

Catalyzing Connections

The State of Miami's Startup Ecosystem

ABOUT THE REPORT

This report takes an early look at the role and impact of Knight's investments in Miami's startup ecosystem. Engine Research Foundation compiled the findings in this report by analyzing secondary data sources and conducting individual interviews and surveys with grantees and other interested parties from the Miami community. Many of these grants are recent—some less than a year old at the time of the review. In some cases, therefore, the outcomes are preliminary and still in development.



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Since 2007, Miami has consistently ranked in the top 10 of the Kauffman Foundation's Entrepreneurial Activity Index. The area's most sizable leap went from a 2012 ranking of No. 7 to its most recent position at No. 2.

Overview

As part of its effort to support a thriving Miami, Knight Foundation has invested in efforts to help entrepreneurship, technology and innovation play a more central role in the city's future development. Specifically, the foundation has sought to connect and support a Miami ecosystem of entrepreneurs, ultimately with the aim of retaining competitive talent and improving access to opportunity.

Certainly, the emergence of entrepreneurship focused on high-tech innovation has become an increasingly important driver of net job creation and economic growth in the U.S. Previous research demonstrates that the jobs created by high-tech startups outweigh the job loss from the high failure rate of new ventures.¹ Moreover, the creation of a single job in the high-tech sector within a local region has been linked to more than four new jobs in that region over the long run.²

The confluence of cheaper technology, reduced barriers to entry and the rise of early-stage funding have spurred a global rise in tech-related entrepreneurship. Software and technology products are easier than ever to create and distribute, and, in turn, companies are built upon these products.

And while not all startups need to be technology-based, tech entrepreneurship has fueled growing interest among academics, policymakers and community leaders alike in harnessing other building blocks to support and sustain these new ventures. Together, these elements represent the concept of a tech and startup ecosystem: an interconnected network of entrepreneurs, investors and supporters that together bolster the growth of new technology-enabled economic activity.

Questions remain, however, for cities around the country and globe that—like Miami—are seeking to build and cultivate such an ecosystem. This report seeks to shed light on the state of Miami's entrepreneurial ecosystem and Knight Foundation's role working within it.



¹HATHAWAY, IAN. (2013). "TECH STARTS: HIGH-TECHNOLOGY BUSINESS FORMATION AND JOB CREATION IN THE UNITED STATES." EWING MARION KAUFFMAN FOUNDATION RESEARCH PAPER.

²HATHAWAY, IAN, AND PATRICK KALLERMAN. (2012). "TECHNOLOGY WORKS: HIGH-TECH EMPLOYMENT AND WAGES IN THE UNITED STATES." BAY AREA COUNCIL ECONOMIC INSTITUTE.

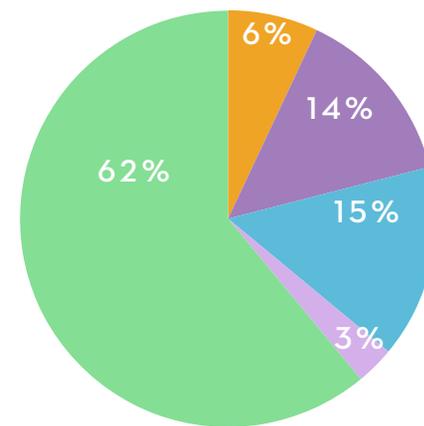
Overview

While Miami is late to the game as a tech startup hub compared with Silicon Valley, New York, North Carolina's Research Triangle and others, its emerging tech ecosystem leverages its proximity and connections to Latin America, as well as a robust entrepreneurial culture and diverse population.

From late 2012 to 2014, the foundation invested nearly \$14 million through 117 grants in four key areas:

- **Places and events** to help entrepreneurs gather, work and make connections
- **Funder and mentor networks** to provide greater capital access and quality advice and connections
- **Entrepreneur education** and skills to help scale startups and develop a diverse talent pool
- **Storytelling ventures** to raise the awareness and profile of the emerging ecosystem

GRANT INVESTMENTS



- Events and Convenings
- Entrepreneur Education and Skills
- Funder and Mentor Networks
- Places
- News, Information, and Storytelling

A Snapshot of Miami's Startup Ecosystem Health

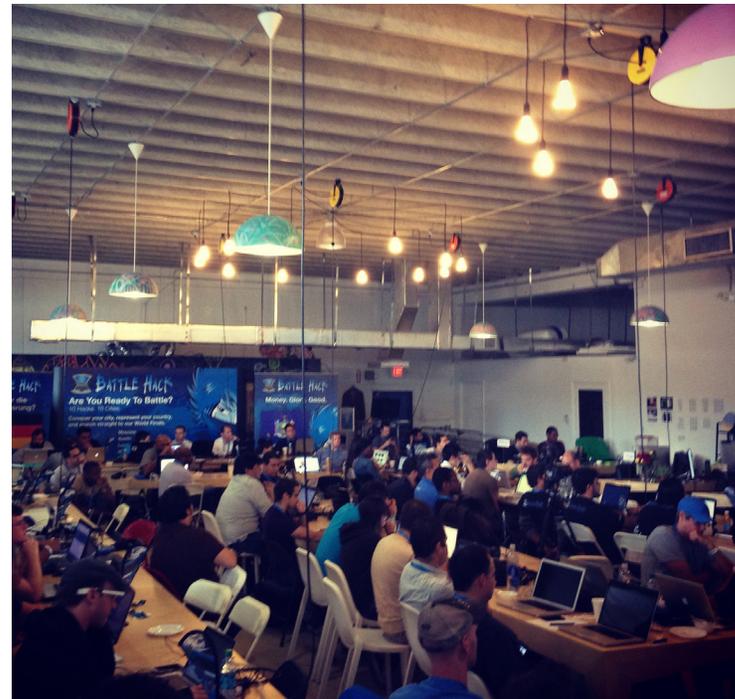
Many models seek to measure the well-being of an entrepreneurial ecosystem. Nearly all models include three key drivers:

Availability of talent

Access to funding

Entrepreneur support structures

This review found that there are positive signs overall pointing toward an emerging and robust ecosystem, yet gaps persist in education, availability of capital and growth rates of startups.



Availability of Talent

An educated workforce constitutes the most crucial driver of economic development over the long run, and Miami's performance in this area represents both a challenge and an opportunity for growth. In its 25-year-old and over population, Miami has the highest proportion of high school (or less) diploma holders and the lowest share of both bachelor's and graduate or professional degree holders among a group of eight selected metro areas.

In contrast, Miami's growing diversity has been an asset in this area. International migration to Miami is the primary driver of its population growth, as net domestic migration is negative for the metro area. International immigrants are more likely than domestic-born individuals to start businesses, and they are more likely to be college-educated. In Miami, 34.3 percent of immigrants in the metro area had at least a bachelor's degree as of 2013, while that share was only 29.3 percent for Miami's population as a whole. Moreover, according to Kauffman Foundation research, **as of 2011, more immigrants per capita in Miami (37.4 per 10,000) were tech entrepreneurs than in any of the top 25 metro areas—a figure that increased 36 percent between 2000 and 2011.**³

³ U.S. CENSUS BUREAU. (2013). GEOGRAPHIC MOBILITY BY SELECTED CHARACTERISTICS IN THE UNITED STATES [DATA]. 2013 AMERICAN COMMUNITY SURVEY 1-YEAR ESTIMATES. RETRIEVED FROM [HTTP://FACTFINDER2.CENSUS.GOV](http://factfinder2.census.gov).



Availability of Talent

Talent Investments

Knight has made several long-term investments in building a talent pool in the science, technology, engineering and math fields. These new grantees have met early milestones toward putting the infrastructure in place and have shown strong initial participation levels. However, longer-term outcomes of full-time job placements, for example, will need to be assessed over a longer period.

Early Outcomes: High Participation Levels Suggest Strong Demand

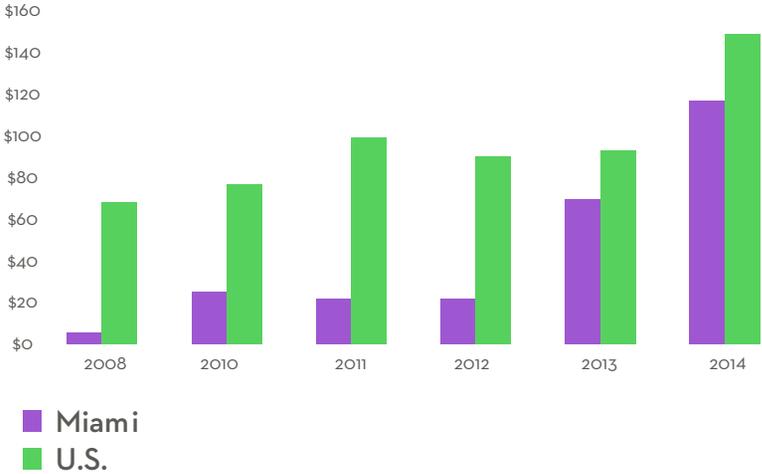
- Launched in 2014, **The Idea Center at Miami Dade College** had 80 student teams compete in its Startup Challenge and has forged a series of partnerships with national organizations to provide educational and job placement opportunities to its students.
- **Code Fever**, which provides computer programming skills to underserved minority youth, served more than 1,000 students in 2014 as it scaled its service model.
- **LaunchCode**, introduced in 2013, focuses on talent development among Miami job seekers by matching candidates to apprenticeships in technical jobs with the aim of converting into full-time roles. The organization has partnered with The Idea Center to offer the prestigious Harvard CS50 coding course, allowing prospective candidates to gain new skills in preparation for applying to LaunchCode. In just six months of operation, LaunchCode has recruited more than 100 employers to participate in its Miami apprenticeship program.
- **Venture for America** is growing its annual cohort of fellows and participating companies in Miami. One fellow from its inaugural Miami cohort started a software company and raised \$350,000 in seed funding.

Access to Funding

Innovative startups often need access to venture capital to continue growing. Miami struggles in this area compared with other U.S. metro areas, though recent trends suggest rapid improvement: **The total amount of venture capital raised in Miami has increased fivefold since 2011. By 2014, capital raised totaled \$693 million.**⁴

Miami’s technology sector may be weighted toward smaller firms because there are difficulties for very small tech firms to grow, scale and expand. **A closer look at Miami’s venture capital scene suggests that most investment rounds in the region take place at the seed level.** According to CB Insights, 56 percent of attributed venture and angel deals are seed deals, while Series A-type deals represent only 23 percent of deals in the area. These figures at the national level are 28 percent and 27 percent, respectively. Later rounds show a greater disparity, which is expected given the relative immaturity of Miami’s entrepreneurial ecosystem. If seed funding is crucial for early-stage entrepreneurship, such low levels of Series A and further venture funding indicate that scaling and expansion prospects for tech startups in Miami may be somewhat limited.

VC INVESTMENT PER CAPITA (in millions)



SOURCE: CB INSIGHTS

DEALS BY ATTRIBUTED ROUNDS 2014 MIAMI VS. ALL U.S.

	Seed/Angel	Series A	Series B	Series C	Series D	Series E+
% of deals - Miami	56%	23%	7%	9%	2%	3%
% of deals - All U.S.	28%	27%	19%	11%	6%	9%

■ Miami
■ U.S.

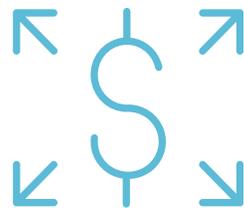
SOURCE: CB INSIGHTS

⁴ THE DEARTH OF VENTURE CAPITAL RAISED IN MIAMI IS MORE PRONOUNCED WHEN CONSIDERING THAT STANDOUT COMPANY MAGIC LEAP RECEIVED \$529 MILLION OF THE 2014 INVESTMENT.

Access to Capital

Knight investments in this core area of the startup ecosystem have focused on developing strong financing networks. Early outcomes have been promising, though limited, because grantees have focused primarily on investor education and convenings rather than capital commitments.

- **Accelerated Growth Partners** was a dormant, informal group of angel investors when it received Knight funding in 2014. Since then, it has hired a staff person and grown its membership, from zero members to 81. Members have invested \$1.8 million in 10 Miami-based tech companies and vetted more than 300 companies.
- **Florida Venture Forum** held 12 investor-focused events in 2013 and 2014. Participating companies raised \$10 million in the first year and \$13 million in the second year.



Entrepreneur Support Structures

The Kauffman Index for Entrepreneurial Activity has consistently ranked Miami high for business creation and startup activity. In 2014, the city held its place at No. 2 in the country, consistently outperforming the U.S. in the creation of new firms per capita.⁵

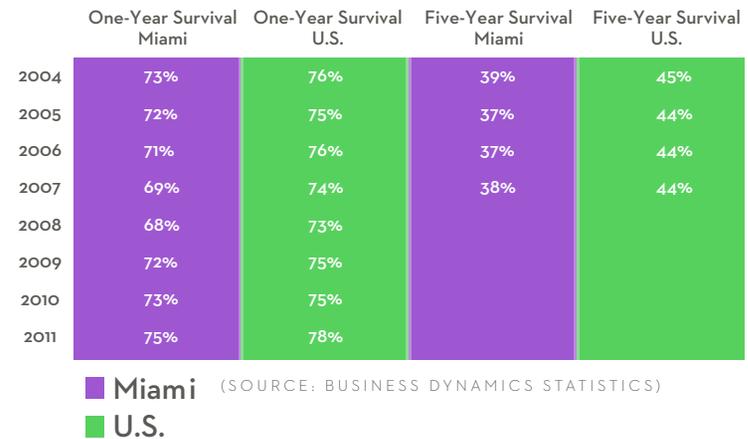
Survival and growth rates, however, have remained a struggle. Data show that, on average, Miami firms are less likely to survive to the fifth anniversaries of their launches compared with the national average.

New companies in Miami also tend to employ fewer people than those across the U.S., a disparity that continues as the businesses age. With the exception of firms over 26 years old, Miami's firms at each age were more likely to be smaller than those across the U.S.

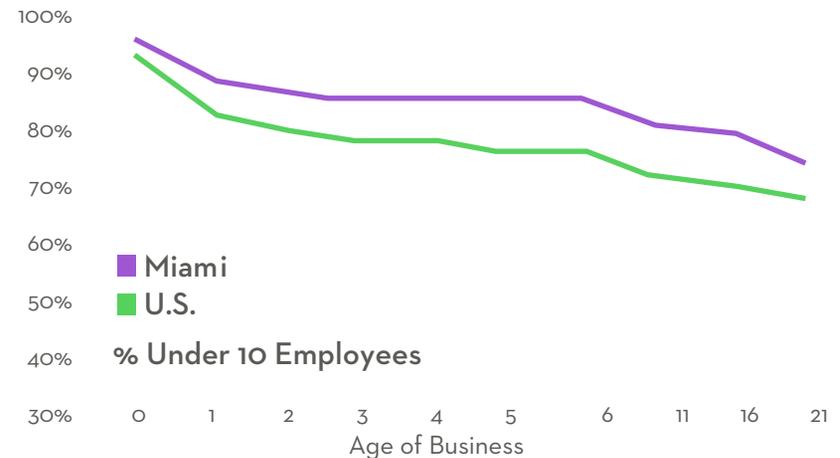
Miami businesses tend to stay small as they age

⁵ NEW FIRMS PER CAPITA, MIAMI MSA VS. U.S., 2000-2012 (SOURCE: BUSINESS DYNAMICS STATISTICS)

SURVIVAL RATES OF NEW FIRMS



AGE AND NUMBER OF EMPLOYEES



Entrepreneur Support Structures

NEW FIRMS PER 1,000 INHABITANTS

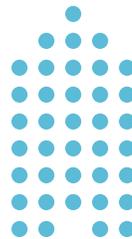


Entrepreneur Support Structures

Startup Support Investments

To leverage Miami's startup activity and encourage continued growth, Knight's investments in key mentorship and support networks seek to strengthen and scale promising startups. Its first two years of investments in these areas show demand and strong participation levels. Outcomes such as firm revenue and job growth among targeted startups will play out over the coming years.

- **Endeavor**, a global business mentorship program, recruited a board of 11 committed donors and has selected nine Miami companies that collectively employ more than 500 people. With Knight funding, Miami became its first U.S. affiliate city, in 2013.
- The **Enterprise Development Corp.** received 700 applications for funding and technical assistance and has engaged with 40 Miami-based startups.
- Launched in 2014, the **Venture Law Project** has served 487 entrepreneurs and recruited 100 local, pro bono lawyers to provide them with services. The group is looking into building a Web-based platform that could support Miami's ecosystem as it grows.



Entrepreneur Support Structures

Network Support

Beyond the individual grantee outcomes in each of these critical areas, an examination of the startup ecosystem shows the beginnings of a tightly connected network of entrepreneurs, mentors, investors and advisers. This network is also beginning to attract outside connections.

A limited network analysis was conducted to assess the extent to which grantees partnered in meaningful ways with others. The survey and interviews of grantees allowed the mapping of connections between the grant recipients, which ranged from sponsorships by one grantee of another to collaborations on events to deeper business partnerships. The tight clustering among these organizations indicates a high level of cooperation within the Knight network.

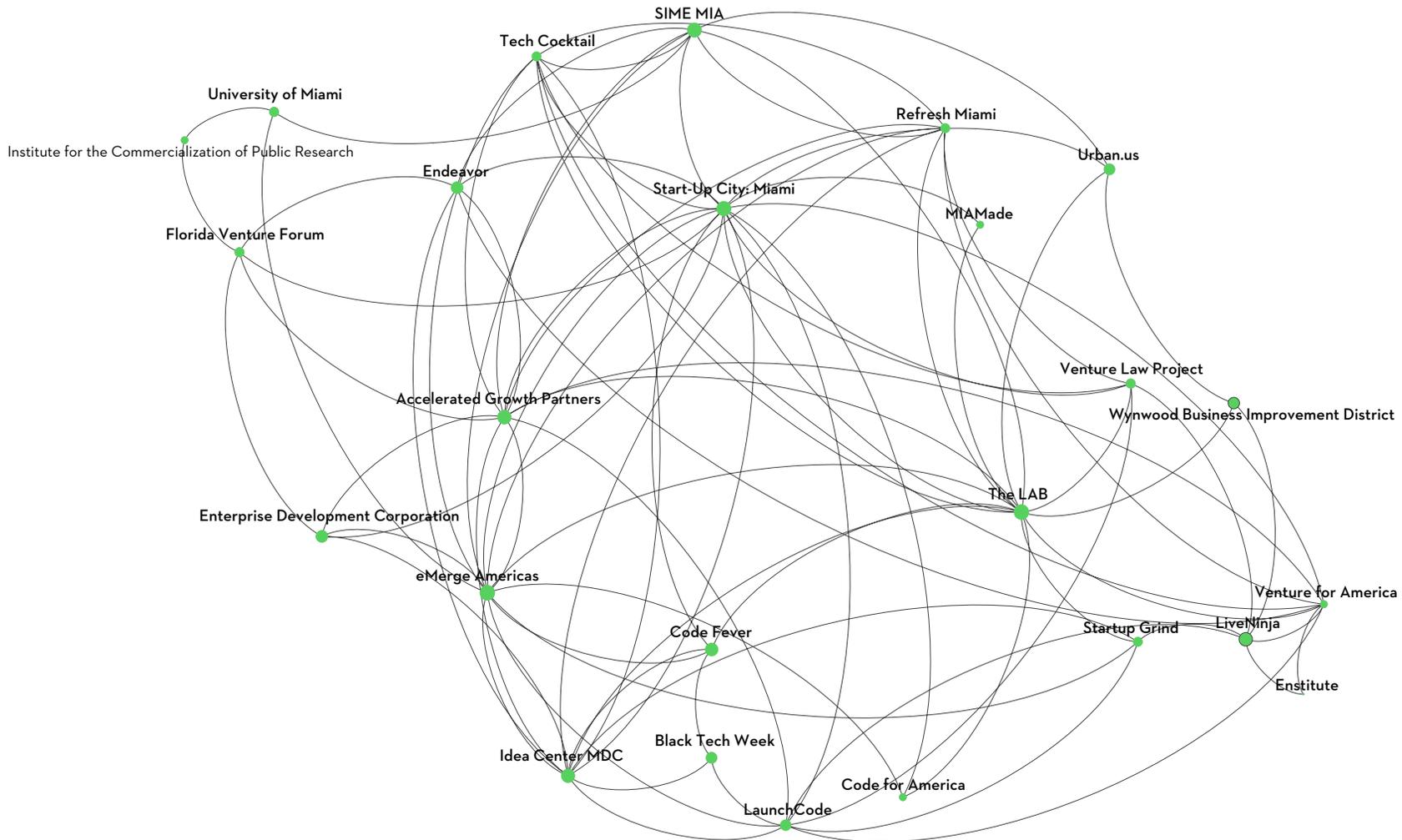
Knight's substantial initial investments in events and places had the goal of increased participation and engagement among startups and various support elements of the ecosystem. Indeed, attendance for most of Knight's top-funded events (including eMerge Americas, SIME MIA, Mini MakerFaire) has increased steadily since 2013.

The LAB Miami, a Knight investee, was a pioneer coworking space in the Miami startup community. An estimated 50,000 people have come through its space since it opened in 2012, and as the network map shows, The LAB serves as a central connection to many Knight grantees. Other coworking spaces have entered the market because of increased market activity and demand. For example, the coworking space WeWork recently launched in Miami Beach and is planning to open two additional locations in Miami.

Entrepreneur Support Structures

Network Support

MAP OF CONNECTIONS AMONG INTERVIEWED GRANTEES



Entrepreneur Support Structures

Growing Interest and Reputation

Awareness outside of the community of the new ventures, products and opportunities in Miami's entrepreneurial ecosystem helps to further build its reputation. Tracking media mentions is one way to understand the ecosystem's reputation and exposure. Media coverage may reflect the amount of activity in the ecosystem as well as legitimize new products and companies, entrepreneurship as a viable endeavor and startups as worthwhile investments. Coverage of failures within the ecosystem may even serve to make the larger business and investor community more accepting of the failure rates that are common in startup ventures.⁸

An analysis of data from NewsBank, which indexes articles from 5,653 sources in the U.S., 28 of which are in Miami-Dade County, looked at the proportion of articles from national- and Miami-based sources that mentioned the term "entrepreneur" and its variants, and "startup," which is more closely tied to young companies (rather than individual entrepreneurs) with the potential for high growth.⁹

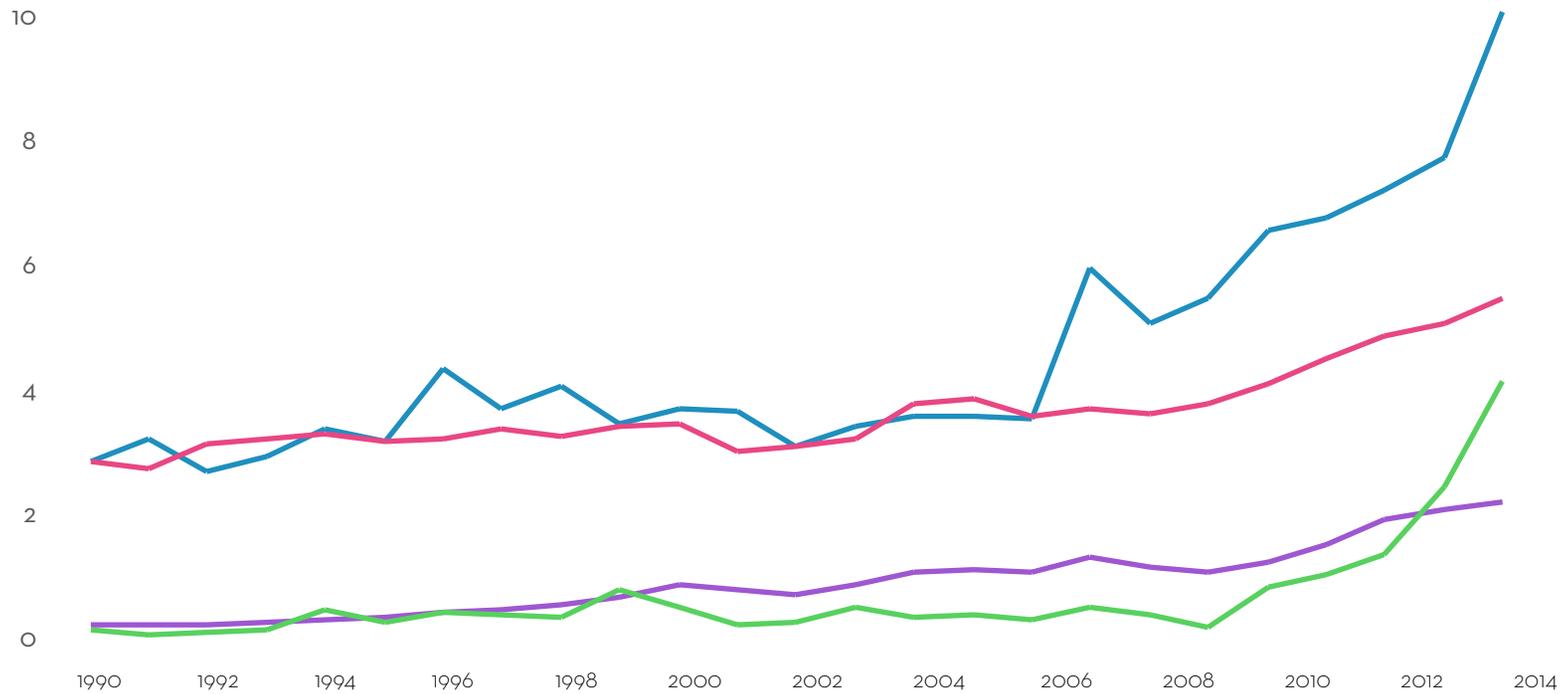
The "entrepreneur" terms appearing in Miami-based publications were in line with the national average until 2007, when 6 articles out of 1,000 contained the terms. In 2014, the terms appeared in 10 out of every 1,000 articles published by the Miami sources, nearly double the national average of 5.57.

Use of the term "startup" experienced a more recent rise in Miami media. Historically, the term received little use, and it wasn't until the first dot-com boom in 2000 that it appeared in more than one article out of every 1,000 published in the U.S. As use grew from that baseline, the term typically appeared in Miami media at a rate of less than half the national average, dropping to below one-third in 2009. However, in 2013, use in Miami surpassed the national average. By 2014, 4.28 of every 1,000 articles published in Miami included the term, nearly twice the national figure.

⁸ TECH STARTUPS ARE OFTEN ESTIMATED TO HAVE A 90 PERCENT FAILURE RATE. MEDIA COVERAGE HAS BEEN SUGGESTED TO REDUCE THE STIGMA ASSOCIATED WITH FAILURE AND BANKRUPTCY IN EFRAT, RAFAEL. "BANKRUPTCY STIGMA: PLAUSIBLE CAUSES FOR SHIFTING NORMS." (2006). EMORY BANKRUPTCY DEVELOPMENT JOURNAL 22: 481.

⁹ ROBEHMED, NATALIE. "WHAT IS A STARTUP?" (2013). FORBES, DECEMBER 16. ACCESSED JULY 18, 2015. [HTTP://WWW.FORBES.COM/SITES/NATALIEROBEHMED/2013/12/16/WHAT-IS-A-STARTUP/](http://www.forbes.com/sites/natalierobehmed/2013/12/16/what-is-a-startup/).

MEDIA MENTIONS PER 1,000 ARTICLES



- "Startup" - U.S.
- "Startup" - Miami
- "Entrepreneur" - Miami
- "Entrepreneur" - U.S.

SOURCE: NEWSBANK

The Big Picture: Miami Topline Economic Indicators

Despite the tumult triggered by the 2008-2009 recession, when unemployment rose sharply and housing prices fell, Miami has had a stronger recovery than other metro locations. The Brookings Institution created a composite index looking at gross output, unemployment and housing prices, and Miami ranked 22nd of the top 100 metropolitan statistical areas (MSAs) in economic output during the post-recession period. Yet even with these general signs of recovery, some topline indicators paint a mixed picture of promise and continued vulnerability.

Promise

- As of August, Miami's unemployment rate stood at 5.7 percent, within 0.61 percent of the 5.1 percent national average.
- Anticipated job growth of 9.5 percent in Miami-Dade County from 2014 to 2022 is expected to exceed the national projection of 8.6 percent during the same period.

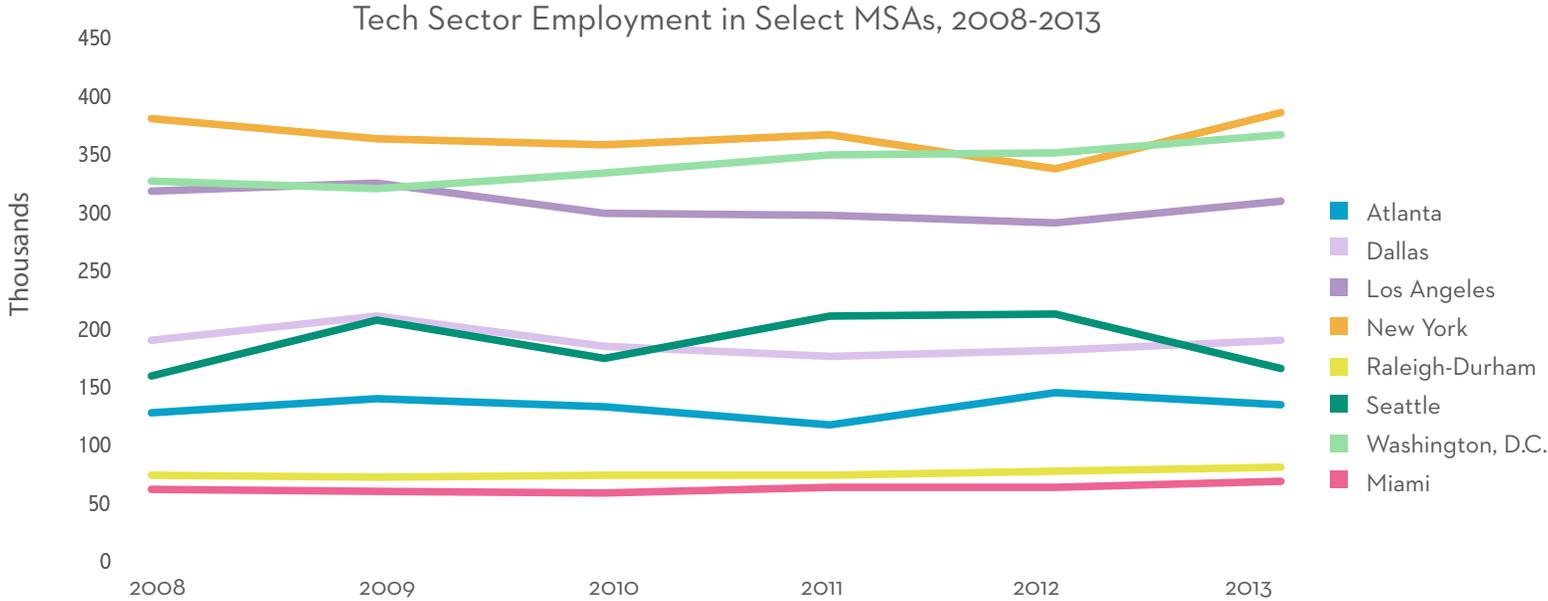
Vulnerability

- Income inequality in Miami remains high.
- Industries producing the greatest job growth (construction, health care, and personal care and services) also tend to be vulnerable in a recession.

Technology Job Potential

Tech employment, which includes jobs in STEM fields of science, technology, engineering and mathematics, has shown promising growth in recent years, yet Miami still lags behind other large cities and the national average. Miami's total tech employment grew by **8.7 percent over the 2008 to 2013 period in absolute terms**, more than double the growth during the same period in the U.S. as a whole and making Miami the **third fastest-growing region after Washington, D.C. (+12 percent) and Raleigh-Durham (+10 percent) among our comparable MSAs.**

A broader definition of the STEM economy research by the Brookings Institution encompasses occupations that require STEM knowledge but do not necessarily involve STEM work, such as programming or scientific research. Using this more expansive definition, **half of all STEM jobs are in manufacturing, health care or construction, a mix that corresponds well with the strong industries in Miami.** Moreover, half of these jobs do not require a bachelor's degree and pay an average of \$53,000 per year, compared with \$38,677 for the average U.S. worker across all sectors in 2011. Yet, Miami still has a ways to go; the city lags behind other MSAs of similar size in terms of STEM job placements at No. 81 of the top 100 U.S. metro areas.



Recommendations: Encourage Actors in the Ecosystem to Work Together

Knight Foundation cannot build and catalyze the startup ecosystem on its own. Some potential areas to collaborate and strengthen this sector include:

- **Continue Investing in Funding Collaboratives and Intermediary Organizations**

Over half of the grant recipients surveyed (51 percent) named funding as the area of Miami's ecosystem that needs the most improvement. As noted, the distribution of investments in Miami's companies is skewed toward early- and seed-stage investments in a manner that is more extreme than the industrywide "Series A crunch." Only eight companies in the Miami metro area raised funding rounds exceeding \$5 million in 2014.¹⁰ Continued support for intermediary organizations and exploration of support from larger institutional funds (such as state government) can help bridge these financing gaps.

- **Connect Miami's Startups With Its Corporations**

While metro data demonstrate that Miami's economy is returning to pre-recession levels and all signs point to increased entrepreneurial activity, two business communities—the established, corporate community and the entrepreneur community—appear to be relatively disconnected from one another. Overall, entrepreneurs and investors in Miami who were interviewed spoke of an overall lack of engagement from the corporate community, whether in the form of event sponsorship, investment, mentorship, or as customers and business allies. Lack of local corporate engagement leaves potential capital, mentors and business opportunities for Miami's entrepreneurs and startups sitting on the sidelines. Programming that aims to activate South Florida's medium to large business and corporate community could offer valuable support to the ecosystem.

¹⁰DATA RETRIEVED FROM CB INSIGHTS.

Recommendations: Encourage Actors in the Ecosystem to Work Together

- **Focus on Miami's Strengths**

Ecosystems around the country have faced similar challenges in integrating established businesses into their entrepreneurial activities, and some have sought creative ways to begin closing this gap. Another area where existing companies can engage with startups is in developing entrepreneurial initiatives that build on existing industries in Miami. In New York, London and Hong Kong, for instance, Accenture has funded and launched financial technology startup accelerators to capitalize on the expertise and resources located in the world's most prominent financial centers. Similarly, efforts that capitalize on Miami's long-established economic strengths, both within legacy industries and the city's relationship with Latin America, could help bolster existing competitive advantages.

- **Engage Local Government**

Entrepreneurs interviewed for the study expressed that beyond a few press appearances, local political leadership seemed absent and disengaged from the recent bout of entrepreneurial activities and events. This perception may seem like a good sign: Government is not getting in the way of new business growth. However, municipalities can play a role supporting local startup ecosystems, whether by fostering a conducive regulatory environment, supporting programs to ensure the region's more vulnerable populations benefit from new economic growth, or simply acting as connectors and champions for local entrepreneurs.

- **Continue Support for Talent Programming, With an Eye Toward What's Working**

People in Miami's ecosystem continued to cite the dearth of available talent as one of Miami's primary challenges. Moreover, respondents expressed interest in reaching Miami's underserved populations. Opportunities to expand the talent pool in Miami exist all along the value chain, from talent development and education, to talent retention, to attracting qualified people to relocate to Miami and support the ecosystem.

On the talent development end of the spectrum, organizations dedicated to fostering a diverse talent pool of technologists and entrepreneurs play an especially important role in Miami. As noted, South Florida has a highly diverse population across both income levels and racial/ethnic backgrounds. It will require a concerted effort on the part of government service providers, educational institutions and supporting organizations to ensure that a wide cross-section of the population benefits from and contributes to Miami's emerging startup economy.

Conclusion

Cities throughout the U.S. are striving to adapt to today's changing economy. Like many other cities, Miami faces myriad challenges, but it is also showing signs of growth and opportunity. Knight's Miami strategy focuses squarely on knitting together and strengthening elements of this emerging startup ecosystem.

This report brought together various components to understand the context of that strategy. The first, a focus on talent, capital and support structures, provides a snapshot of startup ecosystem health and its emergent potential. Second, a report of grantees' early outcomes illustrate both the progress made and the work that still lies ahead. Finally, an analysis of the topline economic indicators provides context by highlighting Miami's general economic recovery and some of the continued vulnerabilities in the system.

