

UNIVERSITIES

REPORT.

2015-2016 EDITION



TOP GLOBAL PROGRAMS PRODUCING VC-BACKED **ENTREPRENEURS RANKED** BY FOUNDERS, UNICORNS AND MORE PG. 4

0&A: FUNDRAISING CHALLENGES FOR ENTREPRENEURS, VC NETWORKS & MORE

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Introduction

Third time's the charm.

We've ranked the top universities producing venture capital-backed entrepreneurs twice before, so the challenge has become how to make this particular edition even more interesting, informative and insightful.

In our first feature, we ranked the top 10 universities with undergraduate alumni who founded companies that received a first round of VC financing overall, then followed that up with rankings by year. In our second, we expanded our data by quite a bit. We listed the top 50 universities, then looked at the top 25 global MBA programs producing entrepreneurs who garnered VC. In addition, we looked at which programs ranked highest for VC-backed female entrepreneurs. Plus, we threw in league tables, analysis of impact investing and more, which you can find here.

Both features were very popular, so how did we top that this time around? First, the expected: We've updated our previous rankings of undergraduate and MBA programs worldwide to track numbers from the start of 2010 through the end of July 2015, drawing from our expanded VC database of 25,000+ valuations, 970,000+ people and 78,000+ VC-backed companies. To top the tables off, we ranked the top undergrad and MBA programs producing founders of unicorns—companies that have achieved a private valuation of \$1 billion or more. As an added bonus, we've created tables of investor networks based on top-ranking universities, but to learn more, you'll have to ask us about that here.

As for additional venture-related content, there's plenty. Ben Hallen, Ph.D., of the University of Washington Foster School of Business shared his research on competitive information leakage, investor evaluation by entrepreneurs and more. Pulling from the PitchBook Platform, we examined the emergence of the private IPO. There's more, but you can find out for yourself in the following pages.

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TOP UNIVERSITIES TEOR VC-backed Entrepreneurs **Entrepreneurs** **E

At the end of the day, the venture industry is based on relationships. We've heard many experienced investors say time and again how crucial a factor the proper team is, or how once they have built a strong enough relationship with certain people, they will follow them nearly anywhere. The interplay between entrepreneur and investor, between startup teams, between limited partner and general partner, all form the human nexus that enables the flow of money to innovation.

How does this relate to university programs producing entrepreneurs? There's a fairly strong case to be made that often it's not even the degree you graduate with but the personal connections you make in your time at school that determine your future. Which professors you interacted with the most, which classmates you bonded with closely—the people you end up spending the most time with, in short, end up directing your path. For entrepreneurs this is especially true. You may have the technical savvy and know-how that a degree in mechanical engineering confers, but do you know how to construct a 90-day business launch plan? How are your public relations skills? It is easier than ever to connect with people around the world nowadays, but in an era of depersonalized communication,

| TOP 50 U | JNDERGRADUATE | entrepren | company | capital rais |
|--------------|----------------------------|-----------|---------|--------------|
| 1 | Stanford | 561 | 472 | \$5,896 |
| 2 <u>Cal</u> | UC Berkeley | 536 | 468 | \$4,107 |
| 3 | MIT | 435 | 369 | \$4,555 |
| 4 | Harvard | 404 | 359 | \$4,955 |
| 5 PENN | University of Pennsylvania | 393 | 351 | \$3,047 |
| 6 | Cornell | 323 | 291 | \$3,220 |
| 1 | University of Michigan | 312 | 272 | \$1,948 |
| 8 | University of Texas | 293 | 266 | \$2,005 |
| 9 | Tel Aviv University | 250 | 204 | \$1,754 |
| 10 ILLINOIS | University of Illinois | 239 | 217 | \$2,061 |
| | | | DATA: F | PITCHBOOK |

personal connections come at a premium. Direct networks are more highly prized nowadays—especially the networks formed during the formative years of degree programs, when you are surrounded by likeminded individuals.

That is why it's so interesting to examine the rankings of the programs producing the most entrepreneurs. It's to be expected that top-notch schools lend themselves to the types of ambitious, inspired innovators who

start plenty of companies and rake in plenty of venture capital. Yet that just goes to show just how valuable the networks created by those types of people are while they are at school. It also is impressive to see how many companies have been started by entrepreneurs from those schools, not to mention how much VC they have garnered. Founders from the top 10 undergrad programs alone have created over 3,000 companies and raked in \$33.5 billion in VC.

See UNIVERSITIES on pg. 7 »

sed (\$M)

| TOP 50 UNDERGRADUATE (CONT.) | entrepreneur count | company count | capital raised (\$M) | | entrepreneur count | company count | capital raised (\$M) |
|------------------------------------|--------------------|---------------|----------------------|-----------------------|--------------------|---------------|----------------------|
| 11 Yale | 225 | 207 | \$1,756 | 31 Boston University | 140 | 134 | \$1,026 |
| 12 © Carnegie Mellon | 223 | 189 | \$1,581 | 32 Georgia Tech | 139 | 124 | \$1,341 |
| 13 Columbia | 219 | 201 | \$2,332 | 33 McGill University | 136 | 130 | \$1,703 |
| 14 Princeton | 215 | 204 | \$1,840 | 34 😛 U. of Toronto | 133 | 118 | \$1,523 |
| 15 Ucla UCLA | 212 | 198 | \$2,136 | 35 Georgetown | 129 | 124 | \$951 |
| 16 U. of Wisconsin | 211 | 192 | \$1,740 | 36 Purdue | 125 | 115 | \$773 |
| 17 % USC | 194 | 180 | \$1,044 | 37 QS UNC | 116 | 108 | \$1,104 |
| 18 | 193 | 153 | \$1,846 | 38 Penn State | 116 | 104 | \$612 |
| 19 Duke | 191 | 184 | \$2,443 | 39 | 116 | 102 | \$968 |
| 20 🍒 Technion | 187 | 161 | \$1,176 | 40 Trinity College | 114 | 106 | \$655 |
| 21 U. of Waterloo | 182 | 141 | \$2,616 | 41 Tufts University | 112 | 107 | \$1,254 |
| 22 NYU | 176 | 162 | \$959 | 42 C Santa Barbara | 109 | 101 | \$410 |
| 23 Brown | 176 | 158 | \$1,720 | 43 Ohio State | 105 | 94 | \$547 |
| 24 U. of Maryland | 168 | 156 | \$1,001 | 44 OC Davis | 104 | 99 | \$528 |
| 25 W U. of Washington | 165 | 142 | \$930 | 45 Boston College | 103 | 93 | \$499 |
| 26 Kan Diego | 160 | 154 | \$1,511 | 46 U. of Minnesota | 100 | 93 | \$891 |
| 27 Dartmouth | 154 | 140 | \$1,265 | 47 Vanderbilt | 95 | 86 | \$500 |
| 28 Northwestern | 148 | 135 | \$1,337 | 48 Queen's University | 94 | 82 | \$509 |
| 29 🔑 U. of Colorado | 143 | 131 | \$1,489 | 49 Indiana University | 94 | 87 | \$793 |
| 30 💥 U. of Virginia | 140 | 133 | \$930 | Washington U. | 90 | 87 DATA: P | \$710 ITCHBOOK |

| TOP | UNIVERS | SITIES: TOP 5 COMPANIES BY CAPITAL RAISED (UNDERGRAD.) |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 1 | | Stanford Snapchat, RET Capital, Mereo BioPharma, 21, Blueprint Medicines |
| 2 | Cal | University of California, Berkeley Campaign Monitor, Jand, Quixey, Munchery, Udemy |
| 3 | | MIT Human Longevity, Oscar Health, Seres Therapeutics, Langkoo, Munchery |
| 4 | H | Harvard Zenefits, Coupang, Blue Apron, Blu Homes, Bond Street Marketplace |
| 5 | PENN | University of Pennsylvania Flatiron Health, Cvent, Anki, Jounce Therapeutics, Wheels Up Partners |
| 6 | | Cornell Moderna, Wayfair, Kilowatt Financial, Hampton Creek Foods, PureTech Ventures |
| 7 | | University of Michigan Nest Labs, Altiostar Networks, Tower Cloud, ShopKeep.com, Twist Bioscience |
| 8 | 1 | University of Texas Jade eServices, Calxeda, Jounce Therapeutics, Hotel Tonight, Casper Sleep |
| 9 | ** | Tel Aviv University Houzz, ironSource, Credorax, Primary Data, Qwilt |
| 10 | ILLINOIS | University of Illinois Avant, Affirm, Grand Rounds, WhisperText, MyoKardia |
| 11 | | Yale Dataminr, AltSchool, Hua Medicine, Spark Therapeutics, SimpliSafe |
| 12 | SSE MELLON UNITED STATE OF PARTY OF PAR | Carnegie Mellon Hortonworks, Nest Labs, LendingHome, Anki, Duolingo |
| 13 | ap ap | Columbia DraftKings, Human Longevity, Denali Therapeutics, ZestFinance, Compass |
| 14 | P | Princeton Jet, Docker, Wimdu, Casper Sleep, Telcare |

UCLA Hortonworks, Invitae, Flipagram, The Honest Company, Global Blood Therap.

| TOP 25 MBA | entrepreneur count | company count | capital raised (\$M) | | | entrepreneur count | company count | capital raised (\$M) |
|------------------------|--------------------|---------------|----------------------|-------|------------------|--------------------|---------------|----------------------|
| 1 Harvard | 557 | 497 | \$6,746 | 14 | U. of Michigan | 78 | 70 | \$414 |
| 2 Stanford | 394 | 341 | \$4,077 | 15 | U. of Texas | 71 | 63 | \$370 |
| 3 U. of Pennsylvania | 327 | 285 | \$4,084 | 16 | Duke University | 68 | 66 | \$266 |
| 4 AMIT | 219 | 190 | \$3,366 | 17 | Babson College | 67 | 61 | \$416 |
| 5 Northwestern | 211 | 194 | \$2,273 | 18 | Dartmouth | 52 | 48 | \$583 |
| 6 Columbia | 186 | 174 | \$1,267 | 19 | USC | 51 | 50 | \$460 |
| 7 INSEAD INSEAD | 185 | 165 | \$1,936 | 20 ie | IE Bus. Sc. | 47 | 39 | \$360 |
| 8 U. of Chicago | 166 | 151 | \$1,520 | 21 | Carnegie Mellon | 46 | 42 | \$729 |
| 9 (al UC Berkeley | 141 | 128 | \$1,253 | 22 | Yale | 43 | 41 | \$185 |
| 10 NYU | 120 | 117 | \$1,565 | 23 | HEC Paris | 42 | 42 | \$275 |
| 11 Ucla UCLA | 118 | 113 | \$932 | 24 | Cornell | 41 | 41 | \$215 |
| 12 Business LBS | 94 | 84 | \$384 | 25 | U. of Washington | 40 | 36 | \$69 |
| 13 Tel Aviv University | 83 | 80 | \$1,112 | | | | DATA: P | ITCHBOOK |

» UNIVERSITIES from pg. 4

Going down the list, things get a bit more interesting. It's not just globally renowned private universities that can boast plenty of entrepreneurs. Public U.S. state schools such as UCLA, UC Berkeley, the University of Washington and others make a strong showing in the undergraduate tables, all ranking in the top 25. As for MBA programs, it makes sense INSEAD and Tel Aviv University ascend up the list, with their established professional programs unsurprisingly turning out a considerable number of entrepreneurial sorts.

Another interesting insight gleaned from these tables is the confluence of venture capital, established industries and academic hotspots. Silicon Valley is the prime example of all three, but as we noted in our prior Universities feature, the University of Michigan and University of Colorado both represent the intersection of emerging or maturing startup ecosystems and academia. Our geographic breakdown further illustrates such intersections: The strength of Israel's tech scene is well known by now, while healthy

numbers from no fewer than four India-based MBA programs—Indian School of Business, Indian Institute of Management-Ahmedabad, IIM-Calcutta and IIM-Bangalore—point to the spreading global reach of the maturing venture industry.

There's a lot to explore in the data behind these tables. In our platform, you can scrutinize expanded versions of these lists, identify founders or investors, scan detailed financing histories and more. We'd be happy to get you what you need. Email us for a free demo at demo@pitchbook.com.

TOP UNIVERSITIES: TOP 5 COMPANIES BY CAPITAL RAISED (MBA)

Harvard GrabTaxi, Oscar Health Insurance, Jet, Jumia Nigeria, Blue Apron Stanford Social Finance, Harry's Razor Company, Jumei Intl, Cardlytics, LendingHome University of Pennsylvania Harry's Razor Company, Jet, Denali Therapeutics, Jand, Grocery Delivery MIT Rocket Internet, Lazada, Foodpanda, Grocery Delivery, The Iconic Northwestern University Lazada, Westwing Home & Living, Craftsvilla, The Iconic, Hotel Tonight Columbia University Betterment, ShopKeep.com, Edmodo, Compass, Locodel Solutions INSFAD INSEAD Comércio Digital BF, Houzz, Seres Therapeutics, TransferWise, Wimdu University of Chicago Juno Therap., Denali Therap., WhisperText, Dr. on Demand, Braintree University of California, Berkeley QuantumScape, The Iconic, Avalanche Biotech, FreedomPop, Netskope New York University Lazada, Illumio, Sprinklr, Scopely, ImaginAb **UCLA** The Honest Company, Tealium, Radiology Partners, Razer, Utopia Global London **London Business School** Business WorldRemit, Next Education India, Badgeville, ASLAN Pharma, 8 Securities School Tel Aviv University Houzz, ironSource, Karyopharm Therapeutics, Qwilt, Ravello Systems University of Michigan Wimdu, Upstart Network, NeuMoDx Molecular, Beckon, True Fit

Beauty Trend, Xenex Disinfection Svcs, WellAware, Servergy, Tristream Energy

University of Texas

| | PE UNDERGRAD | entrepreneur ct | company count | capital raised (\$M) |
|-----------------------|-------------------|-----------------|---------------|----------------------|
| 1 | Trinity College | 114 | 106 | \$655 |
| 2 UNIVERSITY OXFOI | Oxford | 72 | 68 | \$983 |
| 3 | U. of Manchester | 71 | 70 | \$431 |
| 4 QUELING | U. College Dublin | 70 | 62 | \$275 |
| 5 | Cambridge | 69 | 65 | \$419 |
| 6 [5 | London Sc. Econ. | 54 | 53 | \$1,018 |
| 7 | Copenhagen B. Sc. | 54 | 49 | \$1,318 |
| Imperial Co London | Imperial College | 49 | 48 | \$412 |
| 9 | U. of Nottingham | 41 | 36 | \$233 |
| 10 | U. of Warwick | 39 | 36 DATA: P | \$153 Ітснвоок |

| EUROPE MBA | entrepreneur | company cou | capital raised |
|------------------------------|--------------|-------------|----------------|
| 1 INSEAD INSEAD | 185 | 165 | \$1,936 |
| 2 London Business School LBS | 94 | 84 | \$384 |
| 3 IE Bus. Sc. | 47 | 39 | \$360 |
| 4 HEC Paris | 42 | 42 | \$275 |
| 5 IESE Bus. Sc. | 39 | 32 | \$171 |
| 6 Oxford | 38 | 31 | \$252 |
| 7 ESADE ESADE | 38 | 36 | \$32 |
| 8 U. College Dublin | 18 | 18 | \$164 |
| 9 ESSEC | 17 | 17 | \$231 |
| 10 LSE London Sc. Econ. | 15 | 15 | \$79 |

REST OF WORLD UNDERGRAD

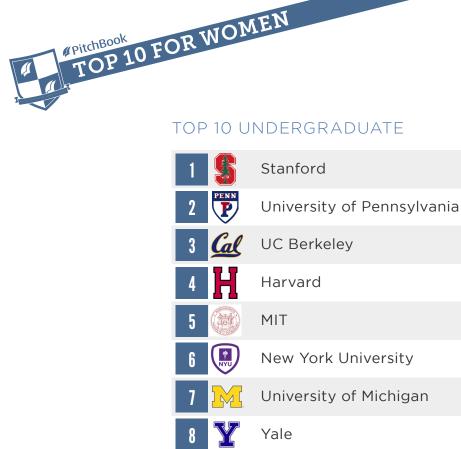
| Tel Aviv U | niversity | 250 | 204 | \$1,754 |
|-----------------|-----------|-----|-----|---------|
| 2 🍒 Technion | | 187 | 161 | \$1,176 |
| 3 U. of Wate | rloo | 182 | 141 | \$2,616 |
| 4 McGill Univ | ersity | 136 | 130 | \$1,703 |
| 5 U. of Toron | nto | 133 | 118 | \$1,523 |
| 6 D Hebrew Ur | niversity | 116 | 102 | \$968 |
| 7 Queen's U | niversity | 94 | 82 | \$509 |
| 8 Interdiscip | . Center | 90 | 73 | \$524 |
| 9 Pen Gurion | n U. | 88 | 80 | \$493 |
| 10 U. of Britis | h Col. | 76 | 70 | \$470 |

DATA: PITCHBOOK

REST OF WORLD MBA

| 1 | Tel Aviv University | 83 | 80 | \$1,112 |
|----|-----------------------|----|----|---------|
| 2 | Indian School of Bus. | 33 | 28 | \$138 |
| 3 | IIM*-Ahmedabad | 32 | 30 | \$519 |
| 4 | FGV Brazil | 29 | 24 | \$345 |
| 5 | IIM-Calcutta | 24 | 23 | \$203 |
| 6 | U. of Toronto | 21 | 18 | \$42 |
| 7 | U. of W. Ontario | 20 | 18 | \$134 |
| 8 | 🈿 Technion | 20 | 18 | \$140 |
| 9 | IIM-Bangalore | 20 | 19 | \$212 |
| 10 | Interdiscip. Center | 19 | 17 | \$26 |

DATA: PITCHBOOK



DATA: PITCHBOOK

entrepreneur count

70

62

57

48

42

39

35

34

32

31

company count

67

59

56

48

41

38

29

34

31

31

capital raised (\$M)

\$423

\$249

\$235

\$528

\$251

\$105

\$194

\$219

\$226

\$80

TOP 10 MBA

Cornell

University of Texas

| 1 H | Harvard | 90 | 82 | \$1,200 |
|------------|----------------------------|----|-------|-----------|
| 2 | Stanford | 65 | 61 | \$234 |
| 3 PENN | University of Pennsylvania | 40 | 37 | \$437 |
| 4 | MIT | 35 | 33 | \$115 |
| 5 | Columbia | 34 | 34 | \$140 |
| 6 | Northwestern | 22 | 20 | \$134 |
| 1 Cal | UC Berkeley | 17 | 17 | \$95 |
| 8 | University of Chicago | 13 | 13 | \$16 |
| 9 INSEAD | INSEAD | 13 | 13 | \$139 |
| 10 | University of Michigan/NYU | 12 | 10/12 | \$30/\$37 |

TOP 10 BY FUNDING YEAR

| TOP 10 U | NDERGRADUATE | 2010-'11 | '11-'12 | '12-'13 | '13-'14 | '14-'15 |
|------------------|------------------------------------------------------------------------------|----------------------------------|----------------------------------|----------------------------------|-----------------------------------------|----------------------------------|
| 1 | Stanford | 80 | 131 | 144 | 103 | 103 |
| 2 Cal | UC Berkeley | 78 | 106 | 143 | 112 | 97 |
| 3 | MIT | 66 | 88 | 115 | 93 | 73 |
| 4 | Harvard | 59 | 80 | 77 | 110 | 78 |
| 5 PENN | University of Pennsylvania | 51 | 78 | 95 | 94 | 75 |
| 6 | Cornell | 46 | 81 | 76 | 66 | 54 |
| 7 | University of Michigan | 38 | 79 | 87 | 54 | 54 |
| 8 | University of Texas | 34 | 50 | 67 | 76 | 66 |
| 9 | Tel Aviv University | 40 | 57 | 49 | 66 | 38 |
| 10 ILLINOIS | University of Illinois | 45 | 41 | 55 | 45 | 53 |
| | | | | | | |
| TOP 10 M | BA | | | | DA ⁻ | TA: PITCHBOOK |
| TOP 10 M | BA Harvard | 89 | 120 | 123 | DA [*] | та: рітснвоок |
| TOP 10 M | | 89 63 | 120 | 123 89 | | |
| 1 H | Harvard | | | | 131 | 94 |
| 1 H | Harvard Stanford | 63 | 83 | 89 | 131 | 94 75 |
| 1 H 2 3 PENN | Harvard Stanford University of Pennsylvania | 63 55 | 83 75 | 89 | 131 84 53 | 94 75 64 |
| 1 H 2 S 3 PENN 4 | Harvard Stanford University of Pennsylvania MIT | 63 55 24 | 83 75 52 | 89 80 58 | 131 84 53 40 | 94 75 64 45 |
| 1 H 2 3 PENN 4 5 | Harvard Stanford University of Pennsylvania MIT Northwestern | 63 55 24 29 | 83 75 52 41 | 89 80 58 44 | 131 84 53 40 52 | 94 75 64 45 |
| 1 | Harvard Stanford University of Pennsylvania MIT Northwestern Columbia | 63 55 24 29 25 | 83 75 52 41 44 | 89 80 58 44 45 | 131 84 53 40 52 37 | 94 75 64 45 45 |
| 1 | Harvard Stanford University of Pennsylvania MIT Northwestern Columbia INSEAD | 63 55 24 29 25 20 | 83 75 52 41 44 32 | 89 80 58 44 45 48 | 131 84 53 40 52 37 54 | 94 75 64 45 45 35 |



| TOP 10 U | NDERGRADUATE | entrepreneur count | unicorn count | capital raised (\$M) | top 3 companies by VC raised |
|-------------|------------------------|--------------------|---------------|----------------------|------------------------------------------------|
| 1 | Stanford | 12 | 10 | \$4,929 | Palantir Tech., Snapchat, Aliphcom |
| 2 | Harvard | 10 | 9 | \$5,165 | Facebook, Cloudera, Zenefits |
| 3 Cal | UC Berkeley | 6 | 6 | \$2,502 | Cloudera, Calient Tech., Machine Zone |
| 4 | Cornell | 6 | 5 | \$2,478 | Lyft, Moderna, Wayfair |
| 5 | University of Michigan | 6 | 4 | \$1,825 | Groupon, Medallia, Twilio |
| 6 | BYU | 5 | 4 | \$783 | Qualtrics, Pluralsight, InsideSales.com |
| 7 | University of Waterloo | 5 | 4 | \$1,615 | Hangzhou Kuaidi, ContextLogic, Instacart |
| 8 | MIT | 5 | 5 | \$1,661 | Dropbox, A123 Systems, Oscar Health |
| 9 P | Princeton | 4 | 3 | \$582 | AppNexus, Docker, Akamai Technologies |
| 10 TOP 6 ME | Brown BA | 4 | 4 | \$1,010 | MongoDB, Funding Circle, Jand DATA: PITCHBOOK |
| 1 | Stanford | 15 | 11 | \$3,157 | HomeAway, Soc. Finance, Prosper Mktpl. |
| 2 | Harvard | 14 | 10 | \$2,954 | Zynga, GrabTaxi, Oscar Health Insurance |
| 3 PENN | U. of Pennsylvania | 6 | 3 | \$1,798 | Dianping.com, Jand, Grocery Delivery |
| 4 INSEAD | INSEAD | 6 | 5 | \$807 | MongoDB, Houzz, BlaBlaCar |
| 5 | MIT | 5 | 5 | \$2,449 | Rocket Internet, Lazada, A123 Systems |
| 6 | New York University | 4 | 4 | \$1,299 | Lazada, Violin Memory, Illumio |

If Winter Is Coming, How Well Are Unicorns Prepared?

BY MIKEY TOM

hat if the private market tourists go home for the winter? What would happen to the unicorns if the funding pipeline froze?

The slowdown in the Chinese economy, combined with the European debt crisis and the recent plunge in oil prices, has contributed to a global economic environment that has experienced increasing uncertainty. The culmination of these events played a role in the drop in the U.S. stock market that we saw last month, fueling a lot of buzz

about how long valuations in the venture capital industry can remain at their lofty levels. If these trends continue, and the markets take a turn for the worse, companies looking to fundraise will find it harder to secure more funding through both the public and private markets.

The companies that may be hit especially hard are unicorns (startups valued at \$1 billion or more). After raising large rounds at such high valuations, many will be expected to be working toward an IPO or will need to raise another large round from the private sector.

t's hard to blame these startups for grabbing money while it's cheap, but winter may be coming for raising capital and the jury is out on whether some of these companies are prepared to survive. Paper gains burn up pretty quickly, after all. Erin Griffith (Fortune), Brad Feld (Foundry Group), Nick Bilton (Vanity Fair) and Aileen Lee (Cowboy Ventures), among others, have written about the potential death of some of these unicorns, a notion that has led to a new buzzword: unicorpses.

See WINTER FOR UNICORNS on pg. 15»

Q&A: Professor Benjamin Hallen Discusses Fundraising for Entrepreneurs, Investor Evaluation and More

BY GARRETT BLACK

or this edition of our
Universities Report, we
reached out to Benjamin
Hallen, Assistant Professor
of Management at the Foster School
of Business at the University of
Washington, to talk about common
challenges facing entrepreneurs,
among other issues.



Q: In your opinion, what are lesser known but valuable aspects of successful fundraising entrepreneurs should know?

A: Entrepreneurs often correctly recognize that investors will look at the characteristics of their target market, the viability of their solution, their progress to date, any competitive advantages, and the fit between the opportunity and the team. Moreover, most entrepreneurs quickly learn that it is generally best to approach investors through referrals.

Yet these elements on their own are not sufficient, especially if entrepreneurs wish to raise funds quickly and from desired investors. A few years ago, Kathy Eisenhardt at Stanford University and myself came to recognize that many of our former students had promising ideas

but were struggling through slow and difficult fundraising processes. Accordingly, we set out to study how might entrepreneurs more efficiently raise venture capital. We studied this by building detailed case studies of the fundraising histories of several entrepreneurs in the Internet security sector. We tracked the entrepreneurs across multiple attempted rounds, looked at how they sought to raise, and interviewed both investors who passed on the deals and who ultimately invested. We were also fortunate to observe a number of instances where entrepreneurs struggled to raise, changed their fundraising tactics and then were quite successful - thus helping us further tease out the impact of the idea and team from fundraising behaviors.

Our findings, which were ultimately published in the Academy

of Management Journal, showed that entrepreneurs lacking strong working relationships with target investors could improve the efficiency and effectiveness of their fundraising through four specific behaviors:

- Casual dating: approaching an investor a few months prior to a round to ask for advice and to get to know one another, while avoiding explicit discussions about an investment at that time. This accelerates trust by delaying tensions around a deal decision, while also allowing entrepreneurs to preemptively address identified flaws.
- 2. Timing around proofpoints: waiting to begin formally raising until right after reaching a simple and easily verified accomplishment. For example, beta customers now using the product, closing the first enterprise sales, or reaching a certain growth rate. This makes diligence easier and allows all of the partners in a VC firm to quickly get on board.
- 3. Scrutinizing interest: recognizing that many investors will continue ongoing meetings while not actively moving toward an investment. Entrepreneurs were more efficient when they focused on investors who were proactively engaging in additional diligence and not simply requesting regular coffees or updates.
- 4. Crafting alternatives: seeking an outside such as bootstrapping, not raising, or talking to acquirers so as to force investor decisions. What was interesting was that entrepreneurs generally had to have an option besides interest from other VCs to get the first offer.

Q: What are some of the biggest challenges for entrepreneurs in the investor evaluation process?

Time and knowledge. Time because entrepreneurs are really busy with all their other venture challenges such as finding product/market fit, hiring, and building an organization. This means they often rely heavily on referrals to investors, without conducting much additional diligence early on about the track record and reputations of the investors with whom they are meeting.

Knowledge because many entrepreneurs do not realize the gaps left by their "intuitive" evaluation processes. Recent research I have done indicates that many entrepreneurs largely evaluate VCs based on whether they have heard of the VC before and whether they associate the VC firm with any high-growth ventures. While there are some merits to these heuristics, expert entrepreneurs also consider many more factors: which partner in the firm will they be working with, the track records of those individuals (including both successes and failures), whether different investors in a deal offer complementary perspectives, and how these investors have previously behaved in deals where ventures ran into challenges.

For entrepreneurs the big takeaway of the research is that unless they have raised before, they should develop a network of other entrepreneurs and domain experts to help guide them – and to be sure to talk to former investments that did not produce a major exit. For VCs the implication is that PR and broad referral networks are especially important, particularly if targeting first-time entrepreneurs.

Q: One of your upcoming papers delves into competitive information leakage. To what extent have you seen this affect the venture industry over the past few years?

This is a new paper that is forthcoming at the Academy of Management Journal with Emily Pahnke here at the University of Washington, as well as Rory McDonald at Harvard and Dan Wang at Columbia. Using quantitative analysis of 22 years of investment in the medical device industry, we found that when a VC makes a competing investment in a direct competitor, the original investment subsequently is less innovative. Moreover, a variety of tests and interviews indicate that the effect is likely causal and not simply a matter of the new venture being more promising.

What causes the effect? Our research indicates that is probably not the explicit sharing of secrets or proprietary knowledge. Rather it seems to be that general lessons learned at one startup get passed onto the other venture. Additionally, whereas the original firm may have previously received all of the VC's unique insights about the focal sector, that information is now split with another venture. The same goes with access to their network of industry contacts and advisors. We think the key takeaway is that both entrepreneurs and VCs need to be especially cautious around concurrent deals between ventures that compete with one another.

Continued on pg. 15»

Read more about Professor Hallen and peruse some of his work by visiting his faculty page: foster.uw.edu/faculty-research/ directory/benjamin-hallen/

Q: How do you view the current state of the networks connecting VCs to entrepreneurs—is the current model healthy in your opinion?

One of the classic assumptions that many in VC have often held is that entrepreneurs worth funding should also be able to find their way to the VC via referrals. That is, they will either already know or will quickly begin meeting with relevant industry experts, serial entrepreneurs, lawyers, etc. While this was probably

true historically in eras where credible founding teams often had substantial industry experience (think enterprise software), the cost of developing ideas into new products has fallen dramatically in a lot of industries. This has meant that we are now seeing some very promising ideas come from individuals more removed from the traditional VC ecosystem.

However, helping address this gap is the recent rise of accelerators in the increased interplay of VCs. In

some ongoing research we find that accelerators really do positively increase a venture's likelihood of development. Part of the effect is from providing critical networks, but another key part is providing mentoring and guidance that help entrepreneurs get their venture to the point that it is fundable. We are also seeing these accelerators play a big role in helping entrepreneurs outside of traditional entrepreneurial hubs.

»WINTER FOR UNICORNS from pg. 13

e've sifted through a list of unicorns gathered from the PitchBook Platform and picked out a group that may need to keep an eye on their burn rates and balance sheets in the months ahead.

GENIUS

Genius

Last raise: \$40 million at a \$1 billion valuation in July 2014

Genius, provider of online annotation software currently used for analyzing song lyrics and texts, last raised a \$40 million round in July 2014. Seemingly attempting to follow in the footsteps of tech giants Facebook, Twitter and Google, the company is focusing on scaling its user base before concentrating on revenue generation. That strategy may be good while there is plenty of funding available, but if funding were to dry up, the company may find it difficult to generate significant revenue quickly.

Bloomenergy

Bloom Energy

Last raise: \$130 million of convertible debt in December 2014

Rumors of a potential Bloom Energy IPO have been circulating for over two years now, but nothing concrete has formed. Yet to turn a profit, and having raised roughly \$1 billion in equity financing since its 2001 founding, the company reportedly raised \$130 million in the form of convertible notes at the end of 2014. If markets were to take a turn for the worse and an IPO was not a good option, the company could find it hard to keep raising more funding. It's worth noting that Bloom has 28 existing investors, so it could approach firms with which it has pre-existing relationships for more funding if need be. The question is if existing investors would want to continue to fund this 14-year-old company, which operates in a sector that is tough to navigate. There has been some positive news recently.



Nextdoor

Last raise: \$110 million at a \$1.1 billion valuation in March 2015

Nextdoor, a social network for families and their neighborhoods, admits that it is currently not generating revenue. This alone could be seen as cause for worry, but having last raised \$110 million in March at a valuation of \$1.1 billion, Nextdoor does have the cash and time to experiment with different ways of making money. With a user base that covers north of 53,000 neighborhoods, it's not hard to conceive that the company could start charging a monthly fee for a premium version of its site, or perhaps run targeted product advertising, although it's not definite that users would respond well to either strategy.

Finish the post by clicking here to navigate to the PitchBook blog, where you can find further unicorn coverage.

The Emergence of the Private IPO

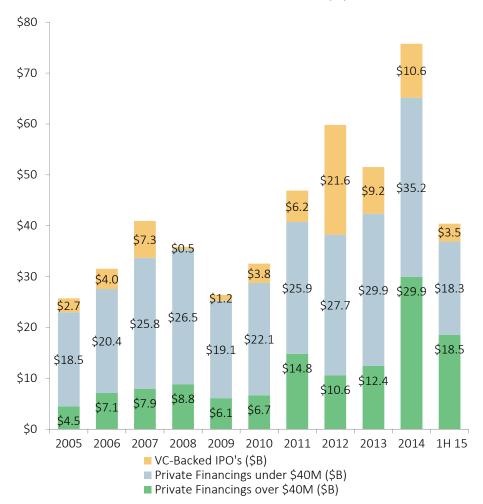
BY ALEX LYKKEN

he venture industry has been debating about the "private IPO" trend in recent quarters, as growth rounds have largely replaced traditional IPOs as the preferred financing route for mature startups. The two graphs below are similar to a recent analysis done by Andreessen Horowitz, and compare IPO activity with "private IPO" rounds of at least \$40 million in size. Both charts show significant increases in \$40M+ rounds since 2014, on both value and count bases. The trend continued through June 2015, with another \$18.5 billion invested through growth rounds versus only \$3.5 billion raised through public offerings. But total value is only part of the story. Counts are also up for \$40M+ rounds, from 172 in 2013 to 294 last year, a 71% jump. Another 187 \$40M+ rounds were done in the first half of 2015. and there's little reason to expect a slowdown this year in count.

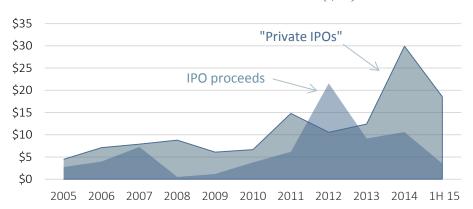
/ hat's interesting, though, is that while growth rounds have largely replaced IPOs, IPO activity isn't as weak as many suspect. Last year saw 119 VC-backed companies go public, easily the most since 2000 and a 38% increase over 2013. A good portion of last year's IPOs were for biotech and pharma companies. which haven't been privy to the same excitement from late stage investors like tech startups have been. It should be pointed out, then, that the "private IPO" phenomenon has been centered in tech-related companies like Uber, Snapchat and Airbnb, which have far different financing needs than smaller drug and biotech companies.

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PRIVATE VS. PUBLIC FINANCINGS (\$) BY YEAR



PRIVATE VS. PUBLIC FINANCINGS (\$B) BY YEAR





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