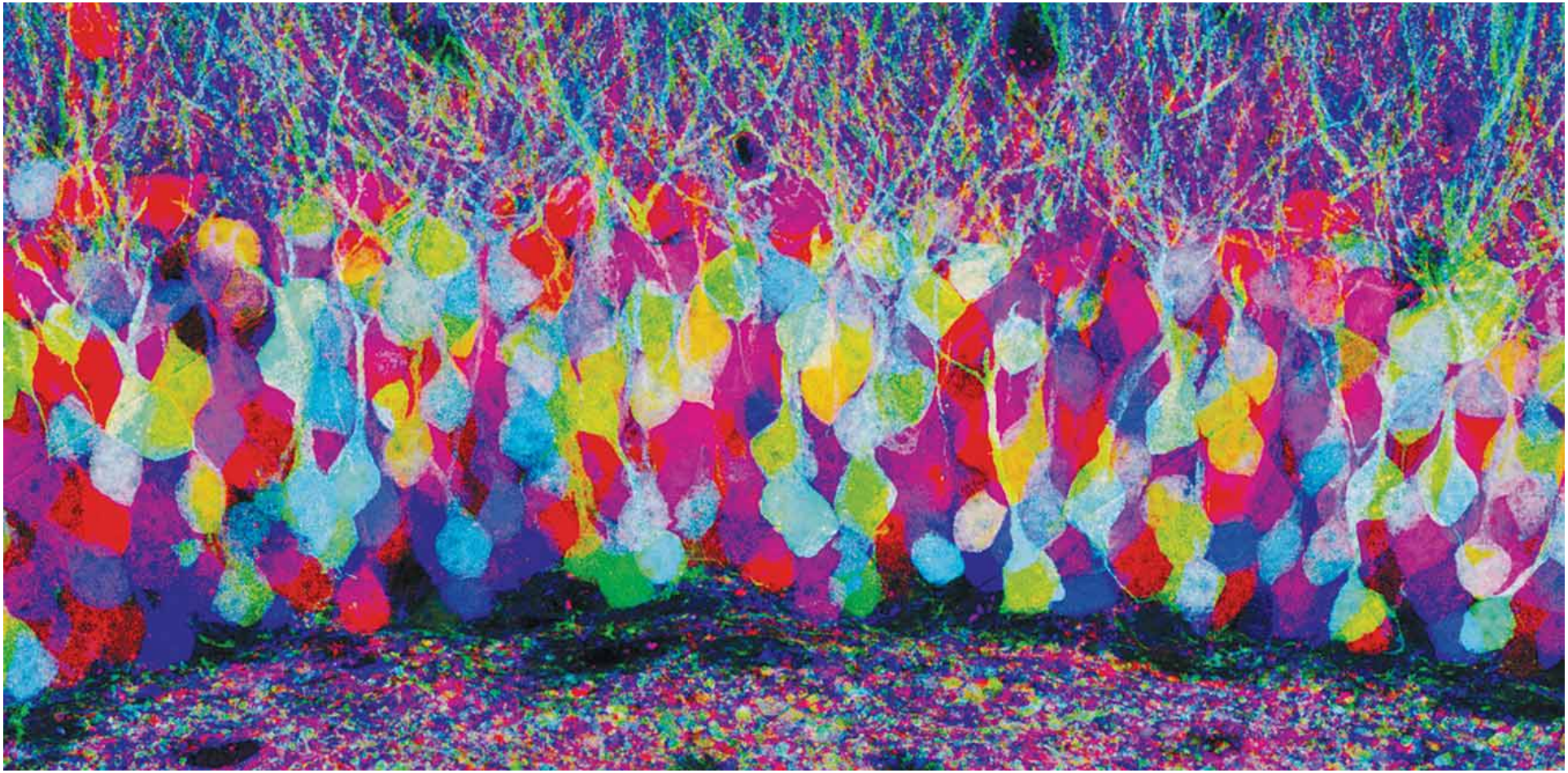
California Biomedical Industry

2009 Report



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PRICEWATERHOUSECOOPERS

Defining California's Biomedical Industry

- Academic research
- Biopharmaceuticals
- Diagnostics
- Laboratory services
- Medical devices
- Wholesale trade

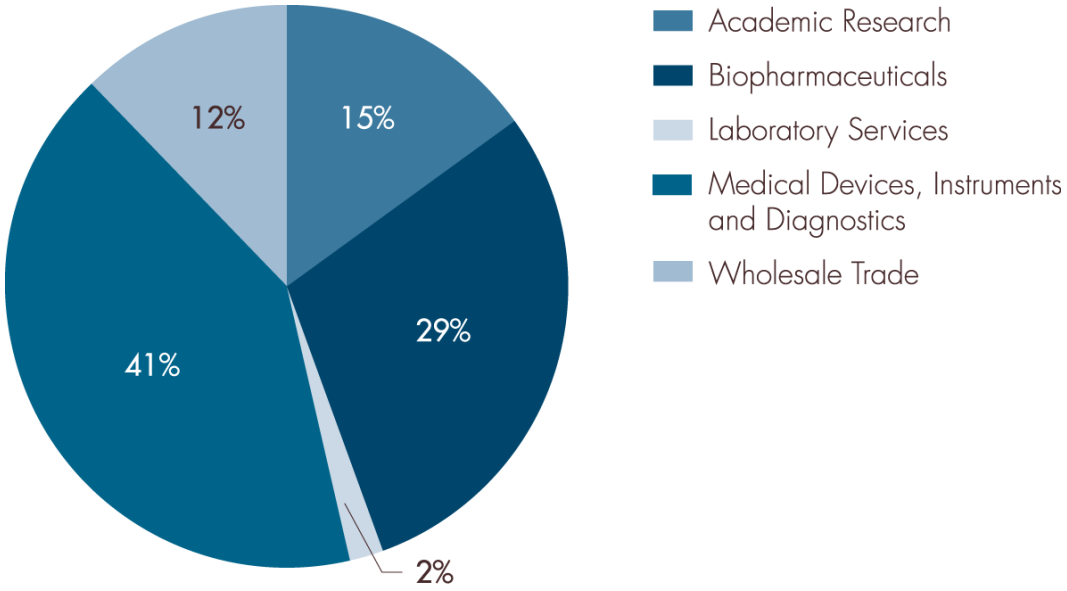
California Biomedical Industry Highlights

- Total biomedical companies: 2,042
- Total estimated revenue: $74.5 billion
- Total estimated employment: 271,000
- Overall biomedical average wages: $75,000
- Total NIH grants awarded: $3.2 billion
- Total estimated VC investment: $4.3 billion
- Estimated private investment in R&D: $28.2 billion

Employment

Highlights

Companies making medical devices, instruments and diagnostics represent 41% of the sector.

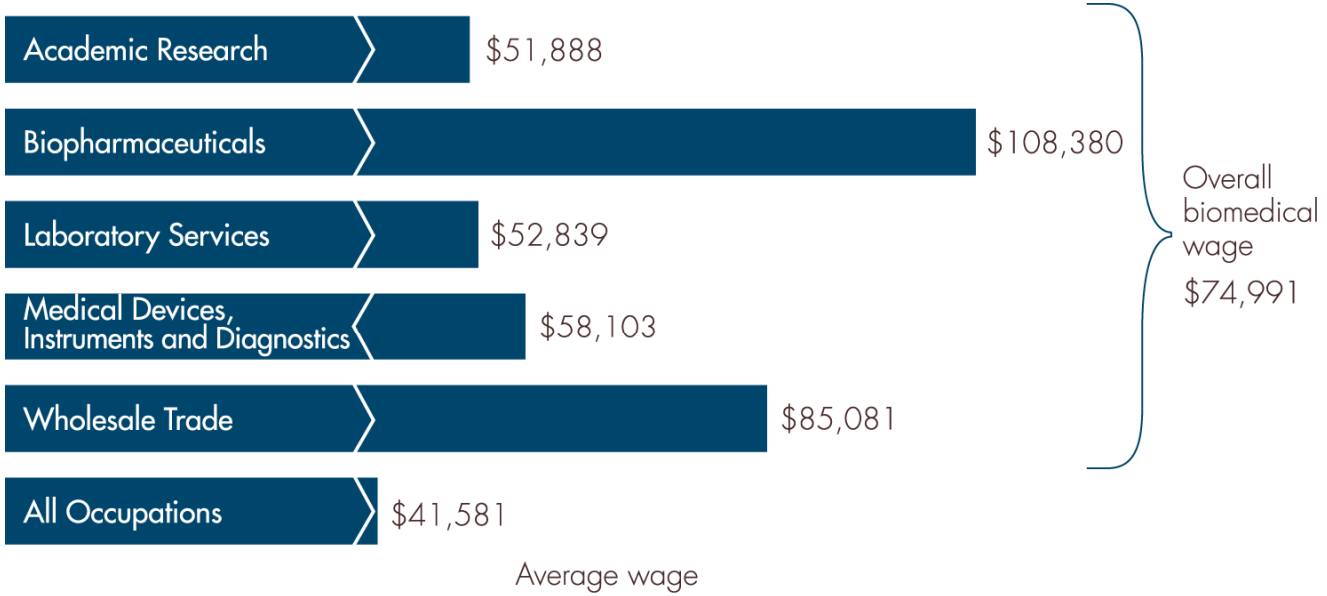


Note: Numbers may not sum to total due to rounding
Source: California Employment Development Division Bureau of Labor Statistics and company-specific SEC filings.

Robust Wages

Highlights

Average industry wage of $75,000 outpaced by 80% the estimated annual wage of all occupations in the state.

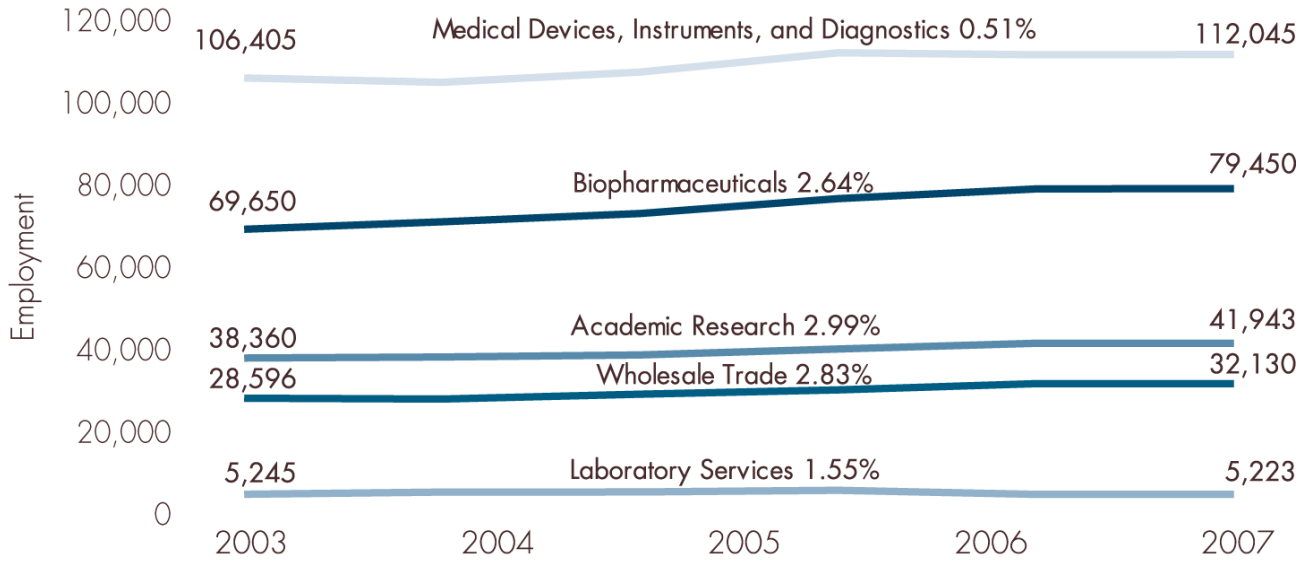


Note: 2006 wages inflated to 2007 using the Consumer Price Index
Source: Bureau of Labor Statistics

Employment Growth

Highlights

Between 2003 and 2007, the industry added approximately 23,000 jobs and grew at an annual average rate of 1.76%.

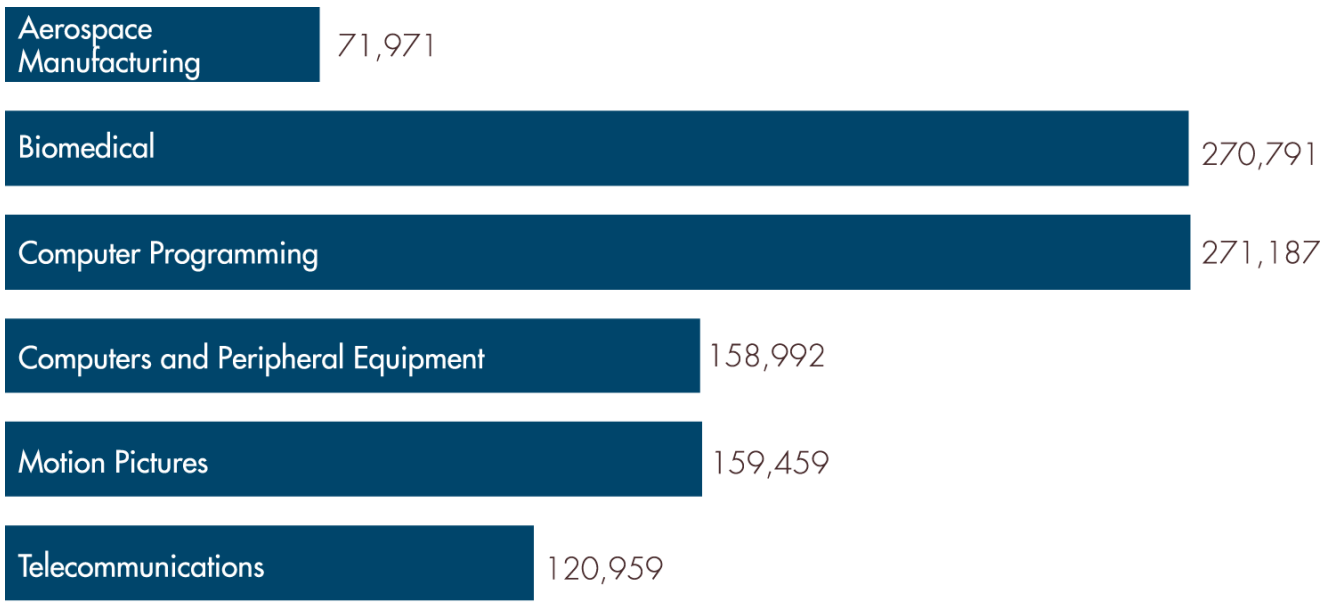


Source: California Employment Development Division, Bureau of Labor Statistics, and company specific SEC filings.

Leading High-Tech Employer

Highlights

The biomedical sector employs significantly more people than aerospace and motion pictures combined.



Source: California Employment Development Division, Bureau of Labor Statistics

Industry Committed to California

- 53% expect to increase workforce in next two years
- 51% expanded in-state R&D capacity in 2007; 35% expect to expand R&D activities
- 41% expect to increase California manufacturing workforce within next two years; 53% expanded in-state manufacturing capacity in 2007; 49% plan to expand in-state manufacturing activities

Is California Missing Opportunities?

Highlights

While committed to operating in California, biomedical firms are expanding operations, employment, revenues and tax dollars in other states and countries.

- 56% expanded outside of California
- 34% expect to expand manufacturing outside of the state in the next two years

Biomedical Companies Support Education

Highlights

A highly skilled workforce is key to the success of the biomedical industry in California.

- Amgen Scholars
- Bayer's Making Science Make Sense
- Biogen Idec Community Lab
- Biotech Partners
- Cedars-Sinai Youth Employment and Development Program
- Discovery Science Center
- Elementary Institute of Science
- Eugene and Ruth Roberts Summer Student Academy
- Genentech Foundation
- Genentech Foundation for Biomedical Sciences
- High Tech High
- Inner World Discovery
- Life Sciences Summer Institute
- Pfizer Education Initiative
- Preuss School
- Science Matters
- Skyline College Biomanufacturing Training Partnership
- United Negro College Fund/Merck Science Initiative
- Alliance/Merck Ciencia Hispanic Scholars Program
- Merck Index Women in Chemistry Scholarships

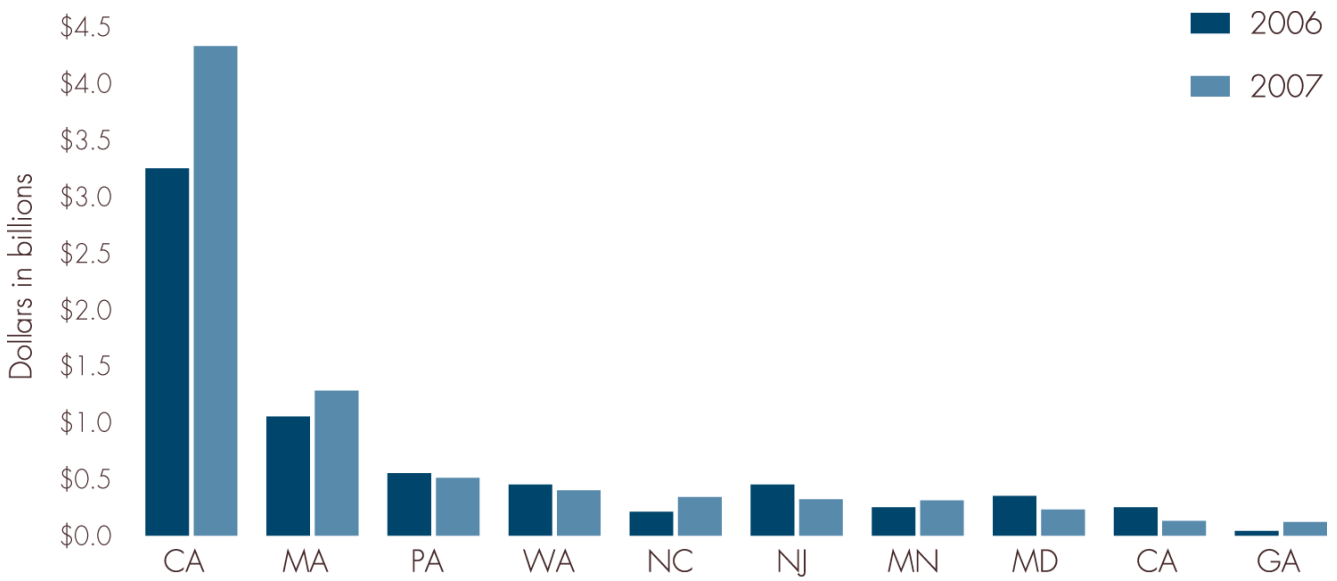
Investing in R&D

- Public biomedical companies that are doing business in California invested an estimated $28.2 billion in the research and development of new products in 2007 for unmet medical needs.

Venture Capital Investment

Highlights

Venture capital invested in California life sciences increased to $4.3 billion, up from $3.2 billion in 2006.



Source: PricewaterhouseCoopers and National Venture Capital Association, Money Tree Report, 2007. Data from Thomson Financial.

Life Sciences Investment by Sector

Highlights

In the first three quarters of 2008, California's biomedical companies completed 238 deals valued at $3.1 billion. That compared to 228 deals worth $3.2 billion in the same period 2007.

Venture capital investment in California life sciences companies first quarter 2006 to third quarter 2008, by sector

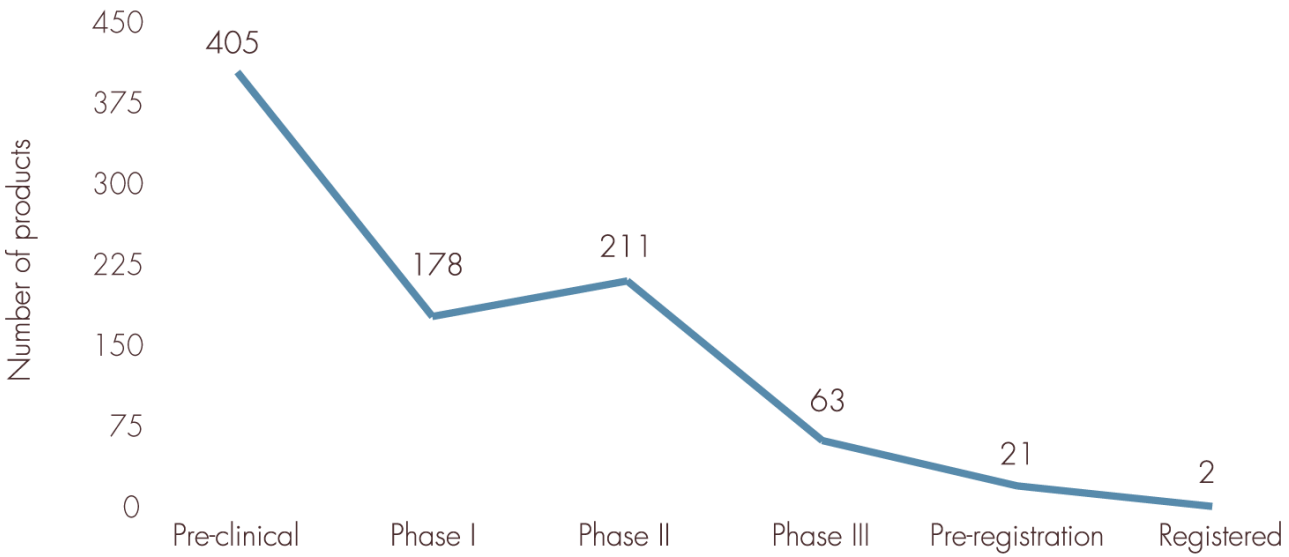
Quarter	Total	Biotechnology	Medical devices
Q1 2006	$755	$363	$392
Q2 2006	$717	$382	$335
Q3 2006	$793	$458	$335
Q4 2006	$969	$682	$287
Q1 2007	$1,392	$603	$789
Q2 2007	$1,007	$568	$439
Q3 2007	$802	$489	$313
Q4 2007	$1,082	$634	$448
Q1 2008	$1,050	$491	$559
Q2 2008	$1,002	$461	$541
Q3 2008	$1,014	$620	$394

Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report, Data: Thomson Reuters

California's Biopharmaceutical Pipeline

Highlights

California companies have almost 900 products in the pipeline, 452 of which are being evaluated in clinical trials.



Source: IMS Health R&D Focus July 2008

Cancer a Major Focus of Medical Innovation

Highlights

About one third (32%) of the products in California's pipeline target cancer.

Disease Focus	Number in CA pipeline
Oncology	282
Central Nervous System	131
Infectious Diseases	115
Immune System and Inflammation	92
Cardiovascular and Blood Diseases	88
Diabetes and Metabolics	79

Source: IMS Health R&D Focus July 2008

Molecular Diagnostics a Growing Field in California

- Evolution of personalized medicine
- Continued advances reduce healthcare costs and treatment times
- Conflicts in dual regulatory pathway need to be resolved
- Fair reimbursement essential for continued innovation in the state

Orange County MedTech Cluster

- Total estimated employment: 29,000
- Total estimated wages and salaries paid: $2.2 billion
- Average wage: Nearly $76,800
- Percentage of total California biomedical workforce: 11%
- Statewide ranking: Third

Real Estate

Highlights

"Once we get through this crisis, California will still be a great location for life sciences operations."

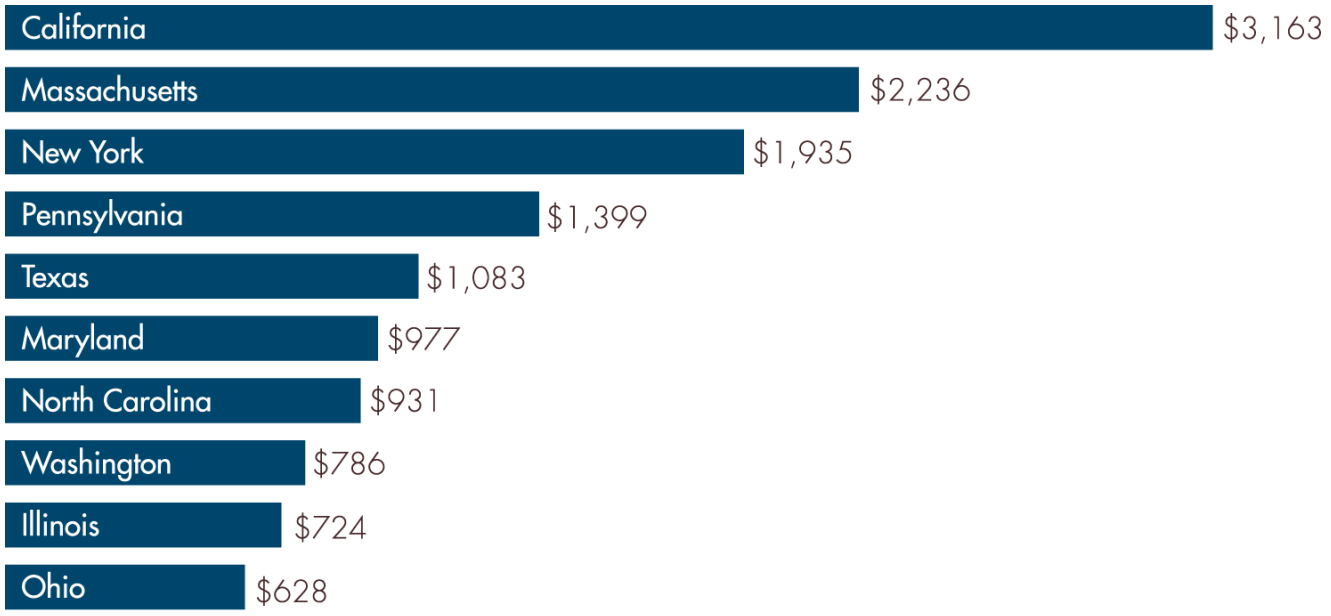
· *Joel Marcus, Alexandria Real Estate Equity*

- Mission Bay
  - 303 Acres
  - By 2011: 13 lab and office facilities in 2.7 million sf
  - Four campuses around UCSF
- Genentech
  - Leadership in Energy and Environmental Design
  - Recycled materials
  - Water conservation
  - Landscaping with native plants
  - Alternative transportation encouraged
- Arena
  - Solar panels
  - Energy efficient building

California Leading the Nation in NIH Grant Funding

Highlights

California's academic researchers have consistently received more NIH funds than any other state.

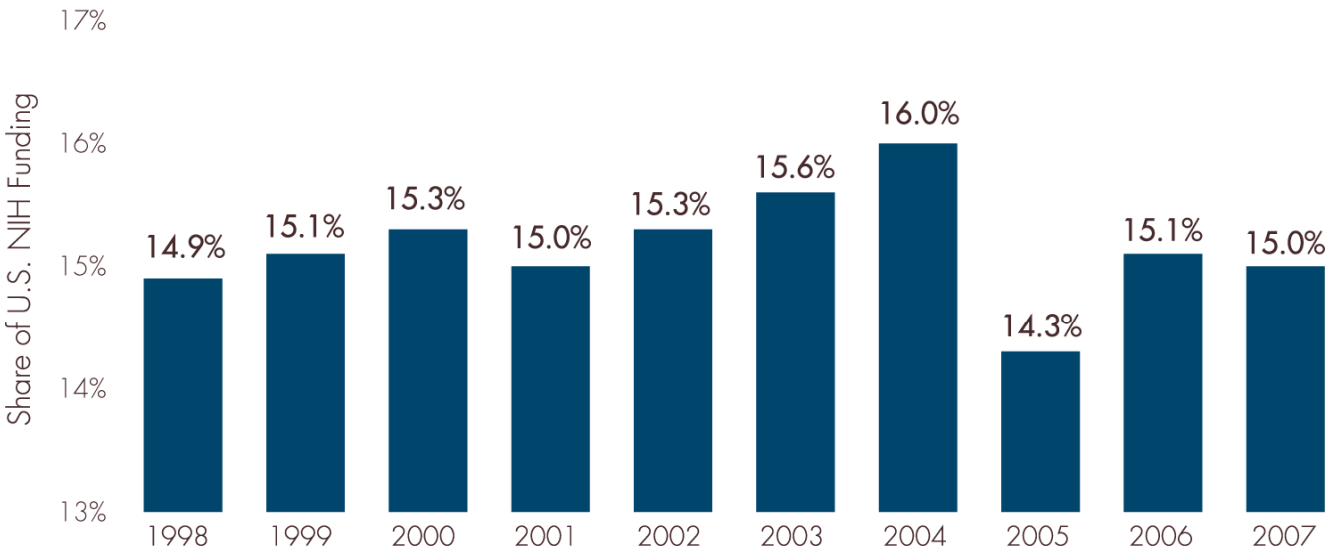


Source: National Institutes of Health, Office of Extramural Research

California's Share of Total NIH Grants

Highlights

California's academic research centers lead the nation in grant funding and commercial licensing agreements.

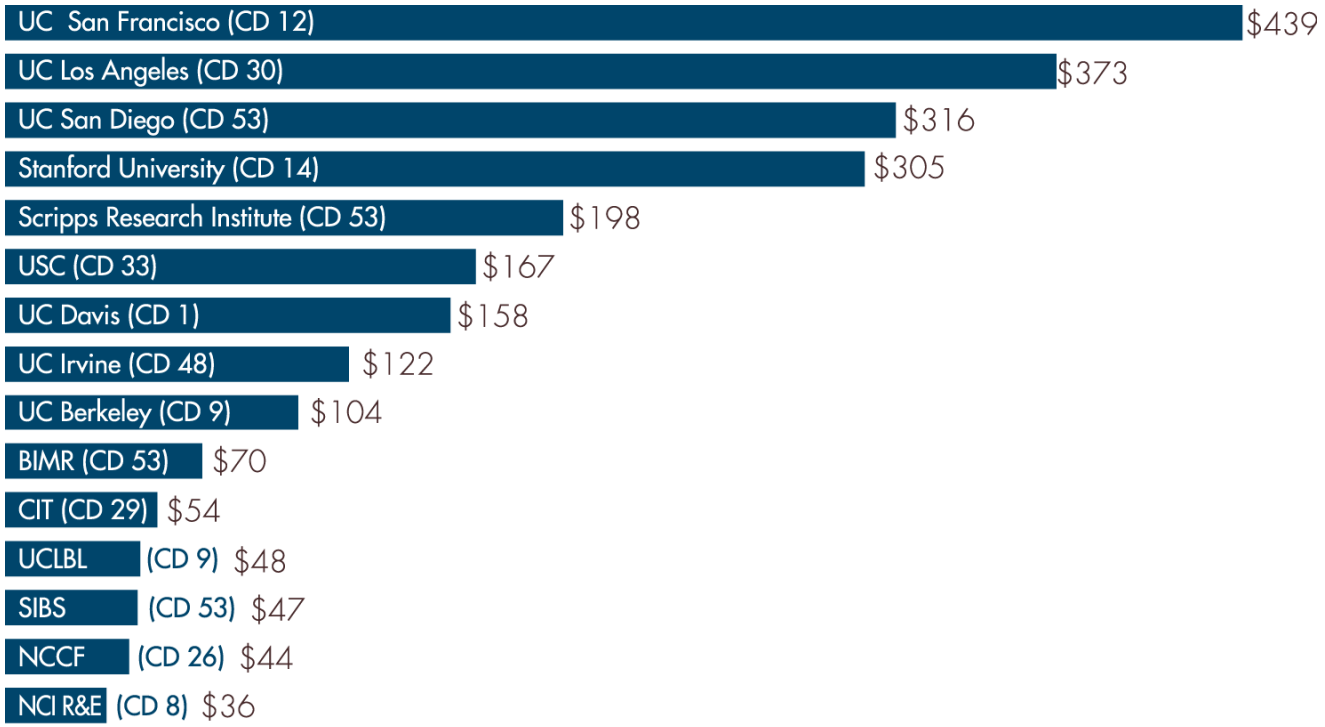


Source: National Institutes of Health, Office of Extramural Research

Ten Largest NIH Grantee Institutes in California

Highlights

Ten of the 15 California institutions receiving the largest amount of NIH funding were universities.

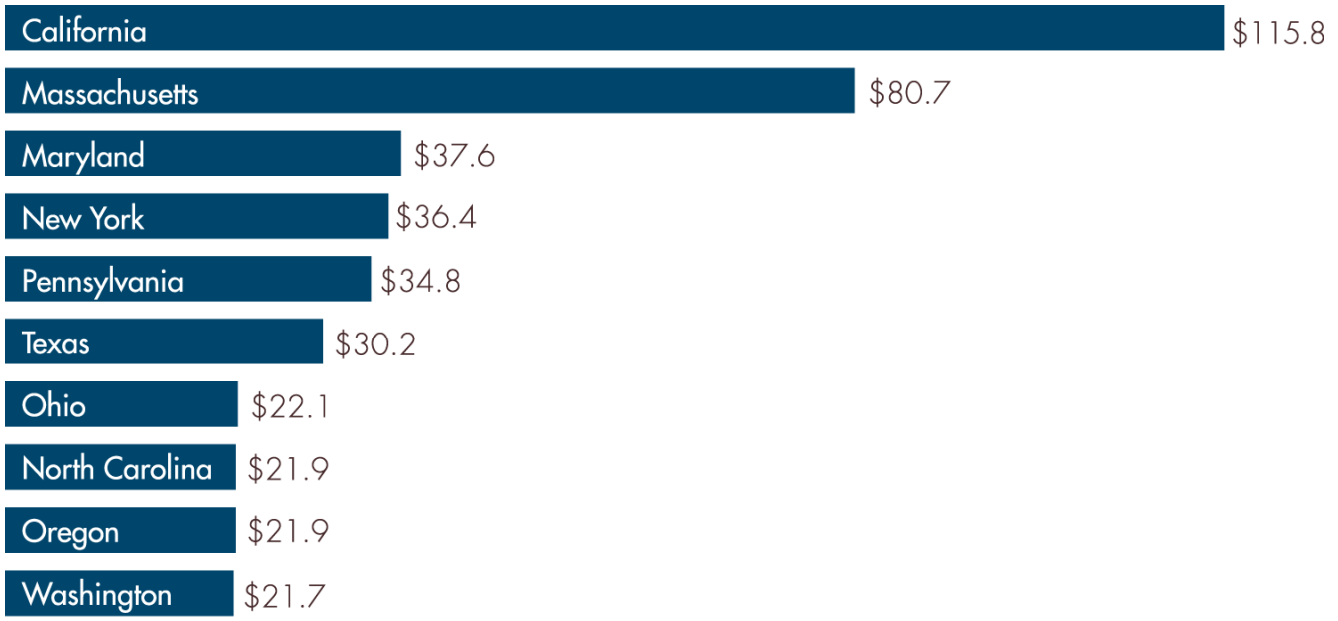


Source: National Institutes of Health, Office of Extramural Research

Government Funding Fuels Small Business Growth

Highlights

The state received the largest number of NIH SBIR and STTR awards (315) and largest amount of funding ($115 million) in U.S.



Source: National Institutes of Health, Office of Extramural Research

The California Institute for Regenerative Medicine (CIRM)

Highlights

CIRM well prepared for task ahead.

- 50+ peer-reviewed publications
- One group has moved into clinical trials
- Global leadership in stem cell science
- 165 scientists have received grants totaling $343 million
- 12 capital projects in the works worth $271 million

California Leads the World in Life Sciences Innovation

Highlights

Rebuilding the industry will demand a level of economic and political ingenuity commensurate with the creativity that originally inspired us.

- Biomedical industry's essential value = human health + enterprise
- Continued success depends on government investment in basic research, ready access to capital, fair reimbursement for innovation
- Workforce development and education must be a priority