Accelerating Women-led Startups

A Knowledge Brief by the
Global Accelerator Learning Initiative

MARCH 2020

GALI

Global Accelerator Learning Initiative

Table of Contents

Authors

Abigayle Davidson, Research Manager, ANDE

Victoria Hume, Research Analyst, ANDE

Acknowledgments

Thank you to Matthew Guttentag, ANDE's Director of Research and Impact, for his significant editorial contributions and to the accelerator program managers and other individuals who participated in interviews. Your participation added necessary depth to the insights shared in this brief.

Introduction

There is significant evidence that women entrepreneurs face unique challenges in starting and growing businesses, particularly in emerging markets.[1] Acceleration programs, which are designed to help startup businesses achieve scale, represent one potential model for overcoming these challenges through support services and investment. Using data from the Global Accelerator Learning Initiative (GALI), this knowledge brief examines the acceleration of women-led ventures through two lenses: first, at the venture level, by analyzing the performance of women-led ventures applying to and emerging from accelerator programs; and second, at the program-level, by analyzing actions taken (or not taken) by acceleration programs specifically targeted at improving their support for women-led ventures.

This brief summarizes findings from a quantitative analysis of GALI's global dataset, complemented by qualitative research from interviews with accelerators and references to existing research about acceleration. It is intended to identify gender gaps that are observable in the GALI dataset, specifically the differing characteristics and experiences of ventures led by men in comparison to women.

What is an accelerator?

Accelerators share a set of program characteristics that distinguish them from other forms of capacity development services. Specifically, they are time-limited programs that work with cohorts or "classes" of ventures to provide mentorship and training, with a special emphasis on connecting early-stage ventures with investment.[2] The majority of programs included in this dataset meet this definition, though the terms "incubator" and "accelerator" are often used interchangeably, particularly in emerging markets, and the two often have similar goals and structures.

1 (2019). "Gender Equality in the SGB Sector." ANDE Issue Brief.
2 Definition adapted from: Cohen, S. & Hochberg, Y.V. (2014). Accelerating startups: The seed accelerator phenomenon. Available at SSRN 2418000

Methodology

Quantitative Analysis:

This knowledge brief uses data from 14,985 unique early-stage ventures that applied to one of 318 accelerator programs that partnered with GALI between 2013-2018. The dataset contains ventures from over 160 countries, with particularly strong representation of emerging markets; only 25% of the ventures are based in the United States, Canada, or Europe, and the remaining are spread across Latin America (36%), Africa (25%), and Asia (14%). The analysis is limited to for-profit ventures, of which most (90%) have some impact orientation – meaning they have the "explicit intent of creating social or environmental impacts." The anonymized dataset is available and free to download at www.galidata.org/data-request.

When founders apply to an accelerator, they are asked to complete the GALI survey which asks basic questions about their venture and information on up to three members of the founding team. Given that there is no further delineation of leadership structure described, it is not possible to understand the level of agency that the various founders have relative to each other. To isolate the experiences of women in acceleration, this brief categorizes ventures into one of three categories based on the gender makeup of the founding team, including men-led (indicating all founding team members are men), women-led (indicating all founding team members are women), and mixed-gender (indicating the founding team is comprised of at least one woman and one man).[3]

All financial statistics are in United States Dollars (USD).

Qualitative Analysis:

GALI conducted structured interviews with seven individuals who work for or with accelerator programs. The questions focused on whether and how accelerators intentionally take actions to attract women-led ventures to their programs, as well as the respondents' personal experiences and perceptions of how women-led ventures experience the acceleration process similarly to or differently from men-led ventures. The insights derived from these interviews are mentioned throughout the brief to provide context and further insight into findings from the quantitative analysis.

This brief references three groups of ventures based on the gender makeup of their founding team:

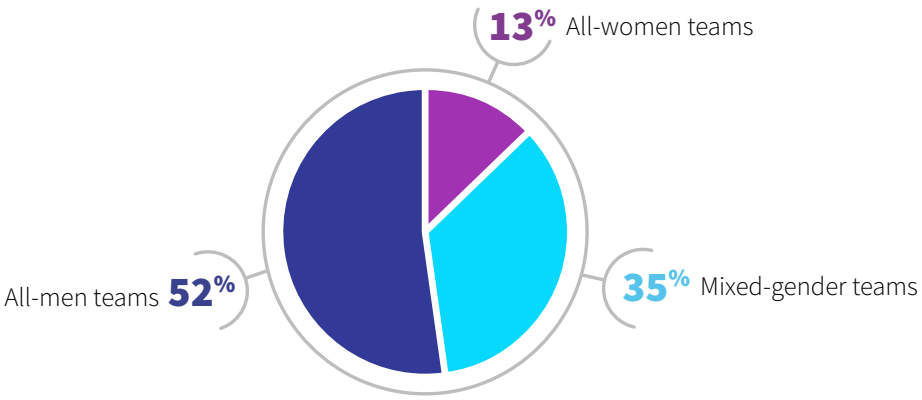
+ **Teams with all women founders** are referred to as "all-women teams" or "women-led ventures"
+ **Teams with all men founders** are referred to as "all-men teams" or "men-led ventures"
+ **Teams with both men and women founders** are referred to as "mixed-gender teams" or "ventures led by mixed-gender teams"

3 We acknowledge that not all entrepreneurs conform to binary gender identities. For the purposes of this report, we use binary gender terms as derived from the survey which asks entrepreneurs to identify as "male" or "female." Entrepreneurs are also welcome not to disclose this information if they so choose.

Venture Characteristics Based on Founding Team Gender

We first examine all ventures in the GALI dataset that applied to an accelerator (regardless of whether they were accepted). The survey asks each applicant to share information on up to three members of their founding team, including each founder's gender. Of the entire pool of 14,985 applicants, 52% of founding teams are made up entirely of men, followed by 35% with both men and women, and only 13% comprised entirely of women entrepreneurs (Figure 1). This is a disproportionately low share of women relative to overall rates of entrepreneurship: based on data from the Global Entrepreneurship Monitor, the median rate of women's entrepreneurial activity (the percent of the population 18-64 who are either a nascent entrepreneur or owner/manager of a new business) in middle income countries is 82% of that of men.[4] Given the explicit growth objective of accelerators, the gender disparity in self-selection into accelerator application pools suggests that women entrepreneurs are not accessing intensive growth-oriented support at the same rate as men.

Figure 1: Gender makeup of founding teams that apply to accelerators



Within this broad group of ventures, certain sectors are clearly more heavily dominated by men.[5] All-men teams are most likely to work in sectors that tend to have high growth rates, notably financial services (comprised of 69% men-only teams), information and communication technology or "ICT" (64% men-only teams), and energy (63% men-only teams). All-women teams are disproportionately represented in the artisanal sector (39%), while mixed-gender teams are prevalent in the agriculture (44%) and environment (43%) sectors (Table 1). This sector gender disparity aligns with the World Bank's finding in a comprehensive study on gender and entrepreneurship in Africa that "women overwhelmingly choose to enter sectors with reduced opportunities for growth,"[6] though we note that this choice may be a result of sociocultural and economic conditions rather than simple preference.

4 Based on data from the Global Entrepreneurship Monitor, calculated by taking the median value of Female/Male total entrepreneur activity in 2017-2018 for middle income countries: Argentina, Bosnia and Herzegovina, Brazil, Bulgaria, China, Colombia, Ecuador, Guatemala, Iran, Kazakhstan, Lebanon, Malaysia, Mexico, Peru, Russia, South Africa, Taiwan, Thailand, and Turkey.

5 Analysis includes sectors in which at least 300 ventures in the GALI dataset operate.

6 (2019). "Profiting from Parity" World Bank Africa Gender Innovation Lab.

Table 1: Top five sectors based on founding team gender representation

All-men	Mixed-gender	All-women
Financial services (69%)	Agriculture (44%)	Artisanal (39%)
ICT (64%)	Environment (43%)	Health (16%)
Energy (63%)	Artisanal (38%)	Education (15%)
Supply chain services (51%)	Tourism (38%)	Environment (15%)
Tourism (51%)	Supply chain services (37%)	Supply chain services (12%)

Ventures led by mixed-gender teams are oldest on average at 2.7 years (compared to women-led ventures at 2.5 years and men-led at 2.2 years) and are also most likely to be generating revenue and to have full-time employees among the three gender groups (Table 2). Although all-women teams at the application stage are slightly more likely than all-men teams to be generating revenue, all-women teams have significantly lower average revenues and are less likely to have full-time employees than either all-men or mixed-gender teams.

Table 2: Percent of ventures with revenue and employees, and average amounts

Founding Team	Any Revenue	Average Revenue (if any)	Any Full-time Employees	Average Full-time Employees (if any)
All-men	43%	$151,531	52%	6.0
Mixed-gender	52%	$125,724	57%	6.2
All-women	49%	$98,717	44%	4.4

The Gender Finance Gap Among Applicants to Accelerators

The majority of ventures that apply to accelerators have not yet secured any funding. By the time they apply, only 21% of men-led ventures have secured some equity investment, compared to 16% of ventures led by mixed-gender teams and 9% of women-led teams. This discrepancy is less dramatic when examining debt financing and philanthropic capital,[7] categories in which all-men teams have little to no advantage (Figure 2).

Figure 2: Percent of ventures with funding at application to an accelerator, by founding team gender

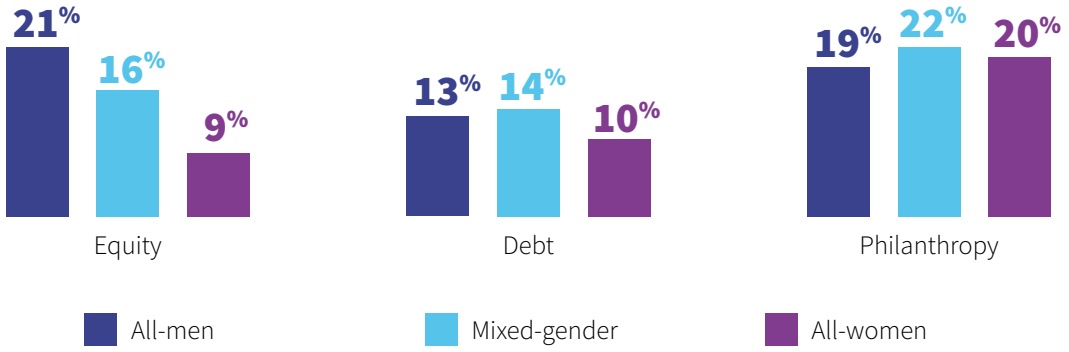


Table 3 isolates those ventures that did secure financing prior to applying to an accelerator and indicates the average amount raised. The discrepancy in equity funding based on gender persists when looking at average amounts, and a gap in debt and philanthropic funding also emerges, despite all-women teams being equally as likely to secure these types of investment capital. A Boston Consulting Group study using MassChallenge data found a similar gap in startup financing; comparing 258 men-led ventures with 92 female-founded or co-founded ventures, the study found that the male-founded ventures on average raised more than double the amount of new-business funding than the ventures with a female founder.[8]

Table 3: Average capital raised since founding (for ventures that had raised each type of capital)

Founding Team	Equity (if any)	Debt (if any)	Philanthropy (if any)
Mean			
All-men	$294,693	$201,190	$71,395
Mixed-gender	$198,087	$157,786	$63,949
All-women	$254,703	$115,971	$41,985
Median			
All-men	$75,000	$50,000	$16,000
Mixed-gender	$50,000	$39,000	$12,000
All-women	$50,000	$25,560	$10,670

7 The dataset includes a relatively high proportion of accelerators operating in middle income or less developed economies, where philanthropic capital is relatively prevalent from donors interested in using grants as flexible early-stage capital to help high-potential businesses scale to create economic or social impact.

8 Stevenson, H. (2018). The gender gap in startup investment is alive and well. The Globe and Mail.

One potential driver of this gap are systematic differences in the profiles of the ventures based on the gender of the founders (for the full list of venture characteristics by founding team gender, see the Appendix on page 20). We have already noted that all-men teams are over-represented in the financial services, ICT, and energy sectors, which represent particularly prevalent sectors for venture capital investment, especially in emerging markets.[9] Next we explore two additional potential drivers: how women-led ventures differ in their investment orientation coming into acceleration and in their prior founding and management experience.

Investment Orientation

First, we examine target fundraising by team gender to see the extent to which each groups is oriented towards seeking investment. All-men teams are most likely to report an equity fundraising target, while all-women and mixed-gender teams are more likely to have debt and philanthropic fundraising targets (Figure 3). However, all-men teams have the highest targets in all three financing categories, particularly in equity, where the average target set by all-men teams nearly doubles that of all-women teams (Figure 4).

Figure 3: Percent of ventures with 12-month fundraising targets, by founding team gender

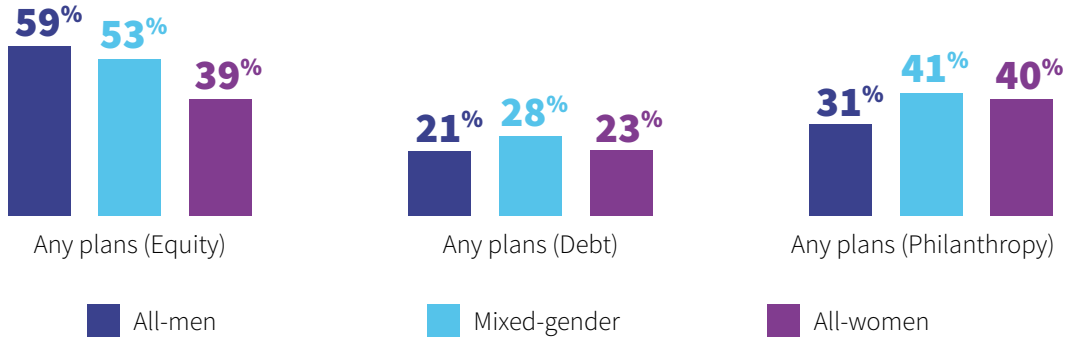


Figure 4: Average 12-month fundraising targets, by founding team gender

9 Kazeem, Yomi. "Everything you need to know about African fintech right now," *Quartz Africa*, November 19, 2019.

Interviews with representatives from accelerator programs highlighted the potential ways that equity investment targets and requests may relate to different social and cultural expectations for men and women. As one representative commented when asked about the trend of all-women teams setting lower fundraising targets, "Socially, men have been trained to demand and sometimes women have been educated to ask." Another respondent reflected that "Men raise more than women even when it is unjustified because they [women] have better metrics, they have more traction, they make more revenue, but women ask for less. They don't even ask for more and get rejected, they just don't ask for that much."

Other accelerator representatives pointed to a tendency for women founders to be more risk averse in their consideration of both the amount and structure of potential investment opportunities. For example, one respondent said that in their experience, "Women tend to be conservative with how much they want to raise, but they'll also more likely go for debt." Some noted that this is because of a reluctance to give up control or ownership of the business, while others pointed to a lack of familiarity with the investment process or a lack of self-perceived preparation to pitch to investors.

Investment and the Gender Confidence Gap

While the GALI survey does not include any direct tests for self-confidence, other research suggests that social conditioning of women around self-confidence, particularly outward displays of confidence, plays a role in different investment expectations, investment requests, and ultimately investment outcomes. According to a 2018 study from the University of Montana, women entrepreneurs were significantly less likely to ask for outside financing even after controlling for other founder characteristics.[10] Data from Fundera, an online small business lender, shows that women entrepreneurs only represent a quarter of those applying for business financing, despite having a similar acceptance rate, and those that do apply "ask for roughly $35,000 less in business financing than men".[11]

Outside of financing, there is also a well-established gender disparity in salary negotiations. According to the highly-cited 2003 book ***Women Don't Ask: Negotiation and the Gender Divide,*** "four times as many men as women ask for a raise and only 25% as many women as men negotiate their starting salaries," the latter resulting in $1 to $1.5 million per woman being left on the table.[12] This aligns with other studies finding a confidence gap between men and women generally. A 2003 study out of Cornell University found that "men overestimate their abilities and performance, and women underestimate both" even though they obtain almost identical results.[13]

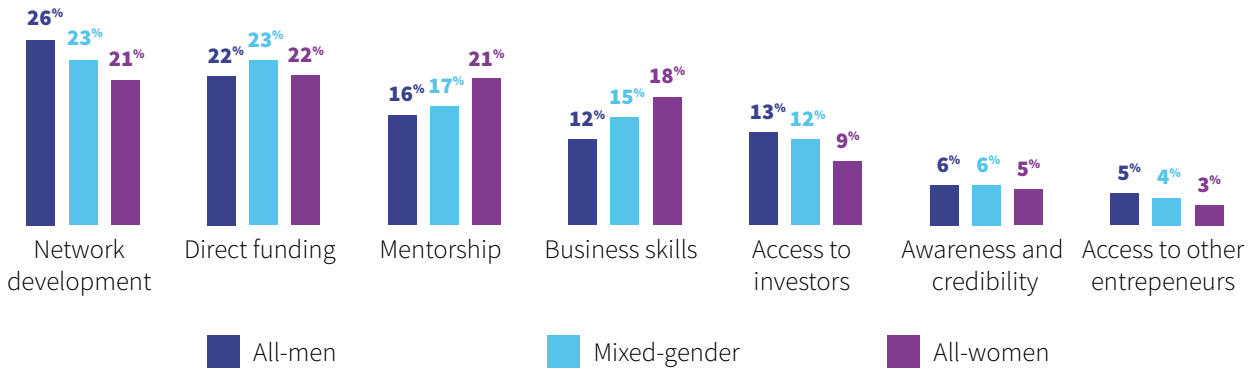
It is also worth noting that more recent research indicates that this self-perceived confidence gap points more to a societal double standard which rewards men for confident behavior and penalizes women. For example, a 2018 study tested three theories that could potentially explain the gender confidence gap, concluding that the perceived gap in their female student subjects was "most consistent with a backlash avoidance mechanism whereby women feel uncomfortable self-promoting due to perceived social consequences."[14]

10 Kwapisz, A. & Hechavarría, D. (2018) "Women don't ask: an investigation of start-up financing and gender" Montana State University.
11 Hecht, J. (2020). "The State of Online Small Business Lending" Fundera.
12 Small, D., Gelfand, M., Babcock, L., Gettman, H. (2007). "Who goes to the bargaining table? The influence of gender and framing on the initiation of negotiation" Journal of Personality and Social Psychology, 93(4), 600-613.
13 Kay, K., Shipman, C. (2014). "The Confidence Gap" The Atlantic
14 Lindeman, M., Durik, A., Dooley, M. (2018). "Women and Self-Promotion: A Test of Three Theories" Psychological Reports.

Expectations

Founding teams with different gender compositions also have different expectations of the acceleration process. When asked about their desired benefits of acceleration, all-men teams are more likely to prioritize network building and access to investors, whereas all-women teams are more likely to prioritize mentorship and business skills (Figure 4). The differences are small but consistent with the findings in this brief – that men-led ventures already have more financing at application to an accelerator, target higher future levels of investment, and are more focused on the investment-related benefits of acceleration. It appears that men applying to accelerators are more "investment-oriented" in many aspects.

Figure 5: Top desired benefits of acceleration, by founding team gender



Prior Founder Experience

Among applicants in the GALI dataset, all-women teams are not as likely as all-men teams to have previously founded a venture or to have prior management experience but were similarly likely to have a graduate degree (Table 4). Women-led ventures also have smaller founding teams: 58% of the women-led ventures in the GALI dataset have a solo founder, compared to 27% of the men-led ventures. Given the importance of the founder's background in early-stage equity investment decisions, and a common preference for teams of multiple founders[15], it is reasonable to think that teams with prior founding/management experience will be more attractive to investors. In addition, this prior experience in both founding and management roles may also give all-men teams greater knowledge of and comfort with the investment process.

Table 4: Prior experience by founding team gender

Founding Team	For-profit Founding Experience	Management Experience	Graduate Degree
All-men	36%	72%	40%
Mixed-gender	43%	77%	46%
All-women	26%	55%	39%

15 Evidence suggests that investors prefer teams of multiple founders, yet solo founders perform higher in survival rates and revenue growth. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3107898

Contributions to the Gender Financing Gap

To examine the extent to which the equity financing gap can be explained by these differences in investment orientation and demand, we conduct a linear regression to gain a deeper understanding of how team gender interacts with equity raised prior to application to an accelerator. Following a similar analysis conducted in the book *Observing Acceleration*,[16] we first look at the relationship between equity raised and team gender only in Model 1. We find that having a woman on the founding team (whether that team is mixed-gender or all-women) is statistically associated with $30,000 - $40,000 less in equity investment raised prior to application to an accelerator. Model 2 then includes control variables to account for various factors that could affect the likelihood of securing equity, such as whether the venture works in a certain sector, its stage (age, revenue, and employees), fundraising plans, and other characteristics like founders' prior experience and whether the venture has intellectual property. Even after controlling for these factors, there remains a statistically significant gap in equity investment raised by teams with at least one woman founder in comparison to all-men teams. This regression represents an initial analysis of the gender financing gap and should warrant further investigation into which factors cause this gender gap to persist.

Table 5: Linear regression examining equity raised since founding, by team gender and control variables

	Model 1		Model 2	
	Coef.	Significance	Coef.	Significance
Education sector			$24,350	p=0.00
Agriculture sector			-$2,467	p=0.73
Health sector			$31,060	p=0.00
ICT sector			$16,783	p=0.54
Financial services sector			$66,319	p=0.00
Venture age			$4,657	p=0.00
Revenue at application			$0	p=0.00
Full-time employees at application			$4,766	p=0.00
Any equity fundraising plans			$39,696	p=0.00
Any intellectual property			$34,593	p=0.00
Multiple founders			$16,707	p=0.01
Graduate degree on team			$26,493	p=0.00
Management experience on team			$10,301	p=0.06
For-profit founding experience on team			-$7,897	p=0.12
Mixed gender team	-$30,628	p=0.00	-$38,169	p=0.00
All-women team	-$40,622	p=0.00	-$16,766	p=0.03
Constant	$62,955	p=0.00	-$42,657	p=0.00
N	14,985		12,335	
R squared	0.004		0.067	

16 Roberts, P., Lall, S. (2019). Observing Acceleration: Uncovering the Effects of Accelerators on Impact-Oriented Entrepreneurs.

What might account for this remaining unexplained gap in equity financing for women-led ventures? While we are unable to test for bias among investors, existing evidence of investor bias against women likely explains at least part of the remaining gap. For example, a 2019 study of more than 1.5 million startups in the United States found that investor bias accounted for 30% of the difference in investment outcomes for women in the sample.[17] Furthermore, a simulated investment experiment in 2019 with over 27,000 investors found that assigning identical startups women (rather than men) founders resulted in an 11% lower valuation from investors.[18]

Investor viewpoints also emerged as a factor in interviews with accelerator representatives, with one respondent remarking that "some of our investors say that men-led business fail fast and learn faster compared to women-led businesses. Some say that women-led businesses fail slower and learn slower. That contributes to a higher financing gap for women-led businesses." Although the GALI dataset cannot definitively identify investor gender bias, the persistence of the financing gap across venture profiles, combined with more direct evidence of bias in analyses of similar kinds of investment decisions, provides a strong case that the financing gap is driven at least in part by investor gender bias.

Gender and Venture Selection

One area in which the GALI dataset does not reveal a negative gender disparity for women-led ventures is acceptance rates into accelerator programs. Ventures led by all-women founding teams account for only 13% of the ventures in the GALI database (Figure 1), but proportionally, they are slightly more likely to be accepted into the program to which they apply (roughly 22% vs. 16% for all-men teams) and are similarly likely to have been previously accelerated—roughly 30% of teams had already participated in a different accelerator program prior to entering the GALI dataset. However, the equity financing gap identified among the applicant pool is greater for the selected ventures, and the revenue advantage of women-led venture lessens.

	Have Revenue (all applicants)	Have Revenue (accepted applicants)
All-men	43%	54%
Mixed-gender	52%	58%
All-women	49%	56%

	Have Equity (all applicants)	Have Equity (accepted applicants)
All-men	21%	29%
Mixed-gender	16%	20%
All-women	9%	9%

17 Guzman, J., Kaxperczyk, A. (2019). "Gender gap in entrepreneurship" Journal of Research Policy.

18 Assenova, Valentina and Mollick, Ethan R., This is Not a Game: Massive Simulation Experiments on Entrepreneurial Gender Bias (September 6, 2019). Available at SSRN: https://ssrn.com/abstract= or http://dx.doi.org/10.2139/ssrn.3305349

Does Acceleration Close the Gender Gap?

Accelerators emphasize entrepreneurial learning through mentorship and training, as well as financing to help ventures scale. GALI began as an initiative to understand whether acceleration is working—whether ventures are experiencing positive outcomes from acceleration beyond what they would have experienced without having been accelerated. On average, GALI data show that participation in an accelerator does indeed correlate with greater revenue and investment growth.[19]

However, outcomes are not evenly distributed among teams of different genders. For the 1,299 ventures that participated in the acceleration program to which they applied, the men-led and women-led ventures were similarly likely to increase their annual revenue and full-time employees (Figure 6), yet men-led ventures were significantly more likely to secure new equity and debt investments (Figure 7).

Figure 6: Percent of ventures with revenue and employee growth in year of acceleration, by founding team gender

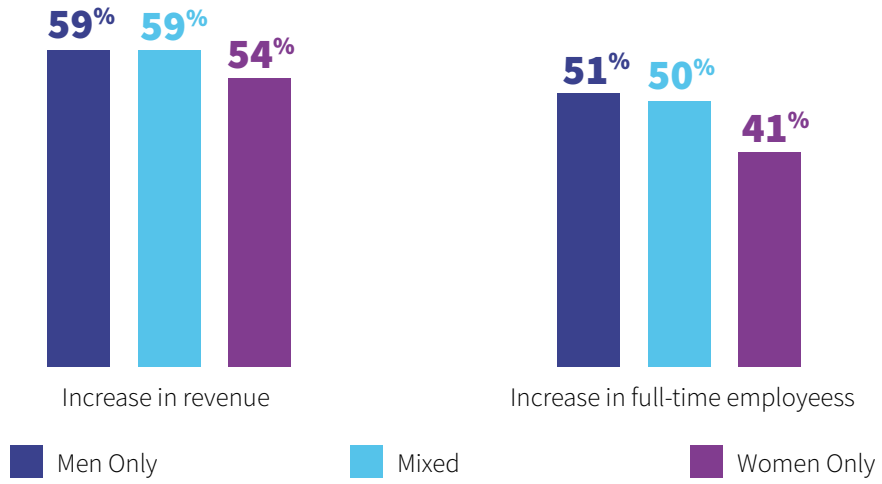
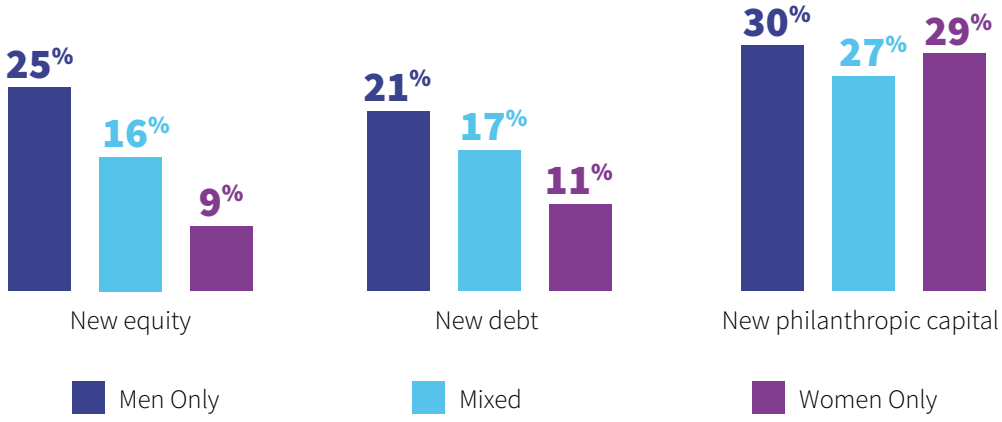


Figure 7: Percent of ventures with new equity, debt, and philanthropy in year of acceleration, by founding team gender



19 (2018). "Accelerating the Flow of Funds into Early-Stage Ventures" Global Accelerator Learning Initiative.

Among those ventures that did secure funding, average amounts raised also differed by gender. Women-led ventures raised on average nearly $100,000 less in equity as men-led ventures and secured less than half as much new debt (Table 6). This aligns with a recent Village Capital/International Finance Corporation (IFC) report, which analyzed GALI data and found that men-led ventures gained more from the acceleration process. Accelerated men-led ventures increased their equity financing considerably (1.5 times) more than non-accelerated ventures, while women-led ventures experienced the same increase regardless of acceleration.[20] Interestingly, they found that women-led ventures experience a greater acceleration benefit in debt financing, though as evidenced in their study and in Table 4, this effect isn't sufficient to close the gap.

Table 6: Average funding secured (if any) in the year of acceleration, by team gender

	New Equity (if any)	New Debt (if any)	New Philanthropy (if any)
All-men	$236,816	$146,397	$60,450
Mixed-gender	$153,238	$110,384	$37,000
All-women	$146,075	$84,244	$42,100

Gender Diversity Associated with Better Results

GALI data show that mixed-gender teams are most likely to have revenue and employees when applying to an accelerator, and to have founders with prior founding and management experience as well as a graduate degree. Despite still not raising as much financing as men-led ventures, these gender-diverse ventures show considerable promise in the acceleration context, especially considering research that establishes the value of gender diversity on firm performance.

Numerous studies in recent years have assessed the business case for gender inclusion and diversity. In 2003, researchers studied the effects of various types of diversity among working groups and concluded that "gender diversity increased constructive group processes."[21]

In 2014, McKinsey found "a statistically significant relationship between a more diverse leadership and better financial performance." Of the hundreds of organizations included in the study, those "in the top quartile for gender diversity were 15% more likely to have financial returns that were above their national industry median." Additionally, those in the bottom quartile were lagging in terms of performance.[22]

More recently, Calvert Impact Capital assessed its portfolio companies and found that "On average, over 11 years, companies with higher percentage (%) of Women in Leadership positions (WLP) and higher % of Women in Board positions (WBD) outperform companies with the lowest % of WLP and WBD as measured by ratios return on sales, return on assets, and return on equity." The data also revealed an important distinction that the ratio of women to men in various positions is more important than the total number of women in the organization.[23]

20 (2020). "Venture Capital and the Gender Financing Gap: The Role of Accelerators." Women Entrepreneurs Finance Initiative, Village Capital, International Finance Corporation.

21 Kochan, T., Bezrukova, K., Ely, R., Jackson, S., Joshi, A., Jehn, K., Leonard, j., Levine, D., and Thomas, D. (2003). "The effects of diversity on business performance: Report of the Diversity Research Network"

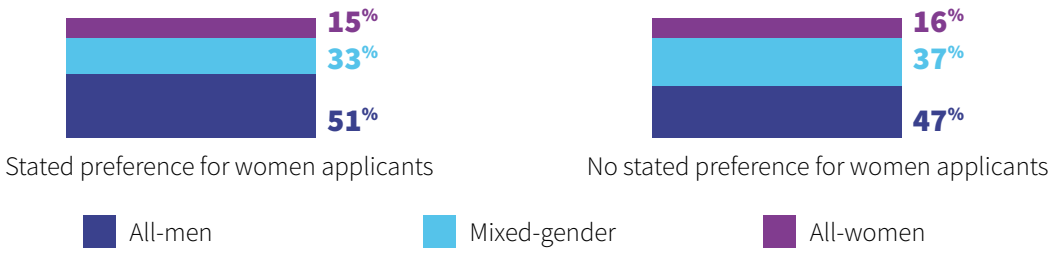
22 Hunt, V., Layton, D., Prince, S. (2014). Diversity Matters. McKinsey & Company.

23 Calvert Impact Capital. (2018). Just Good Investing.

What Are Accelerators Doing to Address the Gender Gap?

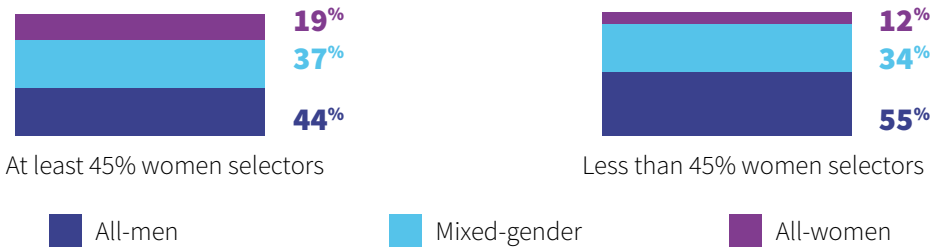
The barriers faced by women entrepreneurs are well-documented, and as a result many accelerators have attempted to address gender issues through program design and process changes. In a survey of accelerator program managers, GALI asks, "Does this program explicitly encourage or give preference to any of the following applicants?" Thirty-seven percent stated that they give preference to women entrepreneurs. However, the data show that programs with this stated preference do not on average have higher proportions of women-led ventures in their applicant pools (Figure 8).

Figure 8: Percent of all-men, mixed, and all-women teams within program applicant pools (average across programs)



Program managers are also asked about the gender makeup of the program's selection committee, and the data show that accelerators with greater female representation on their selection committee do end up attracting more women-led ventures into their application pools. We find that having more than 45% women on a selection committee (the median proportion among programs) is associated with significantly more women-led ventures in applicant pools (Figure 9).

Figure 9: Percent of all-men, mixed, and all-women teams within program applicant pools (average across programs)



The notion of representation having a positive effect on attracting women-led ventures is reinforced when we look at the gender makeup of programs' mentor pools. GALI data show that having more than 40% female representation among mentors (the median proportion among programs) is associated with significantly more women-led ventures in applicant pools. These correlations also extend to gender diversity of the cohorts. It is unclear if there is a causal link and what that might be, though it is common for accelerators to rely on networks to recruit entrepreneurs, and logically a more diverse network would lead to a more diverse applicant pool. Research also indicates that having same-gender role models can have a positive effect on female participation in a range of contexts. One accelerator representative we interviewed noted feedback from entrepreneurs that the best way to make a networking event more woman-friendly is simply to "have more women in the room."

Representation as a Strategy to Address Gender Disparity

GALI finds that the inclusion of women in selection committees and mentorship pools is associated with greater participation of women entrepreneurs in acceleration programs. While these are only correlations, and different causal factors could be at play, the notion that representation of women in decision-making roles can drive different outcomes for women is supported by research from a variety of contexts.

A massive investment simulation experiment run by professors at the Wharton School at the University of Pennsylvania found that "assigning one percent more female players to the investor role resulted in lowering the gender gap in startup funding by 272 percent."[24] On the hiring side, a study by researchers at the INCAE Business School found that entrepreneurs tend to hire more employees of the same gender, particularly for management positions, finding that "95% of the women entrepreneurs surveyed have placed a majority of women in top management positions," a significantly higher percentage than men entrepreneurs.[25]

A 2018 field experiment on women role model effects in entrepreneurship found that women entrepreneurs mentoring entrepreneurship students results in greater entrepreneurial self-efficacy and boosts attitudes towards entrepreneurship. As noted in the study, "Demographic similarity between the mentor and mentee thus seems to positively affect the decision to become an entrepreneur - but future research is needed to understand its impact on business performance."[26]

This evidence aligns with broader findings outside of business and investment settings. A 2017 study looking at the random assignment of mentors for cadets at a United States military academy found that a female cadet assigned a female mentor is significantly more likely to end up going into her mentor's branch of the military.[27] Natural experiments in the education system have also shown that a student-teacher gender match can have long-term effects on the likelihood of girls pursuing STEM degrees.[28]

Given the evidence confirming the importance of gender representation in driving higher female participation, the current state of acceleration and investment suggests considerable opportunities for improvement. Female leadership and representation in acceleration has lagged—of 131 corporate-run accelerators around the world identified in 2016, 87% are run by men.[29] On the investor side, women currently make up less than 10% of the decision-makers in venture capital firms.[30]

In interviews, accelerator representatives highlighted a range of perspectives on approaches to supporting women entrepreneurs, demonstrating the lack of a consistent understanding of the issues and best practices on addressing the challenges. Some respondents make a point of not considering gender when selecting and supporting their cohorts, and in fact see a significant risk in implementing venture support programs targeting women. As one respondent put it, "Female competitions [and] female groups undermine [women] because it sends the message that women are in a different tier than men and makes it seem like they can't compete with them. This just continues discrimination and reinforces the idea that women aren't as good as men."

24 Assenova, V. and Mollick, E. (2019) "This is Not a Game: Massive Simulation Experiments on Entrepreneurial Gender Bias" SSRN Electronic Journal.
25 Ilie, C. and Cardoza, G. (2018). "Entrepreneurship and Gender in Latin America" SSRN Electronic Journal.
26 Czibor, E. (2019). "Business mentoring – How strong is the evidence?" Innovation Growth Lab by Nesta
27 Kofoed, M. and McGovney, E. (2017). "The Effect of Same-Gender and Same-Race Role Models on Occupation Choice: Evidence from Randomly Assigned Mentors at West Point" The Journal of Human Resources.
28 Lim, J. and Meer, J. (2019). "Persistent Effects of Teacher-Student Gender Matches" The Journal of Human Resources.
29 Desai, F. 2016. Shockingly Small Number of Corporate Accelerators Led by Women, Forbes.
30 Wilhelm, A. (2019). "The Slow Progress of Women in Venture" Crunchbase News.

However, other accelerator representatives noted that women tend to face a more significant confidence and knowledge gap around fundraising, and therefore programs have an opportunity to provide specific support targeting knowledge and negotiating skills. "Having the ability to negotiate with investors is important," one respondent noted. "They [women] do gain confidence by experience, but gaining those soft skills is rarely introduced in curriculum, which usually focuses on business skills – finance, marketing, etc. But they need help with negotiating skills."

GALI data do not show that the inclusion of any one general program design element, in the aggregate, affects the financing gap for women entrepreneurs,[31] suggesting that addressing the problem will require going beyond any sort of quick fix to accelerator program models. Instead, accelerators need to explore a range of efforts to build the pipeline of women entrepreneurs, carefully experiment with the nuances of program design, consider the role of representation, and mitigate investor biases in both investment structures and investor mindset. New resources are already emerging with detailed guidance, such as the Gender Lens Incubation and Acceleration Toolkit developed by Frontier Incubators and the Sasakawa Peace Foundation's Asian Women Impact Fund.

Fortunately, there seems to be a growing appreciation among accelerators for the importance of considering gender issues. The increased focus on gender among organizations supporting entrepreneurial ecosystem development, including donors, industry groups, researchers, and others sends a strong signal to accelerators that this is a topic worth focusing on. According to one representative, "…there's so much interest. Because of that we're seeing more women entrepreneurs at events, and an improvement in quality. Not just small artisan-based businesses, but all types of businesses." Another respondent sees the trend of new support projects using a gender lens as something that accelerators and investors cannot afford to ignore: "Most of the players [organizations that receive grants to do gender-lens investing or accelerators] are currently in the final project phase, so in the next 2-3 years, they will develop business models for women-led businesses….so if the financing coming to [women-led] businesses is not increasing, that is a risk."

31 IFC (in partnership with The World Bank Africa Gender Innovation Lab, GALI, and Village Capital), 2020. "Venture Capital and the Gender Financing Gap: The Role of Accelerators"

Conclusions and Future Research

This analysis adds to the body of evidence demonstrating the unique barriers to women entrepreneurs, in particular around access to equity financing. It furthermore shows that in the aggregate, accelerator programs are not currently closing this gap. Gender disparities in investment outcomes are likely driven by a wide variety of interrelated factors, including growth orientation (e.g. over-representation in lower-growth sectors, lower fundraising targets, and differing expectations of acceleration); societal, cultural, and family constraints and pressures; and indirect and direct bias on the part of accelerators and investors.

Given the many different likely causes of lower access to financing for women founders participating in accelerators, it is unlikely that any single "silver bullet" exists to close the gap. Accelerators are only one part of the entrepreneurial ecosystem; while it is important for accelerators to consider how their organizational structure, processes, and models are designed in consideration of the investment gap, they cannot fully address the gap on their own. It is equally important for other ecosystem actors, including educational institutions, policymakers, industry groups, and investors themselves, to consider how their strategies and activities address differences in financing between men- and women-led ventures.

Fortunately, a wide variety of new initiatives are emerging to support and test mechanisms to allow women entrepreneurs to access the capital they need to grow. "Gender lens investing" and "gender smart investing," which introduce gender considerations throughout the investment process, have become increasingly popular among impact investors.[32] ANDE's own Advancing Women's Empowerment Fund, supported by USAID and the Visa Foundation, is testing different support models intended to close the investment gap in South and Southeast Asia. Research initiatives such as the World Bank's regional Gender Innovation Labs[33] and the IFC's Initiative on Disruptive Technology and Venture Capital are providing broad and robust analyses to help better understand the issue. And major donor programs such as the multi-donor Women Entrepreneurs Finance Initiative (We-Fi) are specifically focused on supporting organizations dedicated to closing the investment gap.

32 See https://thegiin.org/gender-lens-investing-repository for a repository of Gender Lens Investing resources from the Global Impact Investing Network.
33 Including Africa, East Asia and the Pacific, South Asia, and Latin America

As these initiatives expand, it will be important for researchers to build on the analysis in this report to gain a more nuanced understanding of the drivers of the investment gap and the effectiveness of interventions to address it. In particular:

- How does the acceleration experience differ for women and men participants, and what is the impact of these differences on investment outcomes?
- What is the effectiveness of specific accelerator activities targeted towards increasing investment for women entrepreneurs, especially activities focused on confidence building and negotiation?
- How does the overall cultural context in different countries and regions impact the accelerator experience and venture outcomes for women entrepreneurs?
- Are there specific investment structures or investment decision-making processes that lead to lower gender disparities?
- What interventions are effective at boosting the growth orientation of women entrepreneurs to reduce gender disparity in the overall applicant pool?
- How does representation of women in specific decision-making roles in the accelerator and investment ecosystem affect outcomes for women entrepreneurs?
- How can research better take into consideration specific and potentially different needs based on gender and societal or structural factors? Do women need to raise equity, and should they be pushed in that direction?
- How can we more directly measure the effect of investor bias on women entrepreneurs' ability to raise capital?

Appendix: Venture and Founder Characteristics by Founding Team Gender

	N	Mean (All-men)	Mean (Mixed-gender)	Mean (All-women)
Founding Team Characteristics				
Number of founders	14,979	2.7	3.3	2.0
Founder age	14,850	34.2	35.3	35.0
College degree	13,769	82%	87%	83%
Graduate degree	13,769	40%	46%	39%
Prior founding experience (for-profit)	14,985	36%	43%	26%
Prior founding experience (non-profit)	14,985	16%	23%	14%
Prior experience in senior management	13,414	72%	77%	55%
Venture Characteristics				
Venture age	14,530	2.2	2.7	2.5
Intellectual property (trademarks, copyrights, or patents)	14,985	47%	46%	40%
Prior accelerator participation	14,985	32%	32%	29%
Agriculture sector	14,900	13%	18%	11%
Education sector	14,900	12%	12%	14%
ICT sector	14,900	13%	9%	5%
Health sector	14,900	10%	11%	14%
Financial services sector	14,900	12%	7%	4%
Environment sector	14,900	4%	6%	6%
Energy sector	14,900	6%	4%	2%
Tourism sector	14,900	2%	3%	2%
Supply chain services sector	14,900	2%	3%	2%
Artisanal sector	14,900	1%	2%	7%
Performance (reported at application to an accelerator)				
Any revenue	14,985	43%	52%	49%
Any full-time employees	14,985	52%	57%	44%
Any investment (equity)	14,985	21%	16%	9%
Any investment (debt)	14,985	13%	14%	10%
Any investment (philanthropic)	14,985	19%	22%	20%
Have fundraising target (equity)	14,985	59%	53%	39%
Have fundraising target (debt)	14,985	21%	28%	23%
Have fundraising target (philanthropic)	14,985	31%	41%	40%

Note: Table displays the percent of ventures that work in a given sector, as opposed to Table 1 which shows gender makeup of each sector.

The Global Accelerator Learning Initiative (GALI) is a collaboration between the Aspen Network of Development Entrepreneurs (ANDE) and Emory University designed to explore key questions about enterprise acceleration such as: Do acceleration programs contribute to revenue growth? Do they help companies attract investment? GALI builds on the Entrepreneurship Database Program at Emory University, which works with accelerator programs around the world to collect data describing the entrepreneurs that they attract and support. The Global Accelerator Learning Initiative is supported by the Argidius Foundation, Omidyar Network, the Kauffman Foundation, Stichting DOEN, and the Australian Government.

To learn more about GALI and to access related publications, visit www.galidata.org

Aspen Network of Development Entrepreneurs | THE ASPEN INSTITUTE | EMORY GOIZUETA BUSINESS SCHOOL | SEG SOCIALENTERPRISEGOIZUETA