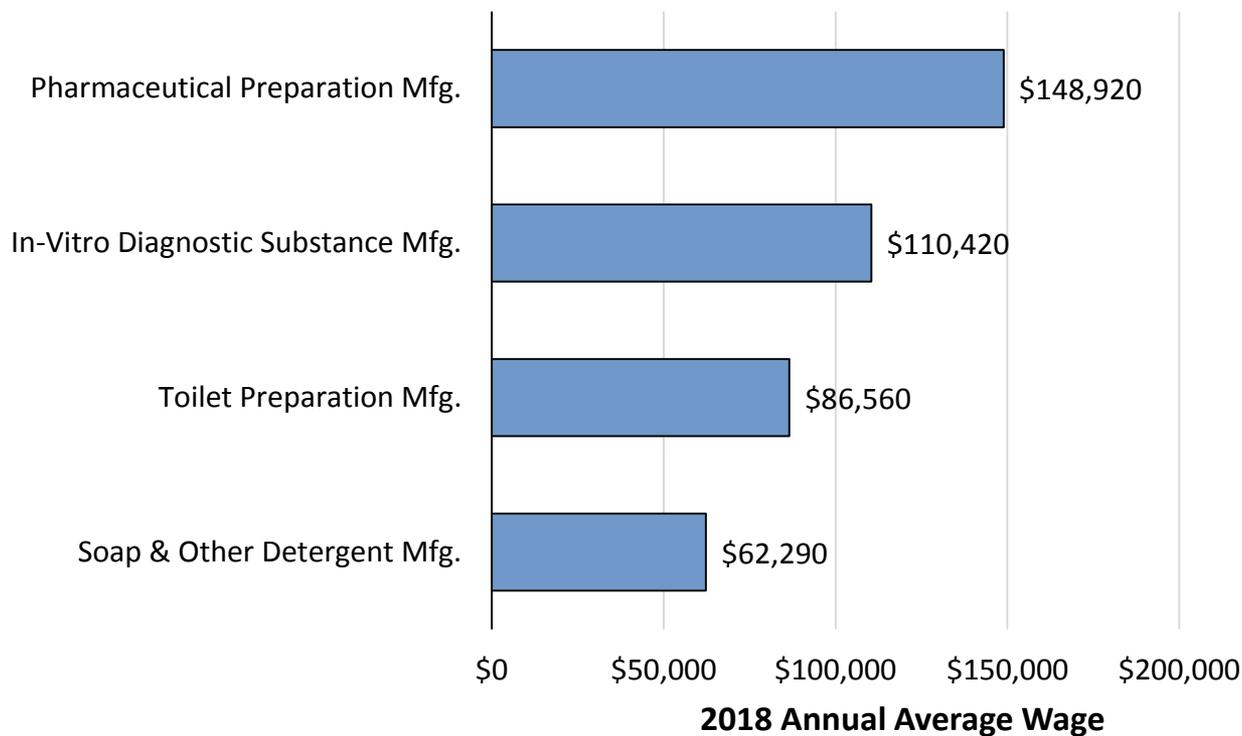


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NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR PHARMACEUTICALS INDUSTRY ANNUAL AVERAGE WAGE, 2018

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 \$12,680 (or -9.0%), from \$140,570 in 2013 to \$127,890 in 2018.
- Changes in this industry ranged from soap, cleaning, compound, and toiletry manufacturing (+5.9%) to pharmaceutical & medicine manufacturing (-10.4%) in annual average wages from 2013 to 2018.

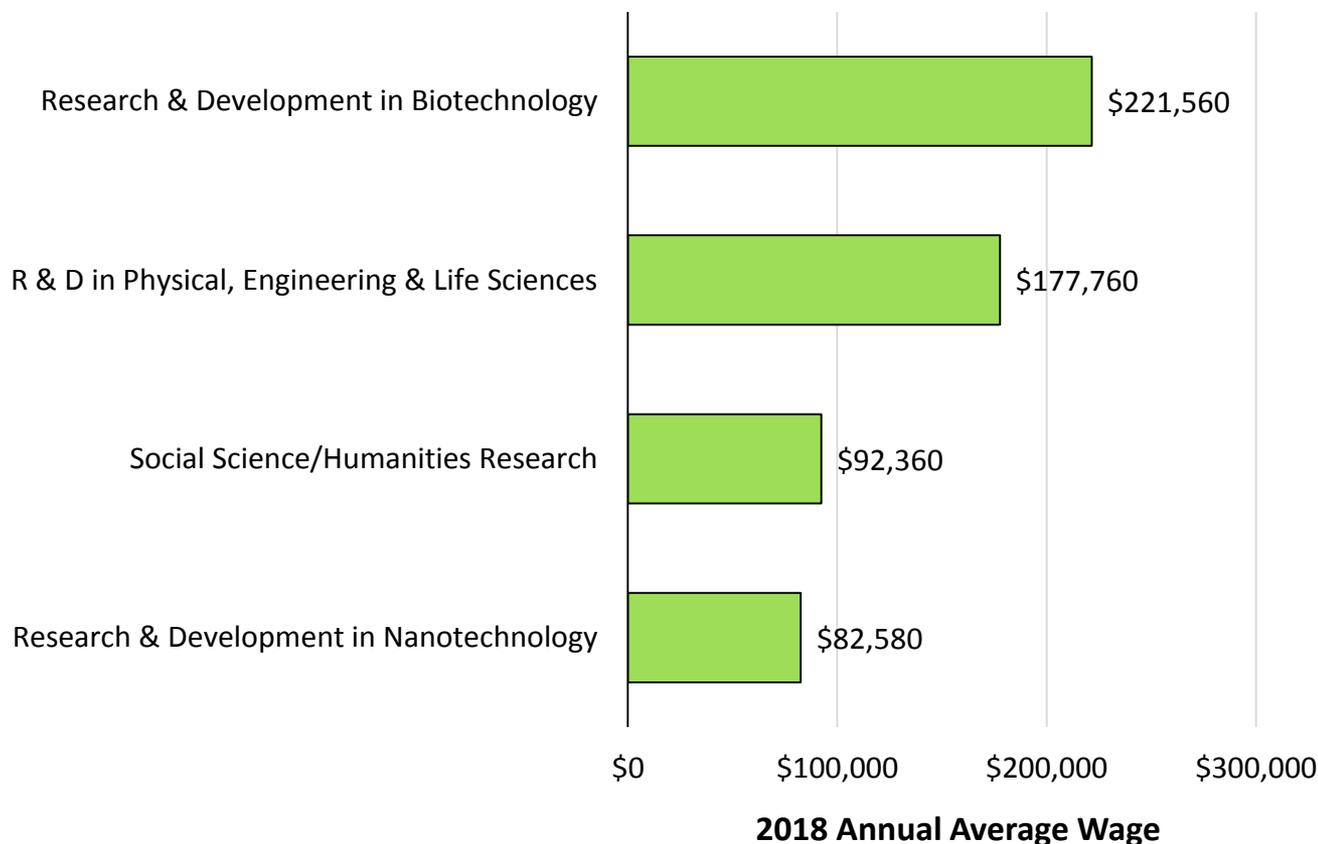


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
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NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR BIOTECHNOLOGY INDUSTRY ANNUAL AVERAGE WAGE, 2018

Biotechnology (R&D)



- Annual average wages were \$194,970 in 2018, up +17.3 percent from \$166,180 in 2013.
- Research and development in biotechnology experienced the highest wages increase from \$178,860 in 2013 to \$221,560 in 2018. A total growth of +23.9%.



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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
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NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR MEDICAL DEVICES INDUSTRY ANNUAL AVERAGE WAGE, 2018

Medical Devices



- Annual average wages were \$139,270 in 2018, up +39.4% from \$99,910 in 2013.
- Dental laboratories experienced a significant wages increase from \$47,940 in 2013 to \$60,240 in 2018. A total growth of +25.7%.

Due to disclosure issues, surgical and medical instrument mfg., and ophthalmic goods mfg. are not included in the chart above.



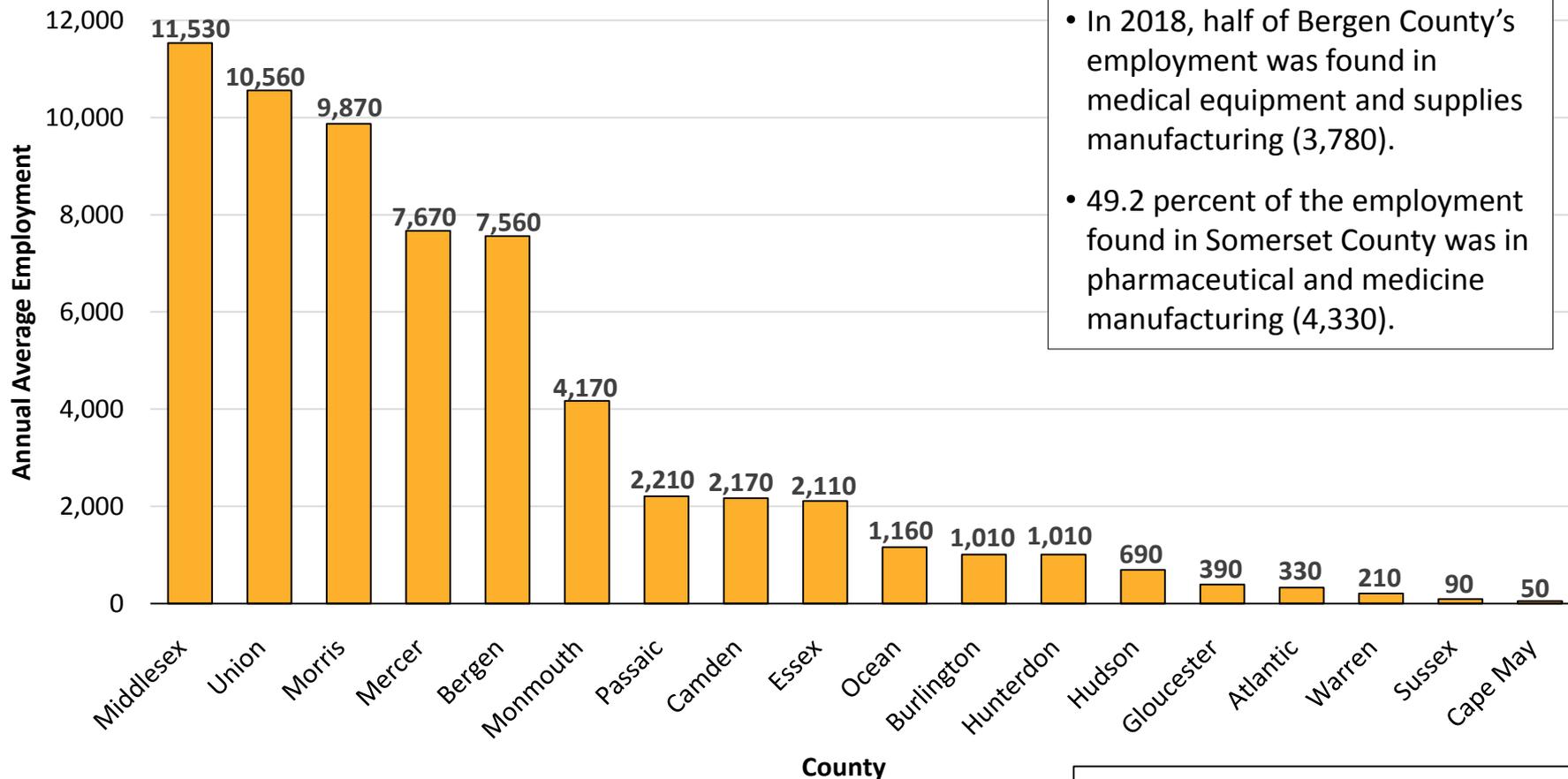
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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

LIFE SCIENCES INDUSTRY SECTOR: REGIONAL AND COUNTY ANALYSIS



NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR EMPLOYMENT BY COUNTY, 2018 ANNUAL AVERAGES



- In 2018, half of Bergen County's employment was found in medical equipment and supplies manufacturing (3,780).
- 49.2 percent of the employment found in Somerset County was in pharmaceutical and medicine manufacturing (4,330).

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

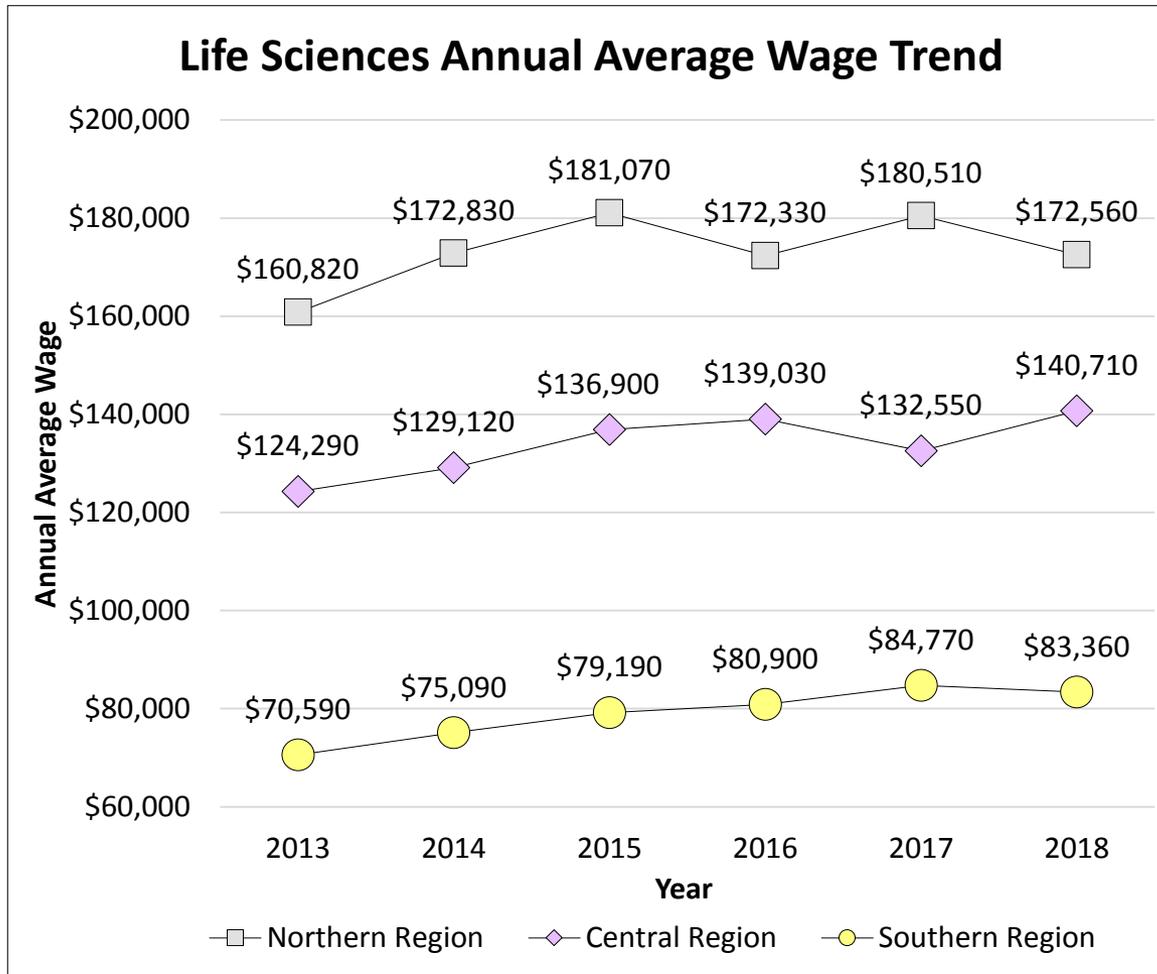


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

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 (+7.3%) from 2013 - 2018.
- Central Region – (Mercer, Middlesex, Monmouth, and Ocean Counties) – Annual average wage for this region increased 13.2 percent during the same period.
- Southern Region – (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem Counties) – This region experienced the highest growth in annual average wage over the five-year period. A total of 18.1 percent.

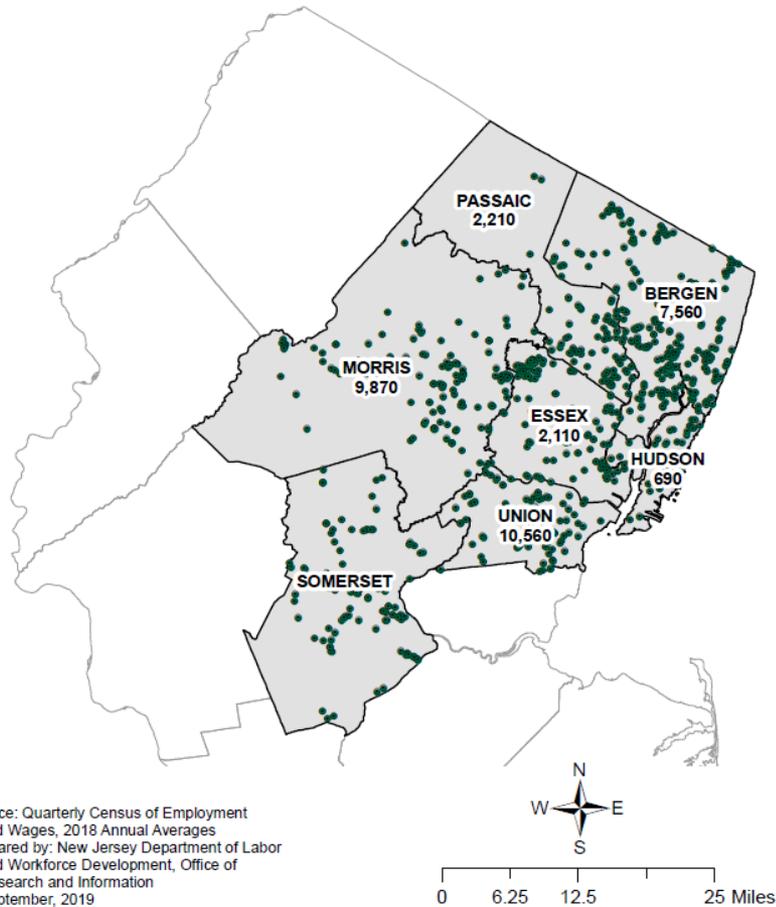


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2013 - 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR COUNTIES IN THE NORTHERN REGION

*Life Sciences Employment and Establishment Locations
Northern Region of New Jersey, 2018*



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 2018.
- **Average Wage** – The average wage for these counties in life sciences related industries is comparatively above the statewide total average in this sector (\$173,720 vs. \$157,080).

Source: Quarterly Census of Employment and Wages, 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, Office of Research and Information
September, 2019

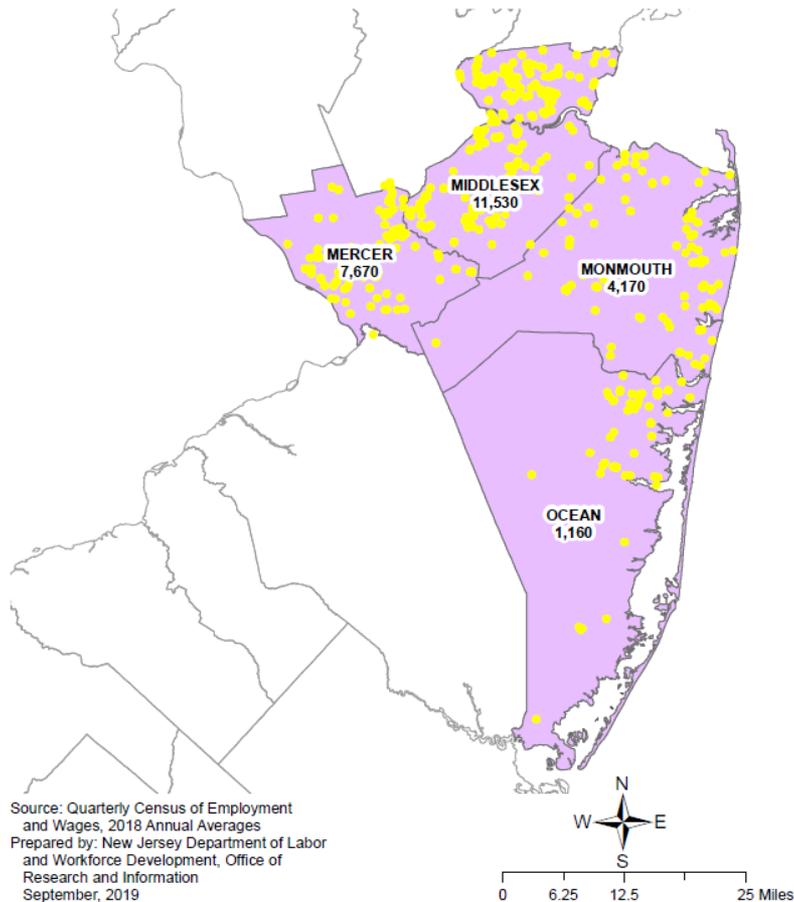


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR COUNTIES IN THE CENTRAL REGION

*Life Sciences Employment and Establishment Locations
Central Region of New Jersey, 2018*



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 five 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 sector (\$140,710 vs. \$157,080) in 2018.

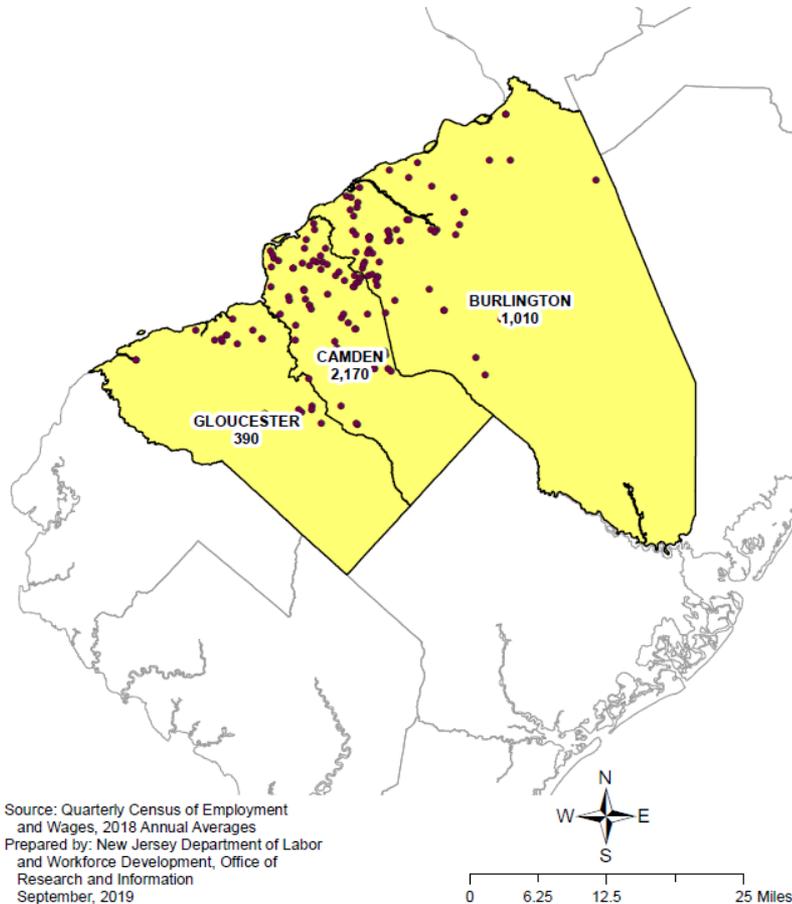


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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2018 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR COUNTIES IN THE SOUTHERN REGION

*Life Sciences Employment and Establishment Locations
Southern Region of New Jersey, 2018*



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 6 percent of all life sciences industry establishments in New Jersey.
- **Employment** – The three counties have slightly more than 3,560 employment.
- **Average Wage** – The average wage for these counties in life sciences related industries is below the statewide total average in this sector (\$83,080 vs. \$157,080). These counties also account for 2.6 percent of total life sciences annual average wages paid in 2018.



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Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2018 Annual Averages
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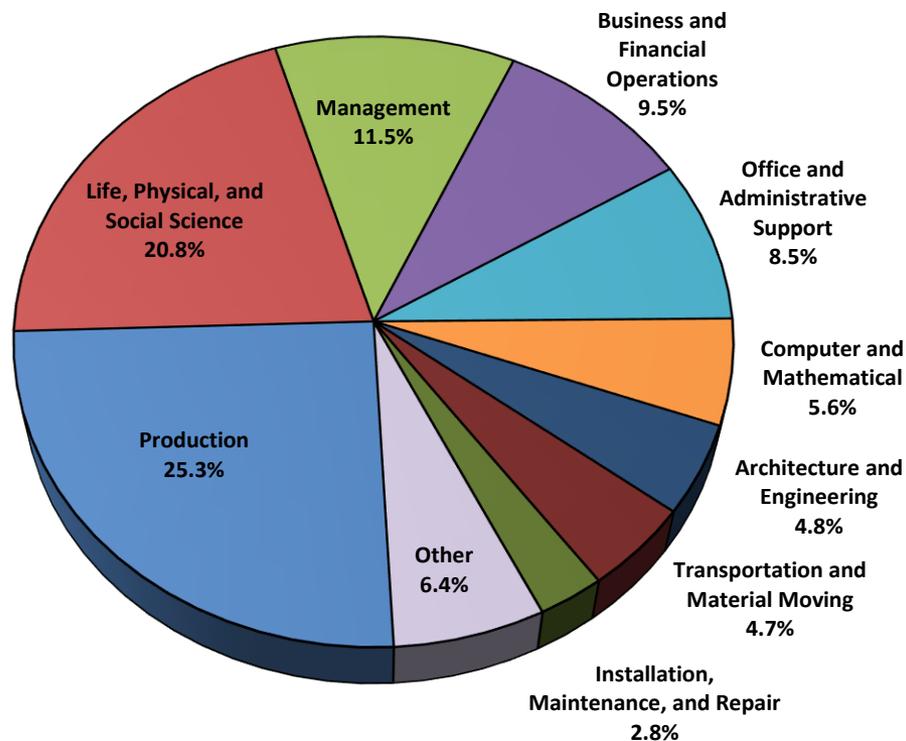
LIFE SCIENCES INDUSTRY SECTOR: OCCUPATIONAL ANALYSIS



NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR TOP OCCUPATIONAL GROUPS, 2018

Occupational Title	2018 Employment	2018 Average Salary
All Life Sciences Occupations	73,790	\$92,310
Production	18,610	\$42,040
Life, Physical, and Social Science	15,270	\$115,100
Management	8,460	\$190,420
Business and Financial Operations	7,000	\$106,580
Office and Administrative Support	6,260	\$50,860
Computer and Mathematical	4,110	\$121,910
Architecture and Engineering	3,520	\$110,820
Transportation and Material Moving	3,440	\$35,100
Installation, Maintenance, and Repair	2,070	\$63,050
Sales and Related	1,550	\$106,150
Healthcare Practitioners and Technical	930	\$79,400
Healthcare Support	580	\$33,600

Life Sciences Industry Sector



Note: Due to disclosure issues, of the total 73,790 jobs identified, only 99.6% could be used for this occupational analysis.



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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2018

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

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR TOP 20 OCCUPATIONS BY EMPLOYMENT, 2018

New Jersey Life Sciences Sector's Top 20 Occupations

NAICS and Occupational Title	2018 Employment	Education
19-1021 Biochemists and Biophysicists	4,660	Doctoral or professional degree
19-2031 Chemists	4,510	Bachelor's degree
51-9111 Packaging and Filling Machine Operators and Tenders	3,310	High school diploma or equivalent
51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers	2,000	High school diploma or equivalent
11-9121 Natural Sciences Managers	1,880	Bachelor's degree
51-9011 Chemical Equipment Operators and Tenders	1,830	High school diploma or equivalent
19-4031 Chemical Technicians	1,750	Associate's degree
51-9023 Mixing and Blending Machine Setters, Operators, and Tenders	1,730	High school diploma or equivalent
19-1042 Medical Scientists, Except Epidemiologists	1,630	Doctoral or professional degree
51-1011 First-Line Supervisors of Production and Operating Workers	1,460	High school diploma or equivalent
13-1041 Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	1,330	Bachelor's degree
17-2112 Industrial Engineers	1,190	Bachelor's degree
15-1132 Software Developers, Applications	1,180	Bachelor's degree
11-2021 Marketing Managers	1,120	Bachelor's degree
13-1161 Market Research Analysts and Marketing Specialists	1,100	Bachelor's degree
41-4012 Sales Rep., Wholesale and Manufacturing, Except Technical and Scientific Products	1,080	High school diploma or equivalent
11-3051 Industrial Production Managers	1,060	Bachelor's degree
53-7062 Laborers and Freight, Stock, and Material Movers, Hand	1,060	No formal educational credential
49-9041 Industrial Machinery Mechanics	930	High school diploma or equivalent
13-2011 Accountants and Auditors	900	Bachelor's degree



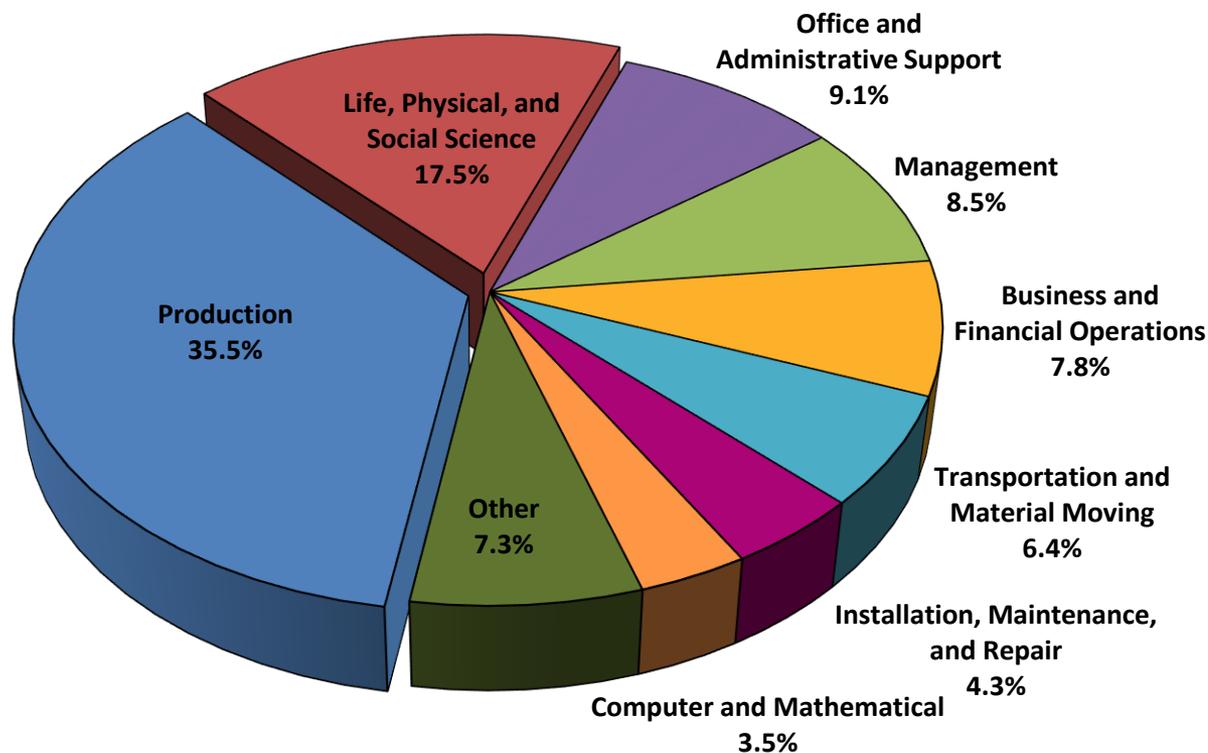
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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2018

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

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR PHARMACEUTICAL COMPONENT, 2018

Major Occupational Group Breakdown



An occupational analysis of 33,500 jobs revealed that five major occupational groups in this component accounted for nearly three-fourths (78,4%) of the employment.

Production and Life, Physical, and Social Science occupations employed the most in this component with approximately 17,760 jobs.

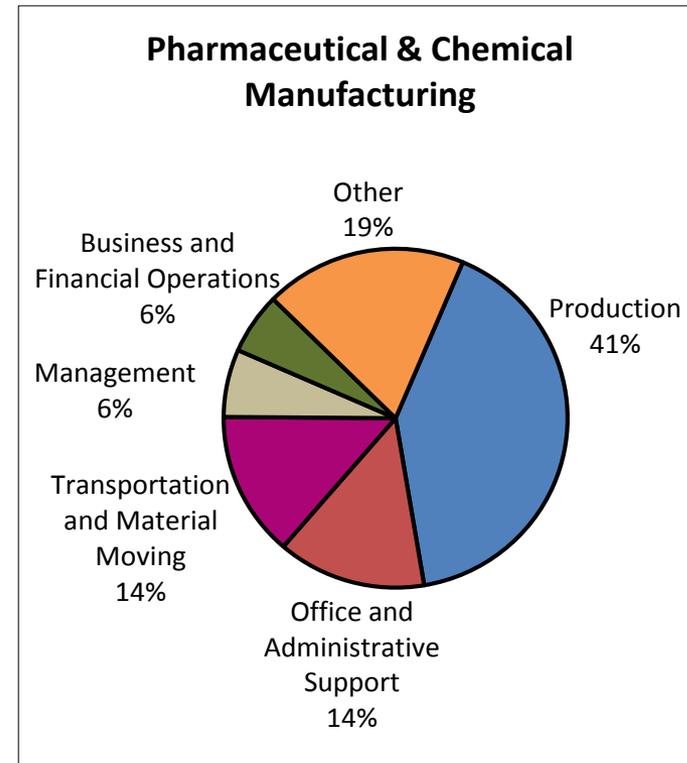
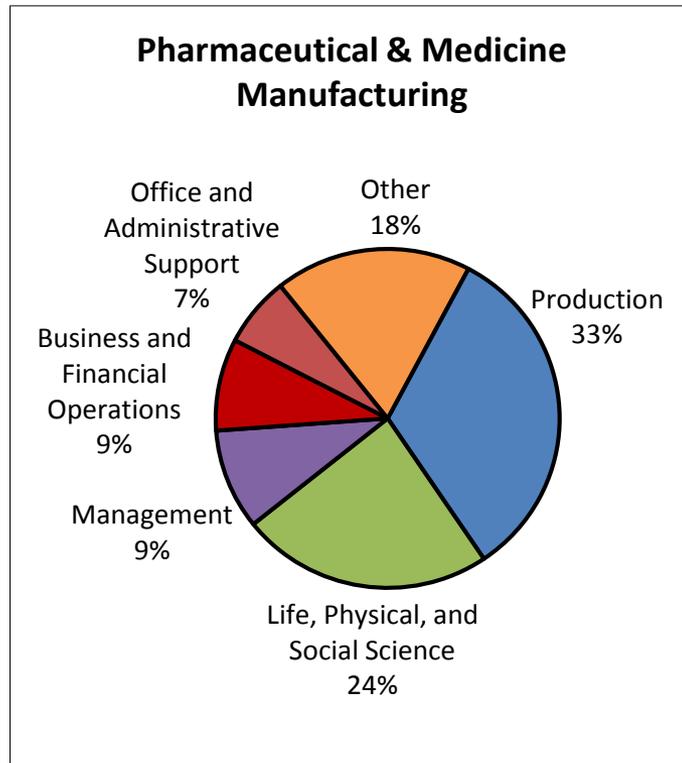
Note: Due to disclosure issues, of the total 33,600 jobs identified, only 33,500 could be used for this occupational analysis.



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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2018
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR PHARMACEUTICAL'S MAJOR OCCUPATIONAL GROUPS, 2018



- 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.

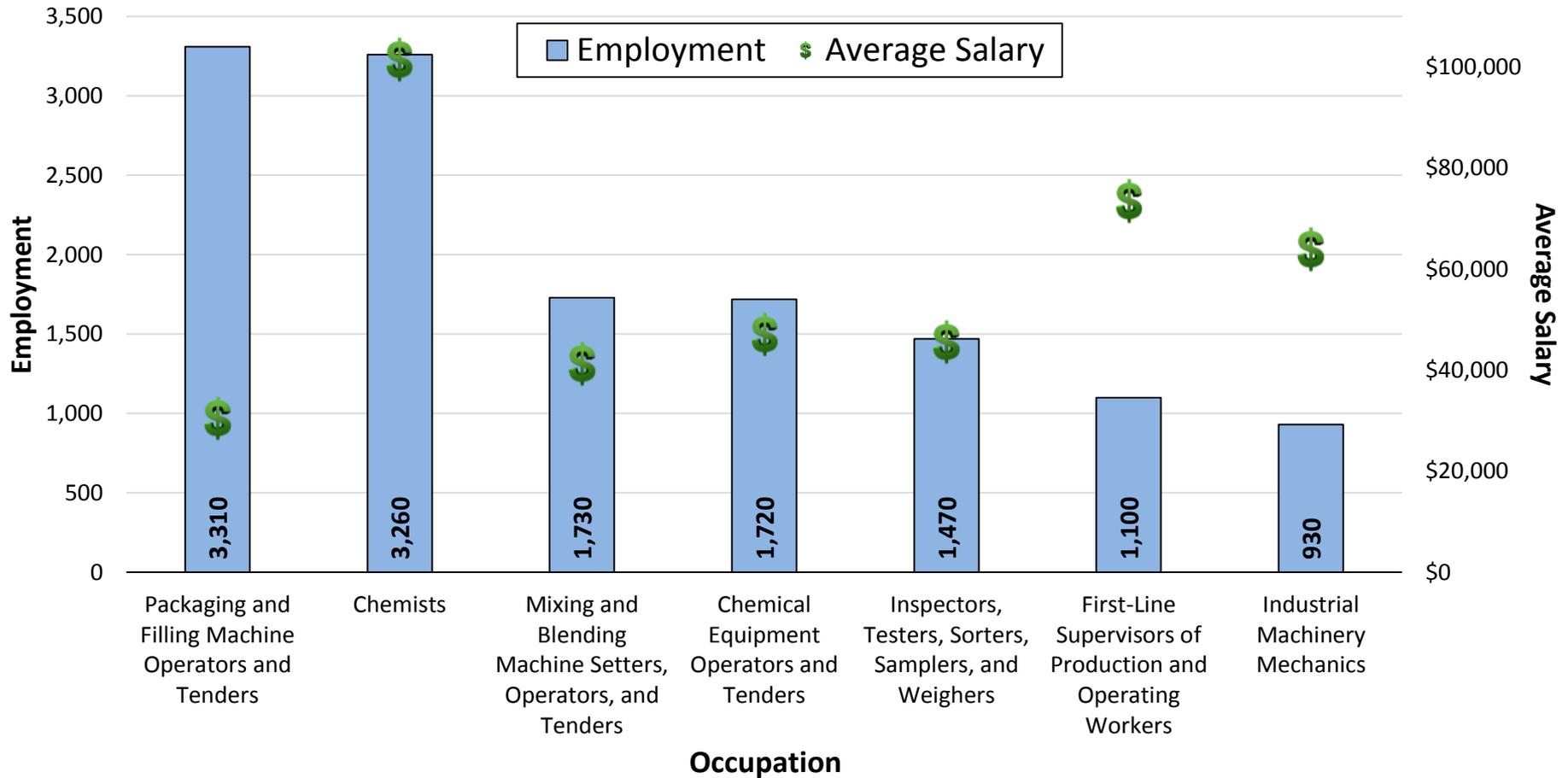


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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2018

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

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR TOP PHARMACEUTICAL OCCUPATIONS, 2018



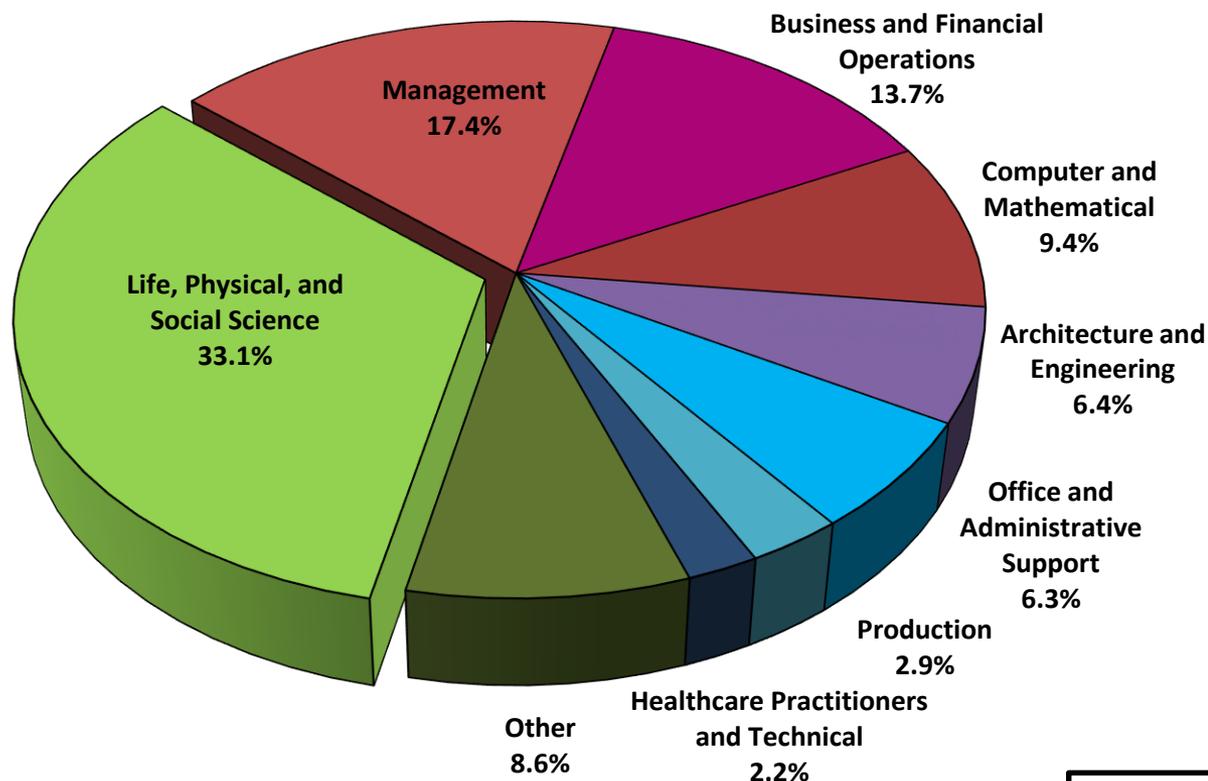
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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2018

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

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR BIOTECHNOLOGY (R&D) COMPONENT, 2018

Major Occupational Group Breakdown



An occupational analysis of 28,000 jobs revealed that five major occupational groups in this component accounted for nearly four-fifth (79.9%) of the employment.

Life, physical, and social science occupations employed the most in this component with approximately 9,260 jobs, and accounted for more than one-third of the component.

Note: Due to disclosure issues, of the total 28,140 jobs identified, only 28,000 could be used for this occupational analysis.

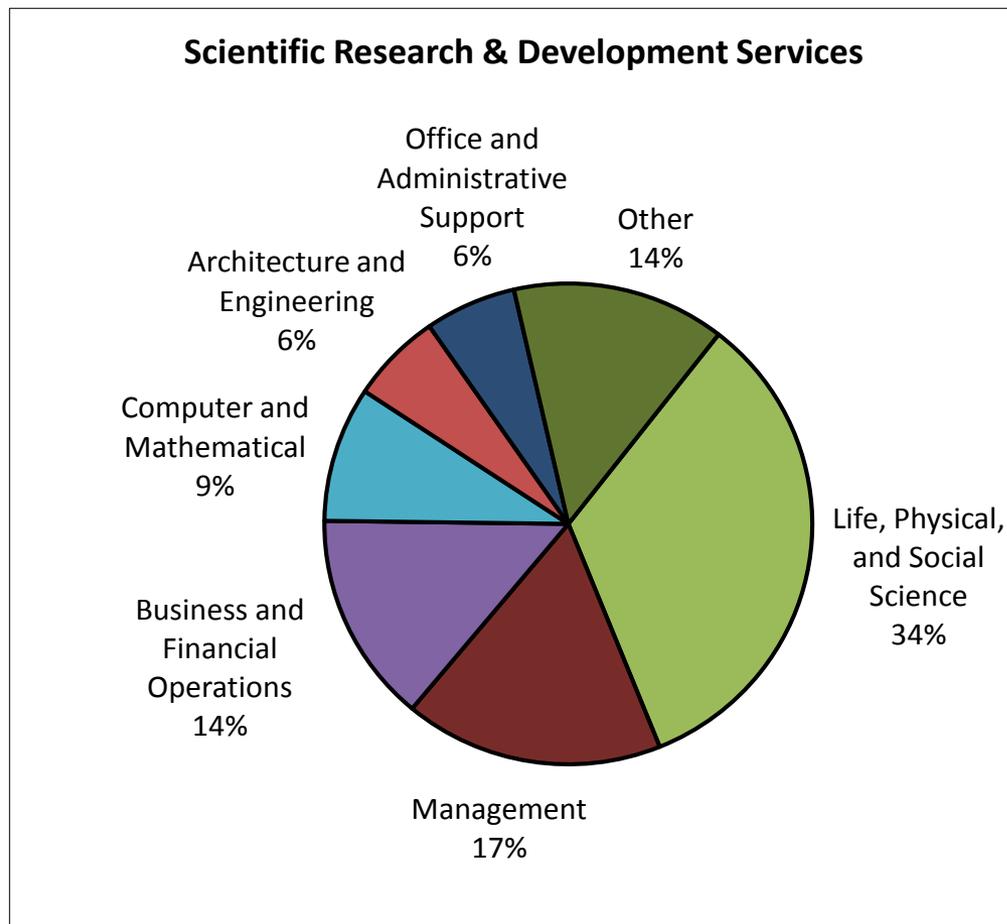


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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2018
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR BIOTECHNOLOGY (R&D) MAJOR OCCUPATIONAL GROUP, 2018

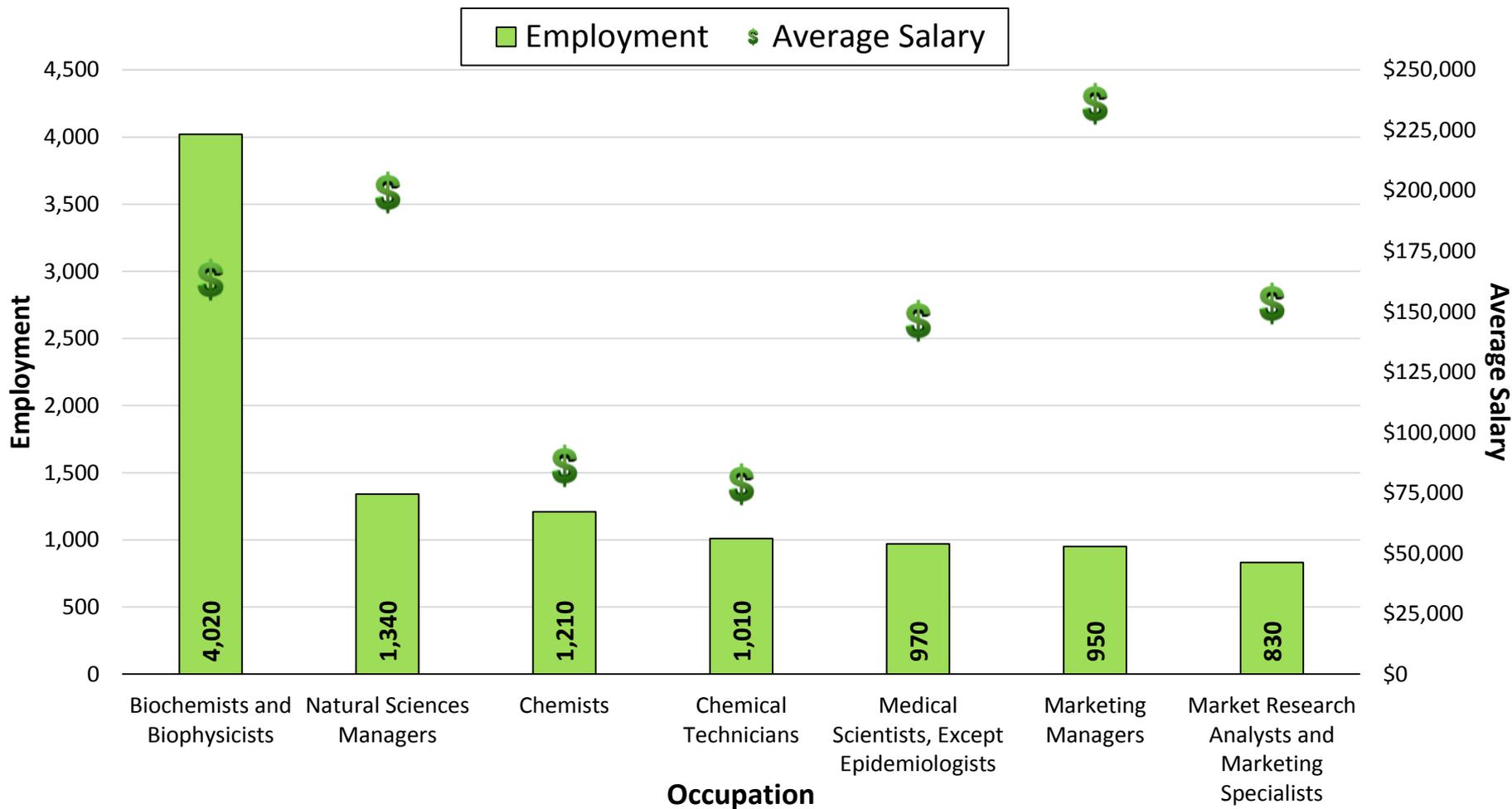
- The biotech's occupational group shows that this industry class holds a significant portion of professional, scientific, and technical workers with in-depth skills and knowledge related to science.
- In this bundle, production, healthcare practitioners & technical, and healthcare support occupations 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 2018
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR TOP BIOTECHNOLOGY (R&D) OCCUPATIONS, 2018

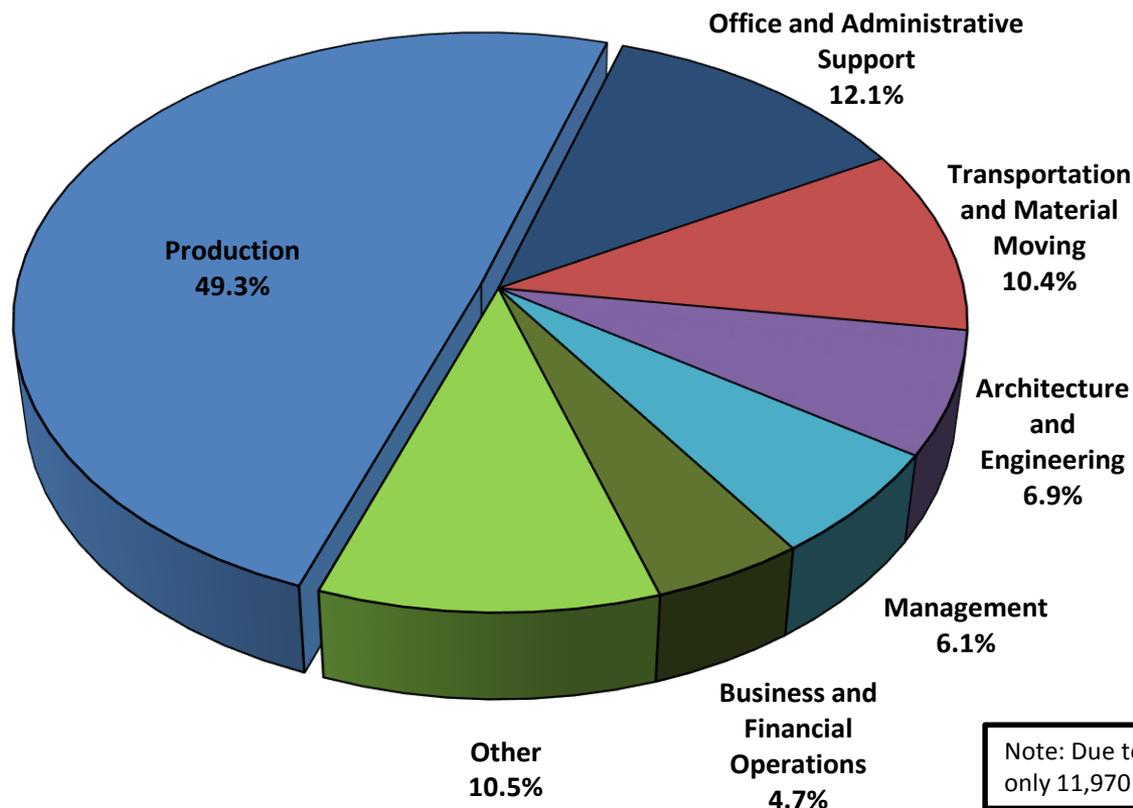


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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2018
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR MEDICAL DEVICE COMPONENT, 2018

Major Occupational Group Breakdown



An occupational analysis of 11,970 jobs revealed that five major occupational groups in this component accounted for more than four-fifths of the employment (84.8%).

Production occupations employed the most in this component with 5,900 jobs, and accounted for nearly half of the component (49.3%).

Note: Due to disclosure issues, of the total 12,050 jobs identified, only 11,970 could be used for this occupational analysis.

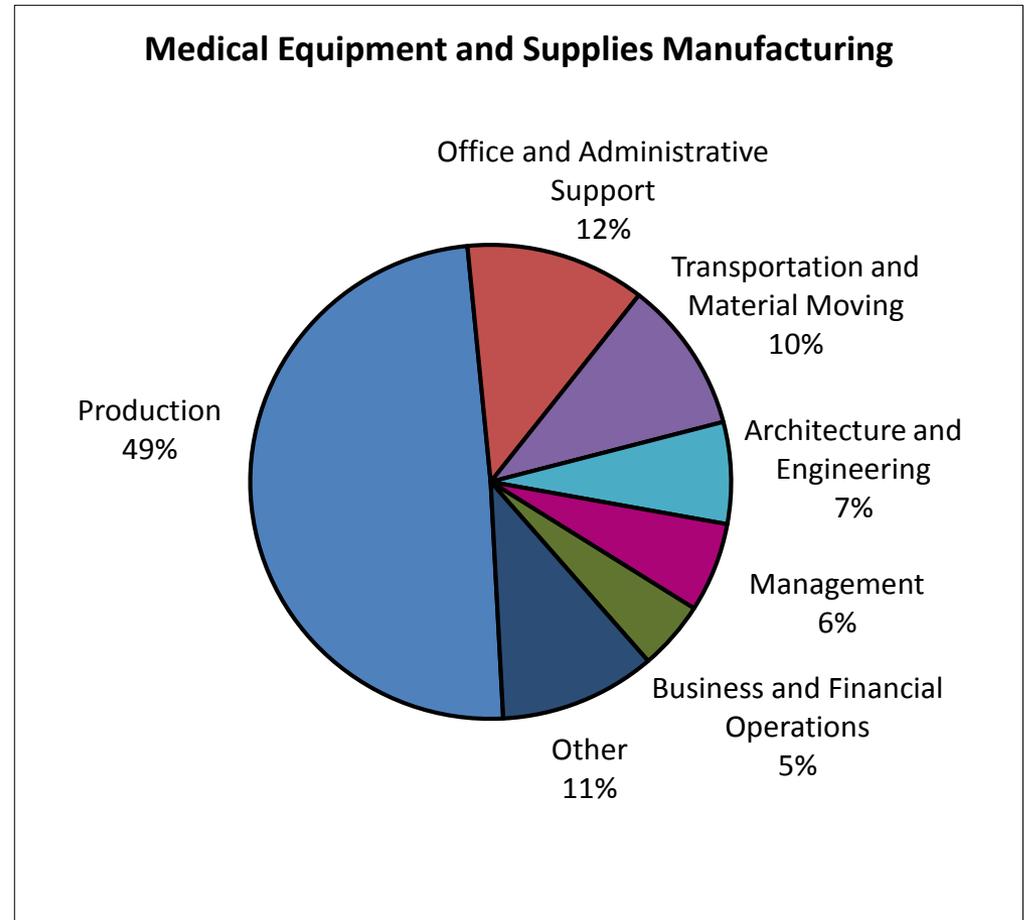


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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2018
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR MEDICAL DEVICES MAJOR OCCUPATIONAL GROUPS, 2018

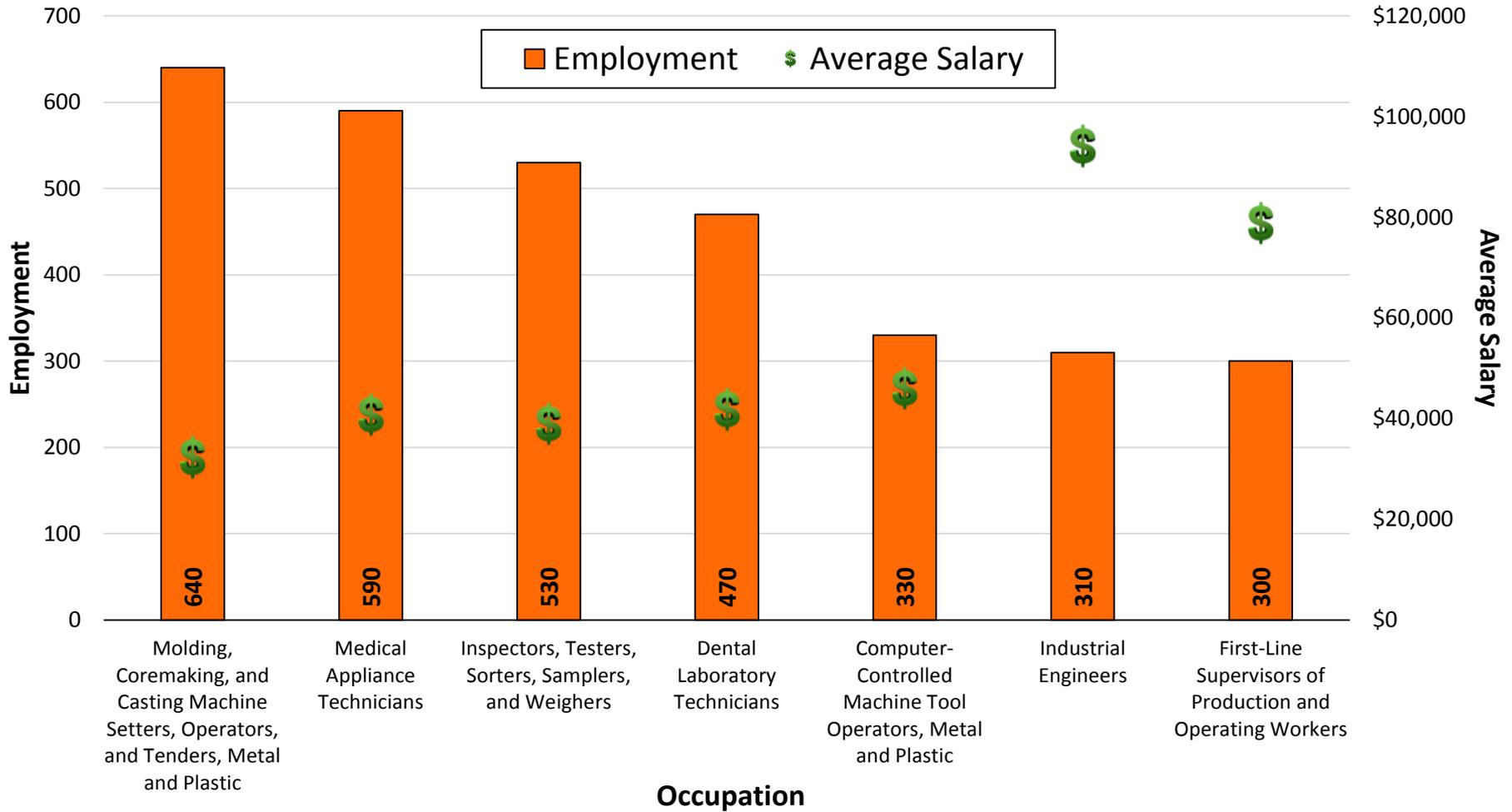
- The medical devices' occupational group shows that this industry class holds a significant portion of technical workers with skills and knowledge related to production.
- In this bundle, the installation, maintenance & repair, computer & mathematical, and sales & related occupations account for a significant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



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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2018
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR TOP MEDICAL DEVICE OCCUPATIONS, 2018



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Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2018

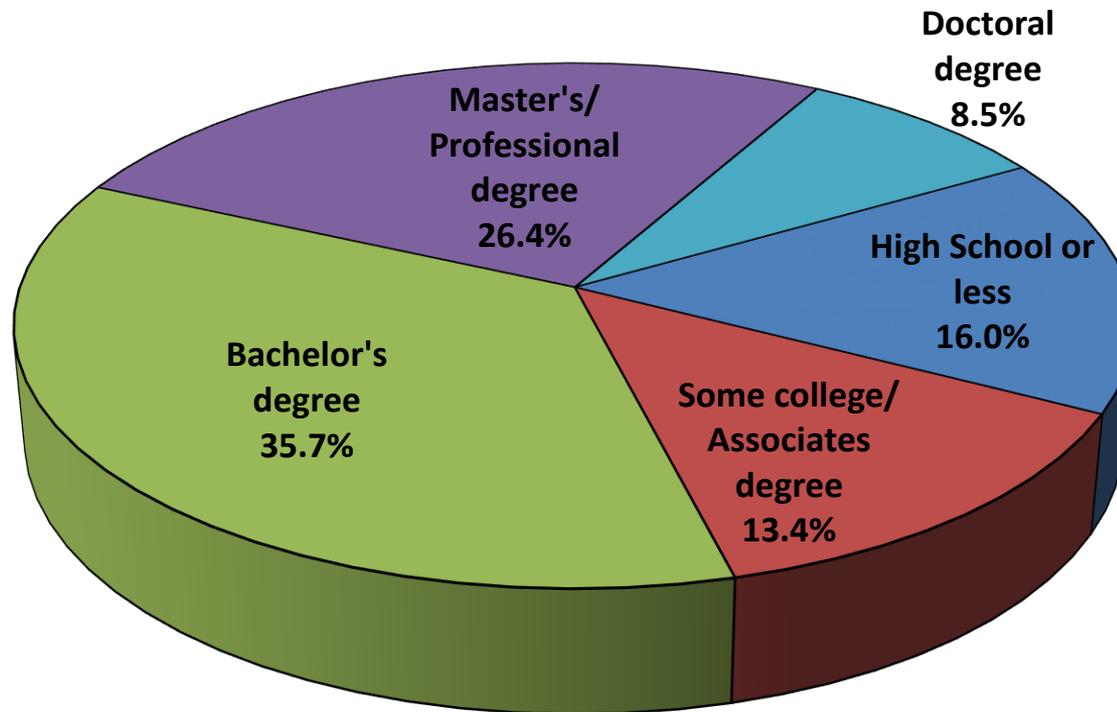
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

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.

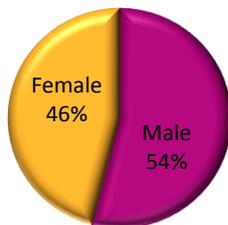


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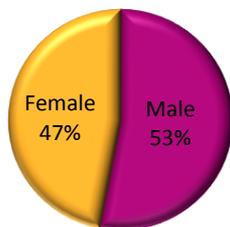
Source: U.S. Census Bureau, 2017 American
Community Survey
Prepared by: New Jersey Department of Labor and
Workforce Development, January 2020

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

Life Sciences



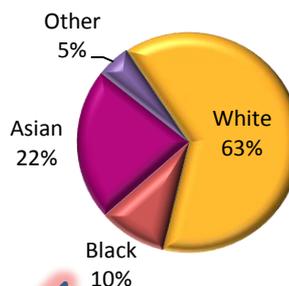
All Industries



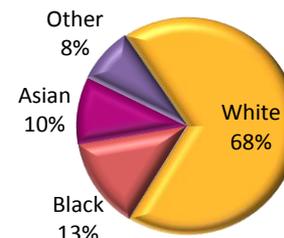
Males outnumber females by 7.1 % in this sector

The life sciences workforce has a greater proportion of NJ residents who are Asian (22.2%)

Life Sciences

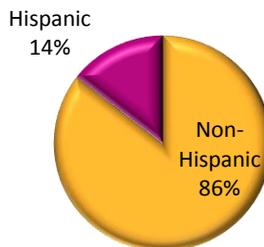


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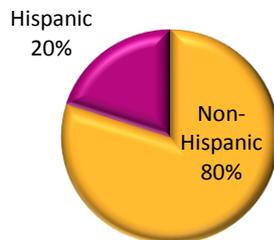


The life sciences workforce has fewer Hispanics than average

Life Sciences



All Industries



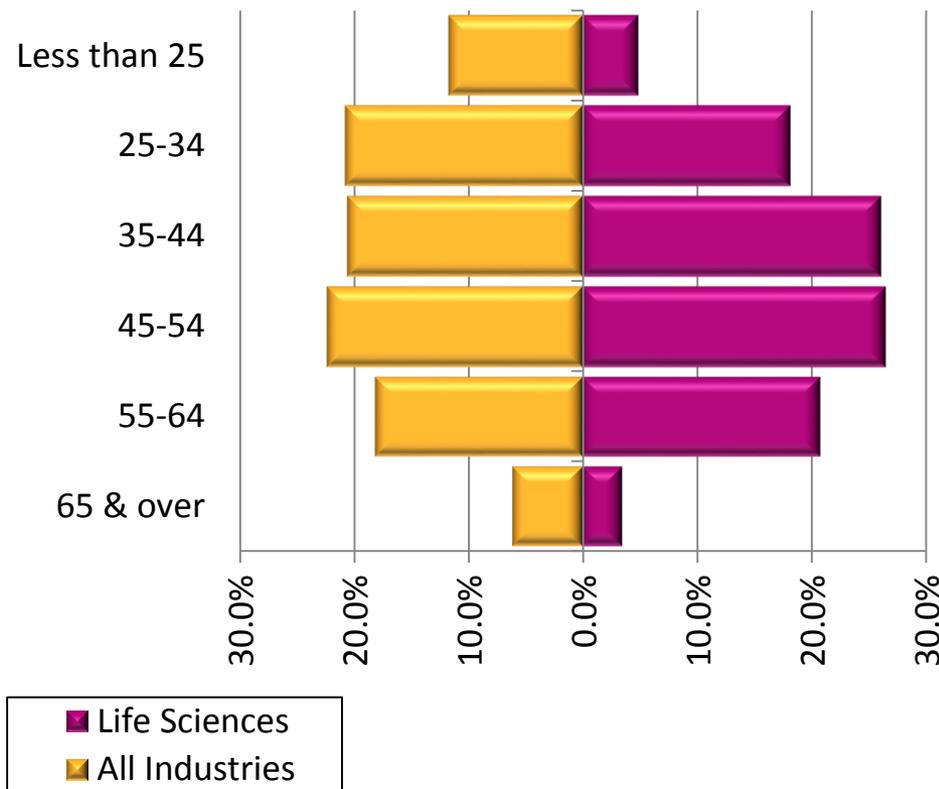
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Source: U.S. Census Bureau, 2017 American
Community Survey
Prepared by: New Jersey Department of Labor and
Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR

LIFE SCIENCES SECTOR VS. TOTAL NONFARM

Age Breakdown of Workers in Life Sciences and All Industries
New Jersey, 2017



- The workforce of the life sciences industry is older than average with 50.8 percent aged *45 and up* compared to only 46.8 percent overall.
- The largest disparity among age cohorts occurs in the *35-44 and 45-54* year old age groups, where 52.6 percent of the life sciences industry sector is found.
- 3.5 percent of the current NJ resident life sciences workforce is aged *65 and older*.

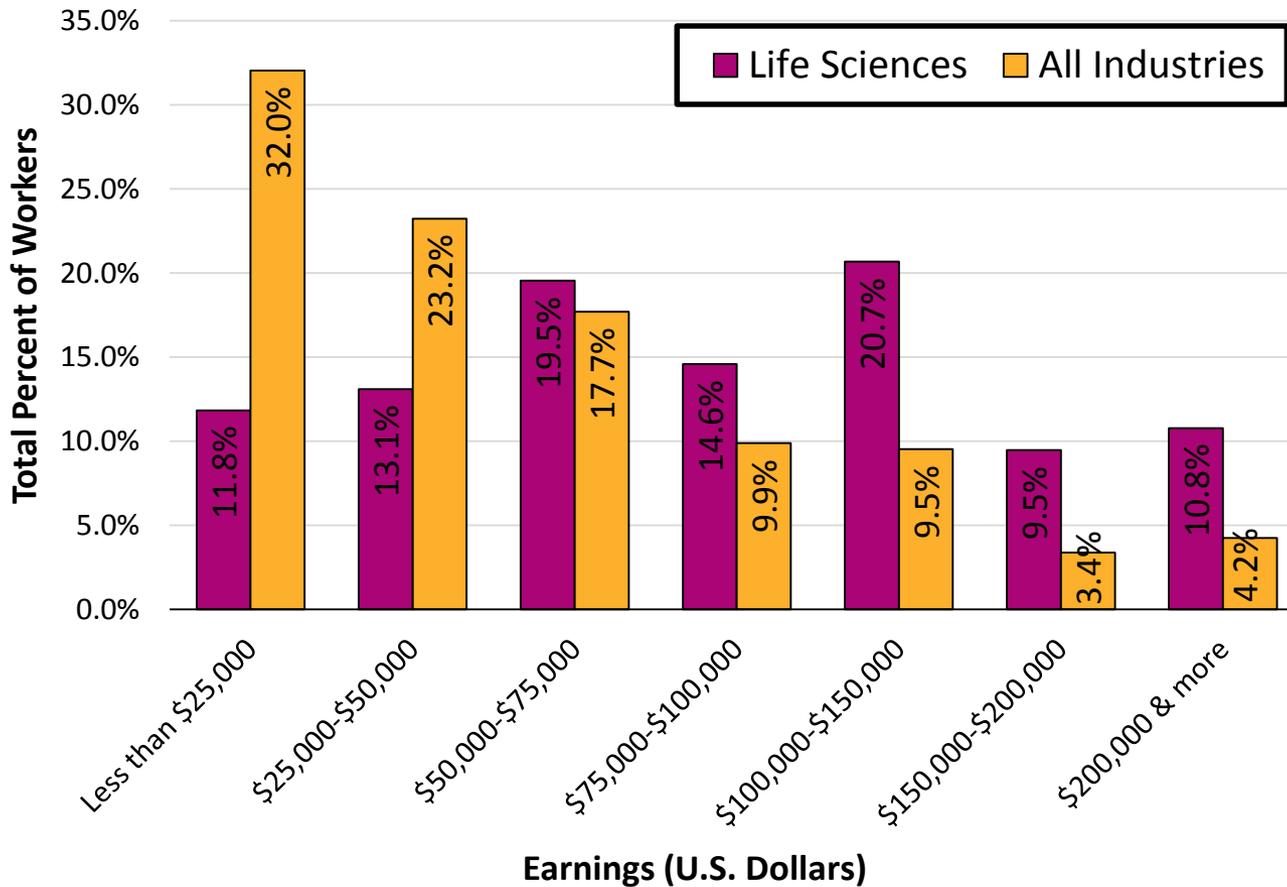


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Source: U.S. Census Bureau, 2017 American Community Survey
Prepared by: New Jersey Department of Labor and Workforce Development, January 2020

NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR NJ RESIDENTS PERSONAL EARNINGS

Personal Earnings in New Jersey, 2017



- Three-fourths of the workers (75.1%) in this sector earned over \$50,000, whereas 55.3% 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, 2017 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 2016	Projected 2026	Change 2016-2026		Job Openings			
			Number	Percent	Exits	Transfers	Change	Total
Phlebotomists	4,700	5,600	900	19.5	220	300	90	610
Laborers and Freight, Stock, and Material Movers, Hand	120,400	138,300	17,900	14.9	6,410	11,060	1,790	19,260
Receptionists and Information Clerks	54,000	60,050	6,050	11.2	3,550	3,780	600	7,930
Packers and Packagers, Hand	31,600	34,950	3,350	10.7	2,250	2,720	340	5,310
Chemists	7,350	8,100	750	10.3	200	480	80	750
Biochemists and Biophysicists	5,650	6,250	600	10.3	120	380	60	560
Chemical Technicians	4,200	4,650	450	9.9	150	260	40	450
General and Operations Managers	44,800	49,100	4,300	9.5	970	2,800	430	4,200
Natural Sciences Managers	4,300	4,650	350	9.0	100	250	40	390
Pharmacy Technicians	10,200	11,100	900	8.7	350	470	90	910
Packaging and Filling Machine Operators and Tenders	15,550	16,900	1,350	8.4	770	1,080	130	1,970
Sales Reps., Wholesale and Mfg., Except Tech and Scientific Products	46,950	49,800	2,850	6.1	1,600	3,240	280	5,120
Compliance Officers	11,200	11,800	600	5.6	320	580	60	970
Customer Service Representatives	70,750	74,350	3,600	5.1	3,710	5,440	360	9,510
First-Line Supervisors of Production and Operating Workers	13,000	13,600	600	4.9	420	850	60	1,340
Mixing and Blending Machine Setters, Operators, and Tenders	4,050	4,150	100	2.9	150	310	10	470
Chemical Equipment Operators and Tenders	3,550	3,650	100	2.7	100	280	10	390
Inspectors, Testers, Sorters, Samplers, and Weighers	13,250	13,050	-200	-1.5	550	1,010	-20	1,530
Office Clerks, General	73,450	72,050	-1,400	-1.9	4,270	4,160	-140	8,290
Secretaries and Adm. Assistants, Except Legal, Medical, and Executive	68,150	62,950	-5,200	-7.6	3,530	3,440	-520	6,450

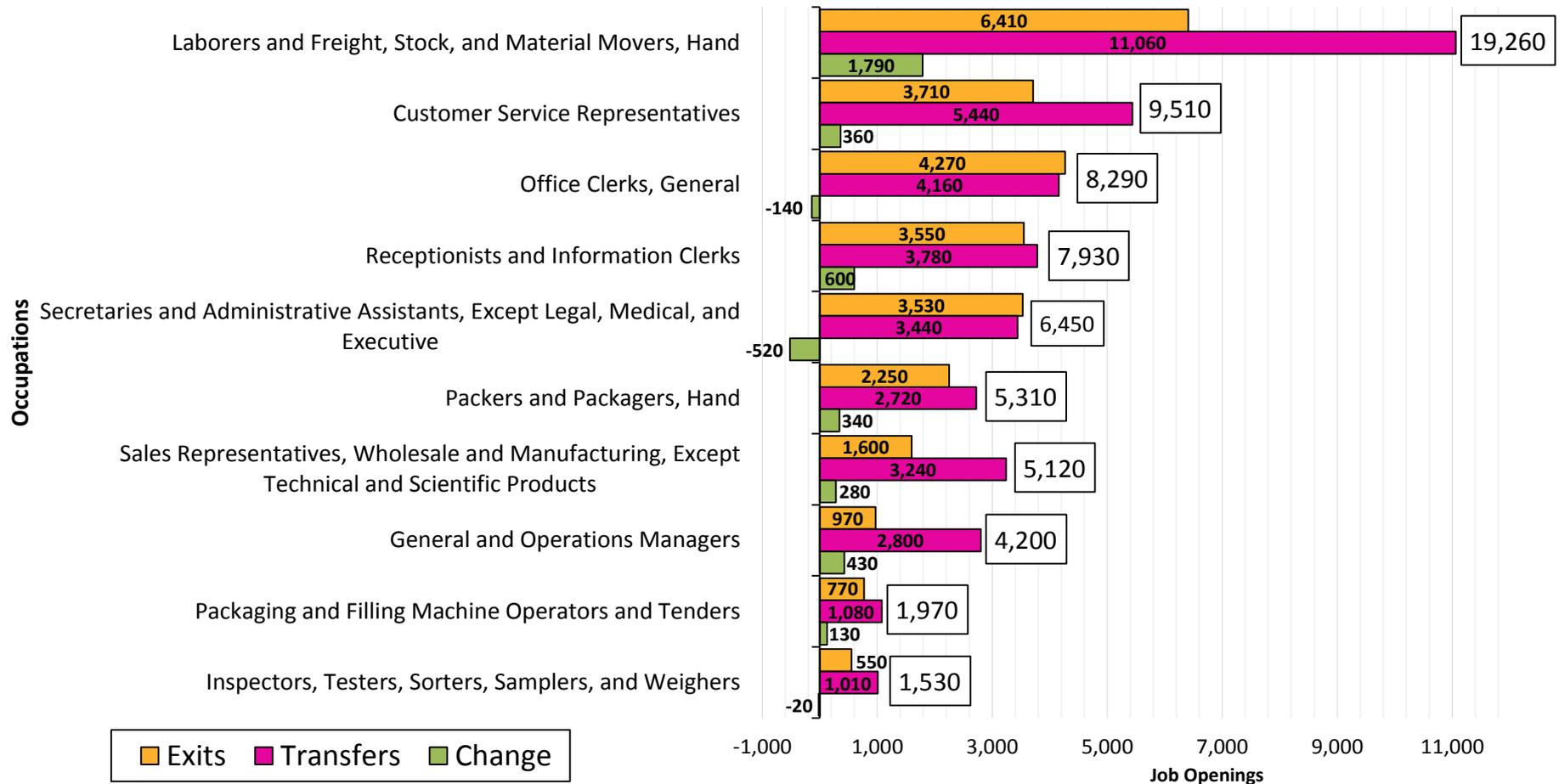


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Source: New Jersey Department of Labor and Workforce Development, 2016–2026 Industry and Occupational Employment Projections.
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NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR PROJECTED ANNUAL AVERAGE OPENINGS FOR TOP OCCUPATIONS

2016-2026 Projected Annual Average Job Openings



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Source: New Jersey Department of Labor and Workforce Development, 2016–2026 Industry and Occupational Employment Projections.

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NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR CONTACT INFORMATION

New Jersey Department of Labor & Workforce Development

<http://lwd.dol.state.nj.us/>

P.O. Box 057

Trenton, NJ 08625-0057

Office of Research and Information

http://lwd.dol.state.nj.us/labor/lpa/LMI_index.html

Alex Ancianis– Labor Market Analyst

Tel: (609)292-2742

Email: Alex.Ancianis@dol.nj.gov



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