

GENDER DIFFERENCES IN ENTREPRENEURSHIP

Voices of Founders and Funders



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INTRODUCTION

In 2009 when I was launching our Seed stage venture capital firm, Illuminate Ventures, I sought to create an organization that would look more like the one that I had hoped to find when I gained venture capital financing for my own high tech startup. I wanted to build a firm that would bring additive knowledge and resources to the table – not just capital – and more particularly, one with a more diverse and balanced investing team that would never allow gender, ethnicity or pattern recognition to be a barrier for talented founders.

After researching new and growing areas of enterprise tech for our investment focus, I also sought to better understand the opportunity that felt imminent for an increase in the number of venture-backable women. Our 2010 white paper ([High Performance Entrepreneurs: Women in High Tech](#)) came about as a result of that process, laying out the numbers behind the thesis. The paper was widely shared, with some interesting side effects.

As we've built our firm and invested in dozens of early stage enterprise software companies, we have frequently been asked if we invest only in women (no, although nearly half of our portfolio companies have a woman co-founder) or if we limit our opportunity set by highlighting the value of diversity. As documented by VC firms like [First Round Capital](#) regarding the outperformance of their female founders and in research on the financial impact of investment team diversity published in the [Harvard Business Review](#), our firm's success has benefitted from the diversity in our portfolio and on our team. I had always assumed that if people knew the data and saw the performance that many more women and more diverse teams would quickly become a part of the tech ecosystem.

Fast forward to the high-tech landscape of today. Why are the numbers of venture-backed women founders and women VCs still so small (see [TechCrunch numbers here](#))? I began to wonder if women in tech were facing an entirely different set of hurdles than any of us knew. Was all of the negative news causing them to be "turned off" at the most opportune time for their success?

Rather than gather data anecdotally, we sought answers via surveys that were created with the help of Carnegie Mellon Tepper School MBA students and from some top enterprise tech executives and entrepreneurs who are members of our [Business Advisory Council](#). We then sent the surveys to more than 1200 tech founders and venture capitalists. The entrepreneurs were asked questions to help us understand their motivations and the barriers they face as well as what they see as the most important personal attributes of success (see the full survey lists on page 14). For the VCs, we also gathered data that helped identify how gender impacts the way they think about entrepreneurs in each of these areas.

A few highlights of our learnings:

- There are many more similarities than differences between male and female founders than most assume.
- There are myths of what a tech founder "looks like" that still remain in the high tech entrepreneurial landscape that need to be modified.
- There are some hidden and higher barriers to entrepreneurship still faced by women founders. Many of these will likely remain as challenges until both investors and a broader audience of startup advisors are more aware of them and choose to proactively help to address them.

The results of our outreach follow.

MOTIVATIONS

Survey Data: The first area the survey tackled was to better understand what drives individuals to take the entrepreneurial plunge – why be a startup founder? Entrepreneurs were asked to select their top motivation from a list of six possibilities and also given the opportunity to add their own. The level of consistency of the top two motivations selected was striking: the desire to “bring ideas for products/solutions I am passionate about to market” far outranked all other possible motivations for both men and women entrepreneurs – but there were subtle differences in the next tier of selections.

Nearly 7 of every 10 women entrepreneurs selected the same response as their top motivator and no other option reached the 10% level. Male founders offered somewhat more variety in the concentration of their top reason to follow an entrepreneurial path. At 19%, “Creating a long-lasting company” was followed closely by “Financial gain” at 15% (which was selected by only 2% of women). On the other hand, the motivation of “Running my own business versus corporate work” was selected four times more frequently as a primary driver by women than by men (8% versus 2%).

<u>Rank</u>	<u>Female Founders</u>	<u>Male Founders</u>
#1	Bringing my ideas to market (70%)	Bringing my ideas to market (60%)
#2	Create a long-lasting company (9%)	Create long-lasting company (19%)
#3	Run my own business (8%)	Significant financial gain (15%)

It is also noteworthy that not a single male respondent chose the “Prove to myself” option as a motivator, when it was selected by 7% of women as their “top motivation”.

Observations: The belief that entrepreneurs are motivated primarily by financial gain is a myth. This conclusion is further supported by [research across 60,000 individuals](#) conducted jointly by Assistant Professor of Entrepreneurship Hongwei Xu at Stanford and Martin Ruef of Princeton. They found that “Non-pecuniary motivations are more important than monetary motivations for people to start a new business.” A strong driver discovered in their research was “identity fulfillment, which is more about people having a vision about a product or a service.” This aligns closely with the top motivator indicated by our survey population.

While there has been significant historical research on the topic of entrepreneurial motivations, little has focused on gender-based differences and those that exist have primarily looked at women in emerging markets who are typically building small and medium enterprises. This is concerning, since entrepreneurship is known to play a key role in socio-economic transformation. Successful entrepreneurs generate wealth and often serve as role models and directly help launch the next generation of their natural affinity group following behind them. Organizations like TiE ([The Indus Entrepreneurs](#)) have succeeded in codifying this process, helping to spread both entrepreneurship and institutional investing roles across their community. They offer a role model worth better understanding and perhaps emulating.

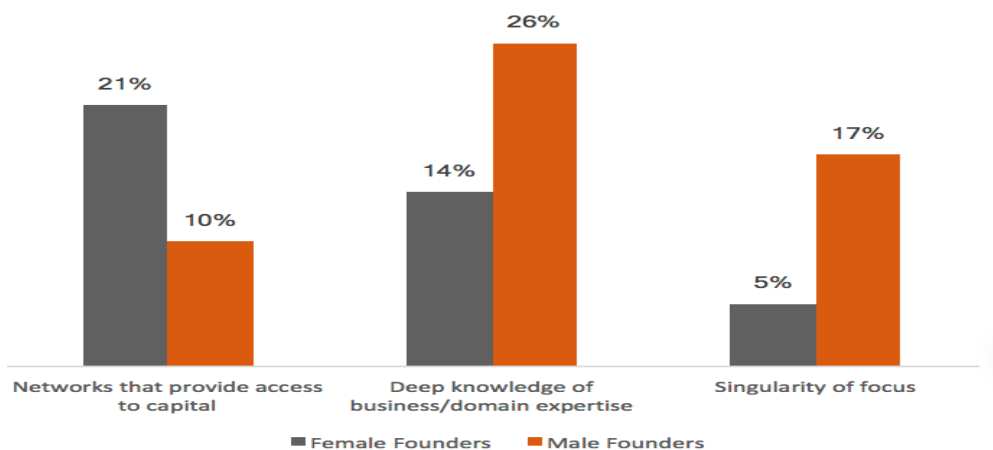
ENTREPRENEURIAL SUCCESS ATTRIBUTES

Our focus on Entrepreneurial Attributes was designed to better understand gender-based differences not just between entrepreneurs, but also from the venture capital investors that are so critical to their success. We asked each group to tell us what they think it takes to be a successful entrepreneur by stack ranking 10 possible personal attributes. For the investors, we also gave them the option to add attributes and separately asked them to assess whether they felt male or female entrepreneurs were more, less or equally likely to display these characteristics.

Entrepreneur Perspective

Survey Data: The highest and lowest ranked attributes of entrepreneurial success were quite consistent independent of gender amongst entrepreneurs. Two thirds of both men and women selected “Resilience and perseverance” as one of the two highest impact characteristics and nearly half ranked “Visionary with passion” in the top-2. Additionally, the “Desire to scale a business massively/world domination” was the single lowest ranked attribute by all genders. The greatest variance of opinion showed up under three success attributes where the responses showed over 10 percentage points of difference between the genders in terms of selecting them as one of their top success attributes.

Figure 1: Percent Ranking as Critical Success Attribute



Observations: While there is a high degree of concentration and consistency between men and women regarding the highest impact success attributes, a number of other lesser ranked, but still important, attributes showed significant differences by gender that are curious. Are “Networks that provide access to capital” perceived to be less important by men because they already have them and take it for granted that others do too? Do female founders - where 60% indicated that “Singularity of focus” was one of the least impactful success attributes feel this way because they rarely have the luxury of focusing on only one thing at a time? There is still much to explore and we hope the survey data will encourage others to do so. One further comment on the attributes men and women founders ranked equally low. In spite of the fact that the men in our survey (and more broadly in the world of entrepreneurship) were more likely to hold a STEM degree, both groups ranked having this as one of the least impactful attributes of success. It seems that entrepreneurs today are able to think past the myth that only engineers can found successful tech startups.

SUCCESS ATTRIBUTES (CONTINUED)

VC Viewpoint: Attribute Importance

Survey Data:

Male and female VCs selected the same two attributes as the most important ones for entrepreneurial success, although in different order and emphasis. Amongst the top attributes were “Resilience - perseverance” where >40% of all VCs selected it in their top 2. It was selected as the #1 attribute by twice the percentage of female (40%) as male (19%) VCs. The next most frequently selected “top” attribute was “Deep domain expertise”, which was chosen by 2X the percentage of male (23%) VCs as female (12%). These two attributes were closely followed by “Ability to attract a great team” and “Visionary with passion for the business”.

Observations: Notably, “Resilience” matches the top attribute selected by entrepreneurs, although being a “Smart risk-taker” was much lower ranked by VCs than entrepreneurs and “Domain knowledge” was much more highly valued by VCs than by the founders. “Domain knowledge” had nearly 2X the frequency of being selected in the top attributes by VCs as by women founders and “Ability to attract a great team,” seems to be an attribute that both male and female entrepreneurs may underestimate the importance of versus the investors’ view.

It seems that all respondents agree that it’s tough to be an entrepreneur and that those bound for success will need to be prepared to overcome many hurdles – hence the high ranking of “Resilience”. No surprise there. But what may be a bit more nuanced is the idea that a founder

with deep domain experience may be advantaged in raising capital – and something to highlight in any investor outreach.

Additionally, the importance assigned to being able to attract a great team, while not frequently the #1 success attribute, is quite important to VCs (selected by >30% of each gender’s Top-2). We’ll see below how VCs perceive differences in the innate ability of each gender in this area.

In the “open answer” area, where the VCs were invited to add any missing key success attributes, male VCs added words like “grit”, “courage,” “ability to run through walls,” as desirable traits. Quite a few women and men suggested adding “coachability/willingness to learn” as well as “customer empathy” to the attribute list. And some members of both genders also felt that “integrity” or “trustworthy” should be included.

To VCs and entrepreneurs alike, having a STEM education and having prior startup experience were among the least important indicators of success. This suggests that these items should not be barriers for women entrepreneurs, who are less likely than men to have this background. The “desire to scale a business massively” – also expressed as “world domination,” was ranked as one of the least important attributes by all groups.

Likelihood of attribute by gender:

Survey Data: The majority of male and female VCs ranked women and men founders as nearly equally likely (at least 75% saying there was no difference) to demonstrate three of the top four success attributes. This includes “resilience”, “domain knowledge” and “visionary”.

SUCCESS ATTRIBUTES (CONTINUED)

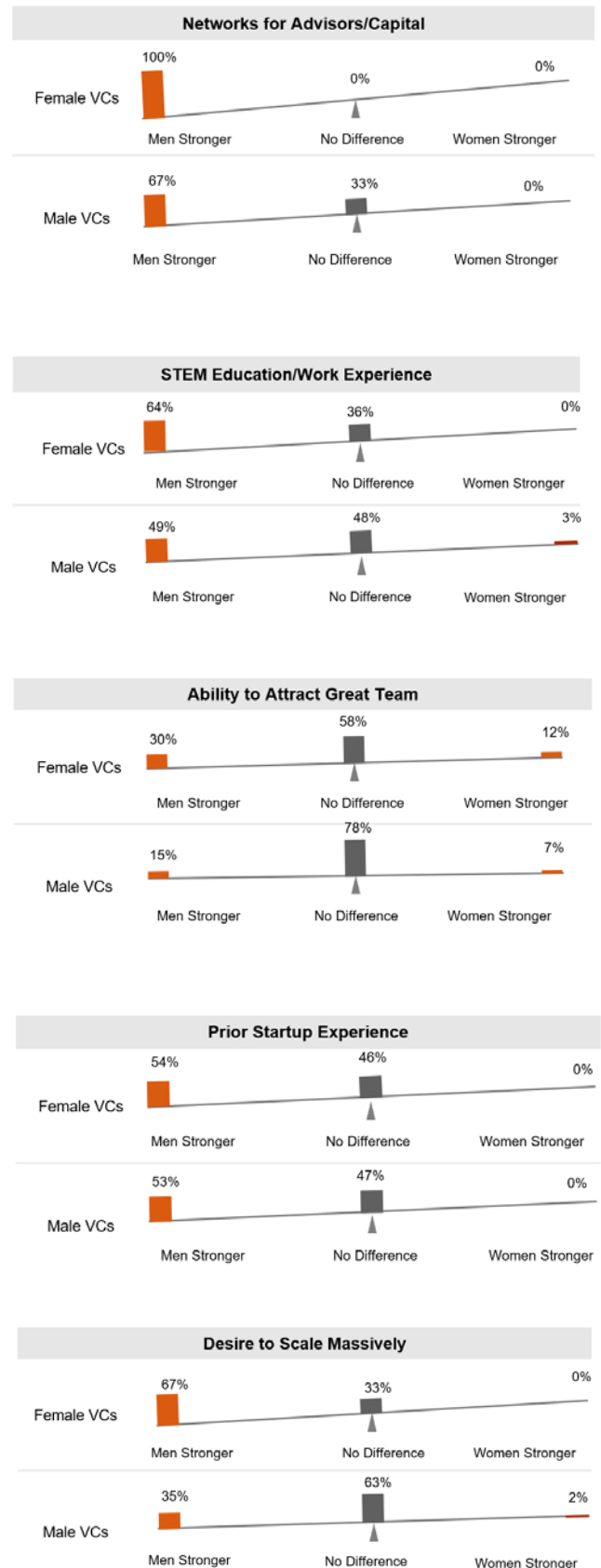
The good news ends there. The majority of male VCs ranked male founders as likely to be stronger than women in 4 of 10 success attributes, with not a single attribute where even 10% felt that women were likely to be stronger. The viewpoint from women VCs was similar to their male counterparts – with more than half of the respondents selecting several attributes as more likely to be demonstrated by men and only one attribute, “Smart risk-takers”, where nearly half (42%) felt women founders were likely stronger than males. This is, unfortunately, not a highly ranked success attribute.

Observations: It is helpful that the three of the top success attributes are viewed to be equally present in men and women entrepreneurs by all VCs. Amongst many of the remaining attributes, however, women are perceived as being disadvantaged. Perhaps most importantly, 67% of male VCs and 100% of female VCs feel that men are more likely to have “Networks that provide access to advisors and capital.” Given that women founders were twice as likely as men to select this as a critical success attribute, expanding these networks for women may be critical to increasing their funding success.

Some myths are worth mentioning. For example, all VCs assumed that male founders are much more likely to have prior startup experience, while our survey shows that men and women have relatively similar levels of this type of prior experience. Also, a significant number of all VCs indicated that male founders were more likely to desire to “Scale a company massively” when in fact the

entrepreneur’s responses suggest that it is an equally low motivation for both genders.

Figure 2: VC View of Attribute by Gender



BARRIERS TO ENTREPRENEURIAL SUCCESS

In collaboration with members of our Business Advisory Council, we identified more than a dozen of the most significant barriers to success for tech entrepreneurs (intentionally excluding things beyond a founder's control such as political or macro-economic issues). We asked all respondents to rank each potential obstacle from 1 (not a barrier) to 5 (barrier that cannot be overcome) in terms of their perception of its potential impact on their success.

Entrepreneur Perspective:

Survey Data: The top two barriers identified by men and women founders were the same – although reversed in order between gender. 49% of men ranked “The need for financial security” #1 (versus 42% of women) and 58% of women ranked “Access to appropriate sources of capital” as their #1 barrier (versus 37% of men). Across the potential barriers to success, male founders ranked four items as more significant barriers than women (Risk of failure, Need for financial security, Balancing work with family and Finding the right co-founder). Only 17% of women (versus 31% of men) felt that balancing family and work was a strong barrier, but they had much higher concerns than men regarding “Having the right qualifications”, “Access to the right networks to build a team” and “Having a unique idea.”

For women entrepreneurs, we asked two additional questions that were not posed to men. Over 40% of the female entrepreneurs considered the limited number of same-gender investors to be a significant barrier, and more than 65% believed that startups founded by women are disadvantaged overall.

Observations: It may come as a

surprise that men may fear failure and financial instability more than women, especially when common wisdom typically suggests that women are more risk-averse than men. The numbers regarding finding work/family balance are equally unexpected. Clearly, it's time to rethink the outdated notions that women don't have the risk tolerance or the ability to dedicate the necessary time to be successful entrepreneurs. Perhaps female founders have sought to address these issues more proactively than males, but clearly these women have made the accommodations necessary to allow them to focus on their business.

VC Viewpoint:

Survey Data: The responses from investors regarding barriers to success were much more diffuse than those of entrepreneurs. For male VCs, “Access to the right networks to build a team” rose to the top, followed closely by “Having a unique idea.” A full 10 percent further down the list came “Access to appropriate sources of capital” and “Thinking big enough.” For women VCs the top perceived barriers were the same, but the order was different with “Capital access” ranking as the largest barrier followed by “Idea” and “Team”. Most of the remaining barriers ranked fairly low, with less than 15% of the VCs selecting them as significant.

Observations: Men and women perceived equal levels of impact from quite a few of the potential barriers, however, with all VCs viewing the “Team-building” barrier one of the most important and women founders seeing it as much more significant barrier, this deserves attention. Additionally, a few barriers at the bottom of the VC list jumped out for the disconnect they illustrate with how founders think of

SUCCESS BARRIERS (CONTINUED)

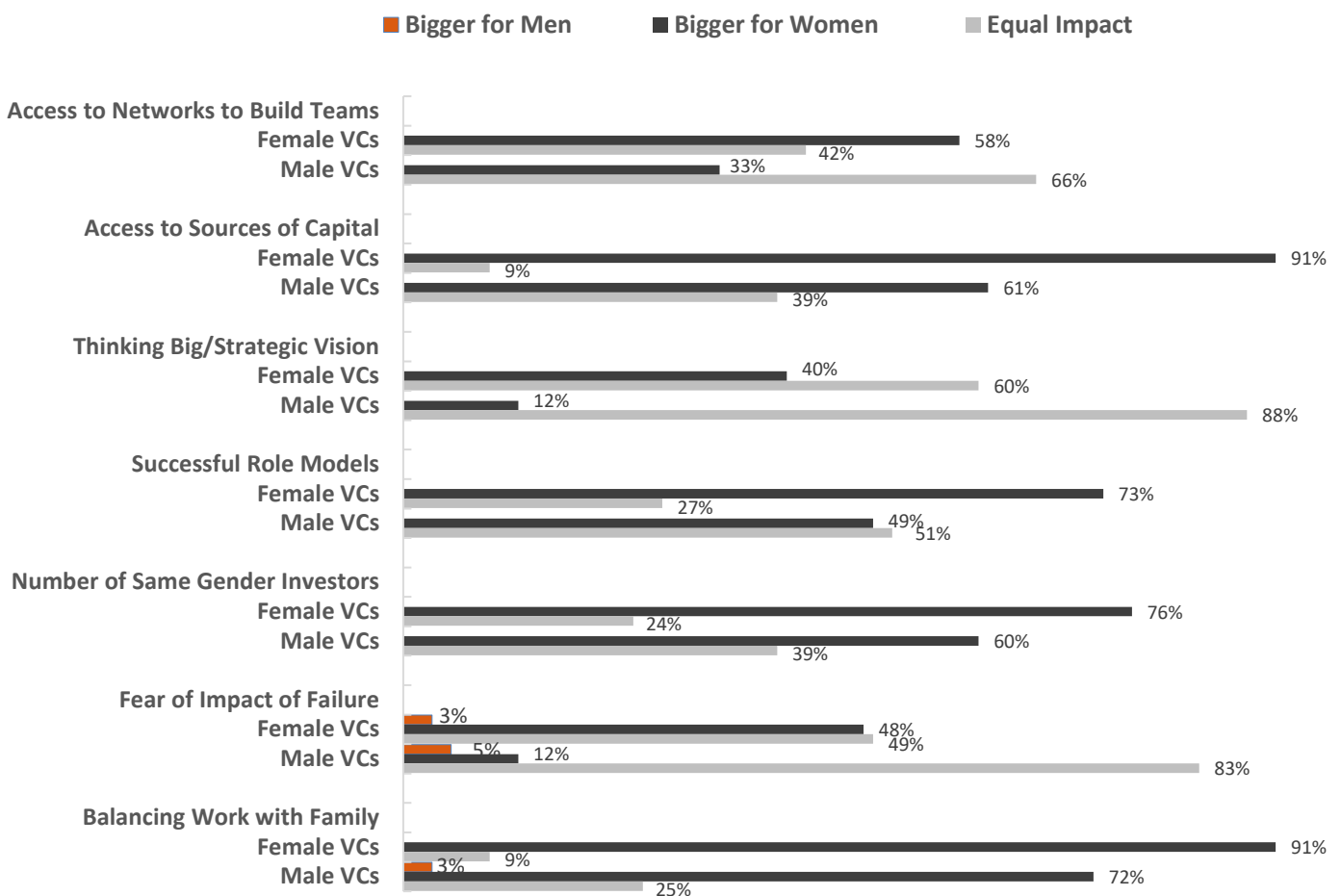
these same obstacles to success. Not a single male or female VC ranked “Gaining the support of family” among their top 5 barriers. This is striking in that 24% of men and 20% of women saw this as a significant or insurmountable barrier amongst the entrepreneurs.

Similarly, only 5% of male VCs and no women VCs ranked “Balancing work with family commitments” as a barrier when it was ranked as a strong barrier by 31% of male entrepreneurs and 17% of females. Also, while 40% of women founders felt that the lack of same-gender investors was a significant issue, this view was only held by 4% of male and even fewer female investors. These figures stand in stark juxtaposition to the survey data showing much higher levels of investment in women founders by women VCs.

Likelihood of barrier by gender:

Survey Data: While there are limited differences in how VCs perceived men and women’s likelihood to display the most critical entrepreneurial attributes, the same cannot be said for how they see the impact of the barriers to success that each face. In large percentages both male and female VCs saw virtually all but one of the 16 potential barriers as impacting women founders more strongly than their male counterparts. Figure 3 highlights the barriers that showed the most sizeable differences in founder impact by gender, from the perspective of VC investors. The numbers are striking in terms of the likely disproportionate effect on women founders. Males were only seen as more impacted than females by a tiny handful of VCs and on just two of these barriers.

Figure 3: Barriers to Success: VC View of Level of Impact by Gender



SUCCESS BARRIERS (CONTINUED)

Additionally, over 40% of all VCs felt that women faced bigger barriers in gaining access to mentors and advisors. Very few investors of either gender saw any obstacles that were more likely to impact men than women, with the largest one being 10% of male VCs seeing male founders as likely to be more affected by “Concerns about financial security”. The one barrier that seems to be perceived as being equal across genders is one that was also ranked as critical by all investors: “Lack of a unique idea.” That challenge is faced by entrepreneurs every day and is ranked as a significant obstacle by about one third of the founders surveyed.

Observations: VC investors take many kinds of risk over which they have little control, particularly when they make early stage investments. This includes everything from market adoption risk to the potential failure of new technologies. As a result, they typically seek to minimize financing risk - including by assessing an entrepreneur’s ability to raise their next round of capital. If the investor believes that certain founders will struggle more than others to accomplish this important task, it’s likely that (at minimum) they will consider that investment opportunity to represent a higher workload and potentially a higher level of risk. The likely impact of these investor beliefs is all the more concerning when you consider that the VC perceptions do not mirror the views of the founders themselves regarding many of these obstacles. Male entrepreneurs, for example, self-identify as seeing “Balancing Work and Family, Fearing Failure and Gaining Support from Family” as significant obstacles in higher percentages than women.

Many involved in the entrepreneurial ecosystem may believe that the barriers for women and other diverse talent will disappear by themselves over time or cannot be changed. Among the many examples that disprove these beliefs, two follow here..

At Carnegie Mellon University, women represented 50 percent of the incoming freshman class in computer science and 43 percent in engineering in 2017. It was only slightly lower (by one percentage point) in 2016. This accomplishment, which represents 2-3 times the national average for these programs, [did not come about by chance](#). As the University president put it: “The steady climb of women enrolling in these fields at Carnegie Mellon highlights a combination of factors: a strong commitment by leaders at the university, college and department levels; influential pipeline programs for middle- and high-school students; targeted recruitment; closer scrutiny of applications; support and mentorship programs; and attention to diversifying the faculty. It’s important to note that this stand-out performance has become a distinctive advantage for the University in attracting top applicants, not just women, and that CMU students have become some of the most sought-after graduates. It’s a virtuous circle that has also played out in our own portfolio.

Xactly Corporation, founded by Chris Cabrera, offers one such example where team-diversity was a core strategy from day-one. Chris credits their overall success (IPO 2015 and >\$500M acquisition in 2017) as well as their 5-year run on the Fortune list of Best Places to Work and Five Star rating on Glassdoor, in part, to these [efforts](#). In categories where talent is scarce, these practices can make a world of difference.

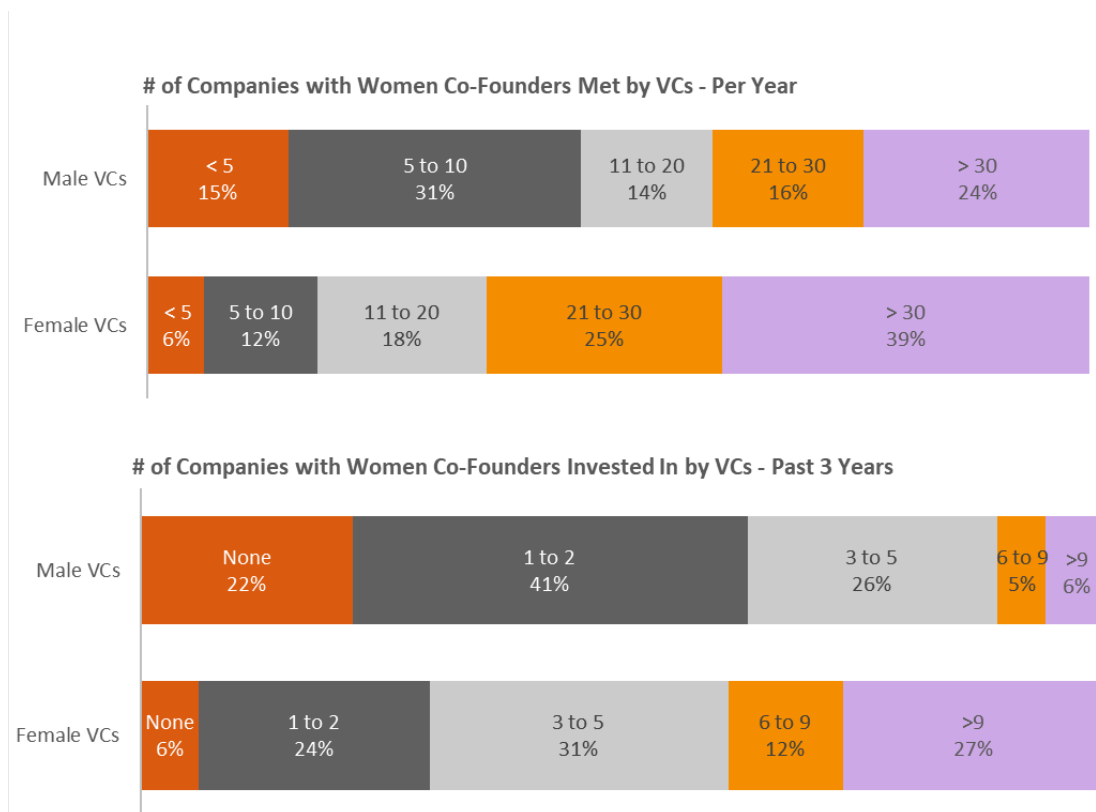
ACCESS TO AND INVESTMENT IN WOMEN FOUNDERS

To better understand the level of exposure that investors had to more diverse teams and their ratio of investment in women-led companies, the VC participants were asked about two things:

- 1) the number of investment opportunities they typically saw annually that included at least one woman co-founder, and
- 2) how many of these companies they actually invested in over the past 3 years.

Survey Data: We learned that nearly half of male investing partners meet with 10 or fewer companies a year that include any woman co-founder (versus 18% of women VCs), and 61% of males invested in fewer than two of these opportunities (versus 30% for women VCs) in the past three years. Note that the largest investment numbers in the charts below may include some follow-on investments in addition to initial financings.

Figure 4: Investment in Women Entrepreneurs



Observations: Male VCs are more than twice as likely as female VCs meet with fewer than 10 companies a year with a woman co-founder. The ratio continues to play out in terms of financings – with women VCs investing on average in 2X the number of woman co-founded companies over a 3-year horizon. There is no longer a good reason for any investor not to see more, as demonstrated by the large percentage of women VCs (64%) that meet with more than 20 female co-founders annually. For those concerned that homophily (the natural tendency be attracted to people like yourself) within more diverse investing teams may inhibit opportunities for white men, there is significant research to the contrary. [Work by Paul Gompers](#) at Harvard and others has shown that members of underrepresented groups actually tend to seek out people different from themselves.

SOME FINAL THOUGHTS

At a high level, the survey data highlights the importance of increasing the awareness of how gender may influence decision making amongst both tech startup founders and investors. The results also enable us to identify a number of proactive steps that can help ensure a more balanced entrepreneurial and investor ecosystem.

- Male VCs are seeing many fewer women-led companies than female VCs and invest in far fewer. The excuse of “if I saw more, I would invest in more” is no longer valid. With a more diverse investing team, firms will indeed attract more diverse founding teams.
- There is a vast gap between women entrepreneurs seeking female investors and the current number of women VCs. This is one limiting factor in funding more diverse teams. With data showing [2% of VC funding \(4.4% of deals\)](#) allocated to female-founded companies in 2017 and women representing [8% of VC investing partners](#), there is significant opportunity to improve. We are starting to see improved numbers as women launch new VC firms.
- When it comes to high-tech entrepreneurship, men and women founders think much more similarly about their goals and barriers than many may expect. It's time for investors to acknowledge and act on this.
- A higher awareness of the importance of and the impact of skill gaps related to deep product/market domain knowledge would benefit all founders.
- Women entrepreneurs should focus on network-building opportunities that will allow them better access to capital and ease the process of building great teams. Investors and advisors can help enable this.
- Traditional thinking about women being more risk-averse than men or not being able to balance work/family is dated. Investors may be well-advised to address these issues equally or even more so with male founders.
- Male and female VCs think alike on many things, with both making assumptions about how gender impacts entrepreneurs in ways that are frequently inconsistent with how founders perceive themselves.
- Women VCs are more aware of the unique challenges faced by female founders. Recognizing this, they should avoid allowing this to unconsciously impact investment decisions due to higher perceived risk.
- Male VCs are unaware of the height of some of the barriers faced by women entrepreneurs and may improve outcomes for their women-led companies by offering access to their broad advisory networks.

We acknowledge that this survey only scratches the surface of the topic of gender diversity in high tech entrepreneurship. Work by prominent researchers like [Scott Page at Michigan](#) has demonstrated the economic value of diversity, but until we address the real and the misperceived barriers identified here, the pace of change is likely to remain slow. We hope that our survey data provides a starting point for robust conversation on these topics between all of the constituents, opening new avenues for research and more importantly for action.

ABOUT THE RESPONDENTS

The Entrepreneurs:

Our audience was intentionally selected to represent experienced entrepreneurs. We understand the bias this introduced and plan to run a future survey with students to assess their interest in entrepreneurship and the barriers they perceive.

Nearly half of the target list of over 600 people was made up of individuals that our firm has actually met with over the past five years. As a result, more than 55% of women and 75% of men are currently founders in a startup and have been in at least one other startup previously. Adding in the first-time entrepreneurs, the numbers expand to nearly 100% having already made the leap to entrepreneurship. Women made up 1/3 of the target list and nearly half of the founder respondents.

We also sought to understand educational backgrounds and location. Overall, 95% have completed college, but perhaps not surprisingly given the lower number of women seeking engineering and CS degrees in recent years, there was a significant divergence between men and women in terms of the degrees that they held. Women were five times as likely to hold a Liberal Arts undergrad degree as compared to men. Men held nearly three times as many STEM undergraduate and Masters degrees as women and many held business degrees. More women than men (15% versus 10%) held a PhD. as their highest level of education

In terms of geography, there were similar percentages of East Coast women/men (~20% of the total), a lower ratio of women on the West Coast (roughly 60% of all responses) and a higher mix of international women participants (12%) than men (just 6%). The ratio of entrepreneurs in the middle of America were relatively equal between men and women, representing 12% of responses overall.

The Venture Capitalists:

We reached out to over 600 current VC investors, 1/3 of which were women. Our male VC respondents were very experienced investors, with nearly 75% having more than 7 years of experience leading investments and another 14% with 4-7 years of such experience. Only 5% had not yet led a deal. In terms of investment categories, the largest area of focus was Enterprise/B2B followed by Consumer Internet and those that are category agnostic.

In spite of the historically small number of women investing partners, the level of experience for the women VCs was strong, though somewhat lower overall than men. 46% of the women VCs had been investing for more than 7 years, with 18% each in the 4-7 years and 1-3 years ranges. An additional 18% were not yet leading investments. As with the male investors, the majority focused on Enterprise/B2B technology investing (64%), with an additional 16% focused on Consumer Internet and many others open to all types of investments (15%).

AUTHOR / SURVEY TEAM / METHODOLOGY

Cindy Padnos – Cindy is the Founder & Managing Partner of Illuminate Ventures, an Oakland, CA-based venture capital firm investing in enterprise tech startups across North America. She represents Illuminate on various private and public boards and is also a member of the Tepper School's Business Board of Advisors at Carnegie Mellon University and an advisor to the NTT I³ Innovation Institute. Cindy is a prior successful serial entrepreneur and an active advocate for diversity in the Tech sector.

Anna Fuller – Anna is a recent MBA graduate from Carnegie Mellon's Tepper School of Business. Prior to business school, Anna served as Director of Product for a venture-backed e-commerce startup and has recently helped launch two startups in the space industry. Going forward Anna will be a Product Manager for Google and plans to continue mentoring entrepreneurs within the startup world.

Lauren D'Souza – Lauren is a recent MBA graduate from Carnegie Mellon's Tepper School of Business. Prior to business school, she founded and ran a marketing agency focused on early-stage startups in her hometown of Columbus, Ohio. As the current lead generation manager at CrossChx, she now helps hospital administrators scale their teams using Artificial Intelligence and Robotic Process Automation.

Methodology and Next Steps

Through the surveys, we sought to better understand motivations, hesitations, and outright barriers to entrepreneurship as well as perceptions regarding the key characteristics of a successful venture-backed tech entrepreneur. We posed largely the same set of questions to men and women – first to entrepreneurs (active founders in high-tech companies in the US) and then to venture capitalists (primarily senior high-tech investing partners in the US). The initial lists included more than 1200 names – split nearly equally between VCs and entrepreneurs - with about 1/3 female of each group. Many thanks to our good friends and colleagues at [All Raise](#), [Astia](#), [SpringBoard Enterprises](#), and The Women in VC Directory for helping us ensure that we had robust lists of women participants. We received sufficient responses in each of our four target populations (the above categories split by gender) to deliver a better than 95% confidence level with less than 10% variation. In general, we saw a tight concentration of responses within each group.

A survey of students will launch this Fall and will explore their backgrounds, interest level, motivations and hesitations regarding entrepreneurial and venture capital career paths. It will also identify student influences and sources of information. We hope to learn how their perspectives differ from those already “in the game”. Students at Carnegie Mellon are leading the way on this survey. Who better to represent the views of aspiring student entrepreneurs than those who are active participants in that world?

Contact Information:

For further information about this research you can email us at contact@illuminate.com

This paper is available to download [here](#).

SURVEY CONTENTS

Full list of Entrepreneurial Motivation Options (asked to select 1)

- To bring ideas I am passionate about to market
- To gain significant financial rewards
- To create a company that is long-lasting
- To run my own business – not work in a corporate environment
- To prove to myself that I can do it

Full list of Success Attribute Options (asked to stack rank)

Entrepreneurs were asked to stack rank importance. VCs asked to stack rank and then indicate if attribute is typically higher, lower or same strength in men versus women founders)

- Resilience/perseverance
- Smart risk-taker
- STEM education or work experience
- Networks that provide access to advisors and capital
- Deep knowledge of business/Domain experience
- Prior startup experience
- Ability to attract a great team
- Visionary with passion for the business
- Singularity of focus
- Desire to scale a business massively

Full list of potential barriers to becoming a successful entrepreneur (asked to rate 1-5 with 1= not a barrier, 2=slight barrier, 3=barrier, 4=strong barrier, 5 =barrier that cannot be overcome)

Entrepreneurs rated all 16, VCs selected top 5 and rated – then asked if each is typically a higher, lower or similar strength barrier for men versus women founders)

- Need for financial security
- Access to appropriate sources of capital
- Knowing where or how to get started (lack info about process)
- Finding the right co-founder
- Access to the right networks to build a great team
- Acquiring credibility and trust from others
- Support of family members
- Successful same gender entrepreneurs as role models
- Access to mentors and advisors
- Balancing work with family commitments
- Having the right qualifications and background
- Fear of risk of failure and impact on investors and employees
- Geography (not located in US East/West Coast tech hub)
- Having a great/unique idea
- Number of same gender investors
- Belief that a woman owned venture is disadvantaged