Angel Groups: Developing a Regional Economic Development Strategy for Robust Seed Capital Ecosystems for Entrepreneurs

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Angel Groups: Developing a Regional Economic Development Strategy for Robust Seed Capital Ecosystems for Entrepreneurs

Abstract
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Keywords
Entrepreneurship, Venture Capital, Angel Investing, Start-ups, Technology

Subject Categories
Entrepreneurial and Small Business Operations

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The purpose of this paper is to identify the link between the success of angel organizational structures and the economic footprint within which angel groups operate; ultimately suggesting a novel approach of assisting traditional angel group structures in their operations and entrepreneurs in the process of securing early stage financing. Given the varied angel group structures that exist, some angel portals may be more appropriate for certain regions than others. In-depth field research was developed and analyzed by creating the first undergraduate student-run angel investment fund, to co-invest with investors in the informal venture capital market, in the United States. The research presented in this paper will provide economic planners, educational leaders, and interested students with a potential guideline of how best to organize angel investors within their respective regions, ultimately building local investment capacity that will benefit state economies by creating better financing opportunities for entrepreneurs.
Introduction

Coined by University of New Hampshire Professor, William Wetzel in 1978, “angel” investors are wealthy individuals who provide capital for business start-ups. Within the past decade, many angels have organized themselves into angel groups/portals or angel networks to combine their investment capital, share due diligence, and cross fertilize between diverse business expertise for potential investment opportunities and deal execution. In early 2015, total investments in business start-ups valued $10.5 billion, a 4.1% increase year over year.¹ However, only 29,500 entrepreneurial ventures received angel funding, a 2.5% decrease from quarter 1 and 2 in 2014.² More individuals have become active angel investors, with a modest increase of 1.4% from quarter 1 and 2 in 2014, but the early stage equity market remains inefficient.³

The Center for Venture Research has identified three main reasons for the inefficiencies in the informal venture capital market; first, the invisibility of angel investors, second, the high search costs for both angel investors seeking investment opportunities and entrepreneurs seeking investors and third, an inadequate supply of capital.⁴ Entrepreneurs are still having difficulty finding angel investors and there is a lack of “investor” ready quality deals, in conjunction with an inadequate supply of capital, ultimately resulting in a primary seed gap. Simultaneously, the existence of a secondary post-seed gap, lack of access to capital as the venture capital industry shifts to later stage and larger deal sizes, is requiring angel investors to increase their investments and also

¹ Sohl, Jeffrey. "The Angel Investor Market in Q1Q2 2015: Modest Changes in Deals and Dollars."
² Ibid
³ Ibid
provide follow on funding. The shift of angel investors financing markets that the venture capital industry traditionally financed, is exacerbating the primary seed gap, the initial financing high-growth entrepreneurial ventures need to further pursue attractive business opportunities.⁵

**Figure 1**⁶

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Seed Gap</td>
<td>50%</td>
<td>52%</td>
<td>43%</td>
<td>55%</td>
</tr>
<tr>
<td>Secondary Post-Seed Gap</td>
<td>33%</td>
<td>35%</td>
<td>44%</td>
<td>43%</td>
</tr>
</tbody>
</table>

Although the angel market has adopted a handful of organizational structures and market mechanisms to improve the efficiency of quality deal flow and availability of capital, many angel groups are still seeing a discrepancy in capital readiness for most business start-ups; the U.S. Small Business Administration’s Small Business Development Centers (SBDCs) need assistance in best preparing entrepreneurs to enter the early stage equity markets; and universities are recognizing an increasing need to provide entrepreneurial hands-on learning experiences for students, as competing technology featuring sufficient and affordable online learning is threatening the future growth of traditional college learning. This paper will utilize previous research completed at the Center for Venture Research on the structures of the angel investing market, with respect to the various types of angel groups in existence today, to examine the efficacy of launching regional undergraduate student-run angel investment funds across the United States.

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States. The remainder of this paper is organized as follows: a discussion of the effectiveness of the types of angel groups that exist today, the potential to solve the most challenging aspects of these angel group structures, the opportunity to combine a student managed angel investment fund that assists with addressing these hurdles, and the basic course structure of the Rines Angel Fund, the group I led as the founding Managing Director of the first undergraduate student-run angel investment fund in the nation, which I co-founded alongside the current Director of the Center for Venture Research, Dr. Jeffrey Sohl.

Angel Groups

Challenges Facing Early Angel Groups

In 1984, the Venture Capital Network (VCN), a not-for-profit matching network affiliated with the Center for Venture Research launched as the first angel portal in the world. The purpose of the initiative was to make the initial introduction for accredited investors with entrepreneurs who were interested in raising capital. However, due to investment security regulations, VCN could only participate in the introductory process and not the subsequent procedures following the introduction. From the onset of the VCN other countries like Canada, the United Kingdom, Sweden, Denmark, Finland, Singapore, Australia, and Germany adopted angel groups appropriate for the early stage equity markets in their economic climates. As a result, from early research done on angel groups, several lessons were concluded and are valuable takeaways for the formation and development of angel groups today.
The four issues that hold relevance to today’s informal venture capital market are, investor membership, quality deal flow, funding and awareness.\(^7\) The networks in the identified countries mentioned previously had opposing strategies of attracting angel investors to join membership. The Matching-Palvelu group from Finland and the LINC group from the UK, two of the more successful groups in early networks created, conducted laborious investor recruitment through venture fairs and the media, unlike many other networks.\(^8\) The consensus of these networks was the difficulty in finding investors interested in joining and the amount of time it took to find the right members. Secondly, quality deal flow remained a consistent problem. “Either barriers to entry were low in submitting business plans or the business plans were not properly reviewed prior to submission.”\(^9\) The problem was not the inability for investors to get connected with entrepreneurs, but to find appropriate start-ups that were worth backing. Thirdly, funding to support general operations and marketing of these programs was very limited and also required again, significant labor to increase awareness of the groups. The combination of the amount of work it included to manage and market the groups and the negatively perceived value the networks had resulted in a lack of confidence among potential investors who sourced their own deals and leads.

**Current Angel Group Structures**

There are currently six angel group structures that have been researched on their efficacy and have been categorized depending on the following criteria: proportion of

\(^7\) Ibid.  
\(^8\) Ibid.  
\(^9\) Ibid.
total market investments, membership criteria, visibility, organizational structure, and percentage of latent angels. The primary goal of the six types of group structures is to increase the efficiency in the early stage market, increase deal flow for business angels and provide entrepreneurs access to angel capital. In the process of performing these functions, a variety of organizational structures exist to prevent timely expenses related to searching and evaluating investment opportunities, while also allowing the individual angel investors that comprise these groups their anonymity. The following chart represents where each angel group structure is positioned depending on the summary of characteristics they follow:

**Figure 2**

<table>
<thead>
<tr>
<th>Proportion of total market investments</th>
<th>Membership criteria</th>
<th>Visibility</th>
<th>Organizational Structure</th>
<th>Percentage of latent angels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matching networks</td>
<td>LOW</td>
<td>MED</td>
<td>HIGH</td>
<td>HIGH</td>
</tr>
<tr>
<td>Facilitators</td>
<td>MED</td>
<td>LOW</td>
<td>MED</td>
<td>LOW</td>
</tr>
<tr>
<td>Informal angel groups</td>
<td>HIGH</td>
<td>LOW</td>
<td>MED</td>
<td>LOW</td>
</tr>
<tr>
<td>Formal angel alliances</td>
<td>MED</td>
<td>HIGH</td>
<td>HIGH</td>
<td>HIGH</td>
</tr>
<tr>
<td>Electronic networks</td>
<td>VERY LOW</td>
<td>MED</td>
<td>HIGH</td>
<td>MED</td>
</tr>
<tr>
<td>Collection of individual angels</td>
<td>HIGH</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
</tr>
</tbody>
</table>

The proportion of total market investments is a measure that compares market share of individual investors and their investments to the amount of total investments.

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10 Ibid.
11 Ibid.
made in the greater angel investing market. Secondly, membership criteria constitute the type of criteria that angel groups require their members to follow as participants in respective groups. Therefore, a “low” rating specifies that members do not need to abide by minimum requirements to participate. While “high” ratings typically include “minimum yearly investment activity from members, and annual dues and/or contributions to an investment fund.”\textsuperscript{12} Visibility represents the recognition entrepreneurs and angel investors have of the existence of the group. The second to last criteria, organizational structure, varies widely. Those with “high” structure often include a “paid executive director, the election of officers, a formal investment committee and organization bylaws that govern the activities of the [group].”\textsuperscript{13} Lastly, the percentage of latent angels represent those members of the group who have the necessary net worth to participate in deals, but have never made an investment.

The angel group structures that are successfully addressing the previous challenges facing earlier angel groups like high membership criteria, strong visibility, and organizational structure, are matching networks and formal angel alliances. However, the consequence of successfully performing in these characteristics leads to a medium to high rating of latent angels and underperforming market share in proportion to the greater angel investing market. Evidently, there has yet to be one structure which has led to the correction of the inefficiencies that still exists in the informal venture capital market. The tradeoffs that exist in the six common structures of angel groups propose that the most successful angel groups, based off of high membership criteria, strong visibility, and organizational structure are still not addressing the inadequate supply of capital and

\textsuperscript{12} Ibid.
\textsuperscript{13} Ibid.
quality deal flow. The better deals members have access to, the lower the percentage latency of members would be and a higher market share of individual investments in comparison to the greater angel market.

The two angel group dynamics that are successful in proportion of total market investments and percentage of latent angels are surprisingly informal angel groups and collection of individual angels. The opportunity to combine iterations of matching networks, informal angel groups, formal angel alliances, and collection of individual angels, has significant potential to address “best practices” as opposed to “common practices” in the angel investing market. In doing so, launching an undergraduate student-managed angel investment fund at the University of New Hampshire, monitored by the Center for Venture Research, to assist a variety of angel group structures in the following attributes below (taken from the best characteristics of the current six models that exist) is taking best practices to improve the current market inefficiencies.

**Figure 3**

<table>
<thead>
<tr>
<th>Best Practices</th>
<th>Matching networks</th>
<th>Informal angel groups</th>
<th>Formal angel alliances</th>
<th>Collection of individual investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established connection to investor/entrepreneur community</td>
<td>Solve ‘back office’ functions</td>
<td>Voted decision making</td>
<td>Deal flow referrals</td>
<td></td>
</tr>
<tr>
<td>Pre-screening of entrepreneurs</td>
<td>Due diligence shared</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Face to face interaction</td>
<td>No stated minimum investment activity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Educational initiatives</td>
<td>Deal syndication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector diversification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consistent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Student-Run Funds

Much like the six varying structures that currently exist in the angel capital market, there are currently nine active student-run angel/venture capital funds in the United States. The following research was collected from the websites of these contrasting groups. The states that these groups represent are Missouri, North Dakota, Texas, Michigan, Washington, Utah, Massachusetts, New York, California, and Pennsylvania. More than 100 entrepreneurial ventures have been backed by the total nine funds listed below.

Student-Run Angel & Venture Capital Funds

   a. ACE started with $600,000 – launched in late 2010 ($50,000 grant from Kauffman Foundation and money from the Shelter Insurance Foundation and from university alumni donations).
   b. Purpose of the fund, completely student-run, is to identify and invest in potential high-growth startup companies in Missouri.
   c. Student application process required.
   d. A mix of graduate and undergraduate (various disciplines) students participate and meet over the school year twice a week in the classroom (program faculty adviser is an assistant professor of finance). Students learn investment strategies and become familiar with contracts, balance
sheets and due diligence procedures. Additionally, the students meet outside the classroom in meetings with entrepreneurs pitching ideas and with professional investors.

e. First deal done in April 2012 - $30,000 in a company called EternoGen.

f. Capital under management: not disclosed.


a. Established in September 2006 through a donation from the Dakota Foundation.

b. The Dakota Venture Group (DVG) is a University of North Dakota student-run venture capital investment fund.

c. DVG is the first completely student-run venture capital fund in the United States.

d. DVG provides students the opportunity to conduct due diligence, make final investment decisions, and negotiate deal term structure.

e. Tasks that members participate in include performing due diligence, structuring deals, valuating companies, and maintaining post investment relationships with portfolio companies.

f. Meetings are held each week and last approximately one hour.

g. Student application process, all majors are able to apply.

h. Investment strategy: making investments in high-growth ventures started by entrepreneurs in the United States, with preference given to regional and student initiated ventures.
i. DVG uses the application Gust to manage their investment processes. Plans submitted are only shared with members of DVG.

j. The Innovation Fund is DVG’s original fund that was started with the donation from the Dakota Foundation. It is set up as an Evergreen Fund, meaning all returns from investments are fed back into the fund, allowing it to continuously grow and facilitate more investment opportunities. The fund has also grown with additional donations.

k. The Innovation Fund is now reserved strictly for student ventures.

l. Harvest Fund Partners, LLC was organized in July 2009 as a new venture between DVG, Inc. and Evergreen Investment Management.

m. Harvest Fund I, LLLP (HFI) is the first ever, for-profit venture capital fund in the nation. This fund allows students to go through the fundraising process and investor relations.

n. HFI will be made up of high-growth, early stage ventures focusing on the primary sectors of region including medical, technology, and energy. Harvest Fund’s mission is threefold: Providing return on investment, providing economic stimulus to the region/country, and building future talent.

o. Partners, sponsors and benefactors:
   
i. Partners: DVG has partnered with other funds to help increase deal flow for viable opportunities for investment, job sourcing for student members, educational resources.
ii. Sponsors: DVG’s sponsors allow educational conferences to be put into place like the Annual Berkshire Hathaway Shareholders meeting, Red River Valley Research Corridor conference, Rain Source Capital meetings, University Private Equity Summit in Salt Lake City, UT and other venture capital related opportunities. In return, sponsors are featured in DVG’s publications and in event programming. DVG portfolio companies are also given substantial exposure to sponsors to develop business relationships and potential clientele.

iii. Benefactors: DVG invests in companies through a revolving evergreen fund. With this fund, all capital gains are reinvested into the venture fund and all administrative expenses are paid through sponsorships and donations. Individuals contributing to the Dakota Venture Group fund have a passion for economic growth in North Dakota and Minnesota. These entrepreneurial-minded benefactors also believe in the advantages and importance of experiential learning at the university level.


a. The Baylor Angel Network (BAN) is an investor network providing early stage capital to entrepreneurs with developed business plans.
b. BAN is part of Baylor University's Hankamer School of Business and operates at the discretion of Dr. Terry Maness, Dean of Hankamer School of Business.

c. The network is advised by a Board of Advisors and operated by an operations team of faculty, staff and students.

d. Since each angel agrees to contribute a portion of their profits, BAN provides a long-term revenue source for the Hankamer School of Business and Baylor University.

e. Junior business students are recruited from the Hankamer School of Business to serve as analysts. The analysts serve a one-year term during their senior year and carry out the day-to-day operations of the network.

f. Junior Analysts are required to assist the Senior Analysts and the Executive Director with daily operations, attend weekly staff meetings, the quarterly deal screening meetings, presentation meeting.

g. Junior Analysts need to take Entrepreneurial Finance before entering their senior year.

h. The Baylor Angel Network acts solely as a facilitator of the investment process by providing non-student members with a method to view, analyze and monitor investment opportunities. BAN does not provide members or others with investment advice and is not endorsing or offering prospective investment opportunities. Non-student members are solely responsible for the individual and independent investment decisions made.

i. Capital under management: not disclosed.

   http://wolverineventurefund.com/

   a. Founded in 1997
   b. 25-30 MBA candidates and MBA dual degree candidates manage the
      Fund’s sourcing, due diligence, investment operations through four
      technology and healthcare-specific teams
   c. Investment Criteria: further the educational mission of the Ross School of
      Business by actively involving MBA students in the VC investment
      process while also seeking ROI

   a. Social Venture Fund: Launched in September of 2009, the Social Venture
      Fund is the first student-led socially focused fund in the United States
   b. The Social Venture Fund focuses exclusively on for-profit social
      enterprises existing independently or within the legal structure of a pre-
      existing organization (LC3, 501c3, LLC).
   c. The Social Venture Fund invests $50,000-$250,000 in pre-revenue and
      post-revenue companies generating a profit and responding to critical
      challenges within education, food systems, environment, health, and urban
      revitalization. It is focused on businesses based in the United States and is
      particularly interested in plans for the Southeast Michigan/Detroit area.
   d. Capital under management: $7 million dollars

5. Washington University, St. Louis – Olin Business School – Skandalaris Center
   for Entrepreneurial Studies (Kauffman Center Originally Funded Center)

   http://www.olin.wustl.edu/EN-US/partners-

b. The SSVF is an MBA student-run, advisor-guided investment fund. In the class, students review deals, perform due diligence and present investment recommendations and reports. Course teaches practical skills allowing student engagement in angel investing, venture capital and buyout investing.

c. Students evaluate more than 25 investments each semester and present compelling investment opportunities to the Skandalalis Center Investment Committee for funding approval.

d. The SSVF provides up to $250,000 for students to invest in commercial ventures and private equity deals.

e. Capital under management: not disclosed.

6. Brigham Young University – Cougar Capital – Student Run Venture Capital Fund – [https://mariottschool.byu.edu/giving/other/cougarcapital/](https://mariottschool.byu.edu/giving/other/cougarcapital/)


a. Through fund raising efforts, donors provide the necessary funding to allow students in Cougar Capital the opportunity to co-invest alongside private equity firms in industry leading deals. These donations establish an
evergreen fund where all donated funds remain in perpetuity to benefit future MBA students.

b. Cougar Capital is composed of BYU MBA students. Students in the BYU MBA program that wish to participate in Cougar Capital must complete a course their first year in Essentials of Venture Capital and Private Equity. These students must then apply to be accepted into Cougar Capital. Cougar Capital is a limited enrollment, full-year applied experience for second year BYU MBA students.

c. Cougar Capital team members work directly with industry partners in sourcing deals and conducting due diligence. Partner firms provide clinical learning opportunities, mentoring and training in skill sets that enhance the MBA education. This interaction with industry partners provides Cougar Capital students with real world venture capital and private equity fund experience.

d. The student partners in Cougar Capital have the opportunity to learn how to source deals, conduct due diligence, structure investments, govern a portfolio and exit deals.

e. Industry partners benefit from the synergistic impact of having intelligent and capable individuals who can assist in the “heavy lifting” that is often required in complex transactions or in fast track deals.

f. A board of industry professionals and faculty from the University provides oversight and guidance to the student partners to better manage their
investments. Students present the proposed deal, including recommended funding, to the Advisory Board for final approval.

g. Cougar Capital is seeking to co-invest $25,000 to $100,000 with our industry partners and is flexible to the investment’s stage, industry and geography.

h. Capital under management: Not disclosed.


   b. Students raise money from actual institutional investors rather than just rely on charitable donations.

   c. By 2006, UVF was managing $18.2 million in assets, making it the largest student-run fund by assets under management in the country.

   d. UVF has made 24 investments in a diverse number of industries and stages.

   e. UVF has had eight successful exits including four initial public offerings.

   f. More than 400 students have participated in the program.

   g. UVF partners with well-known venture capital and private equity firms to provide college students with opportunities to perform real-time due diligence and engage in value-add projects.

   h. UVF provides services that include in-depth analyses of markets, industries and management teams; financial modeling and exit analysis; strategy and competitive analysis.
i. The University Venture Fund is currently comprised of graduate and undergraduate student associates from the University of Utah, Brigham Young University and Westminster College in Salt Lake City.

j. Current assets under management: not disclosed.

   a. Backed by venture capital firm, First Round Capital.
   b. Invests solely in student-run companies.
   c. Student founding companies must include at least one full-time students (undergraduate or graduation).
   d. Open to all student majors.
   e. Average investment size is $15,000 - $20,000 on an uncapped convertible note.
   f. Student investment teams based in New York City, San Francisco, Philadelphia, and Boston.
   g. Student founding teams are not restricted to a geographic location in the United States.
   h. Dorm Room Fund provides robust resources for portfolio companies including discounts and partnerships with premier service providers, public relationships, mentorship, industry events, national student network.
   i. Capital under management: not disclosed.

   a. Backed by venture capital firm, General Catalyst Partners.
b. Invests between $5,000 - $25,000 into student-founded technology start-ups

c. Investments are limited to the Greater Boston area colleges and universities.

d. Undergraduates, graduates, and MBA students all qualify to receive investment.

e. At least one of the main founders has to be a student.

f. Investment focus software and hardware technology.

g. Investment terms: convertible loan with no discount and no cap.

h. No follow on funding provided.

i. Capital under management: not disclosed.

**Research Findings**

**Figure 4**

<table>
<thead>
<tr>
<th>Entrepreneur Focus</th>
<th>Technology Focus</th>
<th>Geographic Focus</th>
<th>Financing</th>
<th>Investors status</th>
<th>Focus</th>
<th>Set-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE</td>
<td>Industry</td>
<td>Open</td>
<td>Missouri</td>
<td>Open</td>
<td>MBA, Undergrad</td>
<td>Angel</td>
</tr>
<tr>
<td>DVG</td>
<td>Industry</td>
<td>Open</td>
<td>North Dakota</td>
<td>Open</td>
<td>Undergrad</td>
<td>VC</td>
</tr>
<tr>
<td>Baylor</td>
<td>Industry</td>
<td>Open</td>
<td>N/A</td>
<td>N/A</td>
<td>MBA, Undergrad</td>
<td>Angel</td>
</tr>
<tr>
<td>Michigan</td>
<td>Industry</td>
<td>Open</td>
<td>N/A</td>
<td>Undergrad</td>
<td>MBA, VC</td>
<td>N/A</td>
</tr>
<tr>
<td>SSVF</td>
<td>Industry</td>
<td>Open</td>
<td>N/A</td>
<td>MBA</td>
<td>VC</td>
<td>Course</td>
</tr>
<tr>
<td>BYU</td>
<td>Industry</td>
<td>Open</td>
<td>Open</td>
<td>MBA</td>
<td>Angel, VC</td>
<td>Course</td>
</tr>
<tr>
<td>UVF</td>
<td>Industry</td>
<td>Open</td>
<td>Open</td>
<td>MBA, Undergrad</td>
<td>VC</td>
<td>Institutional</td>
</tr>
<tr>
<td>Dorm Room</td>
<td>Students</td>
<td>Open</td>
<td>Open</td>
<td>Convertible Note</td>
<td>N/A</td>
<td>Seed</td>
</tr>
<tr>
<td>RoughDraft</td>
<td>Students</td>
<td>Software</td>
<td>Boston area</td>
<td>Convertible Note</td>
<td>N/A</td>
<td>Seed</td>
</tr>
</tbody>
</table>
Using the information that was publicly available on each student-run fund, I identified seven characteristics that defined how each fund operated: entrepreneur focus, technology focus, geographic focus, type of financing, type of investors, capital market focus, and fund set-up. Entrepreneur focus relates to who the specific funds are backing. An overwhelming majority of student-run funds are not restricted to only investing in student led ventures, more specifically 78% of funds are meant to invest in the greater entrepreneurial ecosystem. While only two funds, Dorm Room and RoughDraft Ventures are student-led venture specific, catering to student entrepreneurs who are looking for capital to begin their ventures, while maintaining student status.

**Figure 5**

Next, “technology focus” is the characteristic defined as what sort of technology do these student-run funds focus their investments in. Nearly 90% of student-run funds are open to investing in any sector/industry, except for RoughDraft Ventures which has a strong focus in software and hardware. The benefit all student-run funds have recognized is the educational exposure students will have in a variety of disciplines, preventing one
particular sector/industry from dominating the investment focus of any one particular fund.

**Figure 6**

![Technology Focus](image)

The third characteristic, “geographic focus,” pertained to the location where the funds focused their investments in. The data collected on this criterion was evenly split between funds who had locations where they specifically focused their investments in (Missouri, North Dakota, and the Greater Boston area), while the other third had the capacity to invest in any geographic location in the United States.

**Figure 7**
The fourth characteristic, “financing structure” relates to the type of financing the funds are providing to entrepreneurial ventures. 45% of funds are open to either equity or convertible debt, while 22% focused solely in providing convertible debt (RoughDraft Ventures and Door Room Fund).

*Figure 8*
The fifth characteristic, investor status reflects what type of student(s) are managing the fund, whether they are solely undergraduate, pursuing a graduate degree (typically a Master in Business Administration), or the combination of both undergraduate and MBA. Two of the total nine student-funds from the data are solely open to undergraduate students, while three were solely focused on MBA students. Two programs had the combination of both undergraduate and MBA students involved in their funds; the two of those programs being the Allen Capital Education (ACE) program and the University Venture Funds group.

Figure 9

The sixth characteristic, “stage focus”, is the most important to the research findings. I identified that only two out of the nine funds are solely focused on the angel investing market, with the most organizational structure completely set-up as a student-managed fund being the Allen Capital Education (ACE) program. In comparison, 45% of the other student-managed funds are venture capital focused and invest larger amounts of capital, typically lead the deals, and rarely co-invest with industry partners. These
programs are primarily focused on the educational experience, and second, financial returns.

Figure 10

![Stage Focus Pie Chart]

The seventh and final characteristic, “set-up,” relates to the type of entity the student-managed funds identify as. Three programs are registered as official courses, while the remaining funds are either financed by institutional investors or are venture backed by prominent venture capital funds.

Figure 11

![Set-up Bar Chart]
Research Implications

Despite the growing trend of student-managed angel/venture capital funds, there lacks a fund whose specific focus is assisting the systemic market inefficiencies and both the primary seed gap and the secondary post-seed gap. As identified in Figure 3, the combination of the best characteristics from the six angel groups in existence today, there is significant opportunity for a student-run fund that solely focuses on angel investing and filling in the need that exists regarding “investor readiness of entrepreneurs,” an established connection to the investor/entrepreneur community, and one that solves the burden of angel groups’ ‘back office’ functions.

Birth of Millennial Angel Investors & Entrepreneurial Opportunities

In 2007, the Kauffman Foundation published data regarding the profile of angels in groups. The median number of years these angels had been investing was 9, the median years they led as entrepreneurs was 14.5 years, the median number of ventures they founded was 2.7, and the median age was 57 years old.¹⁴ However, a new trend has been gaining traction, the growing population of millennial angel investors. In a Forbes article published in 2015 titled, The Emergence of Millennial Angels, Christina Bechhold, co-founder of Empire Angels in New York City was quoted:

“I’ve found that younger angels have a variety of motivations for investing—from a desire to leverage their experience and network to learning the ins and outs of early stage companies, to finding a new job or meeting other driven people their age. Since

they typically invest in peers, there is a strong spirit of cooperation, support and eagerness – anything from building a financial model to tracking down an introduction. It’s a unique dynamic that I think both angels and the founders they invest in find engaging and valuable.”

Several arguments in the same article anecdotally reference the fact that “younger angels value speed” and executing deals quickly. Even more interestingly though, and this is what truly separates them from the traditional profile of the stereotypical angel investor, is the fact that Millennial angels have time on their side, therefore, quick exits are not the main concern, allowing these individuals to take on greater risks in their investments. The oldest Millennials will turn thirty-five this year, and many of them have experience as entrepreneur’s at this age because they have gained experience through work and develop insight into a particular industry or business opportunity. Simultaneously, in conjunction with the adoption of angel investing by individuals much younger than 57, the emergence of Millennials and the aging of Baby Boomers are shaping the future of the United State’s entrepreneurial and economic climate. In the figure below representing new business creation from 1978 – 2012, on a volume and population bases, the age group of 25 – 54 is on an upward trend, in comparison to the “working age” decline.

Figure 12
However, overall, the rates of business creation have been slowing across the United States.\textsuperscript{15} New business creation peaked in 2006, then plummeted 31\% in 2012; in 2012, it remained 27\% below the 2006 peak.\textsuperscript{16} According to data presented in the \textit{Kauffman Foundation State of Entrepreneurship Address}, Americans in their fifties and sixties have traditionally started new ventures at a faster pace over the last decade, while that pace has continuously slowed among Americans in their twenties and early thirties.

\textit{Figure 13}


Millennial exposure to entrepreneurship in the college environment has been expanding. In fact, entrepreneurship has been the fastest-growing curricular, co-curricular, and extracurricular activity on college campuses\textsuperscript{17}, reference Figure 14.

\textit{Figure 14}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure14.png}
\caption{Rise of Entrepreneurship Education on Campus}
\end{figure}

\begin{itemize}
\item 1975: Colleges/universities offered around 100 formal majors, minors, and certificates in entrepreneurship\textsuperscript{78}
\item 1.5 percent of college freshmen report to want to own a business\textsuperscript{79}
\item 1985: About 250 courses in entrepreneurship\textsuperscript{80}
\item 2000s: Colleges and universities are receiving major endowments for entrepreneurship education\textsuperscript{81}
\item 2008: More than 5,000 entrepreneurship courses
\item More than 400,000 students a year take them
\item Around 9,000 faculty members teach entrepreneurship\textsuperscript{82}
\end{itemize}

However, research on the impact of this increase in entrepreneurial opportunities is limited. The Kauffman Foundation has suggested that Millennials have high levels of educational attainment – and that will mean creation of stronger businesses; more education does appear to lead to greater entrepreneurial success.\textsuperscript{18} However, there are several external factors shaping the pessimistic outlook about the entrepreneurial future of Millennials. The changing financing structures surrounding higher education, paired with the negatively impactful effects of the Great Recession have reduced Millennials’ overall wealth, in addition to limit their capacity to gain relevant industry experience – are two factors that play significant roles in entrepreneurial entry and entrepreneurial success.\textsuperscript{19}

Although educational attainment is supporting Millennials to start their own businesses, it is increasingly getting more expensive. In conjunction with students experiencing significant amount of student debt, it is simply becoming the matter of younger Millennials not being able to afford becoming entrepreneurs. The labor market for post-graduating college students has been exceptionally weak for Millennials, with high rates of unemployment and underemployment.\textsuperscript{20} A continuous cycle of poor job prospects with lack of skills required has driven many students back to school, further delaying asset accumulation among Millennials and postponing entrepreneurial desires.


\textsuperscript{19} The Ewing Marion Kauffman Foundation. 2015 Address StateOfEntrepreneurship (n.d.): n. pag. Web.

Additionally, online learning has become an increasingly attractive, cost-effective, solution to this problem, but there is still a lack of hands-on learning required to help Millennials become more prepared to enter the entrepreneurial ecosystem in these settings as well.

**Small Business Development Centers (SBDCs)**

Small Business Development Centers are a nationwide network that provide free consultation to businesses of all types at all stages. On SBDC’s website, they claim there are currently 900 service sites located across the U.S., new businesses are opened by an SBDC in-depth client every 33 minutes; a new job is created in the U.S. by an SBDC in-depth client every 7 minutes; $100,000 in new sales are generated by SBDC in-depth clients every 4 minutes; and $100,000 in capital is obtained by SBDC in-depth clients every 15 minutes. “By supporting business growth, sustainability and enhancing the creation of new business entities, SBDCs foster local and regional economic development through job creation and retention.”

In 1975, William Flewellen, Jr. (of the University of Georgia) and Reed Powell (of the California state Polytechnic University at Pomona) both of whom served on the United States Small Business Administration National Advisory Board, realized a need for a program that “combines the resources of higher education, government and the private sector to support the development of small businesses.”

By 1989, after several pilot initiatives were established and universities added to the network, President Carter signed legislation enacting the Small Business Development Center network into law.

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The SBDC has several educational, consultation, and other support benefits to help entrepreneurs start/grow businesses. The SBDCs are made up of a collaboration of SBA federal funds, state and local governments, and private sector resources. The following services provided by SBDCs are: development of business plans; manufacturing assistance; financial packaging and lending assistance; exporting and importing support; disaster recovery assistance; procurement and contracting aid; market research services; aid to 8(a) firms in all stages; and healthcare information. There are currently 63 SBDC hosts who serve a wide range of populations including but not limited to, veterans, minorities, active duty, disabled personnel, personnel with disabilities, youth entrepreneurs, as well as individuals in low and moderate income urban and rural areas. A majority of the 63 sites are university sponsored, more specifically, 76% of locations are houses in academic settings. Since 1990, the U.S. Congress has required all new SBDCs be hosted by institutions of higher education or Women’s Business Centers.

**Implementation**

*Course Description:*

The Mel Rines Student Angel Investment Fund (“Rines Angel Fund”) is a cross-disciplinary, undergraduate, student-managed angel investment fund. It is the first undergraduate student-run angel investment fund to co-invest with angel groups in the United States. The fund allows students at the University of New Hampshire to learn angel and venture capital investment strategies through the first-hand experience of investing in start-up companies. Students will learn about angel and venture capital

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22 Ibid.
investment strategies through a balance of angel investing research conducted at the Center for Venture Research, deal flow generated from actual companies seeking funding, and industry experts. Students will learn how to perform pre-screening duties, complete due diligence, structure investment contracts, and monitor portfolio holdings.

I. **Objectives:**

The objectives of this course are to:

- Provide students with a comprehensive understanding of the procedures involved in early stage investing, with a concentration on the processes needed to secure start-up capital from the perspectives of angel investors.
- Present students with a balanced perspective of early stage investing from the viewpoint of entrepreneurs and angel investors to better understand both sides of a deal.
- Introduce students to ambitious entrepreneurs and angel investors to directly learn about their experiences raising capital and funding high-growth ventures.
- Pursue attractive investing opportunities to further grow the Rines Angel Fund.

II. **Course Design:**

The design of this course is unique in terms of the content as well as the opportunities presented to the students:

- **Multiple Perspectives:** Students will learn from the perspectives of entrepreneurs and investors, understanding the risks associated in both positions and the potential rewards.
- **Functional Foundation:** Professional mentors, investors, entrepreneurs, and the Center for Venture Research will present topics covering areas such as financial
analysis and due diligence to provide all students with a foundational approach and introduction to functional skills necessary for private equity investing.

- **Decision Orientation**: The course deliverables, professional mentors, and guest speakers will emphasize decision making and learning by doing. Students are required to perform quantitative and qualitative analyses to evaluate investment proposals, and to present their analyses to an investment committee of experienced investors.

- **Real World Investing**: Students will learn how to source, evaluate, value, structure, negotiate, support, and harvest deals. This is the major focus of the Rines Angel Fund.

**Key questions answered within the course include:**

- When to raise outside capital?
- What kind of investors invest by stage and where to find them?
- What are the fundraising options?
- What are the key components of the term sheet?
- How to perform company valuations?
- How to pitch to investors?
- What techniques help the entrepreneur ‘get to the close’?

**Students:**

- Manage all operations of the Fund
- Manage relationships with investment partners
- Regularly attend monthly angel group meetings
• Source investment opportunities
• Perform due diligence
• Make investment decisions
• Guide transactions through closings

**Financial Investments:**

Providing capital in Seed and Series A fundraising needs, the Rines Angel Fund co-invests $5,000-10,000 in high-growth ventures alongside industry partners non-restrictive to one particular type of financing.

**Industry Partners**

The Rines Angel Fund conducts independent due diligence on behalf of its industry partners. After due diligence is completed, the angel groups and boutique venture funds allow the Rines Fund to co-invest in promising ventures. The Rines Angel Fund is partnered with eCoast Angel Network, 10X Venture Partners, Northeast Angels, First Run Angels, Maine Angels, Maine Venture Fund, New Hampshire High Tech Council, and Small Business Development Center.

**Preparing Entrepreneurs**

Many start-ups need help preparing for investor presentations. There are many resources online that guide these start-ups. However, the Rines Angel Fund invites pre-screened companies to present to the Fund’s associates, who ultimately complete due diligence on potential investment opportunities. Once due diligence is completed, it gets shared with these entrepreneurs and the greater investor community. The benefit is two-fold, the entrepreneurs are receiving valuable feedback and angels/VC’s are seeing better higher quality deals with in-depth research to support potential investment opportunities.
Working With Angel Groups to Make Better Investment Decisions

Good due diligence takes time. Many angel groups lack staff support to conduct the necessary due diligence required when investing in start-ups. The Rines Angel Fund coordinates a team of cross-disciplinary students, from a variety of colleges at the University of New Hampshire, to help angel groups in conducting due diligence on a variety of companies operating in different sectors/industries.

Providing Students with Hands-On Experience

The Rines Angel Fund allows students to take what they are learning in a variety of classes and apply it to real-life situations. They are tasked with understanding, in-depth, a variety of industries, finding great entrepreneurs, sourcing attractive deals, co-investing alongside 50+ investors in the greater tech community, while measuring and consulting high-growth start-ups. The Rines Angel Fund is a highly selective year-long four credit course at the university; students must successfully complete an arduous application and interview process to be accepted into the Fund as an associate. As students further develop their skill-sets as associates, more time intensive leadership positions are available.

Principals:

The Principals in the Rines Angel Fund will be integral to the success of the organization; they will engage in a broad range of work including: leading due diligence reports, tracking deal flow, supporting the fund’s investment process, and representing the fund at various investor meetings and industry events.

Associates:
All new student members of the fund will enter as Associates. Associates will support Principals by conducting due diligence, market research, and trend analysis. Associates are led by Principals and work closely with other Associates in small groups. Members that are interested in taking on unique leadership opportunities and more responsibility are strongly encouraged to apply for the “Principal” position. Applications are made available at the start of every semester.

Figure 15

INVESTMENT PROCESS

Deal Sourcing
- We source deals through industry partners, tech events, pitch competitions, and word of mouth in the greater Boston community

Due Diligence
- 30 undergraduate students from a variety of majors learn and take part in the due diligence process of evaluating prospective investments
- Our due diligence is a value-add for our partners who share our reports with the greater capital ecosystem

Investment Decision
- Student teams perform due diligence and make a final investment recommendation
- The deal is sent to the Rines Fund Directors and Investment Committee to finalize the investment decision

Measure and Consult
- Once an investment is made, we can connect our portfolio companies to value-added services from UNH and the Paul College of Business and Economics

Conclusion

The formidable resources available at the Center for Venture Research have provided the necessary tools of launching the first undergraduate student managed angel
investment fund, the Rines Angel Fund, to address the current hurdles the informal venture capital market is attempting to overcome. The six different angel group structures that exist have a multitude of benefits and downsides, however, some may work better in parts of the United States than others. Despite the different structures though, there still lacks enough quality deal flow, investor ready entrepreneurs, and plentiful funding for group operations. The costly nature of improving awareness of business angels and angel groups in the community, the many options entrepreneurs have in attempting to secure an angel investment, while angel funding increasingly getting more difficult to raise as the primary and secondary seed gap expand, is increasingly making entrepreneurial ecosystems less efficient as opposed to more.

After conducting research on current angel group structures, analyzing what aspects are most attractive from matching networks, informal angel groups, formal angel alliances, and collection of individual investors, it became evident that including universities and America’s Small Business Development Centers was an attractive entry point for students to gain unique skill sets and entrepreneurial drive. Founding the Rines Angel Fund and rolling it out in the Greater Boston area has set stage for a replicable model to be formed across the country. Students gain hands on educational experiences and significant entrepreneurial exposure, more so than any other business class that could ever be taught, by allowing them to directly interact with entrepreneurs and investors to source high quality deals as potential investment opportunities. The SBDCs and angel groups are two structures that already exist but are very separated in expectations. Although the SBDC may provide assistance to entrepreneurs regarding what is expected from angel investors; having these entrepreneurs come into the Rines Angel Fund to give
a formal presentation and also receive a constructive due diligence report including in-depth quality research from a selective group is allowing them to become more “investor ready.” Additionally, serving as a pre-screening method for many of these angel groups that exist, while also completing the very timely process of due diligence, is significantly decreasing the cost of ‘back office functions.” Lastly, as the Rines Angel Fund’s capital under management expands, the potential to open chapters across the country to assist in developing this model and/or initiative, similar to how SBDC expanding early on, will have a direct positive impact on improving early stage equity financing of entrepreneurial ventures and the creation of high-growth companies and job opportunities.