



BIOTECHNOLOGY EMPLOYMENT OPPORTUNITY

San Diego County, California

Market-responsive Education
and Employment Training System

MEETS

Brief SDC.2005-1

June 2005

Employment Development Department

LaborMarketinfo

DID YOU KNOW?

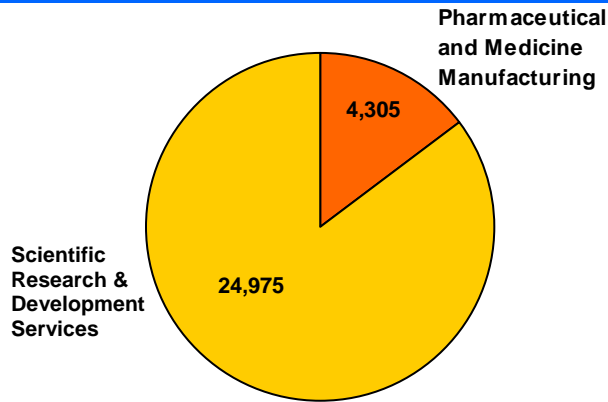
- Two and a half percent of San Diego County employment is classified as biotechnology.
- Eighty-five percent of this biotechnology employment is in *Scientific Research and Development Services*.
- San Diego County biotechnology employers hired over 10,000 new employees in the most recent full year of data coverage, despite modest loss in the total number of biotechnology employees.
- Slightly over half of the new biotechnology employees are women, and fifty-one percent are between the ages of 25 and 44 years old.

This Brief introduces you to the source of the highlights presented above. Inside, you will find other new insights about biotechnology employment in San Diego County, California. You will also find suggested ways to use this new information for decision-making. A series of industry briefs like this are now available from MEETS.



U.S. Department of Labor
Employment & Training Administration

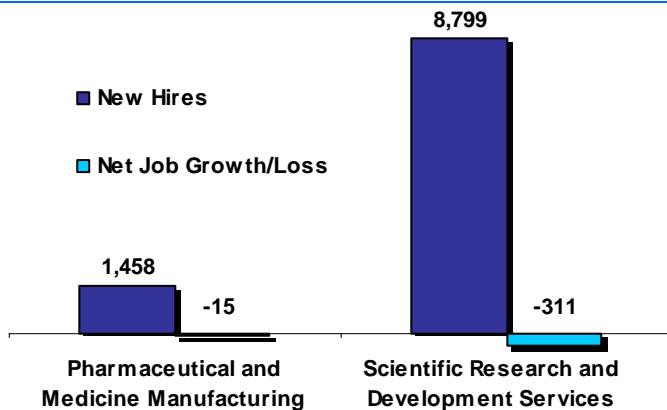
San Diego County, California: Biotechnology Employment Highlights



U.S Census Bureau Local Employment Dynamics (LED) Data for 3rd Quarter 2003

EMPLOYMENT AFFILIATIONS WITHIN BIOTECHNOLOGY

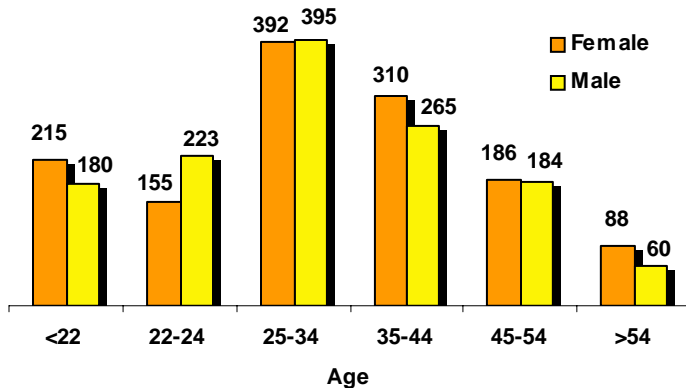
Eighty-five percent of San Diego County Biotechnology employment is in Scientific Research & Development Services Industry Group, which is dominated (89% nationally) by R&D in the Physical, Engineering, & Life Sciences. Pharmaceutical & Medicine Manufacturing, including Medicinal & Botanical, Pharmaceutical Preparation, In-Vitro Diagnostic Substances, and Biological (except Diagnostic) Products, accounts for the remaining 15% of biotechnology employment.



LED Data for 4th Quarter 2002–3rd Quarter 2003

ANNUAL HIRES AND NET GROWTH/LOSS WITHIN BIOTECHNOLOGY

San Diego County's Biotechnology hiring patterns virtually mirror employment, with 86% of new hires occurring in Scientific Research & Development Services. While both industry groups experienced modest net job growth during the year, those figures are far exceeded in each case by their number of new hires. Pharmaceutical & Medicine Manufacturing and Scientific R&D Services each showed significant hiring activity despite overall job loss.



LED Data for 3rd Quarter 2003

QUARTERLY HIRES WITHIN BIOTECHNOLOGY BY GENDER AND AGE

Just over half of new hires in San Diego County's biotechnology industry are between 25 and 44 years old. While men outnumber women among new hires between the ages of 22-34, across all age groups, 51% of biotechnology new hires are women. In biotechnology industry groups (not shown here), women also represent a slight majority of new hires in Scientific R&D Services, with men claiming a slight edge in Scientific & Pharmaceutical Manufacturing. Further variation in the gender and age mix occurs at the occupational level.

Occupational Title	May 2003 Employment	Average Hourly Wage
Biological Technicians	1,400	\$18.08
Team Assemblers	480	\$10.51
Marketing Managers	310	\$49.56
Executive Secretaries & Admin. Assistants	1,120	\$20.70
Computer Software Engineer, Applications	600	\$40.40
Biochemists & Biophysicists	510	\$32.78
Medical Scientists, Except Epidemiologists	1,270	\$35.09

BIOTECHNOLOGY OCCUPATIONAL STATISTICS*

These metro area statistics highlight two facets of biotechnology employment: 1) Some occupations in biotechnology are not found in this industry alone, such as computer software engineers; and 2) occupational earnings vary widely. The highlights chosen for this page are intended to guide local inquiries.

*Source for Occupational Statistics: California Employment Development Department (EDD), Labor Market Information Division (LMID)

WHAT ARE BIOTECHNOLOGY JOBS?

The Census Bureau Local Employment Dynamics (LED) program QWI statistics presented in this brief use the North American Industry Classification System's (NAICS) coding of biotechnology industry sub-sectors. Dependent upon the NAICS definitions, the biotechnology industry includes establishments which produce pharmaceutical and medicine goods and which support industry research and development. These areas are combined at the industry group level to form a "customized" definition of biotechnology. This speaks to the specialized nature of this industry.

Occupational information is not in the LED data. Biotechnology occupations fall into various groups, including: scientific professionals such as biochemists and biophysicists, workers associated more with the manufacturing processes (e.g., technicians and team assemblers), and other types of work performed in the biotechnology industry (e.g., marketing, administrative support, and computer software applications).

Data users should contact the California Employment Development Department, Labor Market Information Division (LMID), for assistance in combining industry and occupational information to answer questions.

EXAMPLES OF HOW TO USE THE NEW LED QWI INFORMATION

- Think about why there are so many new hires in biotechnology even during a period of overall job loss. This will help to separate high turnover jobs from more stable opportunities. While high-turnover jobs may be appropriate destinations for some jobs seekers, most strategic decisions focus on stable opportunities with potential for continued learning and earning growth.
- Think about the gender disparities within the biotechnology industry groups and decide what your conclusion means for the individual and program management decision-making.
- Align the age group breakout of new hires activity in biotechnology with current or targeted program demographics and decide whether and what additional information is needed before making strategic management counseling decisions.

USEFUL WEB LINKS

California labor market information: <http://www.labormarketinfo.edd.ca.gov>

BLS occupational employment statistics *Technical Notes*: http://www.bls.gov/oes/current/oes_tec.htm

BLS occupational employment projections methods: <http://www.bls.gov/emp/home.htm>

BLS National Industry-Occupation Employment Matrix information:

<http://www.bls.gov/emp/nioem/empioan.htm>

Standard occupational classification *user guide*: <http://www.bls.gov/soc/socguide.htm>

NAICS Codes and Titles: <http://www.census.gov/epcd/naics02/>

Sources of the data included in this Brief are:

- The California Employment Development Department (EDD), Labor Market Information Division (LMID) (<http://www.labormarketinfo.edd.ca.gov>)
- The Census Bureau Local Employment Dynamics (LED) program (<http://lehd.dsd.census.gov>)

EDD and LED have joined forces to deliver the new **Quarterly Workforce Indicators (QWI) series**. No new information is collected. No surveys are conducted. No new employer or employee burden is involved. No confidentiality laws or principles are compromised.

What is new here?

- Reliable local employment and new hire indicators by age group and gender.
- Updates with no more than a one-year lag in availability.
- More descriptive detail thanks to adoption of a new disclosure-proofing approach that continues to protect business and work anonymity.

Remaining challenges include:

- Awareness that *new* means *unfamiliar*. Some commitment to learning is needed to fully realize the potential from new indicators and decision-making uses.
- Understanding the value of the new indicators, even though they can not answer all questions.

Why now, and not before?

- Seven years, 1998-2004, were needed to successfully complete the organizational, legal, staffing and technical steps to transition from start-up though pilot testing to production and release.
- Continuing advances in data processing capacity and efficiency allow commitment to a production schedule that was impossible to imagine earlier.
- The workforce development community understands that sustained reinvention is urgent to become and remain viable in the open world economy.

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This **Market-responsive Education and Employment Training System (MEETS)** Brief was prepared by **The Jacob France Institute**, University of Baltimore. MEETS funding is received through the Office of Policy Development and Research, Employment and Training Administration, U.S. Department of Labor. Partners in the design and production of this draft were the California Employment Development Department (EDD), the Labor Market Information Division (LMID), and the San Diego Workforce Partnership. The Jacob France Institute accepts sole responsibility for the accuracy of information, views expressed, conclusions reached and recommendations offered here. Comments are welcome and should be sent to the MEETS project manager, Jeff Gabriel at jgabriel@ubalt.edu