

The Value Provided by the Associated Schools of Construction-An Initial Study

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Construction Management (CM) schools are a diverse group of institutions. Large and small programs, research-focused and teaching- focused institutions all are common on the construction education landscape. Many schools are members and participate in the Associated Schools of Construction (ASC) whose goal is to advance construction education. One perception prevalent in ASC is that these diverse institutions have different and sometimes competing values. This research project used two separate member focus groups with representatives of CM institutions to determine how ASC could best provide value to a diverse constituency. The first focus group consisted of large programs, while the second group consisted of small programs. Both groups included representation from teaching-focused and research-focused institutions. This paper combines the results of these focus groups to make an initial attempt to determine how best to advance construction education. The major “value” is currently seen in the job postings, student competitions, journal and proceedings, and the faculty interaction. Focus groups recommended more collaborative competition options, journal and proceedings details, and opportunities for engaged discussions on teaching. Participants recommended action through closer industry/association ties, ways to acquire well qualified faculty, and clearer parameters for ASC publications.

Key Words: ASC, Construction Management, Construction Education, Value, Schools of Construction

Introduction

The Associated Schools of Construction (ASC) is currently composed of 138 institutions of higher education (“ASC Website”, 2013). In addition, this professional organization includes individual members and corporate members, all of which have a vested interest in construction education. In several recent ASC board meetings, much discussion has centered on the value provided to our member institutions (ASC Board of Directors Meeting, April 2013 and September 2013). A major driver of the value discussion has been how to engage and provide value for additional international members. As ASC continues to expand and the higher education landscape continues to evolve, it is critical that ASC clearly define our purpose and value in order to continue many of the great additions ASC has historically made to construction education.

“Value”, as defined by the authors, refers to the products and services provided by ASC to advance institutional members by “fostering excellence in construction communication, scholarship, research, education, and practice” (“ASC Website”, 2013). “Value” was not intended to mean an increase in size, budget, or any characteristic of any program. For example, student competitions offered by ASC increase “value” by providing opportunities for students of ASC programs to participate in engaged learning experiences.

In a recent survey by the ASC Board, members were polled on value issues related to the ASC’s *International Journal of Construction Education and Research* (Journal). Specifically, representatives of member institutions were polled to determine if an increase in membership dues would be well received if ASC provided electronic access of the Journal to all members. With more people having access to the Journal, it was hoped that authors would cite articles within the Journal more frequently, allowing the ASC Journal editorial office to continue

establishment of an impact factor for this publication. During this survey, it became very visible that ASC serves many constituent institutions. Some institutions are large; others are small. Some schools have a focus on teaching; others have a more direct focus on research. All have significant value in advancing construction education.

Considering the evolving nature of higher education, ASC's quest to advance construction education internationally, and the diversity of ASC member institutions, the authors asked the question, "How does ASC provide value to its member institutions?" As the authors began to debate this question, it became clear that answering this question was not sufficient. Other questions emerged: "What are the greatest benefits your institution currently receives from ASC?" "What are major issues facing your construction management program at your institution?" "What should ASC do for its member institutions in the future?"

In response to these questions, the authors developed two focus groups to consider the "value" question. Essentially, focus groups were used to allow themes associated with "value" to emerge. One focus group targeted larger institutions. Another focus group considered smaller construction management programs. Participants from specific Universities were purposely selected so that equal numbers of teaching-intensive and research-intensive institutions were invited to participate. All participants were considered currently active in ASC by the authors. Focus groups were held electronically using Webex as a platform. With only two focus groups, results remain anecdotal in nature. By disseminating this information, it is hoped that the authors can receive feedback on the "value" of ASC and use this to develop a more detailed survey that can be widely distributed to member institutions. If successful, such a survey could help ASC's stated mission of "advancing construction education" in the years ahead.

Literature Review

History of ASC

Three construction education undergraduate programs were established in 1926 at Yale, MIT and Union University (Tennessee) (Gunderson, 2005). Later, additional programs such as the University of Florida developed as "Building Construction" programs. "After WWII, Johns-Manville and representatives of the building industry approached colleges and universities to set up programs with curriculum that would train students to meet the demand for construction managers projected by the federal government." (Gunderson, 2005) Essentially, construction education was developed as a direct response to industry's need to combine appropriate business, architecture, engineering, and communication skills to develop the construction manager. In the 1960s, faculty at several schools of construction realized that professional organizations within construction focused on issues other than "the teaching of construction". These faculty members met in 1965 at the University of Florida formally establishing the "Associated Schools of Construction" ("ASC Website", 2013). Since that time, ASC members have met annually on both a regional and national level.

ASC has as its stated mission to advance construction education ("ASC Website", 2013). More specifically, the mission statement is as follows: "The professional association for the development and advancement of construction education, where the sharing of ideas and knowledge inspires, guides and promotes excellence in curricula, teaching, research and service." ("ASC Website", 2013). Since 1965, great strides have been made by ASC. Some of these accomplishments include the following:

- Organization and establishment of American Council for Construction Education (ACCE) (First accrediting body for construction education)
- Establishment of annual Proceedings (Average of 75 papers disseminated annually)
- Establishment of International Journal for Construction Education and Research (Four issues annually)
- Dissemination of information through online website (Established by Ken Williamson)
- Sharing of best practices in teaching and research

The Value of Professional Associations

A professional association is often defined as a nonprofit organization that seeks to further a particular profession, the interests of individuals engaged in that profession, and the public interest. In the case of ASC, the profession is

construction management education. As ASC represents the profession, this definition implies that ASC is tasked with establishing the bar by which the profession is measured. In 1958, Dr. Merton, a Professor of Sociology at Columbia University, defined a professional association as “an organization of practitioners who judge one another as professionally competent and who have banded together to perform social functions which they cannot perform in their separate capacity as individuals” (1958). Since that time, others have defined characteristics of a profession (Bucher & Straus, 1961; Hillman, 2005; Merton, 1958):

- A distinct way of viewing the knowledge base of the subject
- Specialized competencies of those who effectively practice the profession
- Availability of professional education as a life-long process and mechanisms to advance education of professionals
- Individuals with varying backgrounds that coalesce into specialties with specific missions
- Authority recognized by society
- Approval of the authority recognized by a broad community
- A code of ethics to regulate behavior
- Self-regulation that promotes appropriate action
- Culture that allows development of a biased perspective through the lens of the professional

Regardless of how you define a professional organization, they often contain two attributes. First, a professional organization is built “around a substantial body of theory and knowledge, which must be continuously tested, revised, and expanded.” (Fisher, 1997) Thus, one value ASC can provide is encouraging and supporting research that enhances the construction profession. Second, a professional organization seeks to “encourage and support the professional development of its members.” (Fisher, 1997) In this context, professional development is used loosely, referring to such things as regional meetings, annual conferences, and “Wiki” sites on the web that enhance teaching. Fisher essentially argues that two primary goals of an association are “demonstrating active involvement in research efforts” and “professional development” (Fisher, 1997).

The American Institute of Architects (AIA) recently considered “value” provided in an article by Michael Chambers, FAIA (Chambers, 2011). He identified “networking”, “branding”, and “professional responsibility to advance the profession” as the three main values provided by AIA membership. In essence, he argues that the only way for the design and construction industry to advance is when its members are active in the process of construction and with the associations that support the process of advancement.

Engagement of Professional Bodies with Higher Education

In the United Kingdom, Harvey and Mason (1995) examined the role professional bodies play in quality monitoring of higher education. Although they identified that professional bodies vary in organization, scope, power and involvement in their fields, they noted that professional bodies have a distinct responsibility to provide “effective checks” on the operation of the market. In other words, individual construction management schools may operate on a micro-level. However, it is the responsibility of professional organizations like ASC to consider trends on the macro-level of construction education. Harvey and Mason further defined that it is critical that such organizations define the “specific competencies and underpinning knowledge” required of practitioners in the field.

The “Higher Education Better Regulation Group” (HEBRG) has examined the engagement of professional bodies within higher education (Higher Education Better Regulation Group, 2011). They specifically note the need to make a clear connection between such professional bodies and the institutions they represent in the face of new institutional regulations and increased financial pressure. They report that higher educational institutions are looking to professional bodies to define and align their institutional procedures. However, they note confusion of institutions that see multiple views of requirements from various professional bodies (Higher Education Better Regulation Group, 2011). The following recommendations were included by HEBRG (Higher Education Better Regulation Group, 2011):

- Need to align language and terminology between higher education and associations
- Need to formally recognize expertise of professional bodies by institutions
- Need for collaboration on a larger level
- Need for professional associations to seek data from universities where greater alignment could be found

Methodology

The sequential exploratory strategy selected for this investigation involves a first phase of qualitative data collection and analysis, followed by a second phase of quantitative data collection that builds on the results of the first qualitative phase (Creswell, 2009, p. 211). The first phase informs the second phase, which the authors anticipate being a survey sent to all faculty at ASC member institutions. This paper represents the first phase of data collection.

This study investigated the value realized by leaders of construction management programs at ASC member institutions. The research used a qualitative approach employing focus groups of leaders at construction management programs across the United States. No effort was made to engage an international audience since the predominant history of ASC has been within the United States. Currently, ASC has only two members in Western Europe, two in Canada, and one in South America. All are relatively new members and may not be knowledgeable about ASC, its history, and activities. The research was conducted by individuals who are currently on the ASC Board of Directors.

An effort was made to select construction heads or senior faculty from programs representing a geographic distribution across the various regions represented by ASC schools. At least one faculty member was included from all seven geographic regions in the aggregate group of people involved in the focus groups. Participants were selected because the authors subjectively considered them active in ASC and knowledgeable about ASC and its activities.

Two specific focus groups were conducted one week apart via an online meeting portal, “Webex”. Since our hypothesis was that “value” may be defined differently between smaller and larger institutions, the authors decided to formally separate the focus groups by institution size in the hopes that such differences would become obvious. The division between larger and smaller institutions was subjective based on the authors’ experiences in construction education.

One focus group engaged leaders from larger institutions which the authors defined as programs with seven or more faculty in the undergraduate education program in construction management. The other focus group engaged leaders from smaller institutions which the authors defined as programs with less than seven faculty in the construction management program. Participants were specifically selected to provide diversity in each focus group between teaching and research intensive programs. A total of 10 leaders were invited for each focus group (20 total).

After multiple discussions between the authors and others within ASC, several questions emerged as the most relevant to the question of “value”. Prior to the Webex phone call focus group meeting, an e-mail was sent to each participant one week ahead of the online meeting encouraging them to consider the following questions:

1. What are the greatest benefits your institution receives from ASC?
2. What one activity does ASC provide that could be improved? How?
3. What is required of a faculty member to achieve “success” at your institution?
4. What is the single largest problem your program is facing at your institution?
5. To what degree are “research” and/or “publications” valued at your institution?
6. What ASC events has your institution participated in over the past three years? What was the purpose of each?
7. What industry trends are substantially impacting your institution/program?
8. In which other groups similar to ASC do you participate? What value do they provide?
9. If you could add any activity/product to ASC’s offering, what would you add?
10. What can the ASC Board of Directors do to strengthen involvement in ASC by all institutional members, large programs and small programs alike?

Once the online meeting started, a short introduction regarding the motivation for the focus groups was conducted, and participants were advised that results of the focus groups would be published without revealing names of leaders

or institutions. Over the course of one hour for each focus group, the following questions were discussed in an open format:

1. What are the greatest benefits your institution currently realizes from ASC?
2. What are the problems your institution is facing? What industry trends are impacting your institution/program?
3. What one activity does ASC provide that could be improved? If you could add any activity/product to ASC's offering, what would you add?

The focus groups were recorded, and transcripts of the discussion were developed by the authors. The researchers analyzed the data searching for emergent themes based on comments made by participants.

Results

A total of 10 leaders were invited to represent both large programs and small programs in each focus group. Seven leaders of large programs accepted the invitation to participate (four from research focused; three from teaching focused). Five leaders of small programs accepted the invitation to participate (two from research focused; three from teaching focused). Results indicate strong support for ASC and several programs currently offered. Several areas emerged where improvement of existing programs was encouraged. Other areas were identified where new programs or considerations may be warranted by ASC. This first phase of a sequential exploratory mixed methods research design provided no formal decisive conclusions. Only directional results were obtained in the study (Creswell, 2003).

The results are presented in tables below. These tables represent responses from participants in the first phase of the research only and are not generalizable to the larger population. These results inform the authors of necessary information to include in the second phase of the research.

Question 1: What are the greatest benefits your institution currently receives from ASC?

Table 1 list the greatest benefits identified and whether the benefit was identified by the large school focus group or the small school focus group.

Table 1. *What are the greatest benefits your institution currently receives from ASC?*

Item Identified	Large School Issue	Small School Issue
Faculty networking at annual conference	X	
Boot Camps at annual conference	X	
Job announcements/postings	X	X
Faculty presentations at annual conference/Proceedings	X	
Engagement opportunities for younger faculty	X	
Feedback received on research at Proceeding's level	X	
Regional Student Competitions		X
Provide Service to the Construction Industry		X
International Journal of Construction Education	X	X

The authors considered the frequency of responses for both "research areas" and "teaching areas" by both large and small schools. The large school focus group identified three major benefits of ASC specific to research (Presentations/Proceedings, Feedback on Research, and Journal) while identifying only one major benefit related to teaching (Boot Camps). The smaller school focus group identified one major benefit related specifically to research (Journal) and one major benefit related to teaching (Regional Competitions). Other issues such as mentoring opportunities, service to the industry, and networking opportunities were viewed as neutral toward a research or teaching preference.

Question 2: What are the problems your institution is facing? What industry trends are impacting your institution/program?

Table 2 lists the problems currently faced by institutions and the industry trends impacting ASC programs. In question 2, the authors again considered the frequency of responses for both research-ares and teaching-areas by both large and small schools. Of the 14 issues identified by large schools, only two were related to research. Of the remaining 12, 9 appeared related to teaching while 3 were deemed neutral. Of the six issues identified by smaller schools, three of six related to education; none related specifically to research, and three were deemed neutral.

Table 2. *What are the problems your institution is facing, and what industry trends are impacting your program?*

Item Identified	Large School Issue	Small School Issue
Limitation of publications considered appropriate by my University	X	
Need for venue to share research in progress	X	
Shift to learning outcomes based accreditation	X	
Limited interest or lack of knowledge of program from undergraduate and graduate students	X	X
High demand of program from undergraduate students	X	X
Finding qualified faculty to teach students	X	
State mandates for 120 maximum semester hours in undergraduate education	X	
Industry demand for BIM in curriculum	X	
University demand for the “global student”	X	
University demand for “service learning” opportunities	X	
University demand for “ranking” of CM programs	X	X
Educational shift to “flipping” classroom and online learning	X	
Lack of young leaders in Construction Education	X	X
Reduced state funding of higher education		X
Limited faculty resources (mainly time)		X
Increased student interest in field superintendent positions	X	

Question 3: What one activity does ASC provide that could be improved? If you could add any activity/product to ASC’s offering, what would you add?

Table 3 lists the activities ASC provides that could be improved. Table 4 list possible activities that should be considered for addition by ASC. Of the 9 current ASC offerings discussed, 5 related directly to research while 3 were related directly to teaching. Interestingly, the larger schools focused on “research” areas in this question while smaller schools split their discussion between “research” areas and “teaching” areas.

When possible new ASC offerings were introduced, large schools expressed interest in 3 of 6 research-oriented initiatives while listing 2 of 6 teaching-oriented initiatives. In contrast, small schools split their interest with 2 of 5 initiatives for both “teaching” and “research”.

Table 3. *What activities that ASC currently offers could be improved?*

Item Identified	Large School Issue	Small School Issue
More focus on education at annual conference	X	X
Increased vetting of peer reviewers for Proceedings	X	
Do not require triple blind review for Proceedings	X	X
Publish clear guidelines on review process for	X	X

Proceedings		
Provide direct publication of best Proceedings papers in Journal	X	
Professional development for improved teaching		X
Increased opportunities for sharing of educational approaches		X
Collaborate on regional competitions so experience for all of ASC is optimized and not optimized around the region		X
Limit time required to review and publish Proceedings		X

Table 4. *What additional activities/product offerings should ASC consider adding?*

Item Identified	Large School Issue	Small School Issue
Provide sample Tenure and Promotion Guidelines that include ASC contributions as “high levels” of teaching, research and service	X	
Provide indexing and ISBN numbers for Proceedings	X	X
Sponsor a Domestic and International Service Learning Opportunity	X	
Develop clear transition paths from industry to Ph.D. and teaching in CM	X	X
Seek a return to National Competitions/National Competition not needed	X	X
Develop impact factor for Journal	X	X
Develop specific mentoring program for younger faculty		X
Internship exchange for students interested in broader opportunities outside the region		X

Conclusions

ASC provides clear value through several current initiatives. These include: Job postings/announcements; Student competitions; Annual Proceedings; *International Journal of Construction Education and Research*; Activities surrounding the annual conference (Networking, mentoring, educational opportunities, etc.). The authors believe that ASC should continue to focus resources in the above areas and seek opportunities to expand them in international sectors. For example, ASC’s international region is currently exploring the addition of a student competition for the United Kingdom.

The responses for the question related to “current industry trends” and “key issues at your institution” essentially revealed the clear and present shifts in higher education. Universities are under financial pressure with reduced state funding and limited ability to continue to raise tuition. Several programs have realized a clear shift away from the traditional “teaching” focus of construction education toward a more “research” focus. Many schools also have stipulated the requirement of having a PhD for teaching at their institutions.. Both small and large schools alike are seeing requests from upper administration for a ranking of construction management programs as financial pressure mounts to justify expenditures on programs. ASC has the opportunity to impact some of these shifts in higher education through active engagement with construction industry leaders.

The requirement of the Ph.D. for new faculty in an arena where construction experience is demanded was of particularly interest to the authors. This requirement does a few things to our industry. First, it tends to limit our new hires to older faculty. Second, it makes it very difficult to attract new faculty as many experienced construction professionals are not interested in pursuing a Ph.D. The authors recognize a need for ASC to assist in creating clear transition paths for construction professionals interested in academia and to provide mentoring experiences for these individuals.

One recommendation by both groups was to ensure the Annual Conference had a specific teaching focus as part of the overall event. This was recognized by many as a return to previous years of ASC where teaching, in lieu of research presentations, dominated the conference landscape. The authors challenged the focus group participants on how time at the conference should be allocated to allow such a shift to an educational focus. The groups agreed that any change away from research at the conference was problematic as the research drove one's ability to attend the conference. No one expressed specific interest in lengthening the time frame for the annual conference.

The authors recognized a "confused customer" as it related to the Journal and Proceedings. Some said the review process for the Proceedings was not clear. Others said it was too rigorous. Still others wanted direct publication of outstanding Proceedings papers in the Journal. Additional efforts may be needed to clearly connect items such as the review process and the rigor of ASC publications with faculty at member institutions.

There appear to be no dominant themes that emerged from both large and small programs. This may point to the difference in resources, stakeholders, and demands on various programs regardless of size. ASC currently views all programs equally; however, this approach may not be best in a market environment where groups of programs face specific challenges and circumstances based on available resources. These two focus groups are considered the first phase of research on the "value" added by ASC. Additional studies are needed to reach more members and develop a clearer picture of how ASC can continue to be relevant and engaged in the future of construction education. The next phase of a sequential exploratory mixed methods research design is planned to be a survey sent to all faculty teaching in ASC member institutions.

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