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 2021-2022
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.
LIFE SCIENCES INDUSTRY SECTOR: OVERVIEW
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
MAJOR INDUSTRY COMPONENTS

New Jersey’s Life Sciences employment in 2020 was identified within three primary components: pharmaceuticals (43.6%), biotechnology - R&D (42.0%), and medical device manufacturing (14.4%). 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.

**Biotechnology (R&D)**
- Scientific research and development services

Establishments primarily engaged in scientific research, development and/or analytic.

**Medical Devices**
- Medical equipment and supplies manufacturing

Establishments primarily engaged in manufacturing medical equipment and supplies.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
### 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.

Source: 2019 InfoUSA
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
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 76,510 or 2.4 percent of all private sector workers in the state for 2020. Nationally, the proportion was just 1.3 percent.

- **Well-paying Jobs**: Paid over $14.1 billion in 2020 annual payrolls; 6 percent of the state’s total wages.

- **Establishments total**: Nearly 1,700 in 2020. Over a five-year period (2015-2020) – even with numerous industry related reorganizations – New Jersey’s pharmaceutical component still grew (by +20.2%).
• The NJ life sciences industry experienced a steady decline from 2010 to 2014 (-12.3%), flattened out from 2014 to 2015 (-0.1%), increased from 2015 to 2016 (+0.4%), and is currently below the 2010 employment level (-9.1%).

• Total statewide private sector employment has led life sciences employment from 2010 to 2020 and is currently above the 2010 employment level by 2.3 percent.
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR EMPLOYMENT SIZE, GROWTH, SALARY & LOCATION QUOTIENT

The above bubble graph has four elements:
1. Total 2020 employment - represented by the size of the bubble.
2. 2015-2020 employment growth - shown on the Y-axis, or vertical position.
3. 2020 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.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
LIFE SCIENCES INDUSTRY SECTOR: EMPLOYMENT ANALYSIS
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
5-YEAR EMPLOYMENT TREND

With an average of 76,500 workers employed in this NJ cluster in 2020, the employment over the 5-year period experienced an increase of 3.8 percent.

However, the medical device component encountered a loss of -6.8 percent over the same period.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
In 2020, the 76,510 jobs within this New Jersey sector were concentrated in:

- **Pharmaceutical**: 73.7%
  - Pharmaceutical and medicine manufacturing: 33,360 jobs
  - Soap, cleaning compound, and toiletry manufacturing: 25.9%
- **Biotechnology (R&D)**: 100.0%
  - Scientific research and development services: 32,100 jobs
- **Medical Devices**: 100.0%
  - Medical equipment and supplies manufacturing: 11,050 jobs

The pharmaceuticals component accounted for 43.6 percent of the life sciences industry sector employment. Biotechnology (R&D) accounted for 42.0 percent of the life sciences sector employment. Medical devices is the smallest of the three components and makes up 14.4 percent of the life sciences industry.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
PHARMACEUTICALS INDUSTRY EMPLOYMENT, 2020

Pharmaceuticals Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>2020 Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceutical Preparation Manufacturing</td>
<td>17,240</td>
</tr>
<tr>
<td>Toiletry Preparation Manufacturing</td>
<td>6,180</td>
</tr>
<tr>
<td>In-Vitro Diagnostic Substance Mfg</td>
<td>1,740</td>
</tr>
<tr>
<td>Soap &amp; Other Detergent Manufacturing</td>
<td>1,170</td>
</tr>
</tbody>
</table>

- Made up 43.6 percent of the life sciences industry sector’s employment in 2020.
- In-vitro diagnostic substance manufacturing (-1.0%) and toiletry preparation manufacturing (-4.4%) encountered a decline from 2015 to 2020, while pharmaceutical & medicine manufacturing (13.1%) and cleaning compound and other detergent manufacturing (1.8%) recorded an increase during the same period.

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.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
BIOTECHNOLOGY INDUSTRY EMPLOYMENT, 2020

- Accounted for 42.0 percent of the life sciences industry cluster’s employment in 2020.
- Research & development in biotechnology (17.8%) and social science & humanities research (9.2%) both experienced a significant growth over the 5-year period from 2015 to 2020.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
MEDICAL DEVICES INDUSTRY EMPLOYMENT, 2020

- Represented 14.4 percent of the life sciences industry sector’s employment in 2020.
- Surgical appliance and supplies manufacturing (-0.8%) and surgical and medical instrument manufacturing (-12.3%) both declined over the 5-year period from 2015 to 2020.

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

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
LIFE SCIENCES INDUSTRY SECTOR: ESTABLISHMENT ANALYSIS
Establishment Trend
2015 - 2020

- Establishments in this sector totaled 1,690 in 2020 after experiencing a notable growth (+7.6%) from 2015 – 2020.

- Pharmaceuticals sector has seen an upward trend from 2015 to 2020, adding an additional 90 establishments statewide.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
### NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR SUB-SECTOR ESTABLISHMENTS

In 2020, New Jersey had 1,690 establishments in this sector engaged in:

#### Pharmaceuticals

- **Pharmaceutical and medicine manufacturing**: 65.9%
- **Soap, cleaning compound, and toiletry mfg.**: 38.8%

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

#### Biotechnology (R&D)

- **Scientific research and development services**: 100.0%

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

#### Medical Devices

- **Medical equipment and supplies manufacturing**: 100.0%

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

---

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
PHARMACEUTICALS INDUSTRY ESTABLISHMENTS, 2020

- Accounted for 30.6 percent of the life sciences industry sector’s establishments in 2020.

- Establishments in the soap and cleaning compound manufacturing field (+22.9%), toiletry preparation manufacturing (+12.4%) and pharmaceutical preparation manufacturing (+26.0%) experienced a significant growth over the 5-year period from 2015 to 2020.

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.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
BIOTECHNOLOGY INDUSTRY ESTABLISHMENTS, 2020

- Made up 48.5 percent of all establishments in the life sciences industry sector in 2020 with 820 establishments.

- R & D in biotechnology (+17.5%) and social science & humanities research (+14.4%) both experienced growth from 2015 to 2020 while R & D development in physical, engineering and life sciences (-6.3%) experienced a small decline in establishments during the same period.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
MEDICAL DEVICES INDUSTRY ESTABLISHMENTS, 2020

- Represented 20.9 percent of the life sciences industry sector’s establishments in 2020.

- Surgical appliance and supplies manufacturing grew (+26.0%) while surgical and medical instrument manufacturing (-19.3%) experienced a decline in establishments over the 5-year period from 2015 to 2020.

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

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
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 243% of the statewide annual average wage since 2010.

- Annual average wages for the sector have risen +49.5% over the ten-year period from 2010 to 2020.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2010-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
This sector’s average annual wage was $184,770 in 2020, which was 149.4 percent higher than the state’s total private sector’s average annual wage of $74,080.

All three of this sector’s components had 2020 wages that were significantly higher than the state’s total average annual wage.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
PHARMACEUTICALS INDUSTRY ANNUAL AVERAGE WAGE, 2020

Pharmaceuticals Industry

- Annual average wages increased $24,700 (or +19.9%), from $124,140 in 2015 to $148,840 in 2020.
- Changes in this industry ranged from soap, cleaning, compound, and toiletry manufacturing (+10.8%) to pharmaceutical & medicine manufacturing (+12.2%) in annual average wages from 2015 to 2020.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2015 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021

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 were $243,560 in 2020, up +16.7 percent from $208,620 in 2015.

Research and development in biotechnology experienced the highest wages increase from $266,220 in 2015 to $313,500 in 2020. A total increase of +17.8%.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
Annual average wages were $122,380 in 2020, up +8.4% from $112,940 in 2015.

Surgical appliances and supplies manufacturing experienced a significant wages increase from $127,270 in 2015 to $144,550 in 2020. A total growth of +13.6%.

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

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
In 2020, approximately half of Middlesex County’s employment was found in pharmaceutical and medicine manufacturing (5,020).

54.1 percent of the employment found in Union County was in scientific research and development services (5,740).

Due to disclosure issues Cape May, Cumberland, and Salem Counties are not included in the chart above.
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) – Annual average wage increased 15.1 percent from 2015 - 2020.

- 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) – Presented the smallest annual average wage increase (+12.9%) during the shown period.

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR COUNTIES IN THE NORTHERN REGION

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 2020.

- **Average Wage** – The average wage for these counties in life sciences related industries is comparatively above the statewide total average in this sector ($211,620 vs. $184,760).
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR COUNTIES IN THE CENTRAL REGION

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 ($158,780 vs. $184,760) in 2020.

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 6.2 percent of all life sciences industry establishments in New Jersey.

- **Employment** – The three counties have slightly more than 3,100 employment.

- **Average Wage** – The average wage for these counties in life sciences related industries is below the statewide total average in this cluster ($89,830 vs. $184,760). These counties also account for 2 percent of total life sciences annual average wages paid in 2020.
LIFE SCIENCES INDUSTRY SECTOR: OCCUPATIONAL ANALYSIS
# New Jersey Life Sciences Industry Sector
## Top Occupational Groups, 2020

<table>
<thead>
<tr>
<th>Occupational Title</th>
<th>2020 Employment</th>
<th>2020 Average Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Life Sciences Occupations</td>
<td>78,040</td>
<td>$104,040</td>
</tr>
<tr>
<td>Life, Physical, and Social Science</td>
<td>15,830</td>
<td>$101,610</td>
</tr>
<tr>
<td>Production</td>
<td>15,190</td>
<td>$45,890</td>
</tr>
<tr>
<td>Management</td>
<td>15,080</td>
<td>$204,910</td>
</tr>
<tr>
<td>Business and Financial Operations</td>
<td>8,350</td>
<td>$100,450</td>
</tr>
<tr>
<td>Office and Administrative Support</td>
<td>5,770</td>
<td>$55,090</td>
</tr>
<tr>
<td>Computer and Mathematical</td>
<td>4,140</td>
<td>$105,040</td>
</tr>
<tr>
<td>Architecture and Engineering</td>
<td>3,370</td>
<td>$117,290</td>
</tr>
<tr>
<td>Transportation and Material Moving</td>
<td>2,770</td>
<td>$40,630</td>
</tr>
<tr>
<td>Installation, Maintenance, and Repair</td>
<td>2,060</td>
<td>$66,450</td>
</tr>
<tr>
<td>Sales and Related</td>
<td>1,500</td>
<td>$105,820</td>
</tr>
<tr>
<td>Healthcare Support</td>
<td>850</td>
<td>$38,780</td>
</tr>
<tr>
<td>Arts, Design, Entmt., Sports, and Media</td>
<td>680</td>
<td>$95,250</td>
</tr>
</tbody>
</table>

Note: Due to disclosure issues, of the total 78,040 jobs identified, only 98.9 could be used for this occupational analysis.

Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
# NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
## TOP 20 OCCUPATIONS BY EMPLOYMENT, 2020

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

<table>
<thead>
<tr>
<th>SOC and Occupational Title</th>
<th>2020 Employment</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-9121 Natural Sciences Managers</td>
<td>4,730</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>19-2031 Chemists</td>
<td>3,340</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>51-9111 Packaging and Filling Machine Operators and Tenders</td>
<td>2,740</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>51-9011 Chemical Equipment Operators and Tenders</td>
<td>2,420</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>19-1021 Biochemists and Biophysicists</td>
<td>1,920</td>
<td>Doctoral or professional degree</td>
</tr>
<tr>
<td>51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers</td>
<td>1,790</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>11-1021 General and Operations Managers</td>
<td>1,720</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>19-4031 Chemical Technicians</td>
<td>1,700</td>
<td>Associate's degree</td>
</tr>
<tr>
<td>19-4021 Biological Technicians</td>
<td>1,490</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>51-1011 First-Line Supervisors of Production and Operating Workers</td>
<td>1,410</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>11-2021 Marketing Managers</td>
<td>1,220</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>51-9023 Mixing and Blending Machine Setters, Operators, and Tenders</td>
<td>1,180</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>13-1041 Compliance Officers</td>
<td>1,180</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>51-2090 Miscellaneous Assemblers and Fabricators</td>
<td>1,160</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>17-2112 Industrial Engineers</td>
<td>1,130</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>11-3051 Industrial Production Managers</td>
<td>1,070</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>41-4012 Sales Rep., Wholesale and Manufacturing, Except Technical and Scientific Products</td>
<td>1,060</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>49-9041 Industrial Machinery Mechanics</td>
<td>980</td>
<td>High school diploma or equivalent</td>
</tr>
<tr>
<td>53-7062 Laborers and Freight, Stock, and Material Movers, Hand</td>
<td>960</td>
<td>No formal educational credential</td>
</tr>
<tr>
<td>19-1022 Microbiologists</td>
<td>940</td>
<td>Bachelor's degree</td>
</tr>
</tbody>
</table>

Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
An occupational analysis of 31,450 jobs revealed that five major occupational groups in this component accounted for nearly three-fourths (78.3%) of the employment.

Production and Life, Physical, and Social Science occupations employed the most in this component with 15,910 jobs in 2020.

Note: Due to disclosure issues, of the total 31,620 jobs identified, only 31,450 could be used for this occupational analysis.

Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
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.
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR TOP PHARMACEUTICAL OCCUPATIONS, 2020

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Employment</th>
<th>Average Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packaging and Filling Machine Operators and Tenders</td>
<td>2,740</td>
<td></td>
</tr>
<tr>
<td>Chemical Equipment Operators and Tenders</td>
<td>2,410</td>
<td></td>
</tr>
<tr>
<td>Chemists</td>
<td>1,870</td>
<td></td>
</tr>
<tr>
<td>Inspectors, Testers, Sorters, Samplers, and Weighers</td>
<td>1,270</td>
<td></td>
</tr>
<tr>
<td>Natural Sciences Managers</td>
<td>1,220</td>
<td></td>
</tr>
<tr>
<td>Mixing and Blending Machine Setters, Operators, and Tenders</td>
<td>1,120</td>
<td></td>
</tr>
<tr>
<td>First-Line Supervisors of Production and Operating Workers</td>
<td>1,110</td>
<td></td>
</tr>
</tbody>
</table>

Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
An occupational analysis of 35,220 jobs revealed that five major occupational groups in this component accounted for nearly four-fifth (83.8%) of the employment.

Life, physical, and social science occupations employed the most in this component with approximately 10,500 jobs in 2020 and accounted for more than one-fourth of the component.

Note: Due to disclosure issues, of the total 35,810 jobs identified, only 35,220 could be used for this occupational analysis.

Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
• 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, and installation, maintenance & repair occupations account for a significant portion of the employment within the “Other” category.

Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
TOP BIOTECHNOLOGY (R&D) OCCUPATIONS, 2020

Source: NJ Department of Labor & Workforce
Development, Occupational Employment Statistics,
May 2020
Prepared by: New Jersey Department of Labor and
Workforce Development, December 2021
An occupational analysis of 10,490 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 4,020 jobs and accounted for more than one-third of the component (38.3%).

Note: Due to disclosure issues, of the total 10,610 jobs identified, only 10,490 could be used for this occupational analysis.

Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
MEDICAL DEVICES MAJOR OCCUPATIONAL GROUPS, 2020

• 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, and sales & related occupations account for a significant portion of the employment within the “Other” category.

Medical Equipment and Supplies Manufacturing

- Production: 38.3%
- Business and Financial Operations: 16.9%
- Office and Administrative Support: 11.9%
- Architecture and Engineering: 9.9%
- Management: 7.8%
- Transportation and Material Moving: 4.8%
- Other: 10.4%

Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
TOP MEDICAL DEVICE OCCUPATIONS, 2020

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Employment</th>
<th>Average Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miscellaneous Assemblers and Fabricators</td>
<td>890</td>
<td></td>
</tr>
<tr>
<td>Medical Appliance Technicians</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Inspectors, Testers, Sorters, Samplers, and Weighers</td>
<td>390</td>
<td></td>
</tr>
<tr>
<td>Dental Laboratory Technicians</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Compliance Officers</td>
<td>260</td>
<td></td>
</tr>
<tr>
<td>Customer Service Representatives</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>General and Operation Managers</td>
<td>200</td>
<td></td>
</tr>
</tbody>
</table>

Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
LIFE SCIENCES INDUSTRY SECTOR: DEMOGRAPHIC OVERVIEW
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR EDUCATION CHARACTERISTICS

Educational Breakdown

- Bachelor's degree: 34.8%
- Master's/Professional degree: 26.9%
- Doctoral degree: 9.0%
- Some college/Associates degree: 14.9%
- High School or less: 14.3%

- 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.

Source: U.S. Census Bureau, 2019 American Community Survey
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
NEW JERSEY LIFE SCIENCES INDUSTRY SECTOR
GENDER, RACIAL, AND ETHNIC PROFILE

Males outnumber females by 4 % in this sector

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

The life sciences workforce has fewer Hispanics than average

Source: U.S. Census Bureau, 2019 American Community Survey
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
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.

Source: U.S. Census Bureau, 2019 American Community Survey
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
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.

Source: U.S. Census Bureau, 2019 American Community Survey
Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
LIFE SCIENCES INDUSTRY SECTOR: TOP OCCUPATIONS OUTLOOK
## New Jersey Life Sciences Industry Sector
### Top Life Sciences Occupations Outlook Across All Industries

**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, December 2021

<table>
<thead>
<tr>
<th>Occupation Title</th>
<th>Employment Actual 2018</th>
<th>Employment Projected 2028</th>
<th>Change 2018-2028</th>
<th>Annual Average Job Openings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2018</td>
<td>2028</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Market Research Analysts and Marketing Specialists</td>
<td>20,290</td>
<td>24,170</td>
<td>3,880</td>
<td>19.1</td>
</tr>
<tr>
<td>Laborers and Freight, Stock, and Material Movers, Hand</td>
<td>141,760</td>
<td>156,860</td>
<td>15,100</td>
<td>10.7</td>
</tr>
<tr>
<td>Natural Sciences Managers</td>
<td>4,590</td>
<td>5,030</td>
<td>440</td>
<td>9.5</td>
</tr>
<tr>
<td>Industrial Engineers</td>
<td>4,940</td>
<td>5,400</td>
<td>460</td>
<td>9.4</td>
</tr>
<tr>
<td>Marketing Managers</td>
<td>12,120</td>
<td>13,240</td>
<td>1,120</td>
<td>9.2</td>
</tr>
<tr>
<td>Biochemists and Biophysicists</td>
<td>6,750</td>
<td>7,360</td>
<td>610</td>
<td>9.1</td>
</tr>
<tr>
<td>Industrial Machinery Mechanics</td>
<td>7,680</td>
<td>8,330</td>
<td>650</td>
<td>8.4</td>
</tr>
<tr>
<td>Medical Scientists, Except Epidemiologists</td>
<td>3,140</td>
<td>3,400</td>
<td>260</td>
<td>8.0</td>
</tr>
<tr>
<td>Packaging and Filling Machine Operators and Tenders</td>
<td>14,140</td>
<td>15,110</td>
<td>970</td>
<td>6.9</td>
</tr>
<tr>
<td>Accountants and Auditors</td>
<td>41,790</td>
<td>44,600</td>
<td>2,810</td>
<td>6.7</td>
</tr>
<tr>
<td>Compliance Officers</td>
<td>12,630</td>
<td>13,380</td>
<td>750</td>
<td>5.9</td>
</tr>
<tr>
<td>Chemists</td>
<td>7,780</td>
<td>8,240</td>
<td>460</td>
<td>5.8</td>
</tr>
<tr>
<td>Industrial Production Managers</td>
<td>5,330</td>
<td>5,610</td>
<td>280</td>
<td>5.4</td>
</tr>
<tr>
<td>Chemical Technicians</td>
<td>3,810</td>
<td>4,000</td>
<td>190</td>
<td>5.0</td>
</tr>
<tr>
<td>Sales Representatives, Wholesale and Manufacturing</td>
<td>44,130</td>
<td>46,320</td>
<td>2,190</td>
<td>4.9</td>
</tr>
<tr>
<td>First-Line Supervisors of Production and Operating Workers</td>
<td>12,970</td>
<td>13,390</td>
<td>420</td>
<td>3.2</td>
</tr>
<tr>
<td>Mixing and Blending Machine Setters, Operators, and Tenders</td>
<td>3,800</td>
<td>3,800</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Chemical Equipment Operators and Tenders</td>
<td>3,440</td>
<td>3,320</td>
<td>-120</td>
<td>-3.6</td>
</tr>
<tr>
<td>Assemblers and Fabricators</td>
<td>12,190</td>
<td>11,320</td>
<td>-870</td>
<td>-7.1</td>
</tr>
<tr>
<td>Inspectors, Testers, Sorters, Samplers, and Weighers</td>
<td>13,950</td>
<td>12,510</td>
<td>-1,440</td>
<td>-10.3</td>
</tr>
</tbody>
</table>

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

2018-2028 Projected Annual Average Job Openings

- Laborers and Freight, Stock, and Material Movers, Hand: 22,240 openings
- Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products: 4,970 openings
- Accountants and Auditors: 4,310 openings
- Market Research Analysts and Marketing Specialists: 2,660 openings
- Packaging and Filling Machine Operators and Tenders: 1,800 openings
- Inspectors, Testers, Sorters, Samplers, and Weighers: 1,500 openings
- First-Line Supervisors of Production and Operating Workers: 1,390 openings
- Assemblers and Fabricators: 1,280 openings
- Marketing Managers: 1,240 openings
- Compliance Officers: 1,220 openings

Prepared by: New Jersey Department of Labor and Workforce Development, December 2021
This workforce product was funded by a grant awarded by the U.S. Department of Labor’s Employment and Training Administration. The product was created by the recipient and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This product is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.
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