



## **An On Campus Student Incubator**

The Catalysts for Enterprise Development at the Confluence  
The Catalysts for Intellectual Capital 2020  
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### **Abstract.**

The United States has an environment ideal for entrepreneurship. Initiatives from the President and non-profits such as the Kauffman Foundation support this claim. Universities can serve as centers for entrepreneurship because of their unique resources and ability to attract talented individuals. Students in particular should be the main focus of those wishing to stimulate entrepreneurship. This is due to their sheer numbers in comparison to faculty and their cognitive diversity. Examples of successful entrepreneurship programs targeted at students can be found at SUNY Albany, Syracuse University, and Binghamton University. Due to these factors and the information available, it is recommended that Binghamton University create a student incubator on main campus in order to stimulate the local economy and provide hands on experience in entrepreneurship to its students.

*Keywords:* startup development, alumni entrepreneurship, student entrepreneurs, external incubator networks

*Binghamton Keywords:* main campus incubator, S3IP

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### **I. INTRODUCTION**

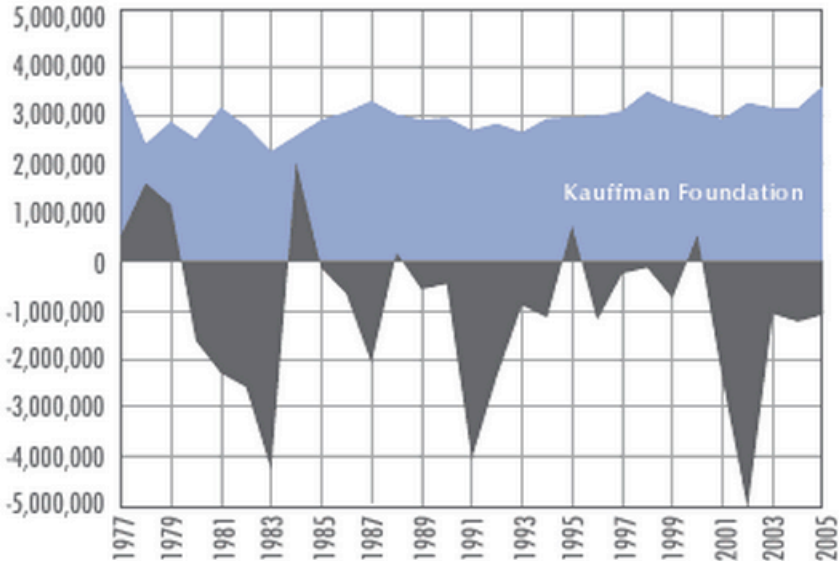
There is currently a national push toward entrepreneurship. Unemployment is on the rise and the prospect of outsourced jobs can be unsettling to many Americans. President Obama has recently implemented a program known as Startup America

focused on developing entrepreneurial ventures (“Startup America Partnership”). This is very understandable as startups account for the net growth in jobs in the U.S. (Kane). Universities like MIT and Stanford are often praised for the amount of startups these universities generate annually. Thus, universities can be seen as centers of innovation and startup development. Furthermore, it is important to look at the effect student and alumni entrepreneurship in particular has on the economy. One paper states that of 96 companies started at Ludwig Maximilians Universität in Germany, approximately 80 percent located within roughly 12 miles of the campus. Also, just due to the sheer number of students compared to faculty ratio, it is the students and alumni we must focus on as the majority of future entrepreneurs (Astebro and Bazzazanian). This paper aims to look at the feasibility of promoting entrepreneurship at Binghamton University through an on campus incubator to the point that the university’s startup numbers also blossom.

**II. The Role of Entrepreneurship in the Economy**

Startup firms are largely responsible for job creation in the United States. Firms in the startup phase created 3.5 million jobs in 2005. On the other hand, firms, which had been started in 1995, created only 355,000 jobs in 2005. Furthermore, these older firms had losses of 422,000 jobs that same year as seen in figure 1 below (Kane). Thus, older firms tend toward job loss, while startups tend toward job creation. To be fair, startups do not really lose jobs before their first full year as they are still in their startup phase. On average, startups create 3 million jobs per year while all older firms lose 1 million jobs per year (Kane).

Figure 1:  
Job Creation: Start-ups vs.  
Existing Ventures



Data reporting the impacts of startups and older firms might surprise a lot of individuals. Often, large firms are seen as the ideal place to work for stability. However, the amount of jobs they lose annually points to a different story. Furthermore, since startups account for the country's net job creation, they must be seen as a driving force of the economy. Since all companies tend to eventually decline and shutter, startups can be seen as absolutely crucial to our economy's health. Even with their initial boost of jobs, startups also decline in job creation in their later years (Kane). Thus, a drive toward a constant churning out of startups must be made in order to keep the economy growing.

### III. Universities as Centers for Innovation and Entrepreneurship

Universities like MIT have long encouraged startup ventures from their alumni. One paper estimates that MIT has produced more than 10,000 startups since 1970. Source: Kane, Tim. "The Importance of Startups in Job Creation and Job Destruction." *Kauffman Foundation Research Series: Firm Formation and Economic Growth* (2010): n. pag. Web. 26 Mar 2011. These startups are located in close proximity to their universities. (Source: Kane, Tim. "The Importance of Startups in Job Creation and Job Destruction." *Kauffman Foundation Research Series: Firm Formation and Economic Growth* (2010): n. pag. Web. 26 Mar 2011.) Of those that responded, 17.9 percent said they had started at least one company (Hsu, Roberts, and Eesley). This number is certainly higher than the national rate of 340 of every hundred thousand Americans starting businesses monthly (Fairlie). Thus, MIT has served as somewhat of a breeding ground for entrepreneurs.

On the other hand, universities are a minority in sources of entrepreneurship (Hsu, Roberts, and Eesley). Typically, entrepreneurship stemming from universities is seen as inventions by faculty turning into business ventures. University inventions are often embryonic and this leads to commercial uncertainty (Chukumba and Jensen). This refers to inventions created through research by professors and faculty members. However, universities are a source of knowledge spillover (Hsu, Roberts, and Eesley). Essentially, this means that universities create knowledge, which is transferable to areas such as industry. In fact, university created knowledge is most often transferred to the private sector through non-commercial means (Hsu, Roberts, and Eesley). Thus, in order for a university to serve as a center for entrepreneurship, it must transcend its reliance on faculty inventions for startups.

### IV. Student Entrepreneurs

According to Astebro and Bazzazian, most local startups affected by universities are founded by alumni and not faculty or researchers. This is based on the fact that

students outnumber faculty each year and that this ratio grows every subsequent year a professor is at the university. In fact, one study revealed that of students at MIT from 1997 to 2004, 24 percent went on to start businesses (Astebro and Bazzazian). To put this in perspective, the 2010 – 2011 undergraduate enrollment was 4,299 students (“Massachusetts Institute of Technology”). This would mean that, if enrollment numbers have stayed roughly the same, in 1997 to 2004, there were approximately 1,031 student-based startups per year. In contrast, only 23 spin-offs, or research-based startups, were registered to MIT faculty and staff in 2006 (Astebro and Bazzazian). These numbers clearly show that even at one of the most entrepreneurial universities in the nation, students and alumni lead in entrepreneurship.

## **V. Business Incubators and Their Services**

The purpose of a business incubator is to target new and existing start-up ventures and provide them with services designed to help them grow. It is much like an incubator used for baby chicks; fledgling businesses are given what they need to “hatch, grow, and leave.” Business incubators are necessary for many start-ups in order to compete with existing companies because of their often-limited financial resources. One paper classifies services provided by business incubators into three categories. These categories are facilities related counseling services, counseling and business assistance related services, and accessibility to incubator networks (Abduh, D'Souza, Quazi, and Burley 74-91).

The first category of these services, facilities related counseling services basically refer to space provided to the start-ups. This can include meeting rooms, conference rooms, and shared office services and equipment. Having a physical address for a business can serve to improve the business’s credibility. All of this is often provided at well below the market rate. Thus, just by providing these services, entrepreneurs are able to reduce cost and save time as the legwork for acquiring these services is done by the incubator (Abduh, D'Souza, Quazi, and Burley 74-91).

Incubators also provide services known as counseling and business assistance related services. Services in this category can include help writing a business plan, accounting, sales and marketing advice, and legal advice. These services are a crucial part of the incubator package as small businesses may not have been able to afford them on their own. Many incubators will also provide workshops, seminars, and courses on entrepreneurship related topics. Business incubators can also act as brokers for the businesses by helping to facilitate meetings with potential investors (Abduh, D'Souza, Quazi, and Burley 74-91).

Finally, businesses in incubators gain access to internal and external incubator networks. One main way to increase access to networks is through the use of shared meeting and conference rooms and shared cafeterias in the incubator. Clients of the incubator (start-up owners) can network and interact with one another in these areas. By sharing their experiences with one another, the incubator’s clients can reduce their feelings of isolation. Furthermore, networking with one another can help the clients gain access to unique opportunities they may not have had otherwise. Clients may also

save time by using these networks to find connections that are relevant to their businesses (Abduh, D'Souza, Quazi, and Burley 74-91).

## **VI. BEST PRACTICES: IMPLEMENTING AN INCUBATOR IN BINGHAMTON**

The focus of this paper is to make the case for a business incubator on the main campus at Binghamton University. The next portion of this paper will lay the groundwork for the prospect of an incubator at Binghamton University by examining best practices of existing incubator related programs. First, we will look at universities, which are considered comparable to Binghamton University and have established incubators on their campuses. Then, we will examine what practices related to an on campus incubator are already in place at Binghamton University. This will show that there is not only a place for an incubator on main campus at Binghamton University but also that the groundwork for one has already been laid.

### ***A. State University of New York at Albany***

The State University of New York at Albany or SUNY Albany can be considered a comparable school to Binghamton University. Both schools are research universities and members of the SUNY system. They have a comparable number of students, with 17,635 at SUNY Albany and 14,412 at SUNY Binghamton. Both universities are located in relatively small cities. Albany has 95,539 residents while Binghamton has 44,729 residents (Wolfram Alpha). Other similarities include their location in central New York and reputations as top public schools.

The East Campus of SUNY Albany houses a high-tech business incubator. The facility is located in one of the four wings of the campus' 384,000 square foot main research building. Start-ups housed in the incubator pay for access to the university's research facilities. They also receive access to office space, laboratory space, conference facilities, and support services. Tenants also have access to the University at Albany's Small Business Development Center, which is housed on Albany's Harriman campus. The incubator also cooperates with other incubators around the area through the Tech Valley Incubator Network. The incubator also offers monthly workshops as a mentoring program for bioscience entrepreneurs and inventors. (University at Albany State University of New York). The main focus of this incubator seems to be on the researchers and companies; not students.

### ***B. Syracuse University***

The Whitman School of Management at Syracuse University offers many programs focused on entrepreneurship. Their department of Emerging Enterprises and Entrepreneurship is the main academic arm of entrepreneurship at Syracuse University. US News & World Report ranked the program as ninth in the nation for undergraduate entrepreneurship programs in 2009. Some goals of the program include

allowing graduates to create startups, work for innovative companies, become social entrepreneurs, and become entrepreneurs in the public sector. Entrepreneurship students at the Whitman School of Management also receive many opportunities while they are still at the university. These opportunities include entering business plan competitions, consulting small business, developing business models, creating a business plan, and performing entrepreneurial audits. While Syracuse University has a very strong academic entrepreneurship program, it also offers ways to gain hands on experience in entrepreneurship (Syracuse University).

**a. *Couri Hatchery***

The Couri Hatchery at Syracuse University is a great way to gain hands on experience in entrepreneurship. The Hatchery is focused on promoting and supporting business development to entrepreneurial students across the Syracuse University campus. The Couri Hatchery is a main campus incubator open only to students. The incubator provides many services to its occupants. These services include office space, prototype production, accounting support, legal support, engineering support, design advice, and many other services. These services are provided for free or at low-cost to student entrepreneurs. Students can also take advantage of the large Syracuse University alumni network. Other opportunities for student entrepreneurs involve collaboration with local entrepreneurs; gaining access to research assistance, management expertise, facilities, and technologies. Some businesses which have emerged from the incubator include Wholesale Jewelry Liquidators, Funk N' Waffles, and Brand-Yourself.com (Syracuse University).

**b. *Panasci Business Plan Competition***

Syracuse University also hosts a campus wide business plan competition known as the Panasci Business Plan Competition. Entrants can be from any school or program at Syracuse University. Outside individuals can also participate as long as the team leader is currently enrolled at Syracuse University. Syracuse University faculty from the Emerging Enterprises and Entrepreneurship program offer assistance to the students in building their business plans. Students can also attend sessions for additional assistance with law and accounting firms that are partnered with the university. Criteria for the winning business plan include the best potential for growth and ability to attract outside financing. Four prizes are awarded to teams. The late Henry A. Panasci finances first, second, and third place. They receive \$25,000, \$10,000, and \$5,000 respectively. The fourth prize is known as the Fetner Prize in Sustainable Enterprise. This prize is awarded to the team with the most potential for a positive impact on society and the environment. The winner of this prize receives \$5,000 (Syracuse University).

**c. *Binghamton University***

Binghamton University is a research university with many programs that aim to cultivate entrepreneurship. The university's technology transfer program shows many

ways that the university is already supporting small businesses in the area. The Small Scale Systems Integration and Packaging Center or S3IP conducts research at the university. S3IP also has made available advanced diagnostics architecture to businesses in the area. Companies who sign the S3IP External Agreement are told that the university will not claim ownership over their research solely because of their use of the facilities (Binghamton University State University of New York).

a. ***Botnick Entrepreneurship Competition***

Binghamton University also has a class on Entrepreneurship. In this class, about thirty students form teams to create business plans. The class is usually fairly diverse and somewhat difficult to get into as a student not in the School of Management. At the end of the semester, participants present their business plans to judges and potential investors. Through the Botnick Entrepreneurship competition the winning team receives prize money; \$2500 initial seed money to the winner and an additional \$2500 if the business is operating in Broome County in a year. Students have created many interesting ventures through this program. According to the professor of this course, Angelo Mastrangelo, one business that came out of this class, VirtuSphere, is now very successful. Their innovative product has been accepted by Six Flags as a new attraction. If this class could cater to a larger number of participants, even more successful ventures could be formed.

## **VII. RECOMMENDATIONS**

Binghamton University has already begun developing a culture of entrepreneurship on campus. Programs like the Business Plan Competition in the Entrepreneurship class illustrate this. The S3IP shows that Binghamton is very open to working with outside companies. Not only is the culture at Binghamton ripe for entrepreneurship, the national climate is as well. As stated above, the president has initiated a push for more entrepreneurship. Plus, entrepreneurs help create jobs. Since the nation has been hard hit by an economic recession, job creation is definitely critical at this juncture. Thus, a student incubator at the Binghamton University Campus would be well received.

The first question that needs to be answered about an on campus incubator is who will be eligible to use it. In the information given above about MIT, it was stated that a higher proportion of students and alumni start businesses than faculty (Astebro, and Bazzazian). Though this data did not distinguish between businesses started by students on campus and those started by alumni after graduation, it is safe to assume that having more exposure to entrepreneurship while on campus will have a positive effect on the number of start-ups. Plus, successful alumni often give back to their Alma Mater. Thus, if alumni create successful businesses, they can provide an added benefit to the university. Therefore, it would be best if the incubator were focused toward students and alumni. Faculty would be able to use the incubator's services if they were part of a team that is student or alumni led. This way, the university can allocate the incubator's resources to those that are most likely to provide a return on its investment.

Second, the incubator should not be limited to any one school within Binghamton University. Disciplines like those in the School of Management and the Watson School of Engineering are typically seen as those most suited for entrepreneurship. However, successful entrepreneurs can carry any degree. Business ideas can be found in any field and it is important to have a team member who is an expert in that field. Additionally, diverse teams in terms of majors can produce better results because of the reduction of groupthink. This can be seen through the diverse majors in the 2011 Pro-Seminar in Civic Entrepreneurship. Another example of diversity in entrepreneurship can be found at Syracuse University. Both the Couri Hatchery and Panasci Business Plan Competition are open to students from any school or program within Syracuse University.

Third, the incubator needs to have a certain set of resources available to it. According to a study discussed above, incubators can provide three types of services to their clients. Facilities related counseling services, counseling and business assistance related services, and accessibility to incubator networks represent the three types of services an incubator can provide (Abduh, D'Souza, Quazi, and Burley 74-91). First, facilities in the incubator should include office space as well as conference rooms. This will allow clients to have a professional workspace and have the ability to meet with potential investors in an appropriate area. Additionally, giving clients a physical address can give a start up more credibility (Abduh, D'Souza, Quazi, and Burley 74-91). Clients of the incubator should receive access to certain business related services through the incubator. These should include legal advice, marketing advice, help writing a business plan, and accounting. Legal advice is necessary because student entrepreneurs may not have the money for a lawyer and may not have a legal background. Marketing, accounting, and help writing a business plan are also essential for those entrepreneurs who do not come from the School of Management and may not possess these skills. Finally, the incubator should provide opportunities to network to its clients. Networking can allow students to gain access to people and opportunities that can help their businesses. Some ways the incubator can accomplish this is by bringing in local entrepreneurs and those with an interest in entrepreneurship to speak with the student and alumni entrepreneurs. With these recommendations in mind, a student incubator on the Binghamton University campus could really boost the local economy and even attract more entrepreneurial students to the university.

While the above suggestions refer to general qualities of the incubator, there are also several tangible qualities, which the incubator should have. These are related to the unique needs of student entrepreneurs. One suggestion is 24/7 access to the facilities. This recommendation comes from the tendency of college students to work late at night. Thus, the facility should be open when its clients are most productive. The incubator should also include office space with Internet access, white boards, and conference tables. These items will create a professional atmosphere in the incubator and support a range of needs in the incubator. Other qualities could include a mini-fridge and a break room to allow the students to de-stress when working long hours on a deliverable for their startup. Storage space is also important, as businesses might need to hold a sizable inventory or just keep a lot of resources available in the incubator. Mentoring workshops would also be very useful to student entrepreneurs.

These mentors could be faculty involved in entrepreneurship, local entrepreneurs, lawyers, accountants, marketing specialists, and city officials.

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