



The Entrepreneurship Database Program at Emory University

2018 Year-End Data Summary
(Released April 2019)

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Executive Summary

Since 2013, the *Entrepreneurship Database Program* at Emory University has been partnering with accelerators and other entrepreneur support programs to collect detailed data from entrepreneurs during their application processes. These entrepreneurs are re-surveyed annually to gather valuable follow-up data. This report summarizes application data collected from entrepreneurs who applied to participating programs from 2013 to 2018. After setting aside duplicate application surveys, surveys with too much missing information, and surveys from entrepreneurs who declined to have their application information included in the *Entrepreneurship Database Program*, the observations in this 2018 Year-End Data Summary are based on 19,418 early-stage ventures.

Key observations from this 2018 Year-End Data Summary include:

- Roughly one-sixth of the ventures report receiving prior outside equity investment. A slightly lower percentage report taking on debt to help start their ventures, while a higher percentage is supported by prior philanthropic contributions.
- Less than half of the ventures report positive revenues in the prior year, while almost two-thirds report having at least one full-time or part-time employee at the end of that year.
- Ventures with women on their founding teams are significantly less likely to attract equity investors. However, they are significantly more likely to report positive prior-year revenues.
- Ventures operating in lower, lower-middle and upper-middle income countries are less likely than ventures from high-income countries to attract equity investments, but have a greater likelihood of reporting revenues in the prior year, and are more likely to report prior-year employees.
- Ventures established by experienced entrepreneurs (i.e., those who founded companies before) are significantly more likely to attract equity investments, and significantly more likely to report revenues and employees in the prior year.
- Ventures whose founders hold patents, copyrights or trademarks are significantly more successful in attracting equity investments, and significantly more likely to report revenues and employees in the prior year.
- A small minority of the sampled ventures measure impacts using the IRIS or B Lab approaches, and the dominant reason for not implementing either of these approaches relates to a lack of awareness.
- There is an (understandable) bias among program selectors toward ventures with more established track records. Applicants that end up participating in programs were significantly more likely to report revenues in the prior year.

Introduction

The *Entrepreneurship Database Program* at Emory University leverages relationships with a range of accelerator programs to collect systematic data from entrepreneurs who apply to and, if selected, participate in these programs. By establishing mutually-beneficial procedures and protocols, the EDP sets a *de facto* standard for programs interested in collecting and analyzing data that meet their application, selection and program evaluation needs.

This broad, prospective data-collection program is part of the *Global Accelerator Learning Initiative (GALI)*. GALI has been made possible by its co-creators and founding sponsors, including the U.S. Global Development Lab at the U.S. Agency for International Development, Omidyar Network, The Lemelson Foundation, and the Argidius Foundation. Additional support for GALI has been provided by the Australian Government, the Kauffman Foundation, and Stichting DOEN. The aggregated longitudinal data that are collected support rigorous research over the medium to long term, while delivering shorter-term insights that will guide decisions made by accelerator program managers, funders and investors, and other sector stakeholders.

This 2018 Year-End Data Summary covers entrepreneurs who applied to accelerator programs that began accepting applications during the 2013 through 2018 window. After setting aside duplicate surveys, surveys with too much missing data, and surveys from entrepreneurs who declined to have their application information included in the program, the observations in this 2018 Year-End Data Summary are based on data describing 19,418 ventures whose founders applied through more than 280 different programs run by more than 90 different organizations (see **Table 1**).

Table 1: Current sample

Accelerator Partners (with 3+ programs)	Programs	N
Village Capital	48	3,545
Spark* International	14	480
Points of Light	11	758
GriffinWorx	11	329
USADF	10	1,056
TechnoServe	10	453
BlueBox Ventures	7	232
Pomona Impact	7	166
IMPAQTO	6	199
StartupLab.MX	6	483
Intellectap	5	130
New Ventures Group	5	369
C5 Accelerate	5	94
Proempleo	5	79
Yunus Social Business	5	496
Africa Business Group	4	254
GrowthAfrica	4	594
Impact Hub	4	121
Agora Partnerships	3	347
Co.Lab	3	41
ENVenture	3	34
Idea Foundry	3	39
Incutex	3	106
MassChallenge	3	375
Uncharted	3	409
University of South Florida	3	113
Unreasonable East Africa	3	326
Unreasonable Institute Mexico	3	184
(Other programs and channels)	86	7,706
Total	283	19,418

Table 2 summarizes how the sample breaks out by venture age and legal form. Not surprising given the orientation of our accelerator partners, a majority of the ventures (roughly 80 percent) are for-profit companies. These for-profit ventures were younger on average than the 2,037 nonprofit ventures when they applied to accelerator programs.

Table 2: Venture age and legal form

	For-profit	Nonprofit	Undecided	Other
N	15,440	2,037	797	1,125
Average Age	2.4 years	4.6 years	1.5 years	3.0 years
Median Age	1 year	3 years	1 year	2 years

Questions asked: "Is your venture a: nonprofit, for-profit company, undecided, other?" In which year was your venture founded?

Venture Performance Indicators

Stakeholders in the social enterprise sector are interested in various aspects of the performance of early-stage ventures. **Table 3** summarizes venture performance using five different indicators. Roughly one-sixth (15.6%) of all ventures in the sample report receiving some outside equity investment prior to completing their application surveys. A slightly lower percentage (11.7%) took on debt to help start their ventures, while a higher percentage (25.2%) are supported by philanthropic contributions. These percentages change to 18.1% (equity), 13.1% (debt) and 20.2% (philanthropy) when the nonprofit ventures in the sample are set aside.

Among the 3,020 ventures that report receiving equity investment, the median amount of equity received since founding is \$65,000. The corresponding medians for debt and philanthropic investments are \$40,000 and \$17,000.

Less than half (47.5%) of the ventures report earning revenues in the prior year. Among the ventures that report positive prior-year revenues, the median value is \$15,000. Almost two-thirds (61.0%) report having at least one full-time or part-time employee, and the corresponding median for prior-year employees is five.

Finally, these were modest upticks across all five measures in the 2018 application pools. In particular, the percentage of ventures reporting positive prior year revenues (53.8%) and employees (64.2%) were up from the 2017 application pools and above the six-year sample average.

Table 3: Early-stage venture performance

	Some Equity Reported	Some Debt Reported	Some Philanthropy Reported	Any Prior-Year Revenues Reported	Any Prior-Year Employees Reported
Percent Yes – All	15.6%	11.7%	25.2%	47.5%	61.0%
Percent Yes – All For-Profits	18.1%	13.1%	20.2%	47.2%	60.9%
Percent Yes – Applied in 2013	19.0%	23.2%	29.8%	47.9%	61.2%
Percent Yes – Applied in 2014	21.5%	14.5%	26.0%	40.6%	61.6%
Percent Yes – Applied in 2015	14.7%	10.9%	28.6%	49.8%	64.5%
Percent Yes – Applied in 2016	13.9%	9.8%	21.2%	40.7%	56.5%
Percent Yes – Applied in 2017	14.1%	11.1%	24.3%	47.8%	60.0%
Percent Yes – Applied in 2018	16.4%	11.7%	27.3%	53.8%	64.2%

Questions asked: "Overall, how much equity has your venture raised from all outside sources since founding?" "Overall, how much has your venture borrowed since founding?" "How much philanthropic support has your venture received since founding?" "What was your venture's total earned revenue in calendar year 2012 (2013) (2014) (2015) (2016) (2017)?" "Not counting founders, on December 31, 2012 (2013) (2014) (2015) (2016) (2017), how many people worked for your venture?"

Country of Operations

Although the ventures in this sample operate in more than 170 different countries, the majority comes from the United States (N=4,097), Mexico (2,342), India (1,941), Kenya (1,475), Chile (1,119), Uganda (1,026), Brazil (843), Nigeria (724), and Colombia (513). The World Bank classifies countries into four categories: high-income, upper-middle-income, lower-middle-income and low-income.¹ Based on this breakdown, 13,108 of the ventures are working in low, lower-middle and upper-middle income countries. **Table 4** shows that these ventures have a lower likelihood of reporting prior equity investments than those working in high-income countries. However, they have a greater likelihood of reporting positive revenues (61.4%, 53.2% and 44.7% compared to 38.2% for high-income countries) and are more likely to have reported hiring employees (73.8%, 72.2% and 55.8% compared to 50.3%). It is also surprising that ventures in the lower-middle and upper-middle income countries are less likely to report support from philanthropic sources (23.9% and 19.1% compared to 29.5%).

Table 4: Emerging market and high-income country ventures

Operates in:	N	Some Equity Reported	Any Prior-Year Revenues Reported	Any Prior-Year Employees Reported	Some Philanthropy Reported
High-income economies (OECD)	6,211	19.9%	38.2%	50.3%	29.5%
Upper-middle-income economies	5,174	15.0%	44.7%	55.8%	19.1%
Lower-middle-income economies	4,420	14.4%	53.2%	72.2%	23.9%
Low-income economies	3,514	10.4%	61.4%	73.8%	28.7%

Table 5 groups ventures into the regions classified by the World Bank. The majority of the emerging-market ventures in this sample operate in Latin America & the Caribbean and Sub-Saharan Africa. Ventures in both of these regions have higher rates of reported revenue generation than those working in North America (39.5%). However, both regions also have lower reported incidences of equity investment; the lowest rates found among ventures working in Sub-Saharan Africa (9.9%).

Table 5: Ventures by region

Operates in:	N	Some Equity Reported	Any Prior-Year Revenues Reported	Any Prior-Year Employees Reported	Some Philanthropy Reported
Latin America & Caribbean	6,519	14.3%	45.5%	56.6%	18.2%
Sub-Saharan Africa	4,967	9.9%	57.8%	70.6%	29.1%
North America	4,330	21.6%	39.5%	51.3%	33.0%
South Asia	2,192	17.8%	46.3%	73.7%	20.7%
Europe & Central Asia	617	24.0%	40.4%	54.8%	25.3%
East Asia & Pacific	539	14.7%	60.7%	62.2%	31.9%
Middle East & North Africa	155	23.2%	34.8%	61.9%	31.0%

Sectors and Impact Objectives

Table 6 summarizes performance indicators across the sectors represented in the sample. Equity investments are most common in the financial services sector (reported by 29.8% of the ventures), but least common in the culture and artisanal sectors (9.2% and 9.6%, respectively). Financial services ventures are also the least likely to report earning revenues (38.6%). By far, the sector with the greatest incidence of reported revenue generators is the artisanal sector (67.7%). Ventures in the water sector are the most likely to report hiring employees (70.5%), while culture sector ventures are the least likely in this regard (51.4%).

¹ See data.worldbank.org/about/country-and-lending-groups.

Table 6: Sector participation (N>215)

Primary Sector	N	Some Equity Reported	Any Prior-Year Revenues Reported	Any Prior-Year Employees Reported
Education	2,835	15.9%	50.5%	62.1%
Agriculture	2,712	14.1%	58.6%	69.5%
Health	2,095	18.3%	40.3%	59.9%
Information & communication technologies	1,837	16.7%	39.5%	54.9%
Financial services	1,553	29.8%	38.6%	64.4%
Environment	1,057	11.1%	50.4%	60.6%
Energy	853	17.8%	49.5%	66.7%
Tourism	474	11.2%	45.4%	55.5%
Artisanal	439	9.6%	67.7%	67.4%
Supply chain services	414	15.0%	50.5%	59.4%
Culture	346	9.2%	48.3%	51.4%
Water	298	15.8%	54.7%	70.5%
Housing development	255	9.8%	49.8%	63.5%
Infrastructure/facilities development	249	13.3%	45.8%	60.2%
Technical assistance services	217	11.1%	44.2%	61.8%

The most commonly-identified impact objectives in the sample are employment generation and income/productivity growth. **Table 7** summarizes venture performance outcomes across the impact objectives that were identified most often by entrepreneurs. The likelihood of attracting outside equity investment is fairly consistent across impact areas, with two impact areas – employment generation and community development – reporting lower rates (13.8% and 13.0%). There is somewhat more variance in the likelihood of reporting positive revenues. Here, ventures dedicated to health improvement are the least likely to have reported positive revenue in the prior year (44.1%). There is also some variance in the probability of reporting employees. Not surprisingly, ventures dedicated to employment generation are the most likely to report prior year employees (65.7%).

Table 7: Impact objectives

(IRIS) Impact Objective	N	Some Equity Reported	Any Prior-Year Revenues Reported	Any Prior-Year Employees Reported
Employment Generation	5,409	13.8%	53.4%	65.7%
Income/Productivity Growth	4,332	16.2%	50.6%	63.5%
Community Development	3,743	13.0%	50.2%	61.4%
Access to Education	3,320	16.1%	51.1%	64.1%
Health Improvement	3,080	17.2%	44.1%	62.2%
Equality and Empowerment	2,920	16.3%	49.9%	61.9%

Question asked: Which of the following impact objectives does your venture currently seek to address? (check up to three)

Profit Margin Aspirations

Table 8 presents a similar summary across the different profit margin aspirations expressed by entrepreneurs. Focusing on the for-profit ventures, the largest groups are comprised of ventures that seek profit margins in excess of 20 percent (N=5,753). The ventures with the highest – and ironically lowest – margin objectives are, on average, most likely to attract equity investors (20.6% and 20.8%). Earned revenues and employees are more likely to be reported by ventures with ambitious – but not extreme – margin expectations.

Table 8: Profit margin aspirations

Profit Margin Aspiration	N	Some Equity Reported	Any Prior-Year Revenues Reported	Any Prior-Year Employees Reported
Margins of 0-5%	192	20.8%	42.7%	61.5%
Margins of 6-10%	751	17.3%	54.1%	67.6%
Margins of 11-15%	1,253	18.4%	51.3%	66.0%
Margins of 16-20%	2,191	17.9%	56.6%	67.1%
Margins of >20%	5,753	20.6%	52.5%	65.1%

Question asked: What are the financial goals for your venture? Table includes only for-profit ventures.

Gender and Entrepreneurial Experience

More than half of the ventures report having at least one woman among the top three founders. **Table 9a** compares ventures established with and without women on their teams. The former group reports a significantly lower likelihood of attracting equity investment (12.2%, compared to 19.4% of the ventures with all-male teams). However, they are significantly more likely to report revenues in the prior year (51.4% compared to 43.6%). When teams with women founders are broken down into those that list a woman as the first founder versus those where a woman is listed second or third, this equity disadvantage is especially acute among what might be called “women-led” ventures.

Table 9a: Founders’ gender

Teams with:	N	Some Equity Reported	Any Prior-Year Revenues Reported	Any Prior-Year Employees Reported
Men Only	9,254	19.4%*	43.6%	60.2%
With Women	9,619	12.2%	51.4%*	61.8%*
Woman Listed 1 st (Women-led)	5,485	9.8%	49.4%	57.2%
Woman Listed 2 nd or 3 rd	4,134	15.2%*	54.0%*	67.9%*

* difference is significant at $p < 0.05$

More than half of the ventures have at least one founder with prior entrepreneurial experience; someone previously involved in the launch of another for-profit or nonprofit venture (see **Table 9b**). These experienced founding teams are significantly better at attracting equity; 18.4% of them attracted outside equity investment, compared to 11.6% of the corresponding inexperienced teams. Prior entrepreneurial experience also yields significant improvements in the likelihood that a venture reports earning revenues or hiring any employees.

Table 9b: Founders’ prior entrepreneurial experience

Teams with:	N	Some Equity Reported	Any Prior-Year Revenues Reported	Any Prior-Year Employees Reported
Inexperienced Founders	8,101	11.6%	42.2%	52.9%
Some Entrepreneurial Experience	11,317	18.4%*	51.3%*	66.8%*

* difference is significant at $p < 0.05$

Because founding teams that contain women are less likely to report prior entrepreneurial experience (60.9% for all-male teams versus 57.1% for teams with at least one woman), we expand the contents of **Table 9a** to focus on inexperienced and then experienced teams (see **Table 9c**). This shows that the gender-based equity disadvantage is significant among both the inexperienced and experienced founding teams.

Table 9c: Gender effects for inexperienced and experienced teams

Teams:	N	Some Equity Reported	Any Prior-Year Revenues Reported	Any Prior-Year Employees Reported
<u>Without Entrepreneurial Experience:</u>				
• Men Only	3,618	14.9%*	36.9%	50.7%
• With Women	4,125	8.9%	46.7%*	54.7%*
<u>With Entrepreneurial Experience:</u>				
• Men Only	5,636	22.3%*	47.9%	66.3%
• With Women	5,494	14.6%	54.9%*	67.1%

* difference is significant at $p < 0.05$

Intellectual Property

Table 10 shows that 8,151 of the ventures report owning some intellectual property; i.e., patents, copyrights or trademarks. These ventures are significantly more successful attracting outside equity investment (23.3% versus 9.9%), and significantly more likely to have hired at least one employee in the prior year (71.8% compared to 53.1%), and to report positive revenues in that year (56.3% versus 41.1%).

Table 10: Proprietary intellectual property

Own Patents, Copyrights or Trademarks	N	Some Equity Reported	Any Prior-Year Revenues Reported	Any Prior-Year Employees Reported
No	11,267	9.9%	41.1%	53.1%
Yes	8,151	23.3%*	56.3%*	71.8%*

* difference is significant at $p < 0.05$

Question asked: Whether assigned by an owner or obtained in some other way, does your venture have any of the following? (patents, copyrights, trademarks)

Accelerator Programs

In their application surveys, each entrepreneur is asked to rank (on a scale of 1 through 7, with 1 being the most important) the potential benefits from these programs in terms of “how important they are to your venture's development and success”. **Table 11** indicates the relatively high priority that sampled entrepreneurs place on potential networking benefits (i.e., “network development”, “connections to funders” and “mentorship”). On the other hand, “gaining access to like-minded entrepreneurs” and “awareness and credibility” rank the lowest among the seven potential benefits.

Table 11: Benefits from accelerator programs

Potential Benefit from Accelerator Programs	Average Rank (lower=more important)
Network development (e.g., with potential partners and customers)	3.4
Access and connections to potential investors/funders	3.5
Mentorship from business experts	3.5
Securing direct venture funding (e.g., grants or investments)	3.6
Business skills development (e.g., finance and marketing skills)	3.9
Gaining access to a group of like-minded entrepreneurs	5.0
Awareness and credibility (e.g., association with a recognized program, press/media exposure)	5.0

Question asked: The following are some of the potential benefits that are typically associated with entrepreneurial accelerators. Please rank these benefits in terms of how important they are to your venture's development and success.

The relatively strong emphasis that entrepreneurs place on gaining access and connections to funders is not surprising. Entrepreneurs were asked how much additional investment (in equity and/or debt) they are planning to secure in the next 12 months. The median venture is seeking to raise \$11,000 over the next twelve months.

The surveys also provide some information about the performance implications of prior accelerator participation. 5,950 of the ventures in the sample report having had at least one founder participate in another accelerator program. **Table 12** shows that this group with prior accelerator experience are significantly better in terms of attracting outside equity (23.8% versus 11.9%). They are also significantly better when it comes to revenue generation (55.3% versus 44.0%) and hiring employees (68.7% versus 57.6%). Finally, the ventures with prior accelerator experience are significantly more likely to report prior philanthropic support (38.2% versus 19.5%).

Table 12: Prior accelerator participation

Prior Accelerator Participation	N	Some Equity Reported	Any Prior-Year Revenues Reported	Any Prior-Year Employees Reported	Some Philanthropy Reported
No	13,468	11.9%	44.0%	57.6%	19.5%
Yes	5,950	23.8%*	55.3%*	68.7%*	38.2%*

* difference is significant at $p < 0.05$

Question asked: Has anyone on your founding team participated in any of the following accelerator programs?

Impact Measurement

Two approaches to tracking the impacts of social enterprises are being developed and implemented by IRIS and B Lab. Entrepreneurs were asked to indicate whether they are using either of these measurement systems. **Table 13** indicates that only a small minority – 2,445 for IRIS and 1,245 for B Lab – are doing so. When queried about this low take-up rate, the dominant reason for not implementing relates to a lack of awareness. There is also some indication that more ventures are electing to go different routes with their impact measurement, as 4,746 of the entrepreneurs indicate that they are currently using “other established measurement approaches.”

Table 13: Tracking impacts

	Yes	No
“Does your venture regularly track itself against any of the IRIS impact measures?”	2,445	14,743
(Reason given for “No”: “We have never heard of IRIS”)		(75.0%)
“Has your organization ever taken a B Impact Assessment?”	1,245	15,984
(Reason given for “No”: “We have never heard of B Lab”)		(76.4%)
“Does your venture regularly track impacts using any other established measurement approaches?”	4,746	12,487

Participating versus Rejected Entrepreneurs

The accelerator programs in this sample have made their cohort selection decisions. Based on these decisions, the sample houses information on 14,449 rejected applicants and 3,125 entrepreneurs that participated in the program to which they applied. **Table 14** shows an (understandable) bias among selectors toward ventures with more established track records. Prior to application, participating ventures were significantly more likely to report revenues in the prior year (55.1% versus 45.0%) and to have at least one employee (63.8% versus 60.4%). Finally, there is a significantly greater tendency for participating ventures to report some prior equity investment (19.5% versus 14.9%) and some philanthropic support (29.1% versus 23.5%).

Table 14: Participating versus rejected applicants

Participated in Program	N	Some Equity Reported	Any Prior-Year Revenues Reported	Any Prior-Year Employees Reported	Some Philanthropy Reported
No	14,449	14.9%	45.0%	60.4%	23.5%
Yes	3,125	19.5%*	55.1%*	63.8%*	29.1%*

* difference is significant at $p < 0.05$

Database Program Plans for 2019

The data collected for this Year-End Summary come through partnerships with accelerators that opened and closed applications between 2013 and 2018. With this expanding program reach, we anticipate having data from more than 350 programs in the database by the end of 2019. Recruiting efforts will focus on currently under-represented regions, such as South East Asia and the Middle East.

We will also continue to collect follow-up data from the entrepreneurs who enter into the database, both those who participated in programs and those who were rejected. These expanding longitudinal data will allow researchers to examine the various factors that systematically influence new venture growth trajectories.

We have made the (anonymized) 2013 through 2018 application data available to researchers who want to conduct and publish their own studies of impact-oriented entrepreneurs and accelerator programs. To further support data access, we also launched an on-line data portal (see www.galidata.org). Also in 2018, we released the first (anonymized) data files with follow-up data on rejected and accelerated entrepreneurs.

Finally, we are working with various sector stakeholders to support research projects that use these (and related) data to improve our understanding of critical early-stage entrepreneurial and acceleration processes. We released the third of these major reports in early 2018, and a book, *Observing Acceleration: Uncovering the Effects of Accelerators on Impact-Oriented Entrepreneurs*, in early 2019. We plan to release a fourth major report in early 2020.

These parallel efforts will allow the Entrepreneurship Database Program to support the development of novel and important data-driven insights for policy-makers and practitioners who work on issues and programs related to the global impacts of entrepreneurship.