Florida
Biosciences Industry

Florida is home to an expanding number of world-renowned research institutes, making it the epicenter of some of the most exciting research and promising discoveries. Florida has a growing biomedical cluster that supports one of the country’s largest medical device sectors. According to the FDA, Florida ranks second in the United States for the number of FDA-registered medical device establishments.

The biosciences industry includes the following sectors: medicinal and botanical manufacturing, pharmaceutical preparation manufacturing, in-vitro diagnostic substance manufacturing, other biological product manufacturing, electromedical and electrotherapeutic apparatus manufacturing, analytical laboratory instrument manufacturing, irradiation apparatus manufacturing; surgical and medical instrument manufacturing, surgical appliance and supplies manufacturing, and ophthalmic goods manufacturing. Research and development in biotechnology was added to the 2007 definition of the biosciences industry.

- The biosciences industry sector had 799 establishments in 2008 with employment of 27,532. The largest industries in biosciences in 2008 were surgical and medical instrument manufacturing (7,906 jobs), surgical appliance and supplies manufacturing (5,100 jobs), and pharmaceutical preparation manufacturing (4,904 jobs). These three industries made up 65.05 percent of the biosciences employment.

- Research and development in biotechnology gained the most jobs (+444 jobs, +60.28 percent) over the year. Electromedical and electrotherapeutic apparatus manufacturing lost the most jobs (-362 jobs, -9.38 percent) over the year. In total, the bioscience industry gained 1,013 jobs (+3.79 percent) over the year.

Source: Florida Agency for Workforce Innovation, Labor Market Statistics Center, Quarterly Census of Employment and Wages program (QCEW), prepared May 2010.
The 2008 annual average wage for workers in the biosciences industry was $55,594, exceeding the state's total annual average wage of $42,579 by 23.4 percent. Ophthalmic goods manufacturing had an annual average wage of $68,071, the highest in biosciences and almost 37.4 percent higher than the state wage.

Although the biosciences industry in Florida includes disciplines as diverse as basic biomedical science, drug discovery, biomedical marine research, neurological disease research as well as the manufacturing of pharmaceutical and medical instruments, ten of the fifteen largest biosciences occupations are production-related.

The 15 largest biosciences occupations comprise about 47 percent of the total employment in this industry.
<table>
<thead>
<tr>
<th>Occupation Title</th>
<th>Employment 2009</th>
<th>Employment 2017</th>
<th>Annual Change</th>
<th>% of Industry Total</th>
<th>Average Wage 2009</th>
<th>Training Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Assemblers</td>
<td>1,555</td>
<td>1,766</td>
<td>26</td>
<td>1.69</td>
<td>12.05</td>
<td>High School</td>
</tr>
<tr>
<td>Extruding &amp; Drawing Machine Setters &amp; Operators; M&amp;P</td>
<td>1,524</td>
<td>1,729</td>
<td>26</td>
<td>1.68</td>
<td>14.00</td>
<td>High School</td>
</tr>
<tr>
<td>Ophthalmic Laboratory Technicians</td>
<td>1,240</td>
<td>1,406</td>
<td>21</td>
<td>1.68</td>
<td>13.60</td>
<td>Postsecondary Vocational</td>
</tr>
<tr>
<td>Inspectors, Testers, Sorters, Samplers, and Weighers</td>
<td>962</td>
<td>1,082</td>
<td>15</td>
<td>1.56</td>
<td>15.46</td>
<td>High School</td>
</tr>
<tr>
<td>First-Line Superv. of Production and Operating Workers</td>
<td>867</td>
<td>1,017</td>
<td>19</td>
<td>2.16</td>
<td>26.26</td>
<td>Postsecondary Vocational</td>
</tr>
<tr>
<td>Packaging and Filling Machine Operators and Tenders</td>
<td>769</td>
<td>936</td>
<td>21</td>
<td>2.72</td>
<td>12.32</td>
<td>Less Than High School</td>
</tr>
<tr>
<td>Machinists</td>
<td>765</td>
<td>902</td>
<td>17</td>
<td>2.24</td>
<td>17.19</td>
<td>Postsecondary Vocational</td>
</tr>
<tr>
<td>Sales Representatives, Wholesale &amp; Mfg, Tech. &amp; Sci. Products</td>
<td>741</td>
<td>921</td>
<td>23</td>
<td>3.04</td>
<td>34.59</td>
<td>Postsecondary Vocational</td>
</tr>
<tr>
<td>Industrial Engineers</td>
<td>728</td>
<td>988</td>
<td>33</td>
<td>4.47</td>
<td>32.76</td>
<td>Bachelor's Degree</td>
</tr>
<tr>
<td>Medical Appliance Technicians</td>
<td>596</td>
<td>707</td>
<td>14</td>
<td>2.32</td>
<td>17.04</td>
<td>Postsecondary Vocational</td>
</tr>
<tr>
<td>Office Clerks, General</td>
<td>508</td>
<td>582</td>
<td>9</td>
<td>1.82</td>
<td>12.11</td>
<td>High School</td>
</tr>
<tr>
<td>Customer Service Representatives</td>
<td>502</td>
<td>624</td>
<td>15</td>
<td>3.04</td>
<td>14.36</td>
<td>Postsecondary Vocational</td>
</tr>
<tr>
<td>Mixing and Blending Machine Setters, and Operators</td>
<td>454</td>
<td>604</td>
<td>19</td>
<td>4.14</td>
<td>14.16</td>
<td>High School</td>
</tr>
<tr>
<td>Laborers and Freight, Stock, and Material Movers, Hand</td>
<td>433</td>
<td>473</td>
<td>5</td>
<td>1.15</td>
<td>11.49</td>
<td>Less Than High School</td>
</tr>
<tr>
<td>Electrical and Electronic Equipment Assemblers</td>
<td>409</td>
<td>389</td>
<td>-3</td>
<td>-0.62</td>
<td>13.49</td>
<td>Postsecondary Vocational</td>
</tr>
</tbody>
</table>


- Team assembler is the largest occupation within the biosciences industry, with an average wage of $25,064 annually or $12.05 per hour.
- Among the 15 largest occupations, hourly wages ranged from a high of $34.59 for sales representatives of wholesale and manufacturing, technical & scientific products to a low of $11.49 for laborers and freight, stock, and material movers.
- Five of the fifteen largest occupations in this industry cluster have an average wage greater than $17.00 per hour.
- Of the fifteen largest occupations in the bioscience industry, only electrical and electronic equipment assemblers showed negative annual growth, however it stayed virtually unchanged.
- Industrial engineers shows the highest annual net gain (+33 jobs) and the highest annual growth rate (+4.47 percent) for the next eight years.
- Higher wages are found in occupations with greater training requirements. Eight of the top fifteen occupations in the biosciences industry require some type of postsecondary training.
• Pharmaceutical and medicine manufacturing had greater shares of workers in the age ranges of 22-34 years (25.1 percent) and 35-44 years (31.4 percent).

• Medical equipment and supplies manufacturing had higher shares of older workers both in the 45-54 years (29.4 percent) and the 55-99 years (22.2 percent) age groups.

• Both pharmaceutical and medicine manufacturing (2.5 percent), and medical equipment and supplies manufacturing (2.4 percent) had very low levels of younger workers 14-21 years old.

• Employment in the biosciences industry is concentrated in the southeast area of Florida, in Broward, Miami-Dade and Palm Beach counties as well as on the gulf coast in the Pinellas County area.
# Biotech Employment

Legend

- **Florida Cities**
  - 1 - 417
  - 418 - 1,225
  - 1,226 - 2,790
  - 2,791 - 5,617
  - No Data

Source: Florida Agency for Workforce Innovation, Quarterly Census of Employment and Wages, 2009, Q3
Prepared by: Florida Agency for Workforce Innovation, Labor Market Statistics Center, April 2010
Concentration of Biotech Establishments by Location

Legend
- Biotech Locations
- Florida Cities

Total Establishments
- 1 - 14
- 15 - 32
- 33 - 57
- 58 - 147
- 148 - 316

Source: InfoUSA Inc., Employer Database, 2010-2nd Edition
Prepared by: Florida Agency for Workforce Innovation, Labor Market Statistics Center, April 2010