SAN DIEGO COUNTY LABOR MARKET ANALYSIS

LIFE SCIENCES
An Update on Labor Force and Training Needs

NOVEMBER 2017
Life Sciences, or biotechnology, spans a variety of fields, such as medical devices, therapeutics and drug development. San Diego is ranked as one of the top five Life Sciences regions in the U.S., with more than 80 research institutions in the county. This report is an update to the 2014 research that initially identified Life Sciences as a Priority Sector in San Diego County. The full report examines recent employment trends in the sector, specifically highlighting how the sector has evolved.

Visit workforce.org/reports to read the full report.

**HISTORICAL EMPLOYMENT TRENDS**

Since 2006, Life Sciences employment has seen continuous growth in San Diego County and the state of California. The growth has been quicker in San Diego, with 30 percent growth since 2006, compared to 18 percent in the state of California.

**LIFE SCIENCES FAST FACTS**

- 30 educational programs trained for eight key Life Sciences occupations in 2016
- 75,279 overall jobs in 2016
- 2,323 establishments in 2016
- The median hourly wage for these workers is $70.19 as of 2016

**GROWING NEEDS IN THE INDUSTRY**

A common skill highlighted by Life Sciences employers and employees is the ability to learn continuously. The industry is constantly changing, so it is important to seek additional knowledge and education.

**GENERAL RECOMMENDATIONS**

- Educate students, job seekers and incumbent workers about internships and other opportunities to gain practical experience working in a lab and building the appropriate workplace skills for a career in this industry.
- Build on the success of programs like the Life Sciences Summer Institute to expand opportunities for students and job seekers to get the hands-on experience desired by employers.
- Occupation and position titles are changing and will continue to change in the Life Sciences. It is important for those that want to work in this sector to understand the different employment pathways, the role they play with employers in different subsectors, and the changing nature of the industry.
KEY LIFE SCIENCES OCCUPATIONS IN SAN DIEGO COUNTY, 2016

<table>
<thead>
<tr>
<th>OCCUPATIONS</th>
<th>TYPICAL ENTRY-LEVEL EDUCATION</th>
<th>2016 JOBS IN INDUSTRY</th>
<th>2013-2016 IN-INDUSTRY CHANGE</th>
<th>MEDIAN HOURLY EARNINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Scientists</td>
<td>Doctoral or professional degree</td>
<td>2,540</td>
<td>12%</td>
<td>$48.69</td>
</tr>
<tr>
<td>Software Developers, Applications</td>
<td>Bachelor’s degree</td>
<td>2,252</td>
<td>9%</td>
<td>$49.04</td>
</tr>
<tr>
<td>Biological Technicians</td>
<td>Bachelor’s degree</td>
<td>2,028</td>
<td>7%</td>
<td>$22.51</td>
</tr>
<tr>
<td>Software Developers, Systems Software</td>
<td>Bachelor’s degree</td>
<td>1,941</td>
<td>14%</td>
<td>$55.40</td>
</tr>
<tr>
<td>General and Operations Managers</td>
<td>Bachelor’s degree</td>
<td>1,596</td>
<td>0%</td>
<td>$50.27</td>
</tr>
<tr>
<td>Inspectors, Testers, Sorters, Samplers and Weighers</td>
<td>High school diploma or equivalent</td>
<td>1,118</td>
<td>-33%</td>
<td>$19.56</td>
</tr>
<tr>
<td>Customer Service Representatives</td>
<td>High school diploma or equivalent</td>
<td>1,058</td>
<td>5%</td>
<td>$17.78</td>
</tr>
<tr>
<td>Secretaries and Administrative Assistants</td>
<td>High school diploma or equivalent</td>
<td>943</td>
<td>-7%</td>
<td>$18.34</td>
</tr>
</tbody>
</table>

HIRING CHALLENGES

The positions most frequently identified by employers as hardest to fill are:

- Customer Service Representatives 25%
- Software Developers 25%
- Medical Scientists 14%

The most frequently cited reasons for hiring difficulties are:

- Lack of Experience 33%
- Small Applicant Pool 33%
- Character Issues 17%

SKILLS ASSESSMENT

Skills that employers say are very important:

- Problem-solving and critical thinking 87%
- Social and verbal communication 79%
- Technical skills 70%

Important technical skills for applicants:
- Ability to work and use the tools in a lab
- Proficiency with software and applications that process and analyze data
- Deep technical understanding of topics relevant to the desired position, such as bioinformatics, genomics or proteomics

Important non-technical skills for applicants:
- Ability to solve problems as a member of a team
- Flexibility to adapt quickly in a constantly-changing work environment

RECOMMENDATIONS FOR JOB SEEKERS

- Develop your ability to communicate complex technical information to a non-technical audience, both through speaking and writing. Employees are more valuable when they can connect with a variety of audiences, including customers, executives and scientists.
- Many occupations in this industry require extensive educational training and advanced degrees to enter or progress in a career. Use job descriptions to learn about the educational and certification requirements of the career pathways you are interested in pursuing.
- Start networking with professionals in Life Sciences by tapping your own network—see if anyone you know can introduce you to someone working in a company or occupation of interest. You can also reach out through professional social media platforms such as LinkedIn.
ACKNOWLEDGMENTS

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