DEVELOPING STUDENT ENTREPRENEURSHIP AT PENN STATE
THE RESOURCES AND RECOMMENDATIONS STUDENTS NEED TO LAUNCH
A VENTURE

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Spring 2012

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree
in Science
with honors in Engineering Entrepreneurship

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ABSTRACT

A dual-focused strategy to develop student entrepreneurship has been prepared for affiliates of Penn State University Park. The benefits of entrepreneurship to the University and region were well documented in 2007 by Robert Shedd. A review of research conducted before 2010 suggested that Penn State students across disciplines were not receiving sufficient entrepreneurial education and resources from Penn State University. Subsequent primary research validated this assumption. The two core components of this work include case study, research and recommendations for improving entrepreneurial resources at Penn State followed by a PSU Student Entrepreneur’s Toolkit that contains the entrepreneurial resources accessible at Penn State. The first section addresses Penn State faculty and staff, alumni, entrepreneur organization leaders, and regional investors. The case study employed to bridge the entrepreneurial resource gap at Penn State involved launching the start-up accelerator Innoblue. Research verified Shedd’s 2010 evaluation that entrepreneurship is highly pursued in an extracurricular environment by Penn State students, despite limited instruction. Needs identified by student entrepreneurs indicated that entrepreneurship development efforts must 1) encourage collaboration between entrepreneur groups and affiliates, 2) increase visibility of web development instruction and 3) funding agents, and 4) promote mentorship relationships. In order to be the holistic student focused research institution that Penn State University strives to be, it must adequately offer the resources required for student entrepreneurship. The toolkit that comprises the second section addresses needs 2 and 3, showing student entrepreneurs who to contact, where to go, and what to learn while at Penn State in order to improve their chances of starting a successful venture.
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I. ACKNOWLEDGEMENTS

First, I must offer my gratitude to my thesis reviewers, Phil Boyer, Liz Kisenwether, Dr. James Gardner, Peter Tombros and Henriette Evans. Their mentorship and support was vital to this final piece. I would like to thank Robert Shedd for his vital review of entrepreneurship in 2007 and his update on the entrepreneurial landscape at Penn State in 2010. His vision and recommendations were essential to the formation of Innoblue and his research greatly inspired this thesis. Much of the editing and revisions of the final publication can be accredited to Rachael Lassoff. Her support and patience were invaluable. Without the incredible commitment to the region of the State College Borough Council, Mayor Elizabeth Goreham and Borough Manager Tom Fountaine, Innoblue Garage would have never been realized. I must thank the entire Engineering Entrepreneurship Department, as they are undoubtedly the pioneers of the entrepreneurial education that has been developing at Penn State over the last few years. Specifically, Phil Boyer, my thesis supervisor, and Liz Kisenwether, the director of Lion Launch Pad, have been doing fantastic work in developing entrepreneurship at Penn State. The Schreyer Honors College Dean, Christian Brady, has been an avid supporter of Innoblue since its inception and must be credited for MC’ing and sponsoring Innoblue’s Demo Day. Khanjan Mehta, the Director of the Humanitarian Engineering and Social Entrepreneurship program at Penn State has been a great help to Innoblue’s formation and our Demo Day. Steve Garguilo’s commitment to innovation at Penn State is already well noted through the establishment of TEDxPSU, although his special contributions to Innoblue also deserve recognition. My co-founder, David Adewumi, was responsible for nearly all early stage success that Innoblue experienced due to his supreme determination and resourcefulness. Enough credit cannot be given to Drew Mohoric for stepping up and coordinating Innoblue’s on campus student efforts in 2011 and then managing all efforts of Innoblue Garage the following year. Kai Kaapro, Zach Johnston,
Mike Silvis, Rachel Miller, Jayson Jackson, Andreas Boehm, Francisco Utrera, Juan Castro, Alex Thomson, and Mithilesh Ranganna all were vital to Innoblue’s early success and have done tremendous work. John Stitzinger, Clinton Judy and Perry Babb all must be thanked for their work in donating equipment and services to Innoblue Garage. The entire SHC staff should be praised for its commitment in pushing the bounds of academic interests, especially those in entrepreneurship. Lisa Kerchinski, Jenny Blew, Debra Rodgers and Roberta Hardin have all been essential to the publication of this work. Finally, Innoblue’s directors and advisors Jack Matson, Jayson Jackson, Matt Brezina of Xobni, Paul Silvis, Todd Bacastow, Phil Park of the CBICC, David Rusenko, Dan Veltri and Chris Fanini of Weebly, David Weekly of HackerDojo, Aston Motes of Dropbox, Bill Marvin of Instamed, Charlie Perry of TeamItUp, and Brett Bergen have all been essential in providing much of the advice and resources present in this work.
II. FOREWORD

This work was compiled as a summary of my efforts with Innoblue, a start-up accelerator that my friend and Beta Theta Pi fraternity brother David Adewumi and I founded. Drew Mohoric, my classmate, friend and partner in most of my involvements at Penn State, soon joined the group and launched the Innoblue Garage with David and me. Both undergraduates and graduate students interested in entrepreneurship will find the resources contained herein helpful in starting a venture and the case study to be a useful anecdote for how navigate Penn State as an entrepreneur. Finally, faculty and staff are the ultimate enactors of change and it falls to them to implement market needs identified by students to advance student entrepreneurship at Penn State, University Park.

III. INTRODUCTION

III.1 WHY ENTREPRENEURSHIP?

*The best use of life is to spend it for something that outlasts it – William James*

Before considering the particulars of student entrepreneurship and its nature at the Pennsylvania State University, University Park, it is helpful to consider why any individual would consider starting his or her own company. Being successful as an entrepreneur requires more than just luck and a unique value proposition. A successful entrepreneur should be prepared to work amidst uncertainty, multitask, and often work longer or more irregular hours than many salaried employees. While the risks are often greater, the personal and financial rewards can also be more appealing. These risks can be
mitigated, but not excluded, with due diligence, adequate experience, and consistent networking. For these reasons, entrepreneurship is, according to Jason Calacanis, a “full contact sport”.¹

But what is a successful entrepreneur? It is no secret that many individuals attempt to start their own companies primarily as a means to accumulate wealth. Some studies have argued that entrepreneurs do not typically reach the mean salary of wage employees per capita [25],[26]. These studies, however, do not consider a sufficient time range to properly model an entrepreneur’s career. In fact, recent work suggest that the average financial earning of a tenured entrepreneur is actually quite comparable to that of a salaried employee, as seen in Figure III.1a, which displays data from the 2001 Survey of Income and Program [27],[28]. Furthermore, implicit in the pursuit of entrepreneurship is a potential quick and incomparable financial gain, noting famous entrepreneurs in the United States.² With the exception of the entrepreneurs who find widespread product-market fit when young, this figure suggests that entrepreneurs do not typically reach the mean wages of employees until almost forty years of startup experience. Figure III.1.a also indicates that there is much greater variability between the entrepreneur wage data points and the worker data points, perhaps validating the assumption that entrepreneurship carries greater risk. In short, those individuals who pursue entrepreneurship merely as a means of getting rich quickly would be advised to seek alternative career pursuits. While entrepreneurship can be more financially rewarding than employment, many individuals do not experience this success until much later in their entrepreneurial careers.

¹ Jason Calacanis, interview at Penn State (http://binged.it/A6Ud3I).
² Mark Zuckerberg (Facebook), John Rockefeller (oil), Steve Jobs (Apple), Oprah Winfrey (entertainment), and Richard Branson (Virgin Enterprises)
Instead of characterizing entrepreneurial success by monetary success, success in entrepreneurship is perhaps better represented by its personal rewards. Having the freedom to market a product or service that one is inherently passionate about can reward him or her with an invigorating and satisfying career. Diverse experiences, from creating or modifying the product or service, to fundraising, marketing, web development, and accounting, help protect entrepreneurship from monotony and ensure unending hands-on education. Furthermore, being the main decision maker or concept designer carries more responsibility and with it more influence in the outcome. This influence enables truly passionate entrepreneurs to positively make a difference and change the world.

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Wealth managers find that their aging clients are often concerned with leaving a legacy after their passing. This legacy manifests itself in large donations to non-profits or scholarships, gifts or inheritance to relatives, or feats that leave an enduring impact on the world or society’s perception of the individual. From interviews with entrepreneurs, it was found that one of the greater rewards associated with entrepreneurship is a founder’s legacy. Rather than waiting until old age to begin considering one’s legacy, an entrepreneur begins to establish an enduring and noteworthy reputation the moment he or she launches some venture. A company can exist long after the entrepreneur has passed, yet that entrepreneur can never lose his or her legacy as the founder. This legacy has personally been found to be the most rewarding aspect of entrepreneurship.

Student entrepreneurs can be of any age, but many benefit from having ample career time to consider establishing a legacy through starting a company. While still strapped for time, a full-time student often has a schedule that is somewhat more flexible that many employees’. A university student also has frequent interactions with individuals who have diverse skills and experiences due to the various disciplines practiced at larger institutions. In addition to a large peer network from which to draw potential teammates, a student has a substantial network of subject experts and teachers who can serve as mentors. Since a student has numerous unique advantages in starting a company, student entrepreneurship can be seen as a vital component of cumulative entrepreneurship and should be developed wherever applicable.

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5 My grandfather, Larry Frank Tornetta, was a well-established entrepreneur in Pennsylvania. Nearly four years after his passing, his legacy lives on in the minds of numerous companies he had started: LFT Realty (http://www.lftrealty.com); Tornetta Realty (http://www.tornetta.com/); LFT LTD Public Accountants (http://www.lftcpa.com/).
III.2 STUDENT ENTREPRENEUR: DEFINITION

“*My son is now an ‘entrepreneur’. That’s what you’re called when you don’t have a job.*” - Ted Turner, founder of CNN

As this work considers student entrepreneurs at The Pennsylvania State University rather than all entrepreneurs, proper definition must to be established for clarification. Following in part the 2011 application requirements for the Global Student Entrepreneur Award, a student entrepreneur shall hereby be defined as an individual who is 1) presently enrolled at the Pennsylvania State University, University Park campus as either an associate, bachelor’s, master’s, doctoral or professional degree candidate, 2) intent on becoming the owner, founder or controlling shareholder of a registered or implicit business entity (articles of incorporation are not required) while a student or immediately after graduation, 3) responsible for a business entity’s operation or actively pursuing entrepreneurial specific education to meet that objective. While this study primarily considers those students pursuing for-profit enterprises, the resources and lessons learned herein will be useful to student social entrepreneurs as well.

Personal anecdotes have revealed that many graduated student entrepreneurs self-identify as entrepreneurs to excuse themselves from the social repercussions of having to defend the fact that they are unemployed. Individuals should remain highly skeptical of these individuals unless reliable social proof validates their self-identified title. Since these claims can be easily made with little supporting tangible progress, a student entrepreneur has not been defined as someone who merely has an idea about a marketable product or service. Furthermore, three years of direct work with student ventures

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6 Having worked with over thirty startups from 2010-2012, Innoblue has revealed that student entrepreneurs and entrepreneurs (not currently enrolled in classes) frequently self-identify as full-fledged entrepreneurs with little reputable social proof. Akin to a medical school student claiming status as a Medical Doctor, an unverified entrepreneur is better termed as an aspiring or learning entrepreneur.
has revealed that some defined action and related, measurable progress must be evident in a
student’s pursuit towards entrepreneurship for the student’s claim to start a venture to be reliable.

III.3 THE DEVELOPING STUDENT ENTREPRENEURIAL LANDSCAPE AT PENN STATE

There is an issue of general awareness. Without high profile recent wins, there is a limited number of students who consider entrepreneurship as a viable career path or application of their ideas/creativity. Furthermore, students are seldom aware of academic entrepreneurship programs beyond their college/major. - Robert Shedd, “Current State of Entrepreneurship @ Penn State”, 2010

In his 2007 thesis on the status of entrepreneurship at Penn State, Robert Shedd indicated that entrepreneurship at Penn State is fragmented and that resources to support students aspiring to be entrepreneurs were not sufficient. By comparing research expenditures with revenue and start-ups formed between various universities, Shedd showed that the amount of money that Penn State invested in research did not justify a proportional increase in startups (see figure III.3a).

![FIGURE III.3a](image_url)

<table>
<thead>
<tr>
<th>Institution</th>
<th>Total Research Expenditures</th>
<th>&quot;Total&quot; Revenue</th>
<th>Startups Formed</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California System</td>
<td>$2,791,777,000.00</td>
<td>$88,943,734.00</td>
<td>5</td>
</tr>
<tr>
<td>Johns Hopkins Univ.</td>
<td>$1,504,241,000.00</td>
<td>$10,354,122.00</td>
<td>5</td>
</tr>
<tr>
<td>Massachusetts Inst. of Technology</td>
<td>$1,027,000,000.00</td>
<td>$35,134,280.00</td>
<td>20</td>
</tr>
<tr>
<td>University of Washington/Wash. Res. Fdn.</td>
<td>$833,907,430.00</td>
<td>$25,771,052.00</td>
<td>7</td>
</tr>
<tr>
<td>University of Illinois, Chicago, Urbana</td>
<td>$613,740,000.00</td>
<td>$6,384,440.00</td>
<td>16</td>
</tr>
<tr>
<td>University of Wisconsin at Madison</td>
<td>$763,875,000.00</td>
<td>$48,331,891.00</td>
<td>2</td>
</tr>
<tr>
<td>University of Michigan</td>
<td>$752,527,056.00</td>
<td>$14,881,474.00</td>
<td>13</td>
</tr>
<tr>
<td>SUNY Research Fdn.</td>
<td>$710,175,177.00</td>
<td>$14,100,346.00</td>
<td>7</td>
</tr>
<tr>
<td>Stanford Univ.</td>
<td>$693,529,925.00</td>
<td>$52,981,622.00</td>
<td>9</td>
</tr>
<tr>
<td>University of Pennsylvania</td>
<td>$654,457,805.00</td>
<td>$11,276,932.00</td>
<td>8</td>
</tr>
<tr>
<td>Penn State Univ.</td>
<td>$806,521,000.00</td>
<td>$3,258,050.00</td>
<td>4</td>
</tr>
<tr>
<td>Harvard Univ.</td>
<td>$590,592,500.00</td>
<td>$26,297,648.00</td>
<td>4</td>
</tr>
<tr>
<td>University of Colorado</td>
<td>$571,342,900.00</td>
<td>$34,344,342.00</td>
<td>5</td>
</tr>
<tr>
<td>University of Pittsburgh</td>
<td>$558,878,000.00</td>
<td>$5,363,301.00</td>
<td>10</td>
</tr>
<tr>
<td>Cornell Research Fdn., Inc.</td>
<td>$512,790,000.00</td>
<td>$0,124,000.00</td>
<td>6</td>
</tr>
<tr>
<td>University of Minnesota</td>
<td>$515,061,000.00</td>
<td>$47,332,615.00</td>
<td>3</td>
</tr>
</tbody>
</table>
Shedd suggested that the availability of an incubator in State College, properly equipped to serve entrepreneurs’ needs, would facilitate more startup companies in the region. Through this solution, Shedd revealed a roadmap to enhancing student entrepreneurship. Three years later, in an economy characterized by uncertainty, was there still a strong student interest in entrepreneurship?

In 2010, some interest in entrepreneurship at Penn State was indicated in over half of the entire undergraduate population, as shown in see figure III.3b. Entrepreneurship was not just a phase that a single generation of student was going through in 2007. It was believe that this entrepreneurial interest boom was accelerated by the Penn State University or the opening of Lion Launch Pad. The Lion Launch Pad is an incubator that was a direct result of Shedd’s thesis and the efforts of Liz Kisenwether and Robert Macy. Credit is due to the University and Lion Launch Pad for helping to kindle this interest although there was more work ahead.

FIGURE III.3b: Taking risk, money and time into consideration, would you rather attempt to start your own company (if you had all necessary resources)? (December 2010)

Randomly selected students (n=105) were surveyed about interest in entrepreneurship. The majority of responses indicated willingness to start a company part time (while working or taking classes). Time and risk were identified to be most significant in dissuading interest in entrepreneurship.
Figure III.3c displays survey results from 2010 indicating that while interest in entrepreneurship had been kindled; most Penn State students were still unsatisfied with startup support services in the region. Efforts by the University to specifically assist startups, it seemed, had not wholly met the needs of the large proportion of students interested in entrepreneurship. Furthermore, a majority of students were not aware, let alone satisfied, with entrepreneurial efforts supporting idea development – one of the first stages of starting a venture (see figure III.3d). Since very little had changed in the three years since Robert Shedd reported a similar finding, it became apparent that some additional push would be required to show students where to go to find these resources and assist them in developing their ideas. It was believed that some public compilation of all efforts currently assisting student entrepreneurs was also long overdue.

![Figure III.3c](image)

*FIGURE III.3c
Number of Students Satisfied with Start-up business resources in the Centre Region (December 2010)*

*Randomly selected students (n=105) were surveyed for satisfaction with local start-up resources. Few student indicated satisfaction with resources.*
Shedd had shown that incubators were effective in promoting entrepreneurship. Furthermore, incubators such as Y Combinator were experiencing wide support and success, perhaps due to the startup culture in California. Since students were not satisfied with local efforts to assist entrepreneurs, a market need was identified along with a potential solution. It was hypothesized that with the combination of such a physical space dedicated to accelerating startups and a list of all resources offered to student entrepreneurs at Penn State, more ventures would be started and experience fiscal or social success.

**FIGURE III.3d**

Are you aware of the groups at Penn State that assist entrepreneurs with idea development? (n=105, December 2010)

The majority of randomly selected students indicated a lack of awareness of entrepreneur idea development assistance at Penn State.
III.4 THE INCEPTION OF INNOBLUE

There is a tide in the affairs of men
Which, taken at the flood, leads on to fortune;
Omitted, all the voyage of their life
Is bound in shallows and in miseries.
On such a full sea are now afloat;
And we must take the current when it serves,
Or lose the ventures before us - William Shakespeare, “Julius Caesar”

After several long discussions with David Adewumi (co-founder of Innoblue, founder of OneSchool) at the end of the spring semester of 2010, the burning need for entrepreneurial assistance at Penn State, one which Dr. James Gardner (Professor, Executive in Residence of The Eberly College of Science) referred to as the “elephant in the room”, could no longer be left unattended. Penn State is said to be one of the top 15 research universities in the country with almost $700 million spent in research expenditures annually, yet there is a lack of start-ups consistently launching in the area, especially when compared with the hundreds of startups that emerge from MIT and Stanford every year. While there are several successful entrepreneurs to graduate from Penn State in the last several decades (e.g. Joel Meyers, founder of Accuweather; Matt Brezina founder of Xobni and Sincerely; the Weebly team; Paul Silvis, founder of Restek), these successes are outliers rather than indications of a trend. Furthermore, most of the more well-known entrepreneurs to emerge from baccalaureate degrees at Penn State had only launched their businesses after leaving State College for larger, entrepreneur friendly cities such as San Francisco or New York.
There was no doubt that State College had a need for a University-centric approach that provided fast and easy first-steps for students, faculty, staff, researchers and alumni entrepreneurs to establish start-up companies with low or no cost facilities. If this early stage resource were paired with access to seed capital through the alumni network and access to a database of successful entrepreneur mentors and passionate student developers, the region could effectively transform into one characterized by innovation in both business and social realms.

Innoblue was born with the goal to start and support innovative business, civic, and social ventures at Penn State. We had envisioned a community transformed by entrepreneurship; where people act on the triple bottom line, to do well while doing good. Our objectives with this organization were as follows:

1. To foster connections between local entrepreneurs and experienced mentors and advisors.

2. Provide the essential resources (e.g. legal, marketing and, design) to launch great promising ideas.

3. Build a community of world-changers who believe that an idea, executed well, can positively change the world.

4. Establish a "labs" space where motivated programmers, hackers, designers, engineers, and creators can come together and build great products.
IV. LESSONS LEARNED: THE HISTORY OF INNOBLUE

IV.1 GETTING STARTED: CONTACTS

“Tell everyone what you want to do and someone will want to help you do it.”
– W. Clement Stone, founder of Combined Insurance Company of America

Many times, all someone needs is a bit of advice and motivation to transform their early vision and idea into a full-fledged venture. Others require more support, such as step-by-step incubation or access to developers and engineers that can turn their conceptual designs into tangible product. In either case, it is very difficult to be successful without experienced assistance. According to the U.S. Small Business Administration, over 50 percent of small businesses fail within the first five years of inception [36]. Much of this failure results from inexperience.

Before Innoblue officially gained its names, one of its main goals was to build momentum by building support. After assembling a strong student leadership board, it had compiled a group of well-respected administrative resources, including Christian Brady, the Dean of the Schreyer Honors College, State College Mayor Elizabeth Goreham, and several respected leaders in the Penn State and State College community. This list of supporters and advisors quickly grew to over forty. How was this accomplished? Rather than pitching a business to people, vision was pitched. The vision was simple, but expansive: turn the region into one characterized by entrepreneurship. Once the first supporters were on board (mostly successful entrepreneurs or administrators committed to regional entrepreneurship) it was much easier to collect a larger fan base.
With a larger following, many drafts of documentation describing our plans, a website and a committed team of students, had been able to properly design a front-end to our organization that was impressive to onlookers. Capable of effectively communicating our organization, we connected with a vast array of private investors who were financially interested in seeing entrepreneurial ideas succeed at Penn State. If a start-up project required investment capital, we would pass along requests to the appropriate person(s) in our network.

Individuals with ideas originally interested in entrepreneurship were now motivated to formally pursue their plans because we knew investors and programmers. The investors and programmers were interested in seeing a new crop of potential revenue generating opportunities emerge from Centre County. Innoblue had built a mutually beneficial network by using ambition, hard work, and passion to inspire others to join the cause of forming a culture of innovation and entrepreneurship. The question remained though: how could Innoblue ensure that the products the entrepreneurs were designing were going to be useful at all? It would only take a few failures to discourage investors and programmers from involving themselves in future PSU entrepreneurial undertakings.

LESSON LEARNED: PITCH FOR CONTACTS BEFORE CASH
Starting a new venture can be difficult because of the overabundance of rules and rarity of startup resources. Understanding the multitude of laws and regulations involved in starting a business is one of the most important factors. Entrepreneurs are confronted with intimidating lease negotiations, forests of regulations, licensing requirements, intellectual property issues and piles of financing documents. Many ventures cannot afford to retain the lawyers they need, let alone corporate attorneys at top law firms.

In addition to its growing network, Innoblue was able to offer free, informal legal counsel. The Law and Entrepreneurship Project of the Dickinson School of Law, closely affiliated with Innoblue, was devoted to exploring the changing nature of entrepreneurial law and providing resources to entrepreneurial community. Through this resource and Innoblue’s own legal counsel, local startups received the legal advice they needed to get off the ground.

Many new entrepreneurs, especially those that are students, are strapped for cash and unable to afford basic utilities that are fundamental to the majority of new companies. Examples of such resources include those related to website development, nearly a requirement for the modern entrepreneur. By partnering with other companies such as Mediatemple and Weebly for web server hosting and simple, intuitive website design, we were able to help alleviate some of the strains of cash requirements on startups utilizing our free services.

If entrepreneurs do not realize it immediately, they will quickly understand how fundamental marketing is to the success of their venture. Like the aforementioned services, marketing and PR teams
can be extremely costly. Innoblue had initially partnered with a local firm comprised mostly of PR and Marketing students at Penn State known as Happy Valley Communications. By leveraging this resource, we were able to focus on building our support network and providing tangible resources to our ventures. This spring, realizing the necessity of our own marketing force for both our publicity and our ventures, we began building our own marketing team.

Small business incubators are able to run entire organizations on consulting and organizing their clients through the startup process. All entrepreneurs, regardless of their age or experience, benefit from the help of a business coach or consultant. This process is akin to an editor reviewing an authors’ work. Another set of eyes providing critical feedback and encouragement is essential for eliminating simple, but often overlooked, start-up errors. Obstacles such as mission-vision statements, financial projections, market analysis, elevator pitches, investor pitches, and complete business plans can be cumbersome for young entrepreneurs with little experience in these areas. By creating a consulting division within Innoblue composed of MBA students and talented undergraduate business related majors, we were able to lessen much of the strain of the aforementioned challenges in addition to meeting one other key niche. Penn State did not have any consulting-related undergraduate courses, organizations, or opportunities. Consulting firms, such as Deloitte and McKinsey, had begun looking for “ins” at the Schreyer Honors College to hire students for their divisions which had typically recruited heavily from Ivy League institutions. By creating a very hands-on consulting opportunity for students, Innoblue attracted the help of very ambitious and talented students looking for real consulting experience to better position themselves for these top consulting firms.

Figure IV.2a: designed by Zach Johnston
Partners listed on innoblue.org
December 2010
While the effects of these partnerships would prove to be more far reaching than anticipated, Innoblue’s success could be easily attributed to the diverse and early partnerships formed among companies, faculty, student organizations, and alumni. While each partnership required some sacrifice or change, each added so much more to Innoblue’s repertoire effectively making the whole partnered unit much greater than the sum of its parts. Partnerships expanded Innoblue’s market, widened its effective offerings with little extra overhead, and facilitated the development of specific relationships required to reach the group’s vision. Instead of reinventing the wheel, the resources and expertise of groups already established were leveraged to enhance Innoblue’s unique value proposition.

LESSON LEARNED: PARTNER EARLY, PARTNER OFTEN
IV.3 DEMO DAY 2010; INNOVATION EXPO 2011

He who begins many things finishes but few – German Proverb

“Entrepreneurship, at its core, is about passionate people. The intelligence, creativity and passion required for producing a successful venture are very much alive in Penn State students. The challenge that we face at Penn State is only a matter of direction: helping aspiring entrepreneurs make those first crucial steps.”

This short speech, which I gave as part of an opener at Innoblue’s inaugural Demo Day at the end of the fall 2010 semester at Beaver Stadium marked the “half-way point” to what was initially thought to be two foolish students’ vision of change. Demo Day is an event at Beaver Stadium where we showcased twelve new State College and Penn State ventures. Companies ranged from study-buddy-like dorm furniture, eco-friendly bikes (and a car), a smart board solution for lower income school districts, and an extreme sports/travel social network. We had over twenty Pennsylvania investors in attendance and had succeeded in providing $300,000 of investment opportunities to these ventures. More information can be found at in the program included in Appendix B.

Demo Day was the proof that what we had hoped to build for Penn State students was possible. It was evidence of hard work by passionate students, valuable advice from experienced advisors and support from an initially hesitant university. It was also an indication of many challenges yet to come.
After creating a board of advisors comprised of nearly forty entrepreneurs, local leaders, and university administrators, we divided Innoblue to better meet the area’s needs. Half of Innoblue was restructured as a registered student organization, which would take on the majority of the day to day operations that had previously consisted of consulting and resource relaying. The other half, of which my co-founder David Adewumi and I were most involved, was constructed to be a non-profit organization committed to the business development and the advancement of Innoblue’s larger vision – to create a culture of entrepreneurship in the region. Appendix C contains a copy of the bylaws established for the board of directors of Innoblue.

Drew Mohoric, President of Innoblue, a part of the 2011 student group, was essential to running Innovation Expo, Hackathon, and Bootcamp. Drew was crucial in rallying up support of over 40 advisors. After Demo Day, he then led the student component of Innoblue which enrolled a new series of ventures in a several month long incubation program. Since the ventures were not ready to seek venture capital investment by the end of the program, Drew and the student group decided to enact a strategy that would buy them more time, yet preserve the momentum from Demo Day 2010.

Innovation Expo was the resulting solution and, luckily, suited the delay tactic nicely. This event was much like a science fair for entrepreneurs. Held on April 29th in the HUB, it further illustrated our progress towards creating a culture of entrepreneurship. Like Demo Day, Innovation Expo succeeded due to the partnerships involved in hosting the event. Having many organizations as co-sponsors enabled us to reach a much larger target audience much more quickly. This tactic was essential given our 1) limited time and 2) small marketing budget in hosting the event. Innovation Expo was marketed almost exclusively through social networks, with the exception of a few printed media.

Demo Day 2010 and Innovation Expo 2011 were, by all accounts, well run events despite several slight flaws. Admittedly, more work could have been done in improving the presentations of the
companies and decreasing the total time of the events. Despite a few imperfections, we had succeeded in exposing Penn State to an eager community of venture capitalists and angel investors, eager to find the next Facebook, Twitter, or LinkedIn among our various ventures. We had succeeded in inspiring students to pursue their start-up dreams while in college. We had succeeded in showing University faculty and staff that we were a rather non-traditional “student group” that intended to make things happened.

LESSON LEARNED: STREAMLINE OFFERINGS AND FOCUS
IV.4 INNOBLUE GARAGE: PERSISTENCE

Every worthwhile accomplishment, big or little, has its stages of drudgery and triumph; a beginning, a struggle and a victory - Mahatma Gandhi

On September 29th, 2011, nearly a year after we had begun raising support for our goal, Innoblue Garage was launched to facilitate a culture of entrepreneurship at Penn State (see Appendix A).

“The mission of Innoblue Garage, a part of the non-profit Innoblue (501(c)

(3) pending), is to establish a community at Penn State where innovators,
developers, engineers and artists can come together from multiple disciplines
to collaborate on ideas. Innoblue will be the platform for motivated students,
university faculty and staff, and community members to work on their ideas in
the company of like-minded people and advisers from multiple disciplines. It
will bridge the talent disconnect that often plagues great ideas and serve as a
workspace for entrepreneurial, educational and networking activities. Innoblue
Garage plans to open in the fall of 2011 in a 2500 square ft. facility, in
partnership with the State College Borough.” (Innoblue Garage Investor Pitch, April 2011)
After furnishing and painting the space and holding various open house events to make the campus aware of Innoblue Garage, we began providing the resources that student entrepreneurs said were formerly lacking in the region. We held a great variety of informal presentations designed to instruct participants in a variety of skills ranging from web design to productivity advice. We connected student entrepreneurs to other groups offering more specialized services for entrepreneurs, who students were formerly unaware of. We started a two month long Entrepreneurial Bootcamp, which consisted of twelve short presentations followed by Q&A featuring successful entrepreneurs who were deemed as experts in a particular skill useful in launching a startup. While Innoblue Garage is still
defining its brand and core added values, the work done thus far has undoubtedly helped those individuals who have taken advantage of our pro bono offerings (see figure V.4b).

It cannot be overstated that this process required enormous persistence. There were more than just a few instances where we were rejected, discouraged, or advised to move on from our initial vision.
Significant time was spent on performing market research and motivating supporters behind our cause. Floor plans had to be created, business plans had to be drafted, interviews of similar spaces were collected and funds were needed to be raised. Even more time was spent pitching the Innoblue Garge idea to university administrators, the State College borough, and local realtors for space. We had to convince others of the certainty of our success, when the entire vision could have collapsed at any moment. What we did not show was that we were often less assured of our success than those who we had gotten to support us. Nonetheless, quitting was always an option looming in the backs of our minds but not one that we had ever considered seriously. Our resolve was not unwavering but it was insoluble. Persistence had won us Innoblue Garage and persistence had enabled us to make it useful to students.
V. WHAT STUDENT ENTREPRENEURS NEED

V.1 ENTREPRENEURIAL EDUCATION

Several entrepreneurs have criticized and flaunted the insignificance of higher education for entrepreneurs. Peter Thiel, an entrepreneur and venture capitalist, perhaps most known for his early investment in Facebook, began to offer a series of grants of $100,000 to twenty selected students under age twenty to abandon school and pursue their ventures full time for two years. Furthermore, with the average college debt having increased to $24,000 in 2010 and relatively high unemployment for recent graduates, there is certainly support to the claims.

To those student entrepreneurs who have already began their education and budgeted accordingly, the median salary remains nearly $22,000 higher than those without baccalaureate degrees. Additionally, figure V.1a shows that the vast majority of a selected sample of student entrepreneurs at Penn State reported that college was necessary for their entrepreneurial development. Individuals who have already begun their entrepreneurial journey may be best off delaying or forgoing further education. For most students, however, higher education can prove to be invaluable for entrepreneurial development due to an increased network of potential teammates and investors, technical skill advancement, and communication skill development, in addition to the entrepreneur specific resources available if sought out.

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7 See http://www.entrepreneur.com/article/220260
8 See http://www.nytimes.com/2011/04/12/education/12college.html?_r=3
If the resources were in place, most students at Penn State would want to attempt to start their own companies as was shown in figure III.3b. Most that would attempt to start their own company would prefer to do so either while working or taking class, likely to mitigate some of the risk associated with the venture. Contrary to popular belief, a large portion of those individuals that would not attempt to start their own companies have avoided it because of the perceived time and risk commitments. It is likely that these individuals may still make vital team members in a start-up, as these positions are less time intensive than “founder”.

Figure V.1b illustrates the contentment of Penn State students with their college’s entrepreneurial education. Surprisingly, it was found that business students were the least satisfied with their college’s education on entrepreneurship. Engineers were the most satisfied of all students surveyed which is likely a direct result of the Engineering Entrepreneurship minor, the HESE program, the Learning Factory, and Lion Launch Pad. Nonetheless, this figure illustrates that students generally want more entrepreneurial education. This problem was addressed in the Entrepreneur’s Toolkit at the end of this
work. Furthermore, it is believed that the new cross discipline Entrepreneurship and Innovation Minor, directed by Liz Kisenwether, co-director of Lion Launch Pad and Associate Professor in the College of Engineering, will adequately address this need.

![Figure V.1b Cumulative proportions of students by academic major who agree/disagree that their college's curriculum has sufficient entrepreneurial education (n=39, Feb 2012)](image)

*Students with pre-identified interest in entrepreneurship from the College of Engineering, College of Business, and other colleges at Penn State University Park were asked to respond to "Excluding electives, your college's curriculum has sufficient entrepreneurial education for your needs." The responses between the colleges were normalized (as ratios) and stacked to show relative agreement/disagreement with the statement.*
V.2 MENTORSHIP

Depending on their expertise, mentors can assist entrepreneurs in all aspects of their business. While entrepreneurial readings (e.g. marketing advice, business plan books, improving sales skills) are abundant and helpful, mentors, if credible, can be more effective as their advice is targeted to specific problems that one's company presently faces. Furthermore, mentors can assist in ways that books and articles cannot. Mentors can facilitate new business relationships, provide investment, and motivate the entrepreneur during difficult times. Gaebler.com writes:

_A mentor can help you identify potential pitfalls as well as confirm certain setbacks you will face if you continue what you are doing. They are an invaluable asset that you must seek to have in your corner if you want to be successful in business and at least get your business off the ground._ (Gaebler.com, 2011)

The present need among student entrepreneurs for consistent mentors is difficult to deny. Figure V.2.a indicates that mentorships would directly enable students to better grow or launch their start-ups. Furthermore, Figure V.2.b shows that pursuing mentorships should be the first priority for freshmen. Freshmen can be assumed to benefit most from these mentorships as they still have ample time within their education to start a venture, learn from their mentor about mistakes, and modify the business as appropriate.

According to recent surveys, 48.1 % of individuals with relevant experience are interested in providing some form of mentorship to entrepreneurs⁹. While this number did not filter results based on capability to provide mentorship to student entrepreneurs, it does at least indicate that a strong willingness is present. Since a similar proportion of those surveyed indicated an interest in entrepreneurship, there is a good chance that those interested in entrepreneurship are generally willing

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⁹ David Adewumi, _Survey on Entrepreneurial Interest in State College_, December, 2010
to assist others with their start-up companies. If this correlation can be validated with additional research, it holds that Penn State alumni or State College residents who have started companies will assist student entrepreneurs if asked.

Personal experiences networking with Penn State entrepreneurs on behalf of Innoblue have verified mentorship willingness. Alumni entrepreneurs and State College entrepreneurs were very committed to seeing entrepreneurship flourish in Centre County region (The Xobni and Weebly entrepreneurs and Penn State alumni have made considerable donations during the past two years to assist Penn State student entrepreneurs. Furthermore, the Central Region Entrepreneur Network, comprised of local State College entrepreneurs, meets on a monthly basis to facilitate regional entrepreneurship). Nearly all Penn State entrepreneurs that were contacted for support had later assisted Innoblue with presentations at events, introduced the group to other helpful individuals, provided funding, or gave advice that facilitated many of Innoblue's early stage decisions.

Meeting the need for mentorships among Penn State students would greatly enhance students' satisfaction with Penn State's entrepreneurial resources. Most student entrepreneurs should not need more than one hour every two weeks to consult with their mentor. The mentorship need would be ideally met by launching a relationship or social networking tool or group to facilitate communication between student entrepreneurs and mentors. Innoblue currently has plans to develop an online tool that would help willing mentors and student entrepreneurs connect.
FIGURE V.2a
Which of the following, if improved or added, would better enable you to start or grow your venture/company/web service? (n=40; Feb 2012)

Student entrepreneurs were asked to select three of the listed categories. Marketing, Web Development, Mentorship, Target Market Knowledge, and Fundraising constituted 67% of selections. Of these, Web Development, Mentorship and Fundraising were targeted for improvement in this work.

FIGURE V.2b
Which of the following is most important for freshmen interested in entrepreneurship to pursue at Penn State University Park? (n=37; Feb 2012)

Students with pre-identified interest in entrepreneurship ranked the importance of six factors (assigning a 1 to 6 to each) that contribute to a student entrepreneur’s success. This figure indicates the number of responses in each category where most important (6) or very important (5) were selected.
V.3 WEB DEVELOPMENT

The running joke at Innoblue is that the only thing that the Innoblue Garage does not have is what everyone needs: programmers. More now than ever, a refined web presence is a requirement for companies. Often times, the first impression an interested client, investor, or employee will have of a company is its web site. For this reason, Figure V.3a, which displays the web development and programming experience of a random sample of 105 Penn State students, is not surprising. While the majority of students had not developed software previously, the vast majority wanted to learn.

Most students are not aware of a plethora of resources currently available to assist them in learning functional web development for their start-up. Becoming a proficient web designer does not require anything else other than time and a computer yet, as indicated by this figure, most do not put in a strong attempt to learn. This problem is in part due to students’ general lack of awareness of current university offerings for entrepreneurs. These web development education resources have therefore been compiled in the Entrepreneur’s Toolkit in the second portion of this work.

**FIGURE V.3a** Have you designed a website, application or software before? (December 2010)

Randomly selected students (n=105) were surveyed about web development experience. While most students had never designed a website, application, or software, 73% of these had indicated a desire to learn.
V.4 POST-GRADUATION GUIDANCE

"The critical ingredient is getting off your butt and doing something. It's as simple as that. A lot of people have ideas, but there are few who decide to do something about them now. Not tomorrow. Not next week. But today. The true entrepreneur is a doer, not a dreamer."
- Nolan Bushnell, founder of Atari and Chuck E. Cheese's

Larry Frank Tornetta\textsuperscript{10}, a serial entrepreneur and rags-to-riches story, never once identified himself as either. In fact, he started as an auditor for the IRS. Having audited some of the richest men in Pennsylvania, he later started an accounting practice that he used to creatively protect the assets of those same individuals. With their confidence behind him, he had developed a worthy pool of investors that would contribute and benefit from the businesses he would start. What opened the door to his entrepreneurial success was his demonstrated aptitude with financial management. He was a skilled accountant first and it was this skill, in addition to his passion, energy, and competitiveness, which paved his road to start-up success. For this reason, prospective student entrepreneurs are encouraged to start to develop a personal asset: a skill or ability that can itself translate into a business. This skill may be web design, mobile app development, supreme networking abilities, and even unique market exposure or insight. Namely, “what you know in your heart your ability is”\textsuperscript{11}.

Since developing a marketable skill set is greatly helpful for aspiring entrepreneurs, collegiate students should not eliminate the possibility of first taking a job after graduation. Some exposure in a field that one is interested in is one of the better ways of developing such a skill set. While some tout the benefits of working for a start-up\textsuperscript{12}, others stress the lessons learned from larger, Fortune 500 companies before launching one’s own, each develops marketable skills, experience and contacts that

\textsuperscript{10} This author’s grandfather
\textsuperscript{11} Jason Calacanis, interview at Penn State (http://binged.it/A6Ud3i).
\textsuperscript{12} Donna Fenn, http://www.cbsnews.com/8301-505143_162-41841806/college-grads-10-reasons-why-your-first-job-should-be-with-a-startup/?tag=bnetdomain
would benefit one’s own company. Below, some of the more common comparators based on prior research have been listed:

**TABLE 1: Some benefits of working at a Fortune 500 company versus a Start-up for a future entrepreneur (via CBS report)**

<table>
<thead>
<tr>
<th>Fortune 500</th>
<th>Start-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific, streamlined training</td>
<td>Flexible, varied experience set</td>
</tr>
<tr>
<td>Practice discipline</td>
<td>Practice bootstrapping</td>
</tr>
<tr>
<td>Easier to meet potential co-founders</td>
<td>Handle more responsibility sooner</td>
</tr>
<tr>
<td>Learn how to outsource effectively</td>
<td>Learn how to partner fairly</td>
</tr>
<tr>
<td>Practice entrepreneurship via intrapreneurship in a lower risk environment</td>
<td>Learn about entrepreneurship via observation (how to pitch, market, sell, etc)</td>
</tr>
<tr>
<td>Learn large-scale management and the language of big business</td>
<td>Learn how to create a passion-based work culture</td>
</tr>
</tbody>
</table>

Essentially, the more discipline oriented and regimented structure present in a larger company will more reliably teach a specific, easier-to-market skill set than a start-up. A start-up is more hit-or-miss in teaching such a skill set, but can expose one to a larger variety of responsibilities vital for entrepreneurs. Being efficient is of the utmost important in a Fortune 500, where one will develop strong time management skills and learn how and when to outsource. A start-up can teach one diplomatic partnering and co-working techniques, as these partnerships can be fundamental to a start-up’s success. In either case, one can hope to network with future investors or team members, although

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the larger size and lower individual commitment at Fortune 500 companies enables one to more easily find potential team members while a start-up tends to provide access to better mentors.

In short, one should not be afraid to take a job that will provide meaningful experience in an industry that he or she is considering launching a start-up in if he or she does not have a team or skill already in place. Figure V.4a illustrates that the same number of student entrepreneurs plan to work for another company within five years of graduation as those who plan to start their own company. Working for another company, whether a start-up or more established firm, is a common. As shown figure III.1a, the young entrepreneur success stories are present, but less abundant than successful

![Figure V.4a](image_url)
tenured entrepreneurs. However, interviewed entrepreneurs\textsuperscript{14} stress that it is far more important to not hesitate to take the entrepreneurial leap.

If one does take a job with another company, he or she should make a personal commitment to move on after a designated amount of time. This commitment should be somewhat fantastical in nature and reminders should be in place to keep him or her aware of it.\textsuperscript{15}

VI. MOVING FORWARD: COLLABORATE

While Innoblue succeeded in accelerating the culture of entrepreneurship in State College through its combination of well marketed events, worthy partners and advisors, and passionate students, there are still several core needs that are not well addressed at Penn State. In his 2010 Executive Summary\textsuperscript{16}, Robert Shedd identified the chief problems with developing entrepreneurship in State College as 1) fragmented resources and 2) an unstructured alumni and mentorship base:

1) \textit{Despite the large number of available programs, unfortunately, the entrepreneurship landscape is heavily fragmented and resources are not integrated. Consequently, students interested in entrepreneurship use their time looking for the necessary resources rather than taking advantage of them.}

2) \textit{Penn State’s alumni base is a tremendous resource, yet, unfortunately, it is difficult to access and leverage. There is an opportunity to structure this resource more effectively, thus benefiting all Penn State entrepreneurs.}

\textit{“Current State of Entrepreneurship @ Penn State”, Robert Shedd, 2010}

\textsuperscript{14} Matt Brezina (founder of Xobni and Sincerely), Charlie Perry (founder of TeamItUp.com), Jack Matson (founder of Envinity.com), and Jason Calacanis (see footnote 1)

\textsuperscript{15} David Allen, \textit{Getting Things Done} and http://www.davidco.com/

To address these problems, this study has found that the introduction of a sanctioned Penn State entrepreneurial mentorship network, perhaps affiliated to the Alumni Association, in addition to more visible technical skill development (e.g. Web Design) opportunities, entrepreneurial education resources and funding sources, would accelerate student entrepreneurship at Penn State. A compilation of the present Penn State resources in these areas, as well as others, has been included in this report's Entrepreneur's Toolkit in order to address the visibility problem of the latter three issues. Finally, entrepreneurship at Penn State would benefit from additional collaboration between entrepreneurial affiliated groups.

Further work in developing student entrepreneurship at Penn State should consider collaboration between entrepreneurial groups. While Innoblue had begun discussions in 2012 to form partnerships with other entrepreneur groups, it is unlikely that the necessary collaboration for transparent entrepreneurial resources will occur for some time. This collaboration must be started by regular meetings between all parties interested in developing student entrepreneurship in the region.

In summary, work founding Innoblue and Innoblue Garage coupled with primary research and suggestions from key opinion leaders in entrepreneurship has suggested the following for further developing Penn State student entrepreneurship:

- **Collaboration** amongst present entrepreneurial accelerators, incubators, educational programs, student clubs, and investors. Monthly, university-wide, entrepreneurial roundtable discussions would facilitate collaboration.

- An *alumni and mentor online database and networking tool* for Penn State, perhaps through a new LinkedIn group, to address the need for mentors. This need has begun to be addressed by Innoblue.
• Greater **visibility of available funding agents** for student entrepreneurs in the Centre County region. This need has begun to be addressed by “VII. THE PSU STUDENT ENTREPRENEUR’S TOOLKIT”.

• Greater **visibility of web development instruction** for non-Information Sciences and Technology student entrepreneurs at Penn State. This need has begun to be addressed by “VII. THE PSU STUDENT ENTREPRENEUR’S TOOLKIT”.

• **Additional web development courses**, perhaps available as elective through the new Entrepreneurship and Innovation minor, for non-Information Sciences and Technology student entrepreneurs at Penn State.
VII. THE PSU STUDENT ENTREPRENEUR’S TOOLKIT

This toolkit is a working document intended to include many of the resources currently available at Penn State that would benefit student entrepreneurs. The toolkit separates resources by start-up phase (Stage One, Stage Two, Stage Three) and separates resources categorically by need. For example, if a Penn State student entrepreneur wishes to learn web design, he or she should navigate to the Web Development section to find contacts and actions steps for achieving that goal.

Robert Shedd must be thanked once again, as his Executive Summary in 2010 greatly inspired this work.

VIII.1 STAGE ONE RESOURCES

Stage One includes educational and fundamental entrepreneurial resources useful for all student entrepreneurs, even those with only the desire to be an entrepreneur.

Entrepreneurial Education

“Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service. It is capable of being presented as a discipline, capable of being learned, capable of being practiced. Entrepreneurs need to search purposefully for the sources of innovation, the changes and their symptoms that indicate opportunities for successful innovation. And they need to know and to apply the principles of successful innovation.”

- Peter F. Drucker, “The Father of Modern Management"

All entrepreneurs should be educating themselves about some skill or facet of entrepreneurship at all times. My personal recommendation for student entrepreneurs is that they combine entrepreneurial education available through courses offered at Penn State with off-campus, extracurricular education. Mixing entrepreneurial academic courses into a student’s curriculum helps to alleviate some of the time and focus challenges unique to student entrepreneurs as noted by interviewed entrepreneurs (Charlie Perry, TeamItUp.com; David Adewumi, OneSchool.com). In addition to “killing two birds with one stone”, entrepreneurial academic courses enable students to meet likeminded and cross discipline peers interested in entrepreneurship, which was indicated by student entrepreneurs to be a core need.

Engineering Entrepreneurship Minor

Briefing
This minor program is perhaps the best academic program currently available to students interested in entrepreneurship. While it is in the School of Engineering, it should be noted that it is open to all students and is not like traditional engineering majors/minors.

**Action Steps**

As an academic minor, the program must have its requirements fulfilled to gain entry. Take Entrepreneurial Leadership (ENGR 310), Technology-Based Entrepreneurship (ENGR 407) and Entrepreneurship Business Basics (ENGR 411; if non-business student) in addition to a few electives (see http://schedule.psu.edu/).

**College of Information Sciences and Technology**

**Briefing**

IST has a relatively strong student entrepreneurial interest and their efforts have been fruitful in promoting entrepreneurship as Weebly started from an IST course. Seniors should specifically look into taking "Integration and Problem Solving" (IST 440W).

**Action Steps**

If a senior is of at least 7th academic semester standing, he or she can enroll in IST 440W via [http://schedule.psu.edu](http://schedule.psu.edu).

**Humanitarian Engineering and Social Entrepreneurship Ventures**

**Briefing**

This program, based out of the College of Engineering, is run by Khanjan Mehta. Even student entrepreneurs interested in for-profit enterprises will find the skills learned to be highly transferrable. The program involves an option to travel internationally to implement or revise the ventures in the program. Anyone is able to take these courses.

**Action Steps**

Student entrepreneurs should schedule EDSGN 497C and EDSGN 452 concurrently during the spring semester. If interested, schedule the .5 credit summer travel course, EDSGN 497A.

**Smeal College of Business, Graduate Courses**

**Briefing**

While the Smeal College of Business offers entrepreneurship courses, they are limited to graduate students and comprised mostly of MBA candidates. Nonetheless, Schreyer Honors College students are able to enroll in these courses.
Action Steps
Schreyer Scholars: search for ENTR courses on [http://schedule.psu.edu](http://schedule.psu.edu) and add to schedule.

Undergraduates: Other interested students should attempt to visit 451 Business Building or call (814) 865-0195 and plead their case for entry. Furthermore, individuals could contact the course professor via e-mail (see [http://schedule.psu.edu](http://schedule.psu.edu)).

*The Cross Discipline Entrepreneurship Minor*

Briefing
A cross discipline minor for entrepreneurship, led by Liz Kisenwether, envisions inspiring and preparing undergraduate students to be world-class technology business innovators. The minor may be one of the best means available for finding a team or co-founders as enrolled students will consist of every academic major. The minor’s topics current include start-ups, intrapreneurship, creating partnerships, and commercialization.

Action Steps
*Any* student is able to register for the any of the first three required courses (9 credits) in the Entrepreneurship minor. Register for either Entrepreneurial Mindset (GenEd), Entrepreneurial Leadership, or New Venture Creation on [http://schedule.psu.edu](http://schedule.psu.edu) after finding relevant information at [http://bulletins.psu.edu/](http://bulletins.psu.edu/).

*Other Courses*

Briefing
“New Venture Creation” and “Invention Commercialization” (MGMT/IST/ENGR 425 and 426) are cross listed courses that promote a hands-on entrepreneurial education and enable students to meet and work with others who may complement their skill sets.

Action Steps
Any student can enroll in these courses through [http://schedule.psu.edu](http://schedule.psu.edu).

*Innoblue Garage Lectures and Bootcamp (innoblue.org)*

Briefing
Innoblue, the case study and brainchild behind this toolkit, envisions a community transformed by entrepreneurship. Innoblue Garage is a start-up accelerator that facilitates this vision by offering various resources to student entrepreneurs.

Action Steps
Student entrepreneurs should visit http://innoblue.org for a calendar of entrepreneurial education events and live web-cams of the space. Furthermore, individuals should create an Innoblue account to receive information about upcoming events.

**Internship/Co-op for Entrepreneurial Experience**

The only place where success comes before work is in the dictionary - *Vidal Sassoon*

**Nittany Entrepreneurs Mentoring**

Briefing

Nittany Entrepreneurs is an organization in alliance with the CBICC that offers a number of resources for aspiring student entrepreneurs. They hold events every so often and are recognizable for connecting students with mentors and internships in Centre County.

Action Steps

The best way to secure an internship through Nittany Entrepreneurs would be to use their contact form at http://nittany.psuentrepreneurs.com/contact.html. Furthermore, interested individuals should attend their events (on their calendar).

**Web Development and Programming**

While an individual can learn nearly any language independently online, Innoblue has found that those with the greatest likelihood of continuing to hone this skill and translate it into a start-up will join some community of developers and software engineers. These groups will help keep student developers accountable in learning, answer questions that cannot be found online, and provide viable team members for potential future ventures. Non-programmers are advised by Matt Brezina (Sincerely, Xobni) and David Weekly (PBWorks, HackerDojo) to learn a bit if seeking to start a web based venture. Even a basic understanding can enable an individual to 1) converse better with technical co-founders, 2) communicate the technology to potential investors, and 3) work on less technically intensive, fundamental start-up tasks such as website design. Research at Penn State indicated that student entrepreneurs believe that marketing, fundraising, web development, and target market knowledge would best enable them to improve or start a venture.

**Introduction to Web Design (ART 101) and The Art of Web Design (ART 203)**

Briefing

The Art department’s courses on web design are useful to student entrepreneurs as they 1) save time by fulfilling students’ general education art requirement while simultaneously advancing skills vital for
entrepreneurs and 2) are available as web-only courses so that they can be taken almost anywhere during any semester (including the summer). They rely heavily on video tutorials, which a student entrepreneur would likely need to go through to learn web design. It would be beneficial to get credit for this undertaking as well!

**Action Steps**
Sign up for either ART 101 or ART 203 during any academic semester via http://schedule.psu.edu. The summer is a particularly valuable time to take one of these courses for student entrepreneurs.

**Introduction to Application Development (IST 297D)**

**Briefing**
This course is a seminar course that may be offered during any particular semester at Penn State. As there are no specific requirements for the course at present, it appears to be a nice way to gain object-oriented programming experience, which is featured in many modern programming languages.

**Action Steps**
Check http://schedule.psu.edu to see if the course is offered.

**Penn State Hackathon**

**Briefing**
The Penn State Hackathon was launched at the end of the fall semester by Innoblue, Sincerely, Weebly, and the College of IST. The goal of the hackathon is to promote software design and entrepreneurship among Penn State students. Talented students will likely find internships or full time offers with the sponsoring companies. See [http://psuhackathon.com/](http://psuhackathon.com/) and #psuhackathon.

**Actions Steps**
Developers, designers, and engineers able to interface with programming in some manner are encouraged to form a team and compete in a 24 hour competition with fantastic prizes. The hackathon will likely be offered every semester.

**State College Ruby Meetup**

**Briefing**
This meet up, taught primarily by State College residents Clinton Judy and Scott Woods, offers free monthly instruction on the Ruby and Ruby on Rails programming languages. These languages are extremely useful for web and application development. The group offers free food and drinks.

**Action Steps**
Simply join the Meetup group via http://www.meetup.com/state-college-ruby/ and create an account if necessary. From here, one will be notified of meeting times and locations. Furthermore, join the Google Group at http://groups.google.com/group/state-college-ruby/.

**Lynda Tutorials Web Dev and Programming (free for PSU students)**

Briefing
Due to a Penn State license with Lynda, the tutorials offered at Lynda.psu.edu are free to Penn State students and offer video and tutorial based instruction on web development, video creation, most programming languages, and design (e.g. Photoshop, Dreamweaver, Joomla!, Sketchbook). While the videos are somewhat lengthy, they are created so that anyone can follow and learn with due diligence.

Action Steps
Penn State students should log on to http://lynda.psu.edu with their Penn State user ID. For individuals with limited prior exposure to programming languages, the following sections are recommended specifically for web based ventures: Android, HTML, CSS, Dreamweaver, Ruby on Rails, jQuery, and WordPress. There is a great deal of fantastic content available through Lynda; it is advised that student entrepreneurs start anywhere in the “Developer” section.

**Online Programming Resources**

Briefing
There are numerous online resources for practicing programming and web development. As previously noted, student entrepreneurs should supplement independent, online learning through tutorials with participating in any of the groups listed. If a student entrepreneur does not find the Lynda tutorials to be useful, here are a few other resources.

Action Steps
Visit any of the following URLs for free tutorials:

- CodeAcademy (http://www.codecademy.com/) is one of the most popular free resources available for aspiring programmers and web developers.
- CodeSchool (http://www.codeschool.com/) mostly offers paid courses, which are well worth the money. The free courses include Try Ruby (http://www.codeschool.com/courses/try-ruby) and Rails for Zombies (http://www.codeschool.com/courses/rails-for-zombies).
- MIT offers computer science and programming courses free through OpenCourseWare at http://ocw.mit.edu.
• Open Education Resources offer several programming courses at http://oercommons.org, although they must be searched for individually and can be hard to find.

• Land of Code (http://www.landofcode.com) provides free information on web development and offers lessons, tutorials, examples, tests and references for all levels of programmers. No registration is required.

• Web Monkey (http://www.webmonkey.com) has computer programming tutorials, cheat sheets, interactive learning tools. Everything is free to use and no registration is required.

**Developing a Personal Unique Value Proposition**

*One of the huge mistakes people make is that they try to force an interest on themselves. You don’t choose your passions; your passions choose you.* – Jeff Bazos, CEO of Amazon

Our experience with Innoblue revealed that student entrepreneurs are famous for claiming the identity of “entrepreneur” without attempting to put in the work required for developing some skill set that actually benefits a start-up team. Being a business major does *not* mean that an individual is a capable marketer, accountant, or business plan creator. Being an IST major does *not* imply that a student is a skilled website designer or programmer.

In summary, these skills must be pursued and perfected *independently* of classroom instruction to be of any use to a start-up team. See the section on “Finding a Team” for more information. Discipline is no doubt a crucial ingredient in developing some unique value proposition for a team of co-founders or customers. More important than discipline, however, is *passion*. It cannot be overstated that finding some tangible skill that one enjoys will enable him or her to 1) be consistent in devoting the time required to perfect that skill, 2) surpass the ability of individuals not passionate about that skill and therefore 3) more easily form or join a start-up team by having a unique value proposition. Generally, this personal unique value proposition will carry with it some target market knowledge.

**Briefing**

Since there is no limit to the different unique value propositions an individual can develop, it falls to the individual to discover where the resources lie for perfecting that skill. Instead, below are listed just a few resources that entrepreneurs have used to find their passion.

**Action Steps**

TED.com offers videos that can help individuals discover this area. Watch a video every day in a different category to help define this passion.
The Meyers-Briggs Personality test can be taken to give an individual some indication of what his or her skill interests might include. A free version is available at http://www.humanmetrics.com/cgi-win/jtypes2.asp, although this test is not comprehensive and is only useful for a general understanding.

The Schreyer Honors College offers a PNC Leadership program that provides a detailed overview of students’ leadership strengths, weaknesses, and interests. Scholars can learn more at http://www.shc.psu.edu/alumni/lac/forstudents/signup.cfm and access the application when it becomes available by emailing SHCLAC@psu.edu.

VIII.2 STAGE TWO RESOURCES

Stage 2 resources are for students who have a developed idea for their venture and the skill set or requirements needed to launch it.

**Marketing**

"Many a small thing has been made large by the right kind of advertising."
- Mark Twain

Marketing is absolutely essential for student entrepreneurs. Through Innoblue, we learned that even an apparently rudimentary business or idea is able to reach a large market and appear “successful” with proper marketing. Research at Penn State indicated that student entrepreneurs believe that marketing, fundraising, web development, and target market knowledge would best enable them to improve or start a venture. Unfortunately, however, there are not presently many groups that assist with all elements of marketing in State College.

**Happy Valley Communications**

Briefing

HVC initially assisted Innoblue with its marketing efforts in Demo Day and Innovation Expo. They are well organized and can offer pro-bono assistance, although ventures must be selected by their executive team. They work for experience; therefore any fees for advertisements must be reimbursed.

**Finding a Team**

“I noticed that the dynamic range between what an average person could accomplish and what the best person could accomplish was 50 or 100 to 1. Given that, you’re well advised to go after..."
Finding a suitable team is arguably the most important part of a startup. This statement can be made because a team is one of the hardest and most expensive things to change during a startup's early stages. A product can be changed quickly. Slight variations can be made to target a new market. But a talented, passionate, hard-working team cannot just be hired.

The Cross Discipline Entrepreneurship Minor

Briefing
A cross discipline minor for entrepreneurship, led by Liz Kisenwether, envisions inspiring and preparing undergraduate students to be world-class technology business innovators. The minor may be one of the best means available for finding a team or co-founders as enrolled students will consist of every academic major. The minor’s topics current include start-ups, intrapreneurship, creating partnerships, and commercialization.

Action Steps
Any student is able to register for the any of the first three required courses (9 credits) in the Entrepreneurship minor. Register for either Entrepreneurial Mindset (GenEd), Entrepreneurial Leadership, or New Venture Creation on http://schedule.psu.edu after finding relevant information at http://bulletins.psu.edu/.

Innoblue Garage (innoblue.org)

Briefing
Innoblue, the case study and brainchild behind this toolkit, envisions a community transformed by entrepreneurship. Innoblue Garage is a start-up accelerator that facilitates this vision by offering various resources to student entrepreneurs. It was intended to help individuals find start-up teams and facilitate their work.

Action Steps
Student entrepreneurs should visit http://innoblue.org for a calendar of events and opportunities to get involved. Finding a team can be as simple as participating in the events.

Mentoring
Mentorship is absolutely essential for entrepreneurs; especially student entrepreneurs. Research indicated that student entrepreneurs need mentors and that mentors are very often willing to provide
advice. It is advisable that students find mentors local to Penn State University Park, in addition to mentors near their home area. Usually, the best way to secure a mentor is through one’s own connections. If these are unavailable, I have listed some resources that will help get student entrepreneurs started.

_Nittany Entrepreneurs Mentoring_

Briefing
Nittany Entrepreneurs is an organization in alliance with the CBICC that offers a number of resources for aspiring student entrepreneurs. They hold events every so often and are recognizable for connecting students with mentors and internships in Centre County.

Action Steps
The best way to secure a mentor through Nittany Entrepreneurs would be to use their contact form at [http://nittany.psuentrepreneurs.com/contact.html](http://nittany.psuentrepreneurs.com/contact.html). Furthermore, interested individuals should attend their events (on their calendar).

### VIII.3 STAGE THREE RESOURCES

Stage 3 resources are most needed by entrepreneurs who have launched their venture and wish to see it grow.

**Persistence**

>“Entrepreneurs average 3.8 failures before final success. What sets the successful ones apart is their amazing persistence” - Lisa M. Amos

At this stage, some failures are inevitable. An entrepreneur’s resolve must be steadfast and his adaptation to these changes must be fast and flexible. While persistence can be improved through practice, there are not necessarily resources that exist to augment it.

**Business Plan and Model**

>“In preparing for battle I have always found that plans are useless, but planning is indispensable” - Dwight D. Eisenhower

**Small Business Development Center and TechCelerators**

Briefing
The SBDC and TechCelerators at Penn State, Innovation Park offers a wide range of start-up assistance and tools that greatly benefit entrepreneurs in the region. While some of their services require modest fees, they can be well worth the investment. This group is one of the best available for personalized business plan assistance at Penn State.

**Action Steps**
Contact the Business Development center via [http://sbdc.psu.edu/contact-us.htm](http://sbdc.psu.edu/contact-us.htm). Ask specifically for personalized business plan assistance.

**Selected Readings**
There are no shortage of readings available that help entrepreneurs draft business plans and models.

**Action Steps**
Read any of the following resources for more info:


**Pitch Deck**

**IdeaPitch**

IdeaPitch is a business plan competition that occurs at the beginning of the spring semester every year. The judging criteria are a great start point in developing a pitch deck.

**Action Steps**
A video on assembling the pitch deck on Title, Market, Product, Customers, Business Model, Team, Financial Overview, and Exit Strategy is available at [http://ideapitch.smeal.psu.edu/learning-center](http://ideapitch.smeal.psu.edu/learning-center).
“It takes 20 years to build a reputation and five minutes to ruin it. If you think about that, you’ll do things differently” - Warren Buffet

There are few resources that have been presently identified at Penn State that specifically assist entrepreneurs with public relations. Several of the marketing groups, including Happy Valley Communications, do offer assistance with Public Relations in enrolled in their program. While public relations are often required by proper marketing campaigns, the two are not identical.

“P.R. includes community participation, bylined articles, public speaking, media commentary, relationships with local area reporters and development of good professional citizenship”. - Steve Bolerjack, Communications Director for the Five O’Clock Club

Briefing

Public relations at Penn State are primarily concerned with a few school and community related blogs and news outlets. These should frequently be contacted to publish articles and cover events. Each of these also features a community section that can additionally be used to submit content informally.

Action Steps

Reach out to the following outlets to publish stories:

- OnwardState.com – Register for an account at [http://onwardstate.com/register/](http://onwardstate.com/register/) to begin submitting community content. Follow @onwardstate on twitter and frequently mention in tweets from your startup’s twitter account.
- Collegian.psu.edu – Contact editorinchief@psucollegian.com to submit content. Follow @DailyCollegian on twitter and frequently mention in business tweets from your startup’s twitter account.

Legal Advice

*The Law and Entrepreneurship Project*
This project was started by Kai Kaapro, Dickinson School of Law ‘2012, founder of Trolley Pub. Kai was instrumental to Innoblue for informal legal counsel and strategy.

**Action Steps**
Visit [http://www.facebook.com/lawandentrepreneurship?sk=info](http://www.facebook.com/lawandentrepreneurship?sk=info) to connect with the group. Contact kai@innoblue.org to set up a meeting or call for informal advice.

**Additional Online Reading**

**Briefing**
Since legal advice can be difficult to find, several sources have been listed for additional information.

**Action Steps**
Google the following resources for articles and tips:

- Walker Law: Tips for Entrepreneurs
- Intellectual Property Law For Startups Blog
- Startup Company Lawyer: Yoichiro “Yokum” Taku
- Law & Disorder: ARS Technica Legal Blog
- Likelihood of Confusion: trademark, copyright and Internet Law

**Prototyping**
Prototyping is a business service typically reserved for hardware based products and inventions. Nonetheless, there are several services in the Centre County region that are able to take a design and, for a fee, manufacture a prototype. This prototype should then be used to secure further funding to expand manufacturing capabilities.

**Actuated Development Prototyping Service ($150 for first hour; $100 per hour thereafter)**

**Briefing**
A local company, Actuated Medical, has added prototyping and a few other services as part of what they offer to business partners and customers. They are happy to work with local entrepreneurs, on developing prototypes or solving other needs. They offer a very cost-effective and quick approach to getting a prototype or machined component into your hands.

**Action Steps**
If a plan or design had already been made, contact Kyle Albright at 814-355-0003 x103 and then visit their office at 310 Rolling Ridge Dr. Bellefonte, PA 16823. They have several machines capable of producing high quality prototypes of a variety of materials.
**Learning Factory at Penn State ($3,000)**

**Briefing**

The Learning Factory provides a University-Industry partnership where student design projects benefit industrial clients and industrial sponsors interact with students and faculty. After hiring the Learning Factory, an entrepreneur is given a team of 4 to 5 student engineers (hardware or software) who the manager should attempt to meet with regularly (once per week). While there are no guaranteed deliverables, the Learning Factory is an excellent option to pursue for prototyping, so that one is able to fundraise. The Learning Factory can assist in all components of prototyping, from patent research to models, mock ups, and full working prototypes.

**Action Steps**

Visit [http://www.lf.psu.edu/Sponsors/Project.cfm](http://www.lf.psu.edu/Sponsors/Project.cfm) and fill out the form describing the project. Furthermore, the entrepreneurs must donate $3,000 to cover materials, travel, instruction, and events. This cost is written off as a donation to Penn State and is tax deductible. Entrepreneurs should understand that the deliverables are not guaranteed as they are produced by students.

**Integrated Design Solutions (price unknown; offers funding of $10,000)**

**Briefing**

While Integrated Design Solutions has not been released, early stage talks indicate that it will be similar to a more supervised “Learning Factory” that guarantees deliverables by assigning a technical manager to every project. They will take designs with registered intellectual property and produce a prototype, collect data and perform analysis. Furthermore, IDS is offering several (three to six) funding packages in the amount of $10,000 to assist with prototyping costs. A single $25,000 funding package is available for projects utilizing alternative energy.

**Action Steps**

An IDS is currently in its early stages, although interested entrepreneurs in need of prototypes they should contact sbilen@psu.edu. This service seems promising and looks to serve entrepreneurs who need a little more up front capital to get their design ready for further investment.

**Grants and Investors**

"Business opportunities are like buses, there's always another one coming."

- Richard Branson, founder of Virgin Enterprises
The angel investor and venture capitalist is a trained professional at making money from another individual’s vision. He or she is highly capable at finding the reasons to avoid any type of investment in a student entrepreneur’s venture. This ability is essential for a company or individual aiming to profit through investment because 1) there are no shortage of ventures to invest in and 2) most start-ups fail. It is advisable to reach out to personal contacts for small investments or loans as they are 1) more forgiving, 2) less demanding and directing of one’s venture, and 3) generally will not rob a student entrepreneur, naïve to contractual obligations, of money or product. Some trustworthy Penn State investors and grants are listed below to supplement family and friend fundraising.

Research at Penn State indicated that student entrepreneurs believe that marketing, fundraising, web development, and target market knowledge would best enable them to improve or start a venture. A list of contacts accessible to Penn State student entrepreneurs is included along with the approximate investment or grant range.

**Sparkplug ($500)**

**Briefing**

The SparkPlug aims to advance entrepreneurship by helping student entrepreneurs launch a crowdsourcing campaign with their new product or venture. SparkPlug achieves this vision by offering selected ventures grants of $500.

**Action Steps**

A Penn State student entrepreneur must only submit a brief application of his or her idea at [http://www.thesparkplug.net/](http://www.thesparkplug.net/). Since only an idea is required for this application, it is technically an early stage resource.

**Lion Launch Pad ($500 grant; $1,000 1% equity investments; loans)**

**Briefing**

Lion Launch Pad was an effort that emerged from Robert Shedd’s 2007 honors thesis on developing entrepreneurship through business incubators. Liz Kisenwether can be attributed to launching the physical space and implementing Robert Shedd’s vision. Lion Launch Pad (LLP) can be best utilized by student entrepreneurs for its mentors and early funding assistance. The work of Shedd and Kisenwether was instrumental in the design and development of Innoblue Garage.

**Action Steps**

Student entrepreneurs must apply online and prepare a brief eight slide pitch deck on Title, Market, Product, Customers, Business Model, Team, Financial Overview, and Exit Strategy. Apply
IdeaPitch ($500-$2,000)

**Briefing**

IdeaPitch is a business plan competition that occurs at the beginning of the spring semester every year. Judging criteria are available at [http://ideapitch.smeal.psu.edu/judging](http://ideapitch.smeal.psu.edu/judging).

**Action Steps**

Student(s) must form a team by the end of January and prepare a brief eight slide pitch deck on Title, Market, Product, Customers, Business Model, Team, Financial Overview, and Exit Strategy to be submitted online and presented upon.

Crowdsourcing ($5,000-$100,000)

**Briefing**

Crowdsourcing is becoming an increasingly popular investment vehicle for early stage ventures. Currently pending legislation will make this avenue even more viable more start-ups in the future.

**Action Steps**

Visit any one of the following crowdsourcing platform and apply by following their submission criteria.

From Dowser.org:

- spot.us ([http://spot.us/](http://spot.us/)) is a funding platform for citizen journalism. Reporters keep 90 percent of the revenue; the rest goes to site editors.
- 33needs ([http://33needs.com/](http://33needs.com/)) is a web application that connects investors to small-scale entrepreneurs around the world. The investor receives 3% and 33needs receives 5% of the funding target for a project.
- Profounder ([http://www.profounder.com/](http://www.profounder.com/)) aims to help entrepreneurs get a community to invest in their project, creating a support base in addition to bringing in money.
- Kickstarter ([http://www.kickstarter.com/](http://www.kickstarter.com/)) targets artists and entrepreneurs who need funding to bring their creative projects to life. Its use of video as a means of sharing projects makes it particularly fun and simple. A project cannot begin, and no credit cards are charged, until enough pledges have been made to reach the funding target, so as to discourage poorly-executed projects.
- IndieGoGo ([http://www.indiegogo.com/](http://www.indiegogo.com/)) caters to artists and creative entrepreneurs. An individual can close a project before full funding, but the transaction fees also go up from 4% to
9%. Users can offer unique perks or tax deductions to contributors in lieu of offering profit, but always keep 100% ownership.

• Firstgiving (http://www.firstgiving.com/) helps organizations plan, execute, and measure successful online fundraising campaigns and events. With 8,000 organizations and 13 million online donors participating, and $1 billion raised online, Firstgiving’s services appear wide-reaching.

**The Garber Fund ($100,000-$300,000)**

**Briefing**

The Garber Fund of the Farrel Center of the Smeal College of Business claims to be the nation’s largest and most active student-centric venture fund. Consisting of a $5 million portfolio, the Garber Fund focuses on technology-based companies.

**Action Steps**

Visit 451 Business Building or call 814-865-4593 and ask to set up a meeting with someone to present your executive summary. Preferably, students should first visit Innoblue or the Lion Launch Pad to obtain an introduction.

**Ben Franklin of Centre County ($100,000+)**

**Briefing**

Ben Franklin of Centre County represents one office in a chain of Pennsylvania, government funded investors. In addition to generating some financial return, they aim to promote economic growth. Investment for for-profit entities through Ben Franklin is more likely if a student entrepreneur is able to 1) indicate a substantial number of jobs created in Centre County as a direct result of the venture and 2) generate profit, as with all investors.

**Action Steps**

Learn more at [http://cnp.benfranklin.org/](http://cnp.benfranklin.org/) before contacting the group to give an elevator pitch and request a meeting at info@cnp.benfranklin.org or 814.863.4558.

**BlueTree Capital Angel Investors ($200,000-$2,000,000)**

**Briefing**

BlueTree has been very committed to seeing Centre County entrepreneurship flourish and is eager to invest in Penn State ventures. The group has given numerous presentations on how to pitch for investment as well as an overview of venture capital and angel investment. The group seems most interested in the large collection of intellectual property that mostly unused by Penn State professors
and graduate students due to past Penn State policies on intellectual property. For this reason, graduate student entrepreneurs may be more likely to receive funding from this group.

**Action Steps**
Submit the venture’s executive summary at [https://www.bluetreealliedangels.com/contact_us.aspx](https://www.bluetreealliedangels.com/contact_us.aspx) and fill in required contact information. Additionally, contact Innoblue or Nittany Entrepreneurs for a personal introduction to the group.

**Life Sciences Greenhouse of Central PA ($250,000-$1,000,000)**

**Briefing**
LSGPA invests in scientific disciplines that have some associated (e.g. technology platforms) with human life and health. Included are many branches of biology and chemistry as well as some areas of genetics, physics and materials science. Their funds principally originate from a Pennsylvania tobacco settlement in 2002.

A minimum of 1:1 matching requirement is met from non-state related investment sources (typically founders, angel investors, or venture capital firms). Additionally, the invested companies must have a strong presence in central PA.

**Action Steps**
Visit [http://www.lsgpa.com/the-funding-process/](http://www.lsgpa.com/the-funding-process/) if the above criteria are met and apply.
VIII. REFERENCES

33. Mohoric, Drew. “Penn State Entrepreneurial Resources”. Received by e-mail April, 2012.
35. Images and designs courtesy of Zach Johnston, Innoblue CCO
36. Global Student Entrepreneur Award Definition https://members.eonetwork.org/Directory/Public/GSEAInterest_p.aspx
IX  APPENDIX A: INNOBLUE GARAGE OPENING ARTICLE

Innoblue Garage: Open for (Startup) Business
By Evan Ponter, via OnwardState.com on Thursday, September 29, 2011

After almost a year and a half of brain storming, Penn State’s future innovators have a physical address at the newly opened Innoblue Garage.

Tucked away behind the Fraser Street parking deck, what once was a vacant 911 emergency dispatch room has been transformed into a 1,050 sq. ft. creative commons for collaborative entrepreneurship.

As of yesterday, innovators from Penn State, State College, and surrounding areas can use the space as not only as a workshop but as a networking facility for finding local talent. For inventors looking for a marketing whiz, or businessmen looking for team members, the Innoblue garage is hoping to be a breeding ground for start-up ingenuity.

“We’re trying to bring all of the pieces of the puzzle together,” said Drew Mohoric, chief operating officer and president of the non-profit Innoblue group. “This space embodies our mission: innovate, collaborate and create.”

Mohoric hopes that soon the newly assembled work benches and whiteboards will be a flurry of creative construction. Innoblue is for those who “aren’t just thinking but taking action and building things,” he said. The garage is a living example of that doctrine.

With the sponsorship of State College borough and unwavering determination from Innoblue club members, in just two and a half weeks the drab cork-board walls were replaced with lively blue paint, lava lamps, stacks of Bloomberg Businessweek magazine and the buzz of innovation. This meant many “4 a.m. nights” for Mohoric and his crew who made sure that the garage was ready for yesterday’s debut.

Three separate areas have been designated to enrich the collaborative experience. There is a work space of desks and benches that can be cleared out to house around 40 people for various events. There is a social room with a couch which is designed for a ‘hang out’ type atmosphere. And there is a private storage area that can be used by keep track of work flow and even incorporate start-up businesses with a permanent locale-something not offered by on-campus facilities.

All of this is part of the effort to make those “rejecting the status quo” feel “at home” in the Innoblue garage, Mohoric said. Entrepreneurs now have an added tool in their quest to create the future.
In 1977, Steve Jobs said “Apple at the core, it’s core value, is that we believe that people with passion can change the world for the better, that’s what we believe…”

Jobs, one of the greatest entrepreneurs of the last fifty years, opens with an interesting definition of an entrepreneur — someone who believes they can change the world for the better.

Entrepreneurs are people who make things, not just talk about making things. Entrepreneurs are “heat-seeking missiles” as one venture capitalist opines on his blog. Entrepreneurs, in the words of Michelangelo, “criticize by creating.” People make things they are passionate about. Entrepreneurship, at its core, is about passionate people.

We are looking for passionate people, crazy enough to think they can change the world and make the it a better place. The entrepreneurs that are the most influential and successful are the ones who care about having an impact on the world. Penn State’s general counsel, The Honorable Judge Cynthia Baldwin, shared an aphorism from her mother. “Well everyone always says ‘someone ought to do something about this, or someone ought to do something about that.’ But guess what? You are someone, and you ought to do something. When you see something and you say to yourself ‘well someone ought to do something about that,’ you have found your passion.”

Penn State Demo Day 2010 will shed light on the amazing work completed by Penn State and State College ventures. Innoblue is showcasing 12 notable ventures, many of which are award winning. We’ve partnered with Penn State’s Humanitarian Engineering and Social Entrepreneurship (HESE) Department as well as an on-campus incubator, Lion Launch Pad.

“Collaboration is the most important way to promote creativity and innovation, making Innoblue labs the key to developing Pennsylvania into a hub of enterprise,” said Rex Kirshner, Tomorrow Innovations program manager. “Some of the best ideas with the most potential for profit come from the people with the least business experience: students in the nation’s top universities.”

We are students. We are changing the region. We want to help you do something too.

Thank you for coming to the inaugural Penn State Demo Day.

David Adewumi, Jon Tornetta, Drew Mohoric.
Event Information

For assistance during the day seek out one of our team members wearing a black shirt or jacket with the Innoblue logo.

E-mail: contact@innoblue.org
Text or Call Cait Gossert: (717) 870-9902

Feel free to make use of Twitter by tweeting @realinnoblue or use the #PSUDemoDay hashtag.

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<tr>
<td>Light refreshments provided by Java Catering</td>
<td>Opening Remarks: David Adewumi &amp; Jon Tornetta (Innoblue)</td>
<td>Venture Presentations</td>
<td>Venture Presentations</td>
<td>Social time with ice cream provided by Penn State’s Creamery</td>
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5:35 - 6:35 10 min  Break

What is Innoblue?

Innoblue was established in April 2010 by two Penn State students, David Adewumi and Jon Tornetta. We are dedicated to starting and supporting innovative business, civic, and social ventures in the Penn State and State College communities. In just seven months, Innoblue has grown to include a team and large advisor pool with multidisciplinary backgrounds, who all work together to oversee and catalyze the progress of our ventures.

Innoblue is run by Penn State students who envision a community transformed by entrepreneurship. We connect great mentors and advisors to the students and ventures who are searching for guidance. In the future, Innoblue will open Innoblue.labs, a space that is open to all innovators, designers, engineers and creators. We will facilitate communication and collaboration, creating an environment that will produce great products.

Innovation and entrepreneurship will serve as engines of economic growth and job creation in the Centre Region. A university-centric approach will facilitate the first steps for students, faculty, staff, researchers and alumni entrepreneurs in their quest to establish start-up companies.

Labs

The mission of Innoblue.labs is to establish a location in State College where innovators, developers, engineers and artists can transcend traditional barriers and come together to collaborate on entrepreneurial ideas.

We plan to launch Innoblue.labs in 2011.

Hosted by: Dean Brady, dean of Penn State’s Schreyer Honors College.

Brady holds two advanced degrees from the University of Oxford, a graduate diploma in Jewish studies and a doctorate in Oriental studies with a concentration in ancient Hebrew and Jewish literature, the former obtained simultaneously while completing a master’s degree in biblical and theological studies from Wheaton College. His baccalaureate degree, in Near Eastern studies and history, is from Cornell University.
Blistt

Founded in June 2010, Blistt is a platform to meet group travel needs. By leveraging the enthusiasm of the travel community with social networking, Blistt offers a unique interactive experience that makes it possible for its customers to explore the world of travel with friends and strangers alike. The company believes in the power of community and the thirst for experience. Blistt consolidates individuals into large groups so that they may take advantage of group rates. Members create profiles and may search for friends and other members who share similar interests. Blistt encourages members to attend available trips, posted by partnering companies. Upon joining a trip, the attending member’s friends are notified via Blistt and Facebook so that they too may join the same trips.

David Hartmann is a senior pursuing a B.S. in Finance from the Smeal College of Business at Penn State. His professional experience stretches 6 years, with his most recent being two six month internships at Johnson & Johnson companies; Sales and Logistics, LLC. and Pharmaceutical Research and Development, LLC. From inception, David founded Blistt as a Delaware based LLC. and secured a 5 person team under six months. To-date Blistt has invested less than $5,000.00USD.

dave@blistt.com
Blistt.com

Lion Launch Pad

The Lion Launch Pad is an independent, non-profit, business accelerator for Penn State undergraduates. Based in State College, Pennsylvania, our program was created to help undergraduate student entrepreneurs convert innovative concepts into viable startups.

Every year, we see a number of student-driven concepts with fantastic potential that failed to make the leap to successful startup. The Lion Launch Pad was founded to help students build their startups while at Penn State – we are a startup, helping startups.

The Lion Launch Pad and its team of professors, alumni, and successful entrepreneurs can assist in several ways. We can help by offering mentoring, helping you find other key contacts and teammates, and locating the resources you need to grow.

HESE

The basic philosophy of HESE is the convergence of concepts, disciplines, cultures and countries towards a freer, fairer, friendlier and more sustainable planet.

HESE challenges students and faculty from across campus to break down the barriers between their disciplines and truly collaborate to develop technology-based solutions to address the most compelling problems facing humanity today. We strive to develop transformative social innovations and scalable business models to transform these technology solutions into sustainable and scalable ventures that enable and accelerate positive social change throughout the world.

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LivePSU

At Penn State, there is an insatiable demand for off-campus housing. A unified website to assist students, including services for finding an available house or apartment, finding a roommate, and posting a sublet, does not exist. LivePSU will include these functions, in addition to creating a forum for reviewing and sharing experiences with landlord. LivePSU will be the primary source for renting, subletting, reviewing, and exploring off-campus residences for Penn State students.

Paul McNamee is a junior at Penn State studying Industrial Engineering. He is a creative developer and project lead for Innoblue, an active member of Springfield THON and the Penn State chapter of the Institute of Industrial Engineers.

Brian Crowe is a senior at Robert Morris University, majoring in Information Science. He is skilled in web and software development. Bryan has created a variety of relational databases and related software applications. He has completed a year-long internship at Essential Systems, Inc.

Viewcubed

Viewcubed is a story-telling platform created to give users a simple and unique way to combine multiple forms of media online to share their experiences. Viewcubed allows users to import their photos, videos, sounds, words, and Tweets to easily tell their stories and then share them with family and friends. Users can also view their friends’ stories and re-tell them from their own perspectives using their own media.

People who want to showcase their experiences currently post information on YouTube, Flickr, personal blogs and Twitter, but they lack a unified media platform. As a result, content is lost in the uncoordinated flow of information. Viewcube provides an easy way to bring media together to form creative, interesting stories to share. Others, who may have had the same experience, can retell that experience, creating new perspectives by adding new content.

Andrew Pitz graduated summa cum laude in 2009 from Penn State. During the 2008 and 2009 seasons, he was the starting long-snapper for Joe Paterno’s Nittany Lions football program, a position that taught him the drive, discipline, and dedication needed to help his team to its 22-4 record. He was twice named a first-team Academic All-American by ESPN The Magazine, a distinction awarded each year to only 24 players in Division I college football.

Zach Gotsch is a 2010 graduate of Penn State with a major in computer science and minors in both mathematics and linguistics. He is experienced in web development, having used a variety of frameworks and languages on diverse platforms. These include an auction site, a content management system, and a data collection platform. His experience also includes projects in Penn State’s Applied Research Laboratory.
SleepPhones

SleepPhones by AcousticSheep, LLC are the world’s most comfortable headphones for sleeping. The innovative patent-pending design was developed by a family physician to help her and her patients fall asleep comfortably to lullabies, without resorting to drugs. With soft padded removable speakers in a washable headband, SleepPhones have helped over 15,000 people sleep better.

Launched from a sewing machine and soldering iron on the kitchen table in 2007, AcousticSheep, LLC has grown in three years to a half-million dollar company. This environmentally-friendly and socially-conscious local company has recently released Dreams CD, Sheep and RunPhones. The next step is to develop a wireless version. AcousticSheep, LLC’s goal is for SleepPhones to become the premier brand for sleep headphones, supplanting drugs for millions of insomniacs.

SleepPhonesTM
pajamas for your ears

Wei-Shin Lai, MD is a board-certified family physician employed by Penn State. For the past three years, she has been selected as a top family physician by the Consumers’ Research Council of America. She completed her residency and internship at Hunterdon Medical Center. She graduated from the University of Virginia Medical School in 2002. Her undergraduate degree is in cellular and molecular biology from the University of Michigan.

Jason Wolfe is a software developer specializing in creating educational games at Penn State. After attending Bowling Green State University on a full National Merit Scholarship, he graduated with a Bachelor of Science degree in computer science. He helped create the multiplayer functions in Microsoft Golf ’98 and worked with other gaming start-up companies.

Ihrenes Space Enterprises

Ihrenes Space Enterprises envisions commercial space travel becoming prevalent in the next stages of human exploration of space. It seeks to support and nurture the emerging commercial space market by providing tailored mission analysis and design support for several critical elements of a successful mission. Support includes pre- and post-mission radiation analysis, code development, crew training, design and testing of novel space architectures, space suits and completing space habitation studies. Ihrenes Space Enterprises ensure that its clients will meet the upcoming tighter safety regulations regarding radiation exposure and pass the FAA certification for human commercial space flight.

Irene Schneider holds a Masters degree in Geosciences from the Pennsylvania State University with a specialty in Astrobiology. Her research is focused around planetary radiation environments in collaboration with Professor James Kasting and NASA Johnson Space Center Chief radiation officer Dr. Francis Cucinotta. During her thesis research, she was also a member of the NASA Virtual Planetary Laboratory, a group of distinguished scientists whose main goal is to understand how habitable other planets might be around other suns.

Dr. J. Bryce Taylor, has extensive engineering experience with state of the art computational tools used in nuclear engineering. His work focuses on the design, development, and application of deterministic particle/radiation transport codes for safety analysis and radiation shielding. Dr. Taylor founded Milesburg Scientific Research & Consulting in Milesburg, Pennsylvania, where he provides a wide range of consulting services related to nuclear and renewable energy technologies, radiation analysis and scientific computer code development and support.
WishVast

Derived from the word “trust” in Hindi, WishVast is a cell-phone based social networking and trust building system that leverages the pervasive nature of cell-phones to alleviate poverty. Over several years of on the ground research, the team has identified three key issues faced by the economically poor: limited availability of information in developing regions; a lack of confidence and difficulties building trust; and small returns on timely and costly day-to-day tasks.

Our solution addresses all of these problems by considering the following facts:

- 97% of people in Tanzania have access to cellphones and already use them for business.
- 100% of people in a study in Tanzania say they will only do business with people they respect.
- 96% of people in a study in Tanzania say they will only do business with people they trust.
- Calling is expensive (15ksh cost per call, about $0.20) while SMS is cheaper (3.5 ksh, about $0.04) (only pay for sending, not receiving).

Mashavu

Mashavu kiosks are computer-based telemedicine systems that are specifically designed for rural communities in developing countries, such as Kenya. A kiosk is composed of rugged, modular, and affordable medical devices, which are interfaced with a single computer and our software. Mashavu kiosks transmit patient information over a cell-phone link to a secure website. Medical professionals at health clinics then review the patient evaluation and reply with patient recommendations. Mashavu provides an effective means of triaging for populations who normally cannot seek medical attention and helps to raise awareness of health education. The entire Mashavu system costs $150 and will be given on a no cost lease to clinics. Mashavu means “chubby-cheeked” in Kiswahili, which is how we want all of the children in the world to be.

Mashavu is the compiled work of 162 students from 28 majors across 9 colleges for 3 years. The team developed an in depth validation process and conducted two years of beta testing on the ground in Kenya and Tanzania.

Colin Andrews is a senior in bioengineering. He developed the pulse oximeter as a part of the Bioengineering Team and led the team on the ground last summer.

Roma Amin is a junior pre-medical medical major. She co-chaired the Concept of Operations Team and also traveled to Kenya last summer to implement beta testing of the fully functioning Mashavu system.
Wall Buddy

The advent of the SMART board and similar devices has created a new platform for interfacing technology with lesson plans in the classroom. The challenge with implementing such systems in all classrooms comes from high costs and difficulty in training teachers to use the equipment and software effectively. The current interactive technology costs between $700 and $2000, which makes it difficult for low income school districts to implement. The Wall Buddy is an easy-to-use teaching aid that utilizes existing projectors, chalkboards, and dry erase boards in combination with an inexpensive webcam and interactive writing device to provide every classroom with an interactive teaching environment at a cost of less than $100 per device.

Jason M. Binz is a graduate student in the Department of Chemical Engineering at Penn State. He received Bachelor of Science degrees in Chemical and Mechanical Engineering from the University of Delaware.

Rebel Turtle

Rebel Turtle designs comfortable solutions for college living. Their first product is the Study Buddy, a comfortable, compact, full-body support system for work and relaxation. Rebel Turtle integrates student perspectives in the design process.

Zach Miller operated his own exterior house painting business which generated over $400,000 over two years. Zach has worked for The Hershey Company in retail sales and category development.

Ravi Patel is a 2010 Penn State graduate with Bachelor of Science degrees in Industrial Engineering and Biology. Ravi has valuable experience in the industrial field with designing and executing projects.

Jonathan Devansky is majoring in Finance and Economics at Penn State. He started a car detailing business as a freshman, and is currently creating a non-profit. Jonathan has interned both at The Hershey Company and Lockheed Martin.
Altag produces a novel technology to instantly convert any bicycle into an electrically propelled vehicle. Worldwide production of bicycles topped 100 million units for the first time in 2003, over twice the production of cars. The average commute distance to work is 16 miles and in urban areas the average speed is only 15 mph. Altag seeks to capitalize on the existing bicycle infrastructure to provide fast, affordable, and sustainable transportation to the rapidly expanding global urban and suburban workforce. The simplest version of the product provides forward force, payload storage, and electrical battery energy. There is ample storage space for up to 70 pounds of luggage. The product is able to travel 25 miles on a single charge at 25 mph. When detached, the bicycle operates normally, thereby eliminating downtime during charging and preserving continuous functionality. Planned upgrades include GPS (expected Dec. 2010), tail-light (expected Jan. 2011), smart-phone connectivity (date TBA), and a charging outlet for electronics (expected Jan. 2011).

Matt Barnes is an undergraduate in Mechanical Engineering at Penn State. He conducts extensive research under the tutelage of Dr. Sean Brennan. He teaches several lessons of the ME 456: Industrial Robot Applications class and is a Curriculum Mentor for a high-school robotics camp through Penn State’s Outreach program.

GinzVelo is dedicated to making safe, efficient and fast vehicles. The vehicles, called velomobiles, are legally classified as bikes in the United States. The initial GinzVelo product is a body with five cubic feet of storage capacity (two full back packs) which will cover and protect an existing recumbent bike frame produced by ICE Cycles. The electric propulsion system is produced by E-Bike Kit and will be installed onto GinzVelo products at an additional cost. Given the increase in aerodynamic performance over a regular bike, average riders will be able to attain speeds in excesses of 45 mph and comfortably cruise at speeds of 25 mph on flat surfaces without electric assistance.

Peter Ginzburg is an undergraduate in Mechanical Engineering at Penn State. He is fluent in Russian and enjoys motorized and non-motorized winter sports such as motorcycle snow drifting and snowboarding. He built speed limit breaking go-karts and mini-bikes while in high school and launched a small landscaping business to pay for college. He has built multiple three wheeled vehicles which have inspired him to design Ginz-Velo.

Ginzvelo@psu.edu

Ginzvelo.com
Buzzlegoose

Buzzlegoose, LLC is a daily online arts magazine, publishing news, reviews and interviews on independent music, film and books. Buzzlegoose aims to build a thriving community within the independent arts, acting as a conduit for the movement against the mainstream art world. With personality and individuality at its core, buzzlegoose provides a series of original and reputable voices, making it a destination rather than a result of a search engine algorithm.

Nick Weingartner is an accomplished editor and journalist, with experience in both new and traditional media. He has written numerous articles for college publications, as well as national websites, including The Huffington Post. In addition to journalism, he has worked in film and radio.

John Noonan has 10 years of experience designing, developing and marketing websites in the publishing industry. He has worked with many magazine companion websites, such as Men’s Health, Prevention, Runner’s World, and National Geographic. John has also operated his own web design and development firm for the past 5 years.

Buzzlegoose.com

12th venture

Eco Car

The Penn State Advanced Vehicle Team has been competing in automobile competitions for 12 years. Currently, the team is in the third year of EcoCAR: the NeXt Challenge, sponsored by General Motors and the United States Department of Energy. The competition challenges 16 North American universities to design and build a working hybrid vehicle, applying GM’s standard engineering design methods and procedures. The objective is to construct vehicles employing innovative technology which reduce greenhouse emissions, have better efficiency, and reduce overall petroleum consumption from well-to-wheels when compared to the stock vehicle. The Penn State EcoCAR team recently placed third overall at the Year Two competition that took place on the General Motor’s Desert Proving Grounds in Yuma, Arizona. The team is currently working toward the Year Three goals of overall refinement and reducing weight. Dozens of engineering, computer science and public relations students comprise the team.

Allison Lilly is a junior majoring in public relations with minors in environmental inquiry and psychology at Penn State. She is currently the national liaison of the Lawrence G. Foster Chapter of the Public Relations Student Society of America. She is also an account executive for Happy Valley Communications, a student-run public relations firm. She is a member of the outreach team for Year Two of EcoCAR.

Brenna Thorpe, is a junior in the Schreyer Honors College pursuing a double major in public relations and communication arts and sciences, with a focus on energy-related communication. She is the alumni and public relations chairperson for Penn State Mock Trial, a public information intern at State College Area School District, and an account associate with Happy Valley Communications. This is her first year with the Penn State EcoCAR team.
**Board of Directors**

David Adewumi is a senior undergraduate student at Penn State studying global languages (Chinese, Spanish, French) and social entrepreneurship.

Jon Tornetta is a junior undergraduate student at Penn State studying chemistry in the ECoS Science Bachelor of Science/Masters of Business Administration program. He has been very active on campus as the president and founder of PACFA (cigar club) and social chair of Beta Theta Pi Fraternity.

Drew Mohoric is a junior undergraduate student at Penn State studying accounting in the 5-year Master of Accountancy Program while pursuing a minor in economics. In addition to his involvement with Innoblue, he is a member of Beta Theta Pi Fraternity and a member of Beta Alpha Psi Honorary Business Fraternity, the Schreyer Honors College and several intramural sports teams.

Alex Weller is a second year graduate student in the Laboratory for the Comparative Study of Morphology, Mechanics and Molecules, where he researches ancient human evolution. He graduated from Penn State in 2009 with a degree in economics.

Dr. Jack Matson is the owner of an award-winning, green architecture design firm called Envinity Inc. A professor of environmental engineering at Penn State, Dr. Matson specializes in waste management, industrial water and wastewater treatment and expert witnessing. He holds Bachelor of Science and Master of Science degrees in chemical engineering from the University of Toledo and a Ph.D. in environmental engineering from Rice University.

Phil Park is responsible for the overall management of the CBICC Business Incubation program including recruitment and mentorship of incubation member companies and oversight of incubation general business management.

Todd M. Bacastow graduated from The Pennsylvania State University in 2005 with a B.S. in Information Sciences and Technology. He is an Associate at FirstMark Capital (formerly Pequot Ventures) and focuses on investments in the applied technology, enterprise software and digital media. He works closely with the management teams of FirstMark’s portfolio companies and assists with strategic business initiatives.

**Advisors**

**Lead Advisors:**

Dr. Christian Brady, Dean, Schreyer Honors College, Penn State University

David Weekly, Founder, of PBWiki and Hacker Dojo

Matt Brezina, Founder, Xobni, Schreyer External Advisory Board

Dr. James Gardner, Professor and Executive in Residence, Science BS/MBA Program, Former executive at Pfizer and US Army Ranger.

**Civic Advisors:**

Kevin Moroney, Chief Information Officer, Penn State

Elizabeth Goreham, Mayor, State College Borough

Tom Fountain, Borough Manager, State College Borough

Deb Blythe, Director of Facilities Resources, Office of Physical Plant, Penn State

Steve Shelow, Director, Pelico Services, Penn State University Park Campus

Andy Merritt, Teacher, State College Area High

Jayson Jackson, Associate Director for Online Communications, Penn State Alumni Association

Max Wendkos, President, Penn State Interfraternity Council

Dan Florencio, Executive Vice President, Penn State Interfraternity Council

Paul Grabill, Lead Pastor, State College Assembly of God

Steve Roberts, President, Association of Residence Hall Students

Sara Linkosky, President, Panhellenic Council

Jeff Rundle, District Chief, Beta Theta Pi Fraternity

Bobby Ryan, President, Off Campus Student Union

Steve Lutz, Director, Commentary.com, Campus Minister

**Venture Advisors:**

Aston Motes, Engineer, Dropbox

Rory Spangler, Founder, Boxstr.com, Vice President of Technology Development, BestVentures

Steve Garguilo, IST ’09, IST Alumni Society, Director TEDxPSU

Matt Brezina, Founder, Xobni, Schreyer External Advisory Board

David Rusenko, Wobly, Penn State ’08

Ken Rawley, Vice President of Marketing, Abbey Corporation

Aaron Fleishman, Social Entrepreneur Penn State ’09

**Lab Advisors:**

Ethan Hirsbr, President, Penn State Entrepreneurs Network, I2V, Ideapitch

Phil Park, Business Incubation Manager, Centre County Industrial Development Corporation

Rob Shedd, Founder, Three Screen Games, Lion Launch Pad

Dr. Gerry Santoro, Professor, College of Information Sciences and Technology

Rick Harrison, Founder, NineRobot.com

Dr. Jim Jansen, Associate Professor, College of Information Sciences and Technology
The Innoblue Team

**David Adewumi** is a senior undergraduate student at Penn State studying global languages (Chinese, Spanish, French) and social entrepreneurship.

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**Alex Weller** is a second year graduate student in the Laboratory for the Comparative Study of Morphology, Mechanics and Molecules, where he researches ancient human evolution. He graduated from Penn State in 2009 with a degree in economics.

**Zach Johnston** is a sophomore undergraduate student majoring in advertising at Penn State. He spends much of his free time honing his web and graphic design skills. When it comes to Innoblue, he is responsible for overseeing the creative processes in all print and web related projects.

**Matt Felser** has worked on a NASA research project at Carnegie Mellon University. His assignments consisted primarily of building software to transmit real-time data from various sensors into a remote database, on the scale of millions of records. Matt also designed data visualizations and web interfaces for the system.

**Ramy Mansour** is a junior Information Science Technology major at Penn State, is an experienced and multi-talented designer and developer on the innoblue creative team, redbrick productions. While not wrangling html, css, and photoshop, he is also active in the Navigators on campus.

**Paul McNamee** is a junior at Penn State in Industrial Engineering. He is the vice president of PACFA, a creative developer and project lead for innoblue, and an active member of Springfield THON as well as the Penn State chapter of the Institute of Industrial Engineers. He works 30+ hours a week while school is in session in order to pay for tuition. In his free time he likes to play ultimate frisbee, play the drums, golf, fish, and camp.

**Brett Fisher** is a first year MBA student in Penn State’s Science BS/MBA program, with concentrations in supply chain management, marketing, and entrepreneurship. He has started two companies, completed a co-op at Johnson & Johnson and ran for State College Borough Council.

**Francisco Utrera** is a Junior Finance student in Penn State, with a minor in Mathematics and currently enrolled in the Schreyers Honors College. Currently he is the Associate Manager of the Materials sector in The Nittany Lion Fund. Last summer he interned at Goldman Sachs in the Sales & Trading division.

**Juan Castro** is a junior student at Penn State majoring in Finance and Economics, originally from Ecuador. He is part of Schreyer Honors College, and also involved with the Penn State Investment Association. He has interned with Losning Business Solutions and Tutobienes in South America, acquiring experience on consulting and investment advising.

**Rachel Miller** is an undergraduate student studying international politics and Spanish at Penn State. She enjoys doing community service and is committed to social improvement. In addition to being involved in Penn State organizations, she is also an active member of the larger State College community, making her the perfect leader for Innoblue’s civic ventures.

**Cait Gossert** is a junior undergraduate student dual majoring in public relations and art history at Penn State. She works for Happy Valley Communications, a Penn State, student-run public relations firm partnered with Innoblue to provide public relations, advertising and media services.

**Saury Mejia** was born in New Brunswick, New Jersey, raised in North Philadelphia and Perth Amboy, New Jersey. A graduate from Perth Amboy High School, Saury boasts his Dominican heritage. He is an officer at Beta Theta Pi and hopes to attend law school and become a successful corporate lawyer.
Mentors

Ryan Rzepecki— Founder and CEO of The Social Bicycle System (SoBi)
Ryan Rzepecki founded SoBi in November 2008. SoBi is a 4th generation bike share system that uses innovative lock designs that fit any bike and any bike rack. SoBi utilizes mobile phone technology to allow a user to find and unlock bikes using a mobile phone and provide a viable public transportation alternative. Rzepecki holds a Bachelor of Science degree in International Business from Penn State and an MUP in Sustainable Development from City University of New York-Hunter College.

Ray Lau
Technology entrepreneur with substantial technology and business strategy experience. He is the Founder and CEO of an exciting mobile startup in Silicon Valley, Playhaven, that aims to disrupt the mobile app discovery space with a free cross-promotional platform. Ray, who holds a B.S. degree from Cornell University in Electrical and Computer Engineering, runs product strategy, recruiting, fund raising, strategic planning, marketing, sales, and business development. He has raised over $1 million for his start-up from angel investors and venture capitalists.

Matt Brezina— Co-Founder of Xobni
Matt Brezina is an entrepreneur from State College, PA currently residing in San Francisco, CA. After dropping out of graduate school in the spring of 2006, Brezina founded Xobni, an email software company that offers unique ways to manage and search email inboxes through Outlook and on the BlackBerry that allow people to save time searching for conversations. The name Xobni, inbox spelled backwards, is an affirmation of their mission to “take back” the email inbox for our users.

David Rusenko – co-founder of Weebly
David cofounded Weebly, an incredibly easy to use tool that helps millions of people create a professional web site, blog or online store. He’s also a part-time DJ and traveling enthusiast.

Gary Quinn— Director of Business Development at NBC Sports
Gary Quinn, currently NBC Sports’ Director of Business Development, recently received an Emmy Award for “Outstanding New Approaches” for his work on the Olympics. The new category was created for online video coverage.

Aston Motes — Coder and engineer, Dropbox
After graduating from MIT with a Bachelor of Science degree in computer science and engineering, Aston jumped into the world of startups. He currently works for Dropbox, an online service that allows documents of any kind to be shared from one computer to another.

Philosophy

1. Disregard no person. — Focus relentlessly on the customer. Without people, we don’t exist. They are the focus of everything we do. We offer our resources to those who don’t have the power, money, or means to execute their vision. Everyone is important because everyone has value. This concept is at the heart of everything that we — and the ventures we invest time, money, and resources in — are about.

2. Talk often and frequently: make time to listen. — Communication is the key to building strong and healthy relationships. 70% of communication is non-verbal, and so whether on Facebook, Skype, or face-to-face, nothing beats seeing people, being interested in what they are saying, and having good conversation. Innoblue believes that two-way communication is the key to facilitating sustainable relationships.

3. Attention to Detail — Our team is committed to building sustainable relationships and in order to do so, we pay specific attention to the goals, values, and details of our partners and ventures.

4. Teamwork is key — The whole is greater than the sum of all parts. No one member of the team is more important than the other, for what would a mouth be without a foot, and a heart without a brain, or a hand without the leg — you get the idea.

5. Single-tasking — Execute one task, aggressively and swiftly. Focus is critical in a lean, start-up organization. Have “one mind” and do one thing very well.

6. Slow is smooth, Smooth is Fast — Do something slowly, and well. Eventually, you will get better at that thing you are working on and it will get done much more quickly.

7. Truth wins, always — We believe that everyone has value and everyone is important, and so we don’t place more value on an idea because of who says it. People’s ideas are based on the merit of their idea and not on the person who presented it.

8. Good vs. Great — Good is the enemy of great.

9. Be nice but don’t fake it — We leave suits and ties for James Bond, because, well — he just looks better than we do. We believe in importance of being genuine.

10. Do well while doing good — This is the core of what we do. We believe we can make the world a better place, while still doing well for ourselves and adding value to the world around us. Whether working on ideas that will have a civic and local impact, or social and global impact; the double bottom line is not only feasible, it is attainable.
Within the Eberly College of Science, it has been increasingly recognized that our mission includes preparing our students, academically and otherwise, for the world of science-based business – a path which will draw many of them after graduation.

In the words of the College’s Strategic Plan – “the core of this effort is providing students with experiential learning opportunities that enhance their education, prepare them to be professionals in the 21st century, and equip them to be leaders.” While perhaps the most visible, the Science BS/MBA joint degree program (which I help coordinate) is but one of many initiatives targeting that goal.

That educational mission is also the basis for my personal enthusiasm for Innoblue. Student-focused and student-led, Innoblue will significantly expand and enrich the spectrum of business-related preparatory opportunities available at Penn State, thus improving the overall educational experience – plus, I might add, recruitment and retention as well.

In addition, Innoblue -- from a broader perspective -- could prove to be a valuable addition to long-standing “town and gown” efforts to enhance commercial innovation and entrepreneurialism in the State College area. After all, anyone at Stanford or MIT will readily acknowledge that it is the “entrepreneurial culture” shared by students and alumni – not specific programs or facilities – which drives their success.

Given Penn State’s self-described identity as a “student-centered university”, it follows that nurturing the innovative spark within our undergraduates (who will soon be alumni) may well be the best way to develop here a similarly expansive and self-propagating entrepreneurial culture.

It is for these reasons that I support Innoblue and urge others within the university and community to do likewise.

Jim Gardner

James R. Gardner, Ph.D.
Professor & Executive in Residence
Science BS/MBA Program
Eberly College of Science
Penn State Chairman, Business Advisory Board
ePostal Services, Inc.
www.epostalservices.com
XI. APPENDIX C: INNOBLUE BOARD OF DIRECTORS BYLAWS

BYLAWS

of

INNOBLUE

ARTICLE I
NAME AND PURPOSES

Section 1.01. Name. The name of the organization is INNOBLUE (referred to herein as the “Corporation”).

Section 1.02. Purpose. The Corporation is organized for the charitable and educational purposes of fostering and supporting innovative business, civic and social ventures in the Centre County, Pennsylvania region and beyond. Innoblue will provide educational and consulting services to people interested in starting ventures. Innoblue will assist in the advancement and marketing of scientific research completed at The Pennsylvania State University, other institutions, and generally accepted knowledge. Innoblue will foster cooperation between the students, staff and administrators of The Pennsylvania State University, community members and companies. Innoblue will support strong communities by fostering the advancement of entrepreneurship and business in the Centre County, Pennsylvania region.

ARTICLE II
MEMBERS

Section 2.01. There will not be any members.

ARTICLE III
AUTHORITY AND DUTIES OF DIRECTORS

Section 3.01. Authority of Directors. The Board of Directors (“Board”) is the policy-making body and may exercise all the powers and authority granted to the Corporation by law.

Section 3.02. Number, Selection, and Tenure. The Board shall consist of that number selected from time to time by the Board and will initially consist of six (6) directors. Each director shall hold office for a term of one (1) year. Vacancies existing by reason of resignation, death, incapacity or removal of a director before the expiration of his/her term shall be filled by a majority vote of the remaining directors then in office. In the event of a tie vote, the President shall choose the succeeding director. The Board will elect its successors. A director elected to fill a vacancy shall be elected for the unexpired term of that director’s predecessor in office. Approximately one-half of the directors will be non-student, community members. The President will be a director. One (1) director will be a student who is a graduate student.
Section 3.03. First Board of Directors. The initial members of the Board will be David Adewumi, Todd Bacastow, Matt Brezina, Jayson Jackson, Kai Kaapro, Jack Matson, Vijay Nainani, Phil Park and Jon Tornetta.

Section 3.04. Resignation. Resignations are effective upon receipt by the Secretary of the Corporation of written notification.

Section 3.05. Regular Meetings. The Board shall hold at least three (3) regular meetings per calendar year. Meetings shall be at such dates, times and places as the Board shall determine.

Section 3.06. Special Meetings. Meetings shall be at such dates, times and places as the Board shall determine.

Section 3.07. Notice. Meetings may be called by the Chairperson or at the request of any two (2) directors by notice emailed, mailed, telephoned, or telegraphed to each member of the Board not less than forty-eight (48) hours before such meeting.

Section 3.08. Quorum. A quorum shall consist of a majority of the Board then in office attending in person or through teleconferencing. All decisions will be by majority vote of those present at a meeting at which a quorum is present. If less than a majority of the directors is present at said meeting, a majority of the directors present may adjourn the meeting on occasion without further notice.

Section 3.09. Action Without a Meeting. Any action required or permitted to be taken at a meeting of the Board (including amendment of these Bylaws) or of any committee may be taken without a meeting if all the members of the Board or committee consent in writing to taking the action without a meeting. Such consents shall have the same force and effect as a unanimous vote of the Board or of the committee, as the case may be.

Section 3.10. Participation in Meeting by Conference Telephone. Members of the Board may participate in a meeting through use of conference telephone or similar communications equipment, so long as members participating in such meeting can hear one another.

Section 3.11. Committees. The Board may, by resolution adopted by a majority of the directors then in office, establish committees of the Board composed of at least two (2) persons which, except for an Executive Committee, if it exists, may include non-Board members. The Board may make such provisions for appointment of the chair of such committees, establish such procedures to govern the committee’s activities, and delegate thereto such authority as may be necessary or desirable for the efficient management of the property, affairs, business, or activities of the Corporation. Each member of a committee shall have one (1) vote and decisions by the committee shall be made by the majority.
Section 3.12. **Nominating Committee.** There shall be a Nominating Committee, composed of the President and at least two (2) other members of the Board.

Section 3.13. **Reimbursement.** Directors shall serve without compensation with the exception that expenses incurred in the furtherance of the Corporation’s business are allowed to be reimbursed with documentation and prior approval. In addition, directors serving the organization in any other capacity, such as staff, are allowed to receive compensation therefor.

**ARTICLE IV**

**AUTHORITY AND DUTIES OF OFFICERS**

Section 4.01. **Officers.** The officers of the Corporation shall be a President, a Vice-President, a Secretary, a Treasurer, and such other officers as the Board may designate. Any two (2) or more offices may be held by the same person, except the offices of President and Secretary/Treasurer.

Section 4.02. **Appointment of Officers; Terms of Office.** The officers of the Corporation shall be elected by the Board at regular meetings of the Board, or, in the case of vacancies, as soon thereafter as convenient. New offices may be created and filled at any meeting of the Board. Terms of office may be established by the Board but shall, unless otherwise directed, be for a term of one (1) year. Officers shall hold office until a successor is duly elected and qualified or until the officer resigns. Officers shall be eligible for reappointment.

Section 4.03. **Resignation.** Resignations are effective upon receipt by the Secretary of the Board of a written notification.

Section 4.04. **Removal.** An officer may be removed by the Board at a meeting, or by action in writing pursuant to Section 3.09, whenever in the Board’s judgment the best interests of the Corporation will be served thereby. Any such removal shall be without prejudice to the contract rights, if any, of the person so removed.

Section 4.05. **President.** The President shall be a member of the Board. The President shall perform all duties attendant to that office, subject, however, to the control of the Board, and shall perform such other duties as, on occasion, shall be assigned by the Board.

Section 4.06. **Vice-President.** The Vice-President shall perform duties as requested and assigned by the President, subject to the control of the Board.

Section 4.07. **Secretary/Treasurer.** The Secretary shall keep the minutes of all meetings of the Board in the books proper for that purpose. The Treasurer shall report to the Board at each regular meeting on the status of the Corporation’s finances. The Treasurer shall work closely with any paid executive staff of the Corporation to ascertain
that appropriate procedures are being followed in the financial affairs of the Corporation, and shall perform such other duties as occasionally may be assigned by the Board.

Section 4.08. Paid Staff. The Board may hire such paid staff as it deems proper and necessary for the operations of the Corporation. The powers and duties of the paid staff shall be as assigned or as delegated to be assigned by the Board.

ARTICLE V
INDEMNIFICATION

Every member of the Board, officer or employee of the Corporation shall be indemnified by the Corporation against all expenses and liabilities, including counsel fees, reasonably incurred or imposed upon such members of the Board, officer or employee in connection with any threatened, pending, or completed action, suit or proceeding to which she/he may become involved by reason of her/his being or having been a member of the Board, officer, or employee of the Corporation, or any settlement thereof, unless adjudged therein to be liable for gross negligence or willful misconduct in the performance of her/his duties; provided, however, that in the event of a settlement, the indemnification herein shall apply only when the Board approves such settlement and reimbursement as being in the best interest of the Corporation. The foregoing right of indemnification shall be in addition to and not exclusive of all other rights which such member of the Board, officer or employee is entitled. No officer or director of the Corporation shall be personally liable for the debts or obligations of the Corporation of any nature whatsoever, nor shall any of the property of the officer or directors be subject to the payment of the debts or obligations of the Corporation.

ARTICLE VI
ADVISORY BOARDS AND COMMITTEES

Section 6.01. Establishment. The Board may establish one or more advisory boards or committees.

Section 6.02. Size, Duration, and Responsibilities. The size, duration, and responsibilities of such advisory boards and committees shall be established by the Board.

ARTICLE VII
FINANCIAL ADMINISTRATION

Section 7.01. Fiscal Year. The fiscal year of the Corporation shall end on December 31 but may be changed by resolution of the Board.

Section 7.02. Checks, Drafts, Etc. All checks, orders for the payment of money, bills of lading, warehouse receipts, obligations, bills of exchange, and insurance certificates shall be signed or endorsed by such officer or officers or agent or agents of the
Corporation and in such manner as shall from time to time be determined by resolution of the Board or of any committee to which such authority has been delegated by the Board.

**Section 7.03. Deposits and Accounts.** All funds of the Corporation, not otherwise employed, shall be deposited from time to time in general or special accounts in such banks, trust companies, or other depositories as the Board or any committee to which such authority has been delegated by the Board may select, or as may be selected by the President if delegated by the Board. For the purpose of deposit and for the purpose of collection for that account of the Corporation, checks, drafts, and other orders of the Corporation may be endorsed, assigned, and delivered on behalf of the Corporation by any officer or agent of the Corporation.

**Section 7.04. Investments.** The funds of the Corporation may be retained in whole or in part in cash or be invested and reinvested on occasion in such property, real, personal, or otherwise, or stock, bonds, or other securities, as the Board in its sole discretion may deem desirable, without regard to the limitations, if any, now imposed or which may hereafter be imposed by law regarding such investments, and which are permitted to organizations exempt from federal income taxation under Section 501(c)(3) of the Internal Revenue Code.

**ARTICLE VIII**  
**BOOKS AND RECORDS**

Correct books of account of the activities and transactions of the Corporation shall be kept at the office of the Corporation. These shall include a minute book, which shall contain a copy of the Certificate of Incorporation, a copy of these Bylaws, and all minutes of meetings of the Board. The Corporation is organized on a non-stock basis.

**ARTICLE IX**  
**AMENDMENT OF BYLAWS**

These Bylaws may be amended by a majority vote of the Board, provided prior notice is given of the proposed amendment in the notice of the meeting at which such action is taken, or provided all members of the Board waive such notice, or by unanimous consent in writing without a meeting pursuant to Section 3.09

**ARTICLE XI**  
**CHARITABLE ORGANIZATION**

The Corporation is organized exclusively for charitable, religious, educational, and scientific purposes, including, for such purposes, the making of distributions to organizations that qualify as exempt organizations under section 501(c)(3) of the Internal Revenue Code, or the corresponding section of any future federal tax code.

**ARTICLE XII**  
**LIMITATION OF ACTIVITIES**
No part of the net earnings of the Corporation shall inure to the benefit of, or be distributable to its members, trustees, officers, or other private persons, except that the Corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth in Article III hereof. No substantial part of the activities of the Corporation shall be the carrying on of propaganda, or otherwise attempting to influence legislation, and the Corporation shall not participate in, or intervene in (including the publishing or distribution of statements) any political campaign on behalf of or in opposition to any candidate for public office. Notwithstanding any other provision of these Bylaws, the Corporation shall not carry on any other activities not permitted to be carried on (a) by a corporation exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code, or the corresponding section of any future federal tax code, or (b) by a corporation, contributions to which are deductible under Section 170(c)(2) of the Internal Revenue Code, or the corresponding section of any future federal tax code. Notwithstanding any other provision of these Bylaws, the Corporation shall not, except to an insubstantial degree, engage in any activities or exercise any powers that are not in furtherance of the purposes of the Corporation.

ARTICLE XIIV
DISSOLUTION

Upon the dissolution of the Corporation, assets shall be distributed for one or more exempt purposes within the meaning of Section 501(c)(3) of the Internal Revenue Code, or the corresponding section of any future federal tax code, or shall be distributed to the federal government, or to a state or local government, for a public purpose. Any such assets not so disposed of shall be disposed of by a Court of Competent Jurisdiction of the county in which the principal office of the Corporation is then located, exclusively for such purposes or to such organization or organizations, as said Court shall determine, which are organized and operated exclusively for such purposes.

These Bylaws have been adopted by the Board of Directors on:

Signed,

Secretary:

President:

Treasurer:
EDUCATION

The Pennsylvania State University, University Park, PA

- **Science Business major**, B.S. in Science and selected courses from the Smeal College of Business
- Physical sciences concentration (Physics and Chemistry)
- Honors in Engineering Entrepreneurship
- Chemistry minor

**Schreyer Honors College**: Graduation in May 2012
- Thesis: Developing Student Entrepreneurship at The Pennsylvania State University - University Park
- Thesis Reviewers: Phil Boyer, Director of Engineering Entrepreneurship Minor; Liz Kisenwether, Associate Professor of Engineering, Co-director of Lion Launch Pad; Henriette Evans, Advising Director for Science Business; James Gardner, PhD, Professor and Executive in Residence, Director of Science Business Program

**Dean’s List**
- Schreyer Academic Excellence Scholarship
- Balog Scholarship
- Phi Kappa Phi Honor Society
- High School: The Haverford School, Haverford, PA
  - Cum Laude Society
  - Sociedad Honoraria Hispánica (Spanish Honors Society)
  - Re-evaluation Counseling Co-counselor
  - Prospective Parent/Student Tour Guide
  - World Religions and Ethics Club founder and president

EXPERIENCES

**Innoblue** State College, PA Spring 2010 - Spring 2012 www.innoblue.org
- Founder, Executive Director (operations and consulting)
- Overview: Not-for-profit idea accelerator that starts and supports innovative ventures in Centre County, PA.
- Created and managed team of consultants, developers, and marketers.
- Acquired 1,000 sq ft of office space offered in kind from the State College Borough Council
- Launched Innoblue Garage, a state-of-the-art co-working and innovation space providing entrepreneurial resources
- Established partnerships with Cooley Godward Kronish (legal), Happy Valley Communications (marketing), Tomorrow Ventures (VC), Mediatemple (domain host), Envinity (“green” building) and Weebly (web design).
- Launched Fall Demo Day at Beaver Stadium; brought over 20 accredited investors to PSU
- Formed a forty person Board of Advisors (including the mayor of State College, the SHC dean, and the founders of Xobni.com)
- Helped secure over $300,000 of investment offers for our ventures post-Demo Day

**IMS Consulting Group** Wyomissing, PA Summer 2011 www.imshealth.com
- Overview: Competitive intelligence and consulting services for large-cap pharmaceutical and biotech companies.
- Developed primary intelligence from over 40 KOLs and pharmaceutical reps in one week (conference in San Diego, CA)
- Assembled client implication decks pertaining to large regulatory developments (Dapagliflozin FDA AdCom July 2011)
- Improved client-centric organization by implementing software efficiency solutions (Xobni)

**Neurology and Sleep Medicine, P.C.** Bethlehem, PA Summer 2009
- Overview: Private Neurology/Sleep Science practice.
- Assisted doctor and physician assistants with diagnostic evaluations and patient inquiries.

**InstaMed** 18th St. & JFK Blvd Philadelphia, PA Summer 2007, Summer 2008
- Overview: Healthcare payments network. Expedites healthcare transactions between doctors and health insurance companies.
- Customer Service department; trained doctors on product usage, formatted healthcare claims, solved support tickets
- Resolved nearly 1,000 customer support tickets over the course of employment.
- Awarded bonus, acquired additional responsibilities (2nd year); monitored high volume clients’ support tickets, recruited two skilled high school students for internships.

**Penn State University Park Allocation Committee**
- Two time elected Student Contact Team Chair (2009-2010, 2010-2011)
- $3,200,000 of PSU student activity fee allocated to all student organizations on campus
- PACFA (special interest and finance organization), Founder and President (2009-2010, 2010-2011)
- Missio Dei, Vice President (2009-2010, 2010-2011)
- Re-established Beta Theta Pi fraternity (2010), Social Chair (2010-2011)
- Fresh START community service, Team Leader (2009-2010, 2010-2011)

OTHER EMPLOYMENT AND VOLUNTEER WORK

**FOCUS** West Tisbury, MA Summer 2008, Summer 2010
- Volunteer counselor for high school and middle school students; organized athletic activities and first aid

**Nittany Lion Inn** State College, PA Summer and Fall 2009
- Bartender (part time during academic year)

**Lankenau Hospital** Wynnewood, PA Summer 2008
- Volunteer in the post-operative outpatient surgery unit; assisted nurses, surgeons and technicians

RELEVANT SKILLS

- Adept with Excel 2007 (macro creation, amortization schedules, what-if analysis, etc.) and Microsoft Access 2007
- Capable with web design. Familiar with HTML and CSS, Adobe Dreamweaver and Adobe Photoshop
- Adept with Chemical/Biological lab techniques. Five semesters of lab experience in biology, chemistry and physics
- Conversational in Spanish