

# The Life Sciences Industry in California

*Silicon Valley Tax Directors Group*

*Stanford Park Hotel*

*Thursday, March 5, 2009*



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CALIFORNIA HEALTHCARE  
INSTITUTE

# Defining California's Biomedical Industry

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

# California Biomedical Industry Highlights

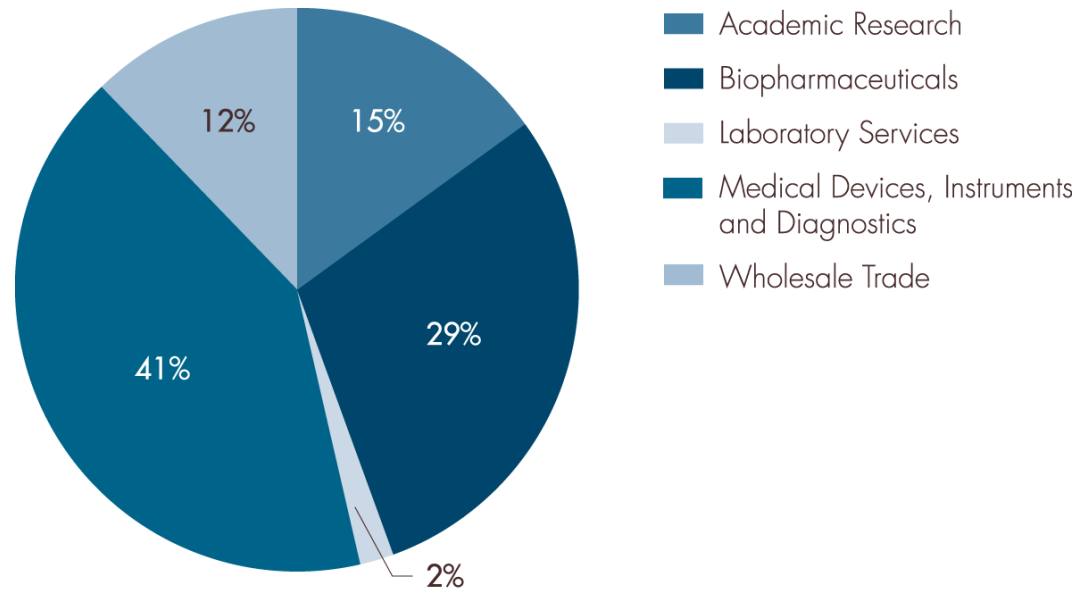
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- *Total biomedical companies:* 2,042
- *Total estimated revenue:* \$74.5 billion
- *Total estimated employment:* 271,000
- *Overall biomedical average wages:* \$75,000
- *Total NIH grants awarded:* \$3.2 billion
- *Total estimated VC investment:* \$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.*



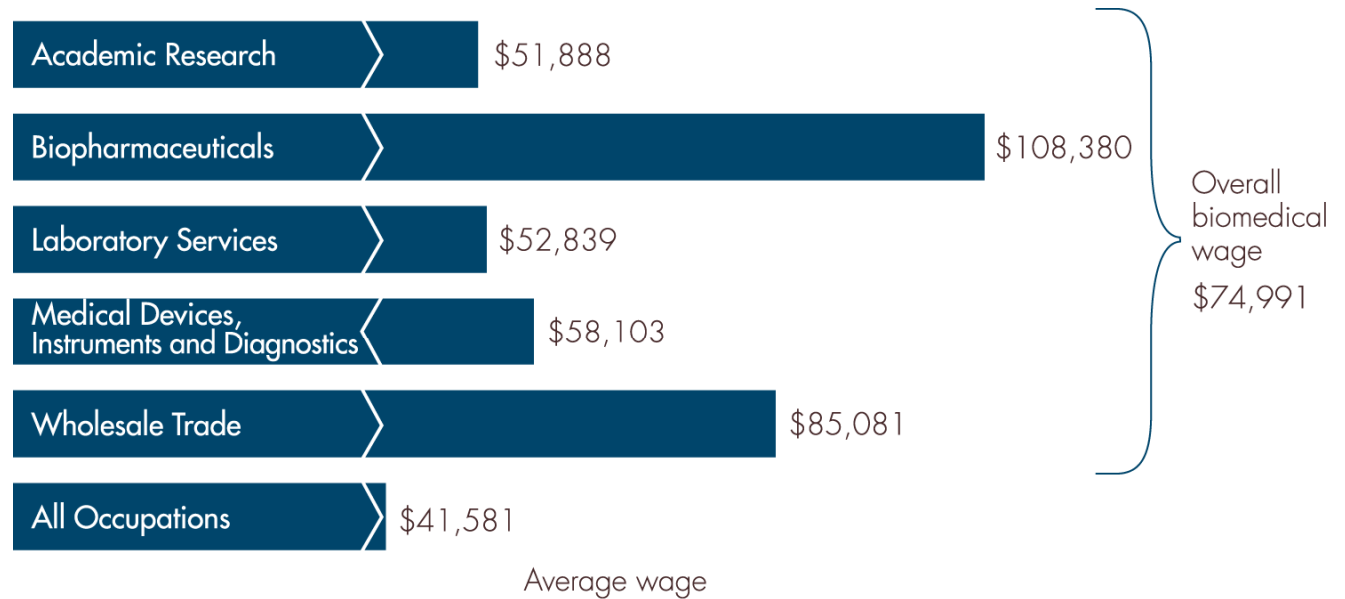
Note: Numbers may not sum to total due to rounding

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.*

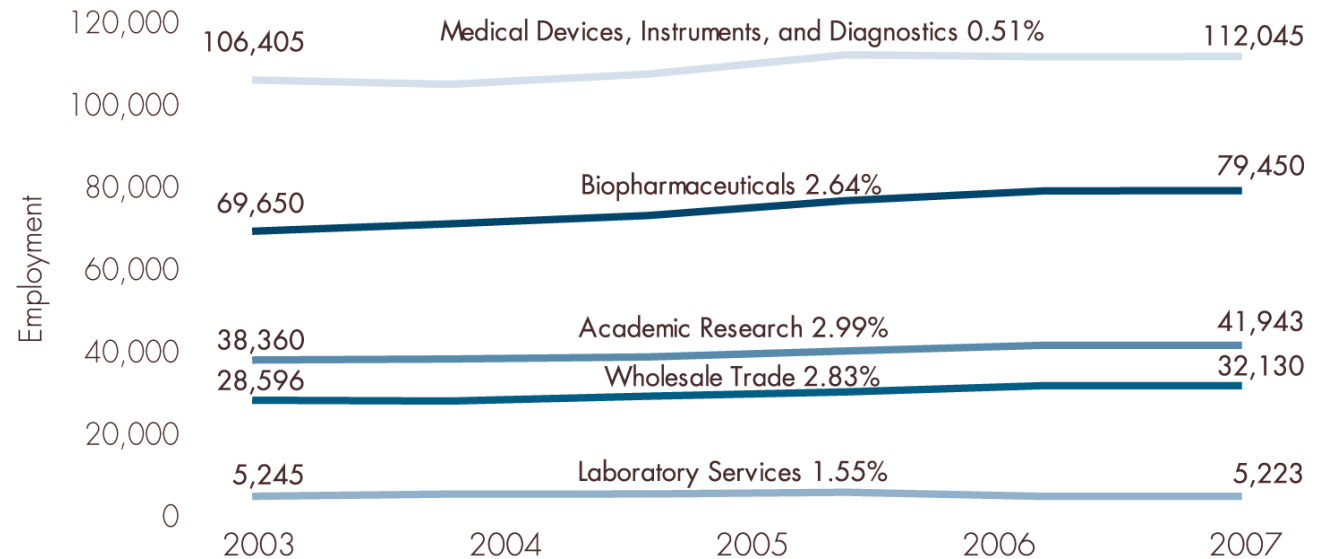


Note: 2006 wages inflated to 2007 using the Consumer Price Index  
Source: Bureau of Labor Statistics

# Employment Growth

## Highlights

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

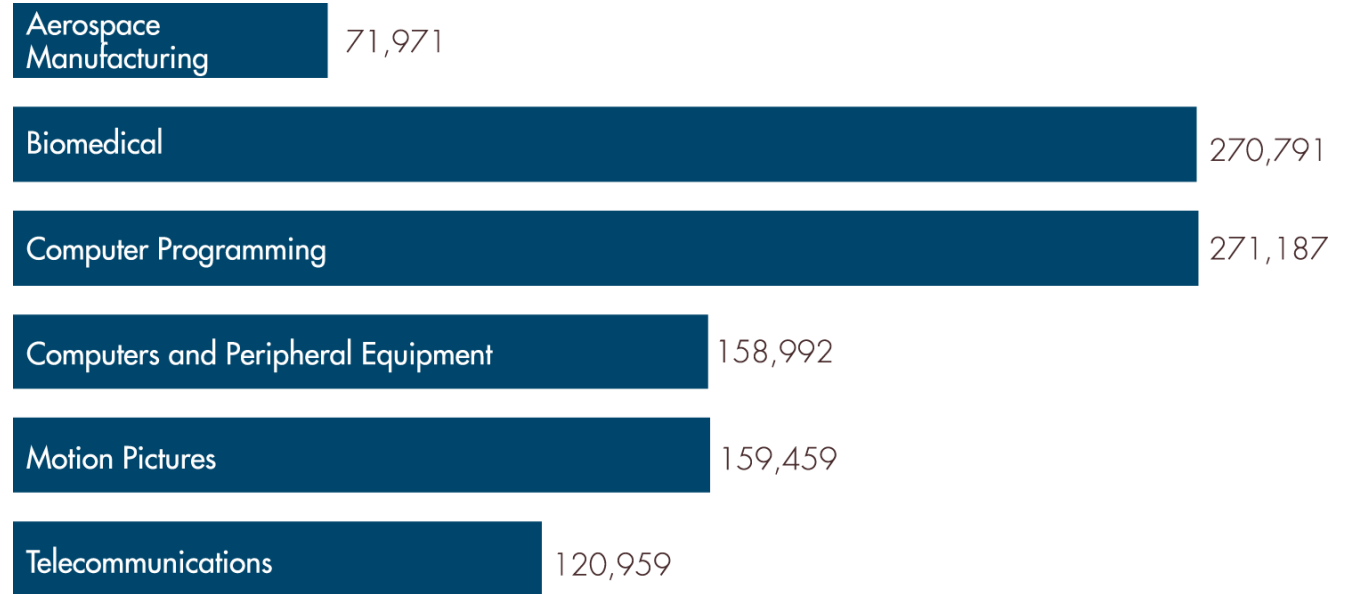


Source: California Employment Development Division, Bureau of Labor Statistics, and company specific SEC filings.

# 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

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- *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?

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## 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*

# Investing in R&D

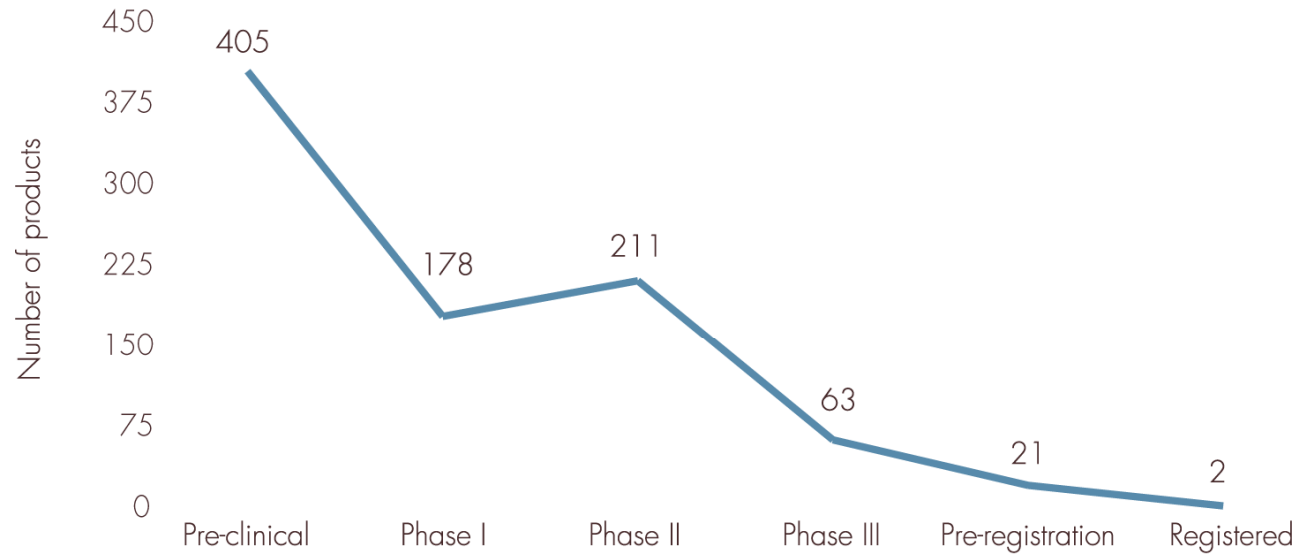
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- *Public biomedical companies that are doing business in California invested an estimated \$28.2 billion in the research and development of new products in 2007 for unmet medical needs.*

# 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.*

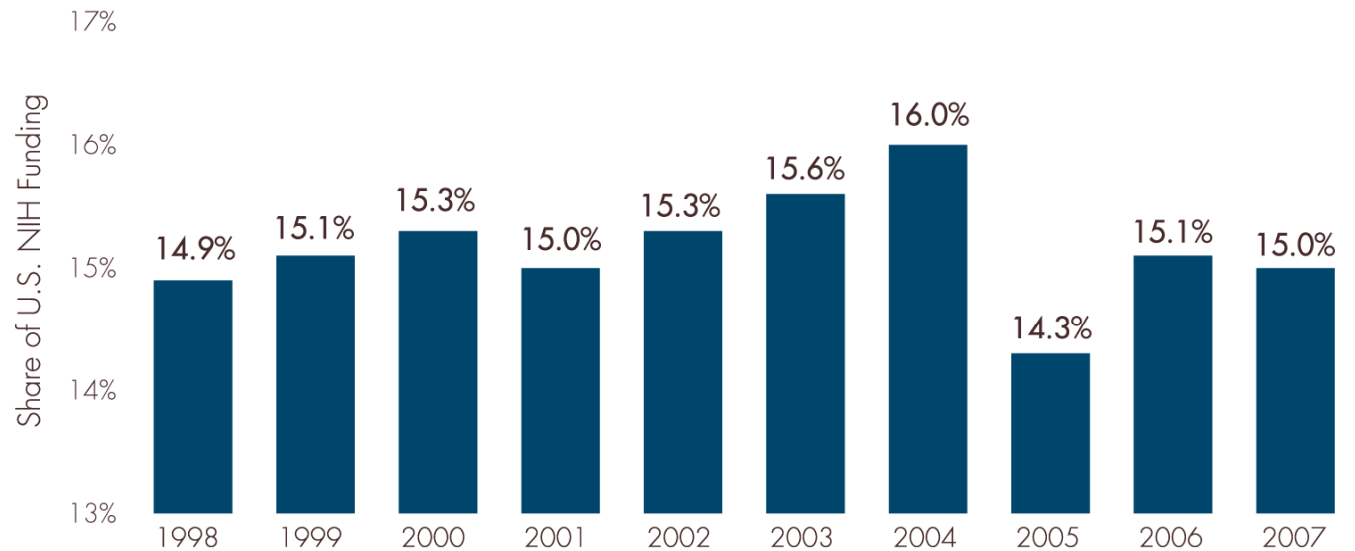
Disease Focus	Number in CA pipeline
Oncology	282
Central Nervous System	131
Infectious Diseases	115
Immune System and Inflammation	92
Cardiovascular and Blood Diseases	88
Diabetes and Metabolics	79

Source: IMS Health R&D Focus July 2008

# California's Share of Total NIH Grants

## Highlights

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

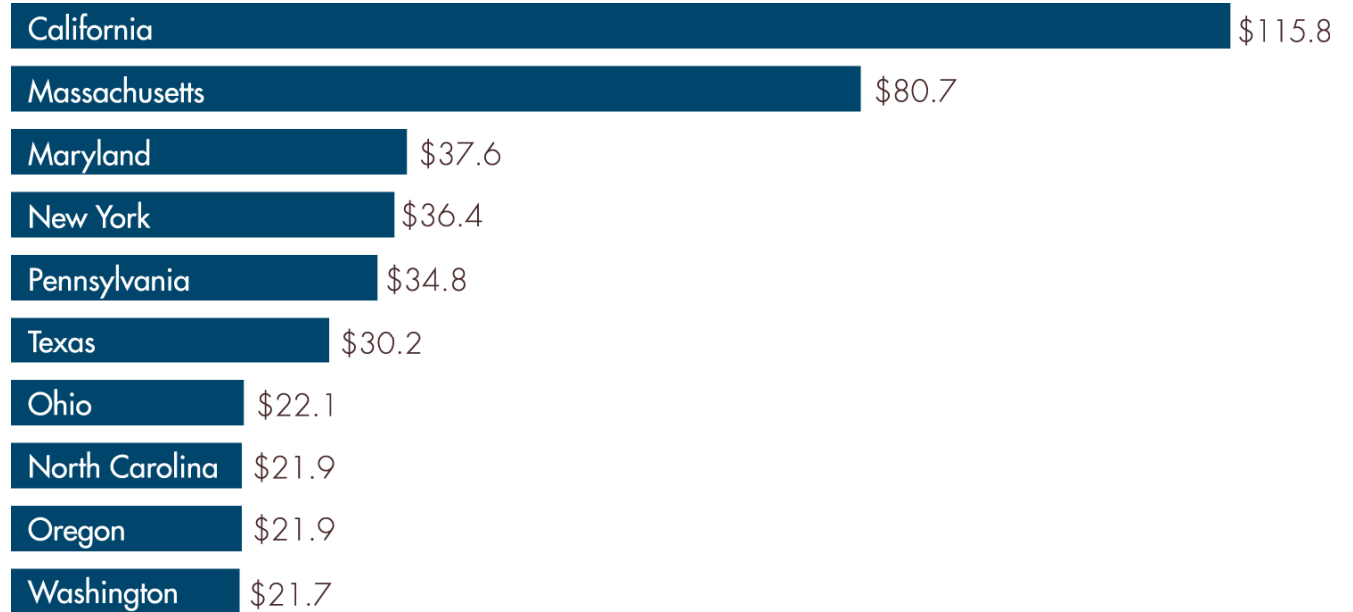


Source: National Institutes of Health, Office of Extramural Research

# 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

# California Leads the World in Life Sciences Innovation

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## 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*