The Tampa Bay Entrepreneurial Ecosystem: The Tide is High
Year 2 Report – November 2017

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Executive Summary

In 2016, a research team funded by the Ewing Marion Kauffman Foundation (Kansas City) and conducted through the John P Lowth Entrepreneurship Center (the Lowth Center), Sykes College of Business, University of Tampa launched a effort to examine the Tampa Bay entrepreneurial ecosystem. The research team included Zoltan Acs (George Mason U), David Audretsch (Indiana University), Diana Hechavarria (University of South Florida), Siri Terjesen (American University) and Rebecca White (University of Tampa). At that time, the Lowth Center announced that it would provide an annual update on regional ecosystem research. This report outlines the findings of the second year study.

The purpose of originial study was two-fold. First, the team sought to expand the limited current theory in entrepreneurial ecosystems. Second, the project sought to better understand the specific state of the ecosystem in Tampa Bay and create a baseline for future research. For detailed findings of that research, please see the 2016 report.

To analyze and summarize the findings of the qualitative portion of the 2016 study, the research team used the *Theory of Bottlenecks* developed by one of the authors, Zoltan Acs, in his work on the Global Entrepreneurship Index (GEDI) to provide insight into the strengths and bottlenecks in the Tampa Bay Entrepreneurial Ecosystem. With this approach, the authors of the study examined not only the strengths and health of the ecosystem but also identified the challenges or obstacles that are blocking growth. These bottlenecks, or areas that impede growth and development of the Tampa Bay ecosystem, include a lack of vision and a lack of collaboration (and redundancy) among ecosystem stakeholders, lack of a strong urban core, lack of actionable direction on public transit, limited corporate buyers for entrepreneurs' products, a perceived difficulty getting the news media outlets to share the local stories of entrepreneurial success, talent needs for individuals with coding skills and CEO leadership skills and experience, and a lack of funding for early stage companies in the seed capital stage. The theory of bottlenecks suggests that until these issues are addressed the ecosystem will not grow.

For the 2017 report, the UT based research team chose to focus two related bottlenecks idenfitied in the past year's work - access to seed capital and connnectivity. We hypothesized that the lack of a risk appetite among Tampa Bay investors was key to the the investment challenges growth entrepreneurs are facing in Tampa Bay. To address this, we argue that a better connected region of investors and entreprenurs could increase the investable deal flow and at the same time, allow investors to spread the risk associated with early stage investment and thus improve access to capital in the $2-5m space. In order to better understand the connectedness, or social capital landscape, we worked with a team of scholars from Chapel Hill, NC to identify the dealmakers in the Tampa Bay region. The results of the study indicate a diversified entrepreneurial economy with evident concentrations in Information Technology (blue) and Health Care (red) as well as Consumer Discretionary (maroon) and Telecommunications (magenta).   The Finance sector (green) is substantive and fairly well connected into the network, however, all other segments are relatively disconnected. This lack of connectivity serves as an impediment that needs to be addressed.

To address this lack of connectivity, the research team recommends a deliberate design approach to growth in the Tampa Bay region. While it is valuable, at times, to benchmark other regional ecosystems, the authors argue that Tampa Bay's ecosystem will only reach greatness by focusing on the strengths of the system. This research illustrates that we have a strong opportunity to institute efforts to connect the dealmakers in information technology, health care, consumer discretionary and telecommuncations as a means of improving opportunity for entrepreneurial success in the region and attracting new talent. Recommendations for how to use the research to grow the ecosystem include:

- Use the data to identify opportunities to find "lone wolf" investors and entrepreneurs (who are not connected into the social capital network) and bring them into the network through strategic partnering, collaborative and mentor relationships.

- Use the data to identify individual mentoring candidates and expose them to quality deal flow and innovation insights in the network to help solicit their participation as mentors.
- Use technology to provide better connections among the ecosystem members.

Introduction

The Tampa Bay MSA has a population of approximately 3 million people and includes the four - county region of Hillsborough, Hernando, Pasco and Pinellas Counties. The three principle cities in the region include Clearwater, Tampa and St Petersburg. Just to the south of the Tampa Bay MSA, Manatee and Sarasota counties have become a player in the regional business community. Sarasota County has a population of more than 390,000 full-time residents with an interesting mix of business owners, working families and young-at-heart retirees. With the trends toward having "encore" careers and working well past traditional retirement age, Tampa Bay and her two southern counties have a unique combination of young professionals and more seasoned executives who have the money, time and talent to support entrepreneurship. Located in the third largest state in the US and a low cost for conducting business, Florida is an affordable place to live and has become more than a vacation destination. Since our last report, Tampa Bay has begun to receive more notice as a home for commerce and entrepreneurship beyond the southwestern region of Florida.

For the past 8-10 years the community has been focusing on growing the entrepreneurial ecosystem and the 2016 report describes much of that effort. However, there continues to be a gap in seed funding for entrepreneurs who have grown their companies to the $2-5m investment stage. Our 2017 report continues to demonstrate this gap in funding. Moreover, we hypothesize that, if we are able to build a more tightly connected social capital network of serial entrepreneurs and investors in the region, this gap may be addressed.

This report outlines the 2017 research effort. We began our research by reviewing early stage investments in Tampa Bay from 2015 – Q3 2017. We then mapped the Tampa Bay MSA plus Sarasota and Manatee counties social networks of dealmakers – serial entrepreneurs and investors and the companies in which they invest. The results of our study are outlined in the following pages.

Tampa Bay Financial Capital – 2015 – Q3 2017

Venture capital supports the entrepreneurial ecosystem by providing funding, guidance, and connections to accelerate growth in entrepreneurial companies. The National Venture Capital Association (NVCA) states that the purpose of the Venture Capital Ecosystem (VCE) is to "create fast-growing and sustainable companies and introduce new technologies across a range of sectors, while providing attractive returns to those who trust the industry with their capital." Angel investors, venture capitalist, growth equity, and buyout private equity are all types of private equity used to purchase ownership in private companies at various stages of development. Private equity funding fuels growth in the entrepreneurial ecosystem.

We quantify key performance indicators of venture capital activity and analyze the venture capital ecosystem by metropolitan statistical area. To accomplish this, we collected data on a variety of private equity deals in Florida from 2015 through Q3 2017 from numerous sources. Due to the opaqueness of the private equity markets, many of the transactions are either missed completely or have incomplete information. To reduce bias and missing information we utilized multiple sources of data and validated the data through detailed analysis. We provide a framework for analyzing the venture capital ecosystem and provide benchmark data to track changes in health and size of ecosystems.

Our research is focused on the private equity investors that provide capital to companies at various stages in their lifecycle. Private equity is an equity investment in non-public companies and represents an illiquid long-term investment that is difficult to value. We identify a variety of investment firms set up as limited partnerships, angel investor networks, and accelerators/incubators. The International Business Innovation Association defines incubators as entities that nurture the development of entrepreneurial companies, helping them to survive and grow during the startup when new businesses are most vulnerable. These programs provide their client companies with business support services and resources tailored to young firms. The most common goals of incubation programs are creating jobs in a community, enhancing a community's entrepreneurial climate, retaining businesses in a community, building or accelerating growth in a local industry, and diversifying local economies. Business accelerators have the same goal of improving a startups chance of success but with a shorter time-frame and different approach. The focus is on small teams, a single project and a deadline that is usually within three months. Most accelerators take a group of companies, or a cohort, through a specific process over a previously-defined period of time, culminating in a public pitch event or demo day. Accelerators generally make seed-stage investments in each participating company in exchange for equity, while many incubators typically do not make this type of financial commitment.

Angel investors, venture capitalist (VC), growth equity, and buyout private equity (PE) are all types of private equity used to purchase ownership in private companies at various stages of development. Angel investors are wealthy individuals or groups of wealthy individuals who provide seed capital or early stage capital to startups. Seed capital provides funding for business and product development. Venture capitalists (VCs) are limited partnerships that provide some early stage capital but are more likely to provide later stage or growth capital. VCs typically take a minority stake in the company and often take board positions in the company. Early stage capital is for companies beyond the seed stage but still pre-revenue. Private equity (PE) buyout investors are similar to later stage venture capital, but PE firms purchase the majority or the entire company. Family offices often have an active portfolio of private equity investments. Growth capital is for firms in the growth stage who have a proven business model and are generating revenue. Buyout capital accelerates growth and creates liquidity events for founders and earlier investors.

The Venture Capital Ecosystem is analyzed by metropolitan statistical area to provide a boundary for measured activities. Metropolitan statistical areas (MSA) are geographical regions with a relatively high population density at its core and close economic ties within the area (Wikipedia). We identified twenty separate MSAs for Florida from a file prepared by U.S. Census Bureau, Population Division, based on Office of Management and Budget, July 2015 delineations. The MSAs were retrieved from https://www.whitehouse.gov/sites/default/files/omb/bulletins/2015/15-01.pdf. This study focuses on the Tampa Bay MSA that includes Hillsborough County and Pinellas County. The main cities in the Tampa Bay MSA are Tampa, St. Petersburg, and Clearwater. Table 1 provides summary statistics of market fundamentals from 2015 through 2016 to provide insights into the characteristics of the Tampa Bay market.

Table 1: Descriptive Statistics for Tampa Bay

Tampa Bay MSA	2015	2016	Change
Population	2,975,225	3,032,171	↑56,945
GDP	$133,838 Million	$142,633 Million	↑$8,795 Million
GDP per Capita	$44,984	$47,040	↑$2,056
Unemployment Rate	4.4%	4.5%	↑0.1%
Office Space per sq. ft. / year	$19.84	$24.70	↑$4.86
Median 2 Bedroom Apartment	$957	$992	↑$35
University Enrollment	173,728	191,421	↑17,693
Fortune 750 Companies	7	6 *	↓1
Fortune 750 Revenue	75.5 Billion**	$72.4 Billion	↓$3.1 Billion
Fastest Growing Companies	86	79	↓7
Fastest Growing Revenue	$2.3 Billion	$2.1 Billion	↓$200 Million
Patents Filed	624	Not Available	

* Emera acquired TECO in 2016 and is no longer headquartered in Tampa Bay.
** TECO represented $2.7 Billion of the Fortune 750 Companies Revenue in 2015.

The population of the area gives a measure of size for the area as larger populations can support larger ecosystems. The population data came from the United States Census Bureau website http://www.census.gov/population/metro/data/. The population estimates of Tampa Bay grew from 2,975,225 at the end of 2015 to 3,032,171 by the end of 2016. The population in

Tampa Bay increases by approximately 156 people every day. Continued growth in population provides human capital to expand the ecosystem. Gross domestic product (GDP) is the value of all goods and services produced over a period of time and is used as measure of economic performance for the area. GDP Data was collected from the Bureau of Economic Analysis website http://www.bea.gov/regional/. The GDP of Tampa Bay grew by $8,795 million from $133,838 million at the end of 2015 to $142,633 million at the end of 2016 resulting in the GDP per capita to grow by $2,056 over the year. The increase in GDP per capita demonstrates that the rate of economic growth can support the continued growth in population. The unemployment rate increased from 4.4% at the end of 2015 to 4.5% at the end of 2016.

Office space lease rates and apartment rental rates are used to gauge the cost of living and doing business in the MSA. The median monthly rent for a 2-bedroom apartment was collected from the Housing and Urban Development web site which provides the information by county. The median rent for 2 bedroom apartments rose from $957 in 2015 to $992 in 2016 and is at $1,014 currently. We used Hillsborough county to proxy for the Tampa Bay MSA. The increase in demand for units has put upward pressure on the costs for housing. Office lease median price per square foot per year data was collected from the LoopNet website http://www.loopnet.com/. The median Class A office space lease rates increased from $19.84 per square foot per year in 2015 to $24.70 per square foot per year in 2016.
Universities are sources for trained employees and disruptive technologies. To identify universities and colleges in the Tampa Bay MSA we downloaded a list of 112 universities and colleges in Florida from http://www.free-4u.com/Colleges/Florida-Colleges.html. We eliminated 33 for profit universities and colleges to end up with 79 not for profit universities and colleges in Florida. The Universities were then separated into MSAs and we identified 10 not for profit universities and colleges in Tampa Bay MSA of which 8 had an enrollment of at least 1,000 students. Enrollment increased by 17,693 from 173,728 for the 2015-2016 academic year to 191,421 for the 2016-2017 academic year.

Large corporations provide a source of customers for start-up companies and often spin-out companies which enhance the venture capital ecosystem. We identified 30 *Fortune 800* companies headquartered in Florida from the Enterprise Florida website https://www.enterpriseflorida.com/. We assigned these companies to the appropriate MSA based on the headquarter city. There were 7 *Fortune 750* companies in the Tampa Bay MSA in 2015 with total revenue of $75.5 billion. In 2016 Emera acquired TECO and was removed from the list of *Fortune 750* companies headquartered in Tampa Bay. The remaining 6 Fortune 750 firms in Tampa Bay had $72.4 billion in total revenue for 2016. Once we exclude the $2.7 billion in revenue from TECO for 2015, the remaining *Fortune 750* firms revenue decreased by $400 million over the year. Fast growing companies are identified by using *Inc. 5000 Fastest Growing Companies* list for 2015 and 2016. The minimum revenue to be considered for inclusion on the list was two million dollars. The list allows searches by MSA. We noted that several companies were listed in multiple MSAs. We then counted the number of companies in each MSA to give us a measure of high growth companies. The number fast growing companies fell 86 in 2015 to 79 in 2016. The revenue from the fastest growing companies declined from $2.3 billion in 2015 to $2.1 billion in 2016. Often firms will be removed from the list as they grow because it is harder to sustain increased growth for larger firms. The combination of large *Fortune 750* companies and *Inc. 5000 Fastest Growing Companies* provide investment opportunities and strategic acquirers to enhance the venture capital ecosystem.

Active investors include accelerators, angel investors, venture capital firms and private equity firms. We identified angel investors using the Mass Investor Database, PrivCo, VentureSource, Bloomberg, Crunch Base and PitchBook. Angel investors are wealthy individuals or groups of wealthy individuals who provide seed capital or early stage capital to startups. Venture capitalists are limited partnerships with a life of seven to ten years. The venture capitalists are general partners and typically also invest into their own funds. The general partners typically receive a management fee of two percent and carried interest of twenty percent. Venture capital firms provide some early stage capital but are more likely to provide later stage or growth capital. Venture capitalist typically take a minority stake in the company and often take board positions in the company. Private equity/buyout are similar to later stage venture capital but the private equity firms purchase the majority or the entire company. Deal flow data captures the number of deals and total dollar value of deals in each MSA. Several data sources were merged to capture the deal flow. Data was collected from Venture Source, PrivCo, Bloomberg, Mass Investor Database CrunchBase, and PitchBook.

Assets under management for a year are measured using a rolling eight-year years of fundraising. We begin by identifying all firms with a fixed-life partnership in a particular MSA and the amount of venture capital funds they raised between 2008 and Q3 2017 with offices in the Tampa Bay area. We then subtract off any liquidated funds or funds that have completed their life cycle from the total to give a measure of assets under management. Assets under management by firms with offices in Tampa Bay increased from $1,083 in 2015, to $1,368 million in 2016, and then increased to $1,573 million in 2017.

Table 2: Deal Flow Data for Tampa Bay MSA

Deal Type	2015	2016	Q1-Q3 2017
Accelerator/ Incubator	5 companies of which 1 received $400,000	6 companies of which 2 received $70,000	6 companies of which 2 received $175,000
Angel Investor	17 investments of which 16 totaled $48 million	19 investments of which 15 totaled $15 million	19 investments of which 16 totaled $11 million
Seed Round	6 deals of which 5 totaled $7 million	2 deals of which 1 totaled $1 million	3 deals which totaled $11.1 million
Early Stage Venture Capital	4 deals, 3 of them totaling $21 million; largest $18 million	7 deals totaling $47.8 million; largest $35 million	11 deals, 8 of them totaling $83.3 million; largest $29.3 million
Later Stage Venture Capital	2 deals totaling $30.5 million; largest $30 million	4 deals totaling $31.1 million; largest $10 million	5 deals, 4 of them totaling $90.4 million; largest $75 million
Private Equity Growth Capital	14 deals, 2 of them totaling $28 million; largest $24.75 million	12 deals, 8 of them totaling $333.5 million; largest $255 million	10 deals, 7 of them totaling $34.2 million; largest $10.8 million
Private Equity Buyout Capital	34 deals, 7 of them totaling $2,275 million; 4 deals over $100 million; largest $1 billion	34 deals, 8 of them totaling $2,177 million; 6 deals over $100 million; largest $1 billion	23 deals, 5 of them totaling $834.6 million; 2 deals over 100 million; largest deal $525 million

Table 2 highlights deal flow data for the Tampa Bay MSA. Accelerators and Incubators help develop high growth companies suitable for private equity investments. Tampa Bay appears to have a steady supply of companies going through these programs that will provide investors attractive investments in the future. Angel investor activity is exciting in Tampa Bay and shows a strengthening venture capital ecosystem. Seed round financing continues to be week for Tampa Bay. Seed round financing often requires checks of $2 million to $5 million. This amount is larger than what most angels want to invest but is often too small for venture capital and private equity investors. Some of the organized angel networks and online platforms have provided seed stage capital that has improved the venture capital ecosystem. Early stage and later stage venture capital has seen a dramatic increase in activity and is a highlight for the venture capital ecosystem. As the firms mature and become suitable for later stage and growth capital, the opportunities for funding continue to improve. Buyout capital is available for large transactions. Tampa Bay has seen a dozen buyout deals exceed $100 million and 2 deals of $1 billion since 2005.

Social Capital and Entrepreneurial Ecosystems

Entrepreneurial ecosystems are primarily about economic performance. Communities invest in entrepreneurial ecosystems for a variety of reasons. While business has long been viewed as an engine for economic growth and wealth creation and critical to gaining regional and national advantage, today, entrepreneurship is also viewed as a solution to social problems and as having the ability to provide the necessary emancipation to individuals to pursue freedom, financial independence, and escape the status quo. A high performing entrepreneurial ecosystem leads to increased knowledge spillover and innovativeness, and the opportunities that emerge become influential in a region's ability to attract and retain the best and brightest talent.

Entrepreneurs are key players in an entrepreneurial ecosystem[1] and a primary task of an entrepreneur is to bring together resources where none existed, to serve a common goal of solving a market gap or building a business or social venture. There has been significant research on the value of networks to entrepreneurs demonstrating that access to resources

[1] For more information and definitions of entrepreneurial ecosystems, please see the 2016 State of the Tampa Bay Entrepreneurial Ecosytem whitepaper [here.]

comes primarily to entrepreneurs through their networks.[2] *Social capital* is a term that has been used by social scientists from business, economics, sociology and history to describe the sum of the resources that acure to an individual, in this case, an entrepreneur, by virtue of her network.

Similarly, research on entrepreneurial ecosystems has shown that not all networks are equal and thus some are more valuable than others to entrepreneurs and to investors. More specifically, an entrepreneur who has access to "dealmakers" defined as individuals who have either previously started companies or invested in early stage ventures have been shown to be more successful.[3] Moreover, a well connected network of early stage investors allows for investment risk spread.[4] This report reports on the quality of the dealmaker entrepreneurial networks in Tampa Bay in the fall of 2017.

The Dealmaker Methodology[5]

This approach is based on the concept that networks of serial entrepreneurs, investors and their affiliated companies play a critical role in driving value creation and shaping the character of robust regional economies. Firm and company level information identifying the actors and their connective relationships can provide a new window into the innovation dynamics within a regional economy as a whole and just as importantly into the entrepreneurial behavior, investor focus and innovation hot spots within specific industry sectors and clusters.

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[2] For more on the impact of networks on performance see Wouter Stam, Souren Arzlanian, Tom Elfring (2014) Social capital of entrepreneurs and small firm performance: A meta-analysis of contextual and methodological moderators, *Journal of Business Venturing*, Volume 29, Issue 1, pp. 152-173

[3] Feldman, M. and T. Zoller (2012), Dealmakers in Place: Social Capital Connections in Regional Entrepreneurial Ecosystems, *Regional Studies,* Vol.46, Issue 1, pp.23-37.

[4] For an example of associated research see Lockett, A. and M. Wright (2001), The syndication of venture capital investments, Omega, Vol. 29, Issue 5, pp 375-390.

[5] This methodology and the subsequent data were provided through Commonweal, LLC, Chapel Hill, NC.

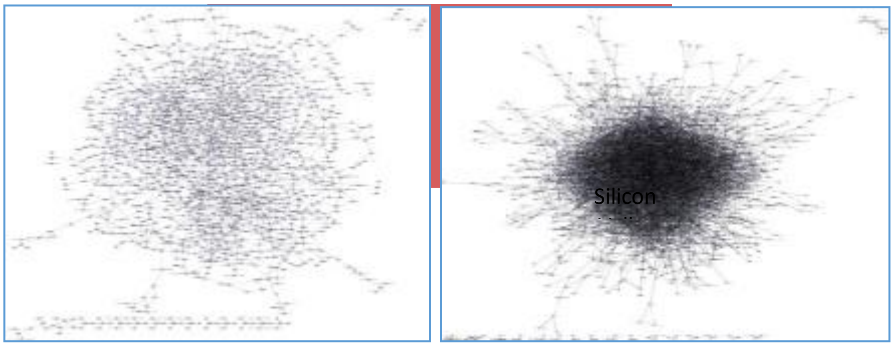
"Dealmakers" are actors who have founded, managed or invested in multiple private entrepreneurial firms, and hold concurrent equity ties to multiple firms as a consequence of their serving on the boards as advisors, investors or managers of these firms. They are specifically defined as those individuals who have three or more concurrent equity positions in private entrepreneurial firms as a consequence of their entrepreneurial or investment activities. Generally, by virtue of their experience, the most facile and active entrepreneurs and investors are considered Dealmakers.

The output generated for the study was drawn primarily from the Capital IQ database, a private database maintained and licensed by Standard & Poor, that provides quantitative research data and analysis applications to over 4,200 investment management firms, private equity funds, investment banks, advisory firms, corporations, and universities. This unique private dataset maintains detailed records about private firms, their managements, and their boards of directors based on data submitted by the companies at incorporation and through the shelf registration process, and made available to licensees on a current snapshot basis. As a general rule, firms that have received some form of "formal" outside investment will be captured within this database.

The Dealmaker approach employ's the Standard and Poor's Global Industry Classification Standard (GICS) organizational scheme to structure, analyze and present its output. The GICS system model is the global standard for categorizing companies into sectors, industries and sub-industries. The GICS typology was developed for the worldwide financial community and has become the commonly accepted global industry analysis framework. Each company's classification category reflects its primary business model based on its financial performance. GICS is comprised of 10 sectors, 24 industry groups, 68 industries and 154 sub-industries.

To test the dealmaker methodology, a number of entrepreneurial ecosystems were mapped.[6] The results demonstrated that more successful entrepreneurial ecosystems were more likely to have tighly connected networks of dealmakers . See figure 1 for two examples.

Figure 1: Dealmaker Maps for Boston (left) and Silicon Valley (right)



Social Capital in Tampa Bay (including Sarasota and Manatee Counties)

As a first step to mapping the social capital in Tampa Bay, the output for entrepreneur and investor records across all industry domains were identified and configured in a traditional Excel spreadsheet database organized by Dealmaker ties, with each actor identified by sector/industry for each of their affiliated companies, their role as key executive and/or board member, and by Dealmaker type (e.g., Serial Investor, Investor, Entrepreneur, Entrepreneur with Finance Tie). The data captured the number of equity positions within companies for each individual, their roles within the associated companies as key employee and/or board member (color-coded), the GICS sector and within that sector, the industry for each company. Business biography summaries are also collected for each individual in the database. For the research, each individual in the database was assigned to one of four "finance type" categories.

- Serial Investors: Finance affiliated and a Key Executive of 2 or more finance firms
- Investors: Finance affiliated and a Key Executive of only 1 finance firm
- Entrepreneur with Finance Tie: Finance affiliated, but not a Key Executive of a finance firm
- Entrepreneur No Finance Tie: No finance affiliations

[6] For this research please see Zoller, Ted. (2010). The dealmaker milieu: The anatomy of social capital in entrepreneurial economies,The University of North Carolina at Chapel Hill, ProQuest Dissertations Publishing,

The Tampa Regional Network Foundation Database, as of fall 2017, contained 14,622 entrepreneur/investor records across all GICS sectors except Finance. Some analysts and practitioners prefer to exclude the Finance group because they view it as an innovation infrastructure asset i.e., an “enabling sector” rather than a primary goods and services producing sector. Also, in Tampa Bay the significant presence of large personal wealth companies may skew the data since they do not primarily focus on financing company startup and growth.

While dealmaker status is typically reserved for an individual who has 3+ experiences as an entrepreneur or investor, nascent Dealmakers are individuals with 2 equity positions. The latter category is included because, although they don’t currently generate dealmaker level impact, these are individuals who may indicate the capacity or inclination to become Dealmakers because they have two concurrent equity positions. These actors are of strategic interest because after playing an entrepreneur and/or investor role, they have chosen to do it again.

Concurrent equity position counts for individuals (excluding finance)

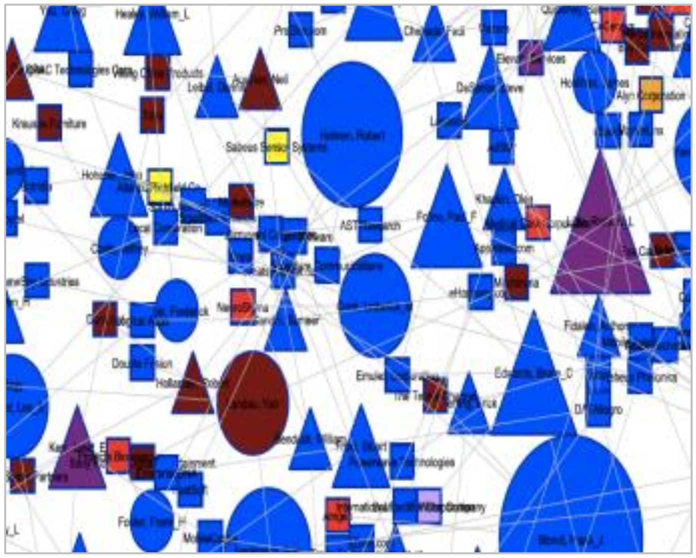
- At least 2 positions: 935 (Nascent Dealmakers)
- 3 positions: 171 (Dealmaker Status)
- 4 positions: 58
- 5 positions: 16
- 6 positions: 2 (Dealmaker Linchpin Status)

Concurrent equity position counts for individuals (including finance)

- At least 2 positions: 1431 (Nascent Dealmakers)
- 3 positions: 349 (Dealmaker Status)
- 4 positions: 140
- 5 positions: 57
- 6 positions: 29 (Dealmaker Linchpin Status)

In order to understand the connections between the individuals identified, the data was consolidated into network maps. The maps show individual-to-firm connections within the network. The square icons indicate companies; the circular icons indicate individuals that the Dealmaker approach classifies as primarily investors; and the triangular icons denote the individuals classified as primarily entrepreneurs. The general location of each figure (circle, square or triangle) approximates the degree of connectedness, with those closest to the center the most connected and those who are outliers, the least connected. See figure 2 for a closeup.

Figure 2: Snapshot Example of Insert from Dealmaker Maps



,Source: Commomweal, LLC, Chapel Hill, NC

The entrepreneur, investor and company information in the maps is color-coded by industry using Global Industry Classification Standard (GICS) designations. The color of the squares is set to match the color-coding key based on the industry affiliation of the company. The color of the icons representing individuals is determined by their most common industry connection. Table 3 lists the industries identified and the color designation for each

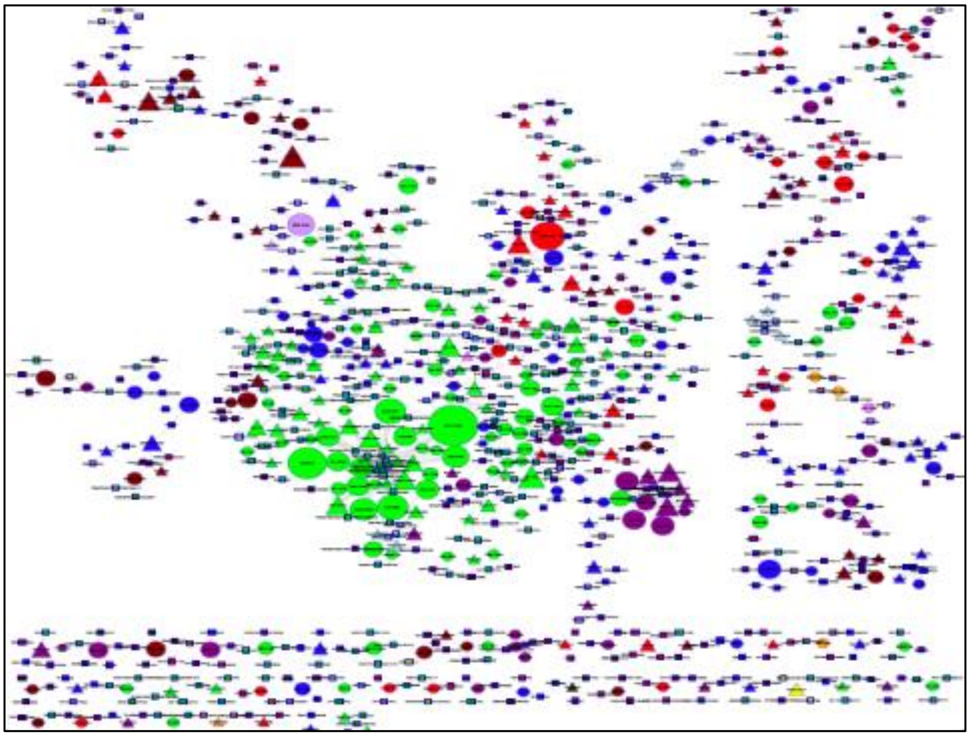
Table 3: Industry Classifications Used in Social Capital Maps

Blue	Information Technology
Red	Health Care
Purple	Industrials
Magenta	Telecommunication Services
Yellow	Energy
Orange	Materials
Maroon	Consumer Discretionary
Olive	Consumer Staples
Lavender	Utilities
Green	Finance

The map in Figure 3 shows a diversified entrepreneurial economy with evident concentrations in Information Technology (blue) and Health Care (red) as well as Consumer Discretionary (maroon) and Telecommunications (magenta). The Finance sector (green) is substantive and fairly well connected into the network.

Figure 3

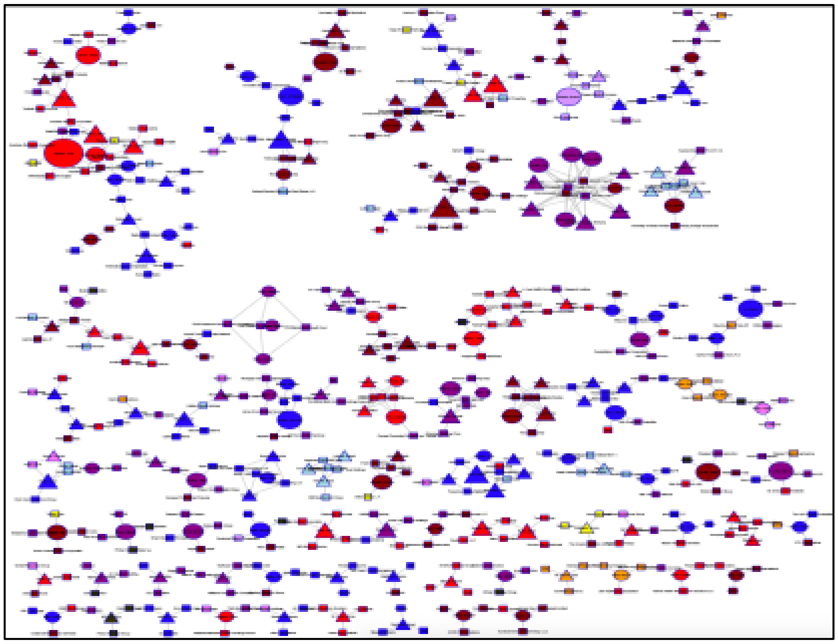
Tampa Regional 3+ Position Dealmaker Network Map (With Finance)



The several rows of actors at the bottom of the map shows a series of "lone wolf" entrepreneurs, investors and companies in the sense that they are not connected to the core network. From a regional innovation strategy perspective, one important goal moving forward might be to introduce new value generation and business growth potency into the core by crafting approaches to feeding the development of these unconnected actors and connecting them into the main network.

Figure 4 presents a view of the Tampa regional Dealmaker network excluding finance. Although there are a few small well-connected nodes in Health Care, Telecommunications and Consumer Discretionary, the bigger picture shows a sparsely connected network with a lot of actors.

Figure 4
Tampa Regional 3+ Position Dealmaker Network Map (No Finance)



Recommendations and Next Steps

First, in order to address the promising but still weak connectivity in information technology, health care, consumer discretionary and telecommunications, we intend to continue to mine the data to identify individuals that can be strategically involved in the ecosystem. Specifically, we suggest the following two key areas of focus for the coming year:

- Use the data to identify opportunities to find “lone wolf” investors and entrepreneurs who are not connected into the social capital network) and bring them into the network through strategic partnering, collaborative and mentor relationships.

- Use the data to identify individual mentoring candidates and expose them to quality deal flow and innovation insights in the network to help solicit their participation as mentors.

Second, to continue to address the more general connectivity gap in the ecosystem that was identified both last year and confirmed this year, we suggest a technology approach to enchance engagement among the key ecosystem players. Unlike many other regional entrepreneurial ecosystems, Tampa Bay is a large area with several independent economic hubs and significant water barriers. While there are many advantages to our geographically dispersed region, one disadvantage is a lack of connectivity. Historical challenges with public transportation have contributed to this problem. Technology can provide at least one solution. While we encourage continued focus on bringing groups together in spaces like the Lowth Center at UT and other similar entrepreneurship spaces, we believe that a technology solution can provide some relief and provide significant value to entrepreneurs and investors.

Conclusion

Tampa Bay presents a unique opportunity to examine an emerging and nascent ecosystem. Most research to date has examined more developed ecosystems with a goal of understanding how to replicate that system in other cities and geographic areas. By studying an ecosystem as it is emerging, there is an opportunity to impact, accelerate and improve the system while also paving a path for other cities to emulate.

The research presented last year provided a catalyzing moment and the subsequent innovation conference held in January, 2017 continued that momentum. This year we offer additional insight into the ecosystem with a new methodology that illuminates the structure of the regional entrepreneurial networks. As with last year's report, we conclude with a reminder of the opportunity we have before us to collaborate to grow Tampa Bay's entrepreneurial ecosystem. The momentum over the past year has been incredible and so we end with a quote from last year's report. We believe the tide is still high in Tampa Bay!

> *Two analogies are appropriate to conclude. First, entrepreneurial ecosystems are like social movements in that they are grassroots influenced and led and they thrive on collaboration and knowledge sharing and spillover. The complexity and likeness to a social movement, make it difficult, if not impossible, for an ecosystem to be fostered via public policy or money or incubator or any of the other ecosystem stakeholders alone. So, what makes a good social movement? A vision, lots of convening that keep the populace engaged and involved, and a strong mantra or brand (e.g. "the 99%"). In this*

research, when asked to use three adjectives to describe the Tampa Bay ecosystem, the authors heard that Tampa Bay's ecosystem is emerging, young, ill defined, ambitious, and growing – an opportunity that has not yet been realized. This is incredibly exciting for anyone who thinks like an entrepreneur. However, social movements fail without a catalyzing moment when the vision and reason for the movement become crystal clear to the group.

Interestingly, many catalyzing moments are constructed. By illuminating the progress and telling the Tampa Bay story, this research creates such as opportunity. To better understand, it is important to explain the etymology of the word opportunity. The word opportunity stems from Latin origin: ob (toward) and portus (port). The original term: Op-port-tu: referred to the time, before ports were dredged, when the captain and crew had to wait for the tide to rise to go in to the ports. Sailors used the phrase ob portus *to denote the best combination of wind, current, and tide to sail to port. However, the only way to seize such weather conditions was if the vessel's captain had already sighted the port of destination. Knowing the weather conditions without knowing the destination was useless. Therefore, a ship was in a state of opportunitas when its captain had decided where to go and knew how to get there.*

The analogy is especially valuable for this study. Tampa Bay is built around water and the findings of this research demonstrate that the region is very close to a state of opportunitas. Entrepreneurial ecosystems, like social movements, are created by and for the participants. Clarifying the vision and collaborating (or rowing) in the same direction, will take the ship to port. The tide is high, the time is now.