

THE IMPACT OF FACILITIES ON RECRUITMENT AND RETENTION OF STUDENTS



by David Cain, Ph.D. & Gary L. Reynolds, P.E.

This article is a summary of the full research report that will be available this summer. Over the past 30 years considerable research has been done to understand the issues that impact the decision of a student's choice of a higher education institution. This research has focused on understanding the phases of the decision process, the timing of the phases in the decision process and the personal, financial, and environmental factors that influence institutional choice. While many of these studies include some aspect of the institution's physical environment, these physical aspects are usually secondary to the main thrust of the research. (See the references at the end of Part II of this article for further details.)

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PART I: RESEARCH FINDINGS

Key questions in these research projects are, "What factors influence a student's choice of higher education institution? When and how do students obtain their information about an institution? What institutional factors influence a student to stay at their original institution of choice? What are the differences between demographic groups in this decision process?"

Through the support of APPA's Center for Facilities Research (CFaR) our research has attempted to determine the level of importance of facilities relative to other institutional characteristics and then to explore various facilities influences. In other words, "What can the physical assets (buildings, grounds, landscape, and other tangible resources) do to help recruit students?" Simply put, "What is the benefit of facilities in the recruitment process?" As a follow-on, "What, if any, impact does facilities have on retaining students?" and "Are there demographic differences in the impact of facilities on recruitment and retention?" The relationship and linkages between physical assets and outcomes are explored and examined in this study.

Does the physical environment:

- Improve the institution's recruitment efforts?
- Have a different impact on various demographic groups on recruitment?

- Improve the institution's ability to retain students?
- Have a different impact on various demographic groups on retention?

Specific Purpose of the Study

The purpose of this study is to determine (a) the relative importance of an institution's physical assets on a student's choice of higher education institutions, (b) the relative importance of various facilities in the decision process, and (c) the demographic differences in this decision process.

Survey Design

The survey tool was developed by APPA in conjunction with George Dehn & Associates, Inc. (GDA). Questions were developed based on a review of the literature, previous research completed by GDA, and APPA member experience. The questions were designed to explore the three main issues cited in the specific purpose of this study.

It was initially planned that the survey would be distributed through a mass e-mailing to approximately 200,000 students in North America. However, the new anti-spam laws would not allow this approach. Several alternative methods were discussed with concern for obtaining a representative sample. The final distribution plan involved engaging APPA members to help with distribution of the survey.

Survey Distribution

APPA membership is organization-based with each member organization identifying their organization's representative. APPA reviewed their membership list and created a list of 1,013 institutions of higher education. The membership list review was necessary because a number of APPA members are not institutions of higher education and would not have students that could be surveyed for this particular study.

Multiple e-mails were then sent to each of the 1,013 organization representatives asking for their participation in distributing the survey via e-mail on their campus. The e-mail directed them to our research website where they could learn about the survey and the need for their participation. The website also allowed them to sign up to participate and to designate a time when they would like to administer the survey on their campus. Forty-six institutions agreed to participate.

At the designated time, an e-mail was sent to the organization's representative with a password specific to that institution and the Web link to the survey. The institution then internally broadcast the password and Web link to their student population. The data were gathered anonymously at the student level and collected by the Web-based survey engine. Ultimately, 16,153 students from the 46 institutions filled out the survey during spring semester 2005.

The shortcoming to this method is that we could not control the sample demographics. As a result we explored several subsets of the responses that were demographically balanced to see if there were significant differences.

The Results

Respondent Demographics

A total of 16,153 students responded from 46 institutions across the U.S. and Canada. For this report the results will be provided for the U.S. respondents only (13,782 respondents) so that the U.S. National Center for Education Statistics (NCES) Integrated Postsecondary Educational Data System (IPEDS) can be used to examine the design of the survey.

The students were from 27 different states with a fairly even distribution between states in the East, South, Midwest, and West. Ninety-five percent of all respondents were fulltime while 5 percent were part-time compared to 93 percent full-time and 7 percent part-time nationally (IPEDS 2004). Seventy-four percent of all respondents were attending their school of original choice with 26 percent reporting as transfer students. Sixty-eight percent of the respondents were female and 32 percent were male compared to nationally reported statistics of 56 percent female and 44 percent male (IPEDS 2004). Eighty-five percent of the respondents reported they were Caucasian with 4 percent reporting as Hispanic, 4 percent Asian American, 3 percent African American, 1 percent Native American, and 3 percent mixed. This demographic compares to the national demographic of 78 percent Caucasian, 13 percent Black and 9 percent Hispanic (IPEDS 2004).

Sixty-five percent of the respondents reported they came from an urban or suburban home environment with 23 percent reporting they came from a small town and 12 percent from rural areas.

Eighty-three percent of the students attended a public high school, 8 percent attended a parochial high school, 7 percent attended a private high school with the remaining either home schooled or attended a boarding school.

Twenty-one percent of the respondents were first-year students, 20 percent were sophomores, 23 percent were juniors, 25 percent were seniors and 11 percent were graduate students.

Forty-five percent of the respondents reported a grade point within the 3.5 to 4.0 range, 33 percent in the 3.0 to 3.4 range, 17 percent in the 2.5 to 2.9 range, 4 percent in the 2.0 to 2.4 range and 1 percent with a grade point less than 2.0.

Sixty percent of the respondents reported that they first visited their institution of choice while in high school, 12 percent visited before high school, and 12 percent visited after high school. Eight percent visited their campus the day they enrolled, implying that they did not visit the campus as part of their decision process. Eight percent visited after they graduated from college, which would represent graduate students

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making a decision about an institution for their graduate work.

A total of 69.2 percent of the respondents indicated that they lived in on-campus residence halls during their first year, 19.3 percent lived off campus, and 11.5 percent lived at home.

Institutional Demographics

The respondents reported they were attending schools in both the US (86 percent) and Canada (14 percent). The respondents were asked to identify the type of institution they were attending. However Carnegie Classifications were not used as it was felt the students would not know how to classify their school. Thus, a more generic description was used. Forty-seven percent were attending a large (>25,000 students) public institution, 18 percent were attending a smaller (<25,000 students) public institution, 13 percent were attending a larger (>2,500 students) private institution, 20 percent were attending a smaller (<2,500 students) private institution, and 2 percent were attending other types of institutions.

The respondents were asked to identify the setting of their school. Sixty-one percent reported they were attending an institution in an urban or suburban setting, 34 percent in a small town setting, and 5 percent in a rural setting.

Respondent Observations and Opinions

Issues of Recruitment

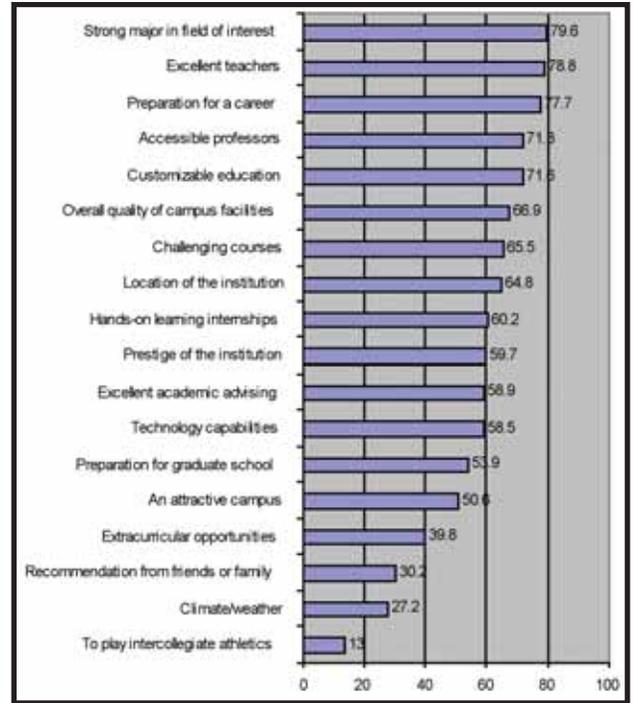
In order to understand the relative importance on the decision process of broadly described institutional physical characteristics, the respondents were asked to provide their observation or opinion on a number of institutional characteristics. A summary of the results is shown in Figure 1 for those who indicated the characteristic was "Essential" or "Very Important."

Note that the top five characteristics are academic oriented indicating that the students are evaluating the quality of their institution of choice based on its academic strength. Further note that two-thirds of the respondents indicated that the *Overall Quality of the Campus Facilities* and that half of the respondents indicated that the *Attractiveness of the Campus* were "Essential" or "Very Important" to their decision.

Since our survey sample is not gender balanced, based on national IPEDS data, this question was tested using a gender-balanced (56 percent female/44 percent male-IPEDS 2004 data) subset of the survey respondents. The data subset was created using all the male responses and randomly selecting from the female responses to provide the correct ratio. The results show the same top five in the same order but with slight changes in percentages:

Strong Major—	79.1 percent
Excellent Teachers—	77.7 percent
Preparation for a Career—	77.2 percent
Accessible Professors—	70.6 percent
Customizable Education—	70.9 percent

Figure 1. Essential or Very Important Institutional Characteristics (%)



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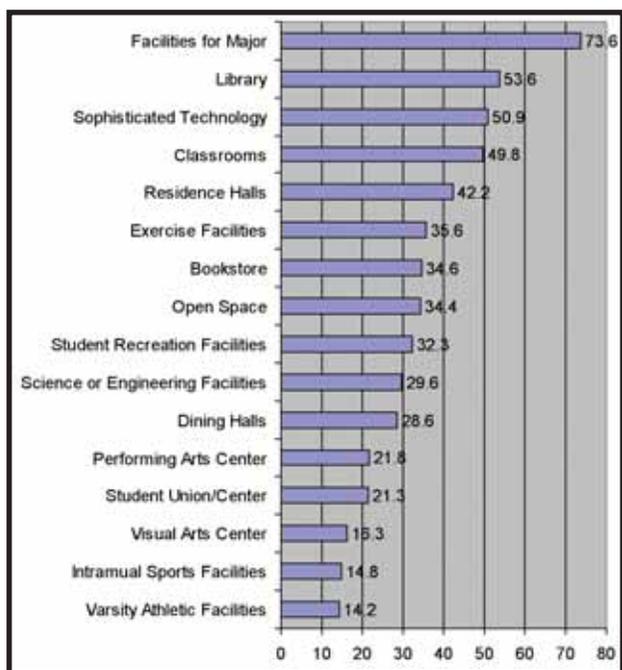
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The only overall difference is that *Technology* moved up from 12th place to 11th place and *Excellent Advising* dropped from 11th place to 12th place.

This test gives some assurance that using the entire respondent database will not significantly skew the results.

Having explored the relative importance of an institution's physical environment relative to other institutional characteristics we then explored the relative importance of various facilities by asking what was important in their decision and what was important to see during a visit to the campus. The results are shown in Figures 2 and 3.

Figure 2. Extremely or Very Important Facilities in the Selection Decision Process (%)



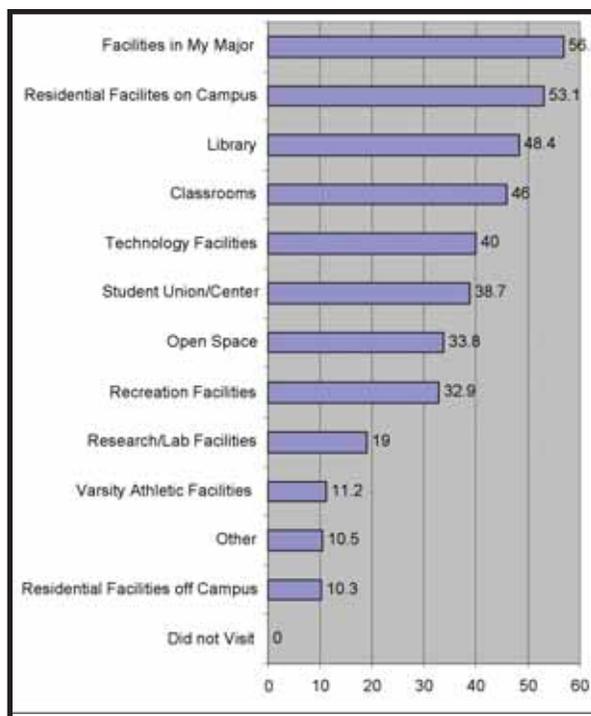
When asked to identify specific facilities (as opposed to general characteristics) the respondents focused on academic oriented facilities with at least 50 percent (including classrooms at 49.8 percent) of the respondents indicating that the top four facilities were “Extremely Important” or “Very Important.”

Once again academic facilities are cited frequently, however *Residence Halls on Campus* moves up to second in importance with 53.1 percent of the respondents indicating that it was important to see during their visit.

This question was also tested using a gender-balanced (56 percent female/44 percent male) subset of the survey respondents.

The top four responses remain the same however *Residential Facilities on Campus* moves to 1st place and *Facilities in My Major* drops to 2nd place. Also, *Technology* moves up to 5th place from 6th place and *Student Union* moves from 5th place to 6th place. These results also indicate, that while there

Figure 3. Facilities Important to See During Visit (%)



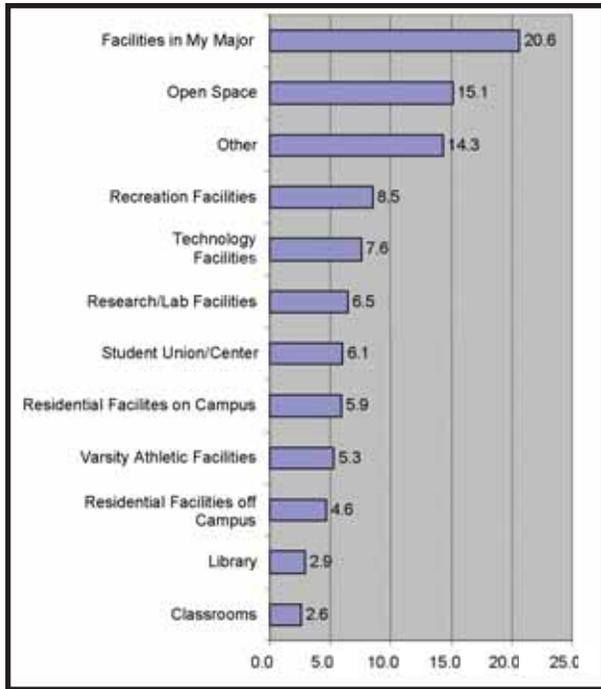
are subtle differences the general conclusions of importance remain substantially the same.

A final question was asked to confirm the level of commitment and to which facilities the respondents felt were important in their choice decision. The respondents were asked to pick the one facility that had the greatest impact on their decision; 30.5 percent of the respondents indicated that a *Facilities in My Major* had the greatest impact with 21.9 percent indicating that *Other* characteristics had an impact. We did not explore what the respondents meant by *Other* but the literature review indicates that such items as costs, financial aid, closeness to home, friendliness of faculty and staff and costs of local services are examples of factors frequently cited as having an influence on the decision process. The third most cited characteristic was *Residential Facilities on Campus* (11.5 percent) and the fourth most cited characteristic was *Open Space* (8.1 percent).

We then explored if the lack of a facility, the inadequacy of a facility or the poor maintenance of a facility had an impact on the decision process. 29.3 percent of the respondents indicated that they had rejected an institution because it lacked a facility they felt was important, 26.1 percent rejected an institution because an important facility was inadequate and 16.6 percent rejected an institution because an important facility was poorly maintained.

We also wanted to understand which facilities were causing the rejection of an institution. Figure 4 shows the percent of respondents who rejected an institution because of a missing facility.

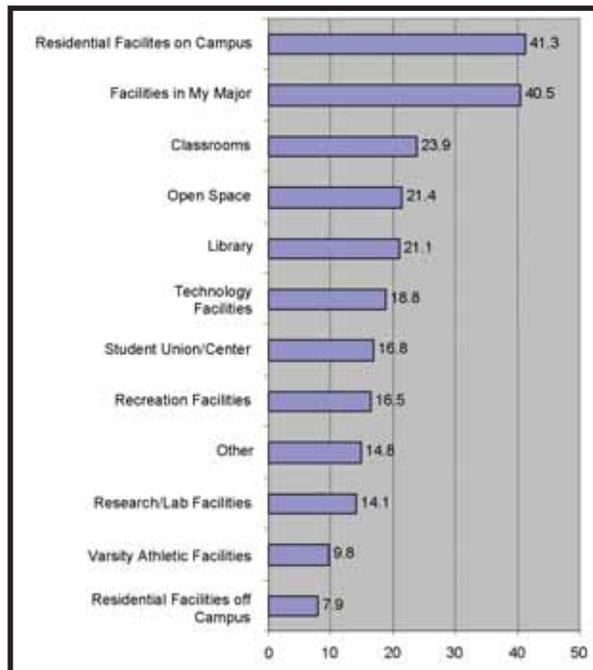
Figure 4. Facilities Missing from Rejected Institution (%)



It is not surprising that a student would reject an institution because it lacked a facility that would support their major. Note that *Open Space* has a significant impact with 15.1 percent of the respondents rejecting an institution for lack of open space.

Figure 5 shows the impact of inadequate facilities on the choice decision.

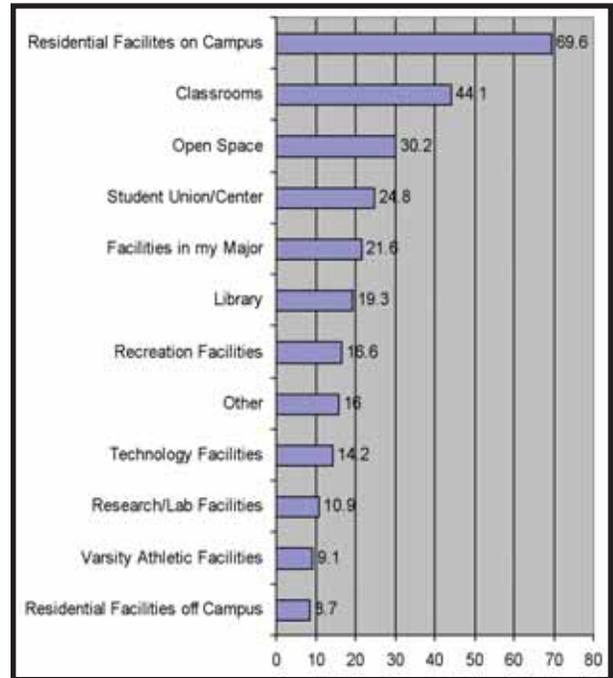
Figure 5. Inadequate Facility at Rejected Institution (%)



Residential Facilities on Campus moves up in importance. This is not surprising since 69.2 percent of the respondents indicated that they lived on-campus their first year. *Facilities in My Major* once again is near the top of the list with *Classrooms*, *Open Space* and *Library* also having a significant impact on the rejection decision.

Facilities can be inadequate for a number of reasons, one of which is that they are poorly maintained. Figure 6 shows which facilities were poorly maintained resulting in a respondent rejecting an institution.

Figure 6. Poorly Maintained Facilities at Rejected Institutions (%)



Once again, students are very discriminatory about their living and learning spaces with poorly maintained open spaces also playing a role.

The impact of the quality of maintenance was further explored by asking if the good condition of a campus' facilities was important in their choice. Seventy-six percent of the respondents strongly agreed or agreed with this statement. First impressions were also explored by asking, "When I first saw the campus, I knew this was the right college for me." Fifty percent of the respondents either strongly agreed or agreed with this statement.

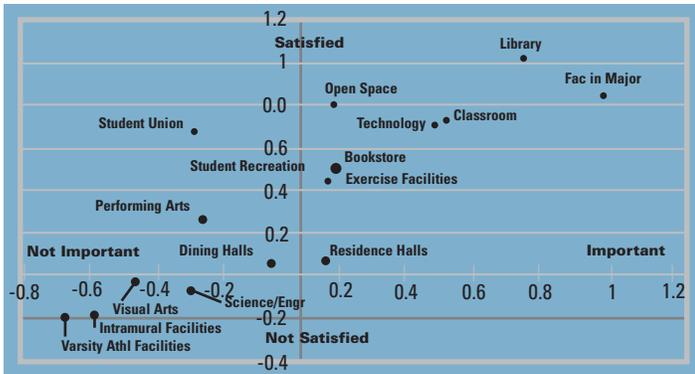
Issues of Retention

We then turned to exploring how the respondents felt now that they are on the campus.

In asking about overall satisfaction of the facilities on their campus, 66 percent indicated that they were extremely satisfied or very satisfied with one-third of the respondents indicating they are only partially or not satisfied.

A paired question was developed that asked, for each type of facility, its importance to the choice decision process and the respondent's satisfaction with the facility now that they are on campus. Figure 7 shows a matrix of importance versus satisfaction using a relative scale.

Figure 7. Facilities Importance versus Satisfaction



Facilities in the upper right quadrant are both important and satisfactory to the respondents. Facilities in the lower left quadrant are not as important but are also not as satisfactory. Facilities in the upper left quadrant are not as important but are satisfactory. There are no facilities in the lower right quadrant.

Note that the academic facilities of *Facility in My Major*, *Library*, *Classrooms* and *Technology* are fairly high in importance but are also fairly high in satisfaction. These facilities will be important areas to continue to address to ensure keeping higher satisfaction levels.

A number of other questions were asked to elicit the respondent's observations and opinions but they will not be explored in this summary article. Part II: Comparative Analysis will appear in the May/June issue of *Facilities Manager* and will explore the differences of gender, race, institutional type, and other comparative responses.

In addition, overall conclusions from these research findings will be included in Part II. 🏢

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