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ENTREPRENEURSHIP

What Startup Accelerators Really Do

by Ian Hathaway

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The well-advertised boom in startups and venture capital in recent years has coincided with the emergence of new players in startup ecosystems. One of these, startup accelerators, has received a great deal of attention but also little scrutiny. Moreover, they are commonly misunderstood or mistakenly lumped in with other institutions supporting early-stage startups, such as incubators, angel investors, and early-stage venture capitalists.

In a recent analysis published by the Brookings Institution, I tackle some of the confusion around startup accelerators by laying out a clearer picture of what they do, and how they differ from other early-stage institutions. I also provide a review of the research literature on the effectiveness of accelerators to achieve their stated aims, some best practices for accelerator programs, and some figures on the size, scope, and impact of these organizations in the United States.

Accelerators are playing an increasing role in startup communities throughout the United States and beyond. Early evidence demonstrates the significant potential of accelerators to improve startups' outcomes, and for these benefits to spill over into the broader startup community. However, the measurable impact accelerators have on performance varies widely among programs — not all accelerators are created equally. Quality matters.

What are startup accelerators?

Startup accelerators support early-stage, growth-driven companies through education, mentorship, and financing. Startups enter accelerators for a fixed-period of time, and as part of a cohort of companies. The accelerator experience is a process of intense, rapid, and immersive education aimed at accelerating the life cycle of young innovative companies, compressing years' worth of learning-by-doing into just a few months.

Susan Cohen of the University of Richmond and Yael Hochberg of Rice University highlight the four distinct factors that make accelerators unique: they are fixed-term, cohort-based, and mentorship-driven, and they culminate in a graduation or "demo day." None of the other previously mentioned early-stage institutions — incubators, angel investors, or seed-stage venture capitalists — have these collective elements. Accelerators may share with these others the goal of cultivating early-stage startups, but it is clear that they are different, with distinctly different business models and incentive structures.

Yet the confusion is real, including within the startup sector itself. In fact, of the nearly 700 U.S.-based organizations that were identified as an "accelerator" or "accelerator/incubator" or similar — either through self-identification or through leading investor databases — I could confirm these four criteria in fewer than one-third of them. In other words, two of every three "accelerators" are not in fact accelerators, based on this criterion.

The Four Institutions That Support Startups

	INCUBATORS	ANGEL INVESTORS	ACCELERATORS	HYBRID
Duration	1 to 5 years	Ongoing	3 to 6 months	3 months to 2 years
Cohorts	No	No	Yes	No
Business model	Rent; nonprofit	Investment	Investment; can also be nonprofit	Investment; can also be nonprofit
Selection	Noncompetitive	Competitive, ongoing	Competitive, cyclical	Competitive, ongoing
Venture stage	Early or late	Early	Early	Early
Education	Ad hoc, human resources, legal	None	Seminars	Various incubator and accelerator practices
Mentorship	Minimal, tactical	As needed by investor	Intense, by self and others	Staff expert support, some mentoring
Venture location	On-site	Off-site	On-site	On-site

SOURCE "WHAT DO ACCELERATORS DO? INSIGHTS FROM INCUBATORS AND ANGELS" BY SUSAN COHEN, 2013; ADAPTATIONS BY IAN HATHAWAY

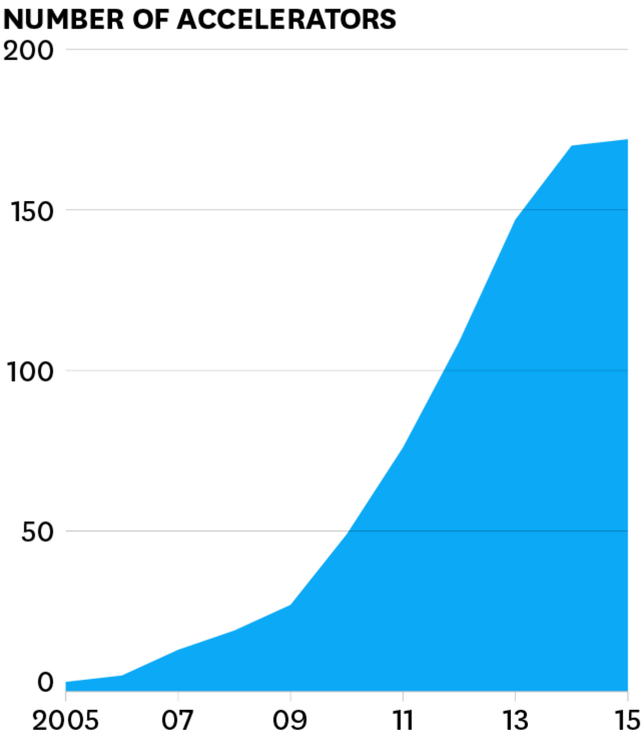
Accelerators in the United States

Silicon Valley-based Y Combinator launched the first seed accelerator program, in 2005, in Boston, followed closely by TechStars, which was founded the next year in Boulder, Colorado. Both programs have evolved over the years and have traditionally been considered the two premier accelerator programs globally.

Growth in U.S.-based accelerators really took off after 2008, as it did for startups, early-stage capital, and venture investment more broadly. The number of U.S.-based accelerators increased by an average of 50% *each year* between 2008 and 2014.

I was able to identify 172 U.S.-based accelerators in existence during the 2005-2015 period. Collectively, they invested in more than 5,000 U.S. startups. During this period, these companies have raised a total of $19.5 billion in funding, a number that will surely increase as accelerator programs continue to turn out companies and recent graduates work their way to maturity.

The Number of Startup Accelerators in the U.S. Has Risen Dramatically



SOURCE PITCHBOOK DATA; PRIMARY RESEARCH AND CALCULATIONS BY IAN HATHAWAY © HBR.ORG

Accelerator graduates that went on to raise additional venture capital investment had a median valuation of $15.6 million during this period, and an average valuation of $90 million. Some very well-known companies belong to this group, including "unicorns" AirBnB, Dropbox, and Stripe, among others.

Why Startup Accelerators

Accelerators have clearly taken hold in recent years. But what is it about what accelerators do that makes them so different from other early stage investors and support organizations and so valuable to the startups that are apparently falling over each other to be in their ranks?

I recently posed this question to Brad Feld, a cofounder of TechStars, and he likened the accelerator experience to immersive education, where a period of intense, focused attention provides company founders an opportunity to learn at a rapid pace. Learning-by-doing is vital to the process of scaling ventures, and the point of accelerators, suggests Feld and others, is to accelerate that process. In this way, founders compress years' worth of learning into a period of a few months.

Feld's explanation seems sensible to me, but what evidence is there? The relative novelty of accelerators means that little systematic research exists on the effect they have on the participating companies and on the broader startup community. Four papers stand out as contributing to our understanding. Here's what they've found:

- When matched with a comparable group of companies that didn't participate in accelerator programs, those that graduated from top programs saw an acceleration in reaching key milestones, such as time to raising venture capital, exit by acquisition, and gaining customer traction. However, these positive effects dissipate when looking at a broader sample of accelerators: many programs do not seem to accelerate startup development, and in some cases may even slow them down.

- A comparison of graduates of top accelerators with a set of similar startups that instead raised angel funding from leading angel investment groups found that the accelerator graduates were more likely to receive their next round of financing significantly sooner and were more likely to be either acquired or to fail.
- Additional research indicates the channels through which accelerators aid venture development, demonstrating that it is primarily about learning in the accelerator experience, not potentially confounding factors such as credential signaling to future investors, selection bias, or previous founder experience at top companies. In other words, the value of accelerators seems real and likely comes from the intensive learning environment itself.
- Accelerators have a positive impact on regional entrepreneurial ecosystems, particularly with regard to the financing environment. Metropolitan areas where an accelerator is established subsequently have more seed and early-stage entrepreneurial financing activity, which appears not to be restricted to accelerated startups themselves, but spills over to non-accelerated companies as well — occurring primarily from an increase in investors.

To summarize, accelerators *can* have a positive effect on the performance of the startups they work with, even compared with other key early-stage investors. But this finding is not universal among all accelerators and so far has been isolated to leading programs. Early evidence also shows that accelerators may have a positive effect on attracting seed and early-stage financing to a community, bringing spillover benefits to the wider regional economy.

Considering the growth of accelerators in recent years, this evidence is encouraging. By and large, accelerators seem to be a positive addition to startup ecosystems across the country and the world. Some may not make much of a difference, but many clearly do, and the best ones are poised to meaningfully improve the odds of success for the startups that graduate from them.

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robert jasper 4 months ago

All that is great, but also Accelerators mostly only evaluate and take on TECH or IT related start ups. Other industries, like e.g. innovative medical device start ups are seldom considered, as investors are IT start up pattern "framed". Wish this would change too... Robert Jasper, Business Start up consultant, Orlando, FL

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