

on behalf of this year's team and our upcoming bridge. Additionally, the purpose of this conference is to learn and discuss with professionals about how best to prepare to fundraise, design, and construct a footbridge. In order to do this I will be participating in a wide variety of workshops, activities and panel discussions relating to the building bridges in developing countries. The student/build portion of the conference, which we will be taking part in, is focused on students interested in being involved in Bridges to Prosperity. This includes a variety of things from construction workshops to student-led panel discussions, all are focused on students' project skill development. Students will be able to learn everything from the technical side of bridge building to non-technical aspects such as language barriers and cultural differences faced when working in other countries. Additionally, there will be opportunities to meet with engineering professionals pursuing careers in the non-profit sector.

Broader Impact

As a member of the [REDACTED] team, I can immediately apply the knowledge I acquire from this conference to the planning and preparation for the construction of the bridge we intend to build in Nicaragua next summer. This conference provides essential lessons about safety during construction and practice in the technical elements of building the bridge. These are necessary to learn and practice difficult tasks prior to in-country construction. Additionally, the conference will enable us to talk to other student groups working on projects similar to ours. We will be able to learn about setbacks they have encountered and how to avoid making the same mistakes. Also, we will be able to talk with engineering professionals from leading engineering companies such as CH2M HILL and learn not only constructional skills, but also elements of constructing infrastructure projects in the developing world. Therefore, we will leave the

conference with a better understanding of the expectations and challenges we will likely face with our own bridge construction.

Learning Goals

From this conference I hope to learn the essential skills and information that I will need in order to travel with the [REDACTED] team to [REDACTED] in the summer of [REDACTED] to build [REDACTED]'s eighth footbridge. This conference will offer an opportunity to learn hands-on the skills that will be imperative to construction through the construction workshops where students are able to practice techniques in construction field simulations. Additionally, team presentations will hopefully provide me with information about how our team can avoid the mistakes of past teams and ensure a successful project. This is especially important to me because I also intend to use my work with [REDACTED] to complete my [REDACTED] capstone. Finally, the corporate and professional panels will provide an opportunity to talk to those in international development and engineering about their careers and hopefully promote my learning in the field of civil and environmental engineering. The information I will acquire and the contacts I will hopefully make at the conference will enable me to discern my future career in engineering with a focus in international development.

Abstract

Throughout the world, progress in civil infrastructure is a crucial first step towards overall economic development. In developing nations, however, municipalities and other governing bodies struggle to provide proper support for civil projects. The students who are a part of [REDACTED], which is the main focus of the class [REDACTED], have been dedicated to help meet the need for infrastructure through six footbridges, each of

which measures from 30 to 120 meters, in rural communities in Central America. Over its six years in service, ██████████ has strived not only to implement these projects, but also to empower those communities and people being served. This research raises the question of how community members can be effectively educated and motivated to work on civil infrastructure themselves or reach out to more knowledgeable groups so that more projects can be created. We believe that, by involving community members in key decisions and allowing them to oversee themselves through their own community leadership, we will instill within community members the knowledge and drive to tackle more development projects, specifically civil infrastructure projects, by themselves. The research will be conducted in ██████████, where ██████████ will construct a 40 meter footbridge this summer. The goal is to measure the effectiveness of the team's efforts to include the community through participatory process; this will be done by assessing the mentality and capabilities of community members before and after construction. ██████████'s project will involve strong community participation in and instruction on footbridge maintenance, construction processes, and municipal government logistics. Through community involvement in the project, the group hopes that Amayito residents will gain the tools and experiences to take on their own projects without the guidance of an outside organization.

Budget

Item	Cost	Notes
Registration fee ¹	\$325	Early bird discount until May 31, after which the fee is \$375
Food	\$35	Food during the time not at the conference
Transportation to airport ²	\$13	Split between 5 conference attendees.
Total	\$373	

Itinerary

Event	Date
-Drive from South Bend to Chicago	Morning, Thursday, September 10

-Depart Notre Dame for Chicago Midway Airport	
-Arrive in Denver International Airport -Transportation provided by Bridges to Prosperity to YMCA of the Rockies	Afternoon, Thursday, September 10
-Bridge Builder Conference 2014 ¹	Thursday, September 10 to Sunday, September 13
-Transportation provided by Bridges to Prosperity to Denver International Airport	Afternoon, Sunday, September 13
-Arrival at Chicago Midway Airport -Travel back to Notre Dame	Evening, Sunday, September 13

References

1. Bridge Builder Conference website:
<http://bridgestoprosperity.org/bridgebuilderconference2015/>
2. IRS 2014 Standard Mileage Rates:
<http://www.irs.gov/2014-Standard-Mileage-Rates-for-Business,-Medical-and-Moving-Announced>