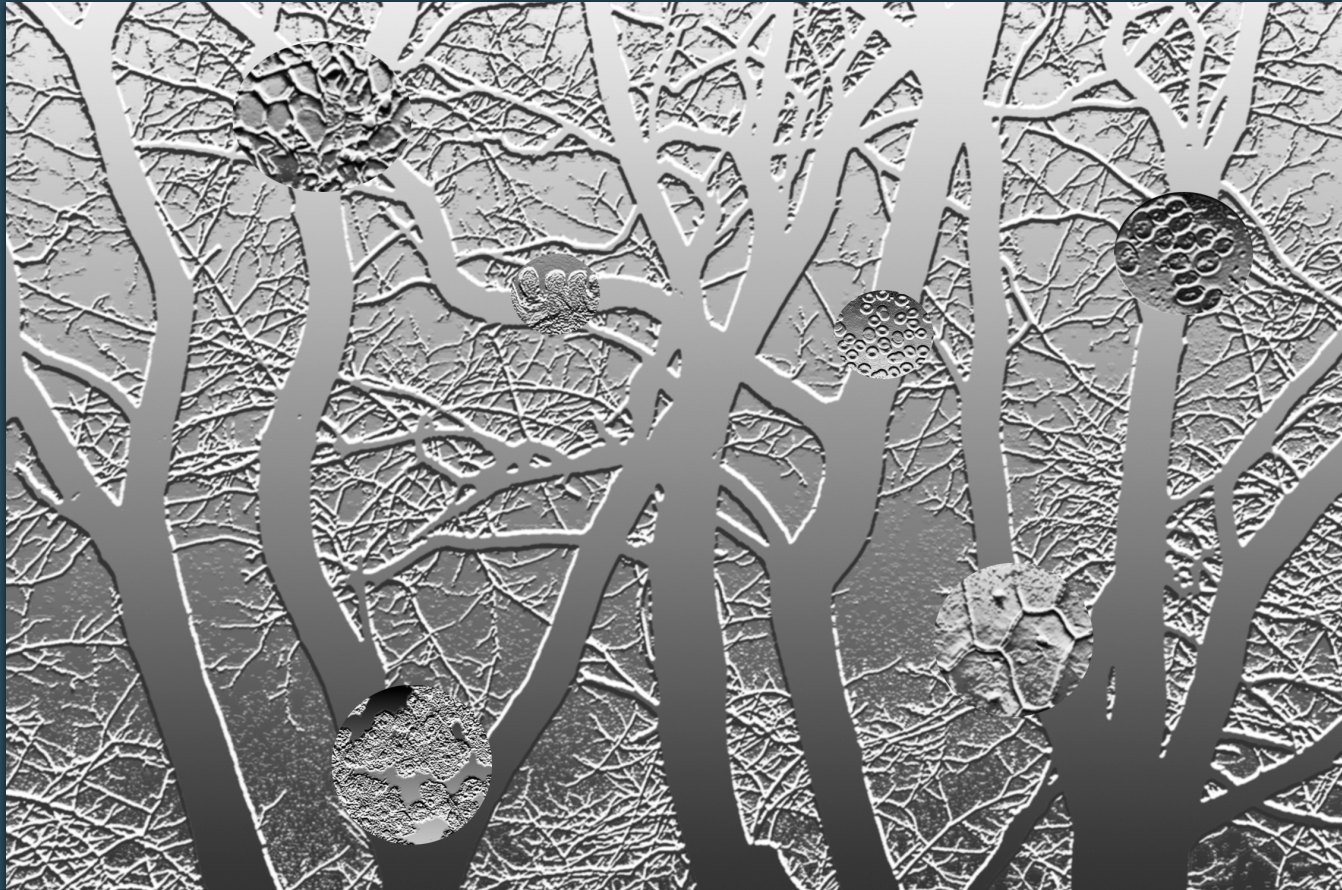


2010 Report

# California Biomedical Industry





## Introduction

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- California Biomedical Industry Snapshot
- Opportunities
- Challenges
- Industry Outlook: Where to Grow?
- Conclusion
- Q&A


Published since 1993, the California Biomedical Industry Report is a collaboration between the California Healthcare Institute and PricewaterhouseCoopers. It features in-depth research in employment, investment and other trends and a survey of the top 200 biomedical employers in California, which was conducted in November 2009.



## Speakers

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- David Gollaher, Ph.D.  
President and CEO, California Healthcare Institute (CHI)
- Tracy Lefteroff  
National Life Sciences Industry Partner,  
PricewaterhouseCoopers LLP
- Michael V. Drake, M.D.  
Chancellor, University of California, Irvine
- George Scangos, Ph.D.  
Chairman of CHI and President and CEO, Exelixis, Inc.



Birthplace of  
biotechnology

California's  
biomedical  
innovation delivers  
not only global  
advances in  
healthcare, but the  
jobs that drive our  
economy.

## California Biomedical Industry Snapshot

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- Home to one-third of U.S. biotech, medical device and diagnostics firms and one in six of 1.6 million U.S. biomedical jobs
- 2,000 California biomedical companies
- 274,000 direct employees in 2008
  - Up from 271,000 in 2007
- Average salary of nearly \$75,000 in 2008
  - Unchanged from 2007
- \$3.15 billion in National Institutes of Health grants to California's universities and research institutes in 2008
  - Compared to \$3.2 billion in 2007

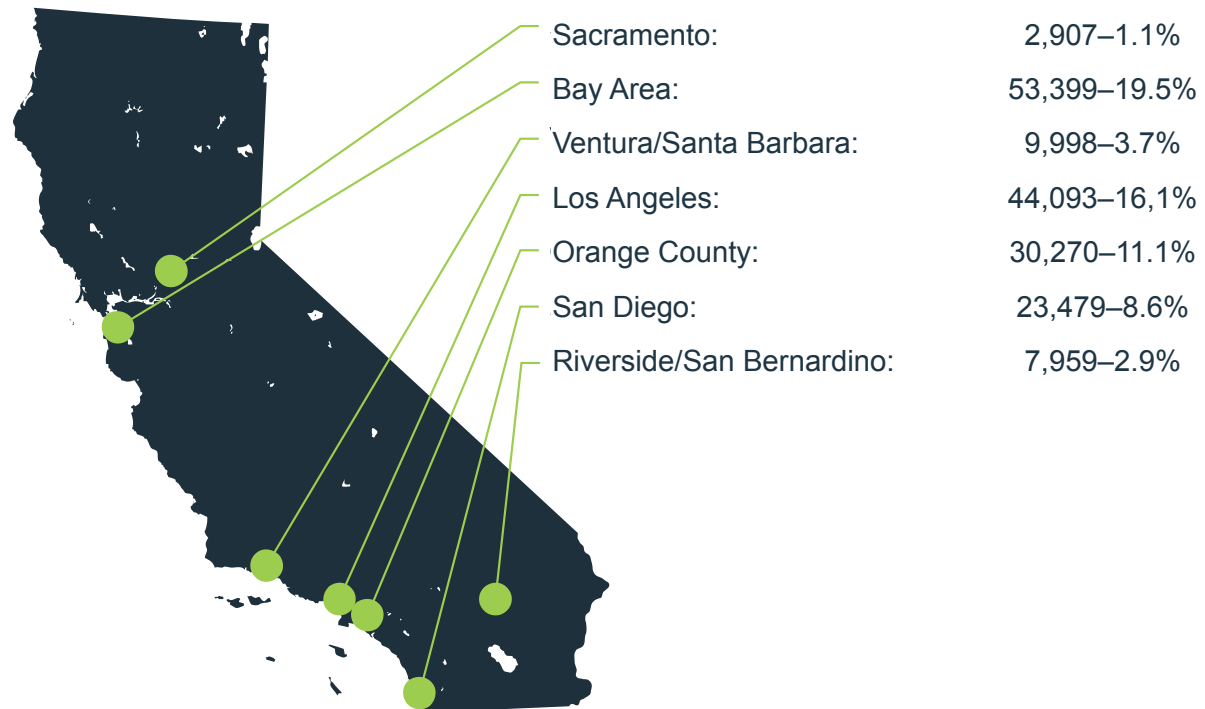


# Biomedical Workforce: Crucial to the Economic Recovery

## Economic engine

The biomedical industry has created more than 750,000 direct and indirect jobs in California.

## Biomedical Employment by Region (2008)



Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages and Company Specific SEC filings.

# Biomedical Clusters: Driving the Economy

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Staying power

California's biomedical workforce is holding its own, while other parts of the economy have seen steep declines.

## California's Four Leading Biomedical Clusters

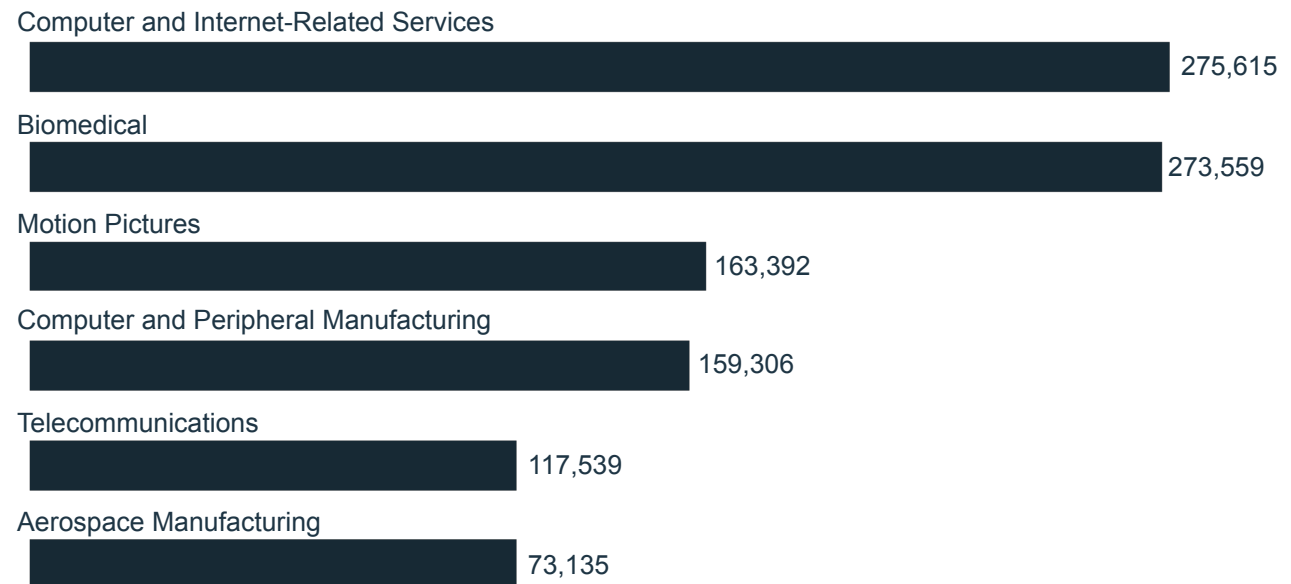
Biomedical Cluster	March 2008 Biomedical Employment	March 2009 Biomedical Employment	Growth
San Francisco Bay Area	51,347	51,886	1.0%
Los Angeles	44,156	45,064	2.1%
Orange County	30,052	30,386	1.1%
San Diego	23,545	24,123	2.5%

Source: County-level data, Bureau of Labor Statistics Quarterly Census of Employment and Wages and Company Specific SEC filings.

High-wage jobs  
More Californians  
work in the  
biomedical  
industry than any  
other high-tech  
sector except for  
information  
technology.

## A Leading High-Tech Employer

### California Biomedical vs. Other High-Tech Employment (2008)



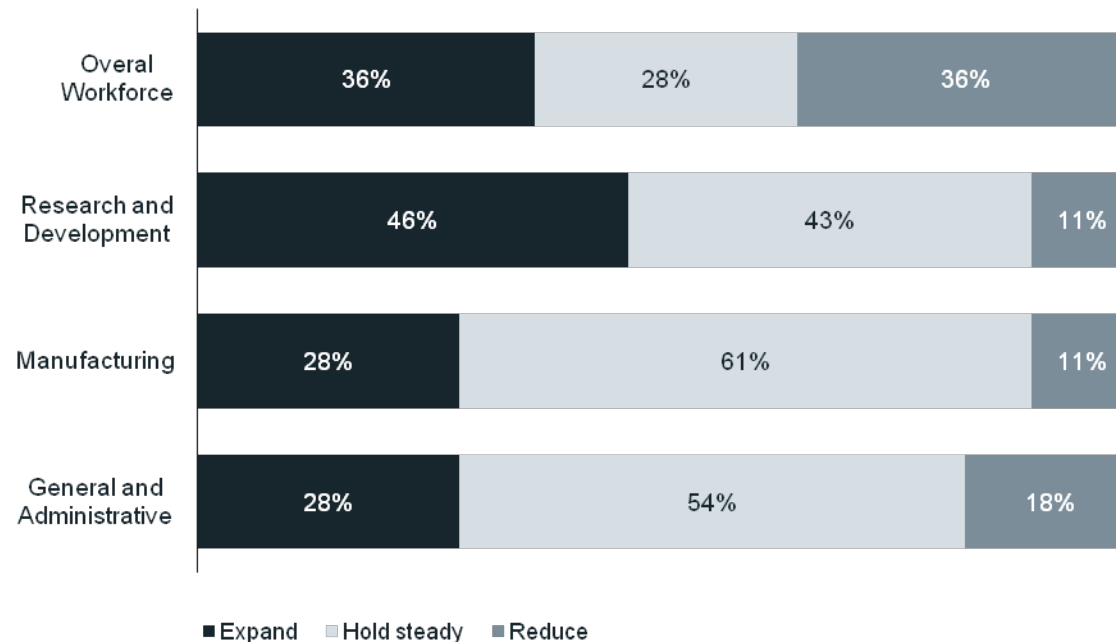
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages and Company Specific SEC filings.

# California's Biomedical Workforce: Recession Resilient

## Holding steady

Over the past year, nearly two-thirds (64%) of California biomedical companies either maintained or expanded their overall workforce.

**CHI-PwC Survey: Have the following activities increased, held steady or decreased for your company's operations inside California in the past year?**



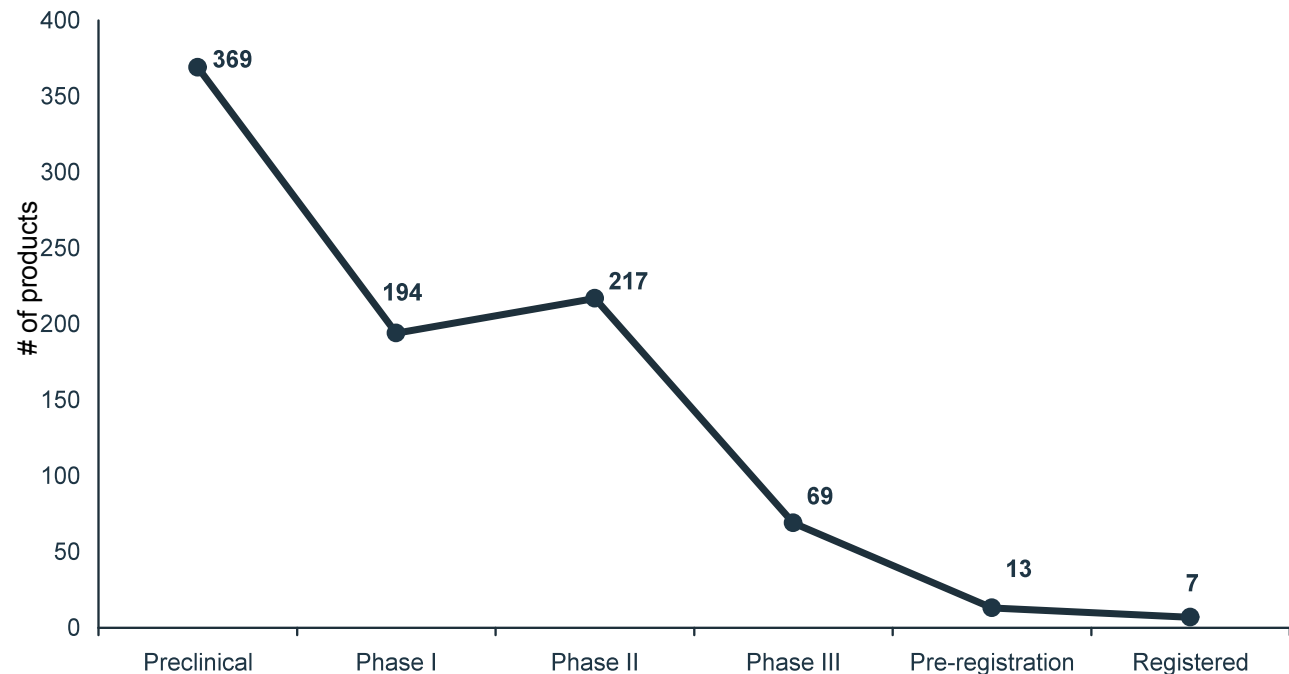
Source: CHI-PwC survey of 200 leading California biomedical employers, conducted November 2009.



# Product Development: At the Forefront of Innovation

Tomorrow's cures  
California has 869 products in its biopharmaceutical pipeline. Nearly one-third of the state's pipeline (272 products) is focused on treating cancer.

## Number of Biopharmaceuticals in California's Product Pipeline



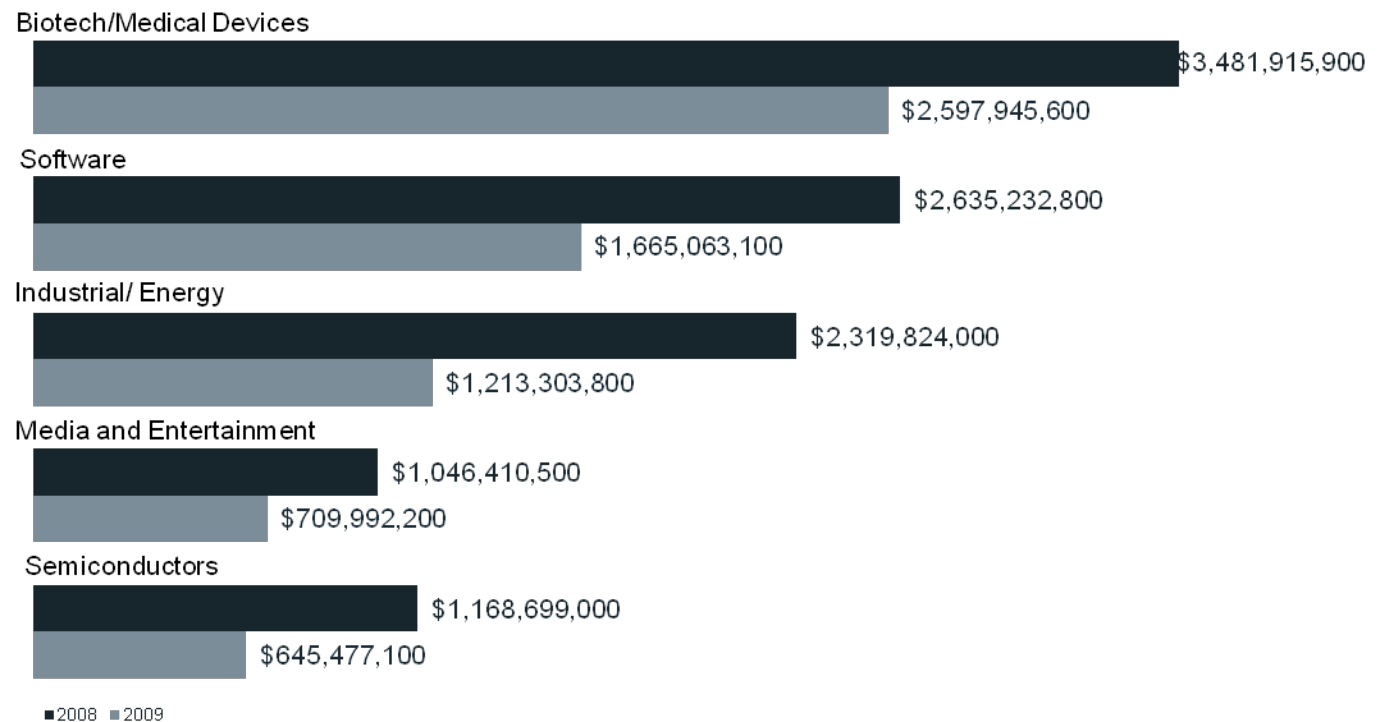
Source: IMS Health R&D Focus, July 2009

# California Commands 42% of U.S. Life Sciences Venture Capital


## Lion's share

California life sciences companies attracted \$2.6 billion in venture capital in 2009—down from \$3.5 billion in 2008 but more than any other industry or any other state.

## Top Five Industries in California by VC Investment



Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™  
Report based on data from Thomson Reuters.



## Unprecedented challenges

While the sector is positioned for job growth, it also faces more challenges than at any other time in its history.

# Biomedical Industry Challenges

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- Access to capital
- Educational funding crisis
- Workforce development
- Uncertainty surrounding healthcare reform
- Policy and regulatory challenges
- Competition from other regions

92% of leading California biomedical employers rank access to capital as a “somewhat important” or “extremely important” threat to the biomedical industry over the next five years.

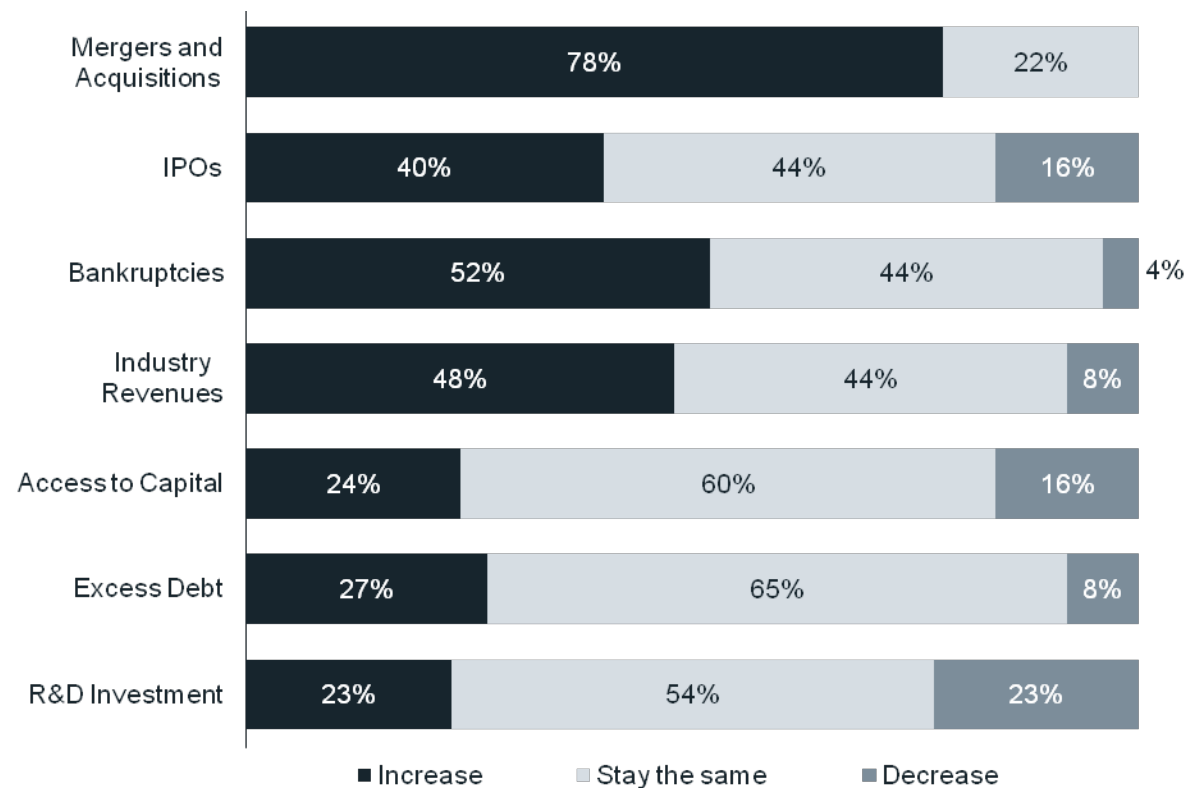
Source: CHI-PwC survey of 200 leading California biomedical employers, conducted November 2009.

## Consolidation ahead

Over the next two years, 78% of biomedical executives expect mergers & acquisitions to increase, while 52% expect bankruptcies to rise.

# M&A and IPO Activity

**CHI-PwC Survey: Do you think the following activities for the biomedical industry in California will increase, stay the same, or decrease in the next two years?**



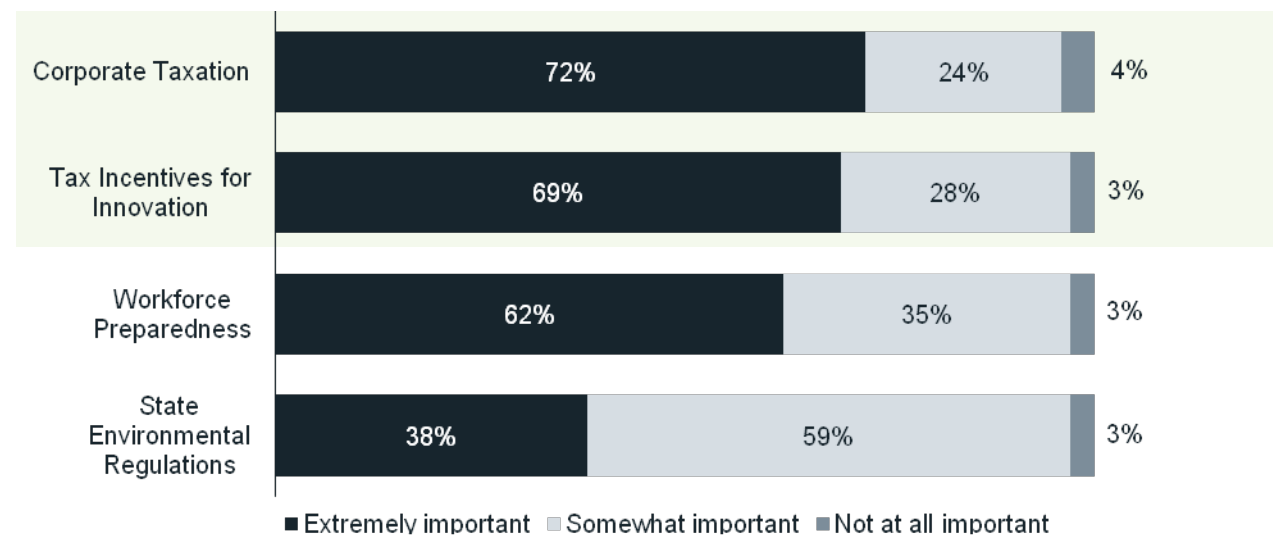
Source: CHI-PwC survey of 200 leading California biomedical employers, conducted November 2009.



Barriers to growth  
Now more than  
ever, the  
sustainability of  
the biomedical  
industry depends  
on decisions made  
in Sacramento  
and Washington.

## Impacting Future Growth: State Priorities

**CHI-PwC Survey: Rate the influence of each of the following issues on the industry's ability to keep biomedical research, innovation and investment in California.**

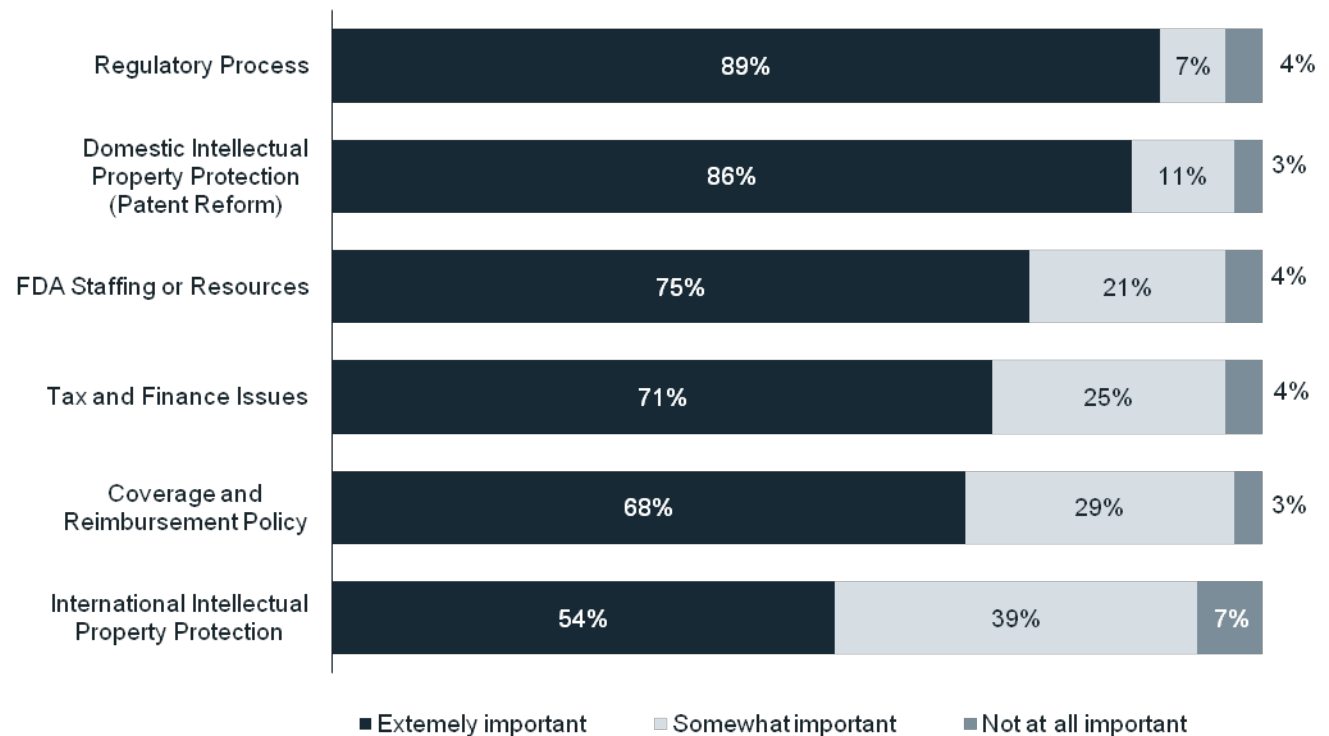


Source: CHI-PwC survey of 200 leading California biomedical employers, conducted November 2009.

New uncertainty  
National  
healthcare reform  
has brought new  
clouds of  
unpredictability to  
the life sciences.

## Impacting Future Growth: Federal Policies

**CHI-PwC Survey: Rate the influence of each of these federal policy issues has on the industry's ability to keep biomedical research, innovation and investment in California.**



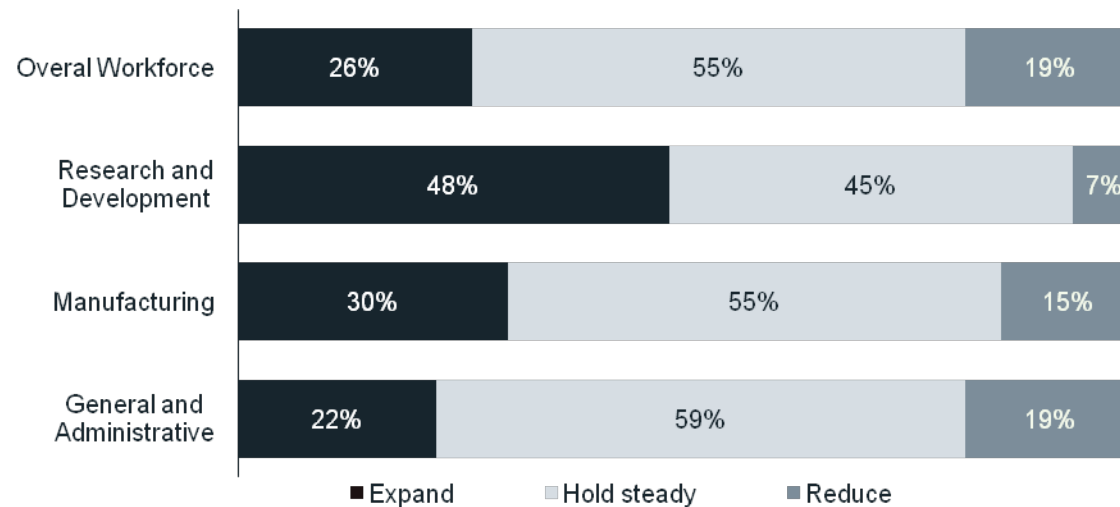
Source: CHI-PwC survey of 200 leading California biomedical employers, conducted November 2009.

## Where to grow?

Over the next two years, 81% of biomedical companies expect to maintain or add jobs in California.

# Outlook: Maintaining Growth in California

**CHI-PwC Survey: Do you expect the following activities to expand, hold steady or reduce for your company's operations inside California in the next two years?**



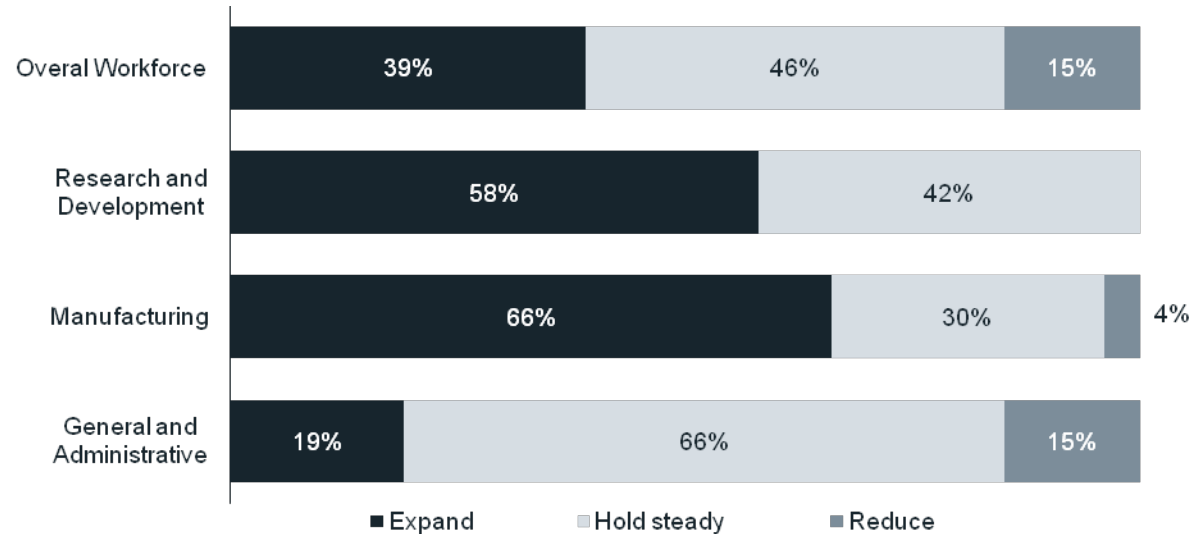
Source: CHI-PwC survey of 200 leading California biomedical employers, conducted November 2009.

## Expansion trends

But biomedical employers also expect to add jobs out of state over the next two years—especially in manufacturing and R&D.

# Adding Jobs out of State

**CHI-PwC Survey: Do you expect the following activities to expand, hold steady or reduce for your company's operations outside California in the next two years?**



Source: CHI-PwC survey of 200 leading California biomedical employers, conducted November 2009.





## Biomedical Industry Insights

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George Scangos, Ph.D.

Chairman of CHI and President and CEO, Exelixis, Inc.

Michael V. Drake, M.D.

Chancellor, University of California, Irvine



## Conclusion

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- California's biomedical industry is crucial to the state's economic recovery.
- Beyond its pivotal role in California's economy, the state's biomedical industry is a major contributor to global health.
- California has the talent, intellectual capital and extensive infrastructure to maintain its global leadership in the life sciences.



## Q&A

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## **About the California Healthcare Institute**

The California Healthcare Institute ([www.chi.org](http://www.chi.org)) is a non-profit public policy research organization for California's biomedical R&D industry. CHI represents more than 250 leading medical device, biotechnology, diagnostics and pharmaceutical companies and public and private academic biomedical research organizations. CHI's mission is to advance responsible public policies that foster medical innovation and promote scientific discovery.

## **About PricewaterhouseCoopers**

PricewaterhouseCoopers ([www.pwc.com](http://www.pwc.com)) provides industry-focused assurance, tax and advisory services to build public trust and enhance value for its clients and their stakeholders. More than 163,000 people in 151 countries across our network share their thinking, experience and solutions to develop fresh perspectives and practical advice.