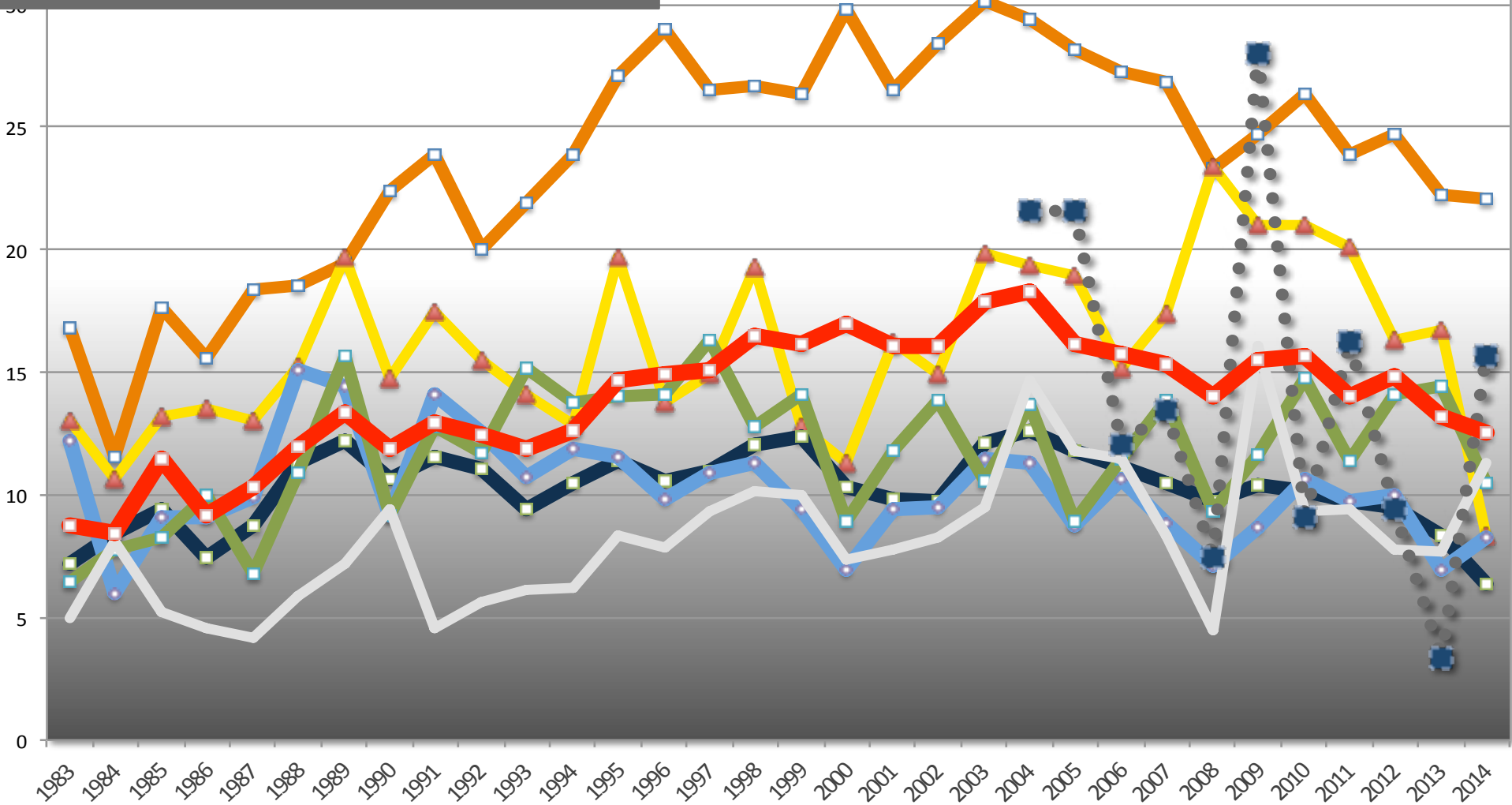
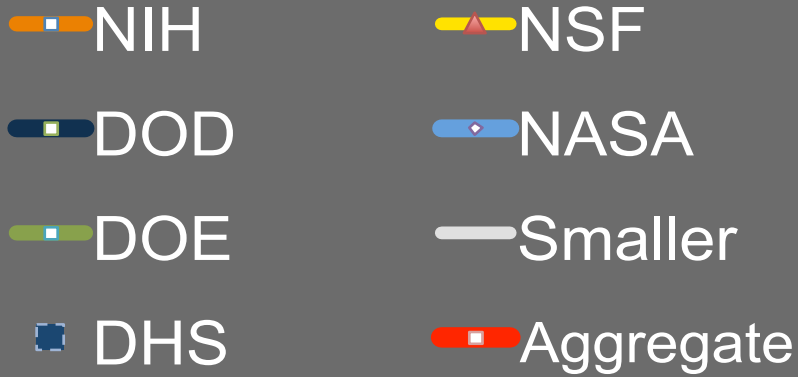




- ❖ Context Setting comments
- ❖ **Venture capital**
- ❖ Patents
- ❖ Publicly traded
- ❖ M&A transactions
- ❖ Business Collaborations

Extent of SBIR-Involvement by VC-Funded firms: Breakout by Agency 1983-2014

Note: data NOT current to most recent but distribution remains broadly consistent.



Important observations:

- ❖ We have considerable pre-2000 data on individual (and overall) SBIR Awardee VC activity but detail of full range of VC over period not readily available
- ❖ Late 90's into 2000-01 (dot.com yrs), SBIR-connected investment was very much on the radar screen but the major dollars were not coming in our direction
- ❖ Data is striking that post-2001 collapse - when bottom dropped out of 'typical' VC deal flow in overall volume - VC investment levels in SBIR firms remained broadly consistent year by year – see next chart
- ❖ Over 2009-11 - when VC SBIR eligibility was in question - dollar commitments fell. Surge when issue resolved.
- ❖ Strikingly differences since then
 - Far higher percentage of SBIR Awardees are VC funded *before* they are SBIR involved: a major shift
 - Growing percentage of Awardees have *smaller scale* equity capital: Angels, State and local investment etc
 - Corporate players assuming far more active role



Doing SBIR-VC numbers (June 2017)

Life of Program:

- ❖ Total SBIR-STTR awardees to date:
24,128
- ❖ Of these, **3,174** are Venture Funded

13.15%

Post 2000:

- ❖ Total awardees : **16,029**
- ❖ **2,555** are VC Funded

15.94%

Post 2011: VC eligibility

- ❖ Total awardees: **7,493**
- ❖ **1,109** are VC Funded

15.13%

380 of which were First Time SBIR involved after 2012 *and* already VC funded – a major uptick in those fitting this profile from earlier years.

SBIR VC Funding: Percentage of all US VC 2000-2016

	SBIR VC \$\$ (\$B)	All VC Funding (B)	SBIR VC \$\$: % All US VC
2000	\$3.97	\$105.00	3.78%
2001	\$4.02	\$75.38	5.33%
2002	\$3.29	\$15.54	21.16%
2003	\$3.46	\$16.95	21.24%
2004	\$3.74	\$23.92	21.64%
2005	\$4.31	\$23.19	16.11%
2006	\$3.84	\$26.44	14.96%
2007	\$5.32	\$31.01	17.11%
2008	\$4.68	\$29.14	16.06%
2009	\$3.27	\$21.56	15.15%
2010	\$3.58	\$25.78	13.88%
2011	\$3.44	\$36.25	9.49%
2012	\$5.68	\$32.67	17.39%
2013	\$4.67	\$35.79	13.05%
2014	\$4.97	\$58.94	8.43%
2015	\$5.55	\$58.94	7.49%
2016	\$4.12	\$59.25	6.95%

inknovation.com

SBIR

Notes re. Tracking SBIR-STTR Awardees against percentage VC funded 1983-present

As has been consistently the pattern, SBIR-STTR data is reflective of what is ongoing in the overall economy

- ❖ In early years of SBIR, relative lack of VC availability shows single digit percentage of VC-funded awardees
- ❖ Late nineties dot-com era -- major increase in VC SBIR involvement - followed by dot-com crash 2001-2003
- ❖ By 2004, uptick in SBIR involvement follows pattern of renewed (though different) VC activity
- ❖ During protracted last reauthorization period with (at least some) uncertainty as to outcomes, SBIR-STTR involvement by VC funded dropped off
- ❖ Passage and VC favorable implementation – especially in NIH -- reflected in uptick in VC funded involvement
- ❖ Size of many of those (Ph IIs) suggests dollars used to make larger awards (and by extension) to fewer firms

SBIR-STTR Equity Capital Sources: by Portfolio Totals (June 2017)

Total SBIR Firms in Portfolio	Funding Sources (ordered by number of SBIR Firms)		
<p>40+ (13 firms)</p>	<p>New Enterprise Associates, Kleiner Perkins Caulfield & Byers, Venrock Associates, Domain Associates LLC, Intel Corporation, Alta Partners, ARCH Venture Partners, SR One Limited, General Electric (various) Versant Ventures, Novartis Venture Fund., In-Q-Tel Inc, Oxford Bioscience Partners</p>		
<p>30-39 (14 firms)</p>	<p>Innovation Works, Ben Franklin Technology Partners, Healthcare Ventures LLC., InterWest Partners, Draper Fisher Jurvetson, US Venture Partners, Burrill & Company, MPM Capital, Canaan Capital, J&J Development, Sequoia Capital, Abingworth Management. Orbimed Advisors, CMEA Ventures</p>		
<p>20-29 (28 entities)</p>	<p>Connecticut Ventures, Inc, Polaris Partners, Venture Investors, Alloy Ventures, Harris & Harris, SV Life Sciences, Flagship Ventures, Sutter Hill Ventures, Sprout Group, Frazier & Company, MDS Capital, Advent International, Apax Partners, Morganthaler Ventures, Lilly Ventures, Delphi Ventures, Intersouth Partners, Tech Coast Angels, Oak Investment Partners, Sanderling Ventures, Tekla Capital Management LLC., Mohr Davidow Ventures, Advantage Capital Partners., Khosla Ventures, Bay City Capital Fund, Bessemer Venture Partners, Sofinnova Ventures</p>		
<p>15-19 (35 entities)</p>	<p>TEDCO., Charter Ventures, Avalon Ventures, TVM Capital, Rho Ventures, Sevin Rosen Funds, , Massachusetts Technology Development Corporation, Silicon Valley BancVentures, Keiretsu Forum, Maryland Technology Development, Asset Management Company, Atlas Venture, China Development Industrial Bank, Siemens Venture Capital, Motorola Solutions Venture Capital, Pfizer Venture Investments, WRF Capital, Maryland Dept of Business and Economics, Zero Stage Capital, Slater Technology Fund, Deerfield Management, Roche Venture Fund, CW Group, Inc., Advanced Technology Ventures, Skyline Ventures, HBM Partners, Applied Ventures, MedImmune Ventures Inc., Perseus Soros, TPG Ventures, Lux Capital, ProQuest, Goldman Sachs, IVP, Forward Ventures.</p>		
<p>13-14 (63 entities)</p>	<p>Osage University Partners, Texas Emerging, BioGenerator, Medtronic, Morgan Stanley VP, Pittsburgh Life Sciences Greenhouse, Snsung Ventures, JP Morgan, North Bridge, Invesco, Axiom VP, Mayfield Fund, Prism VP, BioAdvance, Boston Harbor Angels, Serra Ventures, Venture Mgmt, Merlin Biomed, Braemar Energy, Chevron Tech Ventures, Vantage Point VP, Easton Hunt Capital, Rockprot Capital, Essex Woodlands, Emerging Tech Partners, Amgen Ventures, Warburg Pincus, Solstice Capital, Serra Ventures, Vector Fund, Aurora Funds. Merck Capital, Dominion Ventures, Mistui & Co.,</p>		
<p>Those having smaller portfolios</p>	<p>6-12 SBIR-STTR portfolio firms: 256 entities</p>	<p>3-5 SBIR-STTR portfolio firms: 474 entities</p>	<p>1-2 SBIR-STTR portfolio firms: 2,356 entities</p>

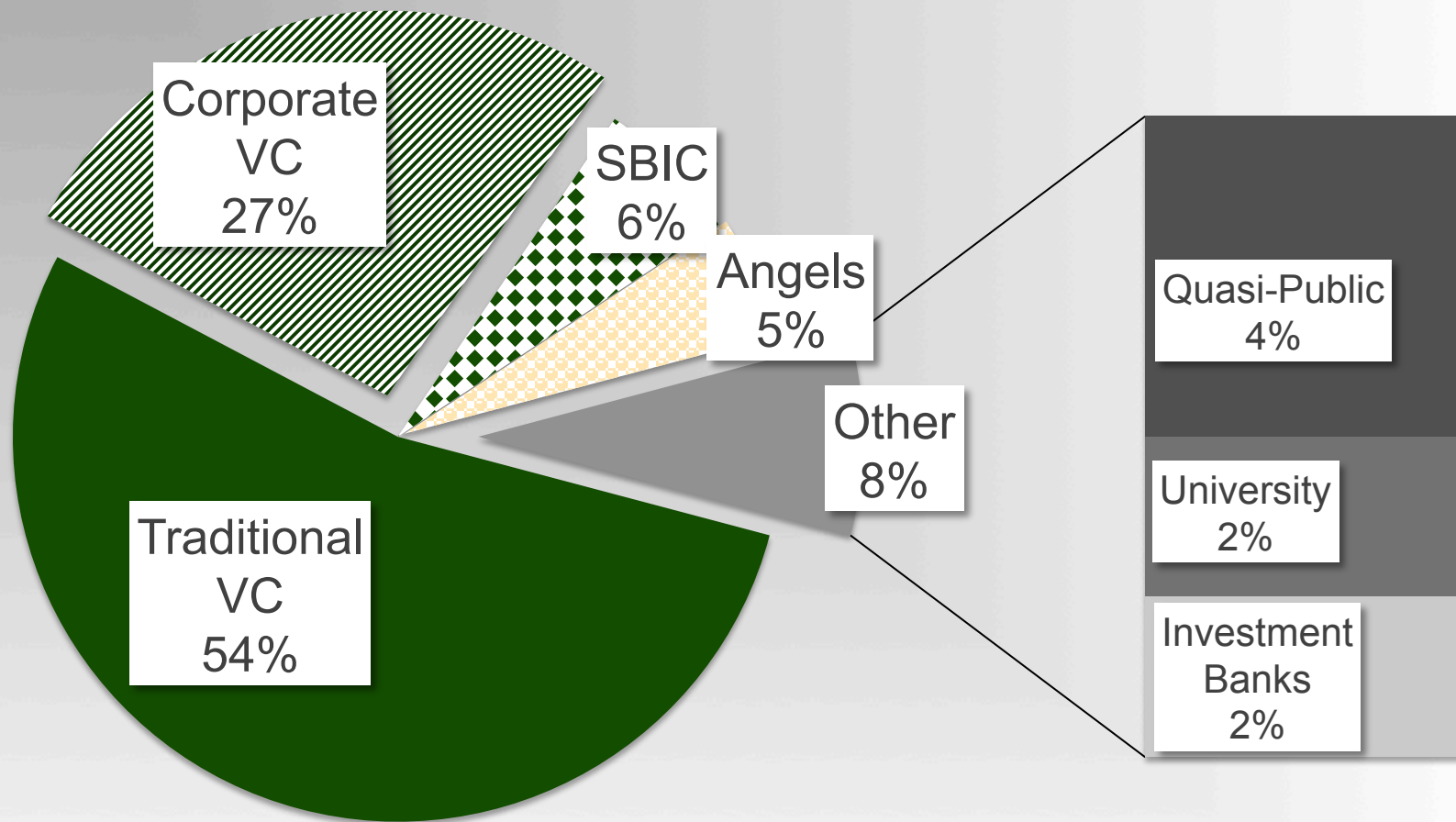
inknowvation.com

SBIR

United States Patent Application

SBIR

Types of Entities making Investment In SBIR-STTR involved firms





Has SBIR been a “Good Investment” *what does VC SBIR involvement suggest?*

Given the serious uptick recently in VC investment levels overall: total number and size of investments -- \$192B in the THREE years 2014-2016 -- an amount that required SIX years to achieve even after 2008 recession -- it is still the case that

ONE in every **TEN** Dollars
of VC Investment in US
recently has involved
an **SBIR** firm

(down from One in **SIX-SEVEN**)

Has SBIR been a “Good Investment” for VC ? *Cont*

Useful marker: Did the VC community
– as the expression goes –
“put their money where their mouth is?”

Let’s do the numbers:

Investments in SBIR-STTR involved firms to
date by the VC Community total

\$86.52 Billion

Almost double the total federal SBIR invest-
ment of \$45.50B ... and on track to pass
\$90B this year, you’d have to say *they did!*

