PitchBook and All Raise

All In
Women in the VC Ecosystem
2019
A note on methodology

Throughout this report, we refer to “female-founded startups” as VC-backed companies with at least one female founder. This report does not necessarily speak to CEO roles, which sometimes differ from founder status, nor does it focus on all-female-founded teams, which are a subsegment of the startups discussed in this report. All data is global unless noted otherwise.

Contents

Foreword 3
Progress & barriers 4-6
Take the call from women 8-9
By the numbers 10-11
Invest in multiplicity 12-13
Does location matter? 14
Silicon Valley 16
New York 17
Los Angeles 18
Boston 19
Spotlight: Technology 20
Beyond tech 21
Behind the stats 22-23
The importance of female investors 24-25
Key takeaways 26
Methodology 26

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This report could not have been possible without the collaborative efforts from our partners and sponsors. We would like to thank our partner All Raise for their above-and-beyond support throughout the writing and editing process, as well as our co-sponsors Microsoft for Startups and Goldman Sachs’ Launch With GS for their content development and thought leadership. At PitchBook, we feel privileged to have been a cooperative thought partner in this in-depth analysis of women in the VC ecosystem.
Foreword

All Raise started as a call to action. Today, it’s a community, a movement and a rallying cry centered on the belief that our personal ambitions can and will include the prosperity of all women. We are grounded in reality and measurable outcomes. By harnessing data, we identify the challenges we face and keep ourselves and the venture capital industry focused on meaningful change. Our partnership with PitchBook on this report both confirms prior All Raise analysis on the state of women in startups and adds new insights about where the market can go from here. We are excited to be a data and thought partner on this critical work depicting female founders, female leaders and the overall venture ecosystem.

The analysis on funding differences by geography and sector provides actionable data for entrepreneurs and important reflection material for the venture capitalists who fund them. For example, a VC fund investing in fintech can now compare the percentage of female founders in its portfolio to the market to determine if work is needed to diversify its pipeline and/or evolve its investment committee process. This report also illustrates specific geographic regions where companies with female founders thrive and where they fall below the US average. Female-founded companies can utilize this data to identify the best (and worst) ecosystems to leverage during a fundraise.

In addition, this report points to landmark data on the impact of women in leadership on exit potential—a topic that clearly matters to founders, VCs and their limited partners. Companies with women on their founding teams are likely to exit at least one year faster compared to the rest of the market, and the number of exits for companies with at least one female founder is growing at a faster rate YoY than exits for companies with only male founders. This finding reaffirms past research on the enhanced performance of businesses with women in leadership and can be used by family offices, foundations and VCs in their internal case for investing in more female-led companies.

At All Raise, we hope to galvanize fund investment committees and limited partners to support more diversity in their investment decisions by publishing data that highlights progress, opportunity and continued gender inequity in the startup space. With partners like PitchBook, we can make this happen. We encourage you to utilize this data in your own work, as well as share, tweet and talk about it. Together, we have the potential to make progress on gender equity, not just as it relates to All Raise’s goals for founders and funders, but more importantly, for the entire venture ecosystem.

Jenny Abramson
Founder & Managing Partner, Rethink Impact
Co-leader/volunteer, All Raise Data Team

An increase in diversity in the venture ecosystem can do more than provide companies and investors with better returns and faster routes to exits, it will ultimately be a driver in the demographic makeup of future fundraising opportunities. By integrating and encouraging gender diversity within the space, it is our belief that we will eventually see increased equity in the companies that are funded as well as in the population of the VCs funding them.

At Rethink Impact, an institutional-scale VC firm dedicated to investing in female leaders and gender-diverse management teams, we consistently see the strength of gender-diverse teams in our portfolio, whether they are leveraging technology to solve major health crises, enabling frontline workers to go back to college for $1 per day or measuring air quality on a block-by-block basis. Strong teams with women in leadership positions can attract talent, which supports significant growth, and even have the potential to exit sooner. The data in reports like this drives funds like ours to exist and encourages investors to support this work more broadly. We were energized to find examples of success and progress for female leaders in the startup space, namely, the growth in fund count and value over time in companies with female founders.

Microsoft for Startups
Many trends are improving, but roadblocks remain.

The VC industry has historically been a boys’ club. Women have been underrepresented on both sides of the table as investors and as company founders. Considering that women make up half of the world’s population and an even larger percentage of buying power, this underrepresentation is a problem not only for talented female entrepreneurs, but also for an industry that relies on scalable ideas to reach its potential.

Progress has been made in recent years, and the oft-cited figures mask some of these improvements. For example, deal activity to female-founded startups has quadrupled over the last decade. In 2010, 823 VC investments were made in startups led by women; by 2018, that figure rose to 3,477, and 2019 is on pace to come close to that mark. This indicates that more women are becoming VC-backed entrepreneurs every year, and we expect that number to keep growing as supportive networks for female entrepreneurs continue to expand.

Some cities are more welcoming than others, and the same holds true for sectors. Female entrepreneurs are less populous in the technology industry but see higher percentages in pharma & biotech. While the lowest percentages for female tech entrepreneurs are in Silicon Valley, the situation is dramatically better in New York City, which sees comparably high tech deal activity relative to Silicon Valley, even though the Silicon Valley ecosystem dwarfs New York’s in size. Anecdotes that East Coast investors are more likely to fund female founders are partially supported by data found later in this report.

Even as the number of startups in the overall VC market has increased, female-founded startups have continually comprised around 20% of all VC-backed companies going back several years, illustrating that female entrepreneurship has risen in tandem with the post-crisis tech boom. The percentage of dollars invested in female-founded startups has been consistent as well, ranging between 12% and 18% since 2012. The tech portion of those startups has seen a consistent percentage, peaking at 19% last year. Other sectors see higher ratios: female-founded companies in pharma & biotech comprise 27% of all VC-backed financings so far in 2019, a 10 percentage point increase since 2009.

The ratio of female-founded startups has improved substantially since 2010, when they made up only 11.8% of the market. By dollars invested, female-founded startups took in almost 18% of all capital invested last year, higher than the 12% to 14% range typically seen since 2013. More notable, though, are the combined dollar amounts in recent years. Last year, more than $46 billion was funneled into female-founded startups, more than doubling 2017’s value. For perspective, only $3 billion went to female-founded startups in 2010, translating into a more than 15-fold increase over the past decade.
The gradual rise in female-founded startups can be traced to several factors, including market awareness of the gender imbalance, stronger mentorship networks for women and more women entering the venture side of entrepreneurship. The rise in female checkwriters at VC firms has also catalyzed this increase, as female checkwriters tend to invest in female-founded companies at a higher rate than their male counterparts. Several studies have illustrated that women investors are more likely to invest in female-founded startups. In fact, they are twice as likely to invest in companies with female founders and three times as likely in companies with female CEOs.¹ female entrepreneurs often seek out female investors to partner with and grow their companies. The increase in funds started by women has a measurable effect on funding of companies with women in the leadership team.

The founder-investor relationship has often been likened to a professional marriage. Stakeholders in a startup rely on each other to grow the company’s value from the ground up, and investors tend to gravitate toward founders who think, or even look, like they do. One study documented the potentially negative effects of investor bias surrounding a founder’s background.² Factors such as academic history, professional background and technical expertise all come into play. The potential for gender bias can also emerge when sizing up founders and their skillsets; however, awareness of those biases and an understanding of how to correct for them can have a significant impact on the numbers throughout this report.

Valuations also point to a shift in funding dynamics. From 2009 to 2013, all-male founding teams were consistently raising at higher valuations at the late stage compared to female-founded teams. That seems to buttress a recent study that found a causal link between valuations and founder gender, with an approximate 11% gap for female founders. However, since 2014, female-founded teams have begun to raise at higher average and median valuations than their all-male counterparts. While all-male founding teams raised at a higher median valuation in 2018 and average valuation in 2017, these numbers still indicate how the playing field is changing for both men and women. Valuations are important metrics for startups, both as validation of prior progress and as momentum for future growth and fundraising.

¹: “Bridging the Gender Gap in Venture Capital,” Babson Center for Women’s Entrepreneurial Leadership, Candida Brush, et al., September 2014
Female-founded startups are exiting at an increasing pace. 2018 saw $26 billion in total sales (through acquisitions or IPOs) for female-founded startups. 2018 was also the fourth consecutive year with at least 200 exits from female-founded companies, which have slowly gained market share over the past 10 years, with 14% of total exit count in 2018. In addition, the number of exits for female-founded companies is growing at a faster rate YoY than exits for companies with all-male founding teams.

Female-founded startups take substantially less time to exit than the broader market, a rarely noted trend that indicates a key metric of success. Time is money in the private market, and quicker exits positively affect investment fund returns. This is good news for female founders and the investors who back them, obviously, but it’s also an important datapoint for limited partners to consider. Ultimately, most capital that flows into the venture ecosystem is sourced by pensions, endowments and other large, institutional investors. Where LPs commit their capital has a downstream influence on which sectors and companies receive their funding. Knowing that female-founded startups tend to exit quicker and maintain strong returns could influence decision-making when LPs are deciding which VC firms to back.

Startups founded by at least one female founder take substantially less time to exit than the broader market, a trend that has been rarely noted but indicates a key metric of success.

**YoY percentage difference in VC exits (#) by founder gender**

**Median time to exit (years) in companies with at least one female founder**

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*Source: PitchBook | Geography: Global*

*As of August 31, 2019*
All Raise is on a mission to accelerate the success of female founders and funders to build a more prosperous, equitable future.

Born out of a grassroots movement in 2017, our programs arm women with access, guidance, and support to advance their professional growth. When the architects of tomorrow better reflect the world, our world is better served.

Learn more at allraise.org.
Take the call from women

Talk to me a little about your journey becoming a CEO—what do you feel has been unique to being a woman and what’s been unique to you?

My unique experiences in medtech and diagnostics have influenced my thinking about Evidation’s opportunity to affect healthcare based on new information sources that have significantly changed the sector in the past two or three decades. First, non-invasive and invasive imaging became routine, and for the first time, industry R&D and clinical researchers could actually “see” the disease at high resolution. This led to transformational health innovations, because you could actually see tumor sizes as they were changing, observe vascular disease regressing and track other fundamental changes in how diseases were being affected by drugs and devices.

Second, the genomic revolution in the mid-to-late 2000s produced a totally new set of information. The human genome became a platform for new diagnostics and therapeutics on a pretty broad scale. Finally, we now have the ubiquity of digital data. The ability for this to be a platform to measure health and disease in the real world and enable new diagnostics and therapeutics is real, and it’s rapidly evolving. This is why Evidation’s opportunity is so exciting. When she was at GE Ventures, Rowan Chapman called me to discuss why there should be a company to measure outcomes and disease severity with this new information in the digital era of medicine. She had also called Christine Lemke (co-founder and president of Evidation) and introduced the two of us. Rowan called us because of our expertise and experiences in tech and healthcare, not because of our gender. However, it certainly was unique that the Evidation board of directors was 75% female after Rowan’s investment.

Was it hard to raise VC funds?

We’ve been successful raising VC for Evidation as we’ve grown, but I think raising capital is also always hard in one way or another. If you or your company is different from the Silicon Valley norm, you try to ensure that those differences don’t affect your ability to fundraise, but you can’t ever know for sure if what makes you different is a negative for some investors. I am a 50-plus-year-old gay woman with gray hair and a southern accent. It almost doesn’t get more extreme in terms of being different in Silicon Valley, so I am definitely aware of this. If investors are understandably trying to minimize risk by pattern matching in terms of business metrics/models, does this ever extend to subconscious pattern matching in terms of the demographic makeup of the team? On the flip side, how many gay, gray-haired, woman CEOs over 50 are running up and down Silicon Valley pitching their companies (and with a southern accent?) When I’m in front of an investor, they might not agree with what I’m saying, but perhaps they’ll remember Evidation’s story just because of the differences in who is saying it. At the end of the day—especially in a market like this with so many deals—I want our company to be different in investors’ minds, however that happens.

What made you decide to take VC funding in the first place? What has worked well with that strategy and what’s been more challenging?

One of our initial challenges was explaining our vision in a clear way. We had a big vision for a company that we felt should exist in 21st century healthcare and we were eager to be the ones to create it. When you’re the first of your kind, when you don’t have another direct comparable to point to and you’re making assumptions about where the market will go, you need risk-tolerant capital to make that big vision concrete and real—that is very much the VC path. I have never once questioned our strategy to pursue VC or lost one nanosecond of sleep over it. And we’re very grateful for the investors who have supported us as we build Evidation.

In this report, we’ve had some interesting findings about entrepreneurs that I’d like to share with you and hear your reactions: There are more successful female entrepreneurs (in terms of
“You need to have people who are different in terms of experiences, because that’s what often drives people to see the world differently.”

fundraising) in specific sectors, such as pharma & biotech. In other studies, we have also seen that it is easier for female entrepreneurs to raise money in the health sector. Is there something that you think has made it easier for women to raise funds in healthcare? What do you think is driving that data?

I’m not at all surprised by the fact that women have done well in healthcare sector companies. If you look at trends of students graduating from biomedical engineering over the past few years, women have gone from a minority to the majority (including, for example, at Georgia Tech where I sit on the advisory board). This means that the leadership or founder demographics may be shifting in terms of who is driving startups and technology-based companies in healthcare—a sector where many graduates of biomedical engineering programs land. There are also studies of female STEM students suggesting they are more likely to end up in mission-driven companies or product areas where there is a direct benefit to society. If true, then these studies might partially explain the data you’re seeing in the data.

I’d love to get your advice on two fronts: First, what’s one “ask” that you would make that would change the system broadly?

This sounds simplistic, but we should all be questioning all of our assumptions. We should all examine our business practices, investment trends or hiring decisions, and try to objectively assess if there’s any hidden bias in them wherever that’s possible. This is not from a judgement perspective, but a call to look at everything and have honest conversations about what we see. One way I try and do it (which may not work for everyone) is to not have people on your management team that are all just like you. I don’t mean just by gender or age; I mean you need to have people who are different in terms of experiences, because that’s what often drives people to see the world differently. Then you need to listen to them and have relationships that are based on candor and willingness to question assumptions when the evidence demands it. Of course, you can apply this to startups, corporations and VC firms—we should all be doing it.

Second, is there something on a daily basis that anyone can do that could change the dynamics that we’re all facing?

Be consciously aware of the composition of candidate pools for different roles in your hiring pipeline and try to understand what is driving that candidate pool composition. Beyond that, no matter who you are, take that call from women and underrepresented minorities who are asking you for help. Put the ladder down for others when you’ve made it into the boat.

Evidation Health is a healthtech company that builds technology and systems to measure health in everyday life. The use of personal computing devices, such as phones and wearables, provides visibility into the 99.97% of the time that individuals are not in the doctor’s office, unlocking insights into what therapies work best in the real world and spotting significant changes in health earlier. The scale and utility of this everyday behavior data has the potential to be one of the most transformative forces in medicine. The company successfully raised a Series C round in April 2018 from prominent investors including B Capital Group, SV Health Investors, Rethink Impact, GE Ventures and Sanofi Ventures.
Proportion of VC deals (#) in companies with at least one female founder by stage

Proportion of VC deals ($) in companies with at least one female founder by stage

VC exits (#) by founder gender

Proportion of VC exits (#) in companies with at least one female founder

VC exit activity in companies with at least one female founder

Source: PitchBook | Geography: Global
*As of August 31, 2019
Invest in multiplicity

We sat down with some of the leaders of Launch With GS at Goldman Sachs...

“Gender-balanced teams provide a clear alpha opportunity and we’re capitalizing on that.”

Jemma Wolfe

As a Chief Strategy Officer

Through Launch With GS, we’ve learned a few ways that large corporate organizations can move the needle on diversity and inclusion:

• **Make it a core business priority.** Launch With GS is core to our firmwide strategy because we’re evolving how we think about and execute on investment opportunities. The bottom line is it makes sense for our business because investing and helping companies grow is our business.

• **Focus on the alpha proposition.** We invest in women to generate strong returns. We’ve seen the data; diverse teams outperform, and with less than 3% of venture capital dollars going to these teams, this represents a clear outperformance opportunity.

• **Rebrand diversity.** The word diversity has become fatigued.

We sometimes substitute it with “multiplicity,” to reflect the power and multiplier effect of engaging a range of backgrounds, experiences and perspectives. A firm, and society, rooted in multiplicity is what I envision as success in 20 years.

• **Strengthen networks through community.** The Launch With GS global community is as critical as the capital we put to work, because warm introductions are 13x more likely to result in funding. Networks are the vehicles that nurture and grow new businesses, and widening them can change the status quo.

• **Partner with others.** Everything we do, we do in partnership with others. Tackling this challenge is bigger than any single company; it’s going to require collective and concerted effort by the entire industry.

Jemma Wolfe
Head of Launch With GS

Jemma leads Launch With GS, the firm’s investment strategy born out of the belief that diverse teams drive higher returns.

Stephanie Cohen
Chief Strategy Officer, Goldman Sachs

Stephanie is Goldman Sachs’ chief strategy officer and an ex-officio member of the Management Committee. She is also a member of the Partnership Committee, Firmwide Asset Liability Committee and Global Diversity Committee. In addition to driving strategy and mergers and acquisitions (M&A) for the firm, Stephanie leads Launch With GS, as well as GS Accelerate, the firm’s in-house innovation engine.
As a Limited Partner

Limited Partners are in a unique position to leverage their influence and dollars to drive change in the VC ecosystem. As the top of the food chain in how capital flows, actions here have catalytic effects for fund managers and portfolio companies. LPs are well-positioned to:

- **Invest in gender-balanced funds.** Gender-balanced teams can lead to higher quality decision-making and broader deal sourcing because of their differentiated perspectives and networks. Moreover, gender-balanced managers are more likely to drive diversity at their own funds and are 2x as likely to invest in women-led companies.⁵

- **Lend your platform.** My team has evaluated thousands of managers. We have observed that women tend to ask for less money and often undersell track records and experience relative to their male counterparts. As an LP, you are in a position to lend your voice, experience and platform to women to help shift this dynamic in a constructive and successful way.

- **Ask questions of managers—even if it is uncomfortable.** A recent study from Oliver Wyman shows that 60% of LPs say they care about diversity, but only 20% ask about it. Asking questions—about their track records of investing in companies with diverse leadership and their own recruiting efforts—and requiring it of your team as part of the diligence process, is an impactful way to create change.

As a General Partner

As a General Partner, I’m focused on creating conditions that yield the highest returns possible. We strive to foster inclusivity on our team and in our portfolio companies because inclusive environments are key to achieving returns. As investors, we can:

- **Hire—and support—more women.** It’s not enough to hire more women—they also have to be supported in tangible ways, such as with promotions, deal experience and board seats.

- **Collect data. As investors, we are data-minded—use the data to your advantage.** Tracking metrics and decisions at every step of your investment process can highlight and reduce the potential for bias.

- **Drive inclusivity at portfolio companies.** As GPs, we are often asked to help portfolio companies add new board members and make key hires. Intentionally and actively source a broader range of candidates for these leadership roles—even if it takes more time.

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3: “UK VC & Female Founders,” Diversity VC and British Business Bank, 2019
4: “Advancing Women Entrepreneurs,” Stephanie Cohen and Amanda Hindlian, April 23, 2019
5: “Moving Toward Gender Balance in Private Equity and Venture Capital,” Oliver Wyman, 2019

Julia is a managing director in the Alternative Investments & Manager Selection (AIMS) Group, where she is global co-head of the AIMS Private Equity Primaries team, responsible for the manager selection and portfolio construction for private equity manager investments. She is co-chair of the AIMS Private Equity Primaries Investment Committee and a lead investor for Launch With GS.

Julian Salisbury
Global Co-Head
Merchant Banking Division, Goldman Sachs

Julian is global co-head of the Merchant Banking Division (MBD). He is also head of the global Real Estate business. Julian is a member of the Management Committee and co-chair of the Partnership Committee and Firmwide Investment Policy Committee. He is chair of the MBD Credit Investment Committee, co-chair of the MBD Real Estate Investment Committee and a member of the MBD Growth Committee. Julian also oversees Launch With GS.
Does location matter?

It’s true: some cities are better than others.

Female-founded startups are most prevalent in North America, specifically the United States. The US VC scene is often synonymized with Silicon Valley; however, several other cities have established themselves as VC hubs in recent years. The four most active areas in the US happen to split evenly between the coasts: Silicon Valley and Los Angeles out West and New York and Boston in the East. New York and Los Angeles have long histories playing headquarters to several global industries, including finance, media and fashion, making them natural attractions for talented and ambitious professionals. These professionals often become entrepreneurs seeking to disrupt their own industries. As nascent startup ecosystems have gained ground, new VC firms popped up nearby to cater to them. City-by-city data paints an interesting picture for female founders, who have long suspected that some areas are superior when it comes to getting their companies financed.

$16.3B

record amount raised in US female-founded companies in 2018

8.1x

decade increase in VC dollars invested in US female founders (2009-2018)

Proportion of VC deals (#) in companies with at least one female founder by region

Proportion of VC deals (#) funded locally by founder gender*

Source: PitchBook | Geography: US
*As of August 31, 2019

Source: PitchBook | Geography: US
*As of August 31, 2019
Launch With GS is Goldman Sachs’ commitment to invest $500 million in women-led companies and investment managers. In our efforts to narrow the gender investing gap, we are also building a global network of business leaders to facilitate connections, share ideas, and uncover opportunities.

**Investing in women-led companies** through Goldman Sachs’ principal investing business, focusing on growth equity.

**Backing women-centered* investment managers** by investing client capital across venture capital, growth equity, and private equity strategies.

**Building a community** of entrepreneurs, investors, and other business leaders to foster inclusivity and grow the pipeline of future investment opportunities.

“Our goal with Launch With GS is to generate strong investment returns. The bottom line is this makes sense for our business - because investing and helping companies grow is our business. We also hope it makes a difference for women who have big ideas but find themselves cut out of the funding ecosystem.”

Stephanie Cohen
Chief Strategy Officer, Goldman Sachs

To learn more visit www.gs.com/LaunchWithGS

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* Women-centered firms may include 1) firms that have at least one female voting investment committee member (or a firm’s equivalent to a risk taking authority) or 2) firms where women take 25% or more of ownership or incentive compensation. The material provided herein is for informational purposes only. It does not constitute an offer to sell or a solicitation of an offer to buy any securities relating to any of the products referenced herein, notwithstanding that any such securities may be currently being offered to others. Any such offering will be made only in accordance with the terms and conditions set forth in the offering documents pertaining to such fund. Prior to investing, investors are strongly urged to review carefully all of the offering documents. No person has been authorized to give any information or to make any representation, warranty, statement or assurance not contained in the offering documents. As of February 2019 unless otherwise indicated.
All In: Women in the VC Ecosystem

**Silicon Valley**

Silicon Valley remains ground zero for the VC industry in terms of size and global influence. In a given year, fundraising for Silicon Valley-based startups accounts for about 25% of all US VC activity. Due to its impact, the Valley’s gender statistics are more closely scrutinized than any other ecosystem, and the results are mixed. While female-founded teams come close to matching overall figures—for the past four years, around 20% of all investments in the Valley have gone to founder teams with at least one woman—startups founded solely by women comprise only 5.2% of the market. In addition, the percentage of VC dollars dedicated to all-female founded teams is a paltry 1.9%, reinforcing the negative narrative about the Valley. With that said, the world’s largest VC market has made strides across several gender metrics in the past few years. That 5.2% of all-women-founded startups has risen from 3.9% in 2017 to 4.4% last year. It’s likely no coincidence that female founders are now being funded at a higher rate as talented women are increasingly encouraged to start companies in an environment open to funding female-founded startups.

### Silicon Valley tech VC deal activity in companies with at least one female founder

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2014</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total deal count</td>
<td>116</td>
<td>465</td>
<td>435</td>
</tr>
<tr>
<td>% of overall deal count</td>
<td>10.1%</td>
<td>17.7%</td>
<td>18.9%</td>
</tr>
<tr>
<td>Total deal value</td>
<td>$772M</td>
<td>$3,772M</td>
<td>$6,258M</td>
</tr>
<tr>
<td>% of overall deal value</td>
<td>8.2%</td>
<td>12.2%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Tech deal count</td>
<td>92</td>
<td>420</td>
<td>368</td>
</tr>
<tr>
<td>% of overall tech deal count</td>
<td>10.8%</td>
<td>17.6%</td>
<td>18.1%</td>
</tr>
<tr>
<td>Tech deal value</td>
<td>$622M</td>
<td>$2,952M</td>
<td>$4,954M</td>
</tr>
<tr>
<td>% of overall tech deal value</td>
<td>7.8%</td>
<td>10.7%</td>
<td>11.3%</td>
</tr>
</tbody>
</table>

Source: PitchBook | Geography: Silicon Valley

*As of August 31, 2019*
New York sees comparably high tech deal activity relative to Silicon Valley, even though the Silicon Valley ecosystem dwarfs New York’s in size. Aiding New York’s case, several of the most prominent VC firms such as Greycroft and Union Square Ventures routinely invest in New York-centric verticals such as publishing, media and marketing technology.

New York’s VC ecosystem includes several prominent mentorship programs for women, including WENYC, which is supported by several VC firms and partner organizations. New York’s emphasis on networking is instructive for the rest of the VC industry, but in some ways it’s even more important in Manhattan, which is considered a global headquarters for industries as diverse as finance, media, retail and insurance. Some of the most successful startups headquartered here were founded by women who left companies such as NBC (theSkimm), Bain & Company (ClassPass) and Citi, Merrill Lynch (Ellevest), though there are dozens of similar examples.

**New York tech VC deal activity in companies with at least one female founder**

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2014</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total deal count</strong></td>
<td>80</td>
<td>313</td>
<td>307</td>
</tr>
<tr>
<td><strong>% of overall deal count</strong></td>
<td>17.4%</td>
<td>25.7%</td>
<td>27.3%</td>
</tr>
<tr>
<td><strong>Total deal value</strong></td>
<td>$289M</td>
<td>$1,307M</td>
<td>$2,358M</td>
</tr>
<tr>
<td><strong>% of overall deal value</strong></td>
<td>14.3%</td>
<td>18.3%</td>
<td>17.2%</td>
</tr>
<tr>
<td><strong>Tech deal count</strong></td>
<td>67</td>
<td>271</td>
<td>264</td>
</tr>
<tr>
<td><strong>% of overall tech deal count</strong></td>
<td>17.2%</td>
<td>24.6%</td>
<td>27.1%</td>
</tr>
<tr>
<td><strong>Tech deal value</strong></td>
<td>$270M</td>
<td>$1,105M</td>
<td>$2,043M</td>
</tr>
<tr>
<td><strong>% of overall tech deal value</strong></td>
<td>16.4%</td>
<td>16.6%</td>
<td>16.4%</td>
</tr>
</tbody>
</table>

*Source: PitchBook | Geography: New York City

As of August 31, 2019
Los Angeles is a bustling VC hub for female founders and headquarters more female-founded tech startups than Silicon Valley. Approaching one-third of the entire Los Angeles market, startups led by female founders have been a growing force in the region since 2013, when female-founded startups accounted for over 20% of all financings. Los Angeles is home to a number of high-powered industries, including entertainment, media and apparel, as well as an up-and-coming tech sector that in many ways is more consumer-centric than average. "Los Angeles, traditionally, has been known for more media, gaming and D2C companies," explained Eva Ho, Partner at Fika Ventures and founding member at All Raise. "Today, the city is home to unicorns in many more sectors including transportation, aerospace, SaaS, cybersecurity and hardware, to name a few. The expanding diversity of sectors is also mirrored in the diversity of founding teams and CEOs, with examples such as Therese Tucker (Blackline), Shivani Siroya (Tala) and Lidia Yan (Next Trucking)."
Boston has historically had lower percentages of deal count from companies with female founders across all regions, but has caught up to surpass Silicon Valley over the past five years. Female-founded startups have accounted for at least 20% of all financings since 2015, and Boston’s tech scene boasts similarly strong numbers.

The city’s pharma & biotech market is an outlier, thanks to Boston’s proximity to Harvard University and MIT. Not only do Boston-area schools educate some of the best and brightest, they also employ the professors who become advisors to their students’ startup ideas. Over one-third of all pharma & biotech VC investments in 2017 went to female-founded startups, totaling more than $1.3 billion in combined value. When going one level deeper and analyzing VC trends within their own region, New York and Boston see more VC activity from investors based in their regions.

**8.5x**

increase in female-founded company deal value in the last decade (2009-2018)

**7.4x**

increase in female-founded tech company deal value in the last decade (2009-2018)

**Boston tech VC deal activity in companies with at least one female founder**

<table>
<thead>
<tr>
<th>2010</th>
<th>2014</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total deal count</strong></td>
<td>55</td>
<td>113</td>
</tr>
<tr>
<td><strong>% of overall deal count</strong></td>
<td>13.7%</td>
<td>18.3%</td>
</tr>
<tr>
<td><strong>Total deal value</strong></td>
<td>$356M</td>
<td>$582M</td>
</tr>
<tr>
<td><strong>% of overall deal value</strong></td>
<td>13.7%</td>
<td>12.4%</td>
</tr>
<tr>
<td><strong>Tech deal count</strong></td>
<td>33</td>
<td>77</td>
</tr>
<tr>
<td><strong>% of overall tech deal count</strong></td>
<td>11.3%</td>
<td>17.0%</td>
</tr>
<tr>
<td><strong>Tech deal value</strong></td>
<td>$172M</td>
<td>$279M</td>
</tr>
<tr>
<td><strong>% of overall tech deal value</strong></td>
<td>10.7%</td>
<td>9.7%</td>
</tr>
</tbody>
</table>

Source: PitchBook | Geography: Boston

*As of August 31, 2019*
The tech sector’s reputation for gender disparities comes into focus when compared to other sectors, which routinely see a higher volume of female entrepreneurs. While female-founded tech startups make up nearly 20% of all VC-backed tech companies, they bring in a lower percentage of all tech investment dollars (12.2% in 2019 YTD). The tech industry is uniquely cost-effective and scalable—two profoundly important ingredients for investors—and as software “eats the world” sector by sector, it’s likely even more attention will be paid to the broader technology market. Female-founded startups are an increasing part of that story, rising from 10% of the VC-backed market in 2009 to 19% by 2018. More importantly, the sheer number of female-founded, VC-backed tech startups has grown significantly, from 410 companies in 2009 to over 2,700 last year. Percentages aside, a tech ecosystem with female entrepreneurs in the thousands (instead of in the hundreds) bodes well for the industry going forward.

### Tech VC deal activity in companies with at least one female founder

<table>
<thead>
<tr>
<th>Year</th>
<th>Deal value ($B)</th>
<th>Deal count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>410</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>590</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>$3.3</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>$4.7</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>$6.5</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>$9.7</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>$15.8</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>$17.6</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>$16.8</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>$39.1</td>
<td></td>
</tr>
<tr>
<td>2019*</td>
<td>$13.9</td>
<td></td>
</tr>
</tbody>
</table>

*As of August 31, 2019

Source: PitchBook | Geography: Global

28.0x increase in global female-founded company deal value in the last decade (2009-2019)

84.7% of the decade’s increase in tech deal value for female-founded companies has been since 2014

### Median VC early-stage pre-money valuation ($M) in tech companies with at least one female founder

<table>
<thead>
<tr>
<th>Year</th>
<th>Companies with at least one female founder</th>
<th>All companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>2015</td>
<td>$10.0</td>
<td>$25.3</td>
</tr>
<tr>
<td>2016</td>
<td>$20.0</td>
<td>$50.0</td>
</tr>
<tr>
<td>2017</td>
<td>$26.0</td>
<td>$80.0</td>
</tr>
<tr>
<td>2018</td>
<td>$25.3</td>
<td>$100.0</td>
</tr>
<tr>
<td>2019*</td>
<td>$26.0</td>
<td>$150.0</td>
</tr>
</tbody>
</table>

Source: PitchBook | Geography: Global

### Median VC late-stage pre-money valuation ($M) in tech companies with at least one female founder

<table>
<thead>
<tr>
<th>Year</th>
<th>Companies with at least one female founder</th>
<th>All companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>2015</td>
<td>$10.0</td>
<td>$25.3</td>
</tr>
<tr>
<td>2016</td>
<td>$20.0</td>
<td>$50.0</td>
</tr>
<tr>
<td>2017</td>
<td>$26.0</td>
<td>$80.0</td>
</tr>
<tr>
<td>2018</td>
<td>$47.0</td>
<td>$100.0</td>
</tr>
<tr>
<td>2019*</td>
<td>$91.0</td>
<td>$150.0</td>
</tr>
</tbody>
</table>

Source: PitchBook | Geography: Global

*As of August 31, 2019
Beyond tech

Education
Among the sectors covered in this report, education-related startups enjoyed the most relative success for women entrepreneurs. Around 30% or more of all VC financings have gone to women, a trend that dates back to 2015, including 32% of 2019 activity YTD. The education industry is ripe for disruption as the value of the current model becomes decoupled from the labor market. Women are well-represented in the education industry and many are spearheading some fundamental changes to our disjointed system.

Retail
Retail, which includes consumer goods outside of food and beverages, also has above-average representation for female founders. About 30% of 2019 financings have gone to female-founded startups, and the ratio has hovered above 25% since 2013. The internet has roiled several industries, but perhaps none more than retail; even basic assumptions, such as the utility of having a store, are being questioned. Some successful female-run startups in the space are redefining the standard buying experience on a variety of products.

Fintech
Female-founded fintech startups are comparatively rare relative to other sectors, with about 15% of investments allocated to female-founded startups for the past four years, lower than both the overall VC market and the technology market. One reason for this is likely the lack of women in the broader financial services industry. Most fintech startups are founded by finance veterans with deep backgrounds in industries like asset management, wealth management or insurance—all disproportionately populated by men.

Pharma & biotech
Relative to the overall tech market, female-founded pharma & biotech startups comprise higher proportions of their markets. Since 2016, they’ve made up about a quarter of all sector activity. Female-founded pharma & biotech startups took in a record $5 billion last year, and 2019 will likely see a similar number. Encouragingly, every year since 2015 has seen at least 200 investments in female-founded startups in the sector.

Source: PitchBook | Geography: Global
*As of August 31, 2019
Behind the stats

A closer look at female founder and investor dynamics

At Microsoft, we believe, and know, that when we see a diversity of perspectives, backgrounds and experiences come together, we see greater success. This holds true whether within a team or across a portfolio and is what fuels our passion for promoting diversity and equal access to opportunity everywhere we work. Much of the startup world is now discussing the challenges that women face gaining access to the capital and tools needed to start companies. To learn more about these challenges and how they can be overcome, we sat down with award-winning researcher Dr Dana Kanze, Assistant Professor of Organizational Behavior at London Business School, and Noga Tal, Global Head of Partnerships at Microsoft for Startups. We asked them to share their insights on why certain challenges persist, practical steps the industry can take to address them and advice they would give to female founders.

Based on your respective research and work with female founders, what would you say are the top challenges that women face as tech startup founders?

Kanze: Broadly speaking, the challenge is to obtain the same opportunities as male counterparts founding tech startups. That means getting access to resources ranging from educational and social capital to human and financial capital. When it comes to the latter, we know that growth in the numbers of women founding companies is eclipsing that of men, but female founders are still struggling to capitalize their companies with the funding necessary to scale.* My research and that of other scholars and practitioners has illustrated that even when female-led tech startups demonstrate comparable growth prospects and demand for capital, they are constrained in their attempts to raise the same amounts of funding as male-led startups. Due to pay disparities and other systemic and structural barriers inhibiting women from accumulating personal wealth to the same extent as men, female founders are also less likely to be able to self-fund their startups while awaiting outside funding. These collective factors serve to perpetuate labor market inequality, preventing women from nurturing their businesses into sustainable entities.

Tal: Another factor that we haven’t seen as much discussion around is access to the proverbial “boys’ club.” According to research we recently conducted with Hall & Partners, the strength of professional networks emerged as a large impediment to women’s success. Female founders cited gender differences in the size, strength and openness of their professional networks, which limits their access to capital, mentors and customers. According to a recent McKinsey & Company study, women are over five times more likely to rely on a network that is mostly female.* Since men hold the reins to advancement and capital, this limits women’s ability to break in. In our work with female founders, we also see that women are less likely to ask for help from their network and will mislabel some connections as “personal,” thus refraining from requesting support in the professional sphere.

Can you tell us about your main research findings on why women may be getting less funding for their startups?

Kanze: My colleagues and I conducted a seven-year field study coupled with a series of controlled experiments on

...
the interactions between tech startups and investors. We found\textsuperscript{9} that male and female entrepreneurs receive meaningfully different types of questions from investors, helping to account for the significant disparity in their funding outcomes. More specifically, we found that investor questions differ along the dimension of gain versus loss framing: male entrepreneurs are more likely to be asked promotion questions pertaining to the domain of gains (related to hopes, accomplishments and advancement considerations), while female entrepreneurs are more likely to be asked prevention questions concerned with the domain of losses (related to safety, responsibility and security considerations). Male and female entrepreneurs are apt to be asked about the same topics, but the nature of the discussion by topic tends to be framed in terms of gains and losses. For instance, men engaging in discussions on the topic of customers are more likely to be asked about how they plan to acquire (or gain) new customers, while women are more likely to be asked how they plan to retain (or not lose) the customers they already have. Across both the field and the experimental studies conducted, we found that investors allocated significantly more funding to startups that are asked predominantly promotion over prevention questions when controlling for key factors that can affect funding outcomes. Notably, we found that entrepreneurs are apt to respond in kind to the questions they receive, with a promotion question begetting a promotion response and a prevention question begetting a prevention response. Our results indicated this matching behavior creates a disadvantage for entrepreneurs asked prevention questions; they dig themselves a proverbial grave by answering investor questions as conscientiously as possible, all the while reinforcing their association with the unfavorable domain of losses. At best, the ensuing dialogue demonstrates they are unlikely to lose investors’ money rather than exploiting the valuable opportunity to demonstrate their investment’s home-run potential to maximize investor gains—precisely what is required to achieve success in the context of investor pitching.

**Tai:** In our experience and research, we’ve also noticed differences in pitching styles, which can affect funding outcomes. Female founders prefer to provide realistic projections of market opportunity and growth trajectory, while their male counterparts tend to overpromise, which has become what most investors expect to hear. One woman reflected that she hears men talking about the business as they’d like to see it in a year—and describing it as though it’s that successful already—while she and other women take a more measured approach, preferring to underdeliver.

**What are some best practices for female founders to overcoming these challenges?**

**Kanze:** Our results\textsuperscript{9} point to the fact that female founders are not doing anything “wrong” in terms of the way they are representing themselves to prospective investors (importantly, women and men in our sample used similar degrees of promotion and prevention in their actual pitches). Investors have an opportunity to infuse greater rationality into their decision-making processes by consistently framing their questions to candidates regardless of gender. While investors continue to make progress toward this goal of achieving question consistency, our field and experimental evidence point to a valuable “tool” for entrepreneurs to add to their toolkits when raising capital. Those entrepreneurs who manage to switch focus, responding to a prevention question with a promotion response, can raise significantly higher amounts of funding for their startups. This means responding to a question about defending your market share by highlighting the size and growth potential of the entire pie rather than how you merely plan to protect your sliver of the pie. Likewise, it means underscoring your startup’s top-line forecast when asked how you plan to merely break even. It’s touching upon the underlying growth drivers of your financial projections when questioned about the predictability of the cash flows.

**Tai:** Women consistently tell us that change needs to start at the top, with big tech and investors showing the way. Tech companies and investors need to lead by example in how they run their own businesses and underpin that with specific programs that cultivate a supportive environment for female entrepreneurs. We believe large companies and investors of all types and sizes are in a unique position to use their power to accelerate culture change within and outside their organizations by prioritizing the inclusion and advancement of women—specifically of women’s entrepreneurship. As far as practical advice, I would recommend the following to female founders:

**Network building:** Focus on consistently and actively building and maintaining your professional network. Keep your contacts updated on your progress through regular touch points; Focus on networking for your next growth phase. If you’re still in pre-seed mode and just building out your minimum viable product, start networking with relevant investors and customers for your seed round. Be unabashed about asking existing connections for introductions. And lastly, build an advisory board. While this type of body holds no real legal stature, it allows you to involve a wide range of subject-matter experts and influencers, get valuable insights and enlist a group of active advocates.

**Thorough background research on investors:** Spend ample time researching who your potential investors might be, not just based on fit for your business and sector, but also based on which investors have a specific focus on supporting women, have a woman on their investment team or have invested in female-led startups in the past. We know from multiple research projects that these are the investors most likely to be open to meeting with you and potentially investing in your startup. Thankfully, there are now multiple online lists and resources to get you started.

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23 All In: Women in the VC Ecosystem
The importance of female investors

Female VCs are twice as likely to invest in female founders.

Gender imbalances exist throughout the finance industry, but the effects are more pronounced in VC. Assessing startup founders and their ideas comes with more risk than model-based sectors such as trading, investment banking and PE. The imbalance in VC carries a different weight because a lack of women investors has a direct impact on female founders and the prospects of their businesses. Moreover, personality traits are more closely scrutinized in VC than anywhere else in the finance industry. Whether a founder has “it” is crucial and highly subjective, and future success stories are easy to dismiss if the VCs themselves find reasons not to back them.

One major barrier to female founders raising VC is a persistent lack of female decision-makers at VC firms. As of August 2019, about 12% of venture firms and angel groups in the US had women in decision-making roles at the investment level. Given studies that emphasize how female VC partners are twice as likely to invest in startups with at least one female founder and more than three times as likely to back startups with female CEOs, the discrepancy at the funder level is critical in this equation. According to PitchBook, there appears to be a correlation between hiring female decision-makers at the investment level and outperformance at the fund level.

Of all the US VC firms that scored a top-quartile fund between 2009 and 2018, 69.2% of them had women in decision-making roles. A number of factors affect that statistic, but many founders naturally seek top-quartile investors and try to pitch to them. Top-quartile funds with female checkwriters at the other end of the table will help move the needle over time.

These numbers put the spotlight on LPs. The amount of female-controlled wealth globally is expected to hit $72 trillion by next year, according to Boston Consulting Group. While most of that wealth won’t qualify for private market investments, much of it will, and wealthy women (and institutional investors) can funnel commitments to female-founded companies and female-controlled VC firms over time.

LPs typically recommit to the same GPs, which in theory could fuel a self-sustaining source of funding for firms backing women. As things stand, though, women investors who spin out of their roles to create new firms are often ignored by many LPs, thanks to the same familiarity dynamic between GPs and LPs with longstanding relationships. LPs should emphasize and prioritize backing first-time funds, particularly female-led ones, to benefit from arbitrage opportunities and peripherally impact the progress of female entrepreneurship.

LPs can also demand that GPs commit to backing more startups with at least one female founder, in much the same way that LPs can demand more ESG-driven investments that push for social and environmental change. LPs can also pressure the industry to create women-focused funds-of-funds, which would concentrate exclusively on the disparity issue by investing in female-controlled VCs and potentially help speed up progress.

“Without more women in leadership founding and funding innovative companies, we are leaving money on the table instead of expanding the pie for everyone.”

Pam Kostka
CEO, All Raise
“Venture, especially at the earlier stages, is very much a pattern recognition business. It is not shocking that VCs often invest in people who remind them of other successful entrepreneurs. As a result, having an increase in the diversity of the venture community will ultimately be one of the strongest drivers of increased diversity of who gets funded.”

**Jenny Abramson**
Founder & Managing Partner, Rethink Impact

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*Source: PitchBook | Geography: US
*As of August 31, 2019*
Key takeaways

Some cities are better than others for female founders.

New York and Los Angeles see comparatively high tech deal activity relative to Silicon Valley, despite Silicon Valley’s much larger ecosystem.

What it means: Female founders can utilize these datapoints to determine which ecosystems (and VC firms) to target when they’re on the fundraising trail.

Female-founded startups have a consistent history of exiting faster than male-led startups.

Moreover, female-founded companies are exiting as a faster rate year-over-year compared to their all-male counterparts.

What it means: This reafirms past research on enhanced business performance for female-founded companies. Venture investors, family offices, foundations and other prospective startup investors can use these datapoints to bolster their arguments for investing in more female-founded startups.

Only 12% of US VC checkwriters are women.

Past research has found that female general partners are twice as likely to back female founders. Many (if not most) investment pitches are initiated by company founders, who approach investors looking for an opportunity to talk about their companies, and there are numerous indications that female founders often actively seek out VC firms with female checkwriters to pitch to.

What it means: VC firms can help in a big way by hiring or promoting more women into checkwriting roles. They will likely see an increase in incoming deal flow and open themselves to opportunities that other firms may miss.

56% of limited partners have women in decision-making roles.

Limited partners are the original capital source for the entire VC industry, and where they invest their money has a significant downstream effect on future deal flow.

What it means: LPs can play a role, as well. They can use their influence to push for female-focused funds-of-funds, which are funds that take stakes in funds instead of startups. Such funds would ultimately provide more resources for female founders and provide an initial source of capital for female investors looking to set up their own VC firms.

Methodology

Please refer to PitchBook’s Report Methodology page for a complete breakdown of our terms and definitions.

Any data references to Silicon Valley include VC activity within the San Francisco/Bay Area MSA combined with PitchBook’s San Jose MSA.

Education: Includes educational training and services, educational software and EdTech

Retail: Includes apparel and accessories, consumer durables, consumer non-durables (ex. food and beverage), retail, LOHAS and wellness

Female GPs: Only includes fully disclosed decision-makers who are currently with their firms as of August 31, 2019. Only includes VC firms with AUMs of at least $50 million, and excludes life science and healthcare-focused firms as defined by their investment history (>25% of firms’ investment in those industries)

Female LPs: Only includes limited partners that have made commitments into VC funds. Only includes decision-makers who are currently employed by those limited partners. Only includes institutions with “limited partner” as their primary function. Only includes data with fully disclosed gender details among their decision-makers.
You’re here to do great things.
We’re here to help.

Microsoft for Startups
We are a comprehensive global program designed to support startups as they build and scale their companies. We believe in a diverse and inclusive entrepreneurial community — one that empowers every startup and every founder to achieve more. Whether it’s working directly with startups through our program or partnering with organizations that share our values, we are committed to seeing underrepresented founders thrive.

Learn more about how Microsoft for Startups helps to grow businesses at Startups.Microsoft.com