# 1,100+ Biomedical Companies

Nearly half are involved in manufacturing biomedical products (that’s a lot!)

<table>
<thead>
<tr>
<th>Biomedical Categories</th>
<th>Company Count</th>
<th>Stand Out Cities*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Equipment</td>
<td>421</td>
<td>Sunnyvale, Fremont, San Jose</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>315</td>
<td>South San Francisco, San Francisco, Palo Alto</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>294</td>
<td>South San Francisco, San Francisco, Palo Alto</td>
</tr>
<tr>
<td>Medical Devices</td>
<td>153</td>
<td>Sunnyvale, San Jose, Mountain View</td>
</tr>
</tbody>
</table>

*Based on highest number of companies.
WHO IS HIRING, AND WHAT ARE THEY LOOKING FOR?

Total Hires By Sector (Actual & Expected)

- Drugs & Pharmaceuticals
- Medical Devices & Equipment
- Research, Testing & Medical Labs
- Industrial Biotech
- Other
- Bioscience Distribution

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Degree Requirements
Quantitative Survey of 119 SF Bay Area companies

- High School Diploma: 8%
- Community College: 3%
- 2-Year Degree: 11%
- 4-Year Degree: 55%
- Graduate Degree: 23%
Figure 8
Jobs Requiring College Degree by Functional Area
Quantitative Survey of 119 SF Bay Area companies

Figure 8 profiles the functional areas in which companies require a 4-year or graduate college degree. 93% of the companies interviewed require a college degree for their engineering positions. In R&D, more and more emphasis is given to the skills associated with the “D”, which can be more broadly defined as the development of the value proposition defined by the market.
Biomedical Engineering Skill Needs

Technical Experience
- Computer Aided Drafting (CAD) for part modeling, assembly modeling, and drafting
- Design and test simulation
- Test procedure development and testing modules
- Mechanics and Materials

Education/Knowledge
- Integration of engineering disciplines including biological, mechanical, electronics, & software
- Technology commercialization process
- Traceability of raw materials, components, manufacturing, prescription, & patient outcomes

Management Skills
- Problem solving
- Team-building and dynamics
- Communication
- Cross-functional collaboration
- Recognize and manage ethical dilemmas
- Effective project management

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**ACTION ITEMS**

**Companies**
- **Communicate** talent needs and skill requirements
- Provide increased practical **exposure to sector-specific skills**
- **Expand engagement** to include curricula development, outsourced research projects, mentorships, etc.

**Industry**
- Industry **network development** to connect stakeholders and provide a platform for sharing best practices
- Collaborative **“how to” models** to build long-term pipeline of talent

**Academia**
- Recognize **qualification gap** moving with urgency to bring existing curricula up to speed
- Create **cross-disciplinary** training
- **Align** academic and industry success measures
BIOMEDICAL MANUFACTURING NETWORK

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