Purdue Research Fair Proposal

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Introduction

During our undergraduate academic careers, we, as students, are presented with a variety of opportunities that enhance our knowledge outside the classroom. Often, the majority of college students engage in summer internships and co-op positions throughout the year, but another unnoticed often goes unnoticed.

Undergraduate research is a rewarding and enriching experience for students while on campus. As time has passed, more and more students have become involved in research at all universities. In recent research conducted by the National Science Foundation, they reported 72% of college graduates in Chemistry had some form of undergraduate research experience.

For an increasing number of students, graduate school is an appealing option and undergraduate research is a safe, short-term way to gauge if graduate school is the right option for them.

That being said, research opportunities are extremely difficult to obtain depending on the field and research project. Often, it requires students to effectively throw darts at hundreds of dart boards and hope one sticks. This can be a frustrating process and often leads to students giving up on research. At Purdue University, this is no different and the issue is a prominent one that we need to address.

Current Situation

Purdue University is a world-renowned research institute with more than 400 research labs and 2,000 undergraduate research projects. Purdue provides research in various areas: Agriculture, Business and Economy, Education, Engineering, Environment, Healthcare, Individuals, Society, Culture, Manufacturing, Science, Technology, and Veterinary Medicine. Purdue also offers additional research opportunities at Discovery Park and Purdue Research Park.

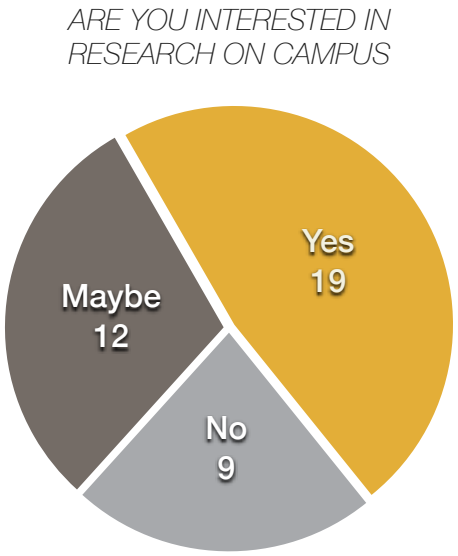

Figure 1. Current Research Involvement on Campus

In addition, Purdue is actively trying to increase awareness and participation for the undergraduate research. For example, Purdue opens DiscoverU Undergraduate Research Poster Symposium annually for students in College of Science, Agriculture, Engineering, Liberal Arts, Technology, and Honors. Also, Tau Beta Pi, an engineering honor society, provides

research roundtable for students to meet faculty and research groups.

However, many undergraduate students still have issues finding a research position. Currently, students need to talk to professors individually to get a research position or professors may ask students to work in their labs during their class. This is a time- consuming process for both students and professors. Also, many professors may have different criteria for prospective students that many students do not know such as limited openings, credit or stipend, and/or prerequisite knowledge in specific courses. Research roundtable by Tau Beta Pi is limited to engineering students only.

Dates	Events
9/11 - 9/13	School of Management Fall Career Fair
9/23 - 9/25	HTM Career Fair
10/1 - 10/2	Agriculture Career Fair
12/5	School of Nursing Career Fair
1/29 - 1/31	School of Management Spring Career Fair
2/5	College of Technology Career Fair
2/11 - 2/12	Consumer Sciences and Retailing Career Conference
2/14	Building Construction Management Career Fair
3/10	Health Career Fair
Sept. 2014	Industrial Roundtable

Table 1. Career Fairs on Purdue's campus

DO YOU CURRENTLY PARTICIPATE IN RESEARCH ON CAMPUS

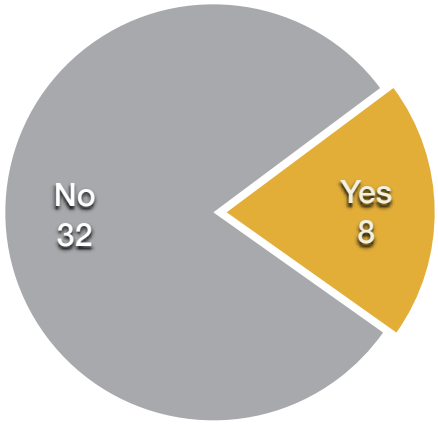

Figure 2. Current Research Involvement on Campus

Figure 3: 2011 Industrial Roundtable

Unfortunately, this problem is not limited to just Purdue. There are many universities that support their research foundation and undergraduate research symposiums, but there is no undergraduate research fair for students who are interested in various research areas.

Purdue offers numerous career fairs and information sessions throughout academic years on campus. According to Purdue's Event Calendar, there were several career fairs last year from August 1, 2013 to July 31, 2014 (Ref. Table 1). For example, Industrial Roundtable (IR) is a three-day event for various internship, co-op, and full-time opportunities for students. However, there are many other students who would like to go to graduate schools for their careers. To move on to graduate schools, research experience is important. Purdue already has a well-known research foundation but it would be detained without improvements with their own students.

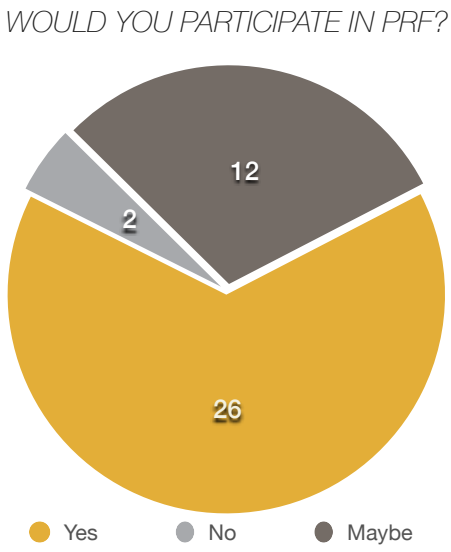

Figure 4. Survey Interest in PRF

Our Solution

To address the current issues regarding research on campus. We are proposing the first ever, annual Purdue Research Fair (PRF). This is modeled after current research events on campus such as Research Roundtable, but also brings in aspects of Industrial Roundtable. Professors and research groups pitch their research and students "apply" for these positions based on what the professor is requesting. In addition, professors and research groups have the option to present their research for extended periods of time at seminars prior to the actual fair.

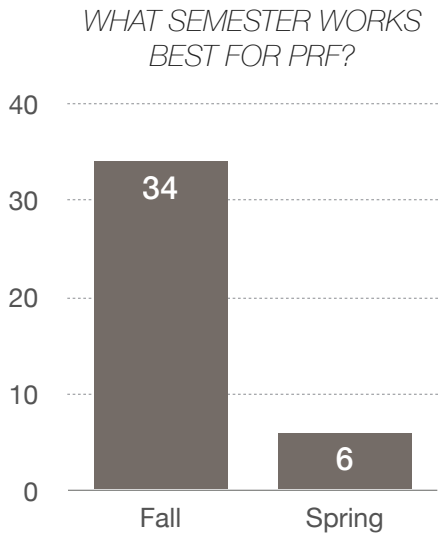

Figure 5. Time of the Year for PRF

Project Plan

In order to validate that our planned fair meets the expectations and desires of students and faculty, we distributed and collected responses from two surveys shown in the Student/Professor perspective. Four professors and 40 students were surveyed. According to the surveys, 65% of students would be interested in PRF (Ref. Figure 4), and 85% would like this fair to occur in the fall semester (Ref. Figure 5). Thirty-eight percent of

students would like this event to occur on a Tuesday (Ref. Figure 6).

By placing the career fair in the fall, students would have an opportunity to get involved that

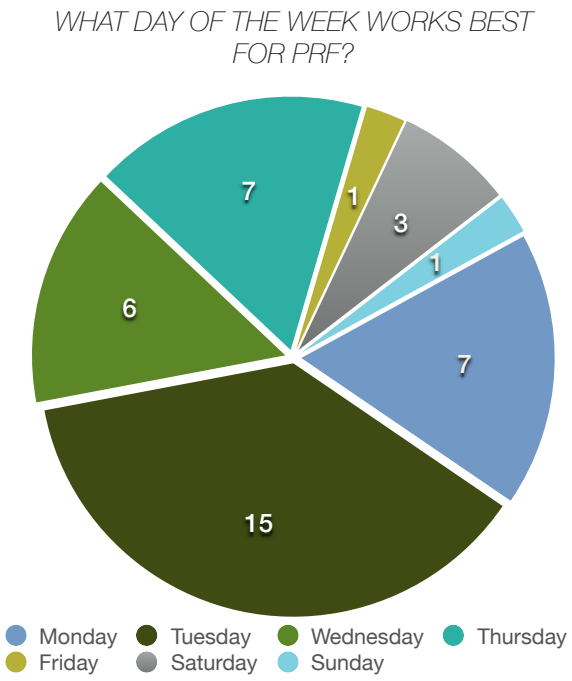

Figure 6. Survey Responses for Day of PRF

academic year and potentially even that same semester if desired. The largest job fair currently held on campus, Industrial Roundtable, also is held in the fall semester. The research roundtable should be held around the same time as the Industrial Roundtable, but proper care would have to be taken to make sure the two dates do not conflict in any way, as people may be interested in attending both. In order to accommodate work schedules of professors and class schedules of students, it would be in the best interest of everyone to hold the fair for an entire day, from 9AM-5PM. Professors or their graduate students would be highly encouraged to commit for a full day, but if unable to do so, their time periods would be clearly posted ahead of time so that interested students would not show up, only to find their professors of interest absent from the event. For the first year, a target of 25% attendance of all research labs is estimated. This number was chosen because although we plan to market and advertise heavily, we're not sure how many professors actually will want to attend.

Looking at the benefits of the event is key to deciding whose responsibility it would be to hold such an event. Professors are benefiting by engaging the community in their research projects and by acquiring help for their labs. Students are benefitting by being more informed of what types of research Purdue faculty and staff are conducting and by also obtaining on-campus jobs or class credits. According to the Purdue Research Foundation website, "On behalf of Purdue, the foundation: 1) manages gifts, bequests and endowments; 2) makes funding available to faculty, staff and students to aid in scientific investigation, research or educational studies; 3) acquires, constructs and improves Purdue's facilities, grounds and equipment; and 4) manages intellectual property developed at Purdue." (Purdue Research Foundation, 2014) This fair would be in line with their secondary objective, making students more available to aid

in scientific investigation and research. As the authority on campus responsible for managing research, having the fair put on by the Purdue Research Foundation would make the most sense and would have the most visibility to students as well as professors.

To promote the event, we will exercise several different avenues. There are two groups who need separate marketing approaches; professors and students. Professors will need to sign up in advance and bring specific displays to the event, so their instructions need to be sent well in advance. The ideal marketing campaign to professors would be to start with the deans of each college at Purdue, as well as with individual department heads. Using this top down approach will add an official feel to the fair, showing that is a University sanctioned event that professors should be participating in. Additionally, emails to all professors/research staff will be sent out. All of these emails should be sent out starting 3 months before the event, with an absolute deadline for reserving a space at the fair about a month before the event. This will allow time to create room layouts of the tables and to ensure the correct number of tables and other supplies are acquired in time.

For students, a slightly different approach can be used. Big social media avenues like Facebook and Twitter can be used to get the word out about the fair. Additionally, picking up support from student organizations such Purdue Student Government would be helpful in terms of help promoting the event to students. Sending a school-wide email to all students would help spread the information extremely quickly. Additionally, approaches such as chalking sidewalks and posting flyers in classrooms in the weeks before the fair would also work well.

Student/Professor Perspective

WHY INTERVIEW?

To get a more in-depth perspective of the potential successes of implementing a career fair at Purdue, we interviewed various students as well as professors around campus. According to Ed Minter, who is a Regional Evaluation Specialist at Wisconsin University, “interviewing yields rich data, details and new insights that can be used to further illustrate a problem or statistic” (Minter, 1). In order to reduce outliers, in terms of responses, and obtain the most accurate amount of data for our proposal, we interviewed a random pool of forty students. We also took the time to interview a few professors from various departments.

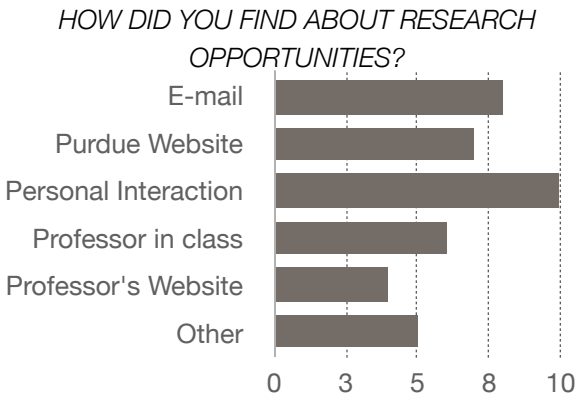

Figure 7. Modes of Finding Potential Research Opportunities

The responsive opinions from the professors enabled us to gain a different perspective on students research fairs. Thus, we developed two sets of structured interview questions, one set directed towards selected students and the other set of questions allocated to the professors. This way through probing students and professors we were able to acquire a wide range of information and statistical data regarding the possible implementation of a student research fair on Purdue's campus. Additionally, the gathered qualitative data through interviewing helped us develop a quantitative cost and benefits budget for future research fair costs on campus, such as if the event would be inside (e.g. Union South Ballroom) or outside (e.g. Memorial Mall).

THE INTERVIEW PROCESS

First, each student and professor was informed of our proposal, followed by a few questions regarding their basic information (e.g. name, major, department). After obtaining basic information from each student, they were then asked a series of concise questions. The professors were asked similar questions as the students, but were tailored more towards their needs and wants from a student research fair. Also, everyone was asked their specific set of questions in an uncontrolled environment, allowing for truly accurate responses. Finally, the information collected at the end of each interview was stored into a database where we could then compare and contrast all the significant data.

ANALYSIS

After reviewing the data collected from the two interview processes of both the students and professors we found the following trends. When each student and professor was asked if he or she would attend a possible student research fair on campus the majority of students and professors responded "yes" or that they would "consider" attending one. Also, as seen in table one, students that have an acquired engineering type background showed more of an interest in attending a student research fair. However, most of the engineer students have not seen or been properly informed about current student research fairs existing on campus.

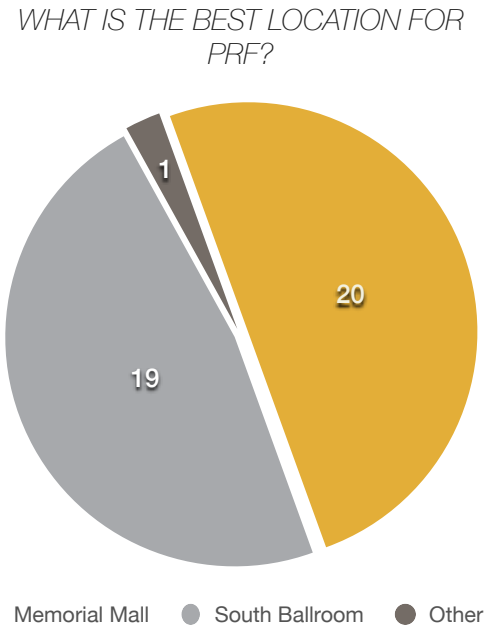

Figure 8. Survey Response for Location of PRF

Two professors expected that they too will benefit from such a fair. If students were to be hired from such a fair only one out of the four professors interviewed said they would hire a graduate student over an undergraduate student. Since none of the professors seem to need electricity during a student research fair there wouldn't be any added maintenance labor costs for the event. There is an overwhelming consensus between students and professors, suggesting the student research fair to take place during the fall semester of the school year. Based on the trends from the data collected, we were able to conclude that there is a direct need for a student research fair which would greatly benefit the students and professors at Purdue University.

Costs and Benefits

Going through the various spaces that an event this size could fit in, several ideal locations come to mind (Ref. Figure 8). The first location idea is taken from the way Industrial Roundtable is set up, and would be located on Memorial Mall. Some advantages of hosting the event on Memorial Mall are that it is a high visibility location and it is easily accessible. Some disadvantages include having to plan a rain location for poor weather and having a tough time directing people to the right booths due to the complicated sidewalk layout of the mall. The cost to use this location for the duration of the event is $0. For the fair, tables can be rented from Seward Party Rentals in Lafayette, IN for $8/day each, giving a total table cost of $100. At this location, no electricity is available for the tables, so there is no cost associated with this.

Another location option is in the ballrooms of the Purdue Memorial Union. The ballrooms host many conferences and job fairs similar to this proposed event. They are prepared to host events of this size, and the event location would not need to change based upon weather. However, this particular location is unlikely to get very much traffic from passerby as it is a low visibility location. According to Purdue Memorial Union Catering and Events, the total cost to rent out one ballroom for a day is $800 for a University-sponsored event. The cost of maintenance staff is $15 per hour. With an estimate of 2 maintenance staff member per hour, the total maintenance labor cost for the day would be $240. Six-foot table rentals cost $2 per

Location	Location Cost	Table Cost @ 100 Tables	Labor Cost @ 2 Staff/hour	Total Cost
Memorial Mall	$0	$800	$240	$1040
Purdue Memorial Union	$800	$200	$240	$1240

Table 2. Cost of various locations for the Purdue Research Fair

table (Purdue Memorial Union Catering and Events, 2012). With an estimate of 100 professors having a table at the event based on the target of 25% of all research labs, the total table cost would be $200. Combining all of these costs, the total cost of the event would be $1240, as shown in Table 2.

The ideal location for the research fair would be in the Purdue Memorial Union South Ballroom. These ballrooms host many similar job fairs and conferences to the one being planned. It provides a weather independent location and will have electricity hookups available for those who need it. According to our survey results, 50% of responders indicated they would prefer to have an outdoor fair (Ref. Figure 8). However, due to weather concerns, we have decided that the south ballroom of the Purdue Memorial Union would be best so that an additional rain location will not have to be booked. Forty-eight percent of responders indicated that they would like the reception in the ballroom.

Overall Impact

Purdue holds a strong reputation for providing students with opportunities to succeed. Throughout the year, there are many events to obtain valuable career opportunities such as internships, co-op positions, and full-time jobs, but as of Spring 2014, has fallen short on extending this care to research opportunities on campus.

On our campus, there are hundreds of research opportunities clouded in departments are not readily available or easily accessible. We hope the Purdue Research Fair remedies this issue by bringing research opportunities to the forefront much like Industrial Roundtable does. Professors and research groups will be able to host their research at booths for students to apply for positions in the group.

Research is a valuable tool for students that are pursuing additional post-graduate education. This kind of event is valuable to both professors and students at all universities, not just Purdue. The Purdue Research Fair is a cost-effective way to bring research in many different areas into one central event. Interdisciplinary research is gaining traction and by having hundreds of different research projects in one co-located area, professors and students can explore research opportunities outside of their department and gain valuable experience that otherwise goes unexplored.

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