

How Massachusetts Gets Her Groove Back:

*Can we fix the
New England startup engine?*

Mass Technology Leadership Council
Annual Meeting
February 27, 2008

HIGHLAND
CAPITAL PARTNERS

Highland Capital Partners

- Founded in 1987
- Offices in Lexington, Menlo Park, Geneva, Shanghai
- \$3B Under Management
- 35 investment professionals
- 175 portfolio companies
- Over 50 seed stage investments
- Highland Consumer Fund, Highland Entrepreneur Center

*How do we fix the
New England startup engine?*

3 Problems
3 Solutions

Problem #1

“California always
outperforms Massachusetts”

CA Dominates Tech Successes

Tech companies with >\$1B in sales

Rest of U.S.

52%

39%

Silicon Valley

9%

New England

But Why?

Above Average People

	<u>CA</u>	<u>MA</u>
Nobel Laureates	74	56
per million pop.	2.0	8.8
Patents	25,039	4,368
per million pop.	688	683

Entrepreneurial Activity

	<u>CA</u>	<u>MA</u>
NIH Grants	5,192	7,464
per million people	143	1,166
Small Companies	1,425,897	296,082
per thousand people	39	46

Venture Deal Volume

	<u>CA</u>	<u>MA</u>
Seed & Early	113	37
per million people	3.1	5.8
Later & Expansion	147	59
per million people	4.0	9.2

Better Weather

SFO

BOS

Sunshine

66%

58%

Average Temperature

53°F

52°F

2007 Tech IPOs by Region

	<u>CA</u>	<u>NE</u>
Cap Value <\$400 M	11	8
Cap Value >\$400 M	5	6

Better Returns

Net Venture Capital IRRs

	<u>CA</u>	<u>NE</u>
1 Year	11.4%	11.5%
5 Years	6.1%	(4.4)%
10 Years	85.6%	148.9%
15 Years	44.4%	57.8%

So What's Really Going On?

But who made those CA companies so big?

Allaire	Centra Software Inc.	Lotus	Raptor Systems
Altiga	Chipcom	Lycos	Relicore
Andover.Net	Computervision	M/A Com	Revivio
ApplQ	Concentra	Mainspring	Shiva
Aptis	Coral Network	Marcam	SightPath
Arris Networks	Critical Care America	MediSense	SpeechWorks
ArrowPoint	DataPower	Mercury Computer	Springtide
Atria Software	Dragon Systems	Microcom	SQA
Authentica	Funk Software	Mitek Surgical	Telebit
Avaki	FutureTense Inc.	Netlink	Telica
Beyond	Guardent	netNumina	Teloquent
Bowstreet	HighGround Systems	New Oak	TerraLogics
Brooktrout Inc.	IMlogic	Ocular	Verbind
Cadia Networks	Individual	Okena	Vermeer
CADKEY	iPhrase Technologies	Open Market	WaterCove
Cascade	LANcity	PictureTel	Weblinc
Cayman Systems	Language Technology	PlanetAll	Wellfleet
CenterLine	LiveVault	ProfitLogic	Winphoria

Me?

Allaire

Altiga

Andover.Net

ApplIQ

Aptis

Arris Networks

ArrowPoint

Atria Software

Authentica

Avaki

Beyond

Bowstreet

Brooktrout Inc.

Cadia Networks

CADKEY

Cascade

Cayman Systems

CenterLine

Centra Software Inc.

Chipcom

Computervision

Concentra

Coral Network

Critical Care America

DataPower

Dragon Systems

Funk Software

FutureTense Inc.

Guardent

HighGround Systems

IMlogic

Individual

iPhrase Technologies

LANcity

Language Technology

LiveVault

Lotus

Lycos

M/A Com

Mainspring

Marcam

MediSense

Mercury Computer

Microcom

Mitek Surgical

Netlink

netNumina

New Oak

Ocular

Okena

Open Market

PictureTel

PlanetAll

ProfitLogic

Raptor Systems

Relicore

Revivio

Shiva

SightPath

SpeechWorks

Springtide

SQA

Telebit

Telica

Teloquent

TerraLogics

Verbind

Vermeer

WaterCove

Webline

Wellfleet

Winphoria



Solution #1

Dream Bigger!
Hold Longer!

Problem #2

Is Everyone in
the Game?

Milken's "Top Ten" Ratings

By Number of Publications

Rank	University
1	Harvard University
2	University of Tokyo
3	University of London
4	UCSF
5	UPenn
6	UCSD
7	Johns Hopkins
8	Wash U, St. Louis
9	Univ of Wash
10	UCLA

By Number of Patents Issued

Rank	University
1	CalTech
2	MIT
3	Stanford
4	Johns Hopkins
5	Univ of Wisconsin
6	UCSF
7	Univ of Chicago
8	Univ of Michigan
9	Harvard University
10	Penn State University

By Number of Start-ups

Rank	University
1	MIT
2	Univ of CA System
3	Caltech
4	Georgia Tech
5	Stanford University
6	Univ of Michigan
7	Univ of Illinois
8	USC
9	UPenn
10	Univ of Minnesota

Tech Transfer & Commercialization

Rank	Institution Name	Patents Issued Score	Licenses Executed Score	Licensing Income Score	Startups Score	Overall Score
1	Massachusetts Inst. of Technology (MIT)	95.17	79.89	90.64	100.00	100.00
2	University of California System	97.26	85.25	95.16	83.24	96.59
3	California Institute of Technology	100.00	70.77	87.12	86.60	92.94
4	Stanford University	91.56	84.28	93.76	77.02	92.65
5	University of Florida	84.82	71.41	92.57	69.26	86.11
6	University of Minnesota	78.92	77.46	91.02	69.24	85.55
7	Brigham Young University	66.87	80.60	86.13	77.57	85.41
8	University of British Columbia	74.36	74.09	82.73	77.42	84.23
9	University of Michigan	82.70	72.25	77.98	74.89	82.54
10	New York University	73.68	63.30	100.00	58.16	81.63
11	Georgia Institute of Technology	76.80	60.51	72.79	83.41	80.95
12	University of Pennsylvania	76.41	72.05	83.95	67.15	80.83
13	University of Illinois, Chicago, Urbana-Champaign	72.80	74.55	77.60	72.72	80.35
14	University of Utah	77.08	70.80	81.56	66.01	79.40
15	University of Southern California	70.77	79.81	70.37	75.72	79.28
16	Cornell Research Fdn., Inc.	86.31	75.99	77.99	61.51	78.69
17	University of Virginia Patent Fndtn.	66.53	75.11	79.41	68.48	78.52
18	Harvard University	78.82	76.06	87.54	52.45	77.68
19	University of California, San Francisco	88.60	11.63	99.73	62.39	77.19
20	North Carolina State University	78.41	73.80	74.40	64.77	76.94
21	SUNY Research Foundation	79.51	64.36	84.63	58.01	76.90
22	W.A.R.F./University of Wisconsin	87.59	86.65	90.52	38.99	76.86
23	McGill University	77.47	68.76	72.12	69.24	76.80
24	University of Washington/Wash. Res. Fdn.	75.11	76.10	88.49	50.03	76.54
25	University of North Carolina, Chapel Hill	78.48	76.86	71.14	64.21	76.00

Sources: AUTM, Milken Institute

And on the West Coast?

“Startup” Search Results on University Websites

Stanford

19,500

MIT

35,200

Harvard

4,714

Stanford Has a Lot to Be Proud Of

And Isn't Afraid to Talk About It...

“In the last several decades, over 2,454 full-time companies were founded by 2,325 members of the Stanford University community.

“Companies such as Cisco Systems, Google, Hewlett-Packard, Sun Microsystems and Yahoo! saw their technical beginnings here and their commercial prosperity in nearby Silicon Valley. Understanding these successes, codifying that knowledge and disseminating it to future generations of entrepreneurs is an opportunity and an obligation that we must seize.”

Solution #2



Xconomy | Kendall Square
Business + Technology in the Exponential Economy

Home | About | Archives | Local Events | Resources | Xconomy | Kendall Square - Technology in the Exponential Economy | Business +

INNOVATION, ENTREPRENEURSHIP, ACADEMIA

Harvard's Opportunity to Lead


Chris Gabrieli 2/11/08

Last week, I was asked to moderate a panel of journalists (what a chance for an ex-candidate—this time it was my turn to ask them irritating, leading, and unfair questions!) in a discussion about the state of New England's innovation economy. Lots was said that covers old ground, and Xconomy's Bob Buderer has already posted on one point I raised.

But I do think it is worth discussing a bit more. I was trying to stir the pot about the question of our culture—are our attitudes part of the obstacles to an even more vibrant innovation and entrepreneurship economy? People generally think so, and when I asked for a show of hands of the conferees as to whether we compare unfavorably to Silicon Valley on this, nearly every hand shot up.

So... what can be done about that? I posited that the single biggest change would be if Harvard went from laggard and critic to leader and booster of the advance of ideas into products. After all, Harvard is one of the dominant players in our culture, and I think it is fair to say that it has greatly lagged MIT on this. MIT professors seem to take great pride in participation in startups (think Bose and Langer and many others), and the Institute places clear value on turning intellectual capital into real value for customers/patients, society, and, yes, even shareholders. As a result, Kendall Square is one of the most vibrant spots in the world for the innovation economy, especially in biotech, but there are Akamais too.

By contrast, Harvard's record is far weaker. Not only have fewer great products and companies emanated from a university whose intellectual excellence can hardly be



Related Posts

- Top 10 Mistakes By Entrepreneurs
- Power, Drugs, Money, and the Future of New England Innovation—the Journalists' View
- Innovation 101: Perspectives from a Humble MIT Undergrad
- Mobile Entrepreneurs: Social Networking Good, Carriers Bad
- Happy Labor Day! We're De-laboring. As Xconomy Completes Its Second Month, Here are Some Things You

Problem #3

What's Government Doing?

In Massachusetts

“Ties that Truly Bind: Non-Competition Agreements...”

Ties that Truly Bind: Non-competition Agreements, Executive Compensation and Firm Investment

Mark J. Gernsmaier
UCLA Anderson

Abstract

We study the effects of non-competition agreements by analyzing time-series and cross-sectional variation in the enforceability of these contracts across U.S. states. We find that tougher non-competition enforcement promotes executive stability. Increased enforceability also results in reduced executive compensation and shifts its form towards greater use of salary. We further show that stricter enforcement reduces research and development spending and capital expenditures per employee. These results are consistent with a model in which enforceable non-competition contracts encourage firms to invest in their managers' human capital. On the other hand, our findings suggest that these contracts also discourage managers from investing in their own human capital and that this second effect is empirically dominant.

Correspondence for Mark Gernsmaier, UCLA Anderson, 110 Westwood Plaza, Los Angeles, CA, 90095. E-mail: mark.gernsmaier@ucla.edu. I have benefited from the comments of Antonio Bernardi, Kjell Nyberg, Ilhan Bereznech and seminar participants at Harvard Law School, the NBER, UIUC, USC and Wharton. I thank Eric Noh for excellent research assistance.

Non-Compete Agreements

Alabama	5	Idaho	6	Missouri	7	Pennsylvania	6
Alaska	3	Illinois	5	Montana	2	Rhode Island	3
Arizona	3	Indiana	5	Nebraska	4	South Carolina	5
Arkansas	5	Iowa	6	Nevada	5	South Dakota	5
California	0	Kansas	6	New Hampshire	2	Tennessee	7
Colorado	2	Kentucky	6	New Jersey	4	Texas	5
Connecticut	3	Louisiana	4	New Mexico	2	Utah	6
Delaware	6	Maine	4	New York	3	Vermont	5
DC	7	Maryland	5	North Carolina	4	Virginia	3
Florida	7	Massachusetts	6	North Dakota	0	Washington	5
Florida	9	Michigan	5	Ohio	5	West Virginia	2
Georgia	5	Minnesota	5	Oklahoma	1	Wisconsin	3
Hawaii	3	Mississippi	4	Oregon	6	Wyoming	4

Solve the Non-Compete Problem

<http://opencompetition.wordpress.com/>

Bijan Sabet

bijan@sparkcapital.com

In the World



Where Can The Federal Government Have an Effect?

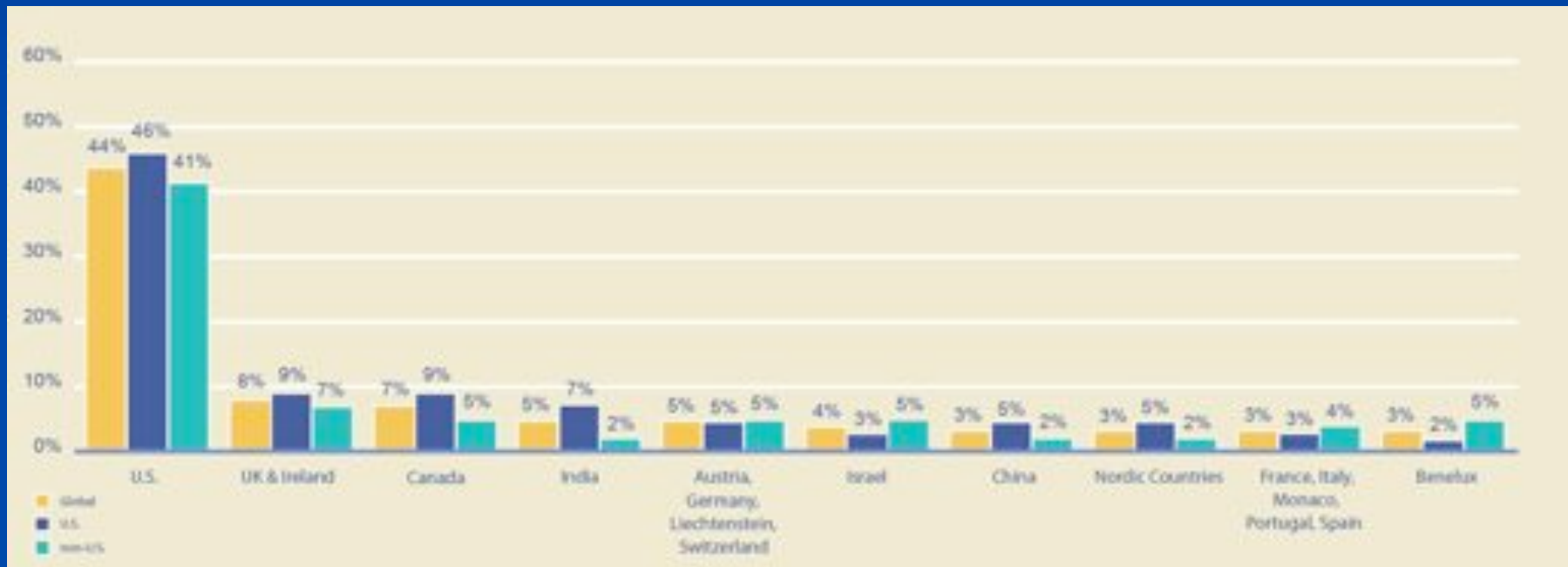
 Corporate Governance

 Litigation

 Tax Policy

Corporate Governance

In which countries is the cost of complying with corporate governance regulations too high?





National Venture Capital Association

Contact: Emily Mendell, NVCA, 610-565-3904, emendell@nvca.org

**NATIONAL VENTURE CAPITAL ASSOCIATION STATEMENT ON THE INTERIM
REPORT FROM THE COMMITTEE ON CAPITAL MARKETS REGULATION**

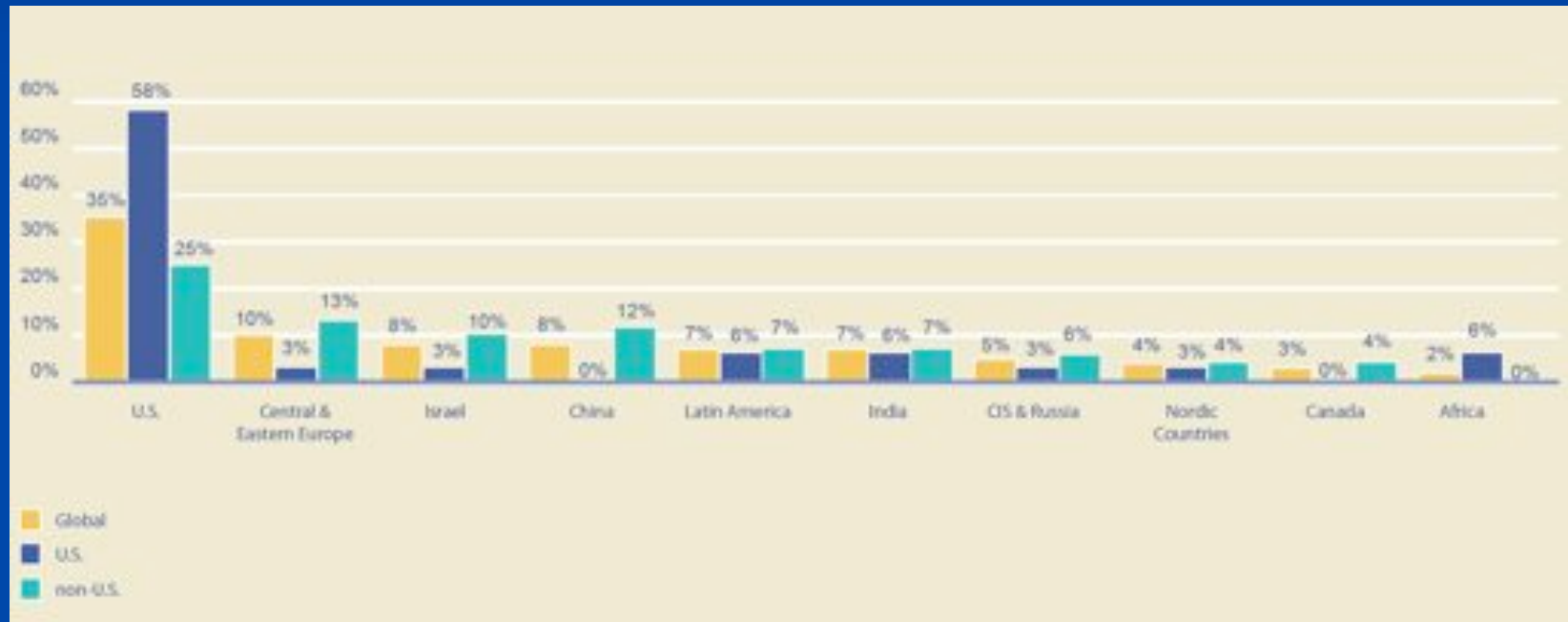
Association Asserts Recommendations Fall Far Short of Meaningful Progress

Washington D.C., November 30, 2006 – The following statement represents the position of the National Venture Capital Association (NVCA). Comments may be attributed to Mark G. Heesen, President of the NVCA:

Today's Interim Report from the Committee on Capital Markets Regulation confirmed several of the premises that the National Venture Capital Association has been asserting for some time. First, the benefits of Sarbanes Oxley Section 404 are uncertain. Second, the costs of implementing that section have been dramatically higher than originally estimated. The Committee estimates the cost at 35 times higher. Finally, Sarbanes Oxley 404 has been disproportionately burdensome to small companies.

Litigation

In which markets does the litigation environment create significant additional financial risk?





LAW BLOG

WSJ.com on law and business and the business of law.

[< Law Blog Judge of the Day: Nancy Oesterl\[...\] -- PREVIOUS](#) | [SEE ALL POSTS FROM THE](#)

September 18, 2007, 2:55 pm

Bill Lerach Agrees to Plead Guilty

Posted by Nathan Koppel

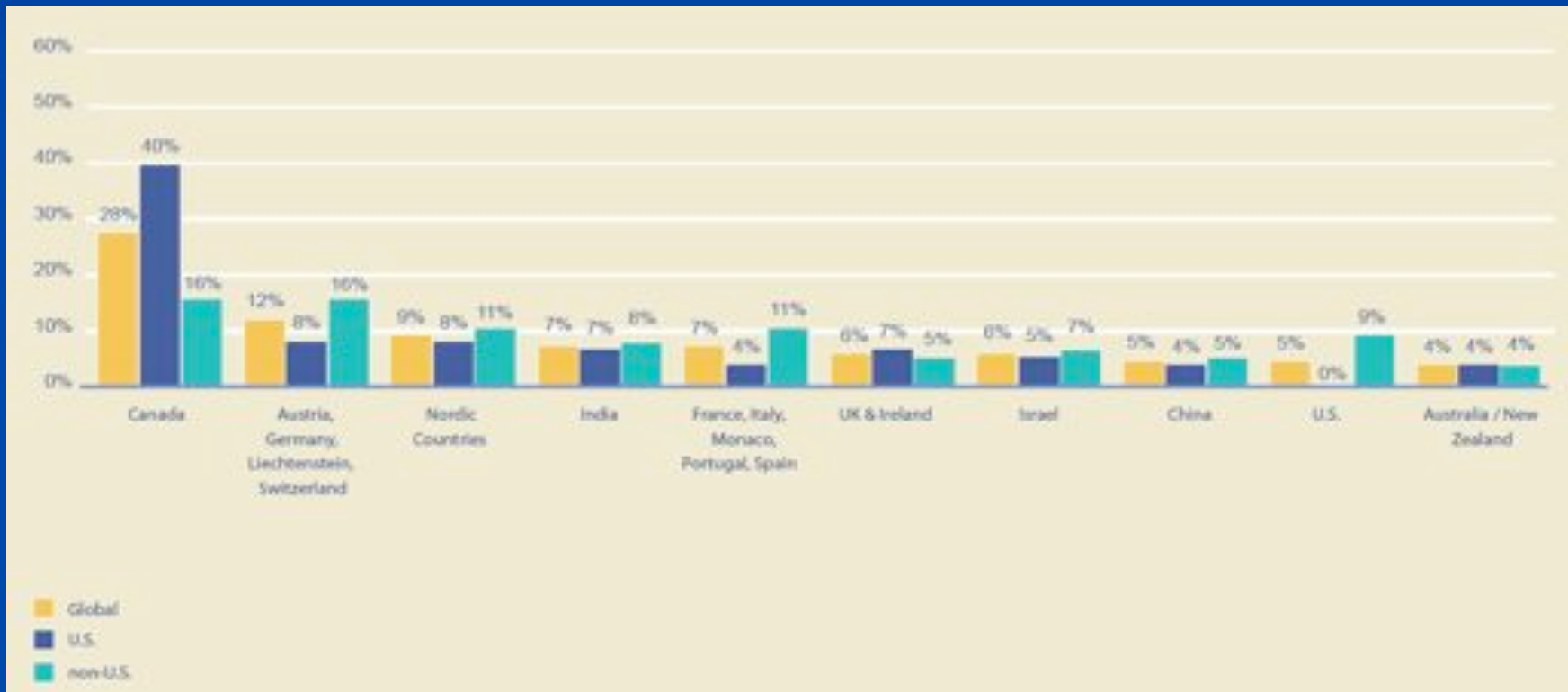


Federal prosecutors have announced that Bill Lerach has agreed to plea guilty to a federal conspiracy charge and acknowledged that he and others agreed to conceal from judges in federal courts Milberg Weiss's secret payment arrangements with named plaintiffs in class-action lawsuits. Here's the [criminal information](#), the [plea agreement](#) and the government's [press release](#).

Lerach was charged in federal court in Los Angeles with conspiring to obstruct justice and to make false statements under oath. In a plea agreement also filed this morning, the government says, Lerach agreed to forfeit \$7.75 million to the government, to pay a \$250,000 fine, and to accept a sentence ranging from one year to two years in federal prison.

Tax Policy

In which markets is the tax environment unfavorable to new business creation?





National Venture Capital Association

Contact: Emily Mendell, NVCA, 610-565-3904, emendell@nvca.org
Channa Luma, The Weiser Group, 202-641-6959, cluma@weisergroup.com

NVCA Board Members Meet in Washington to Discuss Stifling Effects of Carried Interest Tax Bill on Start-Up Companies and Innovation

*Venture Capitalists Continue to Urge Members of Congress Not to
Harm Emerging Entrepreneur Community*

September 18, 2007 – Washington, D.C. – The National Venture Capital Association's (NVCA) Board of Directors gathered today in the nation's capital to discuss deep concerns over the impact of proposed legislation to increase taxes on venture capitalists who successfully build new companies. The legislation, which has been proposed in the House of Representatives, targets carried interest compensation and would impact a number of asset classes. However, according to the NVCA, by increasing taxes on venture capitalists, Congress could be hurting the start-up

Solution #3

Don't Vote for Ralph Nader

How Massachusetts Gets Her Groove Back

1. Dream big and hold on.
2. Encourage our great institutions to act for the common good.
3. Promote smarter government.

Thank you.

**Mass Technology Leadership Council
Annual Meeting
February 27, 2008**

HIGHLAND
CAPITAL PARTNERS