

Carpenters Apprenticeship Internship: Student and Industry Perspectives

Chris Falco

California Polytechnic State University
San Luis Obispo, CA

The Carpenters Apprenticeship Internship program is designed to provide students the opportunity to work as a construction laborer and get hands-on work experience. The goal of this study is to address the perceived benefits of the Carpenters Apprenticeship Internship with respect to the students, the industry members, and the union. In looking at the benefits this opportunity presents, any value that is aligned among the parties involved will be highlighted to convey the mutual advantages. Lastly, the demand among students for experience such as this will be assessed to see what the perceived value of labor experience is among students pursuing a career in the field of construction management.

Key Words: Labor Experience, Hands-on, Learn by Doing, Carpenters Union Apprenticeship

Purpose

The purpose of this study is to address the ongoing issue of construction management students acquiring experience performing labor in the field. Construction management is a career that is dependent on a high level of understanding of building processes and construction know-how. To manage the work performed, it is necessary for project managers and engineers to understand what work goes into each aspect of a construction project. There are increasing numbers of students graduating from universities and joining the construction industry at the management level. Many of these students have little or no experience working in the construction trades and know little of the labor and techniques required to build.

Programs such as the Carpenters Apprenticeship Internship are implemented to combat this gap in knowledge and give new construction managers the labor experience necessary to effectively manage at a high-level. This paper will look at the effectiveness of this program and how it is perceived to benefit the students who participated, the companies who chose to work with these students, and the union who adopted these students as part of their workforce.

Background

The Carpenters Apprenticeship Internship program began in 2015, a collaborative effort between the Northern 46 United Brotherhood of Carpenters, the Construction Employers Association (CEA), industry partners, and the Construction Management Department at Cal Poly. The intent of the program is to provide the opportunity for construction management students to get experience working for the union and providing labor for a construction project. Students spend their summer working on union projects along with regular union workers and get real hands-on experience. The Union takes on the responsibility of training the students to be properly prepared for the work they will perform. Once trained, the students are sent out to work among real laborers and do all the work required of a regular union worker. The only difference is that the students only work for twelve weeks, after which they return to school. The program has been expanded to southern California and has been successfully run through the summers of 2015 and 2016. It is expected to continue in the summer of 2017 and subsequent summers thereafter.

Methodology

The objectives of this study are as follows:

- To assess the interest in labor experience opportunities with current construction management students

- To recognize how much demand there is for students to receive labor experience
- To highlight the benefits of the Carpenters Apprenticeship Internship for students
- To highlight the value of the Carpenters Apprenticeship Internship for industry members
- To highlight the benefit of the Carpenters Apprenticeship Internship for the union

The methodology is a mixture of qualitative and quantitative research. This mixed methods approach allows for greater strength in data collection than using a singular qualitative or quantitative approach. Students were surveyed to gather data on the demand among current students for programs such as the Carpenters Apprenticeship Internship. Data was also gathered through surveys of the groups of students who have already participated in the program. The information gathered was used to assess the benefits of the program to all parties and the perceived value of the overall experience. Additionally, industry members were interviewed from companies that supported the program to get an industry perspective on the effectiveness of this specific program. The interviews also provided insight from working professionals concerning the value of hands-on labor experience for students on the construction management career path. All this information, gathered through mixed methods, culminates in an analysis of the Carpenters Apprenticeship Internship and its effectiveness in helping students prepare to join the construction industry.

Results

To assess the interest that current construction management students have in labor experience opportunities, a group of Cal Poly construction management majors were surveyed. The results of this survey are displayed in Figure 1 below. Ninety percent of students surveyed agreed that the Cal Poly Construction Management curriculum needs more hands-on opportunities. Over ninety five percent of students surveyed believe that labor experience would benefit their career in construction management. The data clearly illustrates a strong trend of students interested in labor experience opportunities.

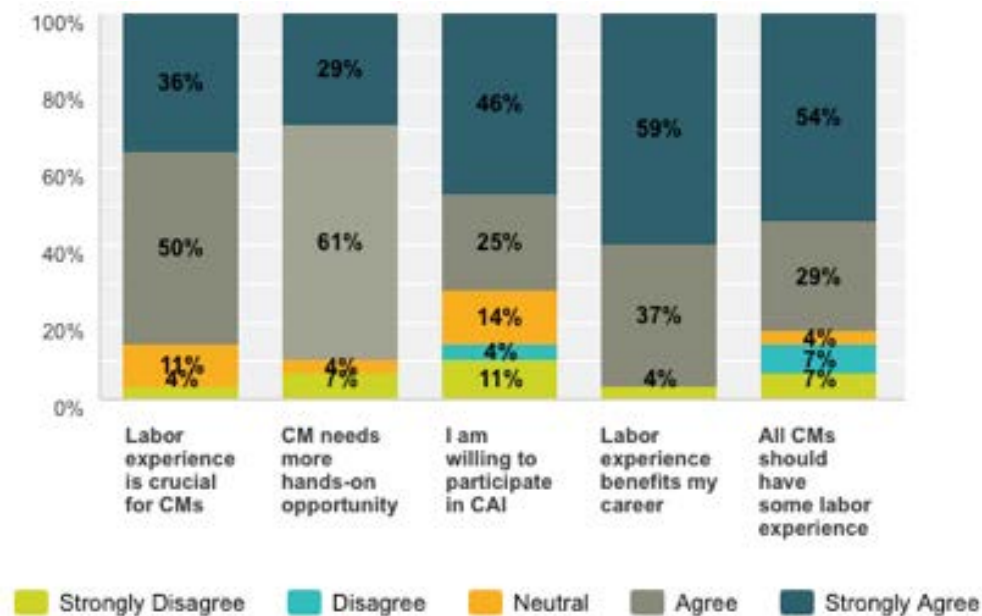


Figure 1: Construction Management Student Interest in Labor Experience

Once the interest in labor experience among construction management students has been confirmed, the demand for this experience within the industry must also be addressed. Construction is an industry where there is a vast amount of tacit knowledge. This knowledge is not so much taught as it is gained through experience and becomes second nature to those exposed to it. Many industry members, particularly field personnel and tradesmen, have been working in construction their entire lives. These people are incredibly comfortable discussing complex building

principles and practices without any trouble. With that in mind, the growing number of college educated personnel entering the industry often does not have the same level of background and understanding when it comes to building. Without any labor experience or deep construction background, it can be difficult to keep up with construction language that is tossed around so freely. This gap between field personnel and management can inhibit communication and slow production, particularly when the two are not on a high level of mutual understanding. Providing budding construction managers with some hands-on experience performing construction in the field allows them to dip their toes into the world of construction labor and work closely with labor and field personnel. Any experience, no matter how much, can help close the knowledge gap between field and management and greatly increase understanding between the two.

Industry Demand

Industry members today have the greatest insight into the demand for labor experience among construction management students today. One of the greatest challenges the construction industry is facing is the growing age of professionals in the field management area. Superintendents, foreman, and field personnel are continually reaching retirement age, and many of the positions they are leaving are tough to fill. Students are taught primarily management techniques at university. While these skills are vital for a project manager, a superintendent needs to have a knowledge base geared more towards building practices and labor itself. Now that the number of college educated people joining construction is increasing, opportunities for labor experience are diminishing. Vocational programs are becoming fewer and farther between. Students spend much of their time in the classroom. When students can spend quality time on a jobsite, performing work, and learning skills of the trade, that is truly valuable. This is why the Carpenters Apprenticeship Internship is viewed so highly by industry members. It allows students to explore the more direct, field management side of construction and evaluate for themselves whether they would be better suited for a project management role, or a field management role.

Student Response

With the growing demand and increasing student interest, how have students responded to programs like the Carpenters Apprenticeship Internship? At Cal Poly, students are turning up from all backgrounds to spend a summer working as a union laborer. Figure 2 shows the breakdown of students who have participated in the Carpenters Apprenticeship Internship between 2015 and 2016 and how much prior experience those students possessed. Most students had absolutely zero labor experience before participating in the Carpenters Apprenticeship Internship. However, twenty five percent of students did have some prior experience and still went ahead and joined the program. This proves that even with a background in construction labor and trade experience, the Carpenters Apprenticeship Internship is beneficial.

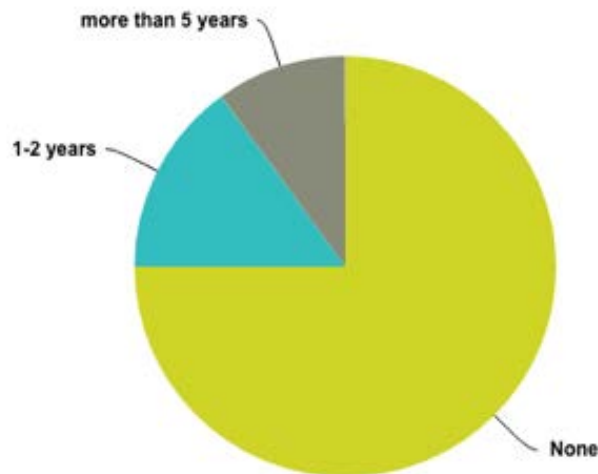


Figure 2: Prior Construction Labor Experience for Carpenters Apprenticeship Interns

Students who participated in the Carpenters Apprenticeship Internship are the best source for what the perceived benefits of the program truly are. Over the summers of 2015 and 2016 twenty-four students participated in the Carpenters Apprenticeship Internship. Of these twenty-four, twenty were questioned about their experience in the program. Students were asked to rate their internship experience based on topics like how their construction knowledge improved, how their communication skills and construction background were benefitted, and how their appreciation for union labor has changed (see Figure 3). What is interesting to note is that all participants stated that they believe their experience as a Carpenters Apprenticeship Intern will benefit their future career in construction management. On top of that, all students agreed that they know more about construction processes than before and that all students in construction management should be exposed to labor experience. One hundred percent of the students surveyed would recommend the program to other students and see value in the experience they gained.

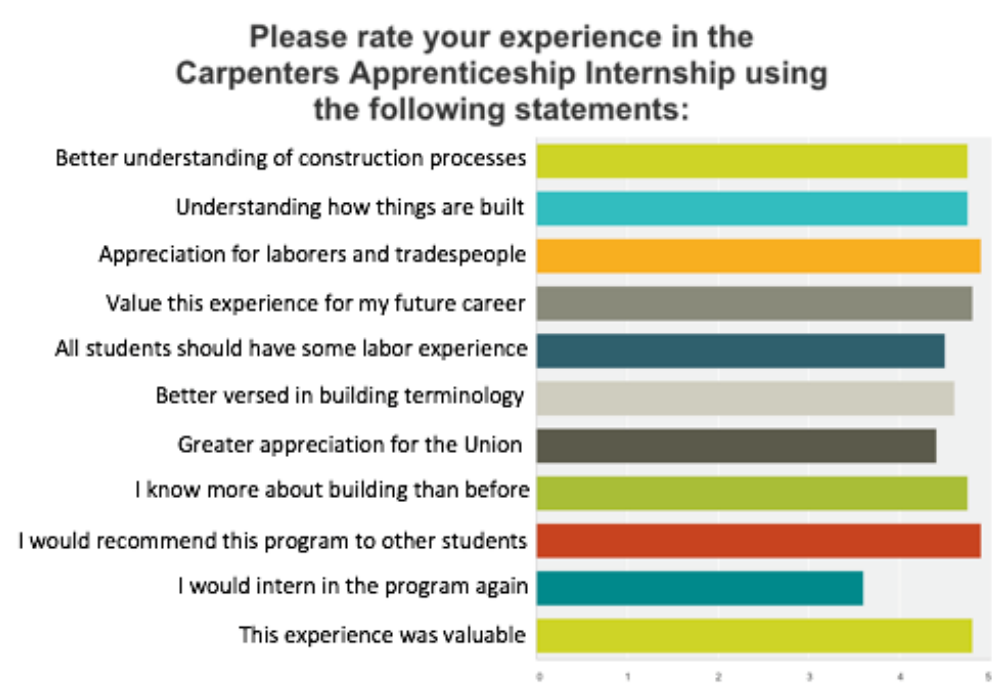


Figure 3: Carpenters Apprenticeship Intern Ratings

The only statement that did not get a strong vote in favor was to participate in the program again. After probing further into the reasoning behind this, it became clear that this result was primarily due to the physically taxing nature of the program. Students relayed that the work was quite demanding and that while they garnered a greater respect for those that perform the work for a living, most students would prefer to not engage in that kind of physically strenuous work on a day to day basis again.

Discussion

The results of these findings are overwhelmingly positive. Students and industry members are both in agreeance that the Carpenters Apprenticeship Internship is a success. What became increasingly evident as more and more data was gathered is that this program is incredibly beneficial to the students who partake in it.

Benefits to Student

Through the interview process of some of the students and members of industry, the consensus is that students gain an immense amount of skill and knowledge that is vital to their success in the field of construction. The knowledge of how to build, down to proper use of tools and materials, and basic building techniques are just a few of the hard skills learned. But the soft skills gained are even more important to industry professionals and students moving

forward in their careers. The communication skills are integral to students' success working with field personnel, managing people, and speaking effectively. Students also gain relationships with contractors, companies, and the union. These are people they will be working with (and possibly for) for the remainder of their careers. Respect is also attributed to the students, not only for performing the work, but also for the willingness to expand their knowledge base and see what the work of those under management is like. Students have already returned from their internship with a newfound respect for union laborers, and now that respect is mutual. Companies want to hire students with as much experience as possible. Seeing that a student has chosen to spend a summer working for the union speaks volumes of their character, work ethic, and attitude. Companies value that very highly.

Benefits to Industry

Industry who support the Carpenters Apprenticeship Internship program have also voiced the benefits they encountered. The biggest benefit to companies is clearly the close-up exposure they get to students. Companies view all these students as potential hires. To have the opportunity to observe the student work in a jobsite environment and see how they handle everything that is thrown at them is invaluable. There is always the hope that a student will go on to a future as a superintendent, and any company that can hire an experienced jobsite supervisor with a college education knows how much value that individual holds. And lastly, to have more individuals joining the industry with field experience can only aid the growing shortage of field supervisors and superintendents.

Benefits to Union

As for the union, the largest perceived benefit must be the exposure. After being trained by and working for the union, students can see that the union is to be viewed as a positive partner in construction. Having properly trained and skilled laborers makes a difference in construction and students get to see that up close. With better informed students, the industry perception of union labor can be increasingly viewed as positive, and the benefits of union labor will be even more evident.

Conclusions and Future Research

Throughout the interview process, various words and phrases were brought up by both students and industry when referring to the Carpenters Apprenticeship Internship (see Figure 4). These key words emulate the agreement among parties that this program is beneficial to all who are involved.

Key Words

Industry	Students
Learn by Doing	Labor
Hands-on	Experience
Understanding	Appreciation
Superintendent	Respect
Manage	Communicate
Respect	Work Ethic
Partner	Understanding
Communicate	Learn by Doing
	Hands-on

Figure 4: Keywords from Industry and Students

As one of the first internship opportunities of its type, the Carpenters Apprenticeship Internship is rather unprecedented. It was only possible through collaboration between many different parties. However, the success of the program raises questions of expansion and further research into the unforeseen benefits in the future, for both

industry and student participants. Students who interned within the program should be surveyed in the distant future to reflect on how the experience shaped their careers. It would be interesting to gather data on how many students who participated in the Carpenters Apprenticeship Internship end up working in field management rather than project management. The aspect of hands on experience should be explored within the Cal Poly construction management curriculum. Specifically, the Cal Poly Construction Management Department should look further into whether labor experience should be a graduation requirement for construction management students. The interest is clearly there, and the demand from industry appears to be unwavering. There is potential for the Carpenters Apprenticeship Internship to be expanded further geographically and demographically.

References

Allen, S. (1984). Unionized Construction Workers are More Productive. *The Quarterly Journal of Economics*, 99(2), 251-274. Retrieved from <http://www.jstor.org/stable/1885525>

Harper, C. M., & Hazleton, R. (2014). New Engineer's Knowledge for Success with Subcontractors and Trade Partners. *Practice Periodical on Structural Design and Construction*, 19(1), 15-19. doi:10.1061/(asce)sc.1943-5576.0000168

Khuzaimah, K. H., & Hassan, F. (2012). Uncovering Tacit Knowledge in Construction Industry: Communities of Practice Approach. *Procedia - Social and Behavioral Sciences*, 50, 343-349. doi:10.1016/j.sbspro.2012.08.039

Nesan, J. (2012). Factors Influencing Tacit Knowledge in Construction. *Australasian Journal of Construction Economics and Building*, 5(1), 48. doi:10.5130/ajceb.v5i1.2943

Wisdom J and Creswell JW. Mixed Methods: Integrating Quantitative and Qualitative Data Collection and Analysis While Studying Patient-Centered Medical Home Models. Rockville, MD: Agency for Healthcare Research and Quality. February 2013. AHRQ Publication No. 13-0028-EF.