

Fifth Edition

# Venture Impact



The Economic Importance of  
Venture Capital-Backed Companies  
to the U.S. Economy

## About IHS Global Insight

IHS Global Insight provides the most comprehensive economic, financial and political coverage available from any source to support planning and decision making. Using a unique combination of expertise, models, data and software within a common analytical framework, we cover over 200 countries and more than 170 industries.

Recognized as the most consistently accurate forecasting company in the world, IHS Global Insight has more than 3,800 clients in industry, finance and government with revenues in excess of \$100 million, 700 employees and 25 offices in 14 countries covering North and South America, Europe, Africa, the Middle East and Asia.

For more information about IHS Global Insight, Inc., visit [www.ihsglobalinsight.com](http://www.ihsglobalinsight.com).

*Content: The National Venture Capital Association  
Design: Frost Miller Group  
Copy: Michael Kooi*

*All data provided by IHS Global Insight except where noted.*

*ISBN: 0-9785015-7-8*

*Copyright 2009 by the National Venture Capital Association.*

*All rights reserved. No part of this work covered by the copyrights hereon may be reproduced or copied in any form or by any means (graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems) without the written permission from the National Venture Capital Association.*

*Every reasonable effort has been made to assure the accuracy of the information in this publication. However, the contents of this publication are subject to changes, updates, omissions and errors. The National Venture Capital Association does not accept any liability for inaccuracies that may occur.*

# Venture Impact

The Economic Importance of  
Venture Capital-Backed Companies  
to the U.S. Economy

## Table of Contents

<a href="#">Introduction</a>	1
<a href="#">Report Summary</a>	2
<a href="#">Venture Capital 101</a>	3
<a href="#">Impacting the U.S. Economy</a>	7
<a href="#">Driving Entire Industries</a>	11
<a href="#">Delivering Value to All Regions</a>	13
<a href="#">Building a Regional VC Ecosystem</a>	17
<a href="#">The Role of Government in Entrepreneurship and Innovation</a>	19
<a href="#">Methodology/Endnotes</a>	20

# Introduction

By Mark Heesen, president, National Venture Capital Association



Welcome to the fifth edition of *Venture Impact*, our overview of IHS Global Insight's research into the impact of venture capital-backed companies on the U.S. economy. The NVCA commissions this study every two years to help illustrate the significant amounts of jobs, revenue and overall growth impetus that innovative companies with venture backgrounds provide across the country. Such companies include Intel, Genentech, Facebook, Microsoft, Starbucks and FedEx.

Few would dispute that these companies and thousands of others would not exist today without the funding and guidance provided during their early stages by venture capitalists. Venture capitalists are patient, long-term investors who are willing to take entrepreneurial risks alongside company founders. No other asset class has the wherewithal or the appetite for this type of critical high-risk investment in our country's most promising ideas.

In addition to providing funding, venture investors also instill their portfolio companies with a number of key cultural practices and traits that keep them growing over the long-term. These include: an appreciation for continuous R&D, the habit of setting and reaching milestones, strong corporate governance practices, the ability to pivot in uncertain markets and adjust business plans when needed, and a global approach to operations. These tenets drive companies during their formative years with venture backers and remain integral parts of their DNA long after – often enabling them to grow faster and longer than their non-venture counterparts.

Like the ripples from a raindrop on the surface of a lake, innovation's effects fan out from the heart of the U.S. economy – bringing opportunities for growth and progress with every wave. Venture capitalists continue to seek out these opportunities and fund ground-breaking ideas in good times and bad – constantly transforming single ideas into economic growth. This growth can drive the development of entire new industries – helping the U.S. to evolve and providing opportunities to all segments of the workforce. As this year's data suggests, no state or region holds a monopoly on innovative ideas and the benefits they can bring. And while the venture phenomenon has been uniquely American for some time, other countries are beginning to tap into the possibilities that venture-backed companies can offer. Their success and America's response could change the economic tide considerably for future generations.

The data from IHS Global Insight continues to confirm that venture capital matters deeply, not only to our economy but to the everyday lives of Americans, who use venture-backed innovations, work at venture-backed companies and dare to bring new ideas to market. The venture industry is committed to being an important part of economic growth, technology advancement and the ongoing improvement of the quality of life for our country and our world.

# Report Summary

In 2008, venture capital-backed companies employed more than 12 million people and generated nearly \$3 trillion in revenue. Respectively, these figures accounted for 11 percent of private sector employment and represented the equivalent of 21 percent of U.S. GDP during that same year. These findings extend trends regarding venture capital's outsized impact – or “ripple effect” – on the U.S. economy that stretch back to the first edition of this report, published in 2001.

Other macro trends that persist include:

**Venture-backed companies outperformed the overall economy in terms of creating jobs and growing revenue.** Venture capital's focus on innovative and high-growth-potential companies continues to produce some of the U.S. economy's best performers. These companies are wired for driving and capitalizing on change.

**The venture capital industry continues to grow entire new industries nearly from scratch.** In recent decades, venture capital has played an instrumental role in creating high-tech, high-growth industries such as information technology, biotechnology, semiconductors and online retailing. 2008 investment data suggests that other critical industries such as clean technology and social media will join that list.

**Venture capital's impact across the country grows via the continued development of regional VC hubs.** While well-established venture capital hubs like California and New England continued to perform well in terms of overall jobs, revenue and invested dollars, a number of upstarts outpaced them in terms of growth. Areas such as the Pacific Northwest, the Mid-Atlantic and the Southwest continue to grow venture capital and entrepreneurial ecosystems that will serve them well economically over time.

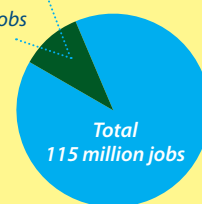
## The Economic Impact of Venture Capital at a Glance

Jobs at U.S. Venture-Backed Companies

**12.1 million**

Venture-Backed Jobs as a Percent of Private Sector Employment

**11%**



Revenue at U.S. Venture-Backed Companies

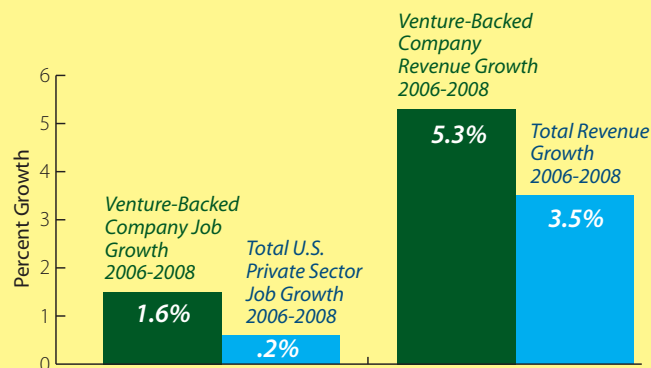
**\$2.9 trillion**

Venture-Backed Revenue as a Percent of U.S. GDP

**21%**

### Job Growth

### Revenue Growth



Total Venture Investment from 1970-2008<sup>1</sup>

**\$456 billion into 27,000+ companies**

Top States for Venture-Backed Jobs and Revenue

**California**  
New York  
Texas

**Massachusetts**  
Pennsylvania

Top Industries for Venture-Backed Jobs and Revenue

**Retailing/Distribution**  
Industrial/Energy

**Healthcare Services**  
Computers & Peripherals

# Venture Capital 101

The venture capital industry drives job creation and economic growth by helping entrepreneurs turn innovative ideas and scientific advances into products and services that change the way we live. Venture capitalists do this by providing the funding and guidance – and by assuming the risks – necessary to build high-growth companies capable of bringing these innovations to the marketplace.

## A Passion for Innovation

Not all venture capitalists start out as business people. In fact, many come to the industry after successful careers as scientists, engineers or doctors. Driven by a desire to find new and better ways of doing things, they combine their industry expertise with their experiences as entrepreneurs to identify the most promising innovations in their fields and then build companies around them.

In most cases, venture capitalists partner with other like-minded professionals with complementary backgrounds and sector expertise to establish venture capital firms. Generally, these firms function as small, tight-knit teams in which risks and responsibilities are shared. In 2008, the average venture firm consisted of nine investing professionals. In fact, nationwide, venture capital firms number fewer than 900<sup>ii</sup>.

Through their firms, venture capitalists pool their money with additional funds from institutional investors such as pension funds, endowments and foundations. These investors become “limited partners” in the firm’s funds, which are typically designated for investment in specific industries (e.g. information technology, life sciences, clean technology). Venture funds have a life span of approximately 10 years. During the first several years, venture capitalists invest in promising new companies that then become part of the firm’s portfolio. Over the course of the fund’s life, these companies are nurtured with the hope that they will be acquired or go public at a premium to the total amount invested. This process is called an exit.

Neither the venture capitalists nor the limited partners see a return on their total investment unless the fund’s successful exits outnumber its losses. Approximately one-third of portfolio companies fail, so those that do succeed must do so in a big way. Because venture capital is considered to be a high-risk investment, investors expect



***VCs evaluate  
potential company  
investments based on:***

***Management team***

***Concept***

***Scalability***

***Market conditions***

***Fit to the fund's objectives***

***Capital needs***

***Potential returns***



a higher rate of return than they would receive in other asset classes. Collectively, the venture industry has delivered on this criterion and typically outperforms the public markets over the long-term.

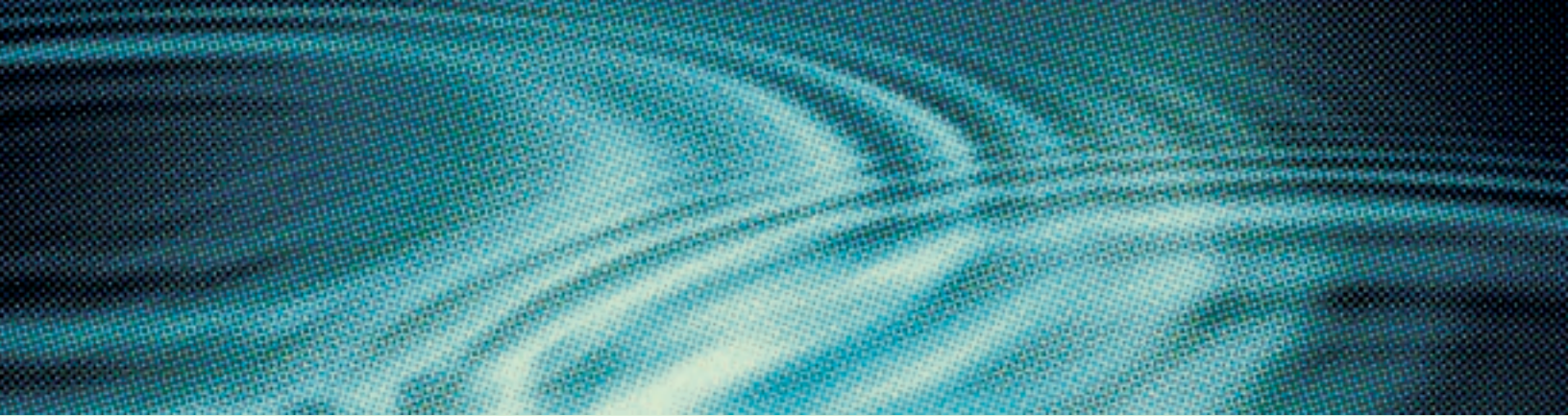
**Penchants for Prescience and Risk**

Given the high incidence of failure, venture capitalists focus only on innovations that have the potential to revolutionize existing industries or give birth to new ones. Venture capital's role in creating the biotechnology sector through its investments in Genentech and Amgen is a good example of the latter. Other areas of venture innovation include semiconductors, software and the Internet. In the 21st century, venture capitalists are poised to create a new sector – clean technology – that holds the same tremendous promise for job creation and economic growth as those ground-breaking sectors that have preceded it.

Ironically, finding innovative ideas isn't the hard part. Government- and university-funded research produces startling new discoveries all the time. The challenge lies in determining which innovations can be translated into commercially viable products and services and then building companies from scratch to market them.

While tales of crumpled cocktail napkins scribbled with formulas and diagrams may exaggerate the point, VCs often have little more to go on initially than an entrepreneur's idea expressed in a rudimentary business plan. For this reason, VCs employ a rigorous vetting process (see sidebar). For every 100 plans, it is estimated that only 10 make it to the due diligence phase and only one gets funded.

Making investments at the earliest stages of a company's development involves extraordinary risk. Young companies have little or no collateral to secure bank loans, no assets or track records to attract financing from private equity firms and no opportunities for short term gain to interest hedge funds. Venture capitalists step in and assume this risk by providing capital



in exchange for an equity stake in the company. The VC's goal is to grow the company to a point where it can go public or be acquired by a larger corporation – at which time the firm and its limited partners may capture their return if the exit is worth more than the total investment.

### **One Part Nature, Two Parts Nurture**

Unlike most other investors, venture capitalists provide more than just money. Typically, VCs take seats on the boards of their portfolio companies and participate actively in firm management. This often includes connecting the company with resources and expertise for development and production, providing counsel and contacts for marketing and assisting in hiring management. In this way, they remain partners with the entrepreneurs in growing the company to a point where it can stand on its own.

As part of this process, the venture capitalist guides the company through multiple rounds of financing. At each point, the company must meet certain milestones to receive fresh funds for continued growth. If the company fails to meet these goals, or if the risk profile changes significantly due to market conditions or regulatory policy, the VC's responsibility to their limited partners will require them to walk away.

These elements – the patience, the hands-on guidance, the willingness to take on risk and fail – make venture capital unique as an asset class. In no other ecosystem are all of the stakeholders aligned around one simple objective: company growth. This alignment drives U.S. economic growth and generates more jobs than other asset classes, and it has set the U.S. economy apart from those of other countries.



***Venture capital has played a role in creating many high-tech industries.***

*Information technology*

*Biotechnology*

*Medical devices*

*Network security*

*Online retailing and social media*

*Clean technology*



## **Changing the World**

For decades, the U.S. venture capital industry has garnered the envy of the world. It has spurred the development of many high-tech industries (see side bar) and has helped to build innovative powerhouse companies that are now household names: Amazon, Google, Apple, Cisco, Staples and eBay. These successes have made the U.S. a magnet for the globe's best and brightest scientists and entrepreneurs.

Today, countries around the world have begun to emulate the U.S. model by adjusting their tax and regulatory policies and by strengthening intellectual property protection. This will inevitably lead to more innovation worldwide – but also to increased competition for venture capital dollars and the benefits they produce. The primacy of the U.S. industry is no longer the given that it once was.

For this reason, U.S. policymakers must evaluate the potential impacts and consequences of new rules and regulations with great care. They must also weigh the benefits of such policies against the risk of hobbling what has been one of America's most decisive competitive advantages over the past half century.

With a supportive public policy environment, venture capital promises to provide for the efficient distribution of capital and expertise to the most promising ideas in the U.S. It remains a key ingredient—along with entrepreneurial spirit, support for scientific discovery and an appetite for risk—for ongoing innovation.

# Small Drops, Big Splash

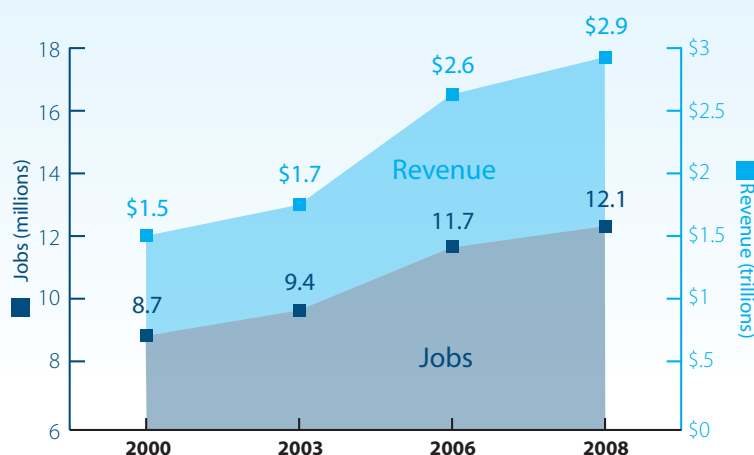
## *Venture-backed companies impact the U.S. economy*

Representing just 0.2 percent of U.S. gross domestic product in 2008, venture capital remains a relatively small asset class. Yet, the companies it funds impact America's economy in large ways.

Take job creation. Venture-backed companies in the U.S. account for more than 12 million jobs (Chart A), or 11 percent of total private sector employment (Chart B). These numbers reflect the industry's focus on finding and funding only those companies with high growth potential. This may be one reason that job growth generated by venture-backed companies outstripped overall U.S. job growth between 2006 and 2008 (Chart C).

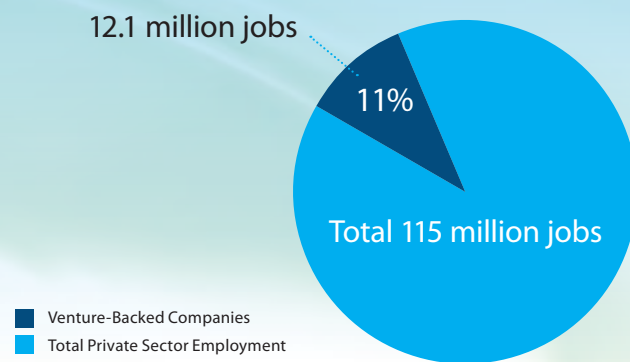
Of course, quality matters as much as quantity. In building companies from scratch, venture capitalists create opportunities for all segments of the workforce. In addition to the entry-level jobs generated from the creation of large-scale employers such as Starbucks, FedEx and Home Depot, the industry's emphasis on information technology, life sciences and clean tech furthers the development of highly skilled and "green collar" jobs that many economists point to as critical for future health and growth.

**A** Economic Benefit of U.S. Venture-Backed Companies 2000-2008



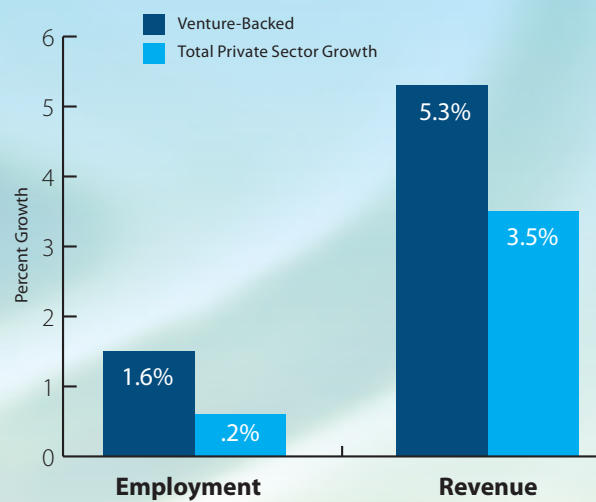
B

### Employment at Venture-Backed Companies as a Percent of Private Sector Employment 2008



C

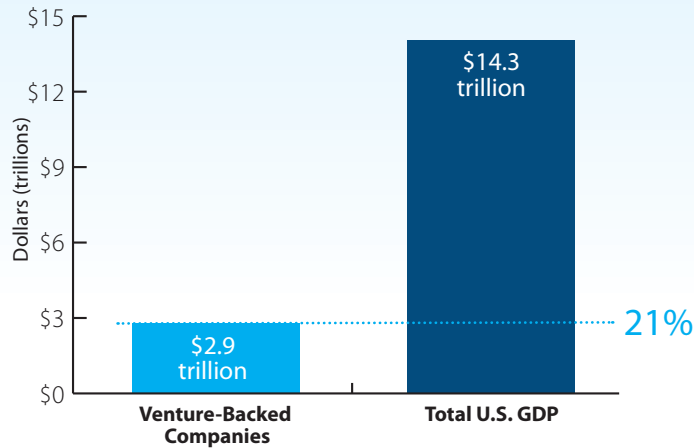
### Employment and Revenue Growth at Venture-Backed Companies vs. Total Economy 2006-2008



Venture-backed companies also have a significant impact on U.S. revenue. With almost \$3 trillion in revenue – equivalent to one-fifth of the country's gross domestic product in 2008 (Chart D) – these companies have grown their revenue at a swifter clip than the overall U.S. growth rate since 2006 (Chart C).

D

#### Revenue at Venture-Backed Companies Relative to U.S. GDP



Perhaps it's this amplified effect of each dollar that has motivated venture capitalists through upswings and downturns. Since its formative years in the early 1970s, the U.S. venture capital industry has invested approximately \$456 billion in more than 27,000 companies (Chart E). While many of these companies ultimately failed, successes like Genentech, eBay and Intel went on to create entire new industries and ways of doing business.

After several years of anomalous growth and contraction spurred by the technology bubble and its subsequent burst in 2000, the industry in recent years has returned to a steadier growth trajectory, with venture capitalists investing \$20-\$30 billion annually. The industry learned that it cannot scale to large extents within existing industry sectors. However, with promising innovations taking place in the clean technology category, breakthroughs occurring in personalized medicine and advances in cloud computing, it is expected that VC investment will continue its steady growth for years to come. With that growth comes the promise of even more jobs and revenue for the U.S. economy.

E

## Venture Capital Investment in the United States 1970-2008



Source: The MoneyTree Report by PricewaterhouseCoopers and the National Venture Capital Association, based on data from Thomson Reuters.

For every dollar of venture capital invested from 1970-2008,  
**\$6.36** of revenue was generated in 2008.

In 2008, one U.S. job existed for every  
**\$37,702** of venture capital invested from 1970-2008.

# From the Ground Up

*Venture-backed companies drive employment and revenue in entire industries*

Like water, innovation is nearly impossible to stop once it gets flowing. It often begins buried deep within layers of academic and government research. Heated by entrepreneurial zeal and funding, it pushes to the surface like a hot spring – giving life to and nourishing whole economic ecosystems.

## Venture Capital Nourishes Entire Industries

Throughout its history, venture capital has developed numerous life-changing innovations into entirely new industries in just this way. In the 1970s, VCs helped found the biotechnology industry through their investments in pioneering companies like Genentech and Amgen. A decade later, venture funding was growing the software development and semiconductor industries into prime drivers of the U.S. economy. Online retailing (Amazon, eBay) followed in the 1990s and clean technology is poised to extend this legacy today.

Venture capital's impact on these industries is reflected in the continued dominance of venture-backed companies in generating employment and revenue within them. Even today, eight out of every 10 people employed in the software development industry work for companies with venture-capital roots. (Chart F) Additionally, venture-backed companies generated more than half of all revenue in the electronics/instrumentation, semiconductor and telecommunications industries in 2008 (Chart G).

## Back to the Well

Given the growth these industries have experienced and the role of venture-backed companies in driving it, it probably comes as no surprise that venture capitalists continue to fund innovations within them. In 2008, the software, life sciences (biotechnology and medical devices) and industrial /energy industries garnered the most venture investment; these numbers are consistent with the venture legacy of investing in high-innovation areas<sup>1</sup>. Other areas of investment that have ebbed and flowed over time but continue to receive billions of dollars each year in new venture investment include media and entertainment, IT services, semiconductors and telecom.

F

### Venture-Backed Company Employment as a Percentage of Total Industry Employment Top Five Industry Sectors - 2008

Industry	Venture-Backed Employment	Total Employment	Venture-Backed Companies Share of Employment
<b>Software</b>	817,166	1,008,929	80.99%
<b>Telecommunications</b>	736,961	994,862	74.08%
<b>Semiconductors</b>	309,437	418,998	73.85%
<b>Networking and Equipment</b>	392,505	668,058	58.75%
<b>Electronics/Instrumentation</b>	271,224	528,148	51.35%

G

### Venture-Backed Company Revenue as a Percentage of Industry Revenue Top Five Industry Sectors - 2008

Industry	Venture-Backed Revenue (millions)	Total Sector Revenue (millions)	Venture-Backed Companies Share of Revenue
<b>Electronics/Instrumentation</b>	\$129,597	\$193,427	67.00%
<b>Semiconductors</b>	\$86,776	\$157,660	55.04%
<b>Telecommunications</b>	\$256,136	\$501,729	51.05%
<b>Biotechnology</b>	\$209,358	\$444,028	47.15%
<b>Computers and Peripherals</b>	\$315,054	\$711,331	44.29%

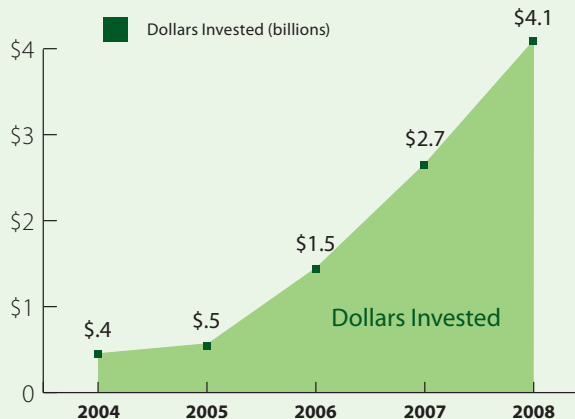
## Industry Profile: Clean Technology

Just as venture capital has played integral roles in the development of the biotechnology, semiconductor and Internet industries, the industry is poised today to use its expertise gained in building these industries to create a new one: clean technology.

The development of clean tech, which comprises companies operating in areas such as alternative and renewable energies, recycling, electric cars, clean water, power-grid management and battery technology, comes at a critical time for the U.S. economy. VCs invested \$4.1 billion into clean tech companies in 2008 – making it the industry's fastest growing sector (Chart H). Clean technology investment is quintessential venture capital in the sense that there is a tremendous amount of innovation to be realized in the space and a growing demand to employ these new technologies. Like all venture-backed companies, these start-ups will take years to mature, but they offer the promise of green jobs that will remain here in the U.S. – employing Americans and addressing critical climate change and sustainability issues.

H

### Venture Capital Investment in Clean Technology 2004-2008



Source: The MoneyTree Report by PricewaterhouseCoopers and the National Venture Capital Association, based on data from Thomson Reuters.



# Rippling Coast to Coast

*Venture-backed companies impact regional economies throughout the U.S.*

Over the course of its growth, the venture capital industry has stimulated swirls of activity across the nation. While mature venture hubs like Silicon Valley and Boston's Route 128 corridor tend to get most of the attention, smaller hubs like Pennsylvania, Minnesota, Florida and Washington have positioned themselves to become consistent drivers of the U.S. economy.

That said, venture capital's traditional powerhouse regions – California, Massachusetts and Texas – led the way in 2008 in terms of both revenue and employment by venture-backed companies. (Charts I and J) While IHS Global Insight calculates the figures in this section based on where venture-funded companies are headquartered, in many cases, the impacts of the job creation and revenue streams generated by these companies flow across state and regional borders.

## Riding Its Own Wave

California perennially tops the list of venture impact regions – in part because of momentum it has built from decades of venture investing. The state's continued strength flows from a number of factors. First, its venture community invests in companies across multiple sectors (e.g. information technology, life sciences, clean technology). This increases the overall impact of those invested dollars on the state-wide economy while providing a measure of protection against sector-specific downturns. Second, California has developed more than one venture hub: the aforementioned Silicon Valley in the north, San Diego in the south, and a burgeoning new corridor in Orange County. Third – and no less important – local venture-backed companies and their investors have worked consistently with California policymakers to ensure that young innovative companies and the technologies they develop have the opportunity to grow and succeed within the state's larger business climate.

These factors have led to nearly \$200 billion in venture investment in California since 1970<sup>1</sup>. Entire new industries have grown out of the state during this period – providing jobs, prosperity and enhancements in quality of life that have rippled out across the state and the country.

I

### Employment at Venture-Backed Companies Headquartered in the State 2008

Rank	State	2008 Venture-Backed Company Employment
1	California	3,885,888
2	New York	1,694,316
3	Texas	918,451
4	Massachusetts	651,239
5	Georgia	621,181
6	Pennsylvania	561,525
7	Tennessee	434,376
8	Minnesota	365,584
9	Virginia	360,424
10	New Jersey	289,720
11	Florida	242,074
12	Washington	219,954
13	Illinois	214,432
14	Ohio	158,876
15	Connecticut	141,539

J

### Revenue at Venture-Backed Companies Headquartered in the State 2008

Rank	State	2008 Venture-Backed Company Revenue (millions)
1	California	\$997,288
2	New York	\$328,665
3	Texas	\$221,888
4	Pennsylvania	\$205,661
5	Minnesota	\$159,092
6	Massachusetts	\$146,211
7	Virginia	\$115,649
8	Washington	\$79,805
9	Florida	\$75,538
10	Georgia	\$72,619
11	Tennessee	\$64,157
12	New Jersey	\$55,298
13	Illinois	\$47,121
14	Maryland	\$40,367
15	Connecticut	\$39,113

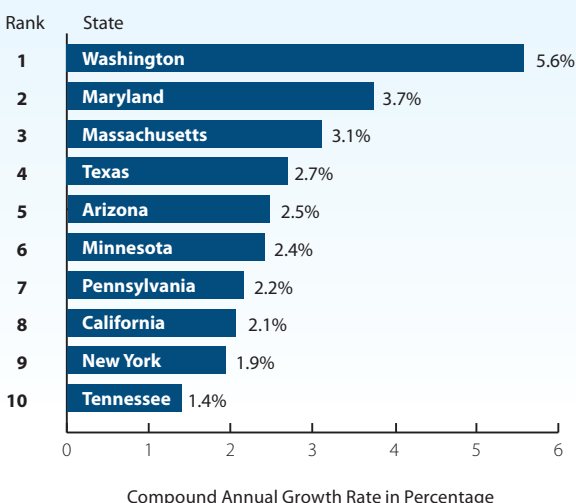
## Rising Tides

While traditional venture capital regions maintained their relative strength with regard to total venture-backed employment and revenue, a number of upstart states rose to the top in terms of job creation and revenue growth over the 2006-2008 timeframe.

The state of Washington set the pace for compound annual growth of venture-backed companies during this time in both job creation (Chart K) and revenue growth (Chart L). Much of this growth was driven by venture-backed retailers like Amazon, Microsoft, Costco and Lowe's – all of which are headquartered there. Maryland, with its strength in the healthcare industry, edged out perennial powerhouses Massachusetts and Texas for second place with 3.7 percent compound annual job growth and bested fellow upstart Arizona for second place in revenue growth.

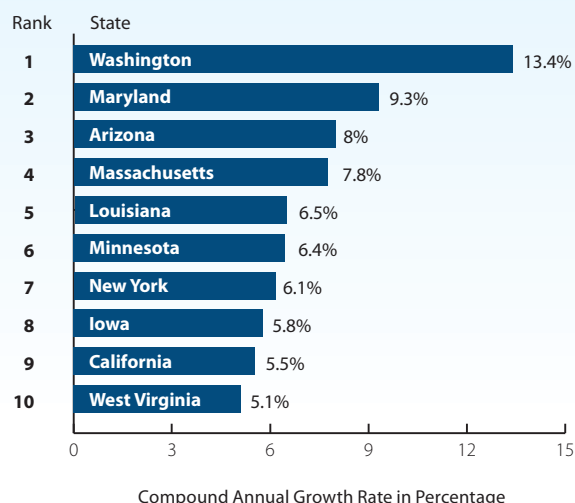
K

**Employment Growth of  
Venture-Backed Companies  
Headquartered in the State  
2006-2008**



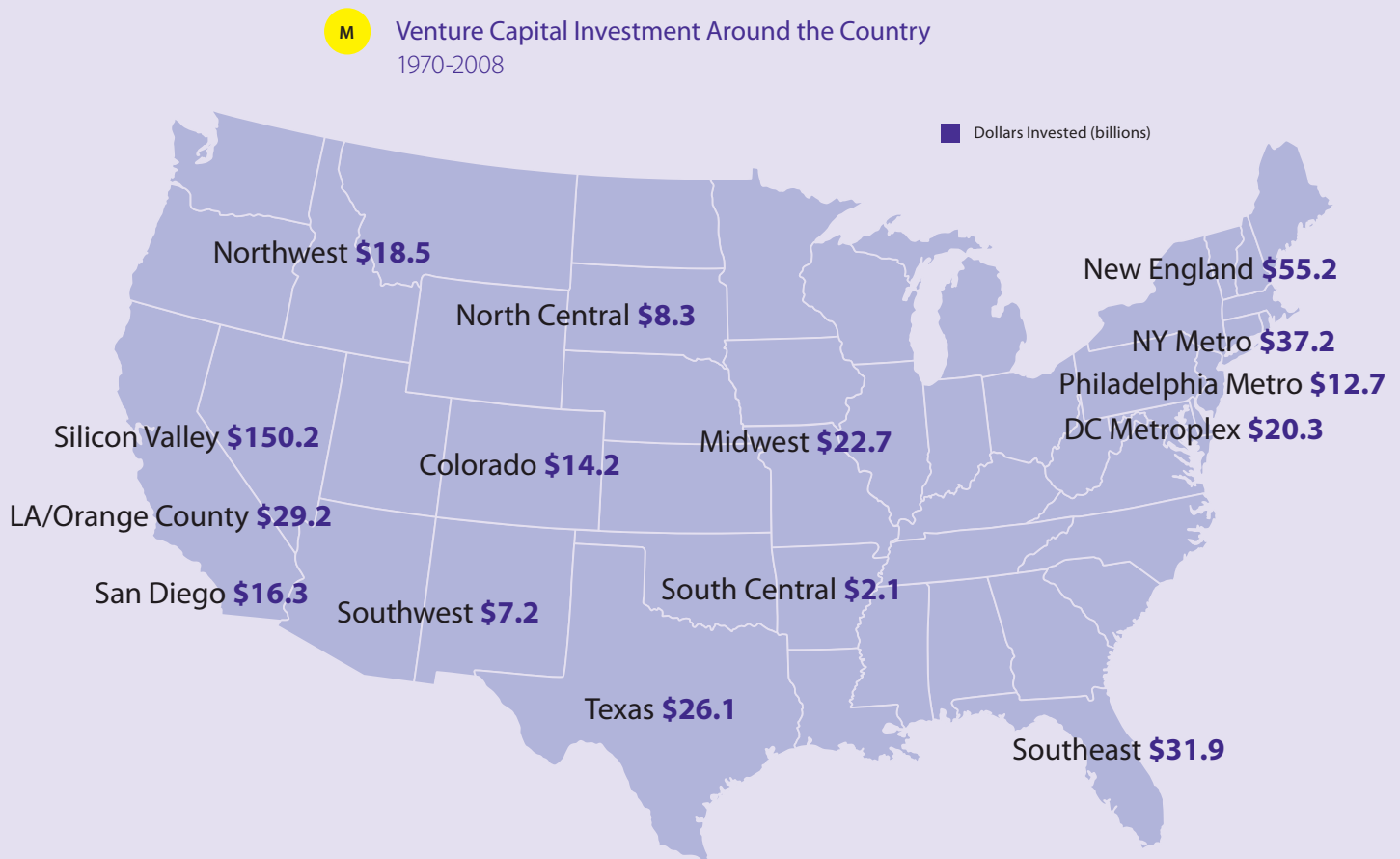
L

**Revenue Growth of  
Venture-Backed Companies  
Headquartered in the State  
2006-2008**



## Flowing Out From Many Centers

Years ago, venture capitalists rarely travelled beyond their own area codes to find new deals. During these early years, innovators and entrepreneurs flocked to emerging hubs like Silicon Valley and Boston to give their ideas the best opportunity to get noticed by investors. These areas subsequently grew into the venture centers they are today (Chart M).



Source: The MoneyTree Report by PricewaterhouseCoopers and the National Venture Capital Association, based on data from Thomson Reuters.

Naturally, not everyone with a great idea moved to one coast or the other. Within the last decade, venture capitalists have begun to identify and nurture companies by following the trail of innovation across the U.S. – even to states and regions with little or no previous venture capital history but with vibrant research communities and ambitious entrepreneurs.

As a result, certain regions have grown into venture capital hubs for different industry sectors. Minnesota, for example, has developed a strong medical technology presence. Other emerging specialty hubs include Tennessee for healthcare and financial services, New Jersey for biotechnology, and New Mexico and the Southwest for solar and renewable energies.



# Catching the Venture Wave

## *Building Successful Regional VC Ecosystems*

While its innovations ripple through the lives of people around the country and around the world each day, venture capital still flies mostly below the public's radar. In those regions that have built thriving venture hubs, however, the industry's effects on job creation, revenue growth and the tax base send a consistent signal to everyone: There's opportunity here.

For this reason, business leaders and government officials often ask: How can we develop a venture ecosystem like California's Silicon Valley or Boston's Route 128 corridor in our region? While these communities may thrive based on different industry sector concentrations, they mostly feature the same elements working in the same symbiotic ways.

Most start with a steady current of ideas – usually generated by a top-flight research university, government laboratory or academic community. The presence of an innovative, venture-backed anchor company with an entrepreneurial streak – one that draws talent to the area (e.g. Dell or Genentech) – is another plus. These organizations are often breeding grounds for the entrepreneurs of tomorrow and regularly spin-out new ideas and companies from existing operations. Regions with anchor companies also have pools of qualified middle management from which to draw.

Naturally, these entrepreneurs need significant operations support to get their ideas off the ground. That's why a healthy network of lawyers, accountants and other business professionals who understand the challenges of the start-up community remains essential to building a viable venture capital hub. These networks develop over time and provide start-ups and VCs with specialized services such as intellectual property protection, IPO registration, auditing and workforce development.

Support from state and local government in the form of favorable tax policies, common-sense regulatory structures and encouragement of basic research provide a third essential component. Lawmakers must realize that the local business environment they create can affect fledgling start-up companies in significant ways. Even small blips in policy can register as huge waves in the balance sheets and risk profiles of young companies.

Good old fashioned infrastructure completes the system. This means easy access for business travelers in the form of efficiently run and convenient airports and a high quality of life (i.e. affordable housing, manageable commutes, high-quality schools) for the potential labor pool.

These same components helped develop areas like San Diego and northern Virginia into focal points of venture activity. By pursuing them smartly, other states and regions can create their own VC ecosystems.

## Regional Profiles

The development of Seattle's South Lake Union area into a hub for life sciences symbolizes the city's growing innovation economy



Photo by Lauren Curtin

### Washington State

For some, venture capital isn't so much an asset class as it is a state of mind – what with its predilection for innovation, energetic self-reliance and reasoned acceptance of risk. In recent years, few states have embraced this state of mind more readily than Washington. The state attracted nearly \$1 billion in investment in 2008<sup>1</sup> while its venture-backed companies grew employment and revenue faster than those of any other state – including California. Washington's venture capital culture springs from a number of sources. First, it hosts top-flight research institutions such as the University of Washington, the Seattle Institute for Systems Biology and the Fred Hutchinson Cancer Research Center. Second, three of the most innovative companies of the past three decades – Microsoft, Amazon and Starbucks – make their homes and exert enormous cultural influence in the state. Third, the state's gorgeous geography, outdoor/adventure scene and hip coffee-house culture have drawn a deep pool of young, energetic talent. Like an inevitable chemical reaction, these elements have spawned a robust venture scene that has produced leading companies in the fields of SAS software development, personalized medicine and clean technology. Furthermore, local venture capitalists have championed the industry's benefits and represented its interests by vigorously engaging business leaders and policymakers through organizations like the Technology Alliance. In 2008, venture-backed companies in Washington employed nearly 220,000 people and generated nearly \$80 billion in revenue.

### San Diego

Twenty-five years ago, San Diego was little more than a sleepy navy and resort town. Today, it's the kind of place where 400 people show up at 7 a.m. for a San Diego Venture Group seminar. The city has grown into a vibrant venture capital hub (\$1.2 billion in venture investment in 2008<sup>2</sup>) through close cooperation between its public, private and academic sectors. This process actually began in the 1960s, as a world-class research community started to coalesce around the newly established University of California campus in town. Before long, researchers began to spin their innovations into young companies like Hybertech and Idec Pharmaceuticals in the biotechnology space, Linkabit and Qualcomm in the telecomm industry and Chipsoft in the software sector. Sensing the same synergies that had recently put Silicon Valley on the map, local business leaders partnered with UC San Diego to connect small companies with investors and talent. Recognizing an opportunity to remake its economy, the city worked to create a favorable growth environment for young companies and began to market San Diego as a center for technology and knowledge workers. Today, the city boasts thriving biotechnology, information technology and software development sectors and keeps pace with larger geographical regions such as the Midwest, the Southeast and state of Texas for venture investment.

The University of California, San Diego plays an integral role in the city's venture ecosystem.



Courtesy UC San Diego, Photo by Marc Tule, copyright© 2001



# The Role of Government in Entrepreneurship and Innovation

Even though many venture-backed companies have the DNA to grow faster and generate more jobs than their non-venture counterparts, their success cannot be taken for granted. For this reason, the venture capital industry advocates for public policies that support the entrepreneur. These include intellectual property protection, open trade provisions, immigration support for highly-skilled workers and encouragement of capital formation. In these areas, government can play a vital role in maximizing venture capital's impact on the economy.

Supporting capital formation begins with a tax policy that rewards long-term investment and encourages calculated, entrepreneurial risk taking. Tax differentials, such as favorable rates for capital gains and carried interest, serve as important tools for encouraging investment in emerging growth companies. In our current financial system, venture capital is the only source of long-term, institutional funding for such companies. When government increases the tax burden on venture capital, however, it inhibits the flow of dollars to innovative young start-ups.

Venture-backed companies also require a reasonable, efficient and predictable regulatory apparatus. Due to the relatively long-term investment horizons (typically five to seven years and often longer) and the uncertainties inherent in new product development, venture capital is already one of the most risk-intensive asset classes in the world. Additional delays and uncertainties caused by swings in regulatory policy, inconsistent guidelines and processes for federal agency approvals and slow-moving bureaucracies can push the risk profile of even the most exciting innovation beyond what a venture capitalist can consider acceptable. A promising company has a greater chance of receiving venture funding if there is transparency around the regulatory approval process through which it will move.

Finally, the government has an important role to play in the funding of basic research. It's from this pipeline of scientific advances in fields like information technology, life sciences and clean technology – achieved at government and university labs – that the venture capital community has traditionally drawn its innovations. VCs then commercialize these advances through a process called applied research. In this way, the government and the venture capital community have enjoyed a symbiotic relationship in bringing new discoveries to market. Without government funding of basic research, however, this pipeline would dry up.

By understanding the effects of policy on venture capital and the innovative young companies it seeks to build, government can help ensure the health of this vital source of economic growth. In fact, many countries have begun to adjust their tax and regulatory policies and increase their research funding levels in order to provide the same competitive advantages that U.S. companies have enjoyed for decades. For this reason, U.S. lawmakers will have to consider the implications of government policy for venture capital firms and their portfolio companies more closely than ever.

## Methodology

To conduct this study, IHS Global Insight created a database comprised of 23,565 venture-backed firms. This database was updated from the 2007 Venture Capital database (containing 2006 statistics) which measured venture-backed employment and revenue across states and industries. This database was rolled forward to 2008 using transactions which included: (a) companies that went public, (b) companies which received venture-backed financing rounds, or (c) companies acquired during the April 1, 2007 to February 11, 2009 period. Careful cross-checking and research was conducted to avoid double counting.

Current 2008 employment and revenue statistics or estimates were entered into the database as available for the top 500 companies, as well. For the remainder of the companies' in the database, 2008 employment and revenue figures were projected using industry growth rates. Each company in the database is assigned a MoneyTree and a Thomson industry sector code which IHS Global Insight mapped to a specific North American Industry Classification Code System (NAICS) code. Using IHS Global Insight's Business Demographics Navigator<sup>®</sup>, sales and employment growth figures for the 2006 to 2008 period were estimated. These growth rates were applied to the 2006 sales and employment observations to obtain estimated 2008 employment and sales.

Venture-backed companies which were acquired were reviewed further. To ensure proper counting, if a venture-backed company was acquired by another venture-backed company it was removed from the database because its jobs and revenue were already included in those of the acquirer. If an acquirer was not venture-backed, if the acquired companies comprised more than 50 percent of the acquirer, it was prorated. If the acquired company comprised less than 50 percent of the acquirer, the company was deleted from the database. While this likely understates the totals, no obvious methodology was identified to track these minority components going forward.

### About the underlying venture capital activity data:

U.S. venture capital investment information is derived from PricewaterhouseCoopers/National Venture Capital Association MoneyTree Report, Data: Thomson Reuters, the official venture capital activity database of the NVCA. This report derives its data from several sources including quarterly surveys of NVCA members. We are grateful for the active participation of the venture industry in this survey.

---

## End Notes

- i Source: *The MoneyTree Report* by PricewaterhouseCoopers and the National Venture Capital Association, based on data from Thomson Reuters.
- ii Source: *National Venture Capital Association 2009 Yearbook*, prepared by Thomson Reuters.
- iii Global Insight's Business Demographics Navigator provides historical and forecast data projections for nominal sales, real sales, employment, and establishments at the national, state and metro geographies for 6 digit NAICS codes.



*National Venture Capital Association*

The National Venture Capital Association represents approximately 460 venture capital firms. NVCA's mission is to foster greater understanding of the importance of venture capital to the U.S. economy and support entrepreneurial activity and innovation. NVCA represents the public policy interests of the venture capital community, strives to maintain high professional standards, provides reliable industry data, sponsors professional development and facilitates interaction among its members.

*National Venture Capital Association, 1655 Fort Myer Drive, Suite 850, Arlington, VA 22209-3114  
703.524.2549 Fax: 703.524.3940 [www.nvca.org](http://www.nvca.org)*