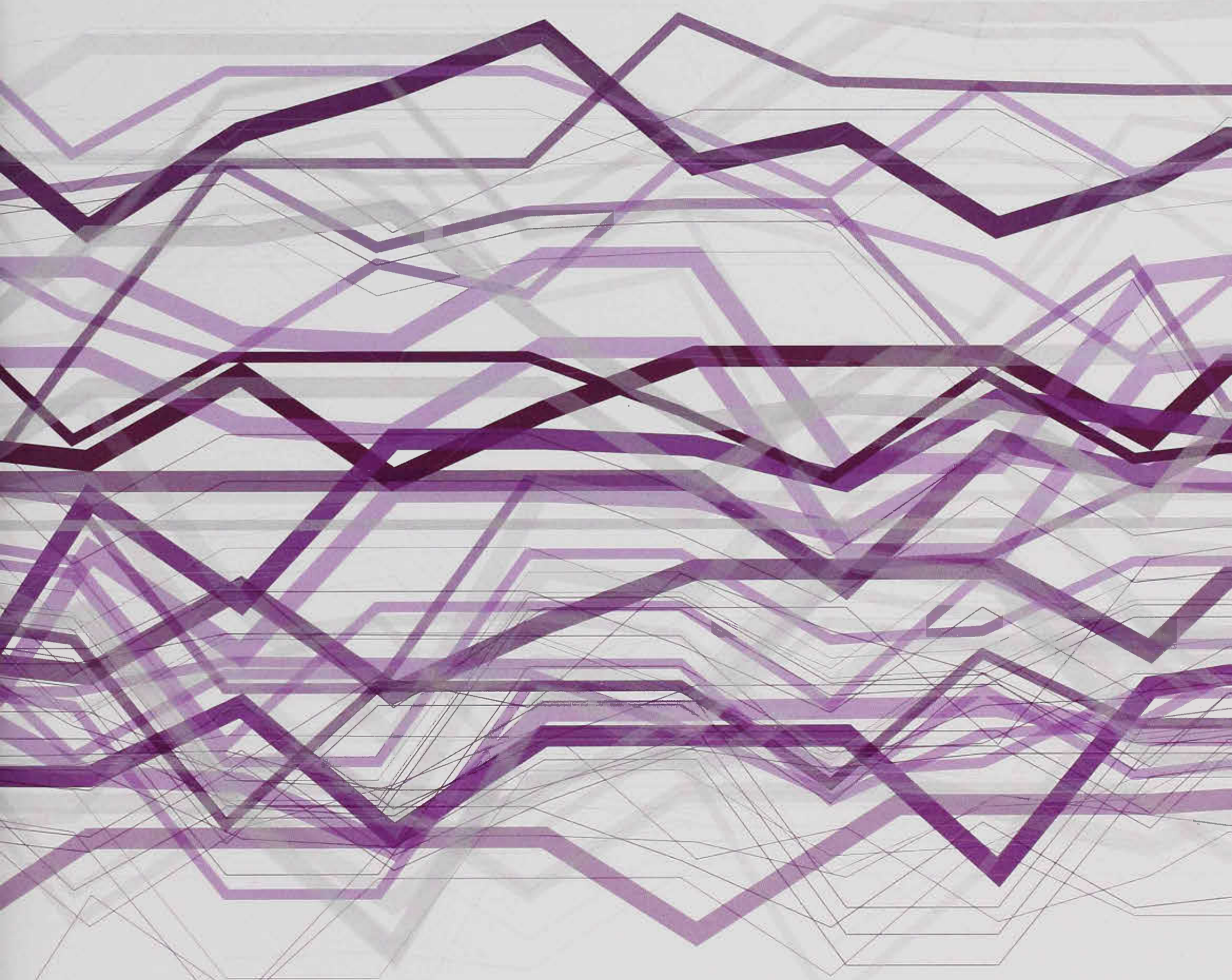


# CONNECT INNOVATION REPORT

FOURTH QUARTER 2010  
AND FULL YEAR 2010 SUMMARY



SPONSORED BY:



County of San Diego

THE  
LEGLER BENBOUGH  
FOUNDATION



SAN DIEGO  
WORKFORCE  
PARTNERSHIP



SPONSORED BY:



THE  
LEGLER BENBOUGH  
FOUNDATION



*County of San Diego*

IN PARTNERSHIP WITH:



NATIONAL UNIVERSITY SYSTEM  
INSTITUTE FOR POLICY RESEARCH

 UC San Diego | Extension



**SAN DIEGO BUSINESS JOURNAL**

CONNECT is a nonprofit organization dedicated to creating and sustaining the growth of innovative technology and life science businesses in San Diego. Since 1985, CONNECT has assisted in the formation and development of over 2,000 companies and is widely regarded as the world's most successful regional program linking inventors and entrepreneurs with the resources they need for success. CONNECT focuses on research institution support, business creation and development, entrepreneurial learning, access to capital, public policy advocacy, awards, recognition and networking. Nearly 40 countries and regions have adopted the CONNECT model, including the U.K, Sweden, Norway, Denmark, and Australia, and most recently, New York City. For more information, please visit [www.connect.org](http://www.connect.org).

**TABLE OF CONTENTS**

Introduction.....4

Executive Summary ..... 5-14

Innovation Economy Employment and Wage Data ..... 15-24

    San Diego Map of Innovation Start-ups. Q4 2010..... 15

    Number of Start-ups by Quarter: San Diego – Q4 2007 to Q4 2010 ..... 15

    Number of Start-ups by Industry Sector: San Diego – Q3 2010 versus Q4 2010 ..... 16

    Employment for New Tech Start-ups: San Diego – 2009 to 2010..... 16

    California Innovation Start-ups by Industry Sector and County: Q4 2010 and Full Year 2010 ..... 16-19

        California Tech Start-ups by Industry Sector: Q4 2010 and Full Year 2010 ..... 17

        California Tech Start-ups by County: Q4 2010..... 17

        Software and Pharma/Bio/Medical Device: Q4 2010..... 18

        Communications and Computers & Electronics: Q4 2010..... 18

        Defense & Transportation and Environmental Technology: Q4 2010..... 19

        Recreational Goods Manufacturing: Q4 2010 ... .. 19

    Total Employer, Employment and Wages for San Diego’s Innovation Economy ..... 20-24

    Traded Economy and Local Services Economy in San Diego – Q4 2010 ..... 20

    Overall Number of Technology Employers: San Diego – Q2 2010 data..... 21

    Employment Data for all Technology Employers by Industry Cluster: San Diego – Q4 2010..... 22

    Employment Trends and Sector Wages: San Diego – Q1 2008 to Q4 2010 ..... 23-24

        Employment Data for all Technology Employers by Industry Cluster: San Diego – Q1 2008 to Q4 2010..... 23-24

        Average Wages Comparison for all Technology Employers by Industry: San Diego – Q1 2010 data..... 24

CEO Confidence Index: Vistage International Q4 2010 Survey data..... 25-26

CONNECT Public Policy Brief - March 2011 ..... 27-29

Venture Capital (VC) Investment ..... 30-37

    VC Financing Trends: San Diego – Moving Average from Pre-Recession to Q4 2010..... 30

    VC Financing by Industry: San Diego – Q4 2010 and Full Year 2010 ..... 31

    Top 10 San Diego VC Investments: Q4 2010..... 31

    Location of VC Firms Investing in San Diego Companies – Full Year 2010 ..... 32

    Most Active VC Firms Investing in San Diego Companies – Full Year 2010 ..... 32

    Southern California VC Investments by Industry – Full Year 2010 ..... 33

## Table of Contents (cont'd)

VC Funding by Stage of Company Development: San Diego, U.S. and California – Q4 2010 and Full Year 2010.....	34-35
VC Funding by Stage of Company Development: Silicon Valley and Southern California – Q4 2010 and Full Year 2010.....	36
Regional Rankings of VC Investment: Q3 2010 versus Q4 2010 .....	37
Summary of National and Regional VC Investments: 2007 to Q4 2010.....	37
M&A and Other Investment Activity .....	38-45
Mergers and Acquisitions Activity: San Diego and California –2009 to 2010.....	38
Top Ten San Diego M&A Deals – Full Year 2010.....	38
Top Ten Southern California M&A Deals – Full Year 2010.....	39
Private Placements Deals: San Diego and California – Q4 2009 to Q4 2010 .....	40
Private Placements Deal Activity (PIPEs): San Diego and California – Q1 2007 to Q4 2010 .....	40-41
Private Placements Deal Activity (PIPEs) by Company and Industry: San Diego – Q4 2010 .....	41
Underwritten Initial and Follow-On Public Offerings Activity (IPOs and FPOs): California and San Diego – Q4 2010.....	42-45
California IPOs by Region – Q4 2010 .....	42
California IPOs by Company – Q4 2010.....	42
California IPOs by Region – Full Year 2010 .....	43
Southern California (including San Diego) IPOs by Company– Q4 2010.....	43
California FPOs by Region – Q4 2010.....	43
San Diego FPOs by Company – Q4 2010 .....	44
Southern California FPOs by Company – Q4 2010.....	44
Southern California FPOs >\$50 Million in Deal Value by Company – Full Year 2010 .....	45
Patent Activity: San Diego, California and Boston Metro Regions.....	46-50
New Patent Activity Growth by Region: 2009 to 2010 .....	46
Patents Density by Quarter - Patents Published and Patents Granted: Q1 2008 and Q4 2010.....	47
Year-To-Year Patent Growth - Patents Published and Patents Granted: 2008 to 2010.....	48
New Patents Published and Patents Granted by Region: Q3 2010 and Q4 2010 .....	49
San Diego Patent Activity: Q1 2008 to Q4 2010.....	49
U.S. Patent Activity - Average Time to Get a Patent Issued: Q4 2008 to Q4 2010.....	50
U.S. Patent Activity - Patent Application Backlog: Q4 2008 to Q4 2010 .....	50
Federal Research Grants: San Diego and California .....	51-57
Federal Research Grants Received in San Diego - NIH, NSF, NASA and NOAA: Q1 2010 to Q4 2010.....	51
Federal Research Grants Received in San Diego - NIH: Q1 2008 to Q4 2010.....	51
Federal Research Grants Received in San Diego - NSF, NASA and NOAA: Q1 2008 to Q4 2010.....	52
National Institutes of Health (NIH) Grants Per Capita by Region: 2008 to 2010.....	52

Table of Contents (cont'd)

National Science Foundation (NSF) Grants Per Capita by Region: 2008 to 2010 .....	53
Total NIH and NSF Grant Funding by Region: 2008 to 2010 .....	54
NIH Grants Awarded - Top 10 California Counties: Fiscal Year 2010 .....	55
NSF Grants Awarded - Top 10 California Counties: Full Year 2010 .....	55
Defense Spending in San Diego, California and Boston: 2008 to 2010 .....	56
Regional Department of Defense SBIR/STTR Funding: 2008 to 2010 .....	56
Regional Department of Defense SBIR/STTR Funding: 2008 to 2010 .....	56
Future Issues: New Data on Federal Funding - Department of Defense and Department of Energy .....	57
Private Research Organization Employment Data by Region: Q1 2009 to Q2 2010 .....	58-59
Private Research Organization Average Wage Data: San Diego, California and Boston Metro Regions .....	58
Private Research Organization Employment: San Diego, California and Boston Metro Regions .....	59
Appendix.....	60-66
San Diego Research Institutions: Maps .....	60
San Diego Research Institutions: UC San Diego.....	61-62
San Diego Research Institutions: UC San Diego School of Medicine .....	63
San Diego Research Institutions: Scripps Institution of Oceanography, Scripps Health and San Diego State University.....	64
San Diego Research Institutions: Independent Research Institutions .....	65
Summary Tables: Technology Start-up Companies.....	66
CONNECT Innovation Report: Contact Information .....	67

## INTRODUCTION

The **CONNECT Innovation Report (CIR)** is the first comprehensive quarterly report in the country to provide an economic indicator of the strength and impact of the innovation economy. Published by **CONNECT**, San Diego's technology and life sciences accelerator, the Report compares San Diego, California and selected regions, and includes:

- The number of new innovation start-ups in key regions across California;
- Technology start-up new job creation figures across California;
- Technology sector wages and employment in San Diego;
- Public policy brief focused on the innovation economy;
- Venture capital investment across the U.S., California and San Diego;
- Merger and acquisition activity across California and San Diego;
- Private placement investment in California and San Diego;
- Initial and follow-on public equity offerings in California and San Diego;
- Patent activity in San Diego, California and Boston Metro region;
- Federal research grants in San Diego and California; and,
- Private research organization employment and wages in San Diego, California and Boston Metro region.

The **CONNECT Innovation Report** tracks the health of the San Diego innovation economy by comparing data year-on-year and quarter-to-quarter, providing a comparison across tech industry clusters to selected regions and monitoring availability of various types of capital. The data helps policymakers and trade organizations plan and advocate effectively for our innovation economy including availability of visas and workforce training for talent in high growth clusters, building an attractive environment for capital investment, allocation of grant funding, reform of the patent system, and zoning. The Report also highlights San Diego as a world leader in innovation with world-class research, leadership and management talent.

### CONNECT Innovation Report Steering Committee

Steve Hoey	Project Leader, Innovation Report	CONNECT
Erik Bruvold	President	National University System Institute for Policy Research
Kelly Cunningham	Senior Fellow and Economist	National University System Institute for Policy Research
Jim Ingraham	Partner	PricewaterhouseCoopers LLP
Bill Molloie	Partner	PricewaterhouseCoopers LLP
Gary Moss	Labor Market Intelligence Specialist	San Diego Workforce Partnership
James Perkins	Chief Operating Officer	Procopio, Cory, Hargreaves & Savitch LLP
Ron Roberts	Supervisor	County of San Diego
Duane Roth	Chief Executive Officer	CONNECT
Pam Slater-Price	Supervisor	County of San Diego
Ted Roth	Managing Director	ROTH Capital Partners
Camille Sobrian Saltman	President and Chief Operating Officer	CONNECT
Peter Thomas	Director	UC San Diego Extension
Chaitan Baru	Director, Science R&D	San Diego Supercomputer Center
Kai Lin	Programmer Analyst	San Diego Supercomputer Center
Sundari Baru	Programmer Analyst	San Diego Supercomputer Center
Thanks to Parrish Silva	Analyst	CONNECT Innovation Report Volunteer

New Start-ups and Employment / Tech Employment and Wages / VC Investment / M&A Activity / New Patents / Research Grants

## START-UPS DOWN 13% IN 2010; ATTRACT ONLY 1% OF NATIONAL VC DOLLARS; M&A DEAL VALUE DOUBLES; SAN DIEGO LEADS STATE IN PATENT ACTIVITY GROWTH AND FEDERAL RESEARCH FUNDING PER CAPITA

CONNECT's newly released Fourth Quarter 2010 Innovation Report shows 84 new technology start-ups were formed in San Diego in the final quarter of 2010. This was a decrease of almost 11% from the third quarter of 2010 and an increase of more than 13% year-on-year. The overall number of start-ups in 2010 totaled 277, down 13% from 319 in 2009, and up more than 15% from 240 in 2008. "The rally in tech firm start-ups apparent in the previous quarters of 2010 appeared to have sputtered somewhat in the final quarter. Nevertheless the 84 start-ups during the fourth quarter were above the quarterly average observed over the past six years," said Kelly Cunningham, Economist and Senior Fellow at the National University System Institute for Policy Research. "As the U.S. economy is



anticipated to slowly grow in 2011, tech start-ups in San Diego can be expected to increase so long as funding investment and growth opportunities are made apparent."

New data in the Report shows San Diego is a California leader in terms of new patents activity. Federal research grants to San Diego's 80+ local research institutes and innovation companies totaled almost \$1.4 billion in 2010. The Department of Defense (DoD) Small Business Innovation Research (SBIR) funding to San Diego in 2010 exceeded that awarded to Silicon Valley for the first time in more than three years totaling \$32 million. Venture capital (VC) investment in San Diego companies decreased 13% to \$193 million in the fourth quarter of 2010. In 2010, the number of San Diego VC investment deals was up 5%, but the dollars invested decreased 11% compared to 2009.

Although the national unemployment rate finally dipped under 9%, the American recovery remains fragile as global events that Congress can't control impact oil prices and global supply chains. What Congress can control is its focus on removing barriers that prevent job growth and small business formation. Those issues are at the core of CONNECT's public policy advocacy. The top three innovation issues CONNECT has been focusing on in the past three months are: Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) Reauthorization, Patent Reform and directing repatriation of foreign capital into the "Valley of Death" - the period of time from when a start-up company receives an initial capital investment to when it establishes customer traction in the market begins generating significant sales revenues. During this period, additional financing is usually scarce, leaving the firm vulnerable to cash flow requirements.

San Diego Congressman Brian Bilbray has introduced bill H.R. 1036 - The Job Creation and Innovation Investment Act of 2011. The goal of the bill is to temporarily reduce the corporate tax on foreign assets in order to draw capital back to the U.S. to help the economy and start-up companies searching for capital to make it through the Valley of Death.



## CONNECT INNOVATION REPORT EXECUTIVE SUMMARY (CONT'D)

The bill would reduce the tax rate from 35% to 0% if repatriated funds are directed to R&D, proof of concept centers, early stage venture capital investment or manufacturing start-up costs including contract manufacturing. Because funds designated for such purposes will help companies in the proverbial Valley of Death, CONNECT formally endorses H.R. 1036.

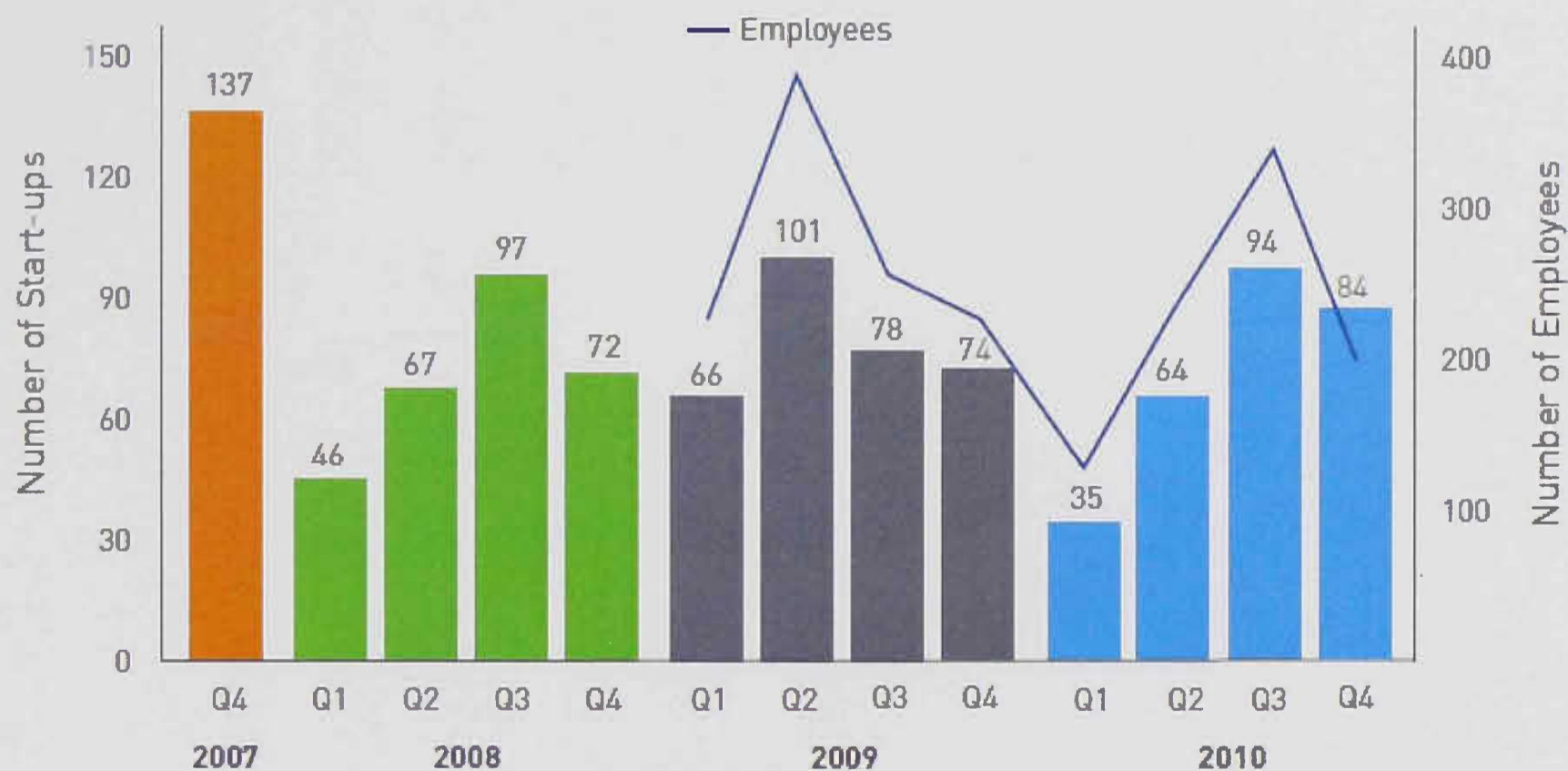
Southern California now leads the state in the number of jobs for private research organizations. Southern California private research organizations had slightly more than 56,000 employees in the second quarter compared to 54,963 employees in the northern California region. San Diego private research organizations employed 30,000 employees in the second quarter of 2010 – 54% of the total for the Southern California region. San Diego’s average weekly wage was \$2,163 in the second quarter of 2010, up more than 14% from the second quarter of 2009. The average weekly wage for San Diego’s private research organizations was 11% lower than the average in northern California, partially closing the gap between San Diego and the Bay Area, which historically sees higher wages for researchers.

Statewide, the number of tech start-ups totaled 660 in the fourth quarter, down 10% from the third quarter. San Diego accounted for 13% of the new technology businesses started in the fourth quarter of 2010, ranking third after Los Angeles (LA) and Santa Clara Counties. In the fourth quarter, San Diego had 84 start-ups, down almost 11% from 94 in the previous quarter, while LA had 128 new companies and Santa Clara had 88. Orange County ranked fourth with 76.

Start-up activity in California was down slightly (7%) for the year with 2,350 new companies in 2010 compared to 2,522 in 2009. San Diego saw a similar decrease with 277 new companies in 2010 compared to 319 in 2009. The five year average for San Diego is 290 tech start-ups per year.

San Diego tech start-ups created 195 new jobs in the fourth quarter and more than 930 jobs for the full year 2010.

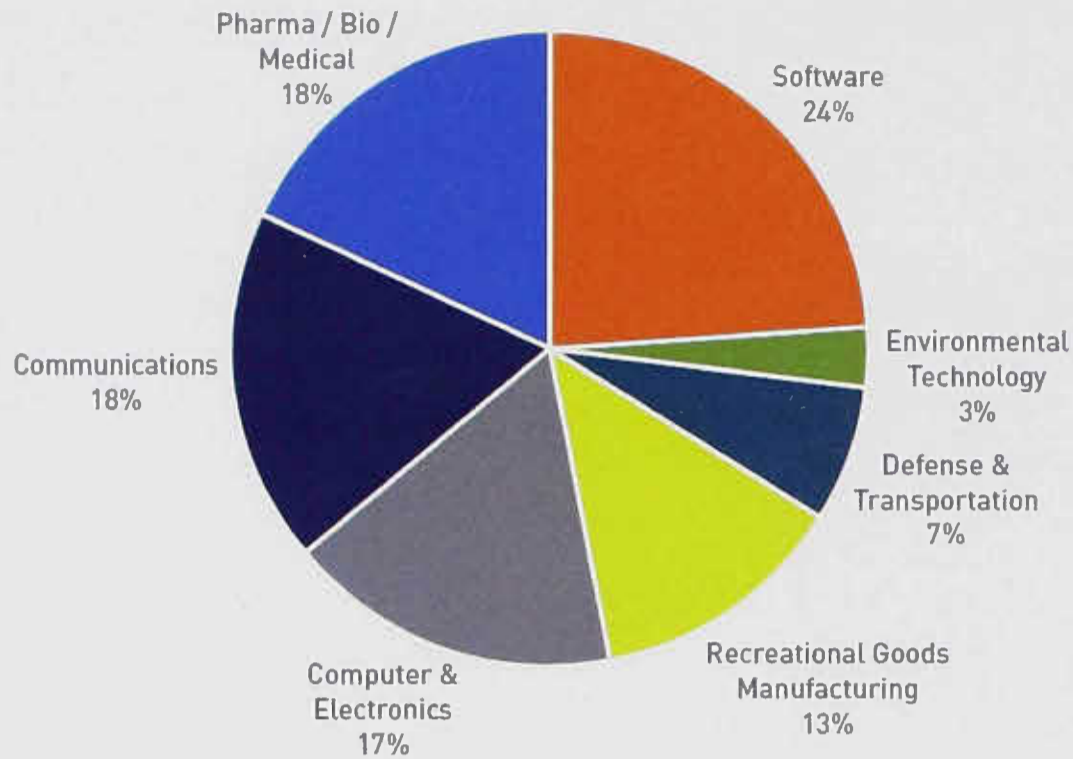
### SAN DIEGO INNOVATION START-UPS BY QUARTER



Source: CONNECT; National University System Institute of Policy Research

CONNECT INNOVATION REPORT EXECUTIVE SUMMARY (CONT'D)

SAN DIEGO START-UPS BY INDUSTRY – 4<sup>TH</sup> Quarter 2010



Source: CONNECT; National University System Institute of Policy Research

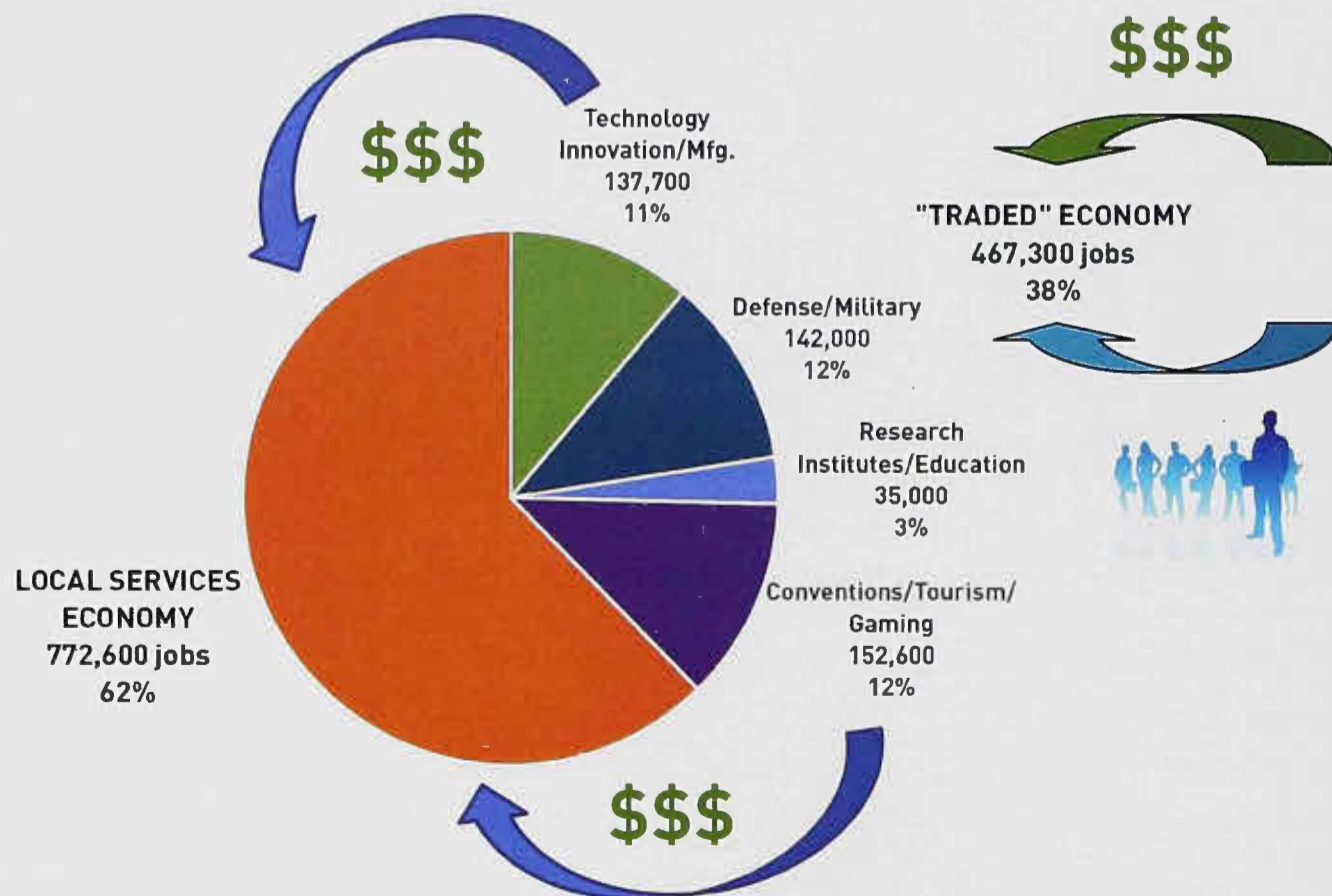
“Life sciences start-ups declined the most in the fourth quarter and over the entire year of 2010. The relatively high costs of starting these businesses and current challenges in obtaining financing undoubtedly lessened their formations in 2010. Biotech and medical devices, nevertheless, accounted for nearly two out of every three venture capital dollars (62%) raised in San Diego during 2010,” Cunningham commented.

“Surprisingly, both software and environmental technology start-ups were similarly down during the year. Computers and electronics, defense/transportation and recreational goods manufacturing showed the highest gains for start-ups the past year. Communication start-ups also saw slight gains.”

SAN DIEGO’S KEY TRADED CLUSTERS DRIVE OVERALL ECONOMY

The San Diego economy can be divided into five large clusters comprising the “traded” and “local services” economies. The four traded clusters include technology innovation/manufacturing, defense/military, research institutes/education and conventions/tourism/gaming. The four clusters of the traded economy, which represent almost half a million jobs, attract and compete with other regions and countries for money (such as federal research grants, procurement contracts and tourism) and resources (such as skilled personnel, new companies and research organizations). These four clusters drive the rest of the local economy, which itself represents over 60% of all workers employed in San Diego County – more than 770,000 jobs in the fourth quarter of 2010.

ESTIMATED EMPLOYMENT IN SAN DIEGO – 4<sup>TH</sup> QUARTER 2010  
1.24 Million Jobs



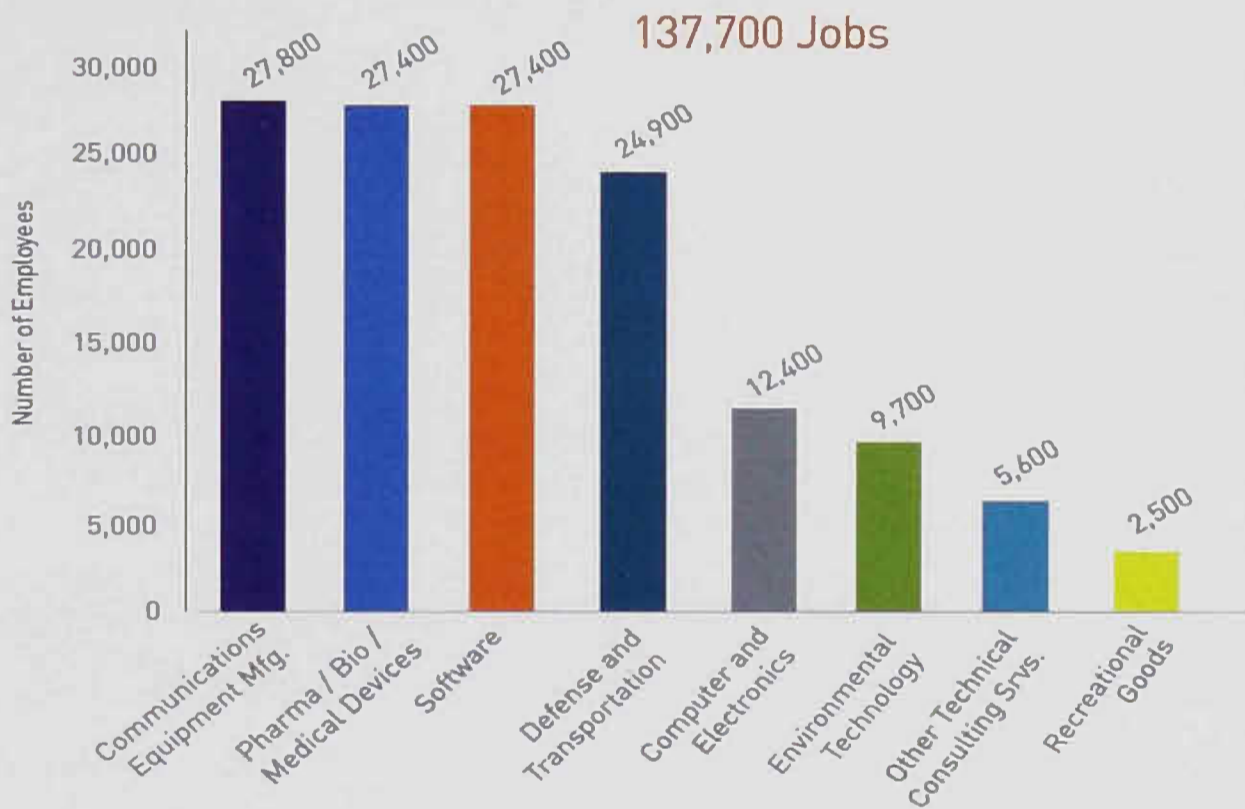
CONNECT INNOVATION REPORT EXECUTIVE SUMMARY (CONT'D)

CONNECT CEO, Duane Roth, comments, "The strength of the local economy ultimately depends on the growth and development of the traded economy. When the four clusters of the traded economy are functioning well, money flows from those four into the fifth - the local commerce cluster of goods and services. People buy homes, cars and dine out. It's a feedback loop that recycles money in the community. The local economy is the beneficiary of the traded economy."

The tech sector represented 11% of all jobs in San Diego County in the fourth quarter of 2010 with almost 138,000 workers employed. Communications equipment manufacturing was again the largest employment sector with almost 28,000 jobs. The life sciences sector (pharma / bio / medical devices) and software each represented 27,400 jobs. Defense and transportation represented almost 25,000 jobs. The average annual tech sector wage was \$91,800 – almost double San Diego's overall average annual wage of \$47,400.

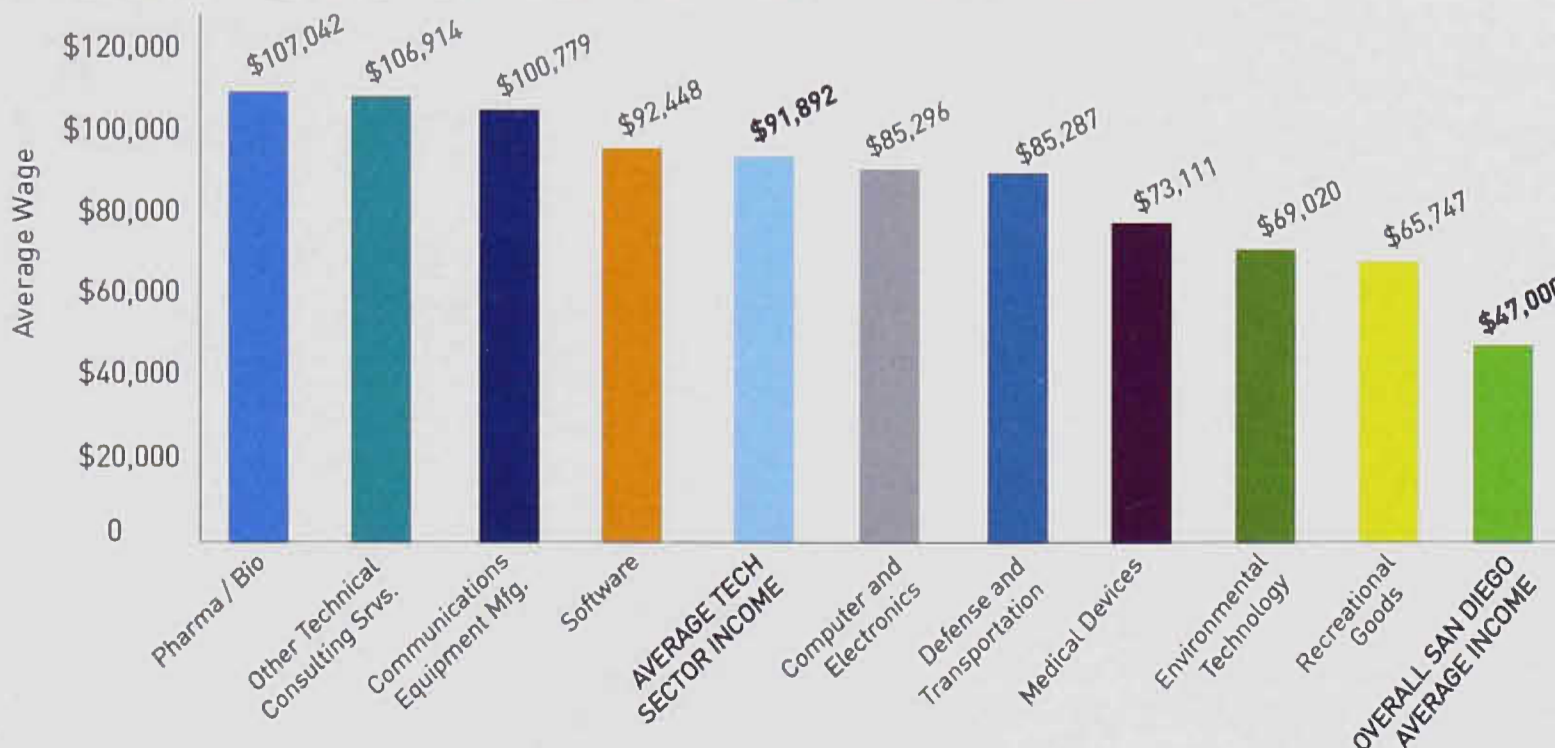
"It's encouraging for the local economy to have the continued flow of venture capital dollars into the region. The funds flow and the tech start-ups provide the impetus for the growth of knowledge based jobs, with wages that are double the local average annual wage, and are critical to the economic health of the region," said Gary Moss, Labor Market Specialist with the San Diego Workforce Partnership.

SAN DIEGO TECH EMPLOYMENT BY INDUSTRY – 4th Quarter 2010



Source: National University System Institute of Policy Research; California Employment Development Department (EDD)

SAN DIEGO AVERAGE TECH SECTOR WAGES BY INDUSTRY



Source: National University System Institute of Policy Research; California Employment Development Department (EDD)

CONNECT INNOVATION REPORT EXECUTIVE SUMMARY (CONT'D)

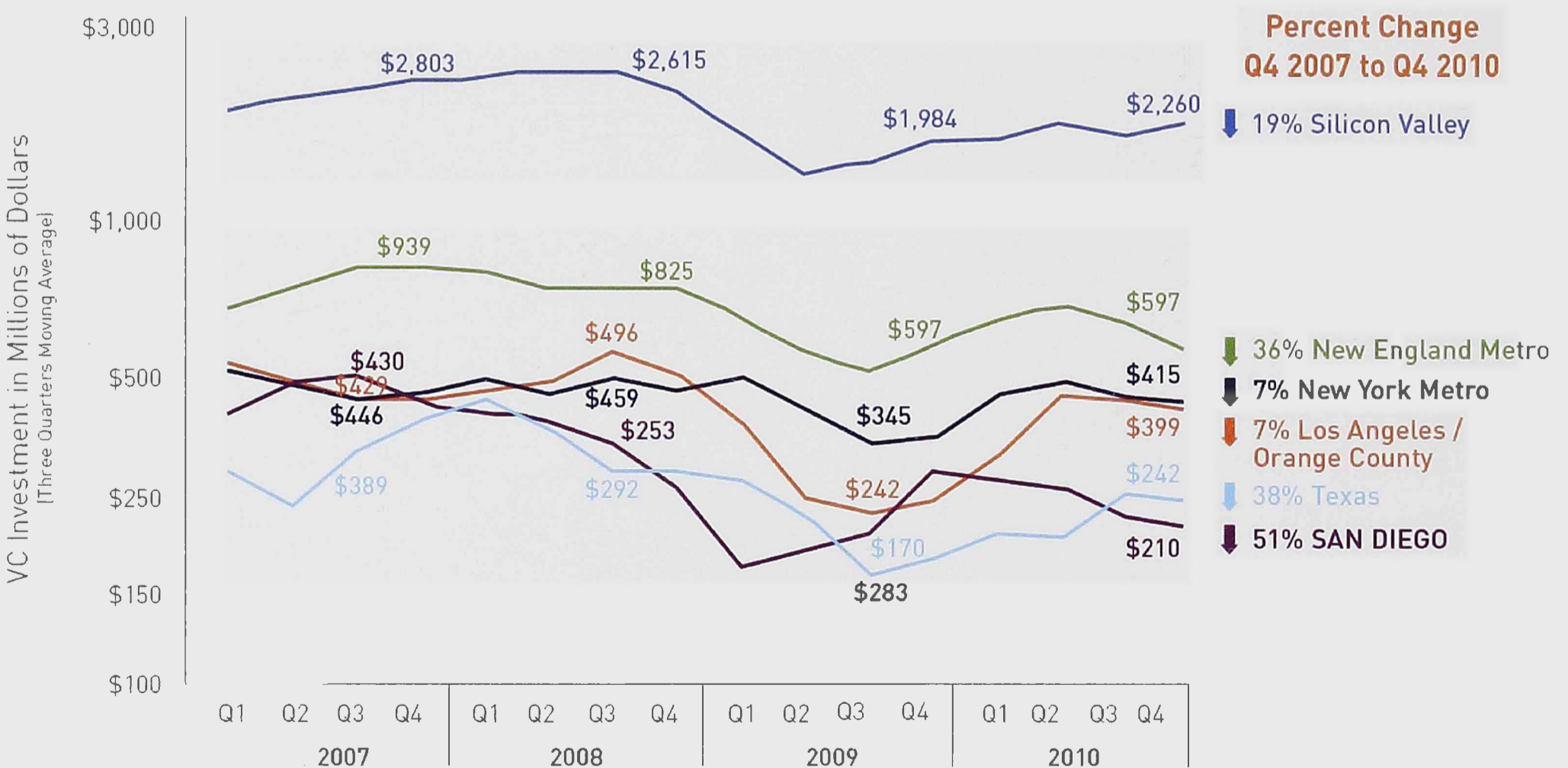
SAN DIEGO START-UPS RECEIVE ONLY 1% OF VC INVESTMENT IN 4<sup>TH</sup> QUARTER 2010

Venture capital investment in the San Diego region continued to decline throughout 2010 to the lowest annual total since 2003. Venture investment in the fourth quarter of 2010 was down 13% from the third quarter, with 26 local companies receiving \$193 million, according to the most recent PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ quarterly report. Venture capitalists invested \$847 million in 115 deals in San Diego in 2010, a five percent increase in the number of companies receiving funding but an 11% decrease in dollars invested compared to 2009.

Start-ups received only 1% of the total VC investment in San Diego in the fourth quarter, same as in the previous quarter, and early stage companies received 26% of VC investment. The fourth quarter saw a substantial shift of investment dollars from expansion stage companies to financing of later stage companies, which received 59% of the total VC investment in San Diego, up from 31% in the third quarter. For the full year 2010, the breakdown of VC investments by company development stage was: 11% to start-ups, 29% to early stage, 26% to expansion stage and 34% to later stage.

When using a moving average of three quarters' data, San Diego shows a more substantial decline in venture investment relative to the other top five regions over the past three years. [A moving average smoothes quarter-to-quarter fluctuations to better enable trend analysis.] The San Diego Q4 2010 VC investment moving average was down more than 50% from Q4 2007 – a substantially larger decrease than seen in other key innovation economies such as Silicon Valley and New England Metro. LA/Orange County VC investment has almost returned to pre-recession levels.

VC INVESTMENT MOVING AVERAGE BY REGION - 2007 to 2010



Source: The MoneyTree™ Report by PricewaterhouseCoopers and the National Venture Capital Association based on data from Thomson Financial

**CONNECT INNOVATION REPORT EXECUTIVE SUMMARY (CONT'D)**
**REGIONAL VENTURE CAPITAL LEVELS 3<sup>RD</sup> QUARTER 2010 VS. 4<sup>TH</sup> QUARTER 2010**

Region	Q3 2010 Rank	Q4 2010 Rank	Q3 2010 VC Investment (in \$M)	Q4 2010 VC Investment (in \$M)	Percent Change
Silicon Valley	1	1	\$1,833	\$2,001	+9%
New England	2	2	\$526	\$536	+2%
New York City Metro	4	3	\$341	\$513	+50%
Midwest	7	4	\$258	\$378	+47%
LA / Orange County	8	5	\$229	\$305	+33%
Colorado	12	6	\$88	\$254	+189%
<b>SAN DIEGO</b>	<b>9</b>	<b>7</b>	<b>\$223</b>	<b>\$193</b>	<b>-13%</b>
Southeast	5	8	\$265	\$191	-28%
Northwest	10	9	\$194	\$160	-18%
Wash. DC / Metroplex	6	10	\$259	\$143	-45%
Top 10 Regions			\$4,216	\$4,674	+11%
UNITED STATES			\$4,945	\$5,017	+1%

Source: The MoneyTree™ Report by PricewaterhouseCoopers and the National Venture Capital Association based on data from Thomson Financial

**SUMMARY OF NATIONAL & REGIONAL VENTURE CAPITAL**

Region		2007	2008	2009	2010	2009 Q4	2010 Q3	2010 Q4
United States	Total (in Billions)	\$30.5	\$28.0	\$18.1	\$21.9	\$5.2	\$4.9	\$5.0
	# of Deals	4,027	3,985	2,893	3,277	716	789	765
	Average (in Millions)	\$7.6	\$7.0	\$6.2	\$6.7	\$7.3	\$6.3	\$6.6
California	Total (in Billions)	\$14.6	\$14.0	\$9.1	\$11.0	\$2.9	\$2.3	\$2.5
	# of Deals	1,663	1,626	1,185	1,289	301	290	305
	Average (in Millions)	\$8.8	\$8.6	\$7.7	\$8.5	\$9.5	\$7.9	\$8.2
Northern CA	Total (in Billions)	\$11.0	\$10.8	\$7.2	\$8.5	\$2.4	\$1.8	\$2.0
	# of Deals	1,273	1,251	871	969	226	220	231
	Average (in Millions)	\$8.6	\$8.6	\$8.3	\$8.8	\$10.5	\$8.4	\$8.7
Southern CA	Total (in Billions)	\$3.6	\$3.2	\$1.9	\$2.2	\$0.5	\$0.5	\$0.3
	# of Deals	390	375	266	289	75	65	48
	Average (in Millions)	\$9.3	\$8.5	\$7.0	\$7.7	\$6.7	\$7.0	\$6.4
San Diego	Total (in Billions)	\$1.9	\$1.2	\$0.9	\$0.8	\$0.25	\$0.22	\$0.19
	# of Deals	167	132	107	115	36	30	26
	Average (in Millions)	\$11.6	\$9.0	\$8.4	\$7.4	\$7.0	\$7.4	\$7.4

Source: The MoneyTree™ Report by PricewaterhouseCoopers and the National Venture Capital Association based on data from Thomson Financial

**VALUE OF SAN DIEGO M&A DEALS DOUBLES; CALIFORNIA SEES SIMILAR RISE**

Company merger and acquisition activity jumped substantially across California in 2010 compared to the previous year. The value of reported San Diego deals closed in the fourth quarter of 2010 was almost \$1.7 billion, and almost \$4 billion for the year – more than double the value and number of deals reported in 2009. In Southern California, the M&A market in 2010 totaled more than \$40 billion – almost seven times more than reported in 2009 and up almost 60% in the fourth quarter of 2010 compared to the previous quarter.

**REGIONAL M&A DEALS – 4<sup>TH</sup> QUARTER and FULL YEAR 2010**

Region		2009 Q4	2009	2010 Q3	2010 Q4	2010
Northern CA	Total Reported Value (in Millions)	\$17,134	\$20,803	\$21,834	\$9,207	\$56,566
	# of Closed Deals	136	337	187	174	860
Southern CA	Total Reported Value (in Millions)	\$3,181	\$6,608	\$8,441	\$13,301	\$43,697
	# of Closed Deals	131	314	142	224	788
San Diego	Total Reported Value (in Millions)	\$1,250	\$1,655	\$1,017	\$1,680	\$3,859
	# of Closed Deals	29	79	29	41	156

Note: Not all M&A deals report a disclosed \$ value. Total deal values are in fact higher than those shown in the table above. Source: Capital IQ; Roth Capital Partners

**CONNECT INNOVATION REPORT EXECUTIVE SUMMARY (CONT'D)**
**TWO SAN DIEGO COMPANIES RAISED \$140 MILLION THROUGH IPOs IN FOURTH QUARTER 2010**

Nine California companies went public raising \$1.35 billion through Initial Public Offerings (IPOs) in the fourth quarter of 2010. This was more than double the \$519 million raised by five California companies in the third quarter of 2010. Two San Diego companies, REVA Medical, Inc. and Zogenix, Inc., raised almost \$84 million and \$56 million, respectively, in the fourth quarter. San Diego IPOs represented almost 12% of total California IPO deal value.

A Los Angeles-based energy fund raised \$475 million, bringing the southern California region to \$615 million for the quarter. Six companies in Northern California raised \$736 million, or 54% of the total California IPO deal value in the fourth quarter of 2010.

**CALIFORNIA IPOs BY REGION – 4<sup>TH</sup> QUARTER 2010**

Region	Reported Deal Value (in \$M)	Number of Deals
San Diego	\$140	2
Southern CA (incl. San Diego)	\$615	3
Northern CA	\$736	6
<b>Fourth Quarter 2010 Total - California IPOs</b>	<b>\$1,351M</b>	<b>9</b>

Source: Capital IQ; ROTH Capital Partners;  
CONNECT

**CALIFORNIA IPOs BY COMPANY – 4<sup>TH</sup> QUARTER 2010**

Company	Description	Reported Deal Value (in \$M)	City	Region
Kayne Anderson Midstream Energy Fund, Inc. (NYSE:KMF)	Energy Investment Fund	\$475.0	Los Angeles	Southern CA
First Republic Bank (NYSE:FRC)	Financial Services	\$280.5	San Francisco	Northern CA
Pacific Biosciences of California, Inc. (NasdaqGS:PACB)	Biotechnology	\$200.0	Menlo Park	Northern CA
REVA Medical, Inc. (ASX:RVA)	Medical Device	\$83.7	San Diego	San Diego
Inphi Corporation (NYSE:IPHI)	Semiconductors	\$81.6	Santa Clara	Northern CA
United States Commodity Index Funds Trust (ARCA:USCI)	Investment Trust	\$60.0	Alameda	Northern CA
Anacor Pharmaceuticals, Inc. (NasdaqGM:ANAC)	Pharmaceuticals	\$60.0	Palo Alto	Northern CA
Zogenix, Inc. (NasdaqGM:ZGNX)	Pharmaceuticals	\$56.0	San Diego	San Diego
Complete Genomics, Inc. (NasdaqGM:GNOM)	Biotechnology	\$54.0	Mountain View	Northern CA
<b>Fourth Quarter 2010 California IPOs</b>	<b>9 Deals</b>	<b>\$1,351M</b>		

Source: Capital IQ; ROTH Capital Partners; CONNECT

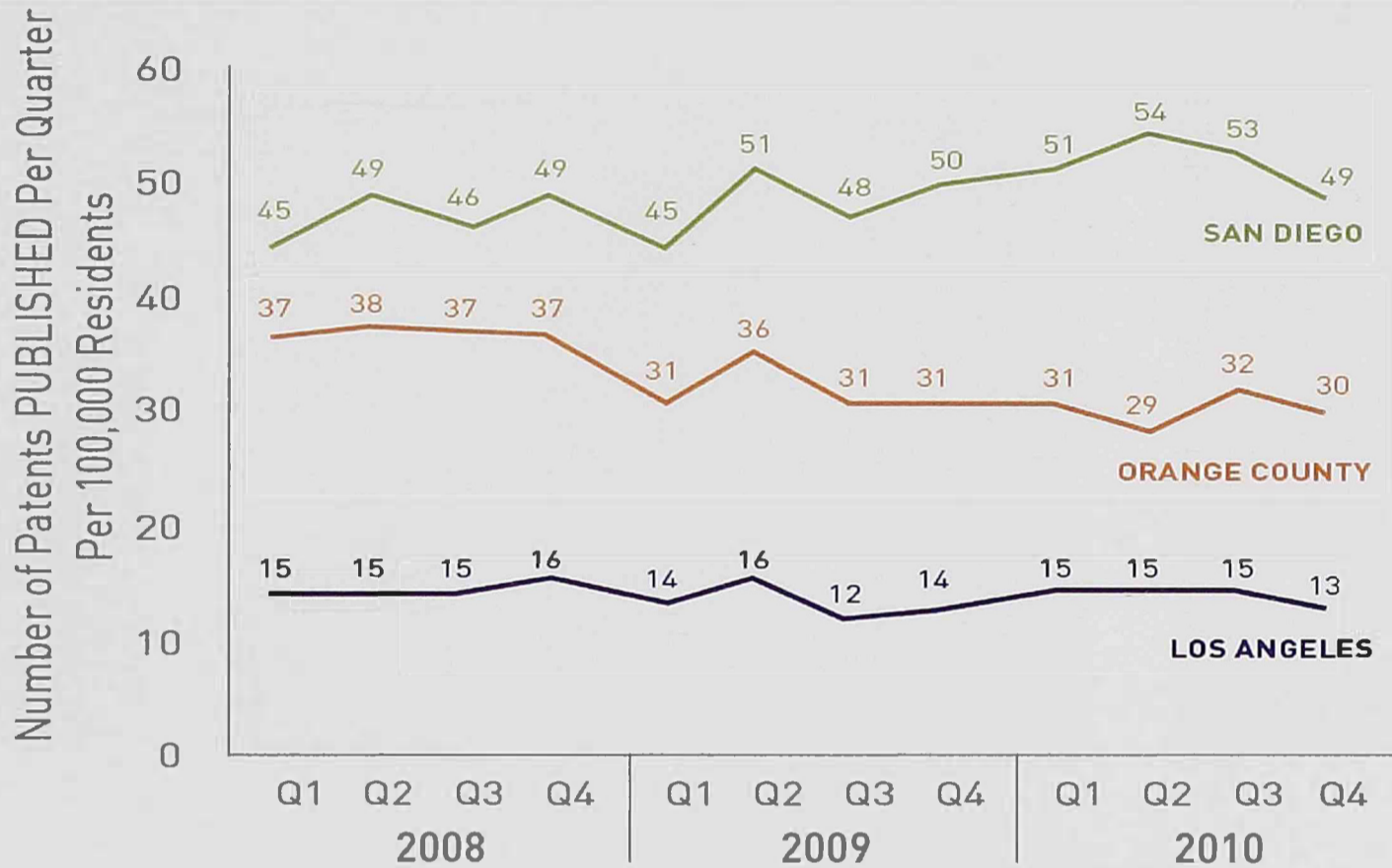
Thirty-one companies went public with IPOs in California in 2010 with a reported combined deal value of \$5.4 billion. Five companies were based in San Diego County and had a reported combined deal value of \$427 million. Southern California accounted for almost one third of the IPO deal value in California for the year with 12 companies raising \$1.6 billion. Northern California saw 19 companies close \$3.8 billion in IPO deals for the year. The Southern California companies that went public in 2010 are listed in the Full Report. In addition, two San Diego companies, Peregrine Semiconductor and Fallbrook Technologies, were on file to go public on U.S. exchanges at the end of December 2010.

CONNECT INNOVATION REPORT EXECUTIVE SUMMARY (CONT'D)

SAN DIEGO IS GROWTH LEADER IN PATENT INNOVATION PER CAPITA

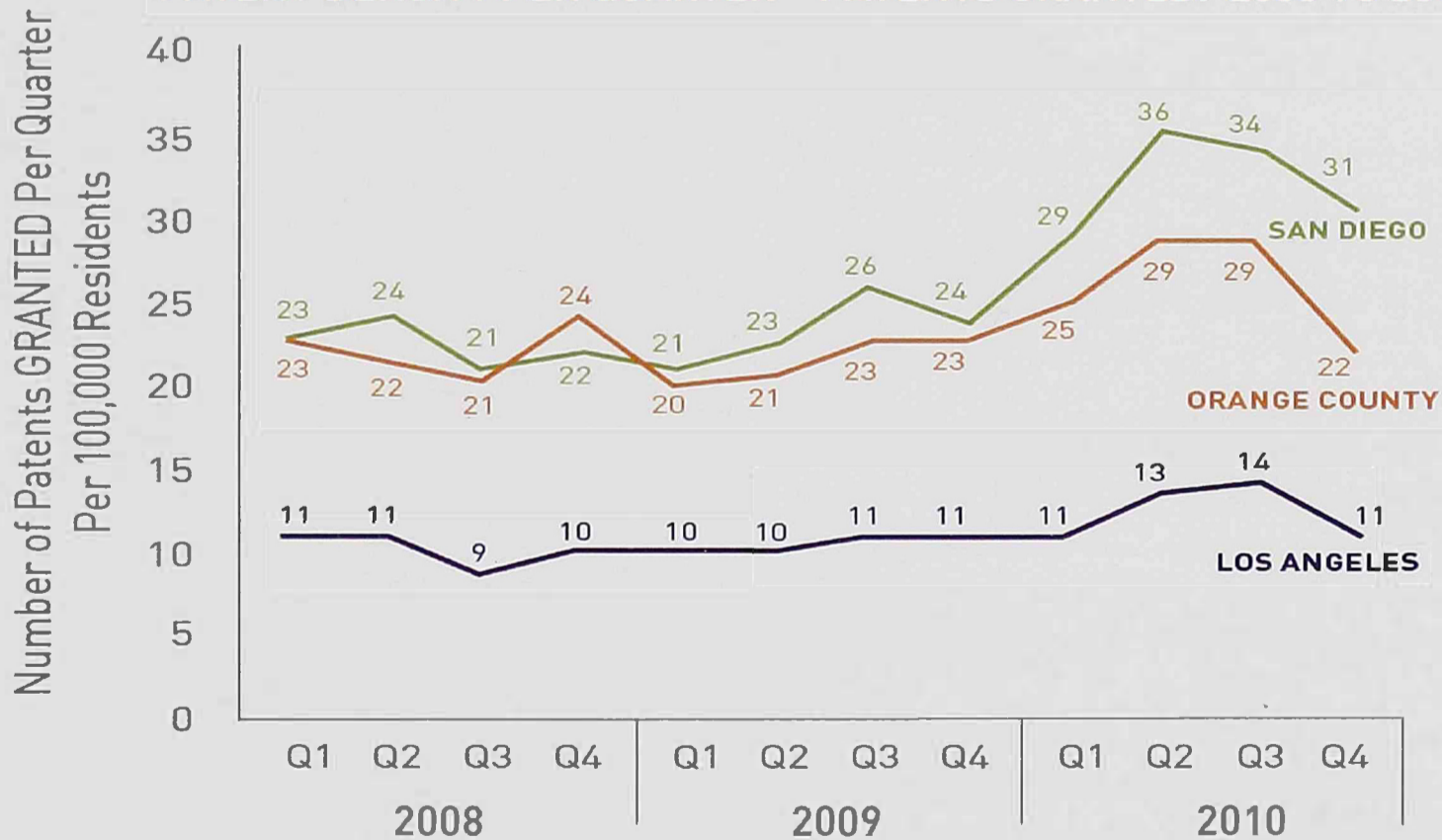
San Diego continued to lead the Southern California region in the fourth quarter of 2010 measured by the number of patents published and granted per 100,000 residents over the past three years. San Diego also shows higher year-to-year growth in the number of patents published and granted between 2008 and 2010, compared to other California regions and the East Coast innovation hub Boston. Over the past three years in San Diego, the number of patents published increased by more than 12% and the number of patents grants jumped by more than 45%. "This kind of patent density and growth serves as a good barometer of the level and pace of innovation in the region, said Steve Hoey, CONNECT Innovation Report project leader.

PATENT DENSITY PER QUARTER – PATENT APPLICATIONS PUBLISHED: 2008 TO 2010



Source: United States Patent and Trademark Office;  
UC San Diego Extension; CONNECT

PATENT DENSITY PER QUARTER – PATENTS GRANTED: 2008 TO 2010



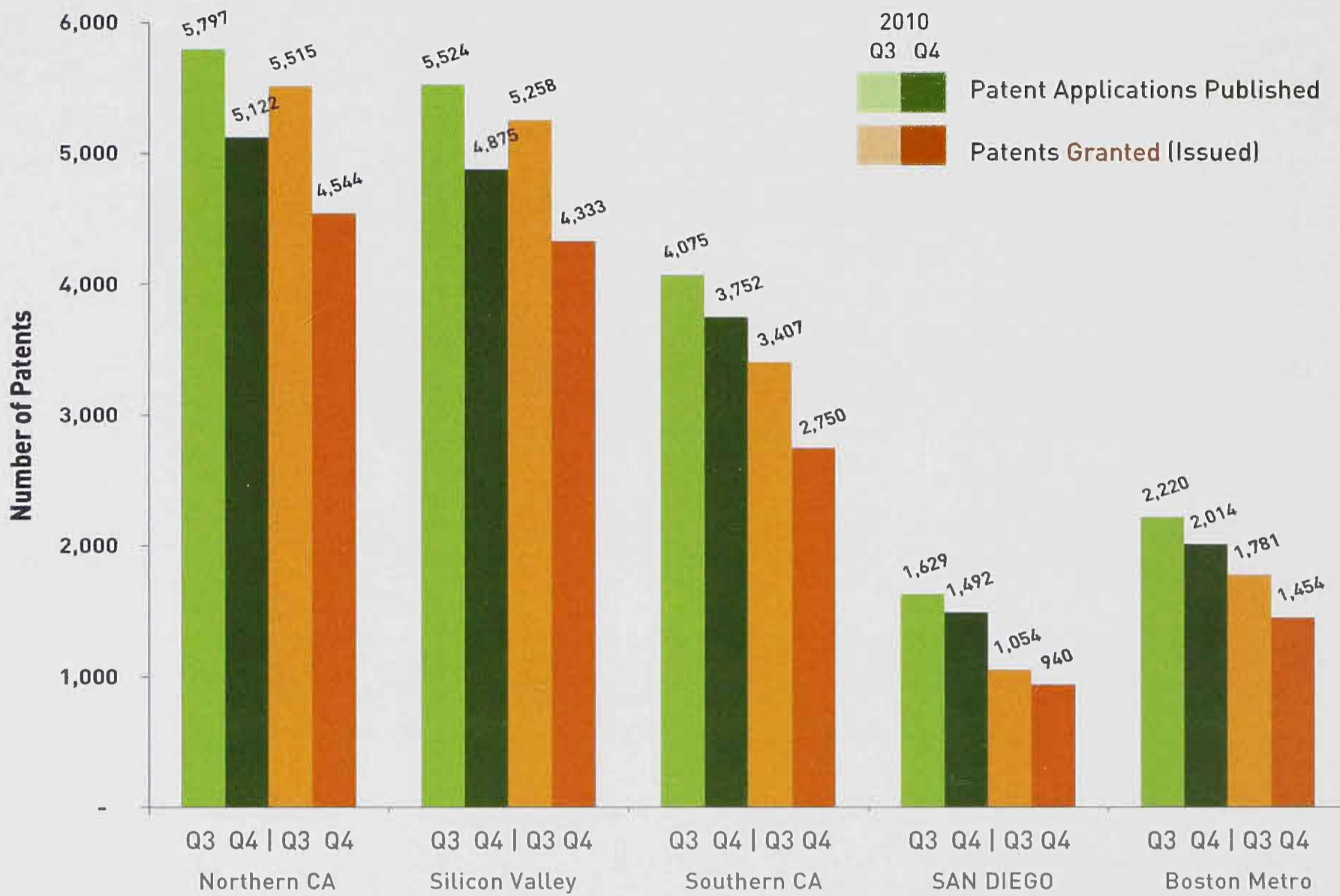
Source: United States Patent and Trademark Office;  
UC San Diego Extension; CONNECT

In San Diego, 940 patents were granted in the fourth quarter of 2010, down 11% from the 1,054 granted in the previous quarter. Patent applications published in the fourth quarter were down more than 8% in the fourth quarter with 1,492 patents published compared to 1,629 in the third quarter of 2010. San Diego accounted for 17% of the patent applications published in California in the second quarter and 12% of the patents granted. Patent activity was down across California in the second half of 2010.

CONNECT INNOVATION REPORT EXECUTIVE SUMMARY (CONT'D)

PATENTS PUBLISHED AND GRANTED BY REGION

3<sup>RD</sup> QUARTER 2010 VS. 4<sup>TH</sup> QUARTER 2010



Source: United States Patent and Trademark Office; UC San Diego Extension

SAN DIEGO TOP REGION IN STATE RECEIVING FEDERAL RESEARCH FUNDING PER CAPITA

San Diego was among the top innovation economies in the state based on the amount of federal grant funding per capita received from the National Institutes of Health (NIH) and the National Science Foundation (NSF) over the past three years. San Diego's NIH and NSF funding per capita totaled almost \$44 million in 2010. Federal grant funding awarded in San Diego from the NIH totaled almost \$1.2 billion in 2010, up 28% from 2009 and more than 70% from 2008.

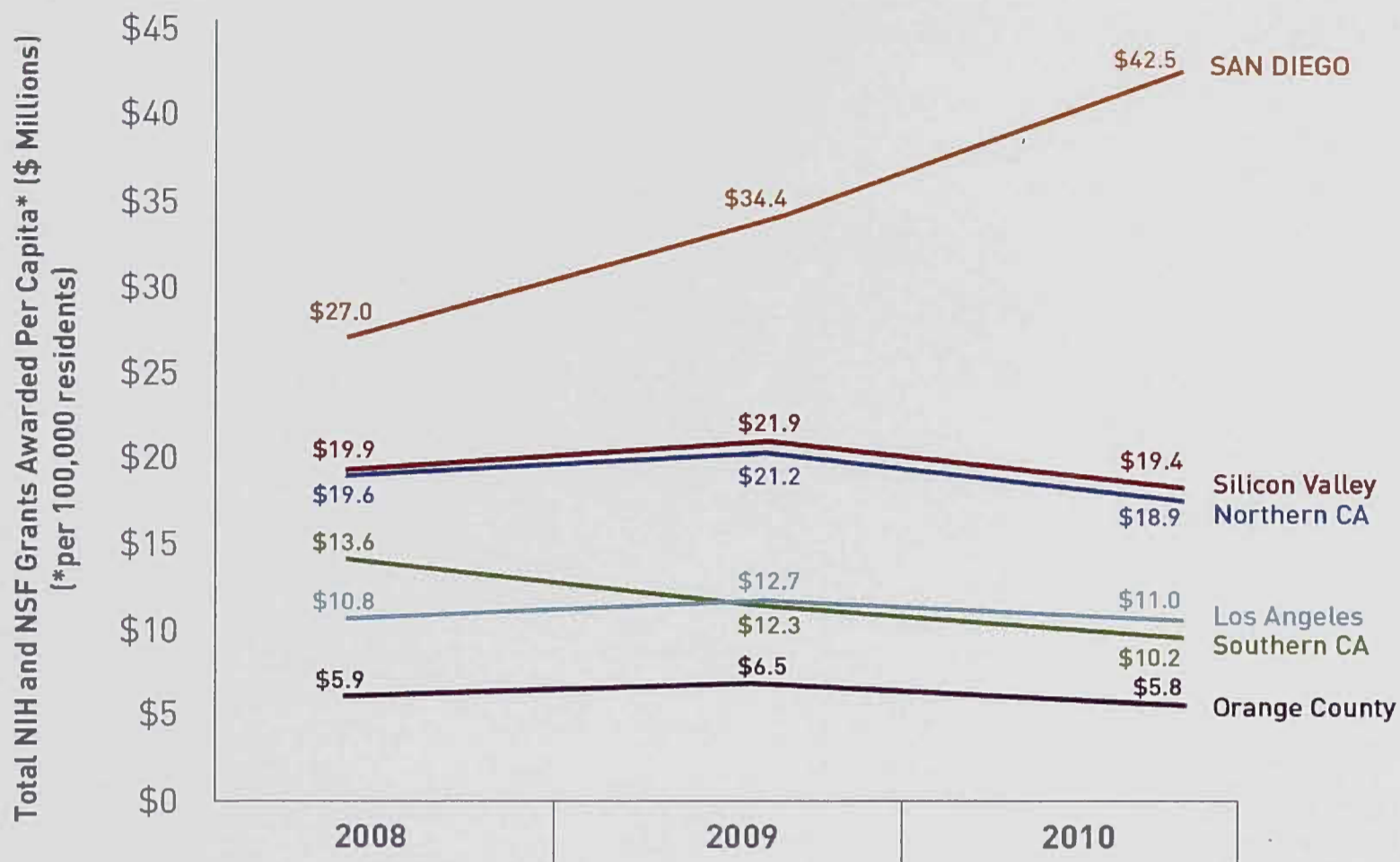
NSF funding to San Diego research institutions and innovation companies totaled almost \$126 million in 2010, up slightly from the previous year. In the fourth quarter, San Diego received \$278 million in NIH funding and more than \$31 million in NSF funding. San Diego also received more than \$21 million in federal research funding from the National Oceanic and Atmospheric Administration (NOAA) and more than \$10 million from the National Aeronautics and Space Administration (NASA) in 2010.

New data from the Department of Defense shows San Diego innovation companies received almost \$32 million in Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) program grants in 2010. Through these two competitive programs, the U.S. Small Business Administration (SBA) Office of Technology ensures that the nation's small, high-tech, innovative businesses are a significant part of the federal government's defense technology research and development efforts.



CONNECT INNOVATION REPORT EXECUTIVE SUMMARY (CONT'D)

NIH AND NSF GRANT FUNDING PER CAPITA - 2008 TO 2010



Source: National Institutes of Health, National Science Foundation; UC San Diego Extension

REGIONAL DoD SBIR/STTR FUNDING - 2008 TO 2010



Source: Department of Defense SBIR/STTR Database; UC San Diego Extension

SBIR/STTR funding is only a small portion of total federal Department of Defense (DoD) spending in the San Diego region. The military comprises a significant part of the region's economy and provides high-quality middle-class and upper-middle-class jobs; procurement contracting with local companies; and investing in research and development of advanced technologies such as autonomous unmanned vehicles, sensors and surveillance. In addition, the military is shifting a greater portion of its forces to the Pacific area of operations and is building infrastructure in San Diego accordingly. Expenditures in the area are likely to increase.

New Start-ups and Employment / Tech Employment and Wages / VC Investment / M&A Activity / New Patents / Research Grants

## INNOVATION ECONOMY EMPLOYMENT AND WAGE DATA

### SAN DIEGO START-UP ACTIVITY DOWN 13% IN 2010; TECH JOBS PAY ALMOST DOUBLE THE AVERAGE WAGE; KEY TRADED INDUSTRY CLUSTERS DRIVE LOCAL SAN DIEGO ECONOMY

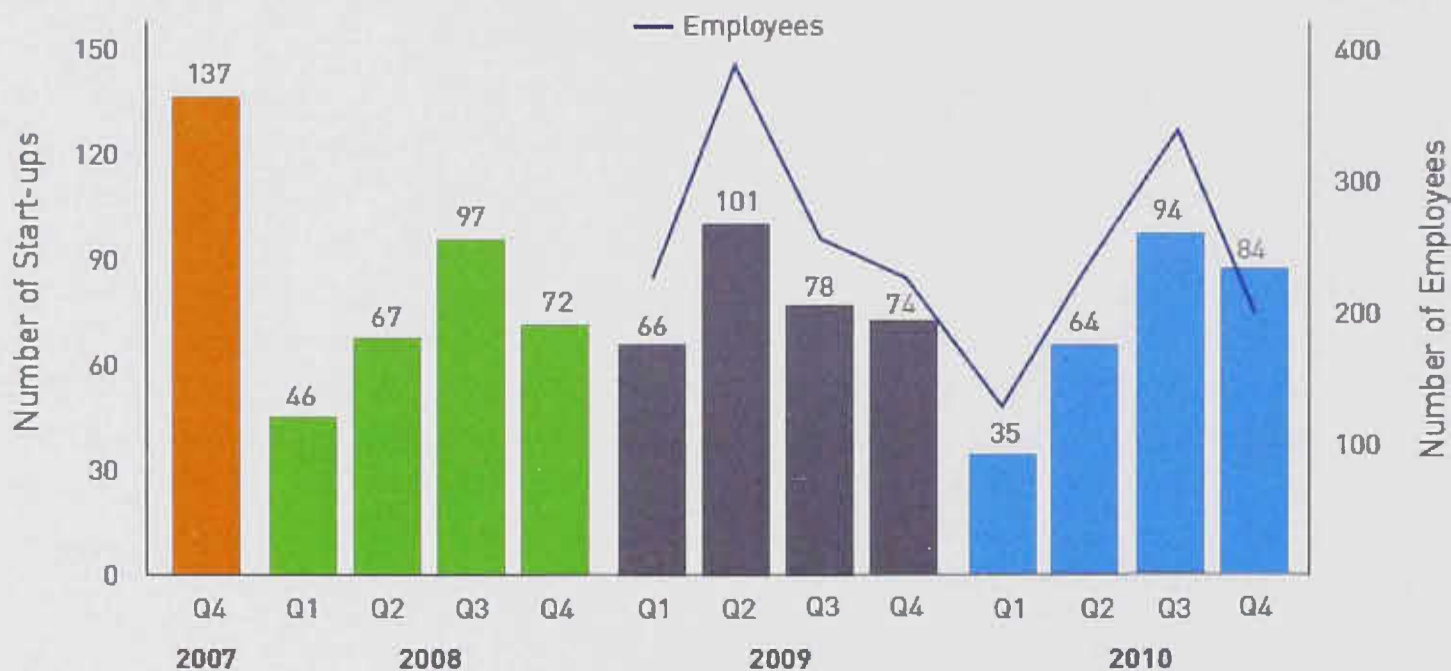
CONNECT's newly released Fourth Quarter 2010 Innovation Report shows 84 new technology start-ups were formed in San Diego in the final quarter of 2010. This was a decrease of about 10% from the third quarter of 2010 and an increase of more than 13% year-on-year. The overall number of start-ups in 2010 totaled 277, down 13% from 319 in 2009, and up more than 15% from 240 in 2008. "The rally in tech firm start-ups apparent in the previous quarters of 2010 appeared to have sputtered somewhat in the final quarter. Nevertheless the 84 start-ups during the fourth quarter were above the quarterly average observed over the past six years," said Kelly Cunningham, Economist and Senior Fellow at the National University System Institute for Policy Research. "As the U.S. economy is anticipated to slowly grow in 2011, tech start-ups in San Diego can be expected to increase so long as funding investment and growth opportunities are made apparent."



The drop in the number of start-ups in the fourth quarter was mirrored at the statewide level. Across California, the number of tech start-ups totaled 660 in the fourth quarter, down 10% from the third quarter. San Diego accounted for 13% of the new technology businesses started in the fourth quarter of 2010, ranking third after LA and Santa Clara County. In the fourth quarter, San Diego had 84 start-ups, down almost 11% from 94 in the previous quarter, while LA had 128 new companies and Santa Clara had 88. Orange County ranked fourth with 76.

Start-up activity in California was down 7% for the year with 2,350 new companies in 2010 compared to 2,522 in 2009 versus San Diego drop of 15%. Over the past five years, San Diego has averaged almost 300 start-ups per year.

### SAN DIEGO INNOVATION START-UPS BY QUARTER

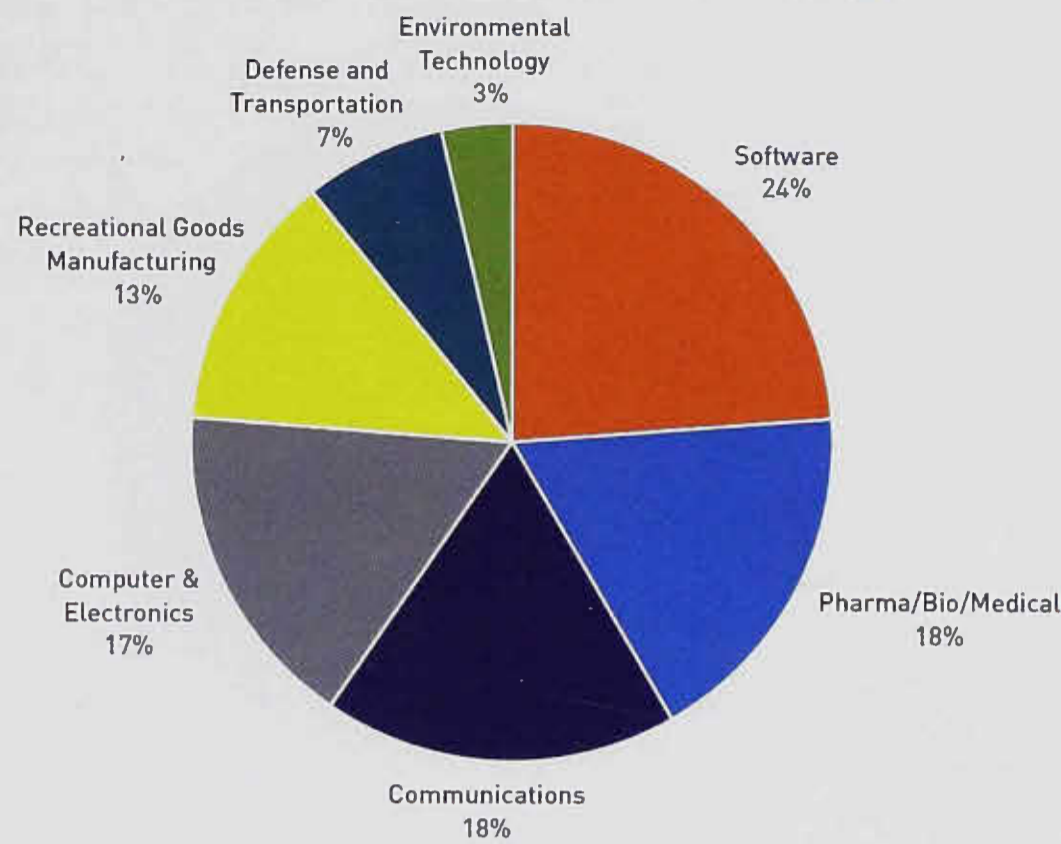
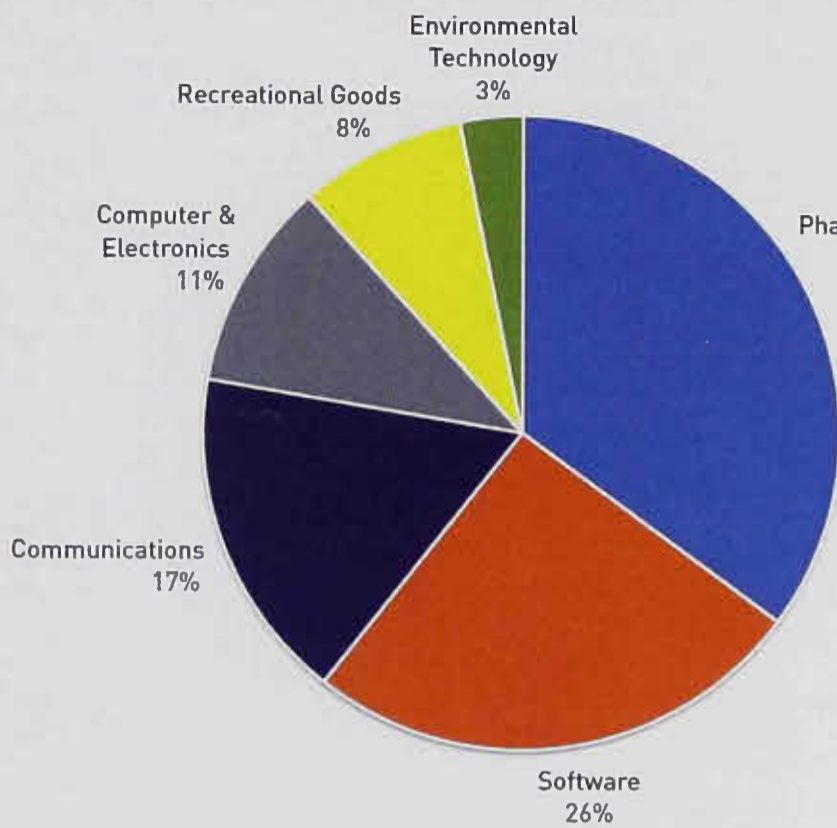


Source: CONNECT; National University System Institute for Policy Research

INNOVATION ECONOMY EMPLOYMENT AND WAGE DATA (CONT'D)

SAN DIEGO Q3 2010 – 94 NEW COMPANIES

SAN DIEGO Q4 2010 – 84 NEW COMPANIES



Source: CONNECT; National University System Institute of Policy Research

Overall, almost 200 jobs were created by San Diego’s new tech companies in the fourth quarter of 2010 and more than 930 for the full year 2010. Throughout 2010, the software sector created 243 jobs, while the life sciences sector led the pack with 303 jobs. In the computer and electronics sector there was a substantial jump year-on-year to 150 jobs. The communications sector added almost 120 jobs and the environmental tech sector created 64 new jobs during the year. Overall, tech start-up employment was down 13% from 2009.

SAN DIEGO TECH START-UPS: NEW EMPLOYMENT – 4<sup>TH</sup> QUARTER 2010 AND FULL YEAR 2010

Tech Industry Sector	Full Year 2009 # of Employees	Q4 2009 # of Employees	Q3 2010 # of Employees	Q4 2010 # of Employees	Full Year 2010 # of Employees
Software	318	69	79	57	243
Pharma/Bio/Medical	280	76	104	60	303
Environmental Technology	155	22	6	5	64
Communications	139	26	29	29	118
Computer and Electronics	102	11	106	30	150
Defense and Transportation	62	-	-	4	25
Recreational Goods	14	5	12	10	29
<b>TOTAL</b>	<b>1,069</b>	<b>209</b>	<b>336</b>	<b>195</b>	<b>932</b>

Source: CONNECT; National University System Institute for Policy Research

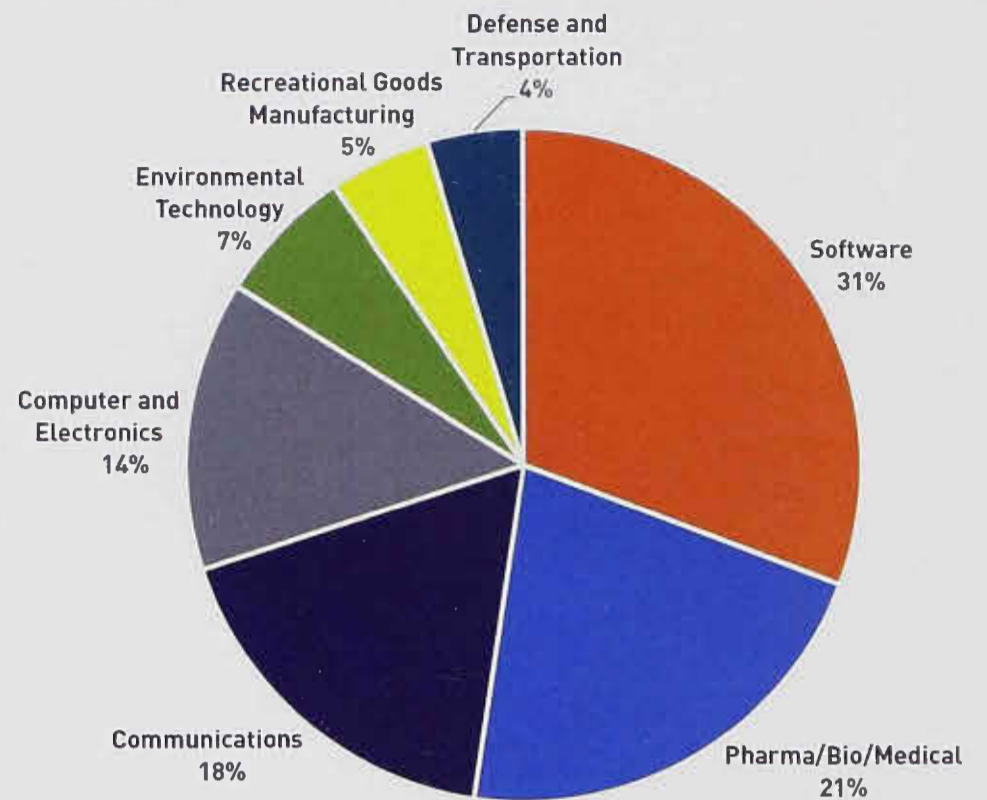
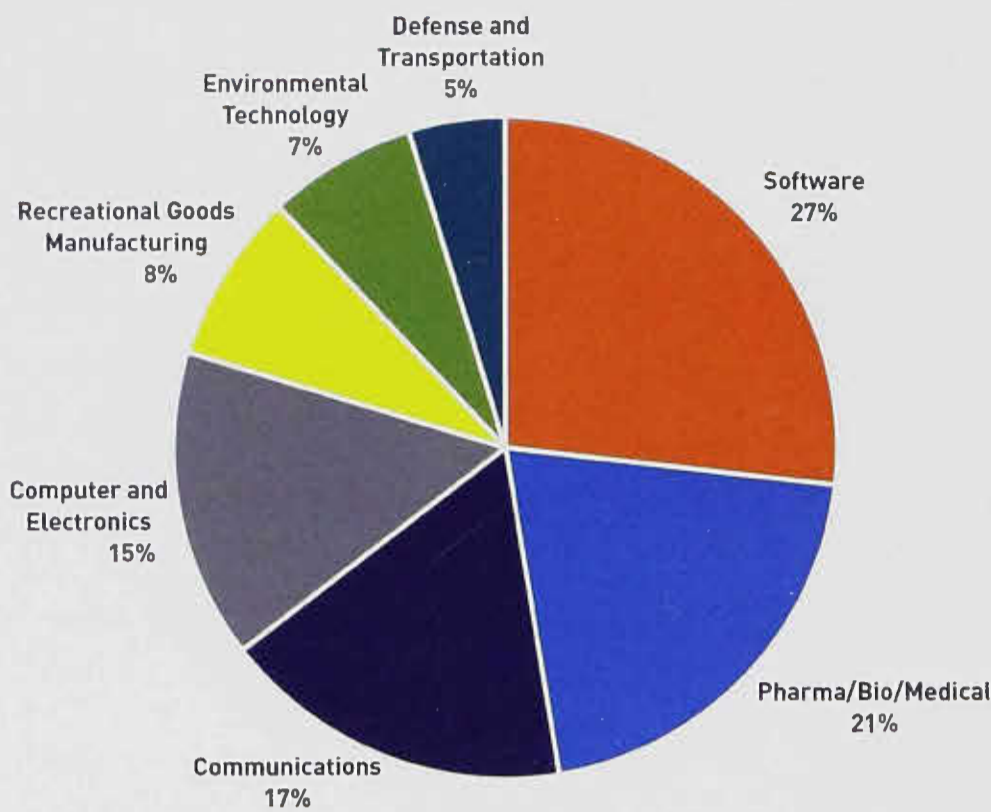
CALIFORNIA TECH START-UPS BY INDUSTRY SECTOR – 4<sup>TH</sup> QUARTER 2010 AND FULL YEAR 2010

Overall, California showed a decrease of about 10% in start-up creation in the fourth quarter of 2010 with 660 new technology companies established compared to 736 in the third quarter. This was up almost 6% from the fourth quarter of 2009 when 700 companies were started. The state’s software sector again accounted for the highest number of technology start-ups in the fourth quarter of 2010 with 177 new companies statewide. The life sciences sector was the second largest sector in the state with 136 start-ups, down more than 30% from the almost 200 companies in the third quarter of 2010. Overall, more than 2,000 new jobs were created in California’s innovation economy in the fourth quarter and more than 8,000 jobs for the full year in 2010.

INNOVATION ECONOMY EMPLOYMENT AND WAGE DATA (CONT'D)

California Q4 2010 – 660 New Companies

California Full Year 2010 – 2,350 New Companies

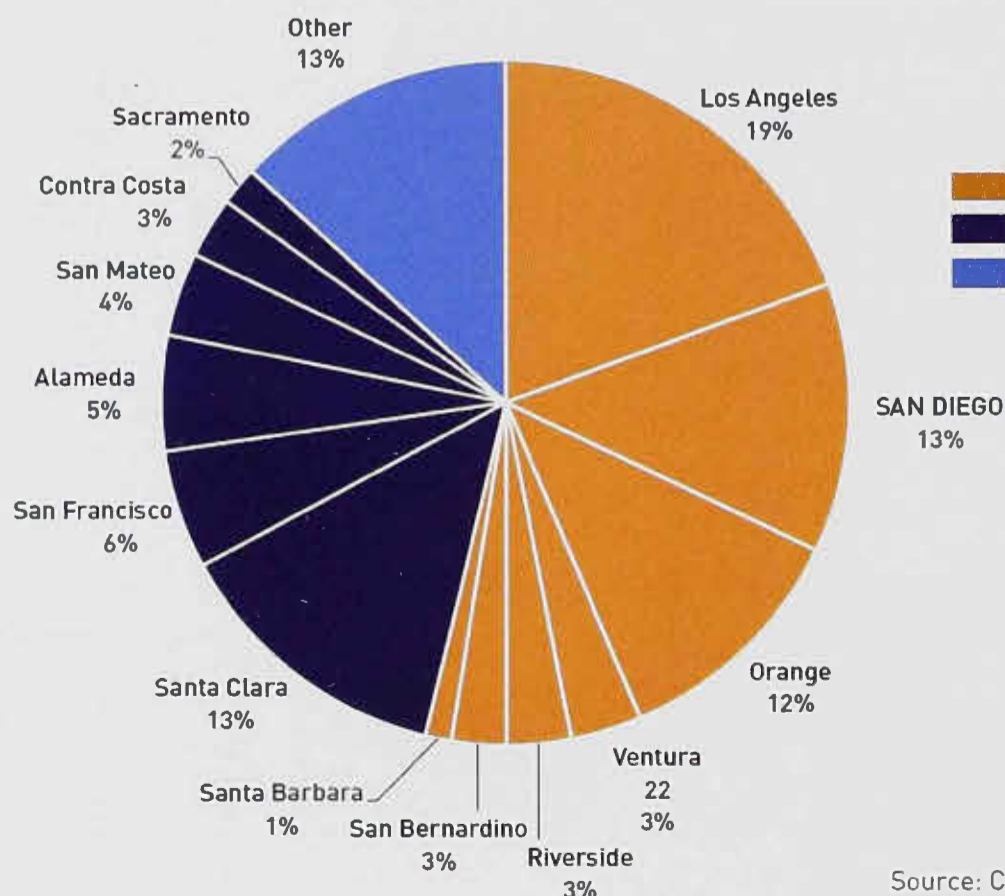


Source: CONNECT; National University System Institute of Policy Research

CALIFORNIA INNOVATION START-UPS BY COUNTY – 4<sup>TH</sup> QUARTER 2010

In California, the top 13 counties accounted for almost 90% of the 660 tech start-ups in the fourth quarter. Southern California represented 54% of the tech start-ups established in the fourth quarter of 2010 with 355 technology companies established, down by 8% from the 384 established in the third quarter of 2010. The Silicon Valley/Sacramento region accounted one third of the start-ups with 218 new technology companies, down almost 16% from 258 in the previous quarter. The remaining counties in the state accounted for 87 new technology companies, or 13% of the total number of new innovation companies in the fourth quarter of 2010.

CALIFORNIA INNOVATION START-UPS BY COUNTY – 4<sup>TH</sup> QUARTER 2010  
660 COMPANIES STATEWIDE



	Tech Start-ups	%n	
Southern California	355	54%	} Top 13 Counties in No. and So. California
Northern California	218	33%	
Other Counties	87	13%	} Remaining Counties
<b>California Total</b>	<b>660</b>	<b>100%</b>	

Source: CONNECT; National University System Institute for Policy Research

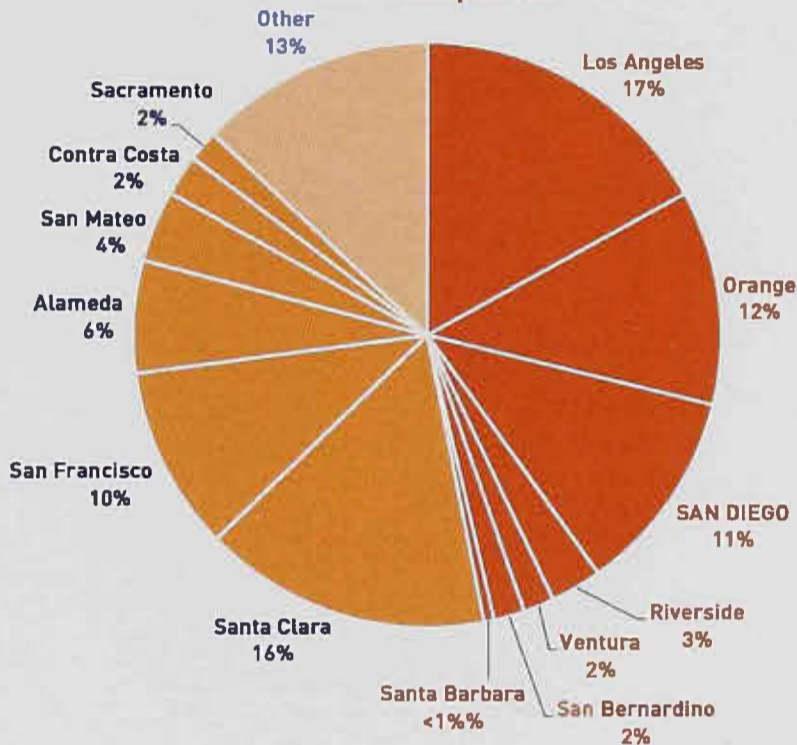
INNOVATION ECONOMY EMPLOYMENT AND WAGE DATA (CONT'D)

CALIFORNIA INNOVATION START-UPS BY INDUSTRY SECTOR AND COUNTY

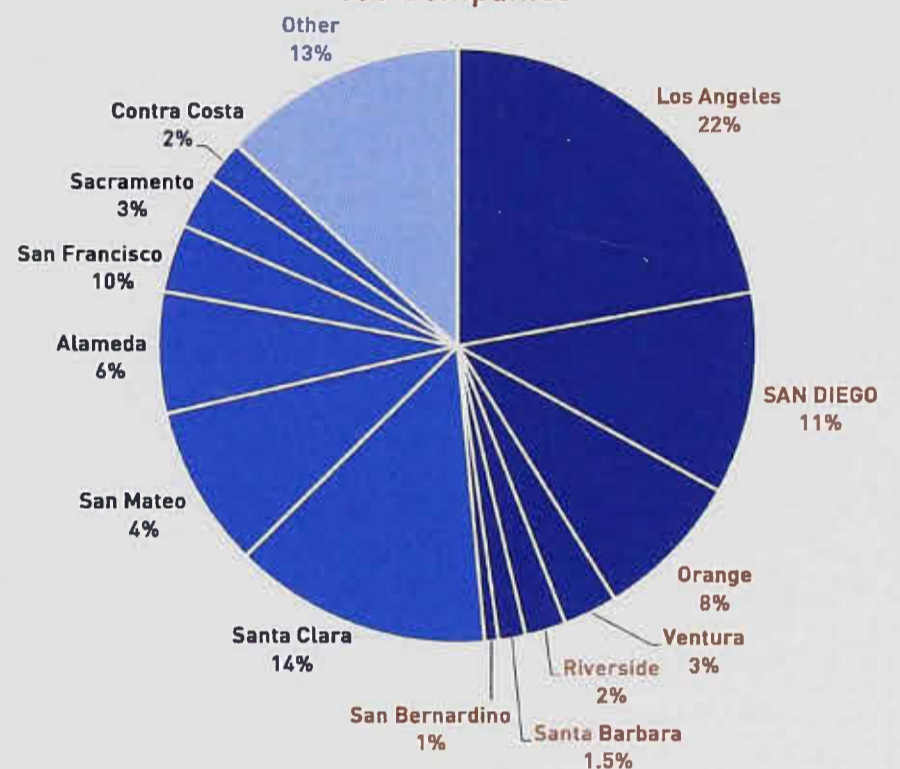
Software and Life Sciences Sectors – 4<sup>TH</sup> QUARTER 2010

In the fourth quarter of 2010, LA County had the most software start-ups with 30 new companies, followed by Santa Clara County with 28, San Diego County with 20 and Orange County with 21. The software sector was down almost 20% from the third quarter of 2010, and down 9% for the year. Los Angeles led the state in the fourth quarter in the life sciences sector, with 30 new companies, followed by Santa Clara with 19 and San Diego with 15. The number of life sciences start-ups was down 32% in the fourth quarter of 2010 over the previous quarter and down 11% for the year compared to 2009.

Software Sector  
177 Companies



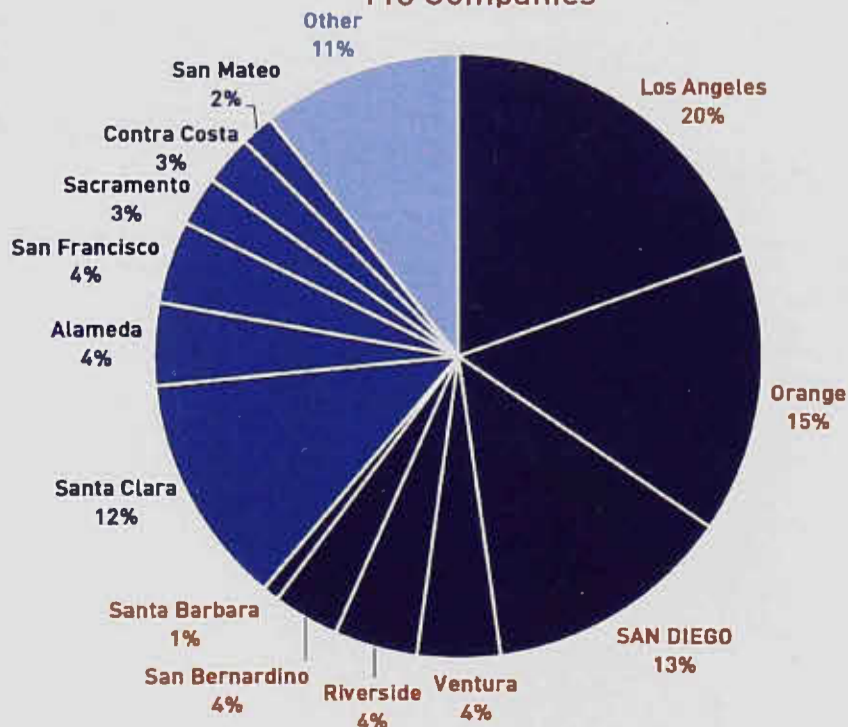
Pharma/Biotech/Medical Device Sector  
136 Companies



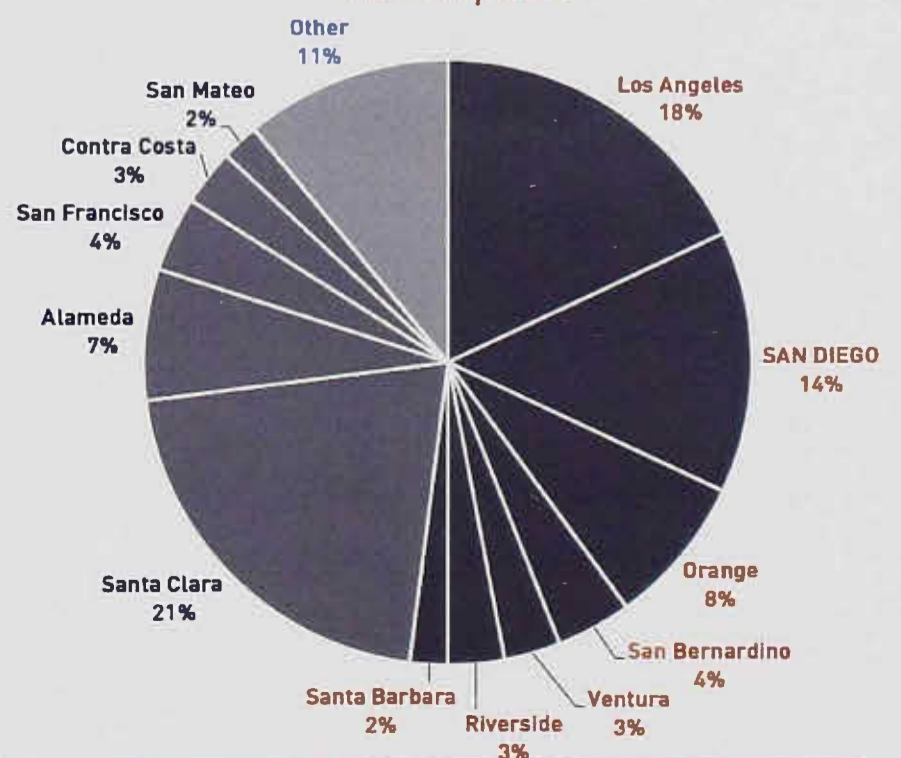
Communications and Computers & Electronics Sectors – 4<sup>TH</sup> QUARTER 2010

Los Angeles led with the most communications start-ups in the third quarter with 22 companies, followed by Orange County with 17 and San Diego with 15. New company formation in the sector was down almost 20% from the previous quarter with 113 and up 10% for the full year compared with 2009. The computers and electronics sector was up 9% in the fourth quarter with 100 new companies compared to the 92 companies formed in the third quarter of 2010. The sector was down 23% for the year from 2009's total. Santa Clara County led the state with 21 new computers and electronics companies in the fourth quarter of 2010 followed by Los Angeles County with 18 start-ups and San Diego with 14 – an increase of 40%.

Communications Sector  
113 Companies



Computers & Electronics Sector  
100 Companies



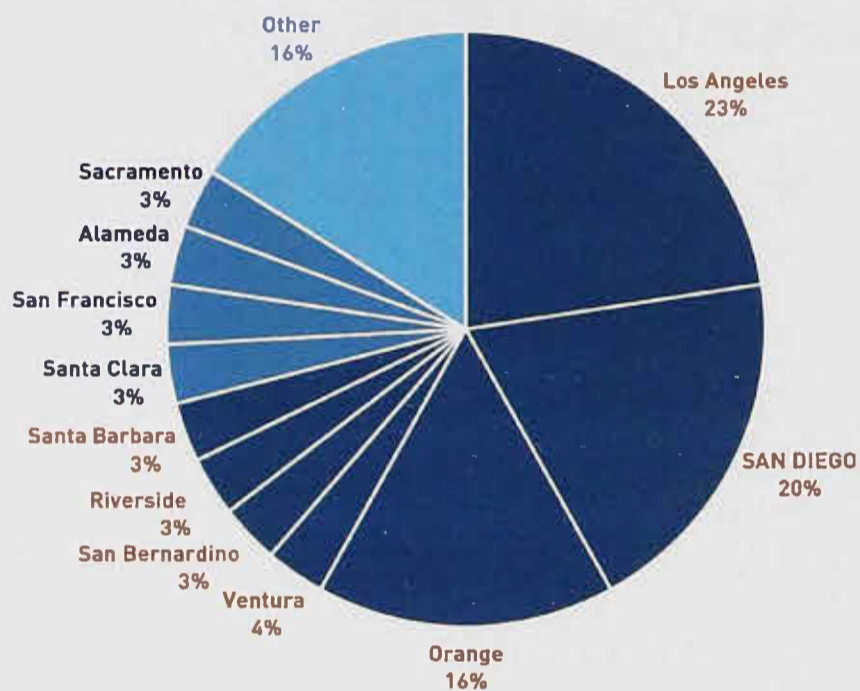
INNOVATION ECONOMY EMPLOYMENT AND WAGE DATA (CONT'D)

CALIFORNIA INNOVATION START-UPS BY INDUSTRY SECTOR AND COUNTY

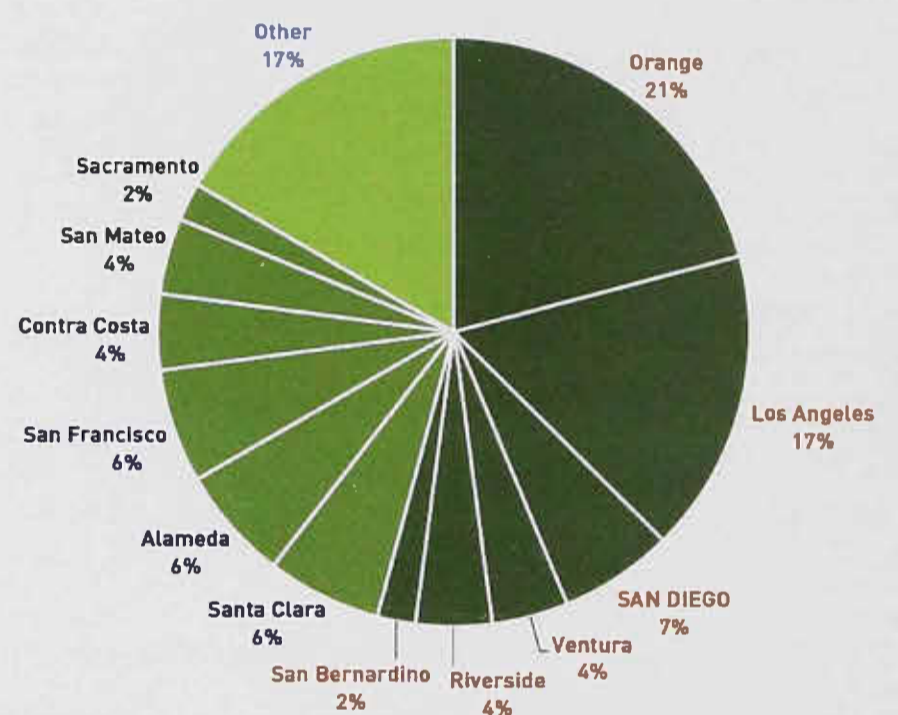
Defense and Transportation and Environmental Technology Sectors – 4<sup>TH</sup> QUARTER 2010

Los Angeles County had the majority of the defense and transportation start-ups across the state in the fourth quarter of 2010 with seven new companies, closely followed by San Diego with six and Orange County with five. Southern California accounted for 72% of the state's tech start-ups in defense and transportation sector. Thirty-one start-ups were established – up 48% from third quarter of 2010, and down slightly by 4% for the year. Forty-eight environmental technology start-ups were formed in the fourth quarter – up 30% from the 37 companies started in the third quarter of 2010, but down 20% for the year with 156 start-ups compared to 194 companies in 2009. Orange County led the state with 21% of the environmental technology sector's start-ups with 10 companies followed by Los Angeles with 17% and eight start-ups.

**Defense and Transportation Sector**  
31 Companies



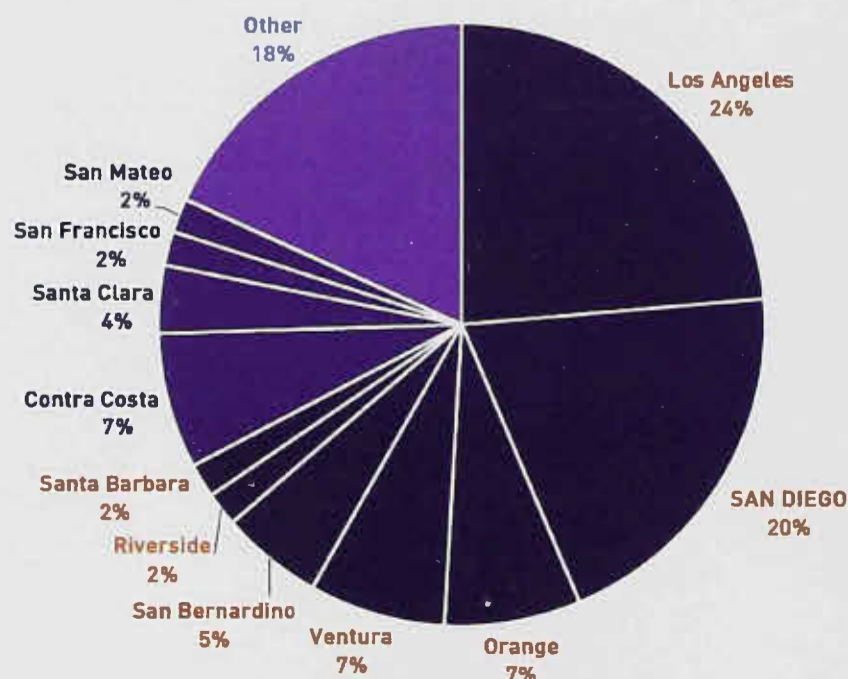
**Environmental Technology Sector**  
48 Companies



Recreational Goods Manufacturing Sector – 4<sup>TH</sup> QUARTER 2010

The recreational goods manufacturing sector saw a surge in start-ups in the fourth quarter of 2010. There were 55 recreational goods manufacturing start-ups statewide – up 90% from 29 in the third quarter, and up almost 125% for the year with 114 start-ups compared to 2009 when 51 new companies were formed in the sector. Southern California accounted for 67% of the state's start-ups in the sector, led by Los Angeles with 13 start-ups, followed closely by San Diego with 11 start-ups.

**Recreational Goods Manufacturing Sector**  
55 Companies



Source: CONNECT; National University System Institute for Policy Research

INNOVATION ECONOMY EMPLOYMENT AND WAGE DATA (CONT'D)

TOTAL EMPLOYER AND EMPLOYMENT DATA FOR SAN DIEGO'S INNOVATION ECONOMY

The San Diego economy can be divided into five large clusters comprising the "traded" and "local services" economies. The four traded clusters include technology innovation/manufacturing, defense/military, research institutes/education and conventions/tourism/gaming. The four clusters of the traded economy, which represent almost half a million jobs, attract and compete with other regions and countries for money (such as federal research grants and procurement contracts, and tourism) and resources (such as skilled personnel and new companies and research organizations). These four clusters drive the rest of the local economy, which itself represents over 60% of all workers employed in San Diego County – more than 770,000 jobs in the fourth quarter of 2010. A recent report by the San Diego Association of Governments addresses this economic ecosystem:

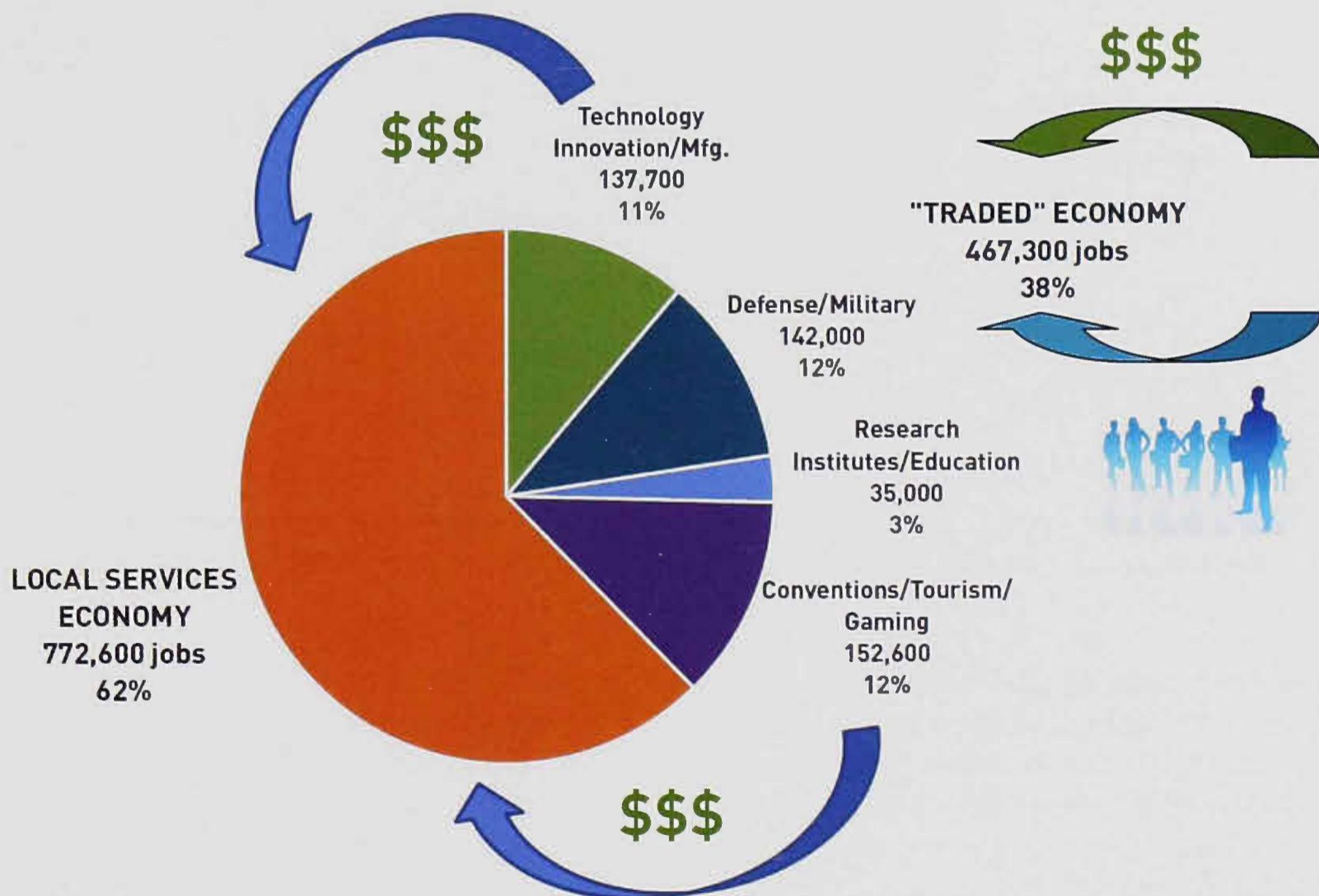
Firms in traded clusters compete nationally and globally, hence they must continuously "innovate" their products or services to remain competitive. In economic terms, innovation can refer to technological advancement, or to the process by which companies create new economic value by using resources more effectively.

*in Building a Foundation to Achieve Global Competitiveness.  
San Diego Regional Economic Prosperity Strategy (2008)  
San Diego Association of Governments (SANDAG)*

CONNECT CEO, Duane Roth, comments, "The strength of the local economy ultimately depends on the growth and development of the traded economy. When the four clusters of the traded economy are functioning well, money flows from those four into the fifth - the local commerce cluster of goods and services. People buy homes, cars and dine out. It's a feedback loop that recycles money in the community. The local economy is the beneficiary of the traded economy."

ESTIMATED EMPLOYMENT IN SAN DIEGO – 4<sup>TH</sup> QUARTER 2010

1.24 Million Jobs



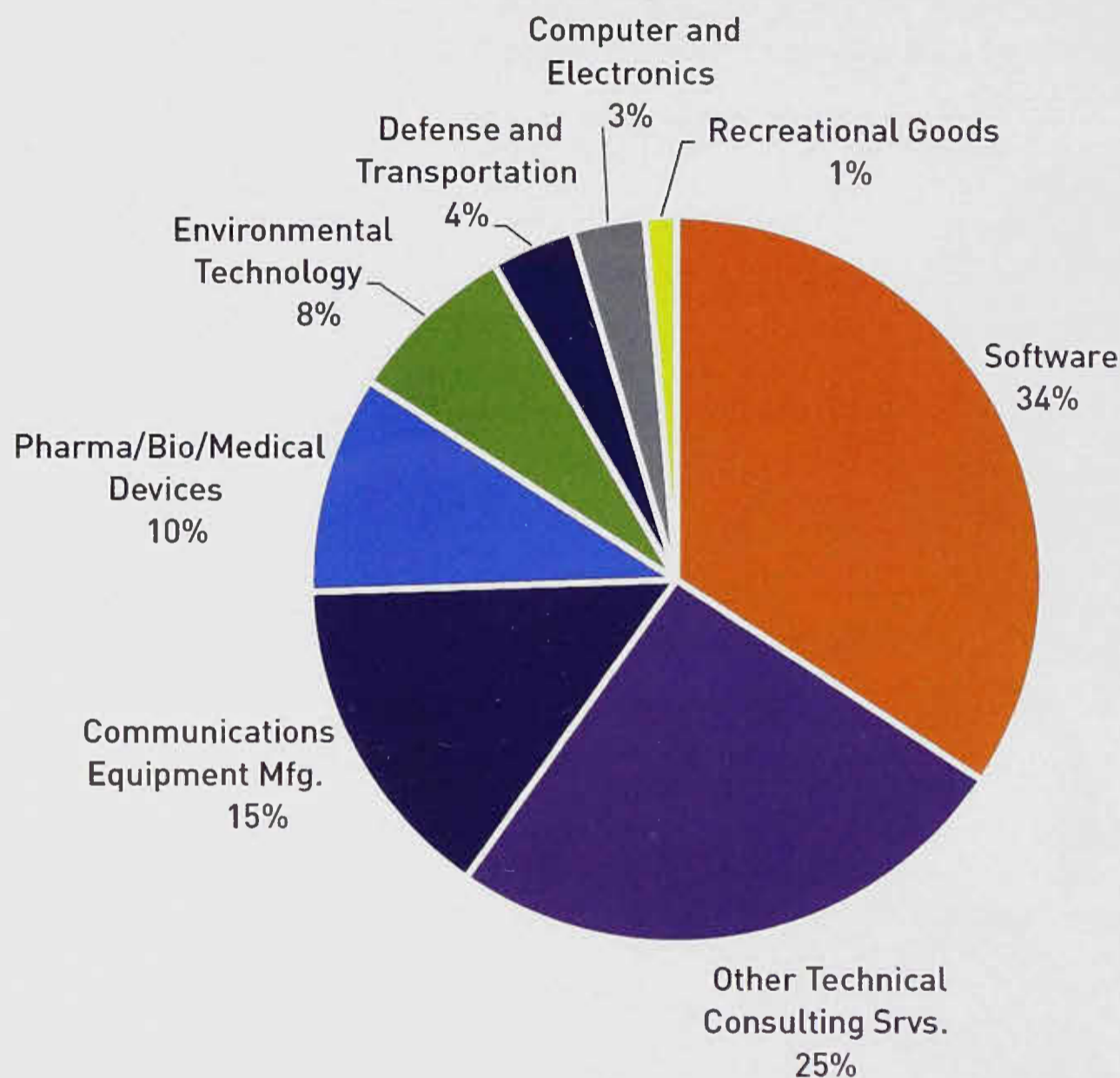
Source: CONNECT ; National University System Institute for Policy Research, San Diego Convention & Visitors Bureau, San Diego Military Advisory Council, UC San Diego Extension.

**INNOVATION ECONOMY EMPLOYMENT AND WAGE DATA (CONT'D)**

Based on data from the California Employment Development Department (EDD) quarterly census of employment and wages, there were almost 5,950 tech companies in San Diego, with more than 137,700 employees and \$3.2 billion total payroll per quarter.

To put this in perspective, technology companies represent only 6% of all San Diego employers, but technology sector employment represents 11% of all jobs and more than one quarter of all payrolls.

**TOTAL NUMBER OF SAN DIEGO TECHNOLOGY COMPANIES  
BY INDUSTRY SECTOR  
5,950 PRIVATE COMPANIES**



Source: National University System Institute for Policy Research; EDD Q1 2010 Data

Software companies make up 34% of the total San Diego technology sector with more than 2,000 companies, according to the most recently available EDD census data (Q1 2010). Technical consulting services companies account for one quarter of the total with more than 1,500 companies, and the communications sector represents almost 15% with over 875 companies. Life sciences companies (pharma/biotech/biomedical products) companies make up roughly 9% with nearly 580 companies. The environmental technology sector, which includes many of the cleantech industry companies, represents approximately 8% of the total technology sector with almost 450 companies.



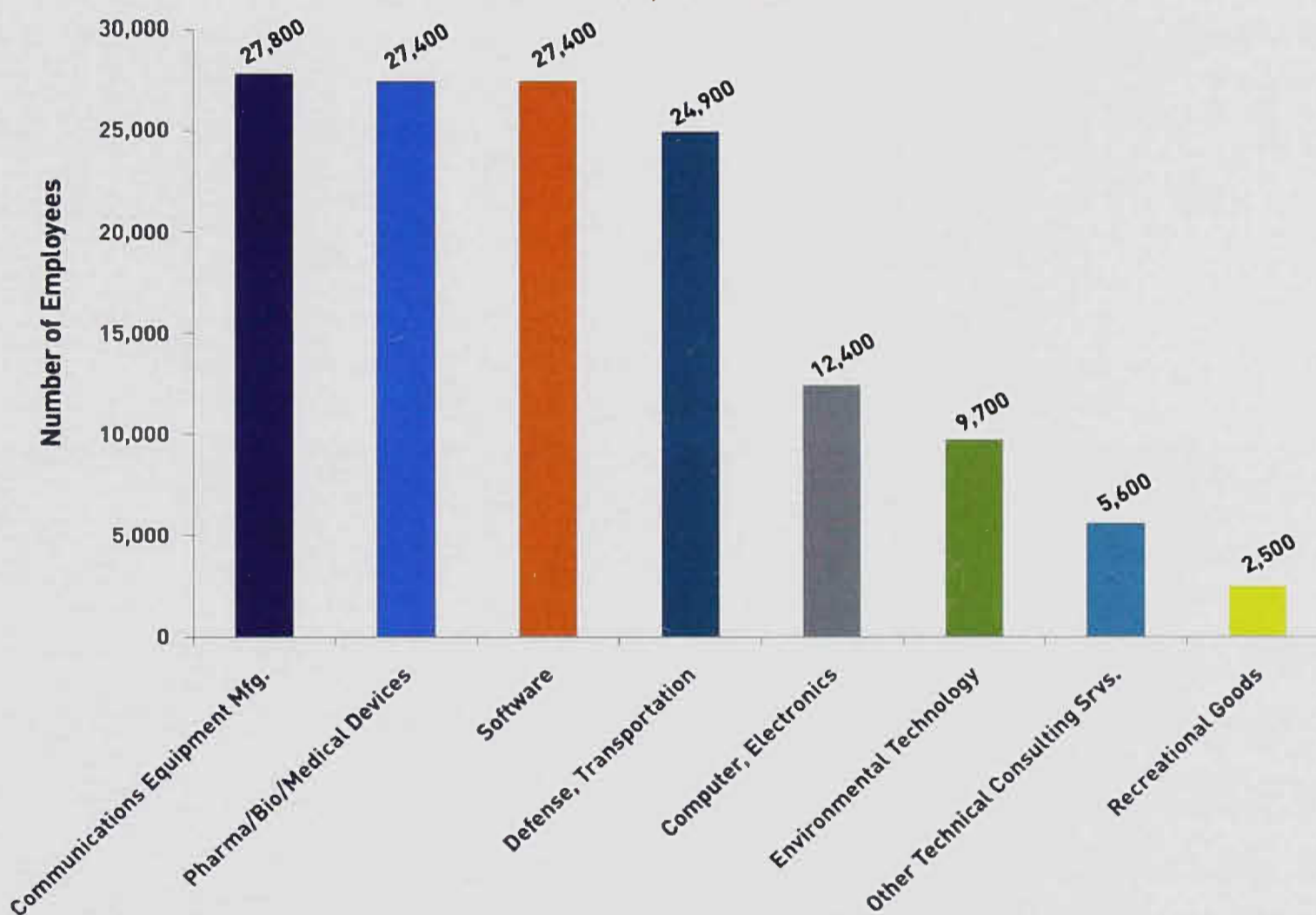
INNOVATION ECONOMY EMPLOYMENT AND WAGE DATA (CONT'D)

TOTAL EMPLOYER AND EMPLOYMENT DATA FOR SAN DIEGO'S INNOVATION ECONOMY (CONT)

In the fourth quarter of 2010, four industry sectors employed nearly 80% of San Diego's innovation economy workforce. San Diego's tech sector accounted for an estimated 137,700 jobs according to research by the National University System Institute for Policy Research. Communications equipment manufacturing was the largest sector with 27,800 jobs in the fourth quarter. The life sciences sector, which includes biotech, pharma and biomedical device and software companies, tied for the second largest with 27,400 jobs. The defense and transportation sector employed almost 25,000 workers in the fourth quarter, while the computer and electronics sector represented 9% of San Diego's tech employment with 12,400 jobs. Environmental technology companies employed 9,700 workers and represented 7% of tech jobs, and technical consulting services companies employed 5,600 workers in the third quarter. Although this sector was the second largest in terms of the number of companies in San Diego's innovation economy, these firms are generally smaller companies employing about four people. Recreational good manufacturing companies employed about 2,500 workers.

SAN DIEGO COUNTY TECHNOLOGY SECTOR EMPLOYMENT BY CLUSTER  
4<sup>TH</sup> QUARTER 2010

137,700 JOBS



Source: National University System Institute for Policy Research;  
California Employment Development Department (EDD)

Total technology employment in the fourth quarter was up by approximately 50 jobs overall from the third quarter of 2010. Technology sector employment between the first quarter of 2008 (onset of the recession) and the fourth quarter of 2010 fell 2%, or about 2,800 jobs, while total non-tech employment fell 7.3%, or more than 85,300 jobs. The pharma/biotech sector showed an 11.4% increase in jobs between the first quarter of 2008 and the fourth quarter of 2010, while the software sector was up 2.3% over the period. The worst hit has been the region's communications sector (shedding 2,800 jobs), the defense/transportation sector (a decline of 1,800 jobs) and the computers and electronics sector (down 900 jobs) since the first quarter of 2008.

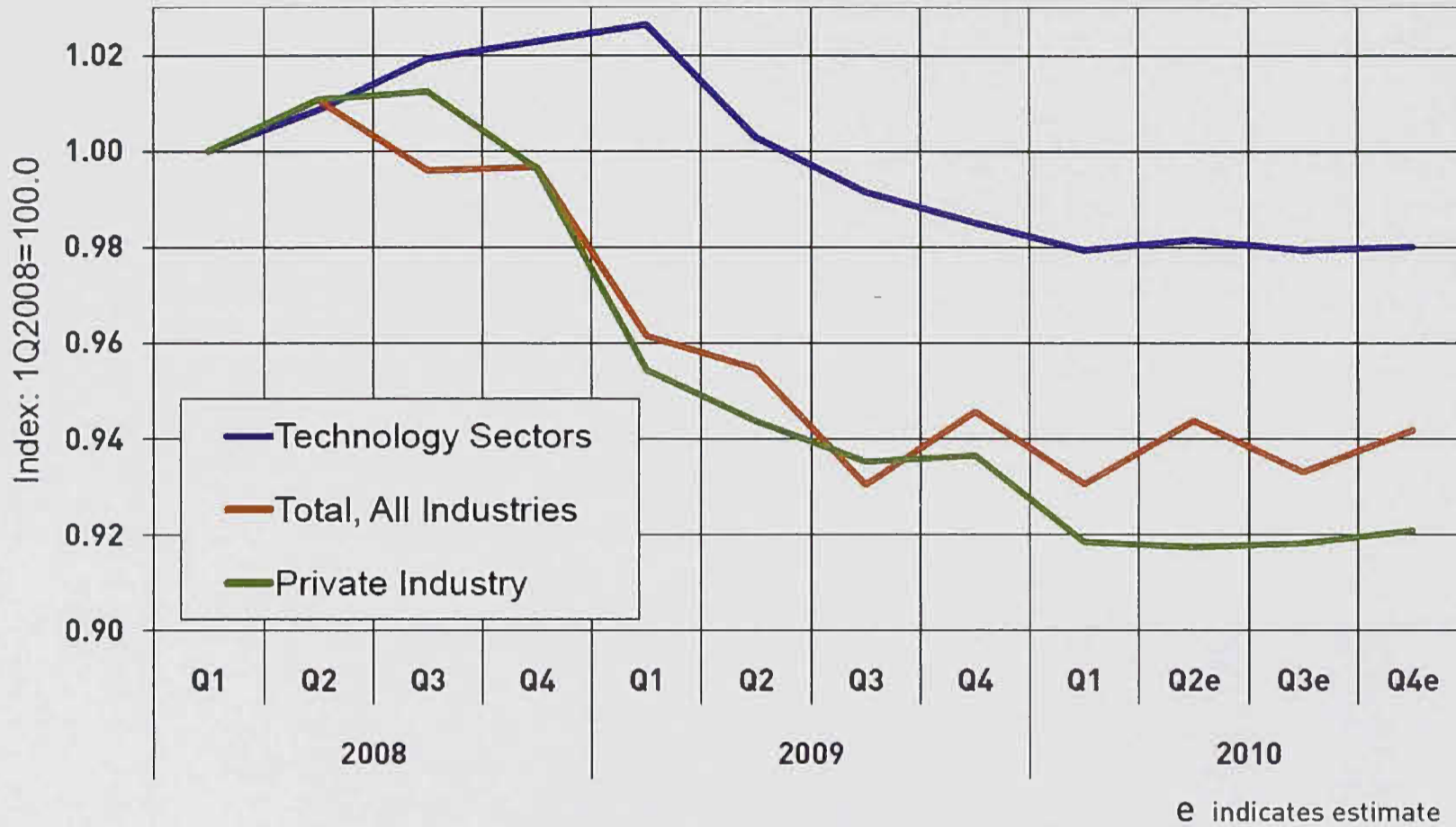
"It's encouraging for the local economy to have the continued flow of venture capital dollars into the region. The funds flow and the tech start-ups provide the impetus for the growth of knowledge-based jobs, with wages that are double the local average annual wage, and are critical to the economic health of the region."

Gary Moss, Labor Market Specialist at San Diego Workforce Partnership

INNOVATION ECONOMY EMPLOYMENT AND WAGE DATA (CONT'D)

EMPLOYMENT TRENDS AND SECTOR WAGES FOR SAN DIEGO'S INNOVATION ECONOMY

EMPLOYMENT TRENDS IN SAN DIEGO  
TECHNOLOGY SECTOR BY CLUSTER VERSUS ALL INDUSTRIES  
1<sup>ST</sup> QUARTER 2008 TO 4<sup>TH</sup> QUARTER 2010



Source: National University System Institute for Policy Research; California Employment Development Department (EDD)

TOTAL EMPLOYMENT AND TECH SECTOR EMPLOYMENT IN SAN DIEGO  
1<sup>ST</sup> QUARTER 2008 TO 4<sup>TH</sup> QUARTER 2010

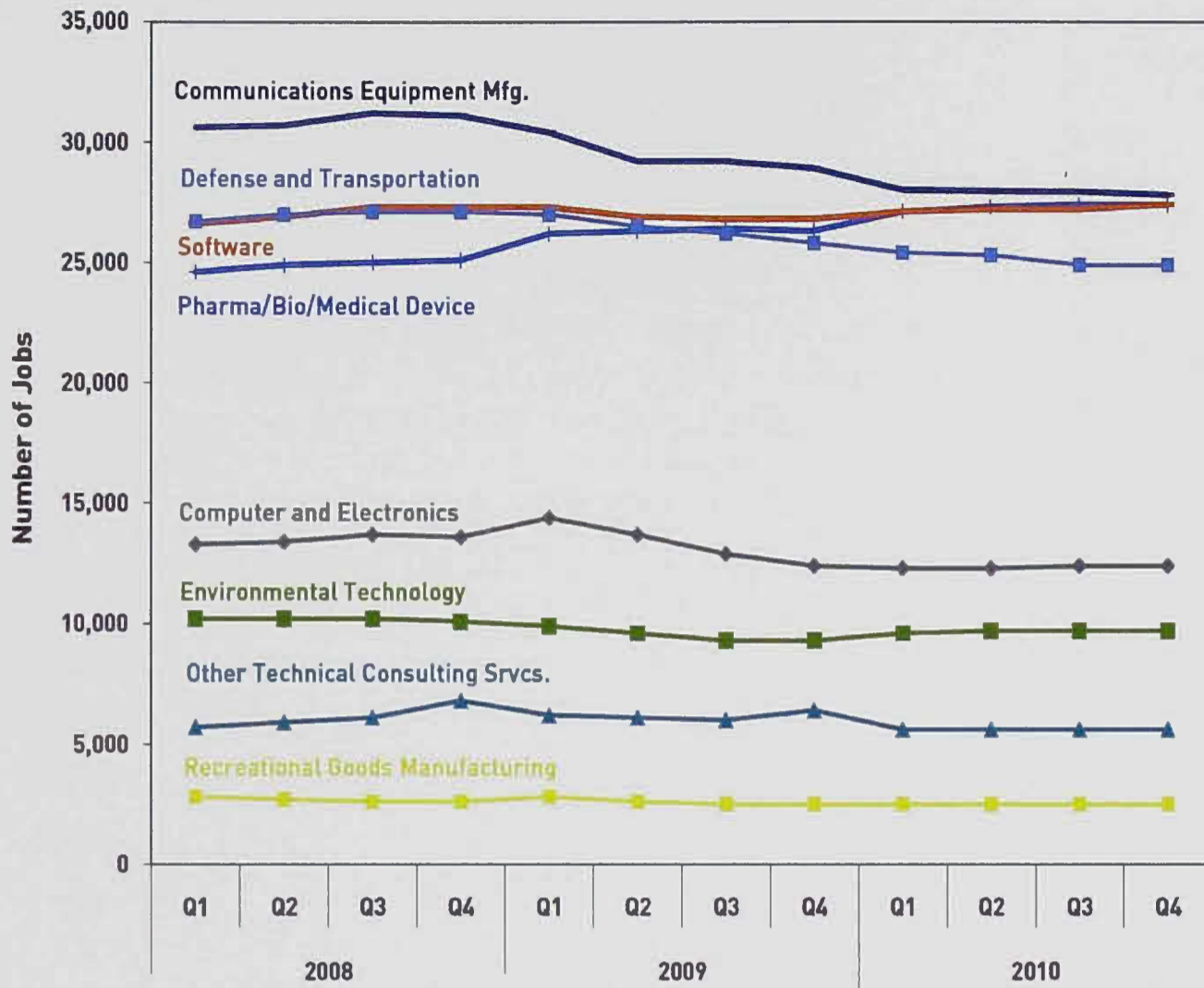
Employment	Actual								Estimate			
	Q1 2008	Q2 2008	Q3 2008	Q4 2008	Q1 2009	Q2 2009	Q3 2009	Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010
Total, All Industries	1,316,600	1,330,600	1,311,300	1,312,200	1,265,800	1,256,800	1,224,900	1,245,000	1,225,111	1,242,500	1,228,400	1,239,900
Total Private	1,089,700	1,101,400	1,103,200	1,085,700	1,040,000	1,028,300	1,019,100	1,020,500	1,000,800	999,700	1,000,400	1,003,400
Total Non-Tech Employment	1,176,100	1,188,900	1,168,100	1,168,500	1,121,600	1,115,900	1,085,600	1,106,600	1,087,511	1,104,635	1,090,754	1,102,200
<b>TOTAL Tech Employment</b>	<b>140,500</b>	<b>141,700</b>	<b>143,200</b>	<b>143,700</b>	<b>144,200</b>	<b>140,900</b>	<b>139,300</b>	<b>138,400</b>	<b>137,600</b>	<b>137,865</b>	<b>137,646</b>	<b>137,700</b>
Communications Equipment Mfg.	30,600	30,700	31,200	31,100	30,400	29,200	29,200	28,900	28,000	27,965	27,946	27,800
Pharma/Bio/Medical Device	24,600	24,900	25,000	25,100	26,200	26,300	26,400	26,300	27,100	27,300	27,400	27,400
Software	26,600	26,900	27,300	27,300	27,300	26,900	26,800	26,800	27,100	27,200	27,200	27,400
Defense, Transportation	26,700	27,000	27,100	27,100	27,000	26,500	26,200	25,800	25,400	25,300	24,900	24,900
Computer, Electronics	13,300	13,400	13,700	13,600	14,400	13,700	12,900	12,400	12,300	12,300	12,400	12,400
Environmental Technology	10,200	10,200	10,200	10,100	9,900	9,600	9,300	9,300	9,600	9,700	9,700	9,700
Other Technical Consulting Svcs.	5,700	5,900	6,100	6,800	6,200	6,100	6,000	6,400	5,600	5,600	5,600	5,600
Recreational Goods	2,800	2,700	2,600	2,600	2,800	2,600	2,500	2,500	2,500	2,500	2,500	2,500

Derived for CONNECT from California Employment Development Department's *Quarterly Census of Employment and Wages* (QCEW) program, and monthly employment estimates. Technology sectors based upon NAICS codes defined, in part, by SANDAG Cluster Analysis and CONNECT technology definitions, with adjustments and estimates by National University System Institute for Policy Research.

Source: National University System Institute for Policy Research; California Employment Development Department (EDD)

INNOVATION ECONOMY EMPLOYMENT AND WAGE DATA (CONT'D)

TECH SECTOR EMPLOYMENT IN SAN DIEGO - 1<sup>ST</sup> QUARTER 2008 TO 4<sup>TH</sup> QUARTER 2010



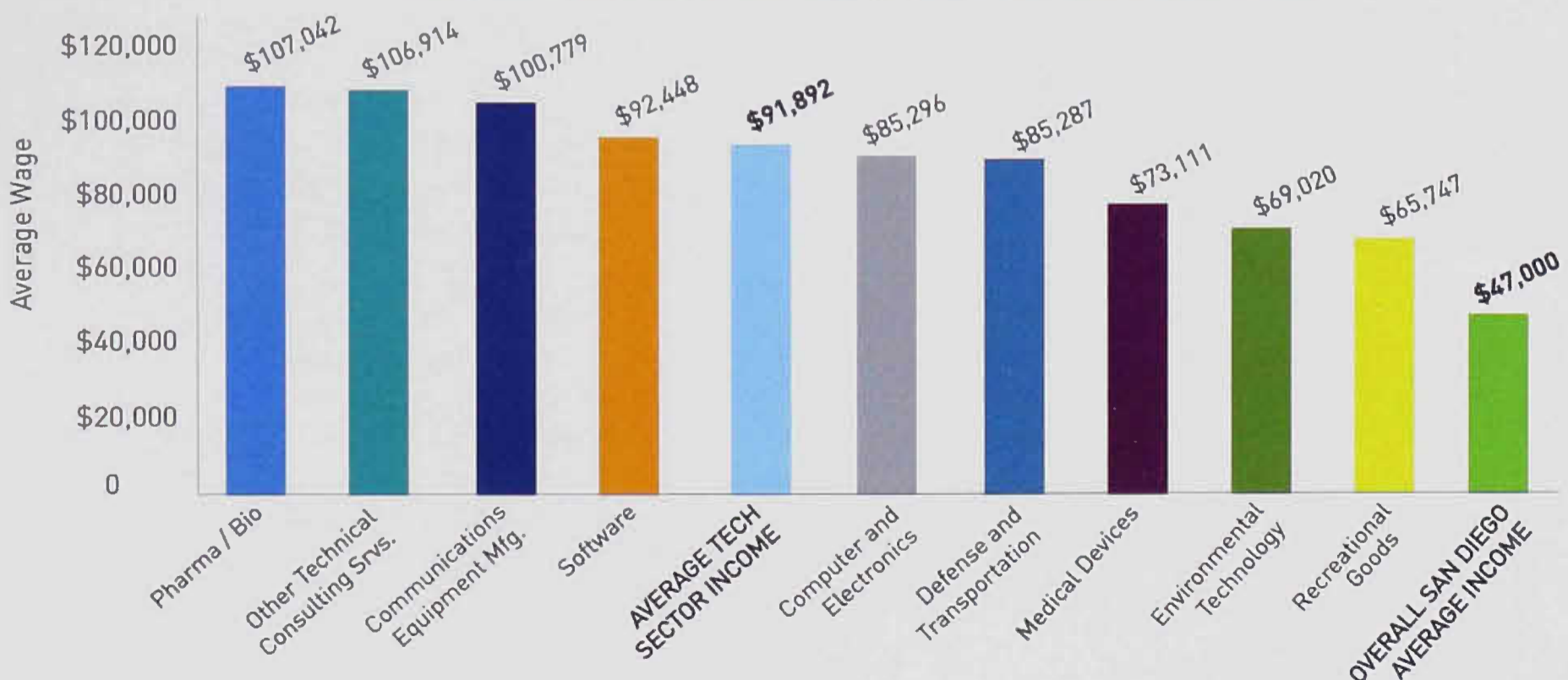
In the first quarter of 2010, San Diego's pharma/biotech sector had the highest average annual pay at \$107,000, up almost 18% from \$90,800 in the previous quarter. The average wage for the technical consulting services sector was up 25% to \$106,900 in the first quarter of 2010 from \$85,600 in the fourth quarter of 2009.

The communications equipment manufacturing sector saw a 10% decrease in average pay from \$111,830 to \$100,780. The software sector average wage was up almost 2% from the previous quarter to \$92,450. In the first quarter of 2010, the computer and electronics average pay was down 7.6% to \$85,300 from the previous quarter.

Source: National University System Institute for Policy Research; California Employment Development Department (EDD)

"Annualized wages based upon quarterly data may fluctuate due to employment and compensation changes, but the relative scale of pay is fairly consistent. Wages among technology sectors are much higher, on average, than other jobs in San Diego. Coming out of the recession, job growth in San Diego is anticipated to be stronger among technology employers, particularly in biotech/pharmaceutical/biomed, software and environmental sectors," said Kelly Cunningham, Economist and Senior Fellow at the National University System Institute for Policy Research.

SAN DIEGO AVERAGE TECH SECTOR WAGE\* COMPARISON BY INDUSTRY VERSUS OVERALL AVERAGE WAGE FOR ALL INDUSTRIES



\* Latest available EDD wage data: Q1 2010

Source: National University System Institute for Policy Research; California Employment Development Department (EDD)

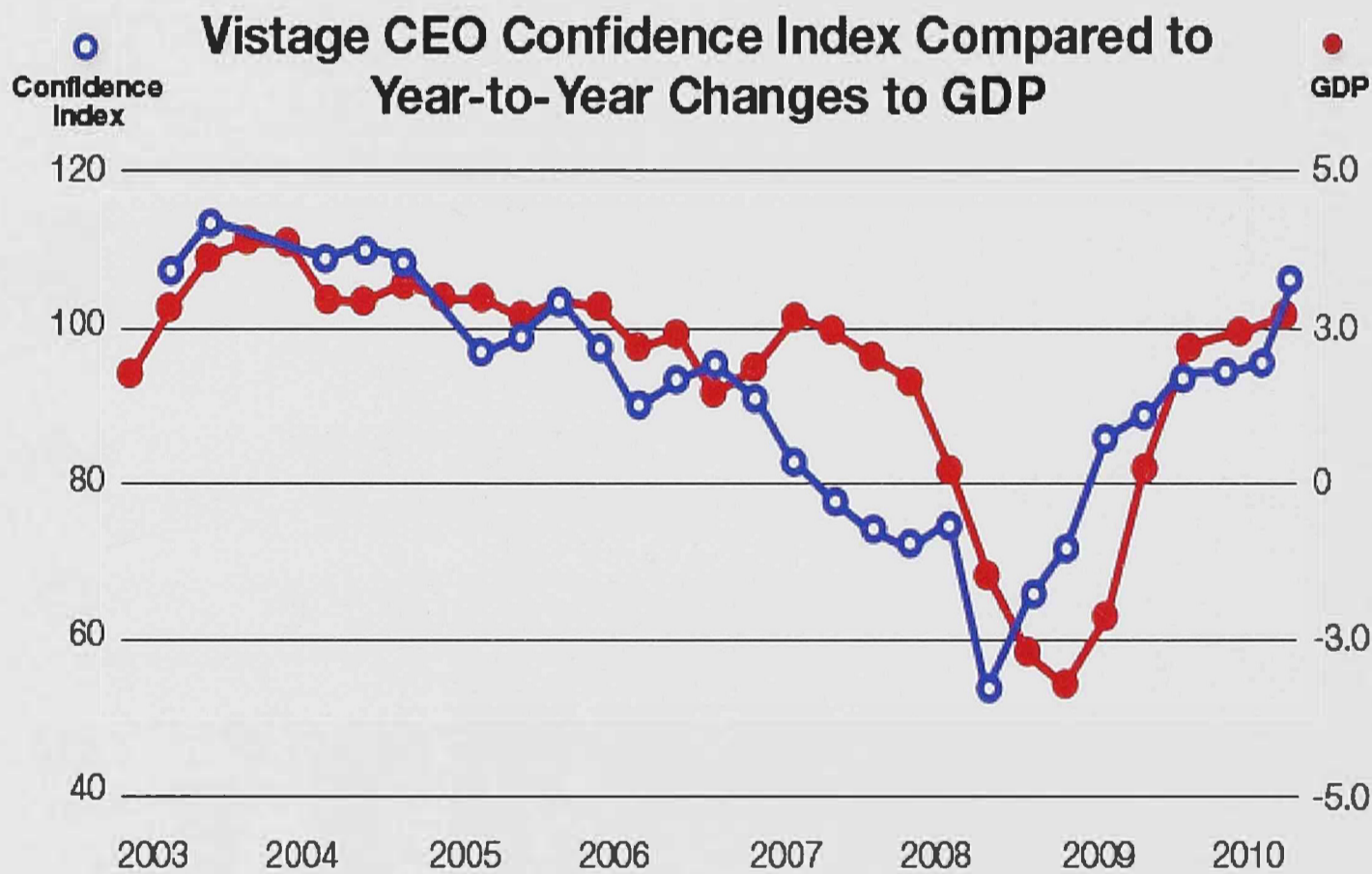
CEO CONFIDENCE INDEX

CEO CONFIDENCE SOARS TO HIGHEST LEVEL IN OVER FIVE YEARS ACCORDING TO VISTAGE CEO CONFIDENCE INDEX

This quarter's Innovation Report includes the national findings of Vistage International, Inc.'s quarterly CEO Confidence Index, a compilation of responses from over 1,600 CEOs of small- to medium-sized companies in the United States. The Index is the nation's largest and most comprehensive report of these opinions and projections.

Small business CEOs expressed a remarkable resurgence of optimism both in the overall economy and for their own companies. The Vistage Confidence Index jumped to 106.3 in the fourth quarter of 2010, after reporting 95.1 in the 3rd quarter, 94.4 in the 2nd quarter and 93.7 in the 1st quarter of this year. Of the 1,729 respondents in the Q4 Vistage CEO Confidence Index, 77% expect increased revenues and 63% foresee higher profits in their own companies. For the first time in three years, the majority of CEOs planned to expand the number of jobs with 54% expecting to hire more employees in the coming year. While CEO confidence had been rising incrementally for seven consecutive quarters, the fourth quarter surge was due in large part to the reduction of economic and political uncertainties following the mid-term elections and a belief that these CEOs' companies are well positioned for the future.

According to Vistage International Chairman of the Board and CEO Rafael Pastor, the Q4 results reflect the commitment and perseverance of our nation's small business CEOs. "Nearly half the CEOs surveyed pledged their personal assets to keep their companies running, their people employed and our economy from collapsing. They are the unsung heroes of our economic recovery and the brighter days ahead," Pastor said.



Source: Vistage International

The Vistage CEO Confidence Index is a compilation of responses from more than 2,000 CEOs of small- to mid-sized companies. The Vistage CEO Confidence Index began in Q1 2003 and is the largest and only comprehensive report of small- and mid-size CEO opinions and projections. U.S. small- and mid-sized businesses represent the most vital component of the nation's economy. This sector creates 75 percent of all new jobs and generates 50 percent of all national revenue. These insights provide a leading indicator for employment, capital expenditure, sales, revenue and profit trends.

CEO CONFIDENCE INDEX (CONT'D)

HIGHLIGHTS

**Recovery Expected to Accelerate.** The turnaround in confidence has been significant. At the depths of the recession in late 2008, 97% of the respondents judged economic conditions to be in decline; in late 2010, just 7% reported continued declines. When asked about future prospects for the economy, 58% in the 4th quarter 2010 survey expected improvement during the year ahead compared with just 5% who expected further declines. This was the most favorable outlook for economic growth since the start of 2004.

**More Job Creation Ahead.** The majority of firms in the 4th quarter survey (54%) planned on adding employees to handle increased sales. This was the first time the majority planned to expand the number of jobs in three years. Just 5% of firms expected to trim their workforce in 2011. The majority of firms did not expect to hire temporary employees in 2011.

**Revenues Expected to Increase.** Revenue growth was expected by 77% of all firms in the 4th quarter survey, up from 59% one year ago and 36% two years ago. Just 5% anticipated declines in revenues, the lowest proportion in five years. Given that 60% of firms expected no increase in the prices they charged, most of the revenue gains were expected to be from increased sales. The relative inability to pass along cost increases to their customers meant that managing costs was a top priority for 20% of firms. Another 25% of firms placed greater emphasis on maintaining or expanding their customer base.

**Profit Rise Anticipated.** Increased profits during 2011 were anticipated by 67% of all firms, up from just 33% of CEOs who expected rising profits at the low-point two years ago. There were a number of issues that firms believe will limit their profitability, including the impact of the new health care legislation and continued limits on the availability of credit. However, firms thought that their enhanced profitability in 2011 would mainly stem from greater sales prospects they now faced due to the upturn in the economy.

**Investment Plans Improve.** Planned investments in new plant and equipment continued to grow in the 4<sup>th</sup> quarter 2010 survey. Among all firms, 46% planned to increase their investment spending, up from 34% one year ago. Just 10% of firms expected no increase in their fixed investments in 2011, down from a peak of 44% two years ago. While there remains some uncertainty about whether the strength in their future sales would be long lasting, the investments now planned by CEOs have increasingly reflected the likelihood that growth in their firm's sales would justify those investments over the foreseeable horizon.

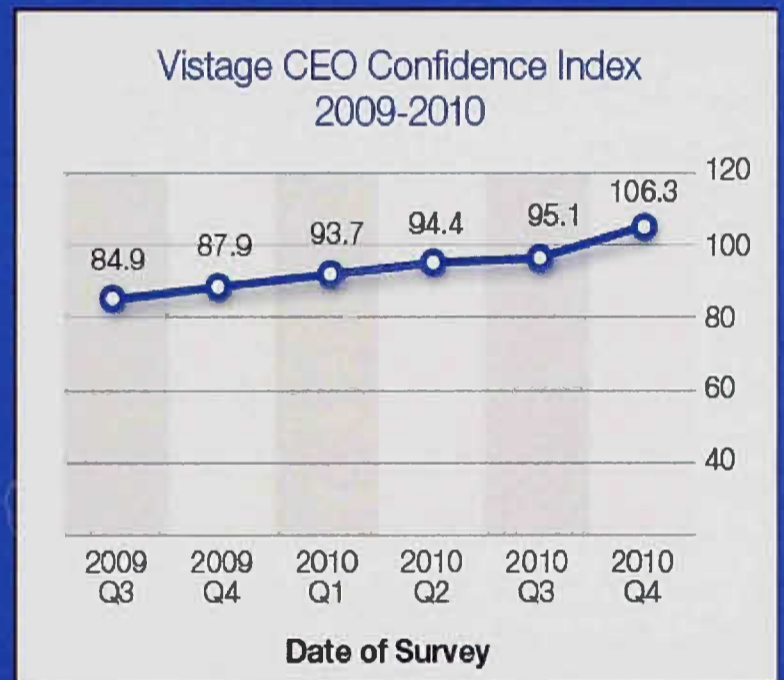
**58% of CEOs** stated that, compared to a year ago, overall economic conditions of the U.S. have improved.

**46% of CEOs** surveyed said they pledged personal assets or invested cash to help their companies weather the economic downturn.

**Only 20% of CEOs** stated that it's easier to obtain credit today than six months ago, while **38%** responded that it's not easier.

**39%** of CEOs stated that they are currently marketing their sustainability or "green practices" to their clients or customers.

**Only 15% of CEOs** believe that current immigration laws are hampering their ability to hire skilled workers.



The Q4 Vistage CEO Confidence Index of 106.3 is up significantly from the 87.9 posted in the 4th quarter of 2009. The Vistage CEO Confidence Index reflects a surge in CEO optimism after seven quarters of incremental increases.

Source: Vistage International

## CONNECT Public Policy Brief – March 2011

Although the national unemployment rate finally dipped under 9%, the American recovery remains fragile as global events that Congress can't control impact oil prices and global supply chains. What Congress can control is its focus on removing barriers that prevent job growth and small business formation. Those issues are at the core of CONNECT's public policy advocacy. The top three innovation issues CONNECT has been focusing on in the past three months are: Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) Reauthorization, Patent Reform and directing repatriation of foreign capital into the "Valley of Death" - the period of time from when a start-up company receives an initial capital investment to when it establishes customer traction in the market begins generating significant sales revenues. During this period, additional financing is usually scarce, leaving the firm vulnerable to cash flow requirements.

-----

### Research Support – SBIR/STTR Reauthorization

As this report demonstrates, San Diego was awarded more Department of Defense (DoD) SBIR funding than Silicon Valley, highlighting the major role SBIR funding plays in the region. Recently, the U.S. Senate Small Business and Entrepreneurship Committee passed S. 493 – The SBIR/STTR Reauthorization Act of 2011. Acting quickly on the Senate Committee's action, Senate Majority Leader Harry Reid put S. 493 on the Senate floor.

The major issue of contention that has prevented a SBIR/STTR reauthorization bill to advance in previous Congresses was the issue of whether venture-capital backed companies could participate in the SBIR/STTR programs. S. 493 has been heralded as a strategic compromise that allows some funding to go to VC-backed firms. The bill allows up to 25% of the SBIR funds at NIH, NSF and DOE and up to 15% of the funds at the other eight SBIR agencies to be used for grants to venture-backed applicants. The bill would extend the programs for eight years and allows the percentage of federal agency funds to be used on SBIR to increase from 2.5 to 3.5 percent over 10 years with the STTR program allocation increasing to 0.6% from 0.3% over six years. Award amounts would increase from \$100,000 to \$150,000 for Phase I and from \$750,000 to \$1 million for Phase II.

Before the Senate Committee took up the bill, CONNECT sent an endorsement letter to Committee Chair Mary Landrieu (Louisiana) and Ranking Member Olympia Snowe (Maine) thanking them for their efforts to move the bill to the Senate floor and for the compromise reached to allow some VC-backed applicants to participate in SBIR/STTR programs. However, the letter urged the Committee "to explore a more robust approach that would increase the percentage of funds available to VC-backed applicants because such applicants provide extra value to the American taxpayer." The SBIR/STTR programs have shown that new companies grow from grant awards, which means those companies will pay corporate taxes and payroll taxes, driving new revenue to the U.S. Treasury that could reduce the deficit. The letter also suggested that the Senate should explore allowing some Phase I SBIR funds to be used for intellectual property acquisition "because IP is indispensable for a start-up's growth."

The current SBIR/STTR authorization expires on May 31, 2011. The House of Representatives Small Business Committee has indicated a push to get a House bill done that can hopefully be quickly melded with whatever Senate bill passes to beat that deadline.

### Intellectual Property – Patent Reform

As with SBIR, patent reform is receiving much attention on Capitol Hill with the Senate already passing a bill and the House carefully crafting its own version. After six long years, the U.S. Senate finally passed the Patent Reform Act, S. 23 - The America Invents Act, by a strong vote. The most notable change in the bill from current law will be the permanent end to Congress' ability to divert Patent & Trademark Office (PTO) fees to other general revenue purposes. The end to Congressional diversion will finally allow the PTO to develop a long-term plan for hiring and IT infrastructure replacement which should assist the agency in reducing the backlog of over 700,000 patent applications and reducing patent pending.

## CONNECT Public Policy Brief – March 2011 (CONT'D)

The bill also changes the current inter-partes re-exam system and replaces it with a new re-exam system which will be conducted by administrative law judges and not examiners. The proceeding will be more adversarial and akin to district court. The new inter-partes re-exam will require a higher entry threshold than the current “substantial new question of patentability” while expanding post-procedure estoppel. In addition, a new post-grant review proceeding will be instituted to encourage immediate review and challenge after patent issuance.

One of the more debated changes was moving America away from the traditional first-to-invent system to the new first-to-file system that is accepted in the rest of the world. The bill would restrict the current American grace period by requiring inventors and start-up companies to either file their patent application immediately or publicly disclose their invention and receive the benefit of the new grace period. Should conflicts occur under the new filing system, a new procedure called a Derivation Proceeding will be created to resolve disputes. Some of the mechanics of the first-to-file transition are still being reviewed by Senate staffers and discussed by Senators on the Senate floor to clarify ambiguity. As with the two new post-grant opposition proceedings that were created, PTO will also have to promulgate regulations on the first-to-file system and on the new derivation proceedings.

The contentious issue came to a head as California Senator Dianne Feinstein offered an amendment to strike the provision thus retaining America’s current filing system. Senator Barbara Boxer joined Senator Feinstein’s argument that California’s high-tech, independent inventor and tech start-up communities had all expressed their concerns that S. 23’s first-to-file transition weakens the current American grace period and forces innovators to disclose their creations in ways that could upset the inventive process. Despite Senator Feinstein and Boxer’s vigorous defense of their amendment, and the help of Senator Maria Cantwell (Washington) and Senator Jim Risch (Idaho), the Senate rejected the amendment and kept S. 23 on a path toward patent application first-to-file harmonization.

It is a significant accomplishment that the Senate finally resolved the chronic challenge of Congress diverting user fees from the IP community to other purposes. The one proposal in the patent reform debate that produced absolute harmony was the proposal to permanently end Congress’ ability to take PTO’s funds, paid by the IP community, and go spend it however Congress wanted. After two decades of Congressional fee diversion, the Senate took the first step to finally allowing PTO to be able to have a sustainable funding model that will allow them to undertake long-term efforts to reduce the backlog and pendency. The IP community is advocating that the House of Representatives’ bill should use as its cornerstone the proposal to permanently end diversion. It is anticipated that House Judiciary Committee Chairman Lamar Smith (Texas) and Ranking Member John Conyers (Michigan) might introduce their own version of a bill by the end of March or early April.

### Investment Capital – Repatriation

This Report shows that the news in the venture capital world is not improving, at least not in San Diego. Although Congress is hoping to tackle tax reform, no clear plan has materialized on what Congress will do to help the economy’s persistent capital and credit problems. However, San Diego Congressman Brian Bilbray has introduced a bill that will begin to move some capital into the “Valley of Death”.

H.R. 1036 – The Job Creation and Innovation Investment Act of 2011, has the goal of temporarily reducing the corporate tax on foreign assets in order to draw capital back to the U.S. to help the economy and start-up companies searching for capital. The current tax rate is an onerous 35% which has resulted in over \$1 trillion of corporate profits sitting overseas and being used to expand foreign operations instead of those funds being used for domestic operations. The bill reduces the tax rate to 0% if repatriated funds are directed to R&D, proof of concept centers, early stage venture capital investment or manufacturing start-up costs including contract manufacturing. Because funds designated for such purposes will help companies in the proverbial Valley of Death, CONNECT formally endorsed H.R. 1036.

**CONNECT Public Policy Brief – March 2011** (CONT'D)

The endorsement letter points out that although the economy is showing signs of improvement, tech start-ups are still finding it difficult to navigate their way out of the Valley of Death. The letter notes further that the bill's incentives for new capital to flow to tech start-ups "will stimulate the economy without any federal government deficit spending or new federal programs while creating new jobs and growing companies in such a way that will generate new payroll and corporate tax revenue." The bill gets capital off the sidelines and into the game helping start-ups.

The bill will be sent to the House Ways and Means Committee that handles tax issues and may be rolled up into broader tax reform efforts the Committee is undertaking.

---

While it is still early in the 112<sup>th</sup> Congress, early actions by the House and Senate have signified their commitment to taking a hard look at the health of America's innovation economy, and demonstrated their focus on rebuilding many of the pieces that make up our fragile innovation ecosystem. The data in CONNECT's 4<sup>th</sup> Quarter Innovation Report shows we have a lot of work ahead of us, but also confirms that San Diego is uniquely positioned to help educate government officials on responsible innovation policy that will encourage entrepreneurship and spur commercialization.

**Timothy Tardibono**  
*Director of Public Policy*  
CONNECT Washington D.C. Office  
University of California  
Washington Center  
1608 Rhode Island Avenue, N.W.  
Washington, D.C. 20036  
[timothy@connect.org](mailto:timothy@connect.org)

**Jessie Womble**  
*State & Local Policy Manager*  
CONNECT San Diego Office  
8950 Villa La Jolla Drive, A-124  
La Jolla, CA 92037  
[jwomble@connect.org](mailto:jwomble@connect.org)

**Follow Us**

Website: [www.connect.org/programs/policy](http://www.connect.org/programs/policy) – Twitter: [/connectpolicy](https://twitter.com/connectpolicy) – Facebook: [Connect-Public-Policy](https://www.facebook.com/Connect-Public-Policy)  
Sign-up for Policy eNewsletter: <http://www.connect.org/programs/policy/enews-archive/>



VENTURE CAPITAL INVESTMENT

2010 SAN DIEGO VC INVESTMENT DOLLARS FALL TO SEVEN-YEAR LOW

Venture capital investment in the San Diego region continued to decline throughout 2010 to the lowest annual total since 2003. Venture investment in the fourth quarter of 2010 was down 13% from the third quarter with 26 local companies receiving \$193 million, according to the most recent PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ quarterly report. Venture capitalists invested \$847 million in 115 deals in San Diego in 2010, a five percent increase in the number of companies receiving funding, but an 11% decrease in dollars invested compared to 2009. Nationally, venture capitalists invested \$21.8 billion in 3,277 deals in 2010, an increase of 19% in dollars invested and a 12% increase in the number of deals over the prior year.

Start-ups received only 1% of the total VC investment in San Diego in the fourth quarter, same as in the previous quarter, and early stage companies received 26% of VC investment. The fourth quarter saw a substantial shift of investment dollars from expansion stage companies to financing of later stage companies, which received 59% of the total VC investment in San Diego, up from 31% in the third quarter. For the full year 2010, the breakdown of VC investments by company development stage was: start-ups: 11%; early stage: 29%; expansion stage: 26%; and later stage: 34%.

When compared using a moving average of three quarters' data, San Diego shows a more substantial decline in venture investment relative to the other top five regions over the past three years. [A moving average smoothes quarter-to-quarter fluctuations to better enable trend analysis.] The San Diego fourth quarter 2010 VC investment moving average was down more than 50% from the further quarter of 2007 – a substantially larger decrease than seen in other key innovation economies such as Silicon Valley and New England Metro. LA/Orange County VC investment has almost returned to pre-recession levels.

VC INVESTMENT DOLLARS MOVING AVERAGE BY REGION - 2007 to 2010



Source: The MoneyTree™ Report by PricewaterhouseCoopers and the National Venture Capital Association based on data from Thomson Financial

Venture capital is an important part of the innovation ecosystem. A recent study carried out by Justus-Liebig-University Giessen and commissioned by the European Private Equity and Venture Capital Association (EVCA) showed venture capital-backed companies that are floated on the stock exchange significantly outperform other IPOs (Initial Public Offerings of company equity). The study looked at the post-IPO performance of 384 large venture-backed companies on five stock markets: NYSE/Euronext, the London Stock Exchange, Nasdaq/OMX, SIX Swiss Exchange and Deutsche Börse. Venture-backed companies outperformed the market by 4.2% over 500 trading days. The difference was more pronounced in the first year after IPO, with venture-backed companies outperforming by 9.6% in the first 250 trading days and by 11.7% in the first 125 days.

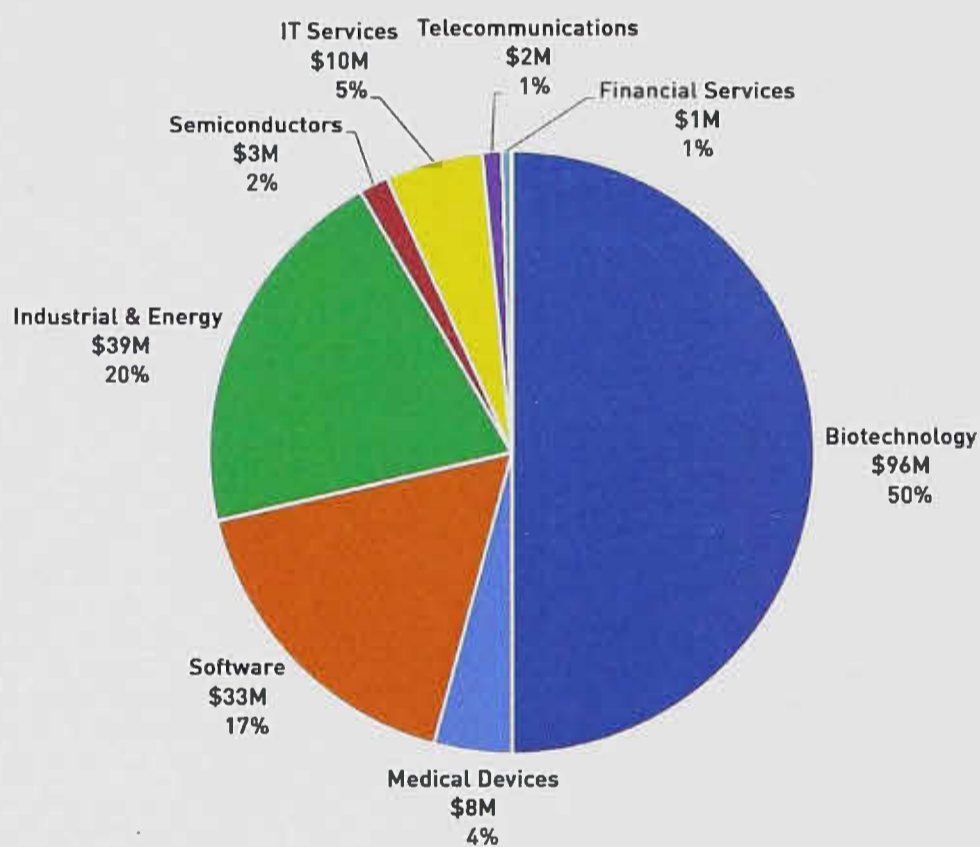
“There is a clear and consistent trend that when institutional-grade venture capitalists bring companies to public markets, they perform significantly better than other equivalent companies over a course of years,” said Hendrik Brandis, chairman of EVCA’s venture platform.

**VENTURE CAPITAL INVESTMENT (CONT'D)**

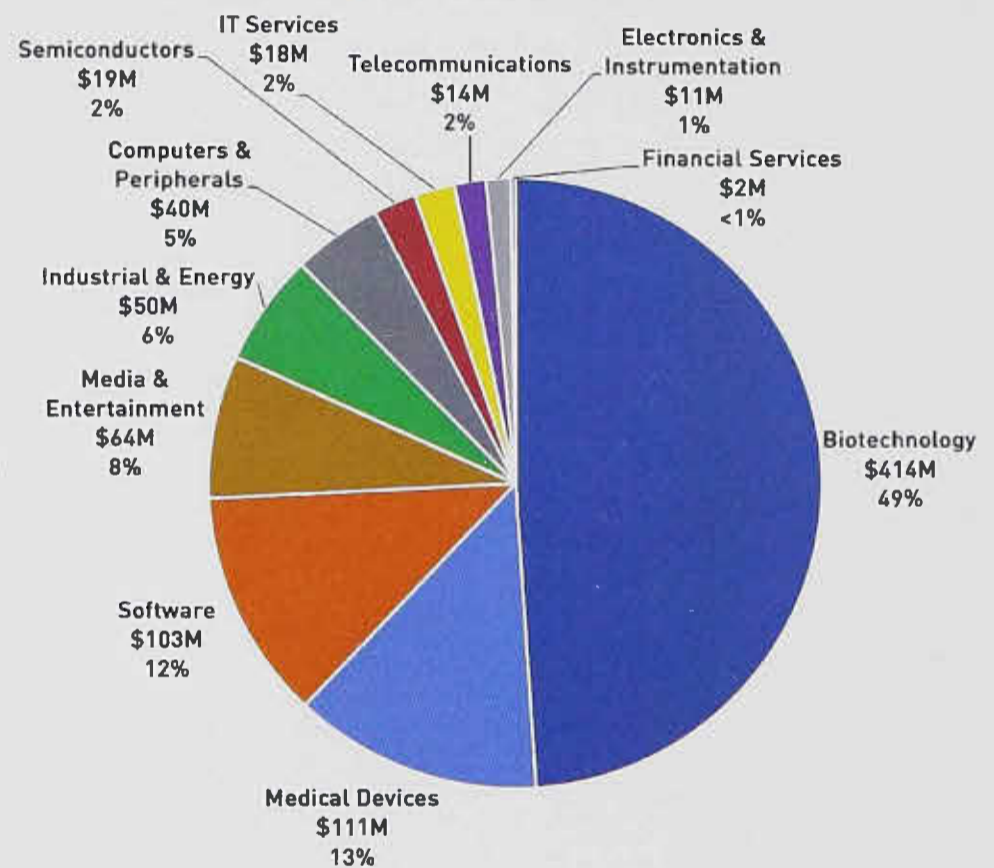
In San Diego, the life sciences sector (pharma/bio/medical device) maintained its top sector position in San Diego during the fourth quarter of 2010 with 16 companies receiving almost \$104.3 million or 54% of the total funds invested, down 18% from the \$127 million, or 57%, of the funds invested in the third quarter of 2010. Compared to the fourth quarter of 2009, VC investment in life sciences companies was down 46% when \$193 million was invested locally. In the fourth quarter of 2010, San Diego's life sciences sector experienced a slight decrease in the average deal size of \$6.5 million compared to \$10.4 million in the previous quarter. For the year, the total amount invested in the life sciences sector was \$545 million.

San Diego's industrial/energy sector received the second largest VC investment with one company, Fallbrook Technologies, a company dedicated to improving the performance and flexibility of transmissions for engine and human-powered devices, received \$39 million during the fourth quarter. This was a substantial increase compared to the third quarter of 2010 when two companies received \$5.2 million in VC investment. The software sector received the third largest investment with five deals totaling \$32.5 million.

**SAN DIEGO VC INVESTMENTS BY INDUSTRY  
4<sup>TH</sup> QUARTER 2010  
\$233 MILLION**



**SAN DIEGO VC INVESTMENTS BY INDUSTRY  
FULL YEAR 2010  
\$846 MILLION**



Source: The MoneyTree™ Report by PricewaterhouseCoopers and the National Venture Capital Association based on data from Thomson Financial

**THE TOP 10 VC INVESTMENTS IN SAN DIEGO COMPANIES – 4<sup>TH</sup> QUARTER 2010**

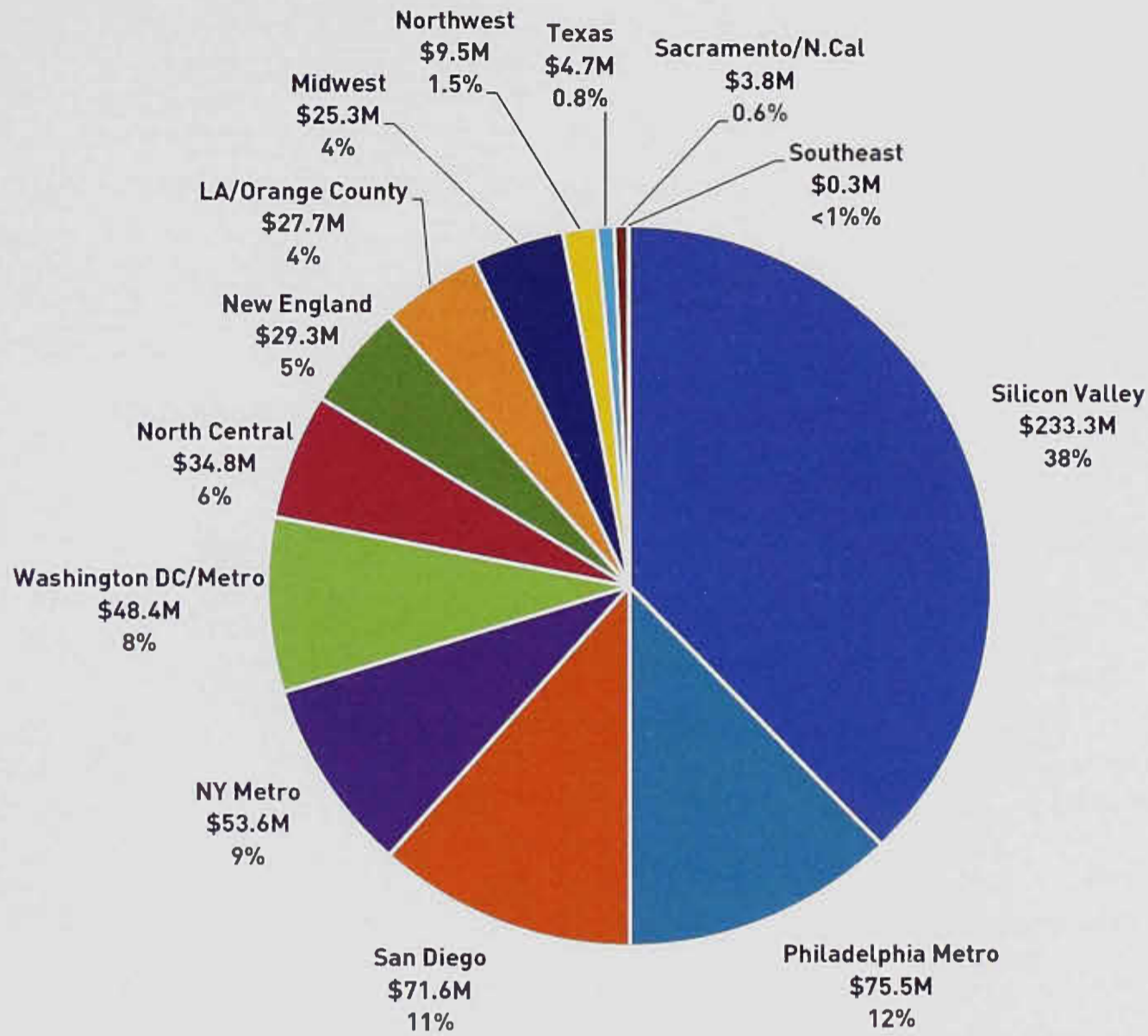
The three largest investments the fourth quarter of 2010 accounted for 43% of the total VC funding in San Diego, with the top 10 deals accounting for 84% of total funding.

Fallbrook Technologies	\$39 million	Ceregene, Inc.	\$12 million
aTyr Pharma, Inc.	\$23 million	Kyriba Corporation	\$11 million
Genomatica, Inc.	\$21 million	Nirvanix, Inc.	\$10million
Aires Pharmaceuticals, Inc.	\$20 million	Ortiva Wireless, Inc.	\$8million
EMN8, Inc.	\$12 million	Verdezyne, Inc.	\$6 million

**VENTURE CAPITAL INVESTMENT (CONT'D)**

During 2010, 122 venture capital firms across the nation invested in San Diego companies. In 2010, Silicon Valley VCs invested more than \$230 million or almost 40% of total venture investment in San Diego. The regional breakdown of investment dollars by venture capital firms investing in San Diego

**WHERE THE VC FUNDING CAME FROM IN 2010 – LOCATION OF VC FIRMS INVESTING IN SAN DIEGO**



NOTE: excludes overseas firms, other US, and unknown sources of venture investment

Source: The MoneyTree™ Report by PricewaterhouseCoopers and the National Venture Capital Association based on data from Thomson Financial

**MOST ACTIVE VENTURE CAPITAL FIRMS INVESTING IN SAN DIEGO COMPANIES – FULL YEAR 2010**

Venture Capital Firm	Total Deals	Equity Invested (in \$M)	Venture Capital Firm Region
Domain Associates LLC	12	\$42.7	Princeton, NJ
Alta Partners	8	\$15.9	San Francisco, CA
RiverVest Venture Partners	6	\$5.8	St. Louis, MO
ProQuest Investments	5	\$15.1	Princeton, NJ
Avalon Ventures	5	\$25.5	San Diego, CA
Mission Ventures	5	\$7.4	San Diego, CA
TPG Growth	5	\$31.1	Silicon Valley
Alloy Ventures	5	\$5.3	Silicon Valley
Tech Coast Angels	4	\$0.9	Southern California
Qualcomm Ventures	4	\$17.0	San Diego, CA
Sanderling Ventures	4	\$6.7	Silicon Valley
Montreux Equity Partners	4	\$0.8	Silicon Valley

Source: The MoneyTree™ Report by PricewaterhouseCoopers and the National Venture Capital Association based on data from Thomson Financial

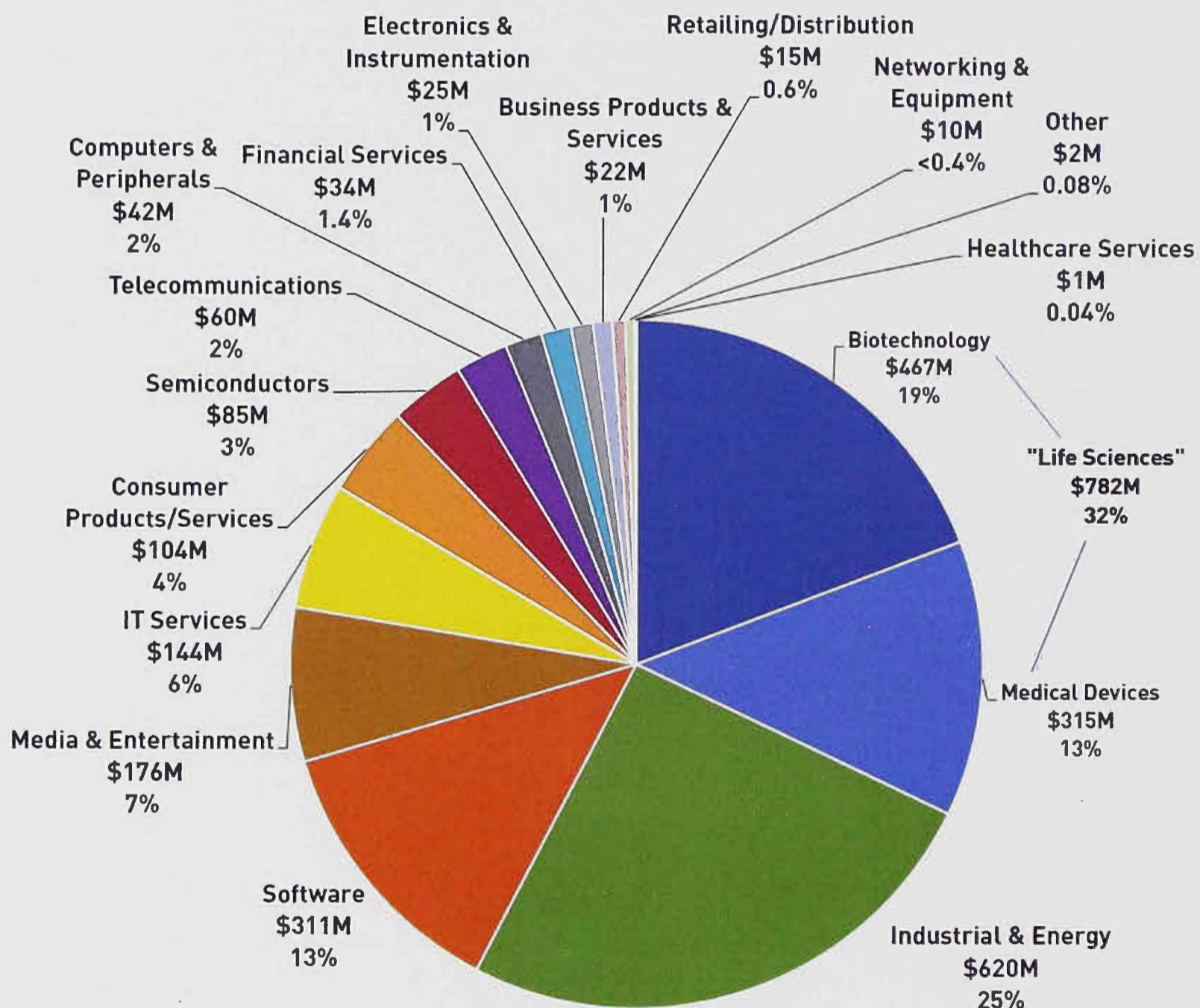
VENTURE CAPITAL INVESTMENT (CONT'D)

SOUTHERN CALIFORNIA VC INVESTMENT REBOUNDS IN 2010

Venture investment in the Southern California region (Los Angeles, Orange County and San Diego) totaled more than \$2.4 billion in 2010, up almost 30% from \$1.9 billion in 2009. The increase was seen in the LA/Orange County region, which received \$1.59 billion in 2010 as compared to \$956 million the previous year. Part of this increase can be attributed to a spike in VC investment in the second quarter. Los Angeles/Orange County saw a 68% jump in VC investment in the second quarter of 2010 to \$659 million invested in 68 companies – the largest quarterly investment for the region since the first quarter of 2001 when \$789 million was invested in 75 companies.

Life sciences companies (biotech and medical devices) also received the largest share of venture investment in Southern California in 2010 with \$782 million invested in almost 100 deals. Industrial & energy was the next largest sector receiving \$620 million in 30 deals. Traditional information technology (IT), software and online services led the other investment categories for the region.

SOUTHERN CALIFORNIA VC INVESTMENTS BY INDUSTRY  
FULL YEAR 2010  
\$2.43 BILLION



Source: The MoneyTree™ Report by PricewaterhouseCoopers and the National Venture Capital Association based on data from Thomson Financial

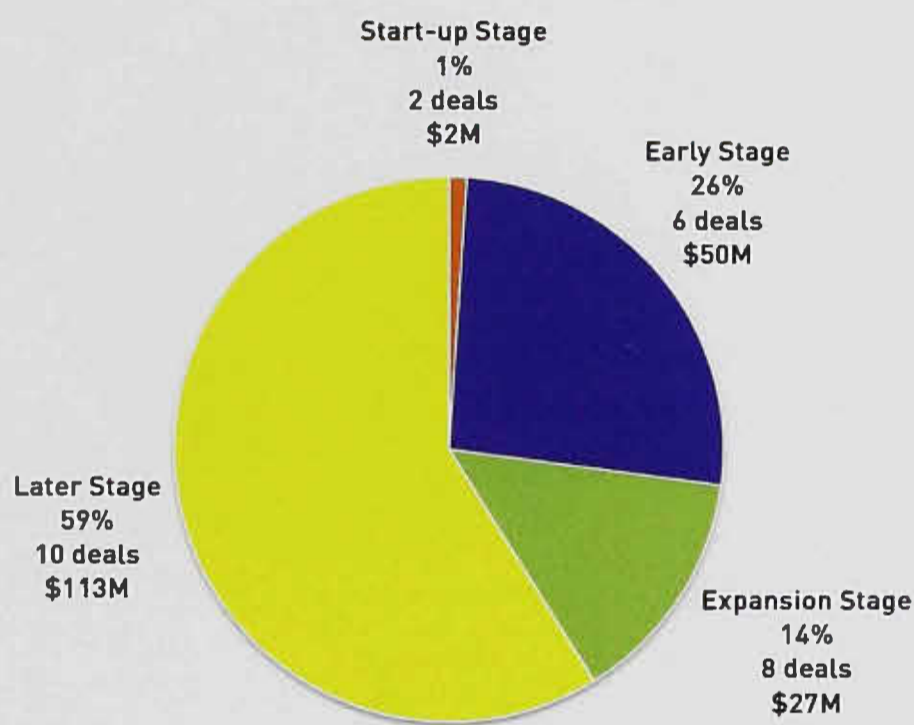
VENTURE CAPITAL INVESTMENT (CONT'D)

VC FUNDING BY STAGE OF COMPANY DEVELOPMENT – 4<sup>TH</sup> QUARTER 2010

SAN DIEGO'S START-UPS ATTRACTED ONLY 1% OF VC FUNDING; EARLY STAGE RECEIVED 25%

Of the total VC investment in San Diego in the fourth quarter, 27% or over \$52 million went to start-up/early stage companies – down 10% from \$58 million in the previous quarter. VC funding to San Diego start-ups totaled only \$2 million or 1% of the total amount invested in San Diego in the fourth quarter. “The fourth quarter of 2010 saw a shift in investment dollars going to later stage companies with 59% of total dollars invested,” said Bill Molloie, partner at PricewaterhouseCoopers and leader of the San Diego Pharma/Life Sciences practice. Financing of expansion stage companies decreased to 14% of the total (\$27 million) compared to 43% in the third quarter of 2010. There were 26 later stage deals receiving \$113 million in San Diego in the fourth quarter.

San Diego 4<sup>TH</sup> Quarter 2010  
VC Investments By Stage of Development  
\$193 million -- 26 companies



Note: Percentages refer to the \$ value of investment

Source: The MoneyTree™ Report by PricewaterhouseCoopers and the National Venture Capital Association

The **STAGE OF DEVELOPMENT** classifications used in the PwC/NVCA MoneyTree™ Report are as follows:

**START-UP STAGE**

The initial stage. The company has a concept or product under development, but is probably not fully operational. Usually in existence less than 18 months.

**EARLY STAGE**

The company has a product or service in testing or pilot production. In some cases, the product may be commercially available. May or may not be generating revenues. Usually in business less than three years.

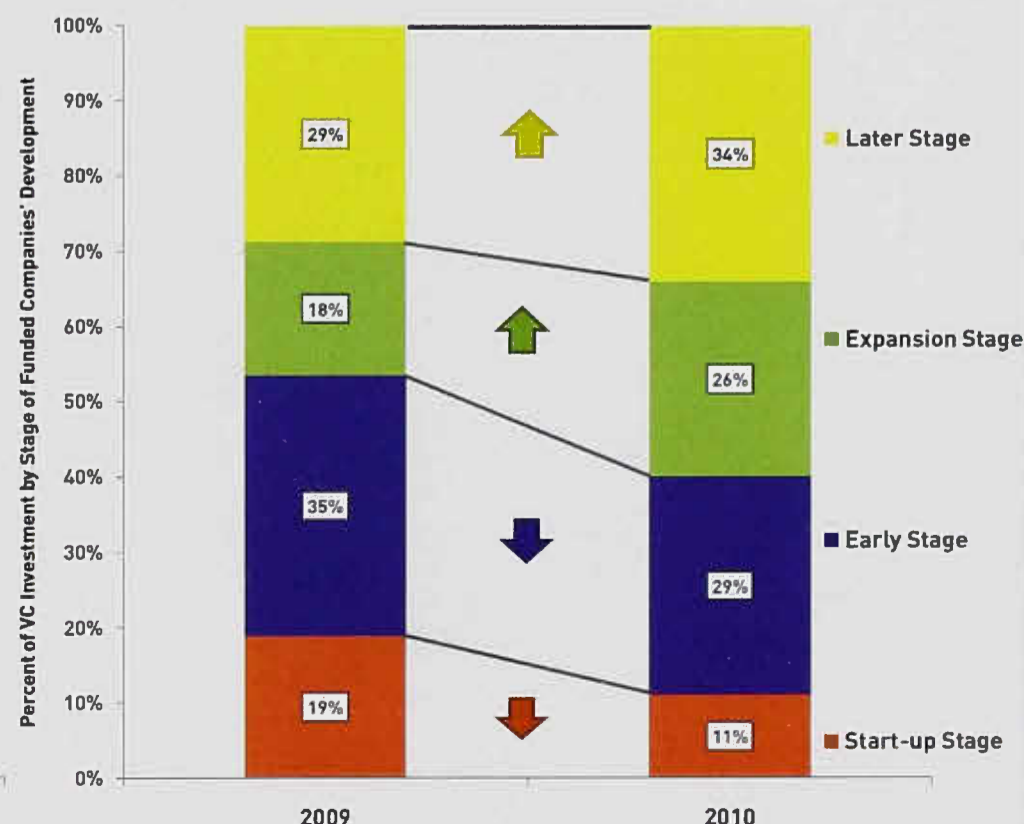
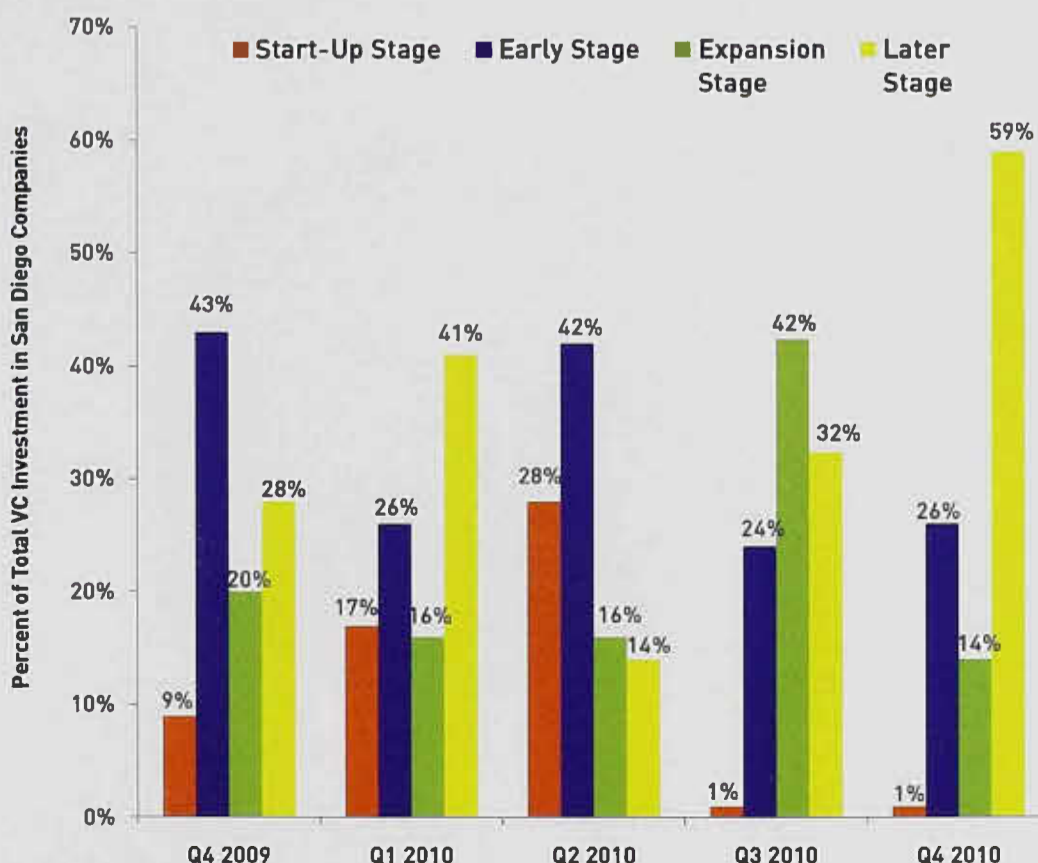
**EXPANSION STAGE**

Product or service is in production and commercially available. The company demonstrates significant revenue growth, but may or may not be showing a profit. Usually in business more than three years.

**LATER STAGE**

Product or service is widely available. Company is generating on-going revenue; probably positive cash flow. Is more likely to be, but not necessarily profitable. May include spin-offs of operating divisions of existing private companies and established private companies.

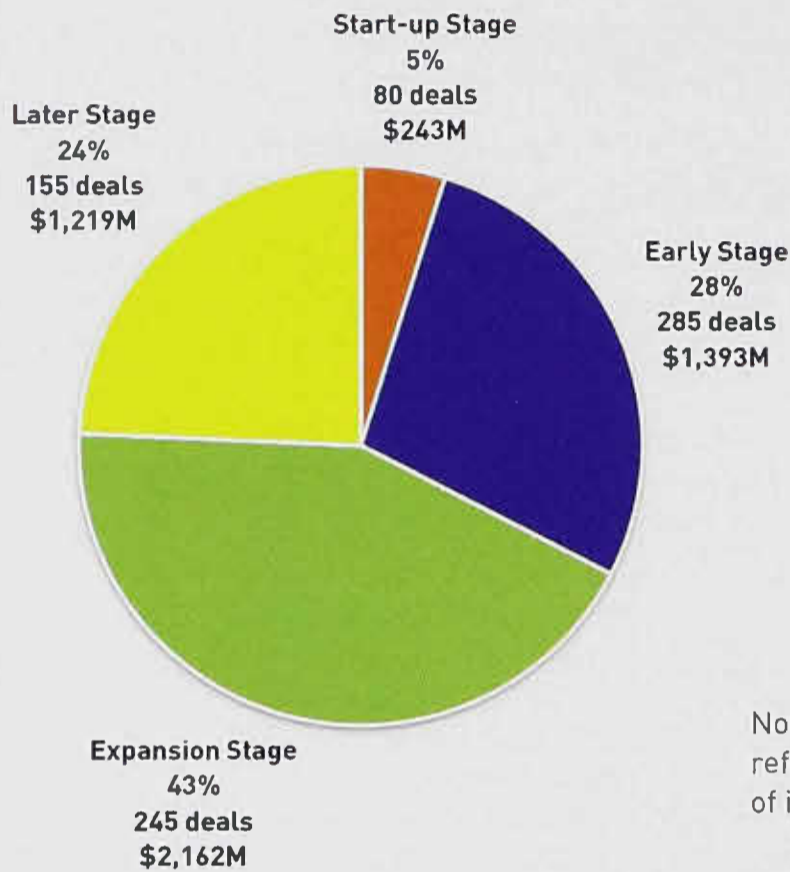
VC INVESTMENT IN SAN DIEGO COMPANIES BY STAGE OF DEVELOPMENT BY QUARTER AND YEAR



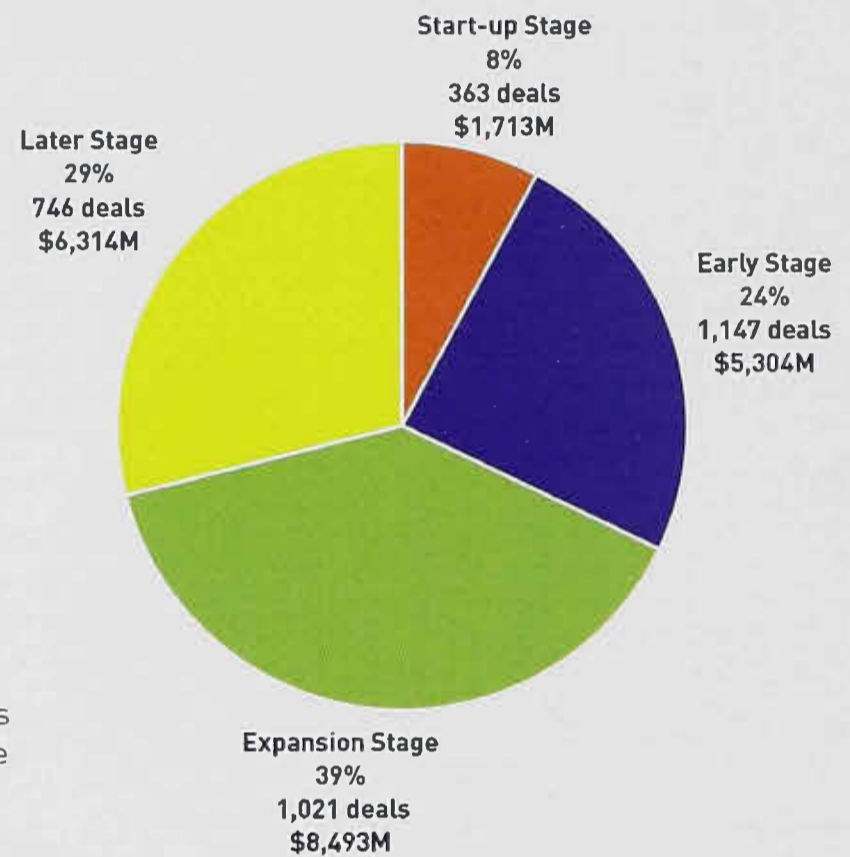
VENTURE CAPITAL INVESTMENT (CONT'D)

Nationally, the U.S. also saw a decrease in the percentage of VC investment that went to start-up and early stage companies in the fourth quarter of 2010 compared to the previous quarter. During the fourth quarter, 5% of investments went to start-up stage companies and 28% went to early stage companies. Investments in expansion stage increased to 43% from 32% while later stage investments decreased compared to the preceding quarter. The percentages for the full year 2010 were similar. California accounted for \$2.5 billion, or 50%, of the total U.S. venture investment in the fourth quarter and for the full year 2010. The majority (~70%) of the investments went to expansion and later stage companies.

**Total Value of National Q4 2010  
VC Investments by Stage of Development**  
\$5.0 billion  
765 companies

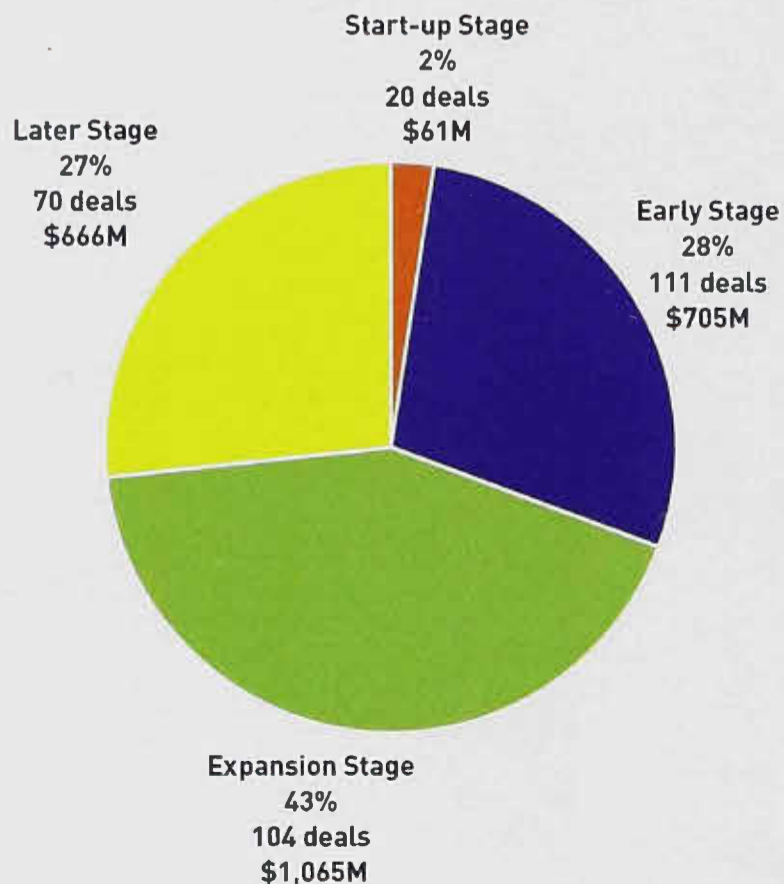


**Total Value of National Full Year 2010  
VC Investments by Stage of Development**  
\$21.8 billion  
3,277 companies

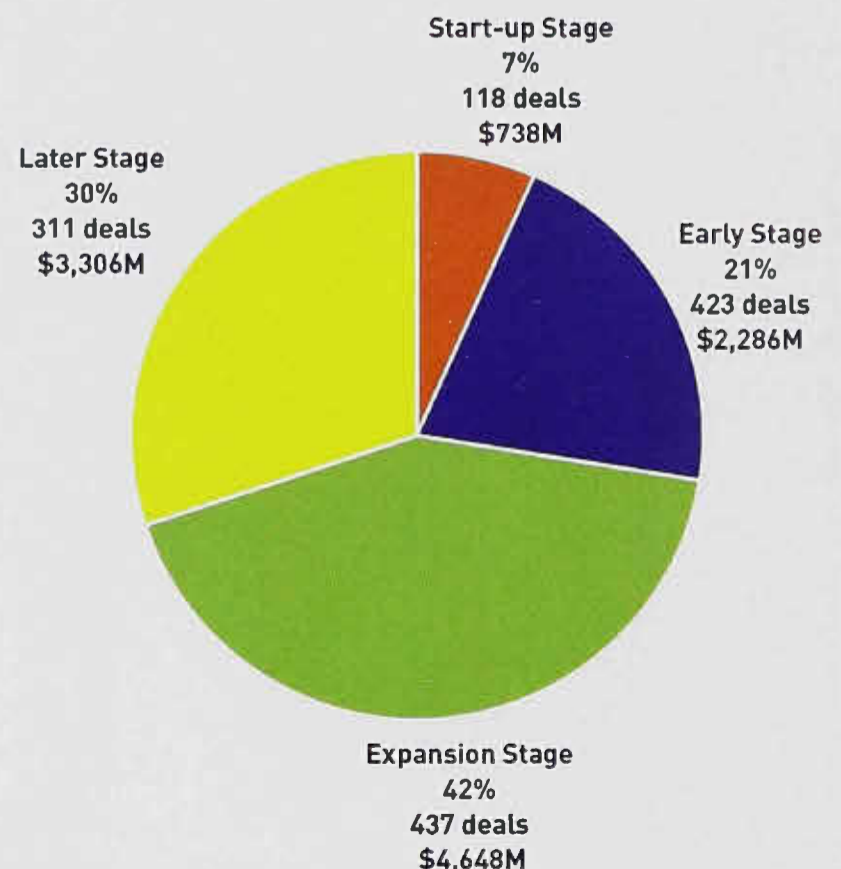


Note: Percentages refer to the \$ value of investment

**Total Value of California Q4 2010  
VC Investments by Stage of Development**  
\$2.5 billion  
305 companies



**Total Value of California Full Year 2010  
VC Investments by Stage of Development**  
\$11 billion  
765 companies

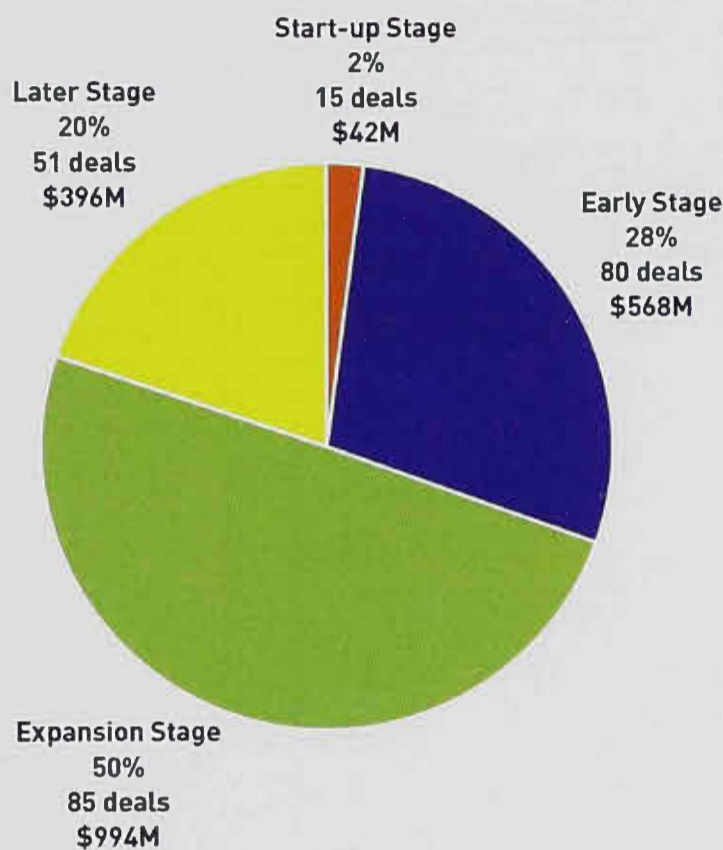


Source: The MoneyTree™ Report by PricewaterhouseCoopers and the National Venture Capital Association

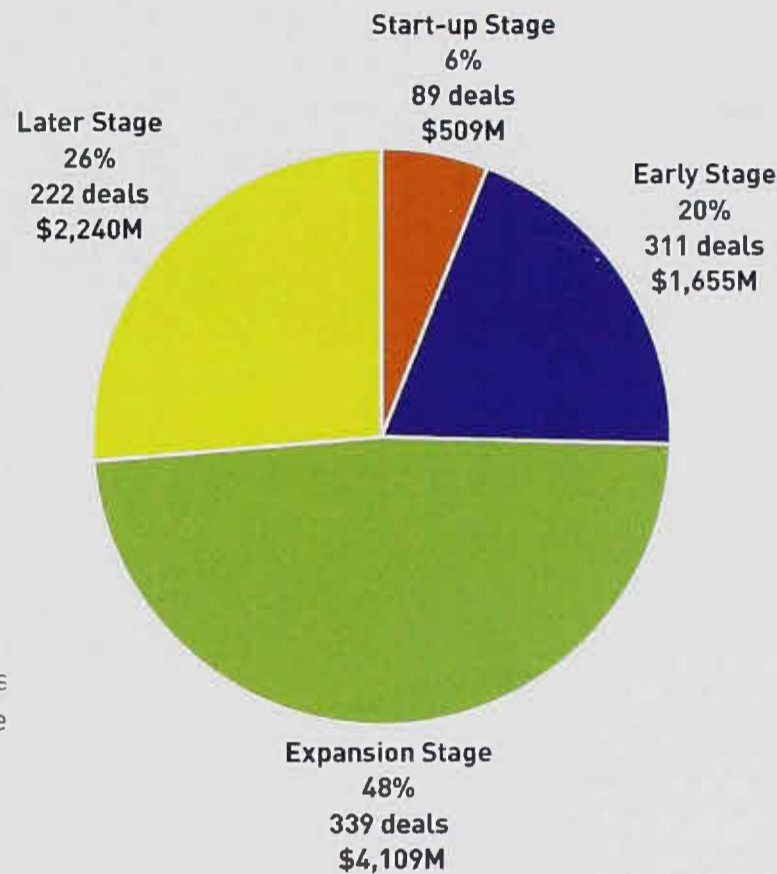
**VENTURE CAPITAL INVESTMENT (CONT'D)**

In Silicon Valley, 30% of the investment in the fourth quarter went to start-up and early stage companies totaling \$610 million invested in 95 deals. For the full year 2010 more than \$2.1 billion went to start-ups and early stage companies. Half of the investment in Silicon Valley went to expansion stage companies. Southern California saw a higher percentage of VC investment going to earlier stage companies in 2010 - 32% in the fourth quarter and 35% for the year. As in the third quarter, the majority of VC investments went to later stage companies in the fourth quarter and 2010 overall. In 2010, 320 Southern California companies received \$2.4 billion in VC investment.

**Total Value of Silicon Valley Q4 2010  
VC Investments by Stage of Development**  
\$2.0 billion  
231 companies

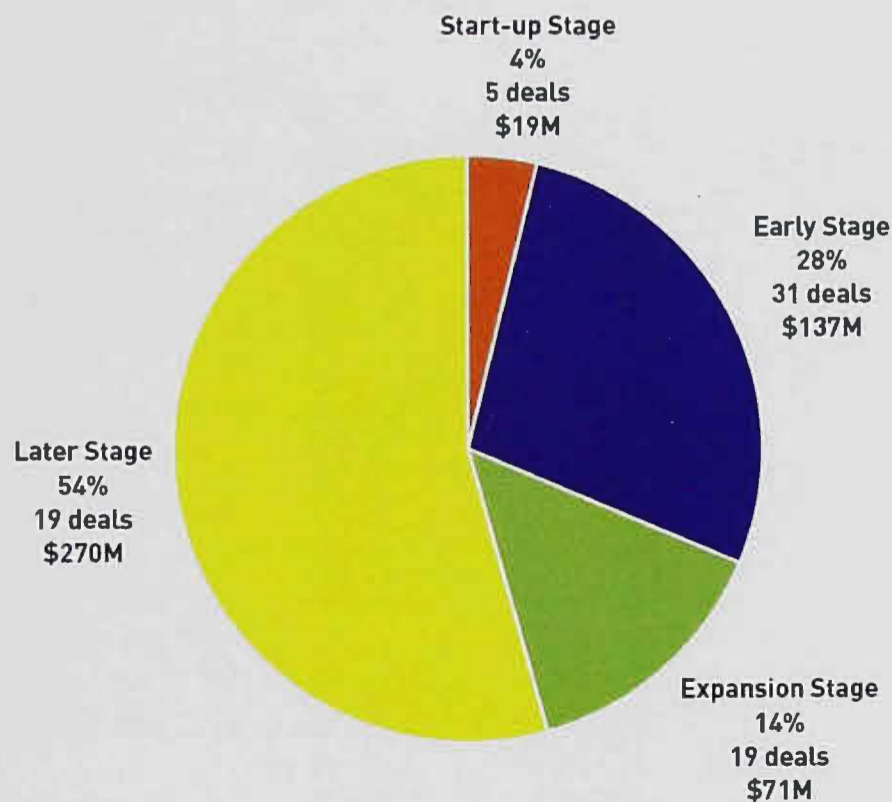


**Total Value of Silicon Valley Full Year 2010  
VC Investments by Stage of Development**  
\$8.5 billion  
961 companies

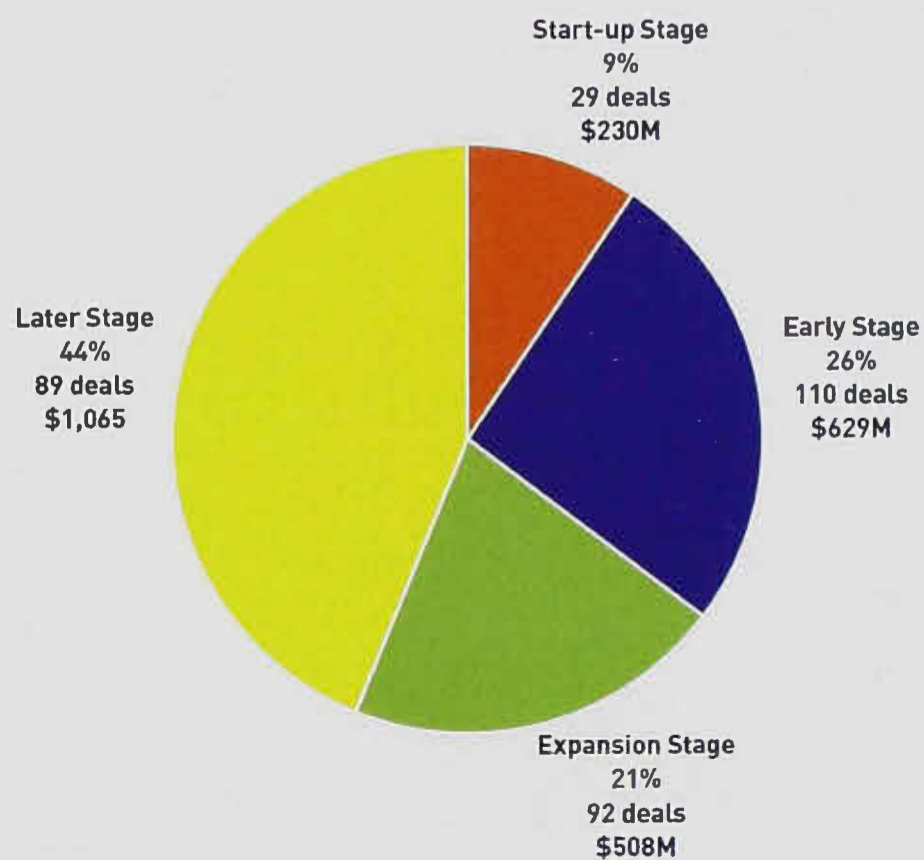


Note: Percentages refer to the \$ value of investment

**Total Value of Southern California Q4 2010  
VC Investments by Stage of Development**  
\$497 million  
74 companies



**Total Value of Southern California Full Year 2010  
VC Investments by Stage of Development**  
\$2.4 billion  
320 companies



Source: The MoneyTree™ Report by PricewaterhouseCoopers and the National Venture Capital Association

**VENTURE CAPITAL INVESTMENT (CONT'D)**
**4<sup>TH</sup> QUARTER 2010: SAN DIEGO MOVES UP TO 7<sup>TH</sup> IN NATION, SOUTHERN CALIFORNIA RANKS 4<sup>TH</sup>**

San Diego's regional ranking went up from ninth to seventh in the nation in the fourth quarter of 2010 even though the amount invested decreased from the third to the fourth quarter. The region received four percent of total nationwide investments, down from five percent in the third quarter. Southern California (San Diego and LA/Orange Counties) ranked fourth nationally with VC investments of \$498 million for the quarter, down 46% from \$857 million in the second quarter of 2010 and down nearly 8% from the \$507 million in the third quarter of 2009. Silicon Valley led the nation with \$2 billion in VC investment in the fourth quarter, up 9% from the investment level of the previous quarter. LA/Orange County was up 33% in the fourth quarter compared to the third quarter of 2010. Colorado saw a surge of VC dollars in the fourth quarter increasing almost 190% from the third quarter to reach \$254 million. The New York City Metro and Midwest regions also showed substantial increases in VC investment in the fourth quarter, whereas the Washington DC Metro and Southeast regions saw significant declines. The top 10 regions accounted for 93% of the total U.S. VC investment in the fourth quarter.

**REGIONAL VC INVESTMENT LEVELS – 3<sup>RD</sup> QUARTER 2010 VS. 4<sup>TH</sup> QUARTER 2010**

Region	Q3 2010 Rank	Q4 2010 Rank	Q3 2010 VC Investment (in \$M)	Q4 2010 VC Investment (in \$M)	Percent Change
Silicon Valley	1	1	\$1,833	\$2,001	+9%
New England	2	2	\$526	\$536	+2%
New York City Metro	4	3	\$341	\$513	+50%
Midwest	7	4	\$258	\$378	+47%
LA / Orange County	8	5	\$229	\$305	+33%
Colorado	12	6	\$88	\$254	+189%
<b>SAN DIEGO</b>	<b>9</b>	<b>7</b>	<b>\$223</b>	<b>\$193</b>	<b>-13%</b>
Southeast	5	8	\$265	\$191	-28%
Northwest	10	9	\$194	\$160	-18%
Wash. DC / Metroplex	6	10	\$259	\$143	-45%
Top 10 Regions			\$4,216	\$4,674	+11%
UNITED STATES			\$4,945	\$5,017	+1%

Source: CONNECT; The MoneyTree™ Report by PricewaterhouseCoopers and the National Venture Capital Association based on data from Thomson Financial.

Nationally, VC investments in the fourth quarter were up two percent in dollar value compared to the third quarter of 2010 though the number of deals fell 3%. In the fourth quarter of 2010, \$5 billion was invested in 765 companies. The full year 2010 total for the U.S. was almost \$22 billion invested in 3,277 deals. This was a 20% increase over the \$18 billion invested in 2009.

**SUMMARY OF NATIONAL AND REGIONAL VC INVESTMENTS**

Region		2007	2008	2009	2010	2009 Q4	2010 Q3	2010 Q4
United States	Total (in Billions)	\$30.5	\$28.0	\$18.1	\$21.9	\$5.2	\$4.9	\$5.0
	# of Deals	4,027	3,985	2,893	3,277	716	789	765
	Average (in Millions)	\$7.6	\$7.0	\$6.2	\$6.7	\$7.3	\$6.3	\$6.6
California	Total (in Billions)	\$14.6	\$14.0	\$9.1	\$11.0	\$2.9	\$2.3	\$2.5
	# of Deals	1,663	1,626	1,185	1,289	301	290	305
	Average (in Millions)	\$8.8	\$8.6	\$7.7	\$8.5	\$9.5	\$7.9	\$8.2
Northern CA	Total (in Billions)	\$11.0	\$10.8	\$7.2	\$8.5	\$2.4	\$1.8	\$2.0
	# of Deals	1,273	1,251	871	969	226	220	231
	Average (in Millions)	\$8.6	\$8.6	\$8.3	\$8.8	\$10.5	\$8.4	\$8.7
Southern CA	Total (in Billions)	\$3.6	\$3.2	\$1.9	\$2.2	\$0.5	\$0.5	\$0.3
	# of Deals	390	375	266	289	75	65	48
	Average (in Millions)	\$9.3	\$8.5	\$7.0	\$7.7	\$6.7	\$7.0	\$6.4
San Diego	Total (in Billions)	\$1.9	\$1.2	\$0.9	\$0.8	\$0.25	\$0.22	\$0.19
	# of Deals	167	132	107	115	36	30	26
	Average (in Millions)	\$11.6	\$9.0	\$8.4	\$7.4	\$7.0	\$7.4	\$7.4

Source: CONNECT; The MoneyTree™ Report by PricewaterhouseCoopers and the National Venture Capital Association based on data from Thomson Financial.



**M&A AND OTHER INVESTMENT ACTIVITY**
**VALUE OF SAN DIEGO M&A DEALS DOUBLES; CALIFORNIA SEES SIMILAR RISE**

Company merger and acquisition activity jumped substantially across California in 2010 compared to the previous year. The value of reported San Diego deals closed in the fourth quarter of 2010 was almost \$1.7 billion, and almost \$4 billion for the year – more than double the value and number of deals reported in 2009. In Southern California, the M&A market in 2010 totaled more than \$40 billion – almost seven times more than reported in 2009 and up almost 60% in the fourth quarter of 2010 compared to the previous quarter.

**REGIONAL M&A DEALS – 4<sup>TH</sup> QUARTER and FULL YEAR 2010**

Region		2009 Q4	2009	2010 Q3	2010 Q4	2010
Northern CA	Total Reported Value (in Millions)	\$17,134	\$20,803	\$21,834	\$9,207	\$56,566
	# of Closed Deals	136	337	187	174	860
Southern CA	Total Reported Value (in Millions)	\$3,181	\$6,608	\$8,441	\$13,301	\$43,697
	# of Closed Deals	131	314	142	224	788
San Diego	Total Reported Value (in Millions)	\$1,250	\$1,655	\$1,017	\$1,680	\$3,859
	# of Closed Deals	29	79	29	41	156

Note: Not all M&A deals report a disclosed \$ value. Total deal values are in fact higher than those shown in the table above. Source: Capital IQ; Roth Capital Partners

**TOP TEN SAN DIEGO REPORTED M&A DEALS – FULL YEAR 2010**

Company	Industry	Reported Deal Value (in \$M)
Sempra Energy Solutions LLC	Energy	\$581.9
TargeGen, Inc.	Biotechnology	\$560.0
Alphatec Holdings, Inc.	Healthcare Equipment	\$507.4
DivX, Inc.	Consumer Media Technology	\$328.1
Vantage Pointe in San Diego	Real Estate	\$200.0
Neurocrine Biosciences Inc.	Biotechnology	\$176.2
Gichner Systems Group, Inc.	Military Shelter Design & Integration	\$133.0
Portfolio of Five Properties in San Diego	Real Estate	\$132.9
43 Acre Nobel Research Center	Real Estate	\$128.0
PacketVideo Corporation	Wireless Multimedia	\$111.6
<b>Total 2010 Top 10 San Diego Reported M&amp;A Deal Value</b>		<b>\$2,859.2</b>
<b>Total 2010 San Diego Reported M&amp;A Deal Value</b>		<b>\$3,857.4</b>

Source: Capital IQ; ROTH Capital Partners; CONNECT

**M&A AND OTHER INVESTMENT ACTIVITY (CONT'D)**
**TOP TEN SOUTHERN CALIFORNIA M&A DEALS – FULL YEAR 2010**

Company	Industry	Reported Deal Value (in \$M)
Live Nation Entertainment, Inc.	Movies & Entertainment	\$4,419.1
Valeant Pharmaceuticals Int'l.	Pharmaceuticals	\$3,831.4
Abraxis BioScience, Inc.	Biotechnology	\$3,659.6
McKechnie Aerospace DE, Inc.	Aerospace	\$1,864.2
Ticketmaster Entertainment, LLC	Internet Retail	\$1,431.3
CKE Restaurants, Inc.	Restaurant	\$1,046.9
3M Cogent Inc.	Biometrics Security	\$935.3
LensX Lasers, Inc.	Healthcare/Medical Device	\$744.0
United Fuel & Energy Corporation	Energy	\$692.2
Internet Brands, Inc.	Internet Media	\$645.7
<b>Total 2010 Top 10 Southern California Reported M&amp;A Deal Value</b>		<b>\$19,270M</b>
<b>Total 2010 Southern California Reported M&amp;A Deal Value</b>		<b>\$28,260M</b>

Source: Capital IQ; ROTH Capital Partners; CONNECT

**SAN DIEGO PRIVATE PLACEMENT DEALS INCREASE IN 4<sup>TH</sup> QUARTER 2010**

The value of San Diego PIPE deals increased by 30% in the fourth quarter of 2010 compared to the previous quarter with 13 San Diego companies closing deals totaling \$90 million through private placement investments. One financial services company, First Pactrust Bancorp Inc., accounted for \$60 million of San Diego's PIPE investment total in the fourth quarter.

Southern California (including San Diego) companies issued 43 PIPE private placements statewide totaling \$482 million in the fourth quarter, a 41% decrease from the \$814 million in deals in the third quarter of 2010. In northern California, 22 companies closed private placement deals totaling over \$458 million down from the third quarter's spike of \$2.7 billion due to one deal, Gilead Sciences, Inc., a pharmaceutical company, which represented over 90% of the northern California total with \$2.46 billion. Overall, in the final quarter of 2010 quarter, the number of PIPE deals in California totaled 65 deals totaling \$940 million.

Private placements (often structured as PIPE transactions (see sidebar) are an alternative way for public companies to raise capital, and are usually considered a good sign for a public company. They convey that the private placement investors believe in a company's prospects for the long term and are willing to take on market risk with their investment.

*PIPE stands for Private Interest in Public Equities. PIPE transactions are also referred to as *private placements or direct placements in public companies*. PIPE transactions are privately negotiated sales of companies' securities to individual accredited investors or institutional funds. Small and mid-size public companies often use PIPE financing because they can obtain capital from a PIPE transaction faster and more cheaply than in a public offering. Particularly over the past couple of years, as the markets have remained relatively closed to secondary financing, PIPEs have emerged as a stable and sustained source of equity capital for public companies of all sizes.*

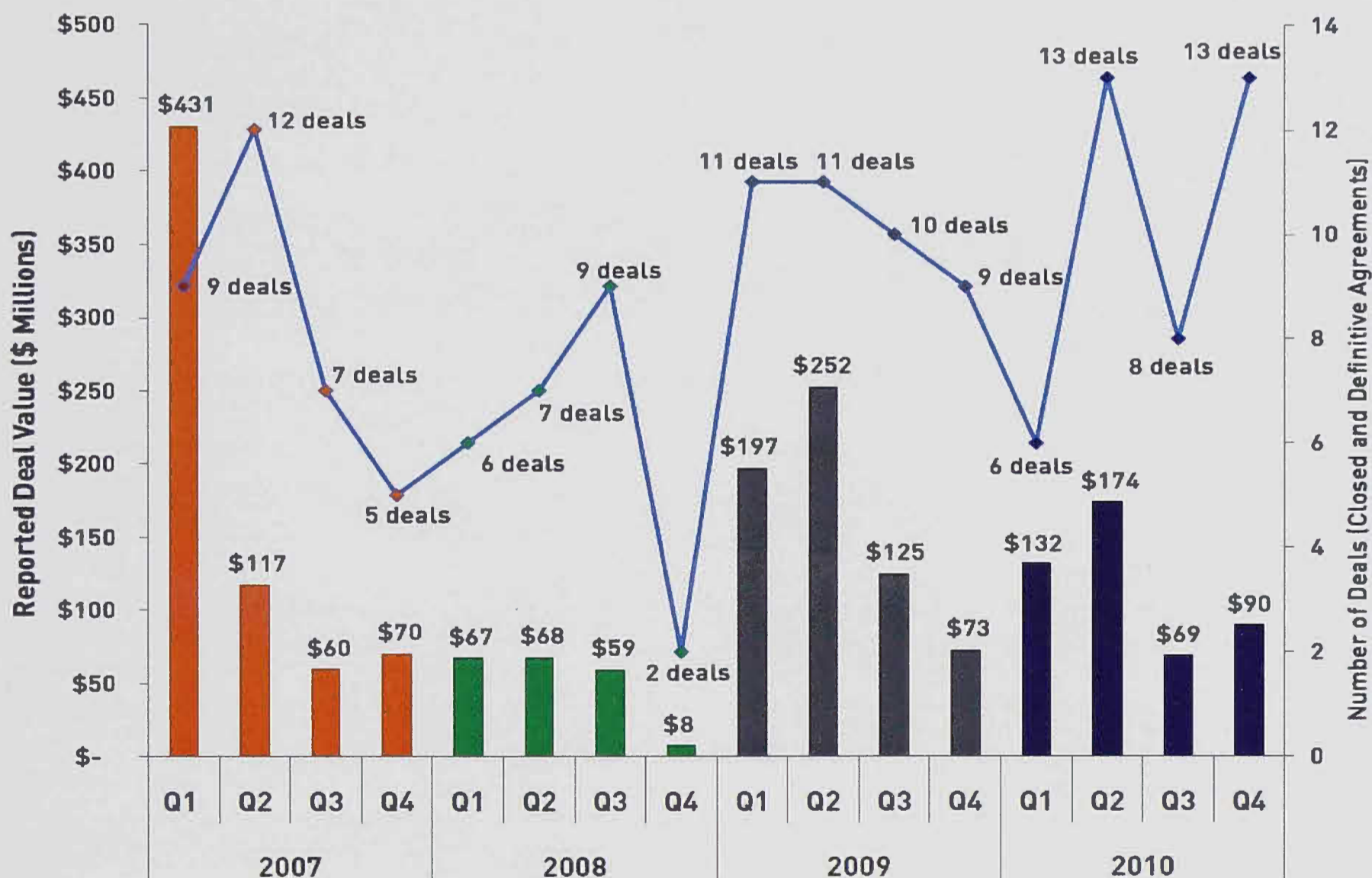
M&A AND OTHER INVESTMENT ACTIVITY (CONT'D)

PRIVATE PLACEMENTS BY REGION - PIPE DEALS BY QUARTER

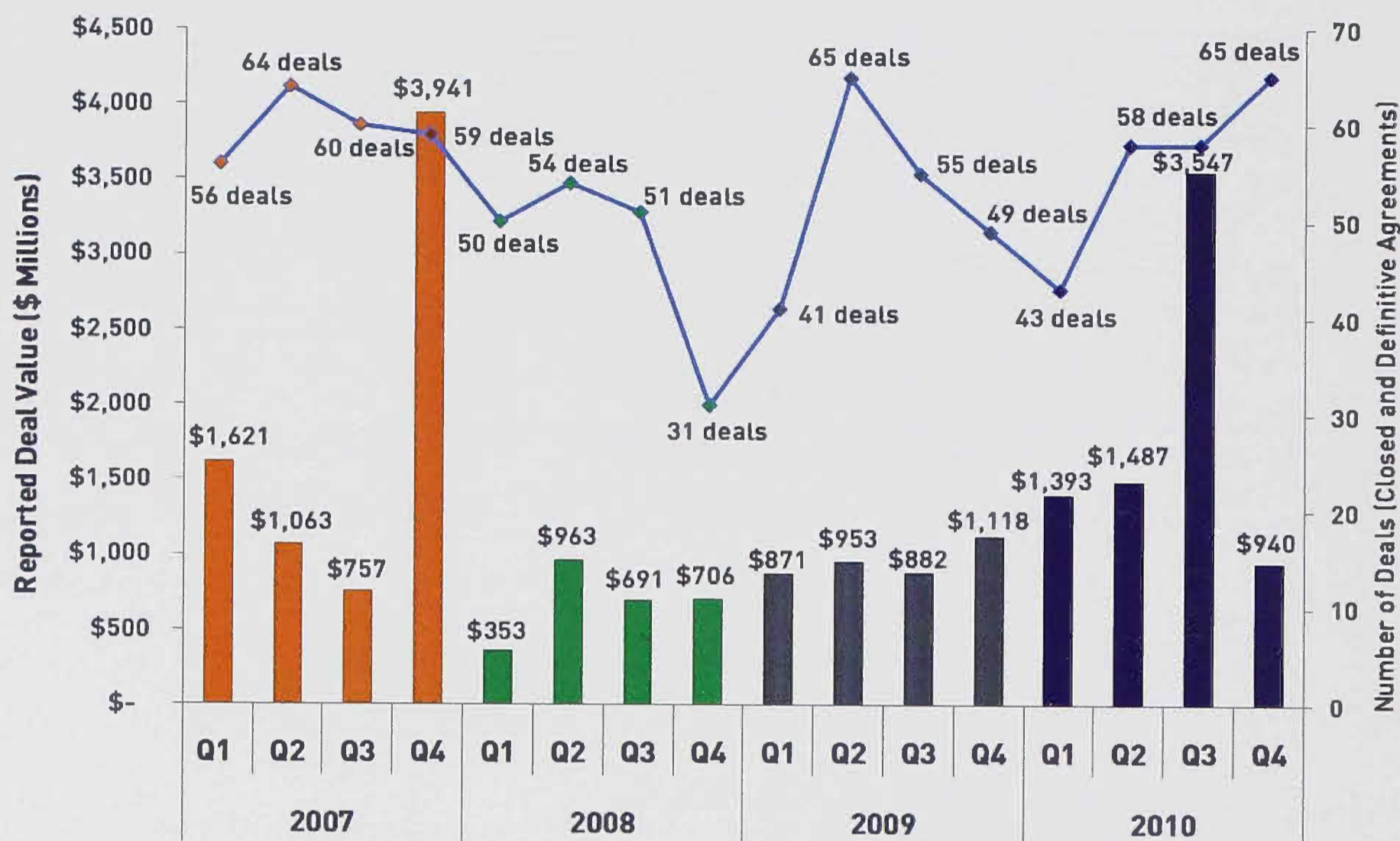
Region		Q4 2009	Q1 2010	Q2 2010	Q3 2010	Q4 2010	Full Year 2010
Northern CA	Total Reported Value (in \$ Millions)	\$352	\$522	\$627	\$2,733	\$458	\$4,340
	# of Closed Deals	17	24	22	26	22	94
Southern CA	Total Reported Value (in \$ Millions)	\$639	\$740	\$860	\$814	\$482	\$2,896
	# of Closed Deals	23	13	25	36	43	117
San Diego	Total Reported Value (in \$ Millions)	\$61	\$132	\$174	\$69	\$90	\$465
	# of Closed Deals	9	6	2	8	13	29
California	Total Reported Value (in \$ Millions)	\$1,052	\$1,393	\$1,487	\$3,547	\$940	\$7,368
	# of Closed Deals	49	43	47	62	65	217

Source: Capital IQ; ROTH Capital Partners; CONNECT

SAN DIEGO PRIVATE PLACEMENTS - PIPE DEALS: 1<sup>ST</sup> QUARTER 2007 TO 4<sup>TH</sup> QUARTER 2010



Source: Capital IQ; ROTH Capital Partners; CONNECT

**M&A AND OTHER INVESTMENT ACTIVITY (CONT'D)**
**CALIFORNIA PRIVATE PLACEMENTS – PIPE DEALS: 1<sup>ST</sup> QUARTER 2007 TO 4<sup>TH</sup> QUARTER 2010**


Source: Capital IQ; ROTH Capital Partners; CONNECT

**SAN DIEGO PRIVATE PLACEMENTS – PIPE INVESTMENTS: 4<sup>TH</sup> QUARTER 2010**

Company	Industry	Reported Deal Value (in \$M)
First Pactrust Bancorp Inc. (NasdaqGM:FPTB)	Financial Services	\$60.0
Apricus Biosciences, Inc. (NasdaqCM:APRI)	Biotechnology	\$9.3
Lpath Inc. (OTCBB:LPTN)	Biotechnology	\$4.9
Overland Storage Inc. (NasdaqCM:OVRL)	Data Mgmt/Protection	\$4.2
Socialwise, Inc. (OTCBB:SCLW)	Online Payment Platform	\$3.5
Pure Bioscience (NasdaqCM:PURE)	Biotechnology	\$2.4
ImageWare Systems Inc. (OTCPK:IWSY)	Software	\$2.0
ImageWare Systems Inc. (OTCPK:IWSY)	Software	\$1.5
USD Energy Corp. (OTCPK:UEGY)	Precious Metals Exploration & Mining	\$1.1
Nexaira Wireless, Inc. (OTCBB:NXWI)	Wireless Telecom	\$0.9
GreenHouse Holdings, Inc. (OTCBB:GRHU)	Bio-Fuels	\$0.3
PepperBall Technologies, Inc. (OTCPK:PBAL)	Security Surveillance & Personnel Deterrent	\$0.2
Entest Biomedical, Inc. (OTCBB:ENTB)	Biotechnology	\$0.1
<b>Total - SAN DIEGO</b>		<b>\$90.3</b>

Source: Capital IQ; ROTH Capital Partners; CONNECT

**M&A AND OTHER INVESTMENT ACTIVITY (CONT'D)**
**TWO SAN DIEGO COMPANIES RAISED \$140 MILLION THROUGH IPOs IN FOURTH QUARTER 2010**

Nine California companies went public raising \$1.35 billion through Initial Public Offerings (IPOs) in the fourth quarter of 2010. This was more than double the \$519 million raised by five California companies in the third quarter of 2010. Two San Diego companies, REVA Medical, Inc. and Zogenix, Inc., raised almost \$84 million and \$56 million, respectively, in the fourth quarter. San Diego IPOs represented almost 12% of total California IPO deal value.

A Los Angeles based energy fund raised \$475 million, bringing the southern California region to \$615 million for the quarter. Six companies in Northern California raised \$736 million, or 54% of the total California IPO deal value in the fourth quarter of 2010.

**CALIFORNIA IPOs BY REGION – 4<sup>TH</sup> QUARTER 2010**

Region	Reported Deal Value (in \$M)	Number of Deals
San Diego	\$140	2
Southern CA (incl. San Diego)	\$615	3
Northern CA	\$736	6
<b>Fourth Quarter 2010 Total - California IPOs</b>	<b>\$1,351M</b>	<b>9</b>

Source: Capital IQ; ROTH Capital Partners; CONNECT

**CALIFORNIA IPOs BY COMPANY – 4<sup>TH</sup> QUARTER 2010**

Company	Description	Reported Deal Value (in \$M)	City	Region
Kayne Anderson Midstream Energy Fund, Inc. (NYSE:KMF)	Energy Investment Fund	\$475.0	Los Angeles	Southern CA
First Republic Bank (NYSE:FRC)	Financial Services	\$280.5	San Francisco	Northern CA
Pacific Biosciences of California, Inc. (NasdaqGS:PACB)	Biotechnology	\$200.0	Menlo Park	Northern CA
REVA Medical, Inc. (ASX:RVA)	Medical Device	\$83.7	San Diego	San Diego
Inphi Corporation (NYSE:IPHI)	Semiconductors	\$81.6	Santa Clara	Northern CA
United States Commodity Index Funds Trust (ARCA:USCI)	Investment Trust	\$60.0	Alameda	Northern CA
Anacor Pharmaceuticals, Inc. (NasdaqGM:ANAC)	Pharmaceuticals	\$60.0	Palo Alto	Northern CA
Zogenix, Inc. (NasdaqGM:ZGNX)	Pharmaceuticals	\$56.0	San Diego	San Diego
Complete Genomics, Inc. (NasdaqGM:GNOM)	Biotechnology	\$54.0	Mountain View	Northern CA
<b>Fourth Quarter 2010 California IPOs</b>	<b>9 Deals</b>	<b>\$1,351M</b>		

Source: Capital IQ; ROTH Capital Partners; CONNECT

Thirty-one companies went public with IPOs in California in 2010 with a reported combined deal value of \$5.4 billion. Five companies were based in San Diego County and had a reported combined deal value of \$427 million. Southern California accounted for almost one third of the IPO deal value in California for the year with 12 companies raising \$1.6 billion. Northern California saw 19 companies close \$3.8 billion in IPO deals for the year. The Southern California companies that went public in 2010 are listed below. In addition, two San Diego companies, Peregrine Semiconductor and Fallbrook Technologies, were on file to go public on U.S. exchanges at the end of December 2010.

**M&A AND OTHER INVESTMENT ACTIVITY (CONT'D)**
**TWELVE SOUTHERN CALIFORNIA COMPANIES GO PUBLIC IN 2010, RAISE \$1.6 BILLION**
**CALIFORNIA IPOs BY REGION – FULL YEAR 2010**

Region	Reported Deal Value (in \$M)	Number of Deals
San Diego	\$427	5
Southern CA (incl. San Diego)	\$1,558	12
Northern CA	\$3,806	19
<b>2010 Total - California IPOs</b>	<b>\$5,364</b>	<b>31</b>

 Source: Capital IQ; ROTH  
Capital Partners; CONNECT

**SOUTHERN CALIFORNIA IPOs BY COMPANY – FULL YEAR 2010**

Company	Description	Reported Deal Value (in \$M)	City	Region
Kayne Anderson Midstream Energy Fund, Inc. (NYSE:KMF)	Energy Investment Fund	\$475.0	Los Angeles	Southern CA
First Republic Bank (NYSE:FRC)	Financial Services	\$280.5	San Francisco	Northern CA
Pacific Biosciences of California, Inc. (NasdaqGS:PACB)	Biotechnology	\$200.0	Menlo Park	Northern CA
REVA Medical, Inc. (ASX:RVA)	Medical Device	\$83.7	San Diego	San Diego
Inphi Corporation (NYSE:IPHI)	Semiconductors	\$81.6	Santa Clara	Northern CA
United States Commodity Index Funds Trust (ARCA:USCI)	Investment Trust	\$60.0	Alameda	Northern CA
Anacor Pharmaceuticals, Inc. (NasdaqGM:ANAC)	Pharmaceuticals	\$60.0	Palo Alto	Southern CA
Zogenix, Inc. (NasdaqGM:ZGNX)	Pharmaceuticals	\$56.0	San Diego	San Diego
Complete Genomics, Inc. (NasdaqGM:GNOM)	Biotechnology	\$54.0	Mountain View	Northern CA
<b>Fourth Quarter 2010 California IPOs</b>	<b>9 Deals</b>	<b>\$1,351M</b>		

**FOLLOW-ON PUBLIC OFFERINGS DEALS – EIGHT SAN DIEGO COMPANIES RAISE CAPITAL IN Q4**

In the fourth quarter of 2010 the underwritten follow-on public offering market (FPOs) saw 32 California companies raise \$4.5 billion in proceeds from the sale of additional share offerings to investors. Southern California (including San Diego) accounted for 86% of the California deal value in the fourth quarter with almost \$3.9 billion in follow-on deals. This was an increase of almost 50% from the \$2.6 billion raised in the third quarter by 12 southern California companies. Eight San Diego companies raised \$513 million in follow-on equity capital in the fourth quarter. This was a decrease of almost 21% from the \$649 million raised by six companies in the third quarter of 2010. See the list of the 2010 Southern California deals with values larger than \$50 million below.

**CALIFORNIA UNDERWRITTEN FOLLOW-ON EQUITY OFFERINGS - 4<sup>TH</sup> QUARTER 2010**

Region	Reported Deal Value (in \$M)	Number of Deals
San Diego	\$513.0	8
Southern CA (incl. San Diego)	\$3,876.6	22
Northern CA	\$657.9	10
<b>Total Fourth 2010 Quarter California FPOs</b>	<b>\$4,534M</b>	<b>32</b>

Source: Capital IQ; ROTH Capital Partners; CONNECT

**M&A AND OTHER INVESTMENT ACTIVITY (CONT'D)**
**SAN DIEGO COMPANIES RAISED ALMOST \$2 BILLION IN FOLLOW ON EQUITY DEALS IN 2010**
**SAN DIEGO UNDERWRITTEN FOLLOW-ON EQUITY OFFERINGS  
FOURTH QUARTER 2010**

<b>Company</b>	<b>Reported Deal Value (in \$M)</b>
Realty Income Corp. (NYSE:O)	\$215.7
Cadence Pharmaceuticals Inc. (NasdaqGM:CADX)	\$92.0
Sequenom Inc. (NasdaqGM:SQNM)	\$84.0
DexCom (NasdaqGM:DXCM)	\$28.9
Somaxon Pharmaceuticals, Inc. (NasdaqCM:SOMX)	\$26.0
Anadys Pharmaceuticals (NasdaqGM:ANDS)	\$25.0
Kratos Defense & Security Solutions (NasdaqGS:KTOS)	\$23.5
Cytori Therapeutics, Inc. (NasdaqGM:CYTX)	\$18.0
<b>Total Fourth Quarter 2010 - San Diego FPOs</b>	<b>\$513M</b>

Source: Capital IQ; ROTH Capital Partners; CONNECT

**SOUTHERN CALIFORNIA UNDERWRITTEN FOLLOW-ON EQUITY OFFERINGS  
FOURTH QUARTER 2010**

<b>Company</b>	<b>Reported Deal Value (in \$M)</b>
HCP, Inc. (NYSE:HCP)	\$1,280.0
Watson Pharmaceuticals Inc. (NYSE:WPI)	\$522.5
HCP, Inc. (NYSE:HCP)	\$423.0
Green Dot Corporation (NYSE:GDOT)	\$260.0
RealD Inc. (NYSE:RLD)	\$216.9
Sunstone Hotel Investors Inc. (NYSE:SHO)	\$199.9
Avanir Pharmaceuticals (NasdaqGM:AVNR)	\$88.0
Tutor Perini Corporation (NYSE:TPC)	\$87.8
Pacific Capital Bancorp (NasdaqGS:PCBC)	\$76.4
Mission Community Bancorp (OTCBB:MISS)	\$75.9
<b>Top 10 Deals - Southern California</b>	<b>\$3,230.3</b>
<b>Total Fourth Quarter 2010 - Southern California FPOs</b>	<b>\$3,364M</b>

Source: Capital IQ; ROTH Capital Partners; CONNECT

 Note:  
Southern California  
companies outside  
San Diego County

**M&A AND OTHER INVESTMENT ACTIVITY (CONT'D)**
**SAN DIEGO COMPANIES RAISED ALMOST \$2 BILLION IN FOLLOW ON EQUITY DEALS IN 2010**
**SOUTHERN CALIFORNIA UNDERWRITTEN FOLLOW-ON EQUITY OFFERINGS >\$50M IN DEAL VALUE  
FULL YEAR 2010**

San Diego County based deals shown in orange type

<b>Company</b>	<b>Description</b>	<b>Reported Deal Value (in \$M)</b>
HCP, Inc.	Real Estate Investment Trust	\$1,280.0
Macerich Co.	Real Estate Investment Trust	\$1,230.0
Hyundai Auto Receivables Trust 2010-B	Automotive Finance	\$1,171.2
Watson Pharmaceuticals Inc.	Pharmaceuticals	\$522.5
HCP, Inc.	Real Estate Investment Trust	\$445.5
HCP, Inc.	Real Estate Investment Trust	\$423.0
Alexandria Real Estate Equities Inc.	Real Estate Investment Trust	\$311.6
Kilroy Realty Corp.	Real Estate Investment Trust	\$272.0
BioMed Realty Trust Inc.	Real Estate Investment Trust	\$262.5
Green Dot Corporation	Consumer and Business Services	\$260.4
ViaSat Inc.	Wireless Communications	\$231.2
RealD Inc.	3D Cinema Technology	\$216.9
Realty Income Corp.	Real Estate Investment Fund	\$215.7
Sun Healthcare Group Inc.	Healthcare	\$207.3
Sunstone Hotel Investors Inc.	Real Estate Investment Trust	\$199.9
BioMed Realty Trust Inc.	Real Estate Investment Fund	\$198.4
Realty Income Corp.	Real Estate Investment Fund	\$180.0
Kayne Anderson MLP Investment Co.	Energy-Related Investment	\$148.5
Cathay General Bancorp	Financial Services	\$132.2
Hanmi Financial Corporation	Financial Services	\$120.0
Molina Healthcare Inc.	Healthcare	\$108.0
Entropic Communications, Inc.	Semiconductors	\$104.3
Cadence Pharmaceuticals Inc.	Pharmaceuticals	\$92.0
Avanir Pharmaceuticals	Pharmaceuticals	\$88.0
Tutor Perini Corporation	General Contracting/Construction	\$87.8
Sequenom Inc.	Biotechnology	\$84.0
Alphatec Holdings, Inc.	Medical Device	\$80.0
Pacific Capital Bancorp	Financial Services	\$76.4
Mission Community Bancorp	Financial Services	\$75.9
Ardea Biosciences, Inc.	Biotechnology	\$70.0
Conexant Systems Inc.	Semiconductors	\$64.4
Kaiser Federal Financial Group, Inc.	Financial Services	\$63.8
Halozyme Therapeutics, Inc.	Pharmaceuticals	\$62.3
Somaxon Pharmaceuticals Inc.	Pharmaceuticals	\$56.9
Optimer Pharmaceuticals Inc.	Pharmaceuticals	\$53.8
Tejon Ranch Co.	Real Estate	\$50.0
<b>2010 San Diego Deals &gt; \$50M</b>	<b>13 Deals</b>	<b>\$913M</b>
<b>2010 Total - San Diego Follow On Public Equity Offerings</b>		<b>\$1,960M</b>
<b>2010 Southern California Deals &gt; \$50M</b>	<b>26 Deals</b>	<b>\$9,246M</b>
<b>2010 Total - Southern California Follow On Public Equity Offerings</b>		<b>\$9,821M</b>

Source: Capital IQ; ROTH Capital Partners; CONNECT

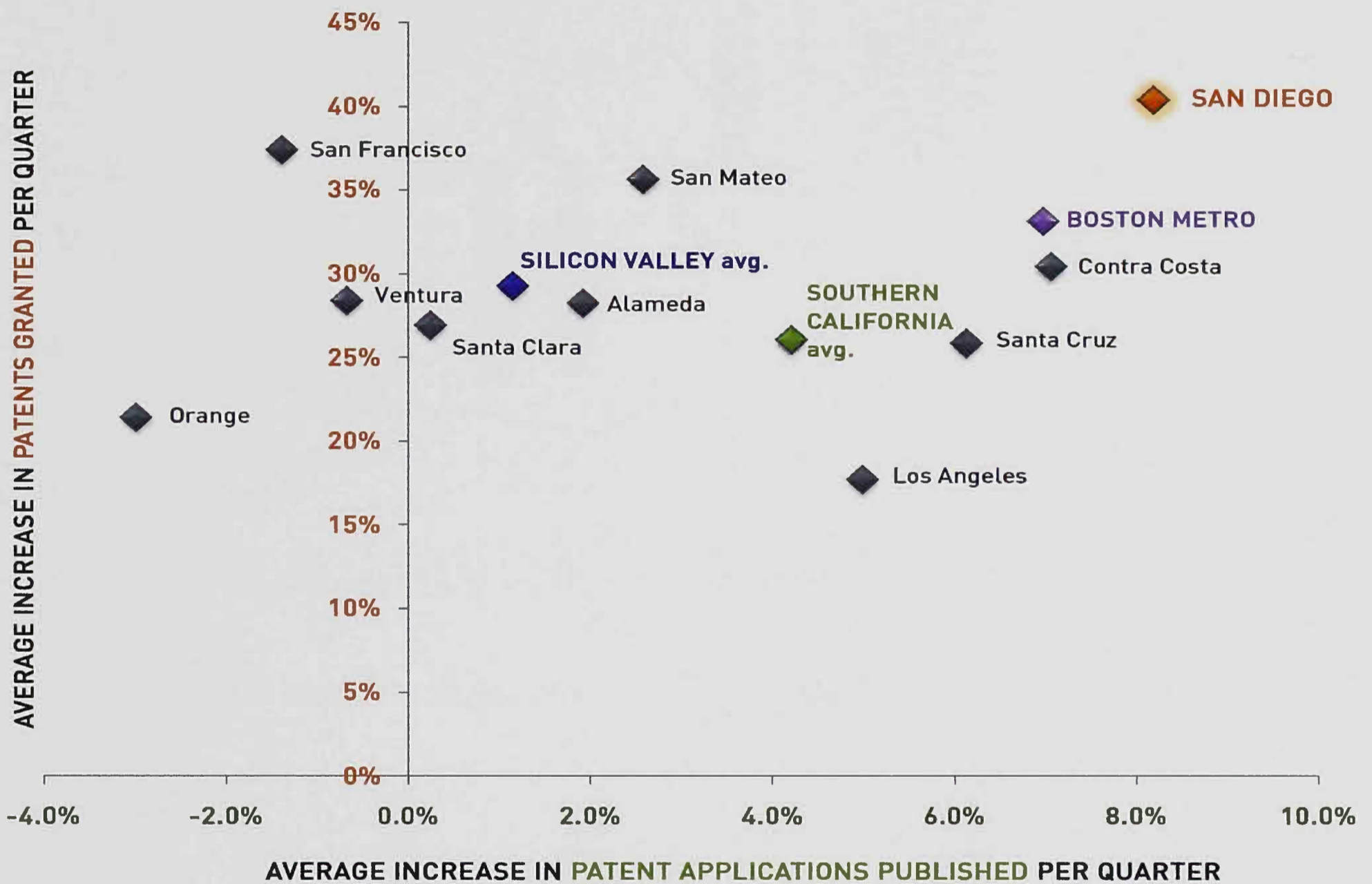


PATENT ACTIVITY

SAN DIEGO SHOWS STRONG GROWTH IN PATENT ACTIVITY

San Diego shows higher growth in the average number of patents published and granted per quarter in comparison to other regions of California and Boston. Over the past two years, the average number of patent applications published per quarter in San Diego increased by more than 8%, and the average number of patents granted per quarter increased substantially by 40%. Southern California showed similar growth year-to-year for patents granted but showed a larger increase in the number of patent applications published from 2009 through 2010.

INCREASE IN REGIONAL PATENT ACTIVITY PER QUARTER - 2009 to 2010



Source: United States Patent and Trademark Office; UC San Diego Extension; CONNECT

“Overall, these statistics are a clear indication that San Diego is a leading hub of innovation. That is something we in the San Diego community must continue to nurture and support,” said Richard Campbell, partner at Procopio, Cory, Hargreaves & Savitch LLP.

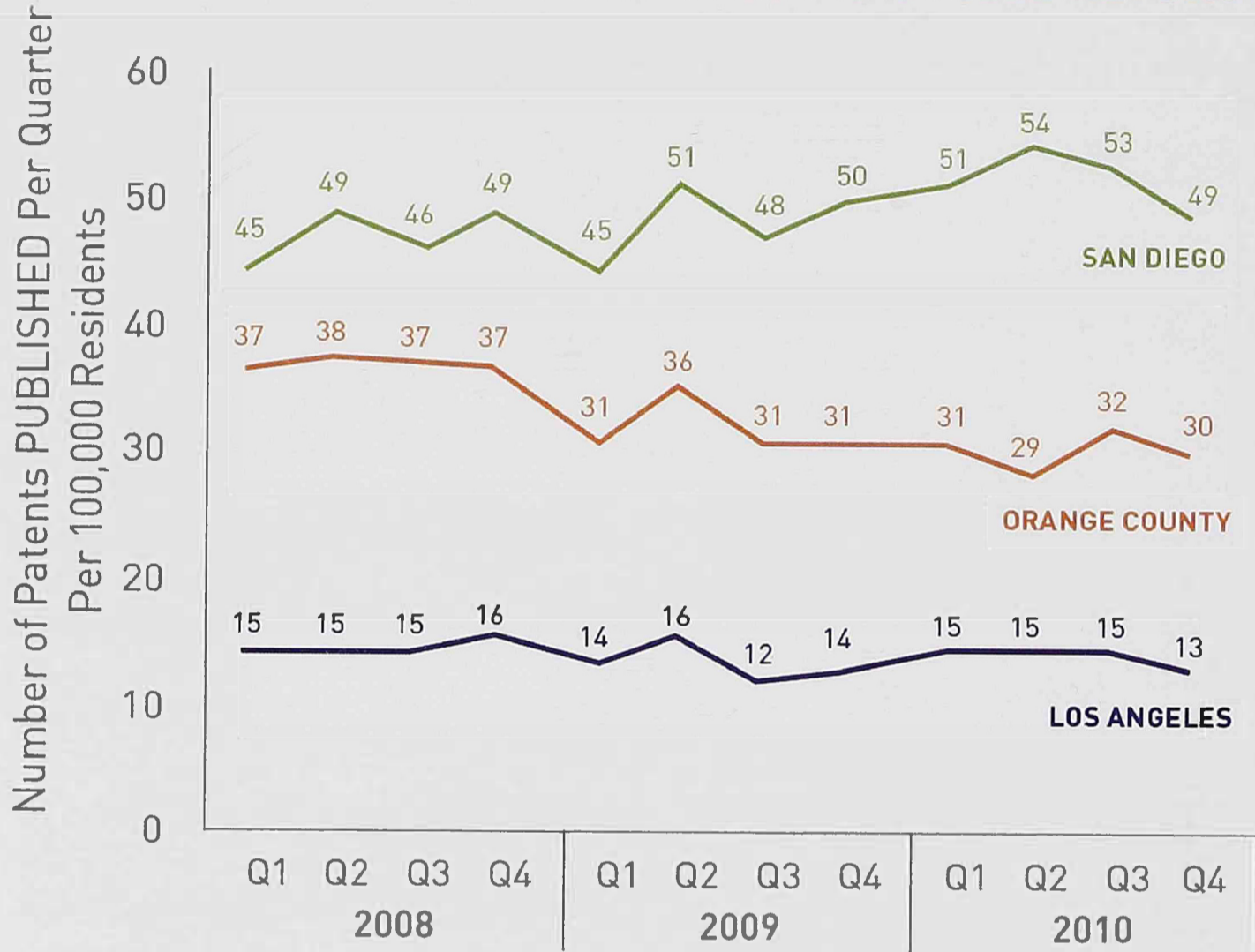
It takes on average 18 months for a patent application to be published after it is initially filed and on average three years before a determination is finalized and the patent is granted or abandoned. The chart above shows the average percent change (growth) in patent applications published versus the average percent change in patents granted between the first quarter of 2009 and the last quarter of 2010. The vertical position of a region on the chart reflects patent activity that was initiated on average three years ago while the horizontal position of each region reflects patent application activity that was initiated about 18-20 months ago.

PATENT ACTIVITY (CONT'D)

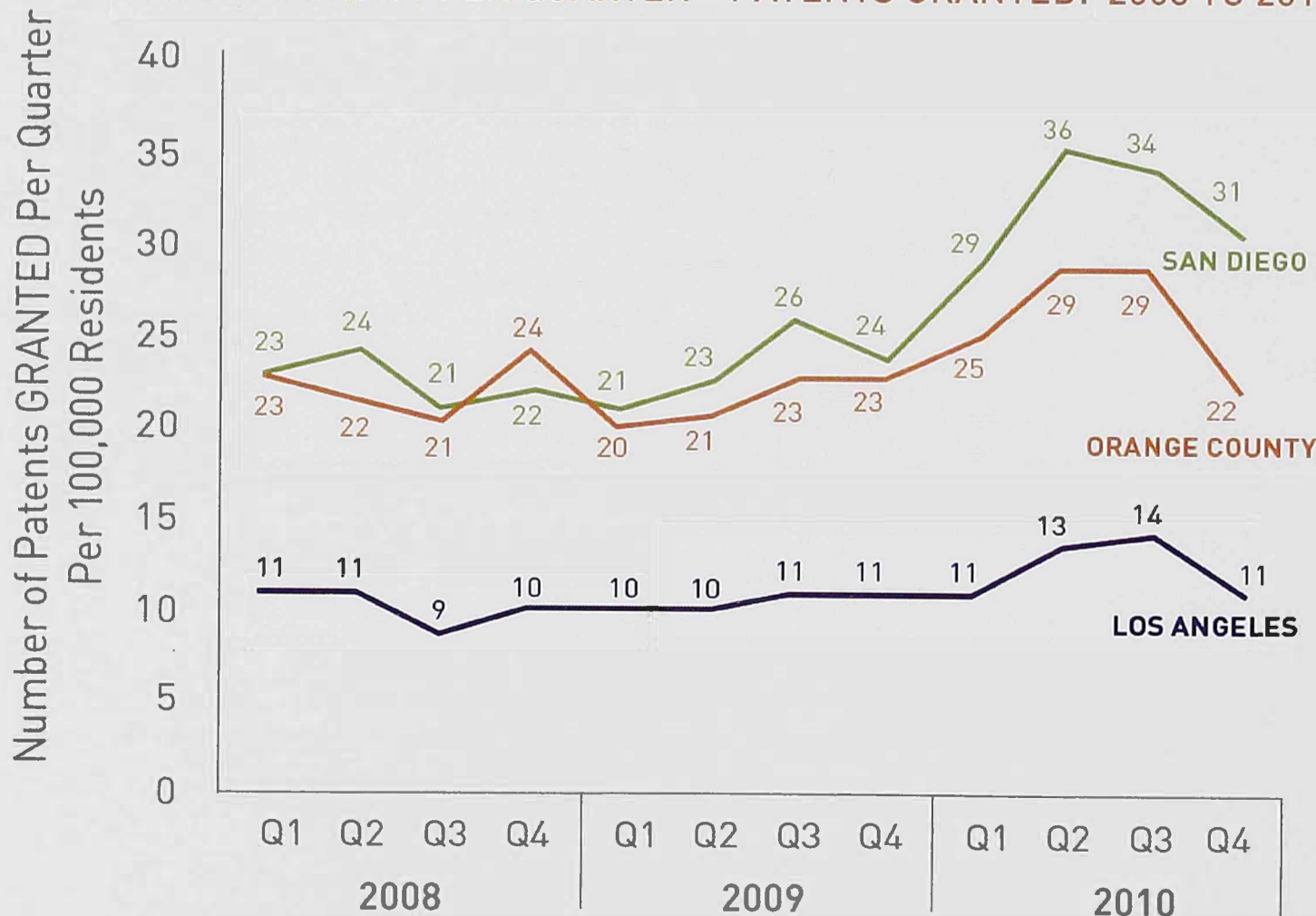
SAN DIEGO LEADS SOUTHERN CALIFORNIA IN PATENT ACTIVITY PER CAPITA

San Diego continued to lead the Southern California region in the fourth quarter of 2010 measured by the number of patents published and granted per 100,000 residents over the past three years (patent density). San Diego also shows higher year-to-year growth in the number of patents published and granted between 2008 and 2010 compared to other California regions and the East Coast innovation hub Boston. Over the past three years in San Diego, the number of patents published increased by more than 12% and the number of patents granted jumped by more than 45%. Patent density and growth serve as a good barometer of innovation in the region.

PATENT DENSITY PER QUARTER - PATENT APPLICATIONS PUBLISHED: 2008 TO 2010



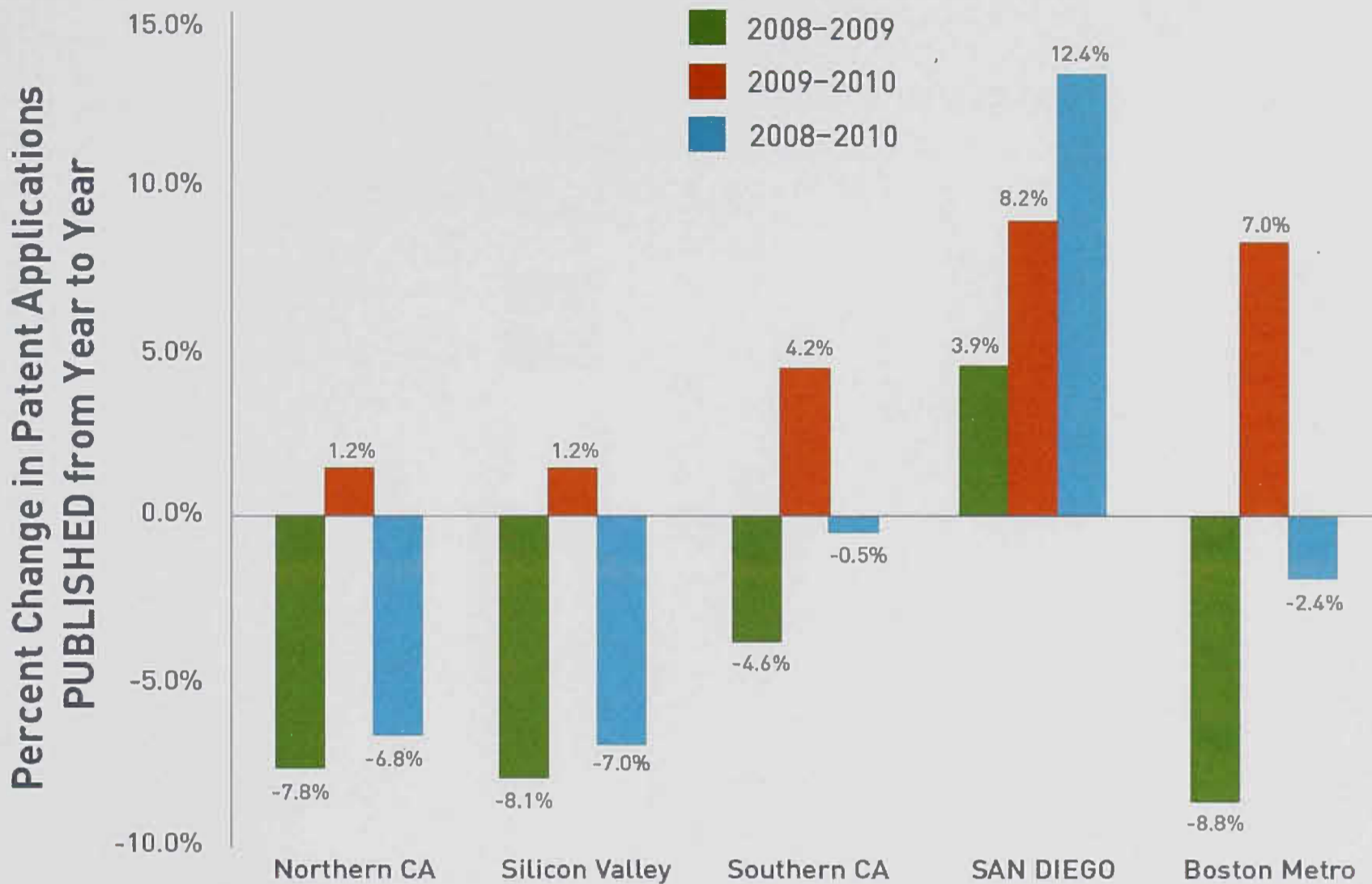
PATENT DENSITY PER QUARTER - PATENTS GRANTED: 2008 TO 2010



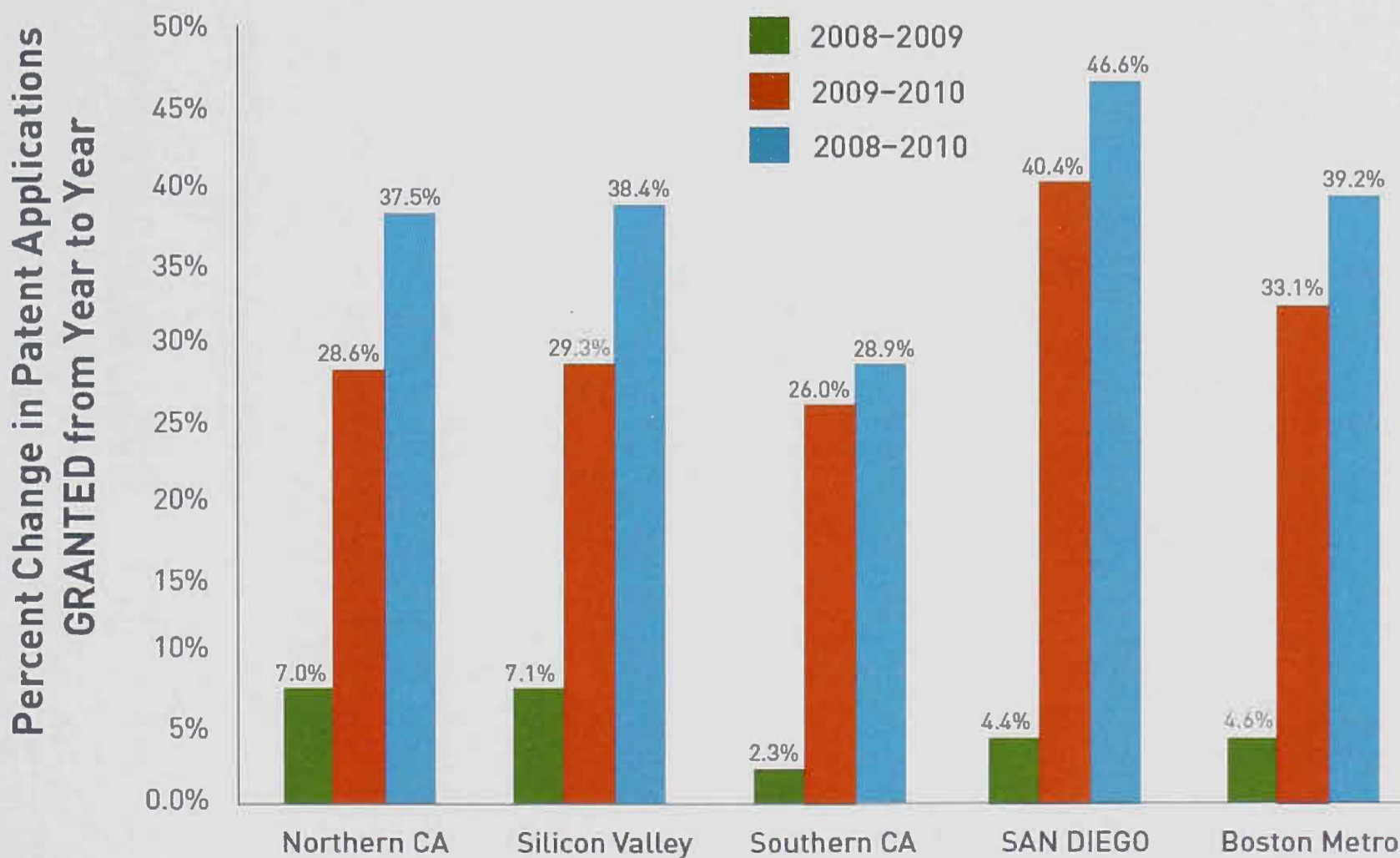
Source: United States Patent and Trademark Office; UC San Diego Extension; CONNECT

PATENT ACTIVITY (CONT'D)

YEAR-TO-YEAR PATENT GROWTH – PATENT APPLICATIONS PUBLISHED: 2008 TO 2010



YEAR-TO-YEAR PATENT GROWTH – PATENTS GRANTED: 2008 TO 2010

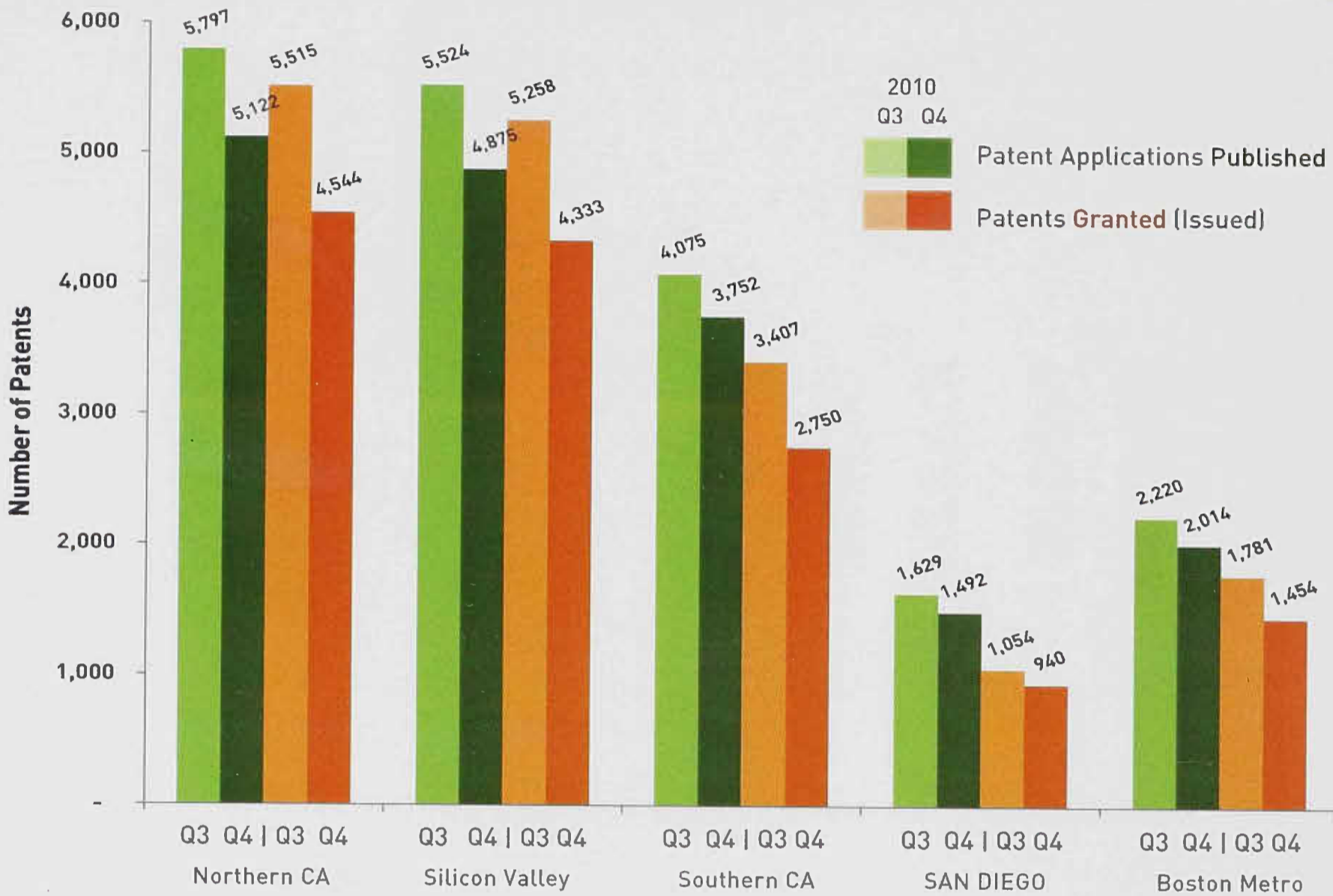


Source: United States Patent and Trademark Office;  
UC San Diego Extension; CONNECT

**PATENT ACTIVITY (CONT'D)**

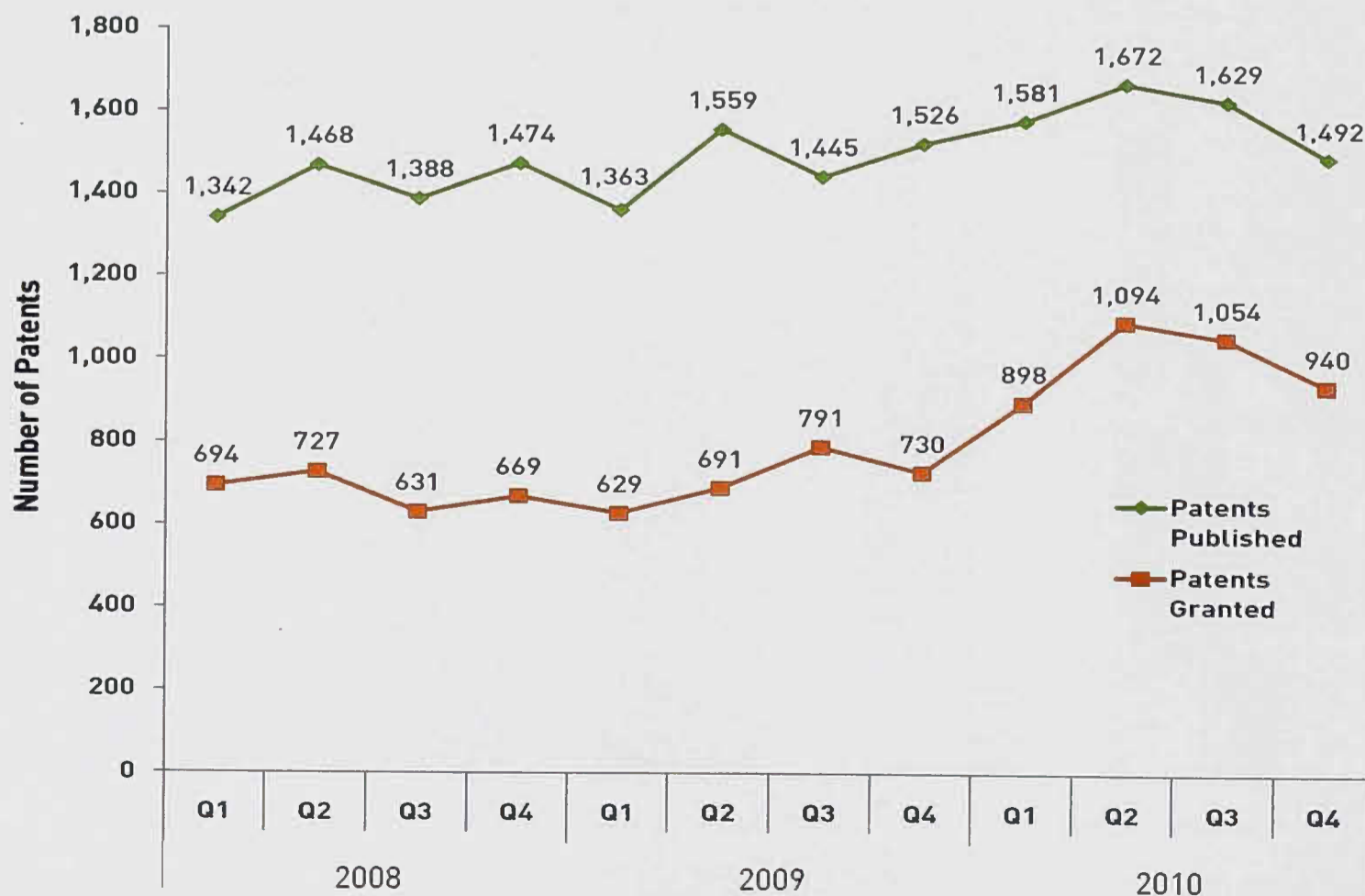
In San Diego, 940 patents were granted in the fourth quarter of 2010, down 11% from the 1,054 granted in the previous quarter. Patent applications published in the fourth quarter were down more than 8% in the fourth quarter with 1,492 patents published compared to 1,629 in the third quarter of 2010. San Diego accounted for 17% of the patent applications published in California in the second quarter and 12% of the patents granted. Patent activity was down across California in the second half of 2010.

**PATENTS PUBLISHED AND GRANTED BY REGION - 3<sup>RD</sup> QUARTER 2010 VS. 4<sup>TH</sup> QUARTER 2010**



Source: United States Patent and Trademark Office; UC San Diego Extension

**SAN DIEGO PATENTS ACTIVITY - FIRST QUARTER 2008 TO FOURTH QUARTER 2010**



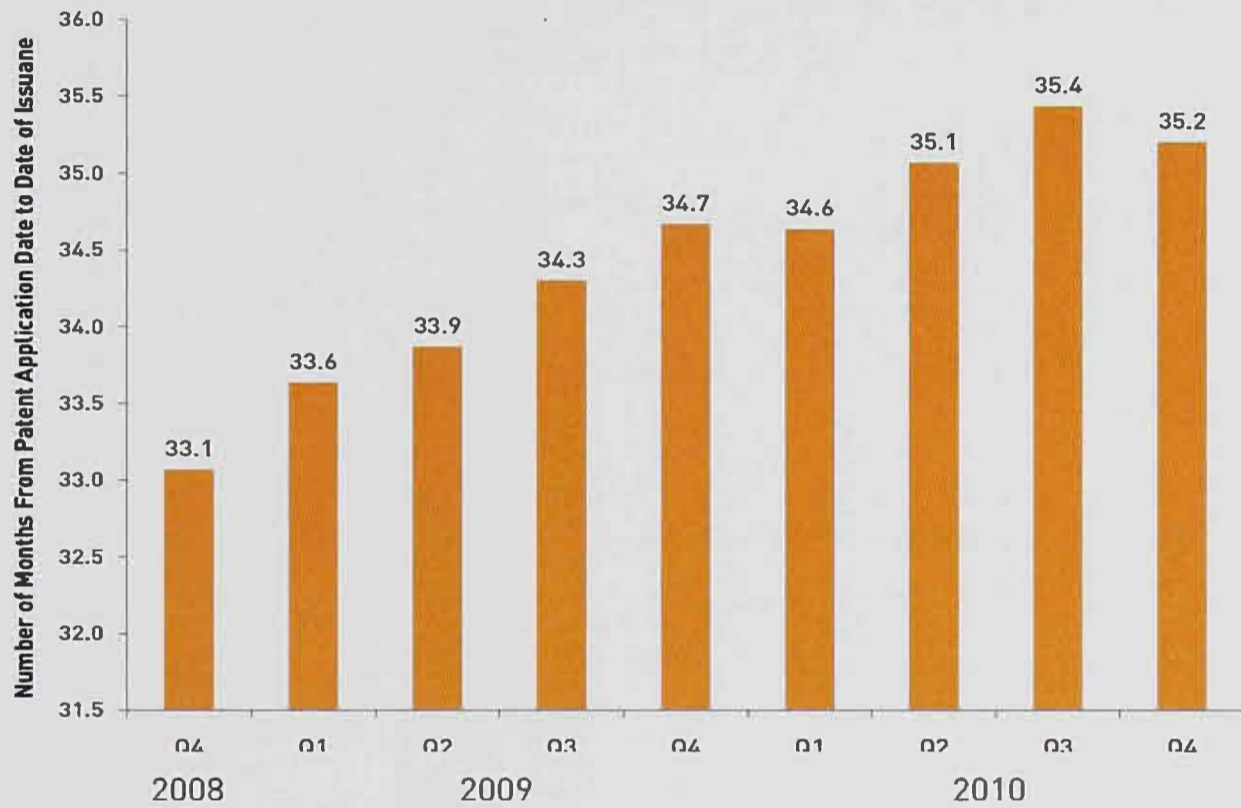
Source: United States Patent and Trademark Office; UC San Diego Extension

PATENT ACTIVITY (CONT'D)

AVERAGE TIME TO ISSUANCE AND APPLICATION BACKLOG

Patent applications are generally published 18 months after the earliest priority date of the application. Prior to that publication the application is confidential to the patent office. The average time it often takes for a patent to be issued (granted) or abandoned (denied) is almost three years. The average time it takes for a patent to be issued has been gradually increasing.

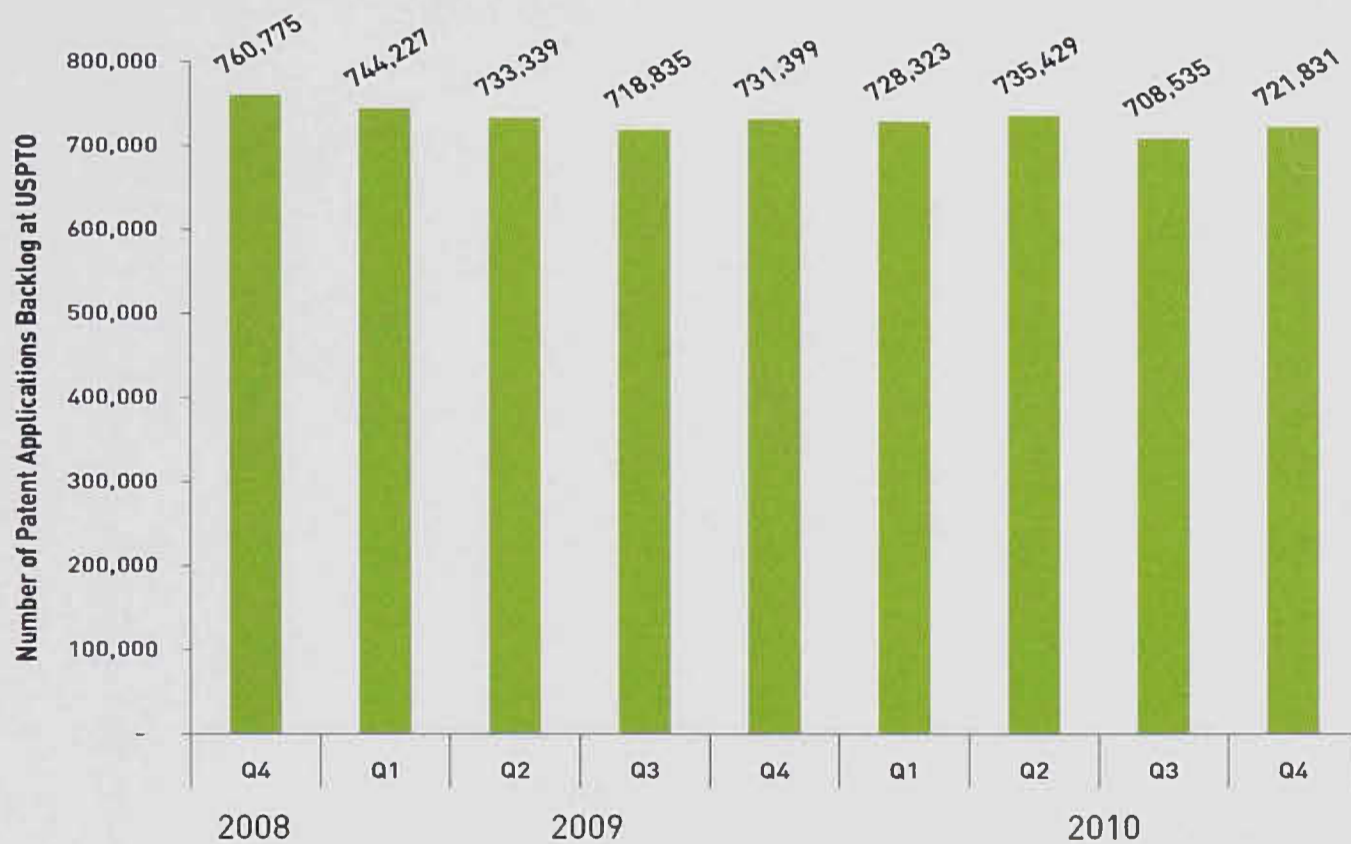
AVERAGE NUMBER OF MONTHS FROM PATENT APPLICATION FILING DATE TO FINAL DETERMINATION BY U.S. PATENT OFFICE (ISSUED OR ABANDONED)



As of the close of the fourth quarter of 2010, the USPTO had a backlog of almost 722,000 patent applications. The USPTO receives almost 500,000 applications a year. The substantial backlog slows the pace of new patent approval.

Source: United States Patent and Trademark Office

USPTO PATENT APPLICATION BACKLOG - 4<sup>TH</sup> QUARTER 2008 TO 4<sup>TH</sup> QUARTER 2010



The patent backlog problem is in fact improving. "The pendency rate has definitely trended up over the past few years," commented Richard Campbell, partner at Procopio, Cory, Hargreaves & Savitch LLP. "However, that upward trend was from a historically low pendency rate. The USPTO is taking its substantial backlog and pendency rate (how long it takes to process an application) very seriously. The USPTO has introduced a number of programs, including the Patent

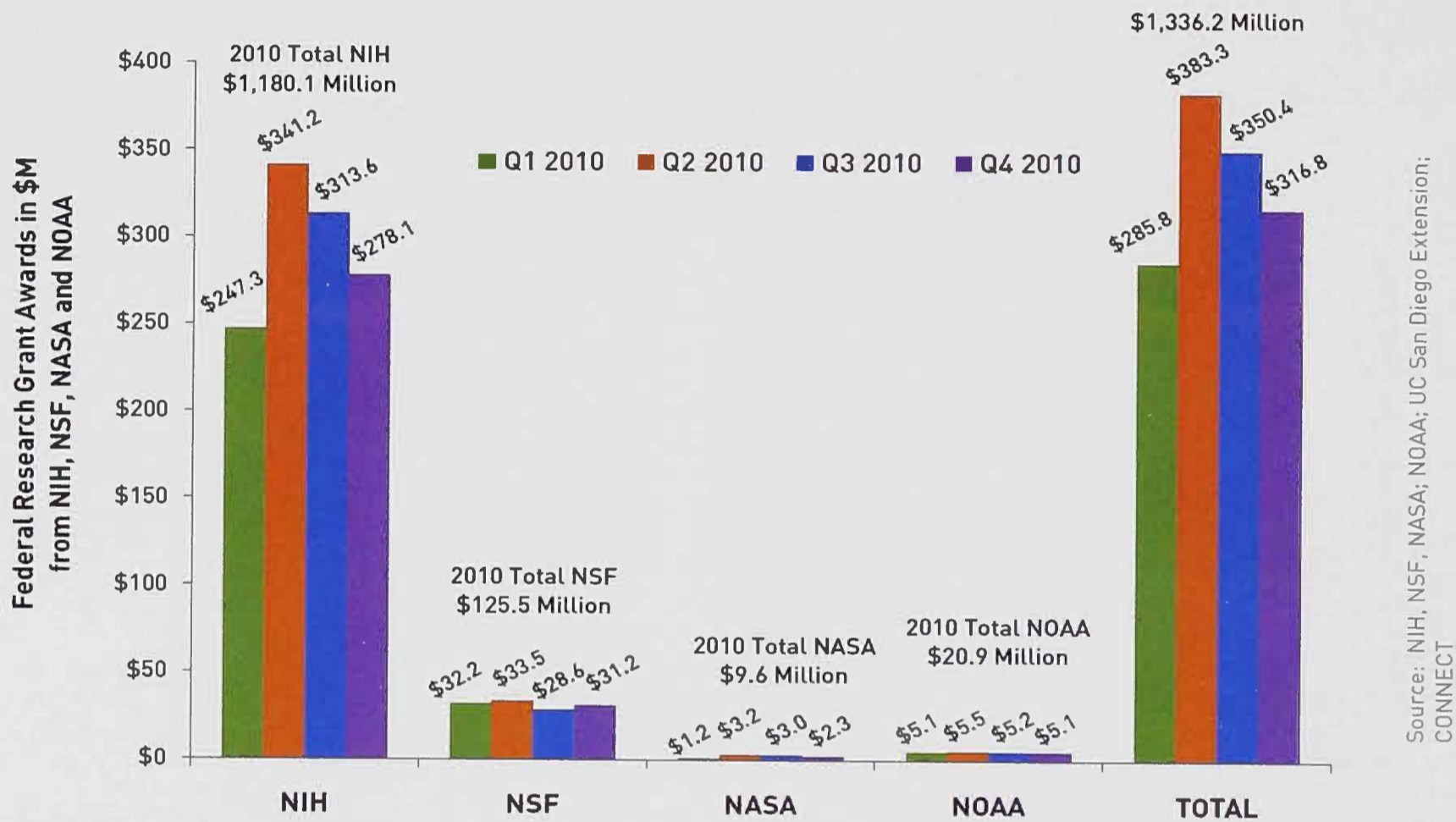
Prosecution Highway which allows the USPTO to use searches performed by other jurisdictions, to exam applications more quickly. The USPTO has also undertaken massive hiring in the recent past to address the backlog. The current USPTO pendency rate is still better than the European Patent Office and the Japanese patent office. Rather than the U.S. patent system being near the breaking point and stifling innovation, as some have claimed, from a longer term perspective, it is operating better than its longer term averages and is taking significant steps to further improve."

FEDERAL RESEARCH GRANTS: SAN DIEGO

2010 FEDERAL RESEARCH GRANT FUNDING FROM NIH, NSF, NASA and NOAA TOTALS \$1.3 B

Federal grant funding awarded in San Diego from the National Institutes of Health (NIH), the National Science Foundation (NSF), National Aeronautics and Space Administration (NASA) and the National Oceanic and Atmospheric Administration (NOAA) dipped 9% to \$317 million in the fourth quarter of 2010 from \$350 million in the third quarter of 2010. Federal research grant funding from the NIH, NSF, NASA and NOAA to San Diego totaled 1,336 million in 2010, up 45% from the \$919 million awarded to San Diego researchers and innovation companies in 2009. These grant award totals include SBIR/STTR funding from the four agencies (NIH, NSF, NASA and NOAA).

FEDERAL RESEARCH GRANTS RECEIVED IN SAN DIEGO IN 2010 – NIH, NSF, NASA AND NOAA



Source: NIH, NSF, NASA, NOAA; UC San Diego Extension; CONNECT

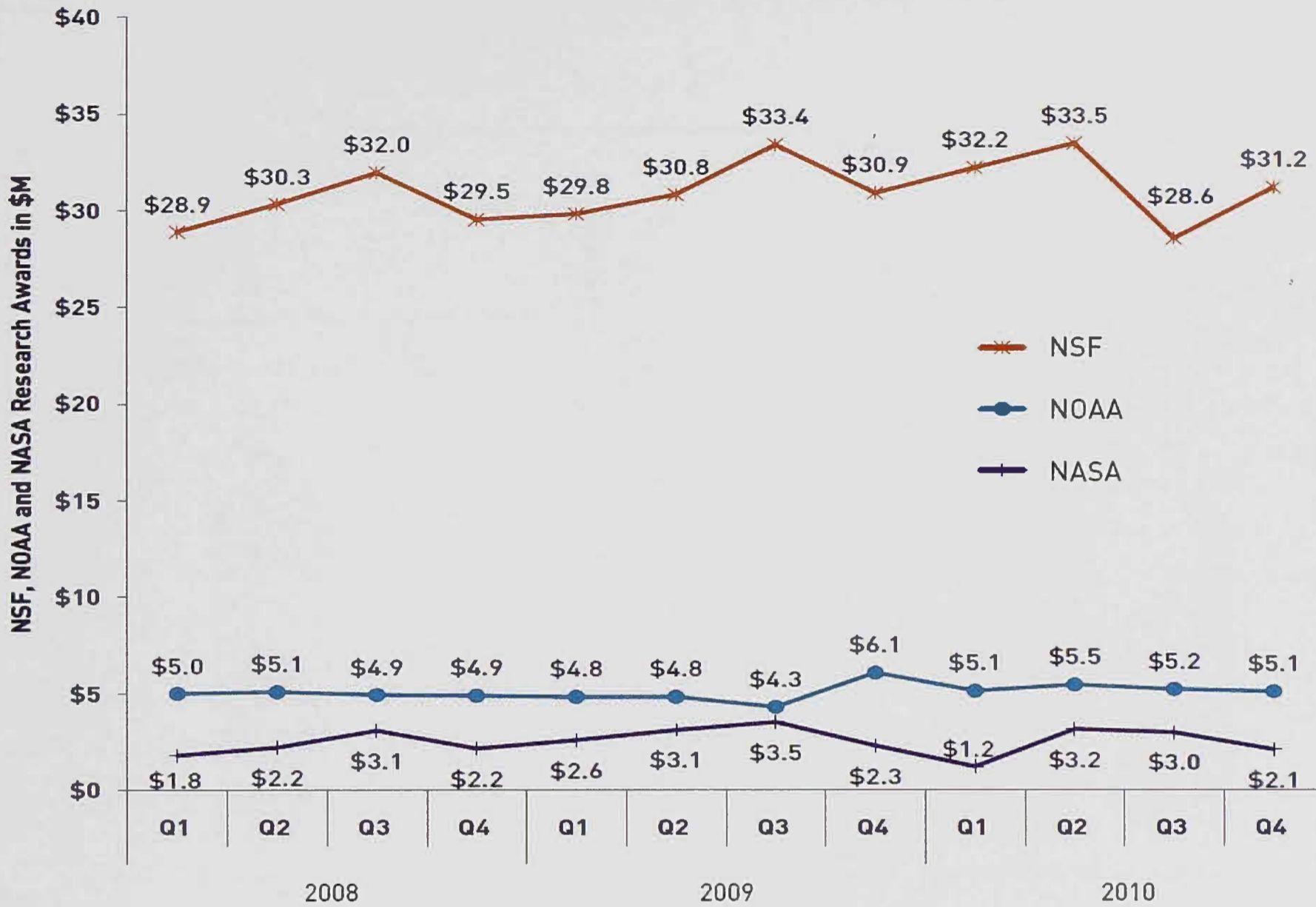
FEDERAL RESEARCH GRANTS RECEIVED IN SAN DIEGO – NIH 1<sup>ST</sup> QUARTER 2008 TO 4<sup>TH</sup> QUARTER 2010



Source: NIH; UC San Diego Extension; CONNECT

FEDERAL RESEARCH GRANTS: SAN DIEGO and CALIFORNIA (CONT'D)

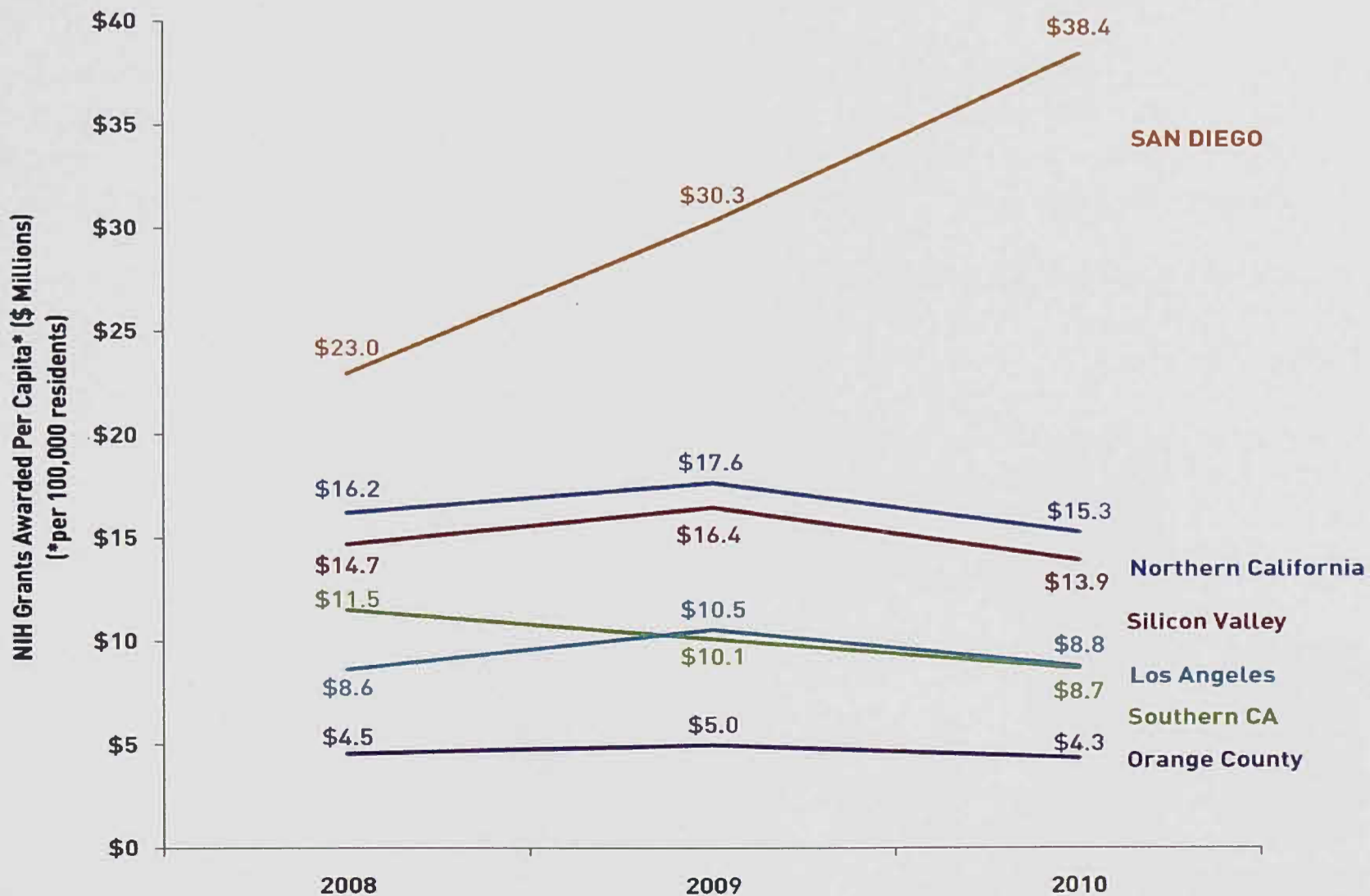
FEDERAL RESEARCH GRANTS RECEIVED IN SAN DIEGO – NSF, NOAA AND NASA Q1 2008 TO Q4 2010



Source: NSF; NOAA; NASA; UC San Diego Extension; CONNECT

SAN DIEGO LEADS CALIFORNIA IN NIH AND NSF FUNDING PER CAPITA

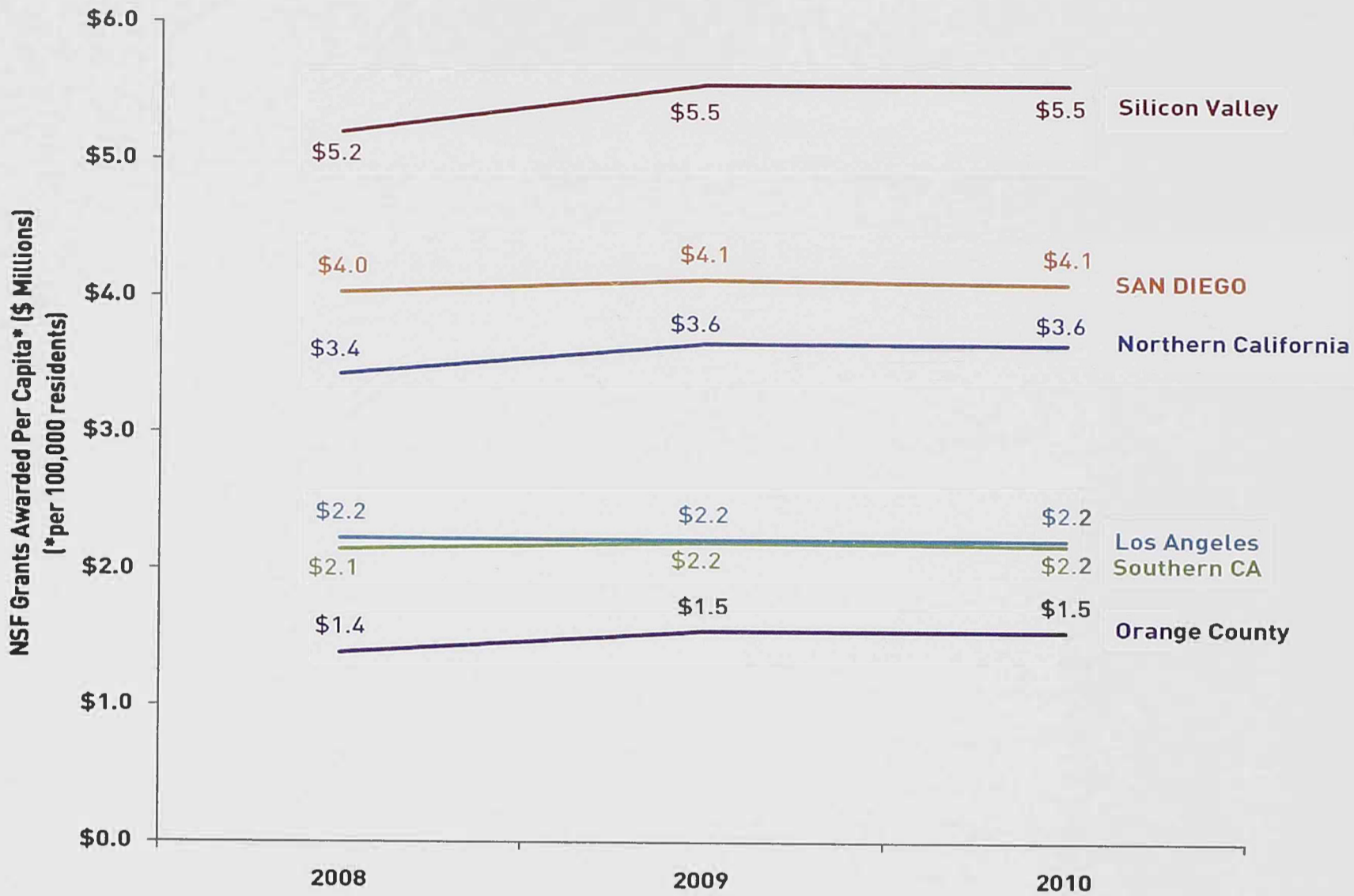
NIH GRANT FUNDING PER CAPITA - 2008 TO 2010



Source: NIH; UC San Diego Extension; CONNECT

FEDERAL RESEARCH GRANTS: SAN DIEGO and CALIFORNIA (CONT'D)

NSF GRANT FUNDING PER CAPITA - 2008 TO 2010



Source: NSF; UC San Diego Extension; CONNECT

San Diego was among the top innovation economies in the state based on the amount of federal grant funding per capita received from the National Institutes of Health (NIH) and the National Science Foundation (NSF) over the past three years. San Diego's NIH and NSF funding per capita totaled almost \$44 million in 2010.

Federal grant funding awarded in San Diego from the NIH totaled almost \$1.2 billion in 2010, up 28% from 2009 and more than 70% from 2008. NSF funding to San Diego research institutions and innovation companies totaled almost \$126 million in 2010, up slightly from the previous year. In the fourth quarter, San Diego received \$278 million in NIH funding and more than \$31 million in NSF funding.

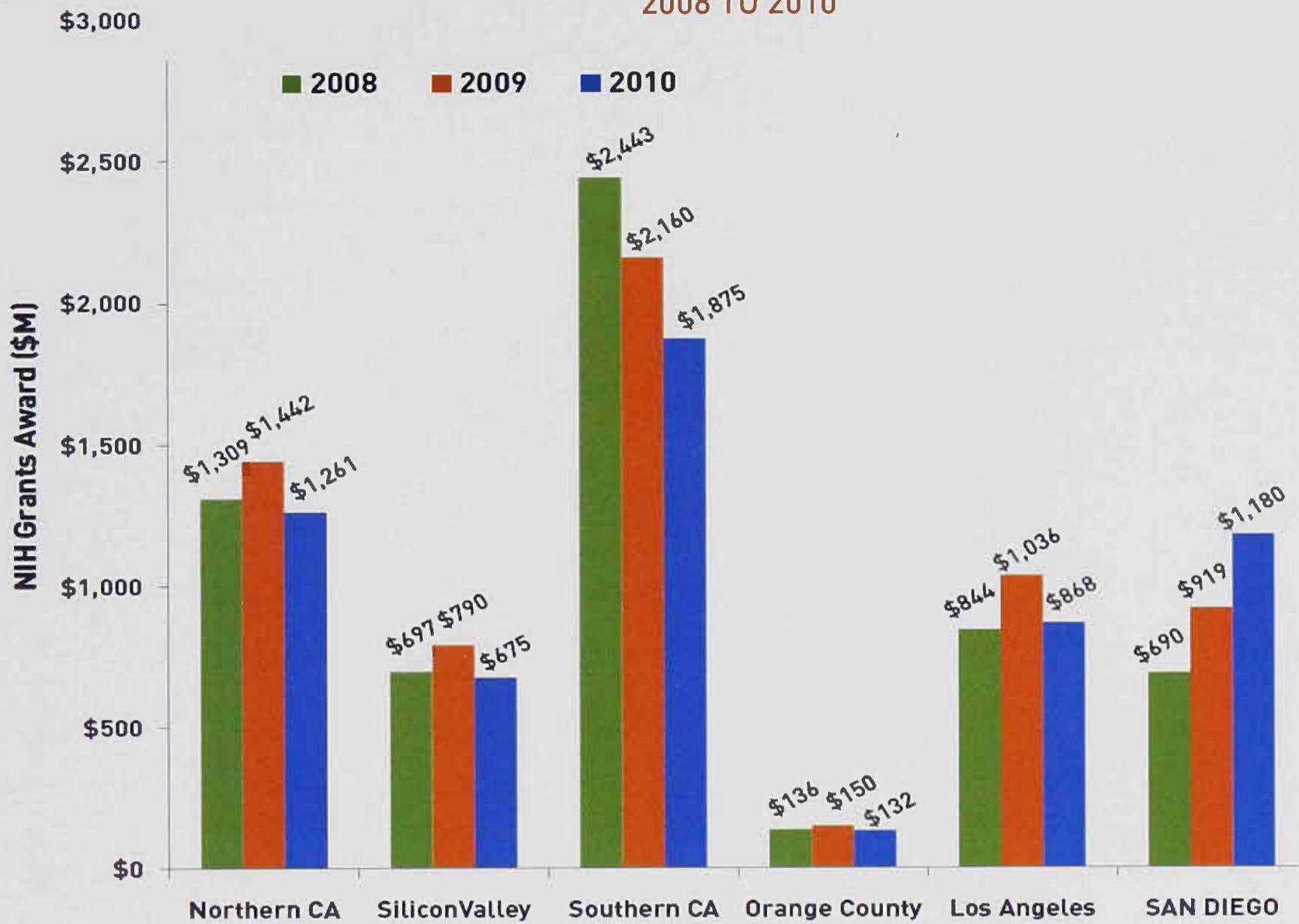
San Diego also received more than \$21 million in federal research funding from the National Oceanic and Atmospheric Administration (NOAA) and more than \$10 million from the National Aeronautics and Space Administration (NASA) in 2010.

San Diego received a quarter of the total amount of NIH funding awarded in California and 16% of the state's NSF awards during 2010 of the year. San Diego received \$1,180 million in NIH funding and \$126 million in NSF funding in 2010. Southern California received almost \$1,875 million in NIH funding and \$470 million in NSF funding, while northern California received \$1.3 billion in NIH funding and \$301 million from the NSF, 60% of which went to Silicon Valley.



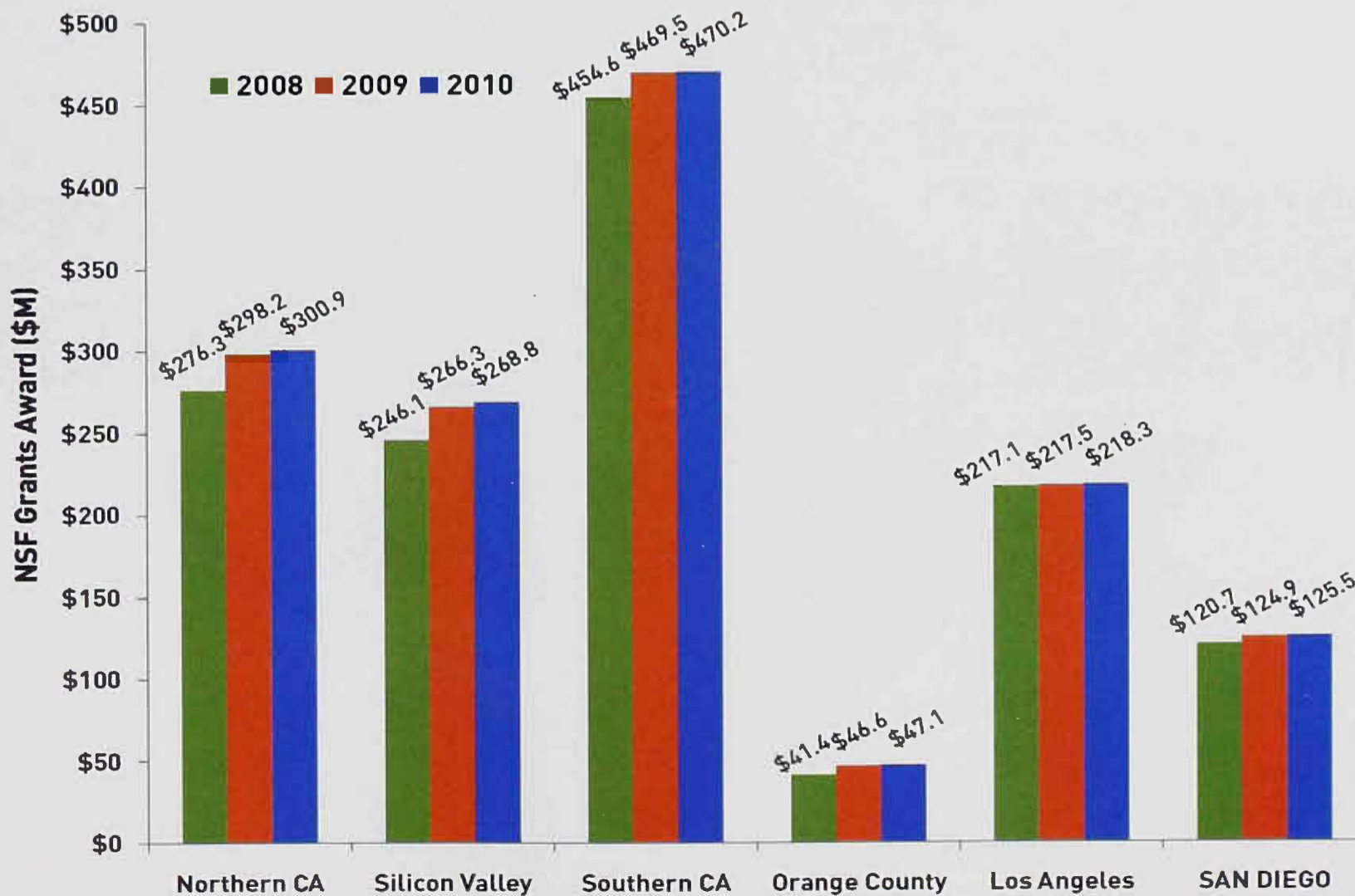
FEDERAL RESEARCH GRANTS: SAN DIEGO and CALIFORNIA (CONT'D)

NIH FUNDING RECEIVED - SAN DIEGO AND SELECTED REGIONS  
2008 TO 2010



Source: NIH; UC San Diego Extension; CONNECT

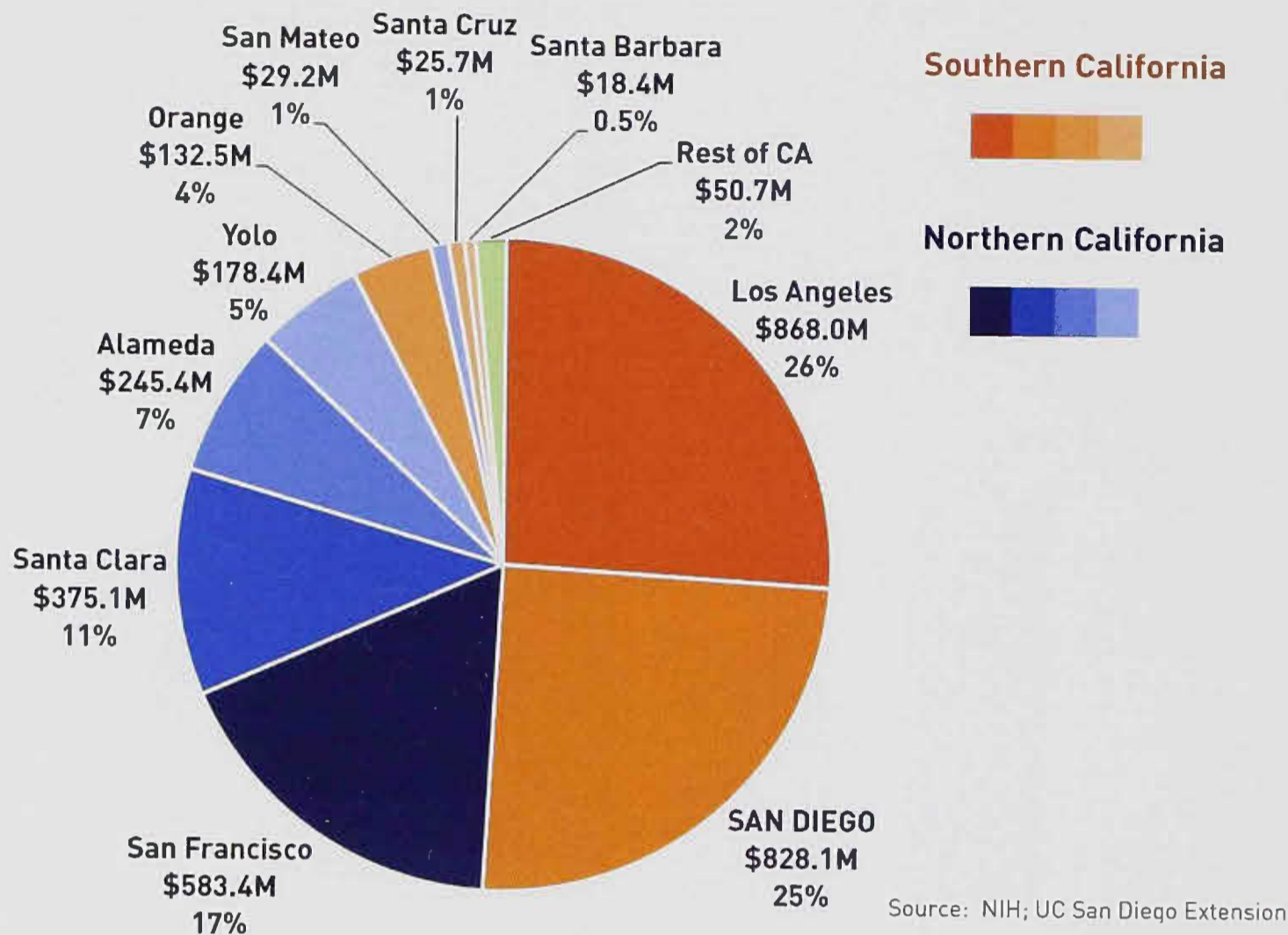
NSF FUNDING RECEIVED - SAN DIEGO AND SELECTED  
REGIONS  
2008 TO 2010



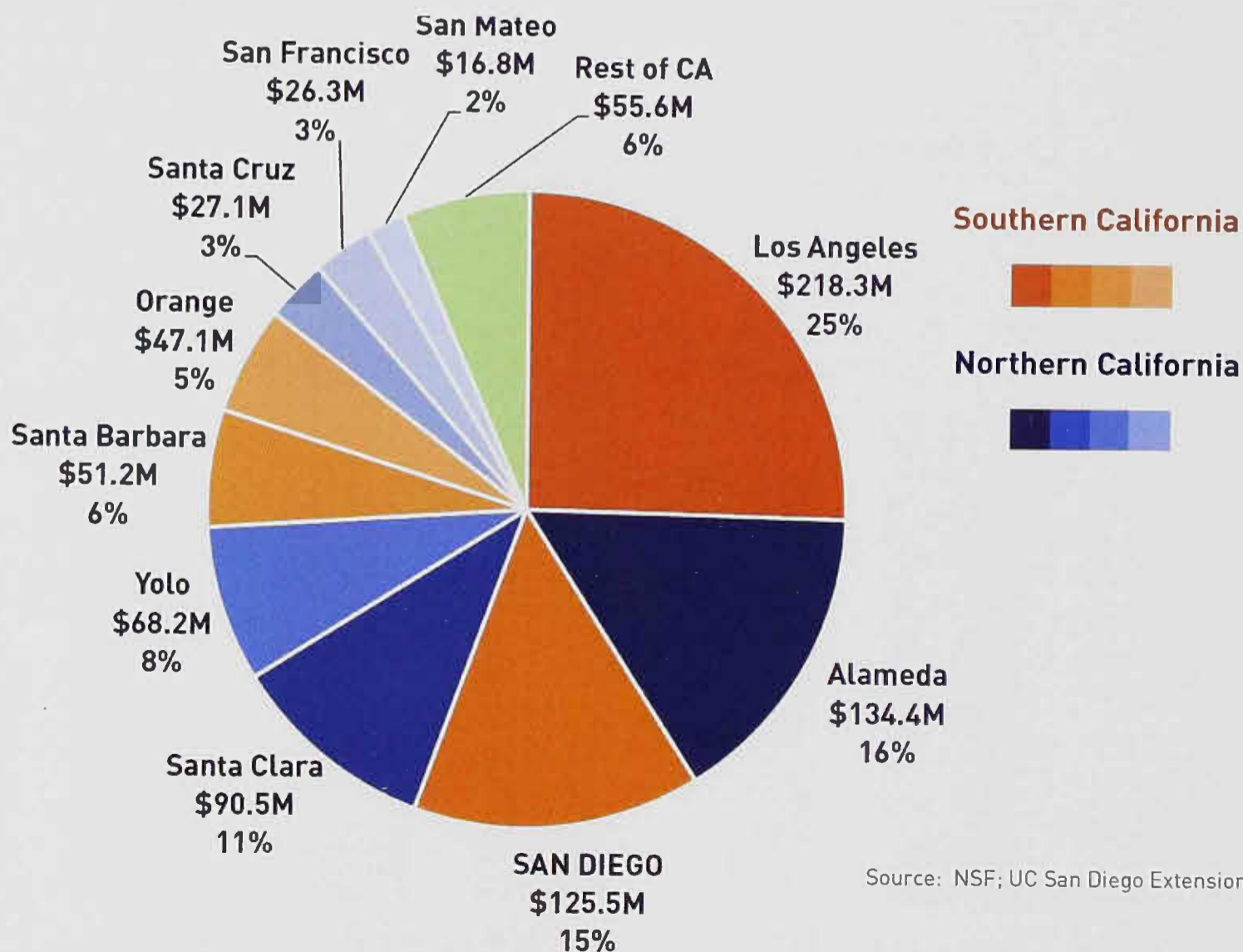
Source: NSF; UC San Diego Extension; CONNECT

FEDERAL RESEARCH GRANTS: SAN DIEGO and CALIFORNIA (CONT'D)

NIH FUNDING RECEIVED – TOP TEN CALIFORNIA COUNTIES  
 FULL YEAR 2010  
 CALIFORNIA TOTAL: \$3.5B



NSF FUNDING RECEIVED – TOP TEN CALIFORNIA COUNTIES  
 FULL YEAR 2010  
 CALIFORNIA TOTAL: \$861M



FEDERAL RESEARCH GRANTS: SAN DIEGO and CALIFORNIA (CONT'D)

DEFENSE SPENDING IN SAN DIEGO, CALIFORNIA and BOSTON – 2008 to 2010

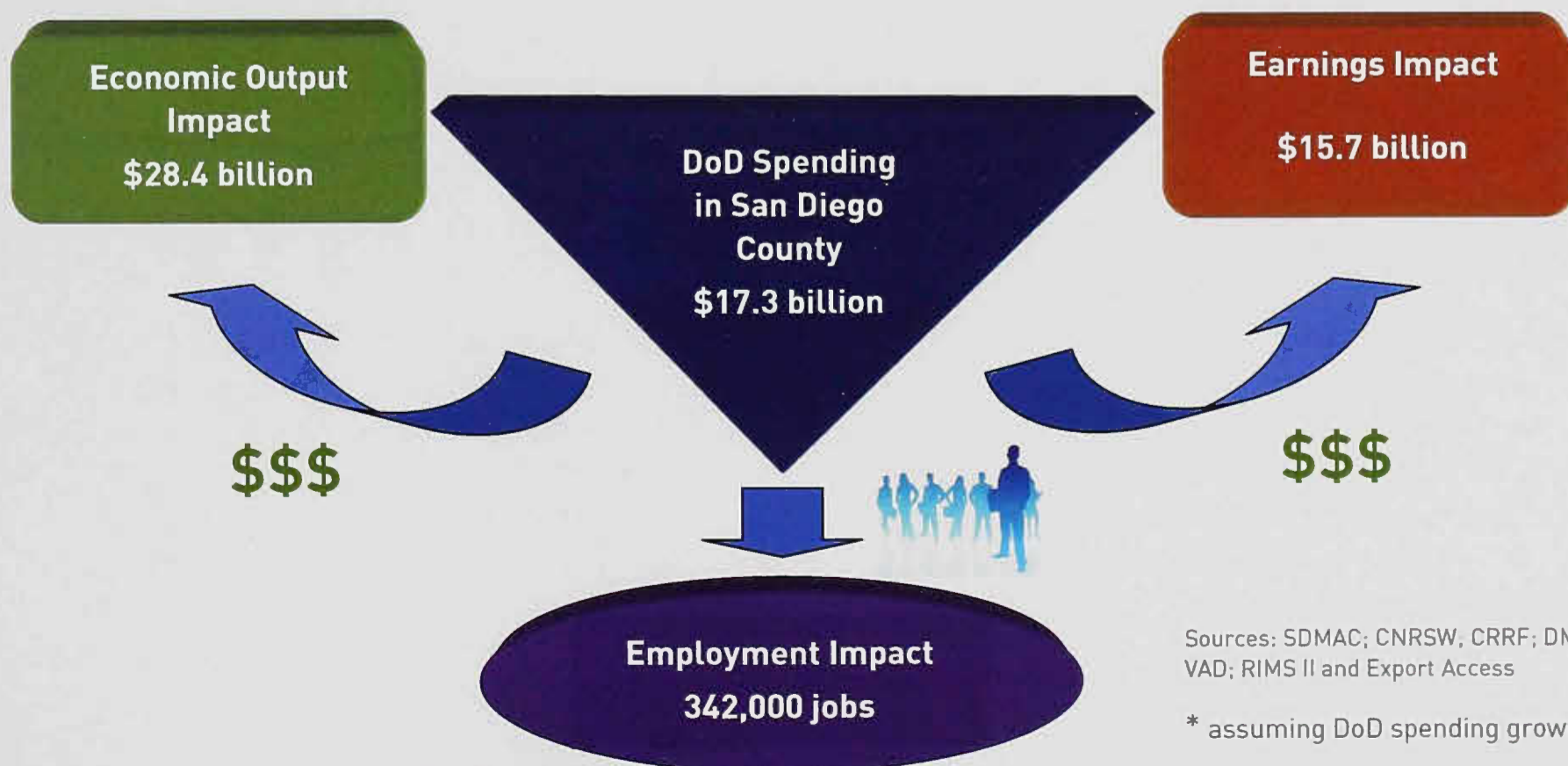
New in this quarter's Report is data from the Department of Defense that shows San Diego innovation companies received almost \$32 million in Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Program grants in 2010. Through these two competitive programs, the U.S. Small Business Administration (SBA) Office of Technology ensures that the nation's small, high-tech, innovative businesses are a significant part of the federal government's defense technology research and development efforts. Southern California led the state with almost \$147 in SBIR/STTR funding in 2010, down slightly (7%) from the previous year.

REGIONAL DoD SBIR/STTR FUNDING – 2008 to 2010



SBIR/STTR funding is only a small portion of total federal Department of Defense (DoD) spending in the San Diego region. The military comprises a significant part of the region's economy and provides high-quality middle-class and upper-middle-class jobs, procurement contracting with local companies and investing in research and development of advanced technologies such as autonomous unmanned vehicles, sensors and surveillance. In addition, the military is shifting a greater portion of its forces to the Pacific area of operations and is building infrastructure in San Diego accordingly. Expenditures in the area are likely to increase.

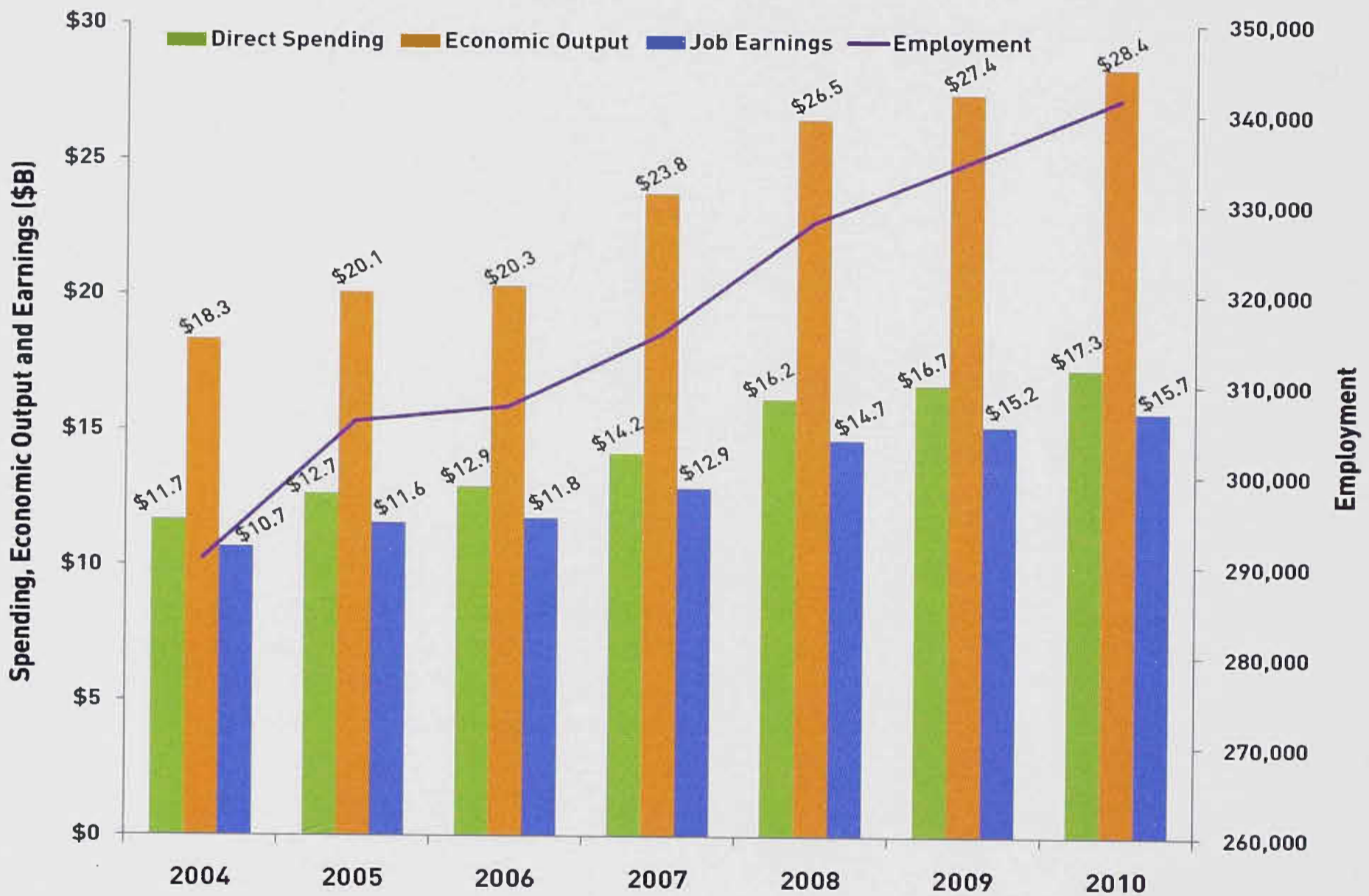
PROJECTED ECONOMIC IMPACT OF DEFENSE SPENDING IN SAN DIEGO COUNTY – 2010\*



**DEFENSE SPENDING IN SAN DIEGO (CONT'D)**

According to the San Diego Military Advisory Council (SDMAC) 2010 executive summary report *San Diego Military Economic Impact Study*, direct spending by the DoD is estimated to be more than \$17 billion in 2010 with an additional economic output impact of \$28 billion and almost \$16 billion in household earnings income. The summary report estimates that the military and its spending within the San Diego region directly and indirectly support approximately 340,000 jobs in San Diego County. The two business sectors that gain the most financially are the manufacturing and professional/technical services sectors. The economic impact for manufacturing is estimated to be \$5.5 billion and \$4.3 billion for professional/technical services in 2010. The 2011 SDMAC *San Diego Military Economic Impact Study* is expected to be released in early April 2011.

**PROJECTED ECONOMIC IMPACT OF DEFENSE SPENDING IN SAN DIEGO – 2004 TO 2010\***



Sources: SDMAC; CNRSW; CRRF; DMDC; NAVSUP; VAD; RIMS II and Export Access

\* assuming DoD spending growth rate of 3.5%

**FUTURE ISSUES: NEW DATA ON FEDERAL FUNDING – DoD AND DoE**

The CONNECT Innovation Report will release additional DoD data on federal defense spending for this important sector of the San Diego economy in comparison with the rest of the Southern California region in future reports. In addition, the Report will also include federal research funding provided by the Department of Energy (DoE) going forward. These data will complement the federal funding from the NIH, NSF, NASA and the NOAA that flows into the more than 80 research organizations as well as innovator companies in San Diego. This will show a more complete and rounded look at the value of federal funding on San Diego's innovation economy.

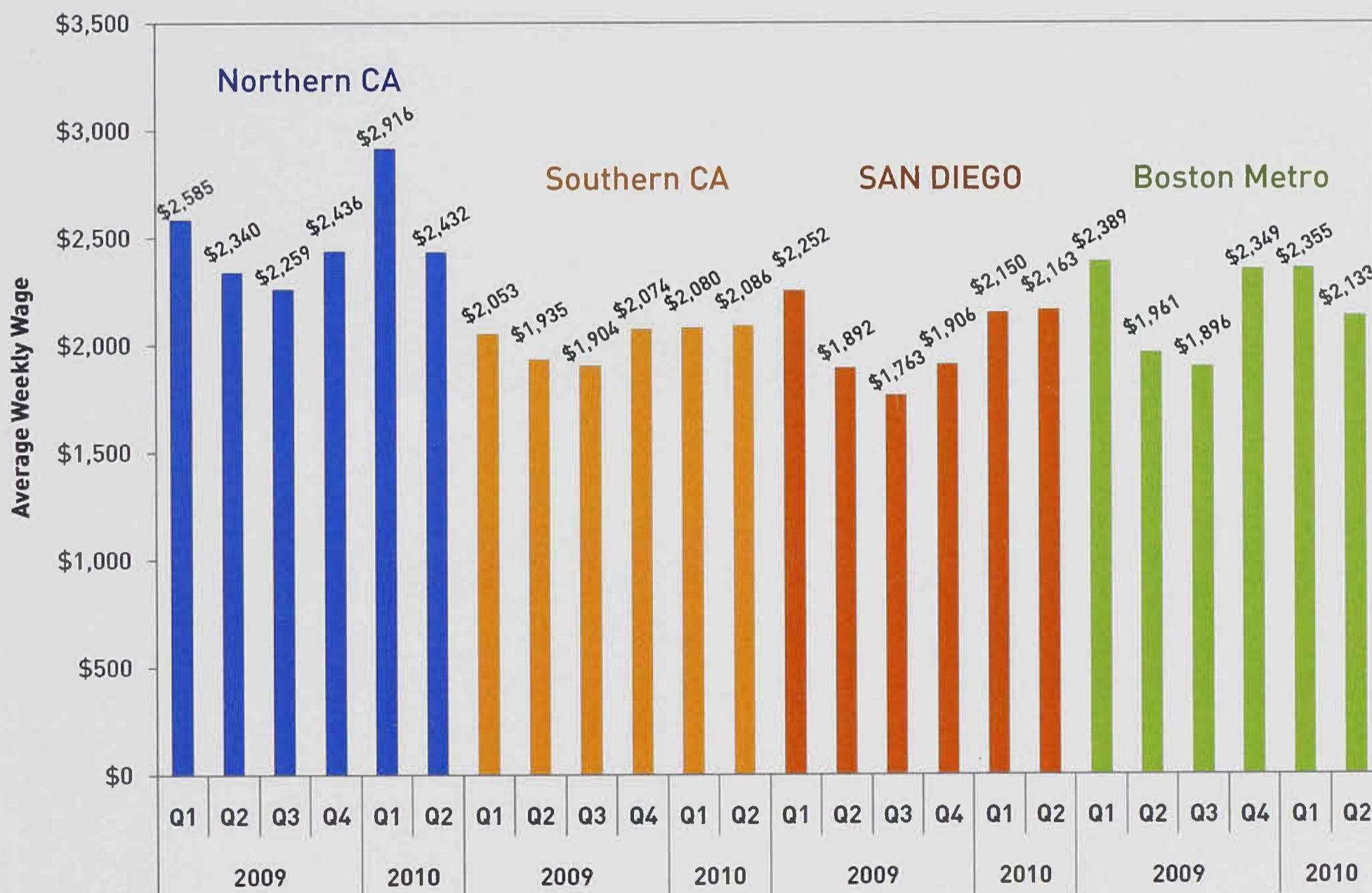
PRIVATE RESEARCH ORGANIZATION WAGES AND EMPLOYMENT

SAN DIEGO PRIVATE RESEARCH ORGANIZATION JOBS JUMP MORE THAN 30%, WAGES UP 14% FROM 2009

Average weekly wages paid by private research organizations in the second quarter of 2010 held even with first quarter wages in San Diego and Southern California according to the most recently available data from the U.S. Bureau of Labor Statistics. In northern California, private research organization average weekly wages decreased almost 17% in the second quarter of 2010 compared to the first quarter, returning to more typical average weekly earnings levels.

San Diego's average weekly wage was \$2,163 in the second quarter of 2010, up more than 14% from the second quarter of 2009. The average weekly wage for San Diego's private research organizations was 11% lower than the average in northern California, partially closing the gap between San Diego and the Bay Area, which historically sees higher wages for researchers. San Diego private research organization average weekly wage was somewhat higher (4%) than in southern California and, for the first time in more than a year, slightly higher than in the Boston metro region in the second quarter of 2010.

REGIONAL PRIVATE RESEARCH ORGANIZATION AVERAGE WAGES  
1<sup>ST</sup> QUARTER 2009 TO 2<sup>ND</sup> QUARTER 2010



Source: Quarterly Census of Employment, U.S. Bureau of Labor Statistics; UC San Diego Extension

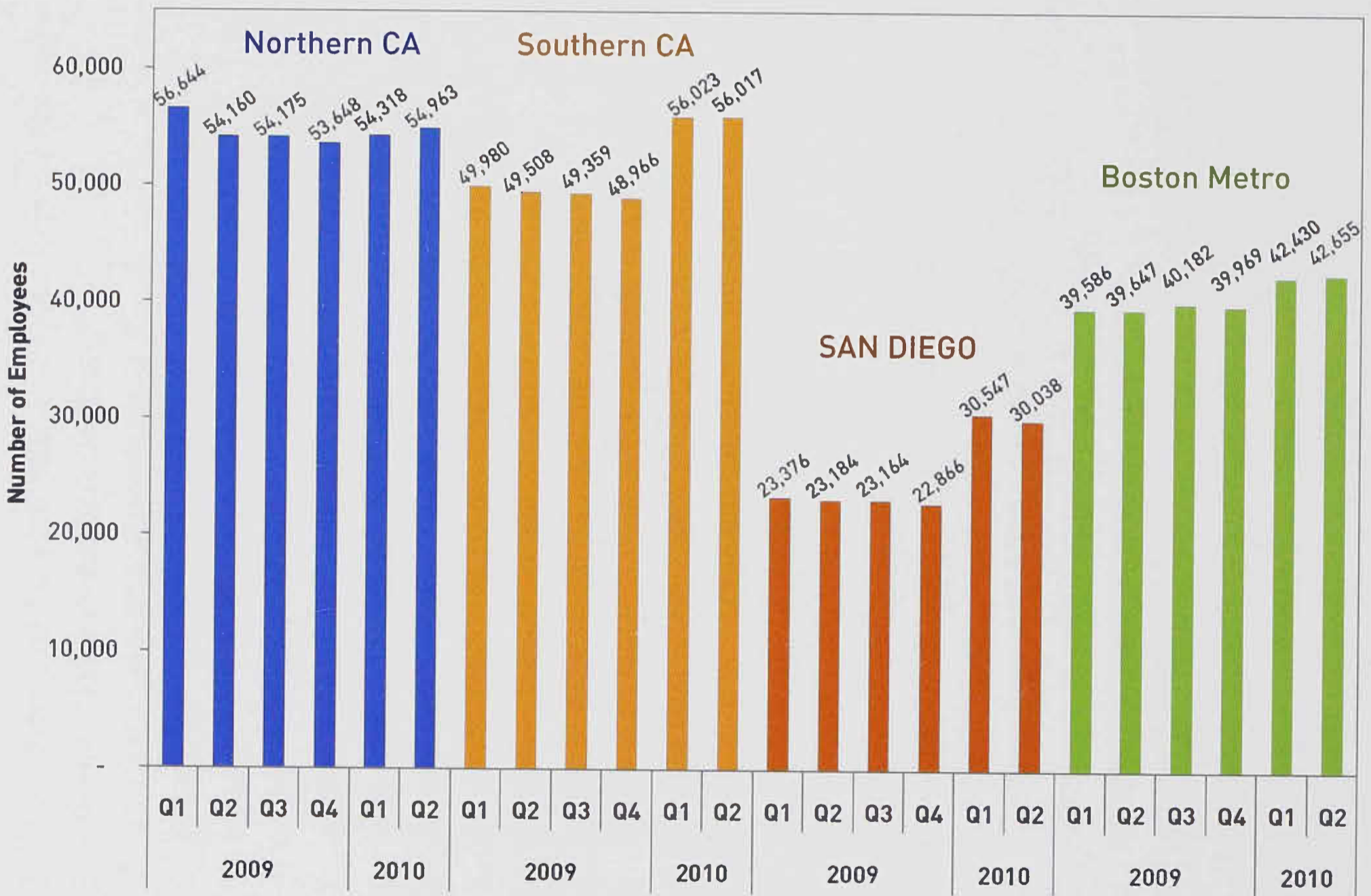
PRIVATE RESEARCH ORGANIZATION WAGES AND EMPLOYMENT (CONT'D)

SOUTHERN CALIFORNIA LEADS CALIFORNIA IN NUMBER OF PRIVATE RESEARCH JOBS

Southern California now leads the state in the number of jobs for private research organizations. Southern California private research organizations had slightly more than 56,000 employees in the second quarter compared to in the 54,963 employees in the northern California region.

The Southern California region showed a substantial increase in private research organization employment in the first quarter of 2010. This net increase in Southern California was due to the substantial increase in San Diego research organization jobs in the first quarter of 2010. This increased number of jobs held steady through the second quarter. San Diego private research organizations employed 30,000 employees in the second quarter of 2010 – up 30% from almost 23,184 in the second quarter of 2009.

REGIONAL PRIVATE RESEARCH ORGANIZATION EMPLOYMENT  
1<sup>ST</sup> QUARTER 2009 TO 2<sup>ND</sup> QUARTER 2010



Source: Quarterly Census of Employment, U.S. Bureau of Labor Statistics; UC San Diego Extension

APPENDIX: SAN DIEGO RESEARCH INSTITUTIONS

SAN DIEGO IS HOME TO MORE THAN 80 LEADING RESEARCH INSTITUTES . . .



. . . AND MORE THAN 10 CONVERGENCE RESEARCH INSTITUTES



“What attracted me to move to San Diego was the most impressive trans-disciplinary life science talent in the country — from all the research institutes on the Torrey Pines Mesa to the region’s rich life science industry. But what I had not anticipated — and what has turned out to be the most incredible convergence and unprecedented brain trust — is bringing together the fields of life science and wireless to reboot the future of medicine.”

**Eric Topol, M.D.**

Vice Chairman of the Board and Chief Innovation Officer,  
West Wireless Health Institute  
Director, Scripps Translational Science Institute

## APPENDIX: SAN DIEGO RESEARCH INSTITUTIONS (CONT'D)

## SAN DIEGO RESEARCH INSTITUTES:

## UC SAN DIEGO

**UC San Diego**

UC San Diego is a powerful magnet for those seeking a fresh, next-generation approach to education and research. Since its founding over four decades ago, UC San Diego has become one of the 10 campuses in the world-renowned University of California system. The National Science Foundation (NSF) ranks UC San Diego No. 7 in the nation in federal R&D expenditures. The university's faculty and alumni have spun-off at least 200 local companies, including more than one third of the region's biotech companies.

**BioCircuits Institute (BCI)**

BCI focuses on understanding the dynamic properties of biological regulatory circuits that control their homeostasis and signal responsiveness. The mission of BCI is the development and experimental validation of theoretical and computational models to understand, predict and control complex biological functions; and the implementation of these functions in practical engineering solutions.

**California Institute for Telecommunications and Information Technology (Calit2)**

Calit2 represents a new mechanism to address large-scale societal issues by bringing together multidisciplinary teams of the best minds in a way that had been impossible earlier. Calit2 is taking ideas beyond theory into practice, accelerating innovation and shortening the time to product development and job creation. Where the university traditionally has focused on education and research, Calit2 extends that focus to include development and deployment of prototype infrastructure for testing new solutions in a real-world context.

**Center for Algorithmic and Systems Biology (CASB)**

CASB is dedicated to the study of computational approaches in biological sciences. It will serve as a worldwide bioinformatics conference center and forum for researchers in algorithmic and systems biology. CASB also aims to promote interactions among different departments at UC San Diego, among different institutions in the San Diego region and between academia and industry. CASB also supports both original research and educational activities in bioinformatics.

**Center for Astrophysics and Space Sciences (CASS)**

CASS is an interdisciplinary research unit for research and graduate study in astronomy, astrophysics and space sciences. Areas of specialization include high-energy astrophysics, optical and ultraviolet astronomy, infrared astronomy, radio astronomy, theoretical astrophysics, cosmology, solar physics, space plasma physics, interferometry and astronomical instrumentation.

**Center for Brain and Cognition (CBC)**

CBC (previously the Center for Human Information Processing) has the goal of developing new therapeutic approaches for the treatment of neurological and psychiatric patients, e.g., stroke and childhood autism, and to understand the neural basis of human behavior.

**Center for Chronobiology (CCB)**

CCB offers administrative support to improve the effectiveness of chronobiology research programs and to facilitate multi-investigator interactions. The mission of the CCB is to foster innovative research that reveals the mechanisms, general principles and applications of biological rhythms in diverse organisms.

**Center for Comparative Immigration Studies (CCIS)**

CCIS provides a unique institutional home for understanding the challenges and opportunities created by international migration to California, the United States as a whole and other countries around the world. CCIS focuses on Mexican migration to California and comparative, cross-national and cross-regional research on international migratory movements, immigration policy and citizenship policy.

**Center for Energy Research (CER)**

CER is an organized research unit aimed at coordinating and promoting energy research and education. CER provides a venue for interdisciplinary interactions among UC San Diego faculty, researchers, students and the public. Members of CER perform basic and applied research in the fields of fusion energy, solar energy, combustion and related disciplines.



## APPENDIX: SAN DIEGO RESEARCH INSTITUTIONS (CONT'D)

## UC SAN DIEGO (CONT'D)

**Center for Human Development (CHD)**

CHD is an interdisciplinary research unit designed to meet the growing need for cross-disciplinary exchange on issues related to human development. The goal of CHD is to provide a forum to enhance dialogue among members from multiple disciplines, all of whom share common research interests in the developmental sciences, but rarely have the opportunity to meet and exchange ideas.

**Center for Iberian and Latin American Studies (CILAS)**

CILAS emphasizes interdisciplinary and comparative approaches to research on Latin America (plus the Iberian Peninsula). CILAS regularly hosts visiting scholars from Spain and Latin America, and provides research fellowships for UC San Diego graduate students as well.

**Center for Magnetic Recording Research (CMRR)**

CMRR is pursuing a dynamic, interdisciplinary program of cutting-edge research defined in cooperation with government agencies and industry partners. The Center's faculty, researchers and students continue to push the frontiers of scientific knowledge and engineering technology to meet society's ever-increasing need for high-performance, reliable and secure information storage systems.

**Center for Networked Systems (CNS)**

The CNS is a partnership of leading networked system technology providers and operators with leading networking researchers and a dynamic organization solving critical technical problems and accelerating the rapid growth of networked systems (both applications and adoption).

**Center for NMR Spectroscopy and Imaging of Proteins**

The Center's primary focus is to provide UC San Diego researchers and external users with access to NMR services and state-of-the-art NMR equipment. The facility is subdivided into two centers: the chemistry NMR facility and the biomolecular NMR facility.

**Center for Research in Computing and the Arts (CRCA)**

CRCA is an organized research unit that facilitates the creation of vanguard culture via computer science research. Areas of current activity include next generation digital media, multi-core computing, experimental computer games, future cinema, networked multimedia, software studies, cultural visualization, science/art collaborations, virtual reality and computer-spatialized audio.

**Center for Research in Language (CRL)**

CRL brings together faculty, students and research associates who share an interest in the nature of language, the processes by which language is acquired and used and the mediation of language in the human brain.

**Center for Theoretical Biological Physics (CTBP)**

CTBP is one of nine Physics Frontiers Centers established by the Mathematics and Physical Sciences Directorate of the NSF. CTBP represents a collaboration between UC San Diego and The Salk Institute for Biological Studies, and CTBP encompasses a broad spectrum of research and training activities at the forefront of the biology-physics interface.

**Center for Wireless Communications (CWC)**

CWC was established in February 1995, and rapidly became a leader in wireless communications research. With its preeminent faculty and high-caliber graduate students, the CWC partners with companies in the private sector to address the emerging needs of the wireless communications industry. CWC faculty and students are engaged in a broad range of research areas relevant to the wireless industry: wireless applications, networking, digital communication systems and high-speed integrated circuits.

**Charles Lee Powell Structural Research Laboratories**

The Powell Labs are multiple-location, multi-million-dollar facilities dedicated to research at the materials, component, assembly and systems levels. The Powell Labs feature one of the largest assemblies of reaction-wall, strong floor systems in the world.

**Cymer Center for Control Systems and Dynamics (CCCSD)**

The CCCSD maintains the highest international academic profile of UC San Diego's control program; serves as a catalyst for interaction with industry and federal research sponsors; fosters collaborations with researchers from other fields; and recruits outstanding undergraduates, graduate students, postdocs and faculty in control systems to UC San Diego.

## APPENDIX: SAN DIEGO RESEARCH INSTITUTIONS (CONT'D)

## UC SAN DIEGO (CONT'D)

**Division of Biological Sciences**

The cutting-edge research within the Division of Biological Sciences addresses some of the most perplexing and urgent issues of our time, from cures for cancer and diabetes to understanding neurological disorders such as Alzheimer's; from cleaning up the environment to protecting the world's food supply; from looking for biofuel alternatives to petroleum to understanding climate change and its effects on all forms of life.

**Information Theory and Applications Center (ITA)**

The ITA is dedicated to the study of information theory fundamentals and their relations to communications, computer and life sciences, finance, statistics and related disciplines. ITA supports both original research and educational activities in these areas.

**Institute for International Comparative and Area Studies (IICAS)**

IICAS was created in 2001 to promote research on international, comparative and cross regional topics and foreign area studies. Building on the substantial existing strengths of UC San Diego in international and area studies, IICAS coordinates and supports the research of faculty in departments, area studies programs and the Graduate School of International Relations and Pacific Studies (IR/PS).

**Institute for Neural Computation (INC)**

INC is an organized research unit with 44 members representing 14 research disciplines. Members are devoted to the research and development of a new generation of massively parallel computers through a cohesive plan of research, spanning the areas of neuroscience, visual science, cognitive science, artificial intelligence, mathematics, economics and social science and computer engineering.

**Institute of Engineering in Medicine (IEM)**

Research at IEM focuses on the convergence of disease, technology and sciences by applying an engineering approach to medicine. The Institute's four disease focus areas are cancer, cardiovascular diseases, metabolic disorders and neurodegenerative diseases. The technology areas include imaging, genotyping-phenotyping, bioinformatics and system biology, medical devices and instrumentation, nanotechnology and nanomedicine and stem cells.

**Institute on Global Conflict and Cooperation (IGCC)**

IGCC researchers study a wide range of topics involving security, environmental and economic policies that shape our ability to prevent conflict and promote cooperation across the globe. IGCC's ongoing work in its core areas is complemented by the recognition that evolving threats to global stability require exploration of nontraditional connections between and across disciplines and institutions.

**Kavli Institute for Brain and Mind (KIBM)**

KIBM researchers bridge disciplinary boundaries to further our understanding of the origins, evolution and mechanisms of human cognition, from the brain's physical and biochemical machinery to the experiences and behaviors we call the mind.

**San Diego Center for Algae Biotechnology (SD-CAB)**

SD-CAB supports the development of innovative, sustainable and commercially viable algae-based biotechnology solutions for renewable energy, green chemistry, bio-products, water conservation and CO<sub>2</sub> abatement. The Center incorporates international research scientists from the fields of biology, chemistry, engineering, economics and policy.

**San Diego Supercomputer Center (SDSC)**

SDSC serves as a critical IT partner to large-scale research projects in life sciences, geosciences, engineering and other disciplines. SDSC researchers collaborate on projects ranging from cellular signaling to earthquake effects to preserving large and irreplaceable data.

**Whitaker Institute for Biomedical Engineering (WIBE)**

The major areas of tissue engineering science pursued in WIBE are the heart, blood vessels, blood, lung, kidney, liver, pancreas, muscle, bone, cartilage, tendon, ligament, skin, nerve, brain, retina and cochlea.

**White Mountain Research Station (WMRS)**

The WMRS has a 60-year history of fostering scientific advancement and has played an important role in scientific milestones including measurement of cosmic background radiation, physiology of breathing, ecophysiology of hibernation, paleoclimate in ancient bristlecone pines and more. Research in these and diverse other subjects, continues vigorously today. The station has also hosted thousands of students in field classes and is prominent in the field training of geologists nationally and worldwide.

**APPENDIX: SAN DIEGO RESEARCH INSTITUTIONS (CONT'D)****UC SAN DIEGO SCHOOL OF MEDICINE****UC San Diego Medical Center**

A cure for a rare form of leukemia, a remarkable clot-busting drug for stroke victims, a technique that freezes heart tissue to correct irregular heartbeats, that's the power of academic medicine. It's at UC San Diego Medical Center that some of the brightest medical and scientific minds collaborate to discover breakthroughs that become the standard at hospitals throughout the country and the world.

**AIDS Research Institute (ARI)**

ARI will serve as the nexus for AIDS researchers to share research and ideas and, together, devise new approaches to the prevention, diagnosis and treatment of AIDS.

**Alzheimer's Disease Research Center (ADRC)**

The overall objective of ADRC is to maintain research subjects, clinical resources and clinical data to support ongoing and proposed research and to assist in the development of new clinical and interdisciplinary research. The Center also focuses on refining and evaluating clinical and neuropsychological assessment procedures for accurate identification of mild cognitive impairment and the transition to Alzheimer's disease in very mildly impaired subjects.

**Biomedical Genomics Microarray (BIOGEM)**

BIOGEM is a genomics facility located in the Department of Medicine. Established in 2000, BIOGEM provides spotted cDNA microarray technology to the UC San Diego research community. Since then, the scope has been expanded to include a variety of related services and resources, including several commercial microarray platforms and second generation sequencing technology.

**Center for Academic Research and Training in Anthropogeny (CARTA)**

CARTA is a virtual organization formed in order to promote trans-disciplinary research into human origins, drawing on methods from a number of traditional disciplines spanning the humanities, social, biomedical, biological, computational, engineering and physical and chemical sciences.

**Center for AIDS Research (CFAR)**

The mission of the CFAR is to provide administrative and shared research support to synergistically enhance and coordinate high quality AIDS research projects. CFAR accomplishes this through core facilities that provide expertise, resources and services not otherwise readily obtained through more traditional funding mechanisms.

**Center for Research in Biological Systems (CRBS)**

CRBS is an organized research unit that exists to provide human resources, high technology equipment and administrative services to researchers engaged in fundamental research on cell structure and function relationships. The Center focuses particularly on those involved in central nervous system processes, cardiovascular networking and muscular contraction.

**Clinical and Translational Research Institute (CTRI)**

CTRI advances healthcare through interactions between basic scientists, clinical investigators, community physicians and patients. The Institute intends to address the barriers that inhibit productivity and rapid translation of research progress into new therapies.

**Glycobiology Research and Training Center (GRTC)**

The primary goal of the GRTC is to facilitate and enhance glycobiology research and training by UC faculty with the minimum possible paperwork and bureaucracy.

**Institute for Genomic Medicine (IGM)**

The IGM aims to link clinical and genomic information to facilitate personalized healthcare. By combining UC San Diego's expertise in genetics, disease biology and clinical practice with its strengths in computer science, bioinformatics and systems biology, the IGM is uniquely positioned to support all activities along the continuum of genomic medicine.

**Ludwig Institute for Cancer Research**

The Ludwig Institute for Cancer Research is located at UC San Diego and is affiliated with the UC San Diego Medical School and the Moores UC San Diego Cancer Center. The seven groups within the Institute focus mainly on cancer genetics, cell signaling, gene regulation and mechanisms of cell division. The Institute has made important achievements investigating the processes that cells use to maintain the integrity of their genome, and how failure in these processes can lead to cancer.

## APPENDIX: SAN DIEGO RESEARCH INSTITUTIONS (CONT'D)

### UC SAN DIEGO SCHOOL OF MEDICINE (CONT'D)

#### Moore's Cancer Center

The Moore's Cancer Center is one of just 41 centers in the United States to hold a National Cancer Institute (NCI) designation as a Comprehensive Cancer Center. As such, it ranks among the top centers in the nation conducting basic and clinical cancer research, providing advanced patient care and serving the community through outreach and education programs.

#### The Sam and Rose Stein Institute for Research on Aging

The long-term goal of the Stein Institute is to promote interdisciplinary programs concerning the basic biology of senescence, the role of free radicals and other environmental toxins in the aging process and the pathophysiology of age-related illnesses such as Alzheimer's disease, arthritis, atherosclerosis and cancer. In addition, the Institute fosters training and education in geriatrics and gerontology.

#### Shiley Eye Center

Built in 1991, the Shiley Eye Center is home to academic and basic research, innovative and unique surgical practices and patient treatment for a wide variety of ophthalmologic concerns.

#### The Skaggs School of Pharmacy and Pharmaceutical Sciences (SSPPS)

Illustrating the interdisciplinary culture, SSPPS pharmacy and medical students develop a foundation in the biomedical sciences in common classes and shared volunteer community clinical experiences.

#### Sulpizio Family Cardiovascular Center

The Sulpizio Family Cardiovascular Center is a state-of-the-art facility uniting leaders in cardiovascular medicine, cardiothoracic surgery, pulmonary vascular medicine, vascular surgery, cardiovascular imaging and cardiovascular research to battle heart disease and stroke.

### SCRIPPS INSTITUTION OF OCEANOGRAPHY (SIO)

#### SIO

Scientific investigations at SIO span the realms of sea, air, land and life in efforts to determine how Earth systems work and interact. At SIO, observation, measurement and collection of samples and data are accomplished on a global scale by extensive shipboard, ground and aerial operations, including remote sensing by satellite and the use of wide-ranging instrument networks.

#### Center for Atmospheric Sciences (CAS)

CAS conducts fundamental investigations of the atmosphere related to climate and climate change. The current focus of CAS researchers is on topics such as the physics and chemistry of the particles in the atmosphere to the role of aerosols, clouds and water vapor in climate.

#### Center for Marine Biodiversity and Conservation (CMBC)

The CMBC is a virtual center of interdisciplinary cooperation in research and education that seeks to make SIO the world leader in the understanding, conservation and management of global marine biodiversity and a model for excellence in interdisciplinary education and research in marine biodiversity and conservation.

#### Center for Marine Biotechnology and Biomedicine (CMBB)

CMBB's research programs focus on marine biomedicine and marine drug discovery with an emphasis on cancer and both infectious and inflammatory diseases. CMBB scientists investigate a wide range of biotechnologies, from the special properties of deep-sea marine microbes to the genetic engineering of commercially viable marine animals.

#### Center for Observations, Modeling and Prediction at Scripps (COMPAS)

COMPAS was formed as a concerted and inter-disciplinary effort in numerical modeling and is intended to help lead the Institution into the future of ocean, land and climate research. COMPAS was intended to couple ocean, atmosphere and land models with small-scale process studies and observations in order to enhance simulation, hindcast and forecasts of key processes.

#### Institute of Geophysics and Planetary Physics (IGPP)

The IGPP promotes and coordinates basic research on the understanding of the origin, structure and evolution of the Earth, the Solar System and the Universe. The Institute also focuses on the prediction of future changes as they affect human life.

## APPENDIX: SAN DIEGO RESEARCH INSTITUTIONS (CONT'D)

### SCRIPPS INSTITUTION OF OCEANOGRAPHY (SIO) (CONT'D)

#### Joint Institute for Marine Observations (JIMO)

The objective of JIMO is to unify the resources and expertise of a research-oriented university or institution with Oceanic and Atmospheric Research (OAR) and other National Oceanic and Atmospheric Administration (NOAA) branches in an effort to develop and maintain a center of excellence in research into understanding the Earth's oceans and atmosphere.

#### Scripps Genome Center (SGC)

The SGC, part of the Marine Biology Research Division of SIO, is working to integrate the rapidly expanding world of marine genomics into mainstream marine biology research. The Center provides guidance, resources and access to cutting-edge bioinformatics tools.

### SCRIPPS HEALTH

#### Scripps Clinic

In an effort to stay on the leading edge of patient care, at Scripps Clinic physicians conduct groundbreaking clinical and laboratory research. Hundreds of the Clinic's publications have been presented nationally and internationally and members of the team have been granted several awards for their innovative research contributions.

#### Scripps Translational Science Institute (STSI)

The mission of STSI is to innovate, transform and fully integrate clinical and translational research. In conjunction with the NIH Clinical Translational Science Award (CTSA) Consortium, STSI is transforming how clinical and translational research is conducted, ultimately enabling researchers to provide new treatments more efficiently and quickly to patients.

#### The Scripps Research Institute (TSRI)

TSRI, one of the world's largest research organizations, stands at the forefront of basic biomedical science, a vital segment of medical research that seeks to comprehend the most fundamental processes of life. TSRI has become internationally recognized for its research into immunology, molecular and cellular biology, chemistry, neurosciences, autoimmune diseases, cardiovascular diseases, virology and synthetic vaccine development.

### SAN DIEGO STATE UNIVERSITY

#### SDSU

Founded in 1897, SDSU is an urban, public education institution—the oldest and largest in the San Diego region. Designated as a research university with high activity by the Carnegie Foundation, SDSU offers 81 bachelor's degrees, 72 masters and 16 doctorates.

#### Laboratory for Language and Cognitive Neuroscience (LLCN)

LLCN is taking the most comprehensive approach to researching signed languages in the country to study how the human mind processes these languages.

#### SDSU BioScience Center

The mission of the SDSU BioScience Center is to understand the role of microorganisms in cardiovascular diseases, and to use these discoveries to improve public health. The Center represents a new approach to heart disease and obesity, through an emphasis on the underlying processes of infection and inflammation. Its close connection with biotechnology companies establishes a university model for rapid commercialization of inspired ideas and therapeutic discoveries.

#### SDSU Coastal Waters Laboratory

SDSU's Coastal Waters Laboratory on San Diego Bay offers interdisciplinary solutions to coastal zone problems in the San Diego region. The Laboratory focuses on environmental and ecological problems caused by urbanization in the coastal environment (at the land-water interface).

#### SDSU Research Foundation

The SDSU Research Foundation is an auxiliary organization chartered to further the educational, research and community service objectives of SDSU. Faculty and staff have attracted more than \$1 billion in grants and contracts for research and programs ranging from cardiovascular disease to marine biology. SDSU researchers study heart disease, public health, earthquake science, education issues and marine biology. They are also at the forefront of psychology, sociology and sustainability research.

## APPENDIX: SAN DIEGO RESEARCH INSTITUTIONS (CONT'D)

### INDEPENDENT RESEARCH INSTITUTIONS

#### Autism Research Institute of San Diego (ARI)

For more than 40 years, ARI has devoted its work to conducting research, and to disseminating the results of research on the triggers of autism and on methods of diagnosing and treating autism. The Institute provides research-based information to parents and professionals around the world.

#### California State University San Marcos (CSUSM)

CSUSM is a technologically sophisticated university dedicated to teaching future generations through a relevant curriculum with a global perspective. The Office of Graduate Studies and Research supports the campus' values of intellectual engagement, integrity and innovation by promoting faculty research, scholarly and creative activities.

#### Genomics Institute of the Novartis Research Foundation (GNF)

GNF applies integrated state-of-the-art technologies in chemistry, biology, automation and information sciences to identify new biological processes and disease-relevant mechanisms. The Institute also develops new therapeutics in a variety of areas, including cancer biology, cardiovascular/metabolism, immunology, respiratory disease, neuroscience and infectious disease.

#### Hubbs-Sea World Research Institute (HSWRI)

HSWRI is dedicated to providing effective solutions to conflicts that arise between human activity and the natural world. Its scientists apply sophisticated technologies to seek the solutions that protect and conserve marine animals while benefiting humans and their reliance on marine resources.

#### Human Biomolecular Research Institute (HBRI)

HBRI focuses on unlocking biological and chemical principles related to diseases of the human brain. Included in the Institute's areas of study are Alzheimer's and Parkinson's diseases, depression, attention deficit disorder, drug abuse, pain and smoking cessation.

#### Interactive Media Institute (IMI)

IMI is working to further the application of advanced technologies for patient care. The Institute is also active in conducting research and clinical trials and specializes in virtual reality, tele-health, videogame virtual reality and human-computer interaction research.

#### J. Craig Venter Institute (JCVI)

JCVI's research groups focus on human genomic medicine, infectious disease, plant, microbial and environmental genomics, synthetic biology and biological energy, bioinformatics and software engineering. With more than 400 scientists and staff, JCVI is a world leader in genomic research.

#### La Jolla Bioengineering Institute (LJBI)

The LJBI is a research institution specializing in research on diseases whose origin and treatment are rooted in cell membrane mechanics. Such diseases include arteriosclerosis, osteoporosis and Alzheimer's.

#### La Jolla Institute for Allergy and Immunology (LIAI)

Founded in 1988, LIAI is one of only a few biomedical research institutes in the world focused on understanding the immune response to infectious agents and cancers and on advancing progress toward the prevention, treatment and cure of immune system diseases.

#### The Neurosciences Institute

The Neurosciences Institute is a scientific research organization dedicated to learning about the brain for the benefit of mankind. The Institute focuses its theoretical and experimental work on the principles underlying how we perceive and act upon the world, how we learn and remember and how consciousness arises.

#### Proteogenomics Research Institute for Systems Medicine (PRISM)

PRISM is a biomedical research institute focused on the development of innovative treatments for a wide spectrum of human diseases, including cancer. PRISM employs the principles of systems science, an ordered and interdisciplinary approach to study the relationships between healthy and diseased tissues.

#### Rady Children's Hospital San Diego

Rady Children's Hospital is dedicated to excellence in care: the latest technology, the best equipment, the most progressive research and the finest teaching. Research occurs in all medical disciplines such as cardiology, orthopedics, dermatology and infectious diseases, as well as within specialized research organizations on campus.

**APPENDIX: SAN DIEGO RESEARCH INSTITUTIONS (CONT'D)****INDEPENDENT RESEARCH INSTITUTIONS (CONT'D)****Salk Institute for Biological Studies**

Salk Institute's major areas of study focus within three areas: molecular biology and genetics, neurosciences and plant biology. Knowledge acquired in Salk laboratories provides new understanding and potential new therapies and treatments for a range of diseases from cancer to AIDS; from Alzheimer's disease to cardiovascular disorders; from anomalies of the brain to birth defects.

**San Diego Cancer Research Institute (SDCRI)**

SDCRI is dedicated to accelerating the development and availability of cutting-edge cancer therapies and to improving, through comprehensive integrative approaches, the quality of life for cancer patients.

**San Diego Zoo Institute for Conservation Research**

San Diego Zoo's Institute for Conservation Research is one of the largest zoo-based research centers in the world. Founded in 1975, it is dedicated to preserving and protecting rare and endangered wildlife and habitats.

**Sanford-Burnham Medical Research Institute (SBMRI)**

SBMRI is dedicated to revealing the fundamental molecular causes of disease and devising the innovative therapies of tomorrow. SBMRI has five research centers: the NCI-designated Cancer Center; the Del E. Webb Center for Neurosciences, Aging and Stem Cell Research; the Infectious and Inflammatory Disease Center; the Diabetes and Obesity Research Center; and the Sanford Children's Health Research Center.

**Spine Research Institute of San Diego (SRISD)**

SRISD is committed to providing research and education in the area of spinal health and injury prevention. The Institute is especially concerned about cervical spine injuries that result from whiplash trauma and monitoring and synthesizing the world literature on the subject.

**Torrey Pines Institute for Molecular Studies (TPIMS)**

TPIMS' scientists conduct research in fields associated with a wide variety of major medical conditions, including multiple sclerosis, cancer, heart disease, Types I and II diabetes and macular degeneration. The Institute fosters an innovative research environment, believing that multidisciplinary and collaborative approaches accelerate the discovery process.

**Vaccine Research Institute of San Diego (VRISD)**

VRISD consists of a small, highly focused scientific staff interested in studying autoimmunity, tolerance, immune regulation and vaccine design. VRISD scientists have developed a transgenic mouse model focusing on the immune response to HBV nucleoproteins, as well as a vaccine platform for developing vaccines to problem diseases.

APPENDIX: SUMMARY TABLES - TECHNOLOGY START-UP COMPANIES  
CALIFORNIA

CONNECT Innovation Report: Summary Table - California Start-up Technology Companies 2007 to 2010

	2007				2008				2009				2010				Annual				TOTAL
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2007	2008	2009	2010	
TOTAL	383	423	866	1,319	414	473	730	580	476	729	617	700	357	597	736	660	2,991	2,197	2,522	2,350	10,060
Pharma/Bio/Medical	58	83	166	356	69	78	166	128	84	186	138	162	71	102	199	136	663	441	570	508	2,182
Communications	57	62	133	132	44	54	128	111	86	90	103	98	62	100	139	113	384	337	377	414	1,512
Computer & Electronics	54	64	161	412	109	112	113	90	74	122	106	125	53	82	92	100	691	424	427	327	1,869
Defense and Transportation	20	26	16	30	19	25	20	41	29	28	24	31	20	36	21	31	92	105	112	108	417
Environmental Technology	29	18	38	38	25	30	42	23	39	67	48	40	26	45	37	48	123	120	194	156	593
Recreational Goods Manufacturing	9	15	15	17	14	9	29	18	17	15	6	13	9	21	29	55	56	70	51	114	291
Software	156	155	337	334	134	165	232	169	147	221	192	231	116	211	219	177	982	700	791	723	3,196

Source: CONNECT; National University System Institute for Policy Research.

PERCENT OF TOTAL:	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Pharma/Bio/Medical	15%	20%	19%	27%	17%	16%	23%	22%	18%	26%	22%	23%	20%	17%	27%	21%	22%	20%	23%	22%	22%	22%
Communications	15%	15%	15%	10%	11%	11%	18%	19%	18%	12%	17%	14%	17%	17%	19%	17%	13%	15%	15%	18%	15%	15%
Computer & Electronics	14%	15%	19%	31%	26%	24%	15%	16%	16%	17%	17%	18%	15%	14%	13%	15%	23%	19%	17%	14%	19%	19%
Defense and Transportation	5%	6%	2%	2%	5%	5%	3%	7%	6%	4%	4%	4%	6%	6%	3%	5%	3%	5%	4%	5%	4%	4%
Environmental Technology	8%	4%	4%	3%	6%	6%	6%	4%	8%	9%	8%	6%	7%	8%	5%	7%	4%	5%	8%	7%	6%	6%
Recreational Goods Manufacturing	2%	4%	2%	1%	3%	2%	4%	3%	4%	2%	1%	2%	3%	4%	4%	8%	2%	3%	2%	5%	3%	3%
Software	41%	37%	39%	25%	32%	35%	32%	29%	31%	30%	31%	33%	32%	35%	30%	27%	33%	32%	31%	31%	32%	32%

Annual Change:	1Q08/ 2Q08/ 3Q08/ 4Q08/ 1Q07 2Q07 3Q07 4Q07				1Q09/ 2Q09/ 3Q09/ 4Q09/ 1Q08 2Q08 3Q08 4Q08				1Q10/ 2Q10/ 3Q10/ 4Q10/ 1Q09/ 2Q09 3Q09 4Q09				2008/ 2009/ 2010/ 2007 2008 2009									
Number Change					31	50	-136	-739	62	256	-113	120	-119	-132	119	-40	-794	325	-172			
TOTAL					8%	12%	-16%	-56%	15%	54%	-15%	21%	-25%	-18%	19%	-6%	-27%	15%	-7%			
Pharma/Bio/Medical					19%	-6%	0%	-64%	22%	138%	-17%	27%	-15%	-45%	44%	-16%	-33%	29%	-11%			
Communications					-23%	-13%	-4%	-16%	95%	67%	-20%	-12%	-28%	11%	35%	15%	-12%	12%	10%			
Computer & Electronics					102%	75%	-30%	-78%	-32%	9%	-6%	39%	-28%	-33%	-13%	-20%	-39%	1%	-23%			
Defense and Transportation					-5%	-4%	25%	37%	53%	12%	20%	-24%	-31%	29%	-13%	0%	14%	7%	-4%			
Environmental Technology					-14%	67%	11%	-39%	56%	123%	14%	74%	-33%	-33%	-23%	20%	-2%	62%	-20%			
Recreational Goods Manufacturing					56%	-40%	93%	6%	21%	67%	-79%	-28%	-47%	40%	383%	323%	25%	-27%	124%			
Software					-14%	6%	-31%	-49%	10%	34%	-17%	37%	-21%	-5%	14%	-23%	-29%	13%	-9%			

Quarter Change:	2Q07/ 3Q07/ 4Q07/ 1Q07 2Q07 3Q07				1Q08/ 2Q08/ 3Q08/ 4Q08/ 1Q07 2Q07 3Q07				1Q09/ 2Q09/ 3Q09/ 4Q09/ 1Q08 2Q08 3Q08				1Q10/ 2Q10/ 3Q10/ 4Q10/ 1Q09 2Q09 3Q09									
Number Change					40	443	453	-905	59	257	-150	-104	253	-112	83	-343	240	139	-76			
TOTAL					10%	105%	52%	-69%	14%	54%	-21%	-18%	53%	-15%	13%	-49%	67%	23%	-10%			
Pharma/Bio/Medical					43%	100%	114%	-81%	13%	113%	-23%	-34%	121%	-26%	17%	-56%	44%	95%	-32%			
Communications					9%	115%	-1%	-67%	23%	137%	-13%	-23%	5%	14%	-5%	-37%	61%	39%	-19%			
Computer & Electronics					19%	152%	156%	-74%	3%	1%	-20%	-18%	65%	-13%	18%	-58%	55%	12%	9%			
Defense and Transportation					30%	-38%	88%	-37%	32%	-20%	105%	-29%	-3%	-14%	29%	-35%	80%	-42%	48%			
Environmental Technology					-38%	111%	0%	-34%	20%	40%	-45%	70%	72%	-28%	-17%	-35%	73%	-18%	30%			
Recreational Goods Manufacturing					67%	0%	13%	-18%	-36%	222%	-38%	-6%	-12%	-60%	117%	-31%	133%	38%	90%			
Software					-1%	117%	-1%	-60%	23%	41%	-27%	-13%	50%	-13%	20%	-50%	82%	4%	-19%			

SAN DIEGO

CONNECT Innovation Report: Summary Table - San Diego Start-up Technology Companies 2005 to 2010

	2005				2006				2007				2008				2009				2010				Annual				TOTAL		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2005	2006	2007	2008		2009	2010
TOTAL	48	102	93	89	81	56	55	49	39	52	104	137	46	67	97	72	66	101	78	74	35	64	94	84	332	241	332	282	319	277	1,783
Software	15	32	26	26	32	15	15	16	15	13	37	34	15	21	25	23	22	22	26	30	11	25	24	20	99	78	99	84	100	80	540
Pharma/Bio/Medical	17	24	28	38	18	13	14	16	9	19	28	40	12	21	30	22	19	37	29	25	8	15	33	15	107	61	96	85	110	71	530
Communications	2	14	26	2	15	7	9	6	6	8	8	14	4	7	15	12	12	14	9	9	7	10	16	15	44	37	36	38	44	48	247
Computer & Electronics	6	14	4	13	7	10	6	4	4	9	19	43	6	10	14	4	4	12	5	4	7	5	10	14	37	27	75	34	25	36	234
Recreational Goods Manufacturing	0	0	0	0	1	0	0	0	3	3	2	0	3	3	5	3	2	4	2	2	1	3	8	11	0	1	8	14	10	23	56
Defense and Transportation	0	2	3	1	6	1	4	4	0	0	2	2	3	2	2	4	4	0	1	0	0	3	0	6	6	15	4	11	5	9	50
Environmental Technology	8	16	6	9	2	10	7	3	2	0	8	4	3	3	6	4	3	12	6	4	1	3	3	3	39	22	14	16	25	10	126

Source: CONNECT; National University System Institute for Policy Research.



## THE CONNECT INNOVATION REPORT: CONTACT INFORMATION

### CONNECT INNOVATION REPORT CONTACT:

Steve Hoey, Project Leader and Senior Program Manager  
858.964.1308  
shoey@connect.org

### CONNECT

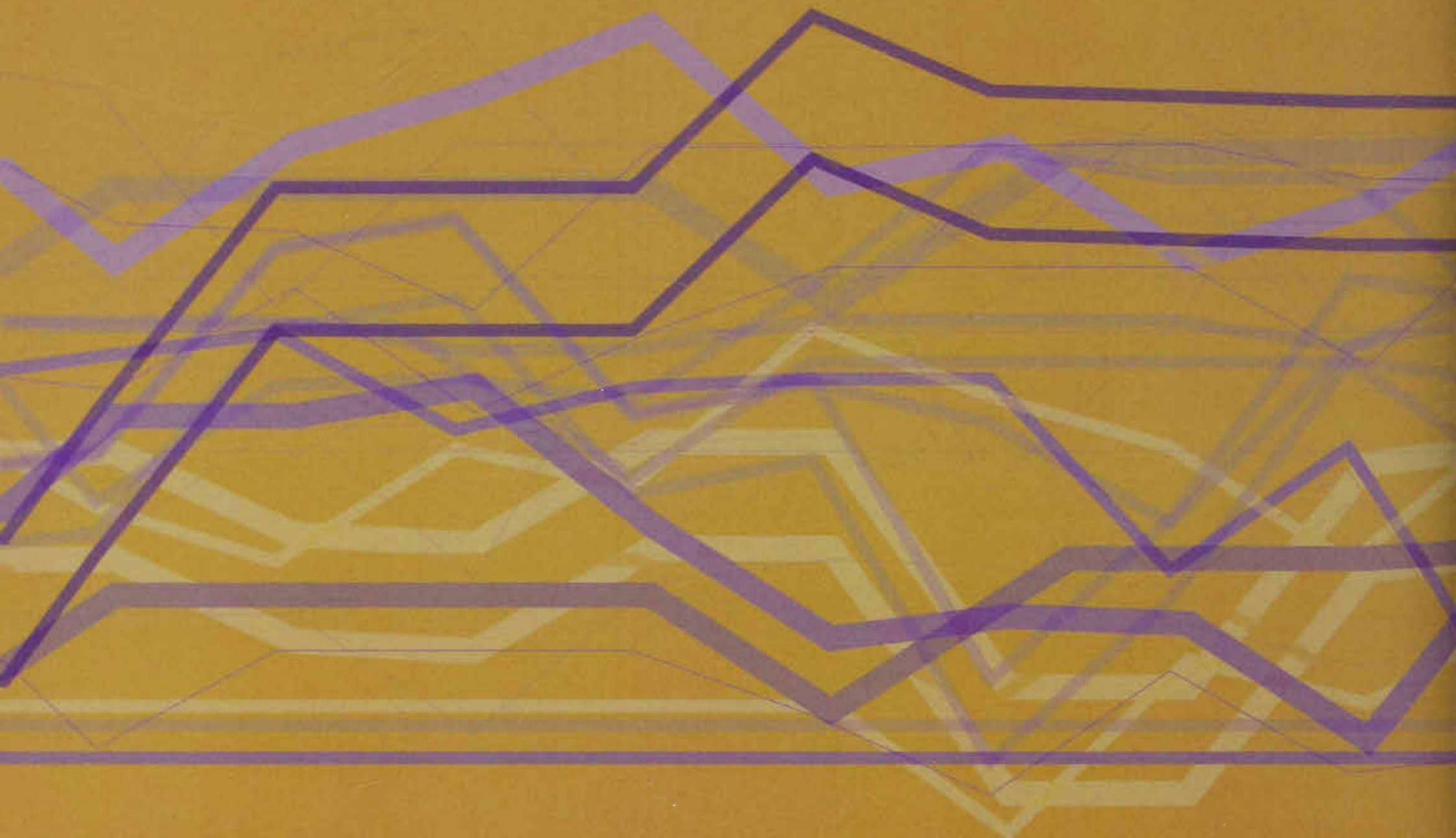
8950 Villa La Jolla Drive, Suite A-124  
La Jolla, California 92037  
858.964.1300  
858.964.1301 (fax)  
www.connect.org

The CONNECT Innovation Report is available online at <http://www.connect.org/programs/connect-track/>

CONNECT has assisted in the formation and development of more than 2,000 companies and is widely regarded as the world's most successful regional program linking inventors and entrepreneurs with the resources they need for commercialization of innovative products in high technology and life sciences. The program has been modeled in almost 40 regions around the world – most recently in New York City. Key to our success has been the unique "culture of collaboration" between industry, capital sources, professional service providers and research organizations. CONNECT has been recognized by *Time, Inc.* and *Entrepreneur* magazines and was recently awarded the 2010 Innovation in Economic Development Award from the U.S. Department of Commerce for creation of Regional Innovation Clusters.







Accelerating Innovation in San Diego™

The CONNECT Innovation Report provides a set of indicators of the strength and impact of the innovation economy in San Diego versus other areas of the state or country depending upon the indicator.

It demonstrates that San Diego is a leading center for innovation because of the region's world-class research, leadership and management talent.

8950 Villa La Jolla Drive Suite A124  
La Jolla, CA 92037 858.964.1300

**CONNECT.ORG**