Life Sciences

LABOR MARKET ANALYSIS
REPORT HIGHLIGHTS

San Diego County
October 2014

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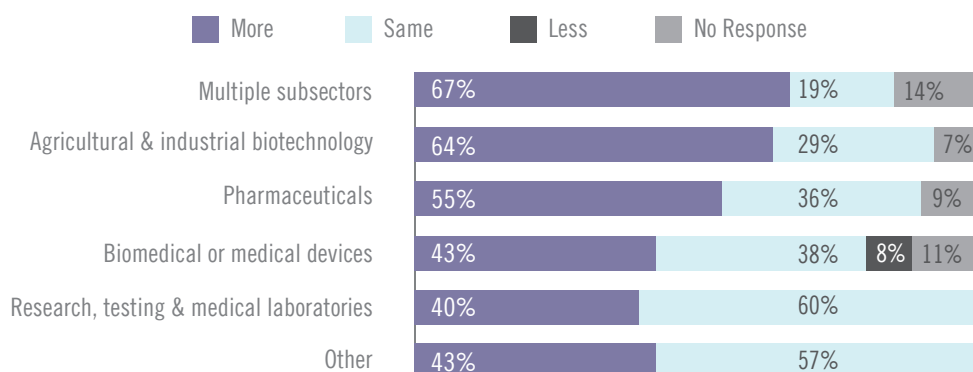
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San Diego County is ranked as one of the top 10 regions in the nation for Life Sciences. While the sector boasts high employment growth, it often demands workers with advanced education and skills that rapidly adapt to changing technologies. This study serves to inform the workforce development system—educational training institutions, Workforce Investment Boards and community organizations—on how to best prepare the future workforce for the Life Sciences sector. The full report analyzes data on job growth, training gaps, hiring challenges and skills in demand from employers.

OVERVIEW OF LIFE SCIENCES IN SAN DIEGO COUNTY

The Life Sciences sector accounts for more than 1,372 establishments[1] and 45,000 workers. From 2005 to 2013, Life Sciences employment in San Diego County grew by more than 35%, which is considerably faster than the nation or California as a whole. More than 130 firms were surveyed and interviewed for this report. Companies that are diversified and engaged in multiple subsectors expect the most employment growth between 2014 and 2015 compared to businesses that focused on only one subsector.

LIFE SCIENCES FIRMS THAT EXPECT TO INCREASE EMPLOYMENT IN 12 MONTHS BY SUBSECTOR

Legend: More · Same · Less · No Response

Subsector	More	Same	Less	No Response
Multiple subsectors	67%	19%		14%
Agricultural & industrial biotechnology	64%	29%		7%
Pharmaceuticals	55%	36%		9%
Biomedical or medical devices	43%	38%	8%	11%
Research, testing & medical laboratories	40%	60%		
Other	43%	57%		

The nine occupations selected for in-depth analysis in this study have an average annual wage of approximately $73,000 and are projected to have a large number of job openings in the region.

1. Lab assistants, technicians or specimen accessioners/ processors
2. Manufacturing or production technicians or assemblers
3. Materials handlers or supply-chain technicians
4. Medical lab technicians or clinical lab scientists
5. Quality assurance analysts, auditors or specialists
6. Quality control associates, assistants or coordinators
7. Regulatory affairs specialists or analysts
8. Research associates or assistants (preclinical, research & development or clinical)
9. Sales representatives or business development specialists

EMPLOYER-DESIRED KNOWLEDGE, SKILLS AND ABILITIES

Job postings and employment data indicate that the following knowledge, skills and abilities (KSAs) are the most commonly associated KSAs in the nine occupations:

- Chemistry
- Inspection
- Good manufacturing practices
- Biology
- Validation
- Laboratory equipment
- Good lab practices
- Calibration
- Quality assurance and control
- Oral and written communication
- Bioinformatics
- Organization
- Research
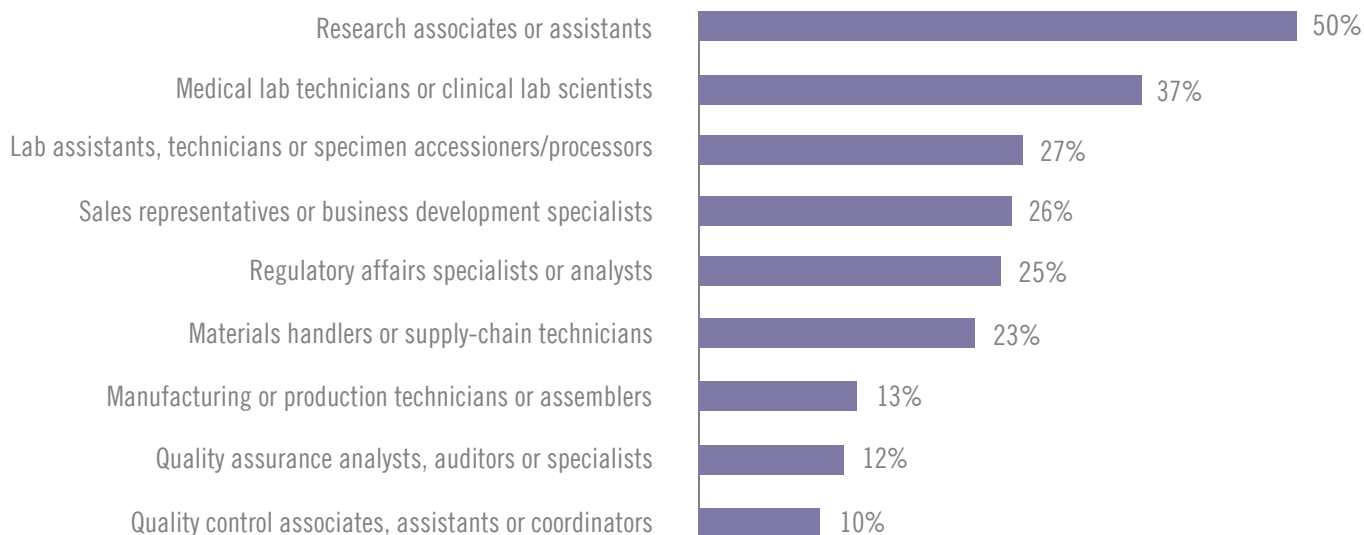- Detail-oriented
- Problem-solving
- Troubleshooting

EMPLOYER PROJECTED 12-MONTH EMPLOYMENT GROWTH

2014 EMPLOYMENT
45,636

→

2015 EMPLOYMENT
49,926

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9.4%
INCREASE IN JOBS

1. An "establishment" is a single physical location of a business used for reporting purposes in government data sources. A single company may have multiple establishments.
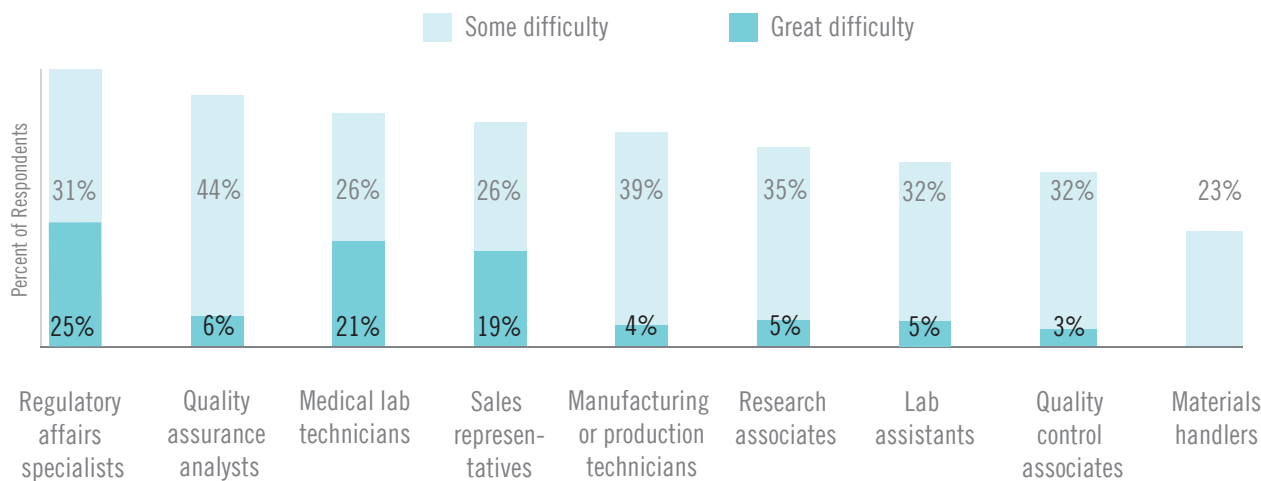
All occupations in this research are expected to increase in employment. The following depicts the percentage of employers who expect to hire more employees in each occupation from 2014 to 2015.

LIFE SCIENCES FIRMS THAT EXPECT TO INCREASE EMPLOYMENT IN 12-MONTHS BY OCCUPATION
PERCENT OF RESPONDENTS

Occupation	Percent
Research associates or assistants	50%
Medical lab technicians or clinical lab scientists	37%
Lab assistants, technicians or specimen accessioners/processors	27%
Sales representatives or business development specialists	26%
Regulatory affairs specialists or analysts	25%
Materials handlers or supply-chain technicians	23%
Manufacturing or production technicians or assemblers	13%
Quality assurance analysts, auditors or specialists	12%
Quality control associates, assistants or coordinators	10%

Employers reported at least some difficulty in finding qualified applicants for all nine occupations. This information can assist educational institutions in developing and refining programs to meet their needs.

EMPLOYER REPORTED DIFFICULTY IN HIRING QUALIFIED CANDIDATES

Some difficulty · Great difficulty

Percent of Respondents

Occupation	Some difficulty	Great difficulty
Regulatory affairs specialists	31%	25%
Quality assurance analysts	44%	6%
Medical lab technicians	26%	21%
Sales representatives	26%	19%
Manufacturing or production technicians	39%	4%
Research associates	35%	5%
Lab assistants	32%	5%
Quality control associates	32%	3%
Materials handlers	23%	

RECOMMENDATIONS FOR WORKFORCE DEVELOPMENT

- Focus on programs that expose and educate youth of the employment opportunities in Life Sciences
- Emphasize key areas in Life Sciences such as bioinformatics, bioengineering, data mining and analysis and biochemistry in training programs
- Develop workforce tools that continually inform educators about the changing needs of employers due to technological developments and innovation
- Inform job seekers that employment opportunities are available to those who are willing and able to learn as well as adapt and respond quickly in a rapidly changing environment
- Incorporate communication skills in training programs to combine a scientific background with the ability to communicate complicated scientific information

For complete details, view full report at workforce.org/industry-reports

Acknowledgements

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