

# **On-Campus Student Recruitment in the Context of Design and Construction**

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Effective student recruitment in the context of today's higher education market is critical for success. How millennial students are attracted to a particular university and major are much debated among academics in design and construction. This exploratory study considers the experiences of one student recruiter in the areas of design and construction at a major University over the 2016-17 academic year. 767 student interactions with the recruiter were analyzed, and results were summarized to consider which approaches yielded the strongest responses. Five specific types of interactions with perspective students were studied: campus visits, on-campus events hosted by the college, off-campus events hosted by the college, university-hosted events on-campus, university-hosted receptions off-campus, and college summer camps. Results indicated the importance of the on-campus visit combined with a specific experience on-campus focused on the degree program. The study also shows some of the challenges associated with funding a recruitment strategy to reach a broader audience. Further study is needed to analyze student thoughts and responses to the recruitment strategies outlined.

**Key Words:** Recruitment, High School Students, Higher Education, Construction Management.

## **Introduction**

During the economic growth of the late 1990s and early 2000s, few schools were concerned at a deep level with student recruitment in the context of design and construction. Schools served the students that matriculated to them without detailed regard to how this matriculation occurred. When the economy declined in 2007-08, design and construction schools across the United States soon found that student populations were significantly decreased from prior levels. These reduced student numbers yielded lower tuition revenue for schools and often reduced quality of the available students.

At the same time student numbers dropped across the country in design and construction, pressures on higher education increased. Higher tuition costs had students and parents alike discussing topics like placement rates and starting salaries even as the student matriculated to a University. Revenue models for universities also shifted to focus on increased tuition revenue. This, in turn, forced programs to consider and increase student numbers. All of these shifts brought focus on the importance of student recruitment within design and construction in higher education.

College recruitment for purposes of this paper is considered those tasks that involve attracting, selecting, as well as the process of matriculation to a particular school. Colleges rely on the recruitment process to increase student numbers, increase diversity, and improve the quality of the student. For many schools, these recruiters work at the overall university level. This paper considers the efforts of a recruiter employed at the college level allowing that individual to focus specifically on students within the design and construction arena.

The literature on recruiting within the context of design or construction management education is minimal. Much of the opinions related to student recruitment are related to tacit criteria of plausibility and satisficing rather than accuracy (March & Simon, 1958). Human nature leads us to a solution that "good enough" prevents further study

and allows us to move forward and get things done. The authors' experience motivates them to better understand why students within design and construction disciplines select specific programs and/or universities.

This study examines a University program recruiter's experience during the 2016-17 academic year. Specifically, the study considers results realized from data tracked on over 767 potential students and how their interaction with the campus environment influenced their choice in specific programs at one University. It is hoped that this exploratory study will motivate further discussion on how to attract a high quality, diverse student group to higher education in the design and construction industries.

## Literature Review

There have been multiple studies on how students may select a particular university or program. One of the initial attempts to develop a model for student choice determined university selection was determined first by the background and characteristics of the student and his/her family (Chapman, 1981). Beyond this, a number of external influences were deemed critical: influence of significant persons, characteristics of the college, and the institution's effort to communicate with prospective students. Printed material, although relevant for many students in this study, was not deemed to be as critical to the selection process as believed by admissions officers or guidance counselors at the time. Another more recent study by Ho and Hung (2008) focused on student behavior and thinking. Others studies focused on what information students may use to make their choice of university (Bonnema & van der Walldt, 2008). Helgesen and Nessett (2007) addressed student loyalty to and degree of satisfaction with their university. One report placed student selection criteria in twenty possible categories (Choy & Ottinger, 1998). Students selecting private four-year schools were more likely to cite reputation over location, price, or the influence of others as the primary reason for institution choice. Students at public institutions were more likely to identify price or location as the key reasons for a specific college choice.

Howe and Strauss (2000) describe specific characteristics of millennial students considering college: special, sheltered, confident, conventional, team-oriented, achieving, and pressured. The "special" characteristic results from authority figures conveying to the student their unique nature. If this is an expectation of students considering universities, it would imply that recruiters who sell them a service would be expected to make students feel special. "Sheltered" often relates to parents' desire to protect students from harm. From a recruitment standpoint, this may imply a higher degree of involvement in the college selection process by parents. In addition, sheltered students desire a large degree of structure and definition in the process so the rules and ultimate school process can be relied upon. "Confident" students expect a strong future. In recruiting experiences, students and parents wish to establish that such a future is achievable with the particular program considered. "Team-oriented" may imply that students wish to see opportunities for team engagement in their learning experiences. Characteristics of "achieving", "pressured", and "conventional" may imply a desire for student experiences that must be filtered personally as opposed to allowing those to develop naturally. These may also imply further need for structure for students where expectations for students are visible and apparent during the recruiting period.

*U.S. News and World Report's* college guide suggests students make a college visit and tour the campus (Ross, 2017). A tour allows a student to see what the experience may look like for them in the future and visualize the actual experience. Work placement also seems to be increasing in value as students consider the college process.

More than ever, college and university students are evaluating the strength of your academic advising and mentoring programs during their decision-making process. They want access to knowledgeable "insiders." They want to talk with grads who have successfully pursued similar career paths. Ultimately, they want visibility into how their academic training will help pave the way toward professional success. It's all about ROI ("Why Alumni-Student Relations are Essential for Attracting and Retaining More Students," 2016).

Of particular interest in the area of connection with mentors in construction is the maturation of the ACE (Architecture, Construction, Engineering) Mentoring Program ("ACE Mentoring," 2017). In place for over 20 years, this program reaches 8000 students in approximately 200 cities. This after-school program for high schoolers focuses on introducing the design and construction of a project. Surveys indicate 7 of 10 students that participate matriculate to an architecture, construction, or engineering field or enter a trade program.

No studies were found that show social media as an effective way to introduce students to perspective programs. In a 2012 study done by the College of Technology at Purdue, all freshman learned about a specific program through websites, parents, friends, or counselors. None found initial connection through Facebook or Twitter, and social media was deemed by the students as the least influential in making a decision (Sadowski & Karcher, 2012).

Specific studies on design and construction students are minimal. Those that do exist tend to focus on specific diversity initiatives like “women in construction” or “minority groups” (Escamilla & Mohammadreza, 2017; Stanley & Sattineni, 2012). These studies offered strategies on how to increase certain demographics in design and construction in an effort to better match the diversity of the population at large. Ideas such as mentoring programs, exploratory high school programs, and service learning that connect with the altruistic nature of perspective students were addressed.

## Method

This study considers the effectiveness of an on-campus program recruiter who interacted with 498 prospective students and families from May 2016-May 2017. The recruiter was employed at a College level (12 Colleges compose the University) and was primarily responsible for the recruitment of five undergraduate programs including one in construction management and the others in fields of architecture and design. There were five specific types of interactions the recruiter had with the prospective students and their families: campus visits, on-campus events hosted by the college, off-campus events hosted by the college, university-hosted events on-campus, university-hosted receptions off-campus, and college summer camps. This study is an initial effort to outline the success of each approach by determining percentages of students who matriculated to a specific program based on the interaction each student had.

The on-campus visit experiences included either a group information session about the college with specific details on programs of interest to the student and a tour of the facilities given by a student ambassador or a one-on-one meeting with the recruiter about the program of interest for the student followed by a tour of the facilities with a student ambassador or the recruiter. The ambassadors were a group of approximately 50 students currently enrolled in the college that were self-selected as champions of their respective degree programs.

The on-campus events hosted by the college for prospective students involved question and answer sessions with professors and Program Chairs, class shadowing, facility tours, program information sessions, and lunches with students and faculty. These events were formally structured with agendas developed for each in conjunction with Program Chairs, School Heads, and other staff.

The off-campus events hosted by the college involved the recruiter working with industry partners to find offices or firms who would be willing to host a reception. Once a location was determined, the recruiter would invite prospective students to attend an information session about the college programs. These information sessions often included question and answer sessions with current students, alumni, faculty and staff in their hometown. Off-campus events were targeted in major cities within a 5-hour drive of the University.

The university-hosted on-campus events involved the recruiter setting up an information table at events the university admissions office invited prospective students and families to attend. The recruiter then spoke with the families about the college's programs. Some events also involved the recruiter giving an information session or a tour of the college's facilities as well.

The university-hosted off-campus receptions involved the recruiter setting up an information table at receptions the university admissions office invited prospective students and families to attend. The recruiter then talked with the families that approached the table about the college's programs.

The college-hosted summer camps are week long overnight camps hosted in conjunction between the college and the university's youth programs office for high school students. Each camp has a faculty leader and student

assistants. Camps were offered in construction management, architecture, and design. The goal of each week was to give the students a glimpse into the academic programs of the college.

Demographic information recorded was obtained through personal interactions the recruiter had with perspective students. In addition, admission applications, as well as scholarship applications, were used to collect data.

## Results

Demographic information for recruited students was compiled and is presented in Table 1. While all information was not reported for every student, the number of data points collected is shown in each column. For this public institution, the quality of student was high for all programs. Male/Female applicants can be compared to the overall university population of approximately 54% female. Construction programs are dominated by male applicants while females dominate the design disciplines. Finally, a large number of out-of-state students connected with the college considering approximately only 40% of the actual student body is from out-of-state.

Table 1 Demographic information for accepted students

| Program      | Demographic Data           |                          |                                     |                       |
|--------------|----------------------------|--------------------------|-------------------------------------|-----------------------|
|              | Avg. ACT Score<br>(N =506) | Male/Females<br>(N =691) | In-State/Out-of-<br>State (N = 679) | H.S. GPA<br>(N = 697) |
| Total        | 27.8                       | 342/349                  | 208/471                             | 3.86                  |
| Architecture | 27.7                       | 176/216                  | 98/282                              | 3.91                  |
| CM           | 26.5                       | 96/7                     | 48/57                               | 3.62                  |
| Design       | 28.0                       | 70/126                   | 62/132                              | 3.87                  |

Table 2 shows the numbers of students that enrolled based on whether or not they visited campus and connected with the individual recruiter. Data shows that a large percentage of students apply and are accepted but never connect with the college recruiter. Table 2 also shows that for those that are accepted and visit campus, enrollment is generally higher. This is particularly true in Construction Management where almost four of five students who visit the program ultimately enroll in the program.

Table 2 Enrollment based on connection with program

| Connection                              | Program         |                 |              |                  |
|---|-----------------|-----------------|--------------|------------------|
|   | Total (N = 767) | Arch. (N = 413) | CM (N = 130) | Design (N = 224) |
| Accepted, did not visit, did not enroll | 360 (47%)       | 214 (52%)       | 39 (30%)     | 107 (48%)        |
| Accepted, did not visit, enrolled       | 125 (16%)       | 43 (10%)        | 36 (27%)     | 46 (21%)         |
| Accepted, visited, enrolled             | 167 (22%)       | 77 (19%)        | 43 (33%)     | 47 (21%)         |
| Accepted, visited, did not enroll       | 115 (15%)       | 79 (19%)        | 12 (9%)      | 24 (11%)         |

Table 3 indicates the largest number of students connected with the college by scheduling a campus visit. The smallest quantity of participants were found in university-hosted off-campus events and summer camps.

Table 3 Participation in each of the programs offered by college recruiter

|              | <b>Accepted Students Who Attended Each Event Offered</b> |                                   |                                    |                                      |                                       |                     |
|--------------|--|-----------------------------------|------------------------------------|--------------------------------------|---------------------------------------|---------------------|
|              | <b>Campus Visits</b>                                     | <b>On-Campus (College-hosted)</b> | <b>Off-Campus (College-hosted)</b> | <b>On-Campus (University-hosted)</b> | <b>Off-Campus (University-hosted)</b> | <b>Summer Camps</b> |
| Total        | 189  | 54                                | 17                                 | 39                                   | 27                                    | 31                  |
| Architecture | 99   | 31                                | 14                                 | 24                                   | 14                                    | 20                  |
| CM           | 40   | 15                                | 3                                  | 7                                    | 6                                     | 1                   |
| Design       | 50   | 8                                 | 0                                  | 8                                    | 7                                     | 10                  |

Table 4 indicates strong success for students who take individual campus visits and attend college-hosted events and summer camps on-campus. Limited success is realized in on-campus university-hosted events.

Table 4 Yield rates for each program offered by the college recruiter

|              | <b>Yield Rates for Each Event Offered</b> |                                   |                                    |                                      |                                       |                     |
|--------------|---|-----------------------------------|------------------------------------|--------------------------------------|---------------------------------------|---------------------|
|              | <b>Campus Visits</b>                      | <b>On-Campus (College-hosted)</b> | <b>Off-Campus (College-hosted)</b> | <b>On-Campus (University-hosted)</b> | <b>Off-Campus (University-hosted)</b> | <b>Summer Camps</b> |
| Total        | 119 (63%)                                 | 38 (70%)                          | 11 (65%)                           | 20 (51%)                             | 23 (85%)                              | 18 (58%)            |
| Architecture | 53 (54%)                                  | 19 (61%)                          | 8 (57%)                            | 10 (42%)                             | 13 (93%)                              | 10 (50%)            |
| CM           | 33 (83%)                                  | 11 (73%)                          | 3 (100%)                           | 4 (57%)                              | 6 (100%)                              | 1 (100%)            |
| Design       | 33 (60%)                                  | 8 (100%)                          | 0 (0%)                             | 6 (75%)                              | 4 (57%)                               | 7 (70%)             |

### Analysis and Conclusions

At the start of the 2016-2017 recruitment cycle, the recruiter for the college started tracking all the in-person interactions she had with prospective students through their recruitment experience. The recruiter met with students on-campus, planned events for individual programs within the college, attended university-hosted events both on and off-campus, hosted events at different Alumni owned firms and businesses, and assisted in the process of organizing summer camps for the college. Through these types of recruitment, the recruiter was able to stay focused on making sure the students who took the time to visit campus were well-versed in design and/or construction programs once the interaction was complete.

One of the key observations from the data on recruits is that there is a clear difference in yield between the students who visit campus and the students who do not visit. This observation supports a widely accepted claim in admissions and recruitment that campus visits make or break student's decisions about colleges. The study where this research was done was a large, land-grant institution that is viewed as a "destination" by many students that attend. Such focus on the visit may have less significance at schools that primarily serve transient students or perhaps adults that return to college.

Another observation was the success and positive yield rates seen after prospective students attended an on-campus event hosted by the college. The recruiter organized six different on-campus events for the year. Attendance for these focused events was small but provided detailed information on the program of interest including tours, curricula, details of the student experience, and interaction with the School Head and/or student advisors. This approach had strong yield rates of 61% or above with some programs reaching 100% for small numbers of students.



The recruiter observed that the events allowed the students to have a whole day or afternoon dedicated only to one academic program, and students and families were able to gather information without feeling rushed.

The authors were surprised that the yield rate for summer camps was not higher than other on-campus events. These summer camps are one-week events for high school students that specifically focus on an experience within the major. For example, our CM program focused last summer on the construction of a tiny house. Students engaged in drawing, estimating, planning, and executing the construction of a small house. The authors surmise that the yield rates for this immersive experience may be skewed as students may decide whether or not to attend by the end of the camp. This is evident by the relatively low numbers of students that matriculated compared to attendance (1 of 11 in CM applied and attended). There is also a possibility that the number of sophomores and juniors in the camps may be skewing the results. These camps represent a high cost for the programs that operate them, and further study is needed to better connect the camp experience with matriculation patterns and influence.

The final observation was that although the on-campus university-hosted events saw a lower yield rate than the other types of recruitment, they often gave the recruiter the opportunity to talk with undecided prospective students. When taking that into consideration, yield rates from 42% to 75% were considered very positive results. This suggests that one strategy for attracting more students would be for the design and construction programs to focus on University on-campus events where students undecided on a major may be in attendance. Such an approach would be relatively low-cost and could be implemented quickly.

These results show that architecture, design, and construction students who are serious about an institution will visit and learn more about program through personal campus experiences, and that these students put considerable weight on their campus experience. This supports the recruiter's opinion that it is imperative to take advantage of prospective students visiting campus, and make sure every student considering an architecture, design, or construction major receives a full experience that is not rushed while visiting. Finally, the data showed the effort put into campus visits and on-campus events for prospective students is seeing positive results and should definitely continue.

No data could be found that illustrated the impact of on-campus recruitment events for programs outside design and construction. The authors would recommend that a comparative study be considered that examined what recruitment experiences impact students outside of design and construction. In addition, no attempt was made to collect responses from the students that experienced the recruitment process. A better understanding of their perspectives and decision process has the potential to improve the recruitment process in design and construction.

Based on this preliminary study that considers only specific interactions at an isolated location over one year, the authors believe that the following may be considered best practices when recruiting high school students into architecture, design, and construction fields:

- Personal interactions are key.
- On-campus events have strong connection to enrollment.
- Connecting with events hosted by the university recruitment office can allow interactions with students who may not have originally considered architecture, design, and construction as a field.

This study considered only those students who made a personal contact with the student recruiter in design and construction. In some cases, the information available to the recruiter was limited, and the contacts occurred over a period of time as opposed to the beginning of the recruitment cycle. In addition, only a single recruiter was engaged for the College during these efforts, and this limits the conclusions that can be established. Further efforts need to be developed to connect with perspective students early in the recruitment cycle. Programs like the ACE initiative provide possible pathways for this, and universities should seek to connect with these existing pathways. Finally, this exploratory study did not explore diversity or quality of the student specifically. It may be surmised from the student that more specific on-campus experiences for diverse, high quality students would increase matriculation rates for those groups.

Future studies in this area should include consideration of retention rates for recruited students. A comparative analysis between the student recruitment rate and graduation rate would be of interest to the construction and design

programs to gauge their success. One of the authors' concerns is that retention rates in this specific case may be less than desired due to the selective and competitive criteria required to matriculate from Sophomore to Junior levels.

In sum, this study considered the experience of 767 students who made a direct inquiry on a potential major in architecture, design, or construction. When students were engaged on-campus in a direct event, there was clear connection with the student's ultimate decision to matriculate to the specific program. Many of these experiences required the recruiter to work one-on-one or with small groups. Such work suggests that college recruitment in design and construction relies heavily on personal contacts and individual interaction. Thus, design and construction programs that can connect with students that have an expressed interest in the field will yield stronger results.

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