

THE IMPACT OF FACILITIES ON RECRUITMENT AND RETENTION OF STUDENTS



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

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

A total of 16,153 students responded to a survey from 46 institutions across the United States and Canada. For this article the results will be provided for the U.S. respondents only (13,782 respondents).

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PART II: COMPARATIVE ANALYSIS

This article will provide statistical analyses on the differences of observation and opinion between various demographic respondents. The appropriate statistical tests were used in SPSS 14 for Windows to determine if there was a statistical difference. If a given demographic is stated as having a different position then it is statistically different at the $\alpha = 0.05$ level.

Gender Comparative Analysis

Issues of Recruitment

The evaluation of various institutional *characteristics* is recorded in Table 1. The inference column indicates the relative importance for men and women.

The evaluation of various institutional *facilities* is recorded in Table 2. The inference column indicates the relative importance for men and women.

A breakdown by gender for facilities that are important to see during the campus visit is shown in Figure 1.

The results indicate that it was more important for women to see *Residential Facilities On Campus, Facilities Related to My Major, Library, Classrooms, Student Center/Union, and Open Space*. It was more important for men to see *Computer and Technology, Research/Lab Facilities, and Varsity Athletic Facilities*. Men and women viewed as equally important to see (or not to see) all other facilities.

Table 1

Comparative Analysis of Gender versus Institutional Characteristics

<i>Characteristic</i>	<i>Inference (statistically significant)</i>
Preparation for a Career	Women view as more important than men
Strong Major in your Field of Interest	Women view as more important than men
Preparation for Graduate or Professional School	Women view as more important than men
Overall Quality of the On-campus Facilities	Women view as more important than men
Excellent Teachers	Women view as more important than men
Prestige or the Academic Reputation	Men and women view equally important
An Attractive Campus	Men and women view equally important
Opportunity to Play Intercollegiate Athletics	Men view as more important than women
Accessible Professors	Women view as more important than men
Many Extracurricular Activities	Men and women view equally important
Excellent Academic Advising	Women view as more important than men
Many opportunities for Hands-on Learning (Internships)	Women view as more important than men
Challenging Courses	Women view as more important than men
The Ability to Customize Your Education	Women view as more important than men
The Climate and Weather	Men and women view equally important
Recommended by Friends and Family	Men and women view equally important
Technology Capabilities	Men view as more important than women
Location of the Institution	Women view as more important than men



Women (30.3 percent) tended to reject an institution because it lacked an important facility more often than men (27.2 percent). Women rejected a college more often than men because *Facilities Related to My Major, Open Space, Other, Residential Facilities On Campus, Residential Facilities Off Campus* were missing. For all other facilities men and women tended to reject a campus equally.

Women (27.0 percent) tended to reject an institution because an important facility was inadequate more often than men (24.3 percent). Women rejected a college more often than men because *Residential Facilities On Campus and Open Space* were inadequate. Men rejected a college more often than women because *Computer and Technology* and *Research/Lab Facilities* were inadequate. For all other facilities men and women tended to reject a campus equally.

Women (18.3 percent) tended to reject an institution because an important facility was poorly maintained more often than men (13.1 percent). Women rejected a college more often than men for *Residential Facilities On Campus, Classrooms, Open Spaces, Student Union/Center, and Other* because they were poorly maintained. For all other facilities men and women tended to reject a campus equally.

When asked if the good condition of facilities was important in the choice decision women indicated it was more important to them than men. When asked about “first impressions,” women agreed more often than men that they knew the campus was right for them when they visited it.

Issues of Retention

The respondents were also asked if they were pleased with their college or university. Women were more pleased than men. When asked about their overall enthusiasm for their college or university women were more enthusiastic than men. When asked about their overall satisfaction with the campus facilities women were more satisfied than men.

Race Comparative Analysis

Issues of Recruitment

An analysis was completed to determine if there were differences in importance of institutional characteristics by race. Table 3 summarizes the results. The second column indicates which race indicated a given characteristic was more important.

We analyzed the importance of a given facility during the choice decision by race. African American students indicated that all the facilities were more important to them than to other races, except for science and engineering facilities, which were more important to Asian students, intramural facilities which were more important to Native American students, exercise facilities which were more important to

Comparative Analysis of Gender versus Importance of Facilities

<i>Characteristic</i>	<i>Inference (statistically significant)</i>
Student Center/Union	Women view as more important than men
Dining Hall(s)	Women view as more important than men
Residence Hall(s)	Women view as more important than men
Varsity Athletic Facilities and Fields	Men view as more important than women
Student Recreational Facilities	Men view as more important than women
Library	Women view as more important than men
Facilities Related to Your Major	Women view as more important than men
Classroom Buildings	Women view as more important than men
Science or Engineering Facilities	Men view as more important than women
Sophisticated Technology for Academics	Men view as more important than women
Facilities for Intramural Sports	Men view as more important than women
Exercise Facilities	Women view as more important than men
Open Space or Quads on Campus	Women view as more important than men
Bookstore	Women view as more important than men
Performing Arts Center	Women view as more important than men
Visual Arts Center	Women view as more important than men

Hispanic students, open space which was more important to Asian students, performing arts which were more important to Asian students, and visual arts which were more important to Native American students.

We analyzed the issue of which facilities were important to see during a campus visit. *Residential Facilities On Campus* were most important for everyone to see with it being more important to Caucasians. *Facilities in My Major* was next most important, with Mixed Race and Caucasians indicating a slightly higher interest.

While the overall rejection of a campus due to an important facility missing is 29.3 percent, Figure 2 shows that Mixed Race, African Americans, Asians, and Hispanics are more critical than the average.

A follow-up question asked which facility was missing. There was no difference of opinion between races for *Residential Facilities on Campus*, *Facilities in My Major*, *Classrooms*, *Technology*, *Varsity Athletic Facilities*, *Student Union*, *Recreation/Fitness Facilities*, and *Open Space*. Asians and Native Americans rejected a campus more often because of a lack of *Residential Facilities Off Campus*. Asians rejected a campus more often because of a lack of a *Library* and *Research/Laboratory Facilities*. African American and Mixed race rejected a campus because of *Other* facilities that were missing.

While the overall rejection of a campus due to an inadequate facility is 26.1 percent, Figure 3 shows that African American, Native American, and Asian students are more critical than the average.

A follow-up question asked which facility was inadequate. African Americans were slightly more likely to reject an

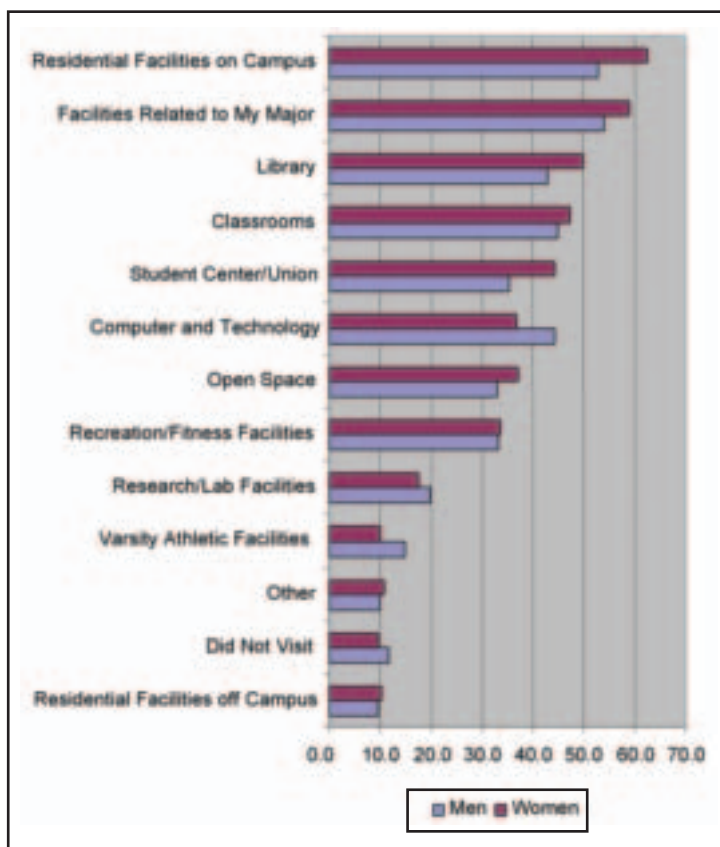
institution for inadequate *Residential Facilities on Campus*, *Residential Facilities Off Campus*, and *Other*. Asians were more likely to reject an institution for inadequate *Residential Facilities Off Campus* and *Research/Laboratory Facilities*. Native Americans and Mixed race students were more likely to reject an institution for inadequate *Residential Facilities Off Campus*. There was no difference for *Facilities in My Major*, *Classrooms*, *Library*, *Technology*, *Varsity Athletic Facilities*, *Student Union*, *Recreation/Fitness Facilities*, or *Open Space*.

While the overall rejection of a campus due to a poorly maintained facility is 16.6 percent, Figure 4 shows that African Americans are significantly more critical than the average, with Mixed Race, Hispanics, and Asians also more critical.

A follow-up question asked which facility was poorly maintained. African Americans were more likely to reject an institution for poorly maintained *Residential Facilities On Campus*, *Residential Facilities Off Campus*, *Classrooms*, *Technology*, *Research/Laboratory Facilities*, and *Student Union*. Asians were more likely to reject an institution for poorly maintained *Residential Facilities Off Campus*, *Facility in My Major*, and *Research/Laboratory Facilities*. Native Americans were more likely to reject an institution for poorly maintained *Varsity Athletic Facilities*. Mixed race were more likely to reject an institution for poorly maintained *Residential Facilities Off Campus*, *Facility in My Major*, and *Library*. There was no difference for *Recreation/Fitness Facilities* and *Open Space*.

The respondents were asked to pick one facility from a list of facilities that had the greatest impact on their decision. *Facilities in My Major* and *Other* dominated the results. Caucasian, African American, and Native American students cited

Figure 1. Important to See During Campus Visit by Gender (%)



Residential Facilities On Campus as important. *Technology* was important to Native Americans, and *Research/ Laboratory Facilities* was important to Asians. *Student Union* was important to Native Americans. *Open Space* was important to Caucasians.

Issues of Retention

The respondents were asked to state their overall satisfaction with the facilities on campus. All races except Native Americans feel about the same with Native Americans less satisfied than all others. The respondents were asked about their overall feelings for the campus. Caucasians and Hispanics were more enthusiastic about their campus than respondents of other races.

Institutional Comparative Analysis

Issues of Recruitment

A detailed analysis was completed for each institutional characteristic that was important to students at different institutional types. The full research report cross-references each institutional type against each of the institutional characteristics.

In order to simplify further analysis, the rest of the institutional comparative analysis is reported based on public institutions versus private institutions. A more refined analysis of the data can be completed if desired.

The respondents were asked which facilities were important in their decision. For *Engineering/Science Facilities* students attending both public and private institutions agree on importance. For *Facilities in My Major* and the *Bookstore*, students attending a public institution felt they were more important. For all other facilities students attending a private institution felt they were more important.

When asked which facilities were important to see, students attending public institutions felt it was more important to see *Residential Facilities Off Campus*, *Facilities in their Major*, *Engineering/Research Labs*, and *Technology* versus their private institution counterparts. Also, students attending a public institution tended to not visit the institution as often as their counterparts attending private institutions. Students attending private institutions felt it was more important to see *Residence Halls On Campus*, *Classrooms*, *Library*, *Varsity Athletic Facilities*, *Recreation/Fitness Facilities*, *Student Union/Center*, *Other*, and *Open Space* versus their public counterparts.

When asked about rejecting an institution because a facility was missing, 34.4 percent of the students attending private institutions had rejected an institution because it did not have a facility they felt was important, versus 26.8 percent for those students attending a public institution. Students attending private institutions were more discriminatory as they rejected institutions more often than their public counterparts for *Residential Facilities On Campus*, *Varsity Athletic Facilities*, *Student Union/Center*, *Recreation/Fitness Facilities*, *Open Space*, and *Other*. For all other facilities, students attending public and private institutions rejected an institution equally.

When asked about rejecting an institution because an important facility was inadequate, 32.6 percent of the students attending private institutions had rejected an institution because a facility was inadequate, versus 22.9 percent for those students attending a public institution. Students attending private institutions were more discriminatory as they rejected institutions more often than their public counterparts for all facilities, except for *Technology* which were rejected equally by students at both types of institutions and *Residential Facilities Off Campus* which were rejected more often by students at public institutions.

When asked about rejecting an institution because an important facility was poorly maintained, 24.3 percent of the students attending private institutions had rejected an institution because a facility was poorly maintained, versus 12.8 percent for those students attending a public institution. Students attending private institutions were more discriminatory as they rejected institutions more often than their public counterparts for all facilities, except for *Residential Facilities Off Campus* where they rejected them equally.

There is a significant difference of opinion on the facility that had the most impact on their choice decision between students at public versus private schools. Students attending public institutions indicated that *Residential Facilities Off Campus*, *Facilities in My Major*, *Technology*, *Engineer/Science*

Important Institutional Characteristic by Race

<i>Institutional Characteristic</i>	<i>More Important to:</i>
Preparation for a career	African Americans
Preparation for graduate school	African Americans, Asians
Excellent teachers	Asians
An attractive campus	African Americans
Accessible professors	African Americans
Excellent academic advising	African Americans
Challenging courses	Asians
Climate/weather	African Americans, Hispanics, Native Americans
Technology capabilities	African Americans, Asians
Strong major in field of interest	African Americans, Asians
Overall quality of campus facilities	African Americans
Prestige of the institution	African Americans, Asians
To play intercollegiate athletics	Hispanics, Asians
Extracurricular opportunities	Asians
Hands-on learning internships	African Americans, Asians
Customizable education	African Americans, Hispanics, Native Americans
Recommendation from friends or family	Asians
Location of the institution	African Americans, Hispanics

Labs, and *Recreation/Fitness Facilities* were more important in their enrollment decision than their counterparts at private institutions. Students attending private institutions indicated that *Residential Facilities On Campus*, *Classrooms*, *Varsity Athletic Facilities*, and *Open Space* were more important in their enrollment decision than their counterparts at public institutions. For the *Library*, *Student Union*, and *Other* categories, the students indicated similar levels of importance.

It is not surprising that students attending private institutions were more interested in *Residence Facilities On Campus*, as 87.3 percent of the students attending a private institution lived on campus their first year versus 60.7 percent at a public institution.

Students at private institutions indicated more often than those at public institutions that the good condition of facilities was important in their choice. Students at private institutions indicated more often than those at public institutions that they knew the campus was right for them when they first saw it.

Issues of Retention

The respondents were asked to identify their satisfaction with various facilities now that they are on campus. Students attending public institutions were more satisfied with their *Student Union*, *Recreation/Fitness Facilities*, *Library*, *Facilities in My Major*, *Technology*, *Exercise Facilities*, and the *Bookstore*. Students attending private institutions were more satisfied with their *Dining Halls*, *Residence Halls On Campus*, *Classrooms*, *Engineering/Science Facilities*, *Open Space*, and *Visual Arts Center*. For the other facilities the students were equally satisfied. In general, students attending public institutions are more satisfied with their school than those attending private schools. Students at private institutions indicated that they were more enthusiastic about their institution than their counterparts at public institutions.

Figure 2. Race versus Missing Facility (%)

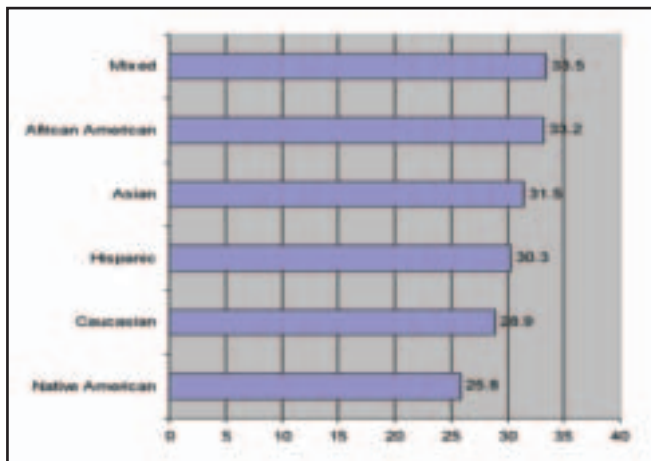


Figure 3. Race versus Inadequate Facility (%)

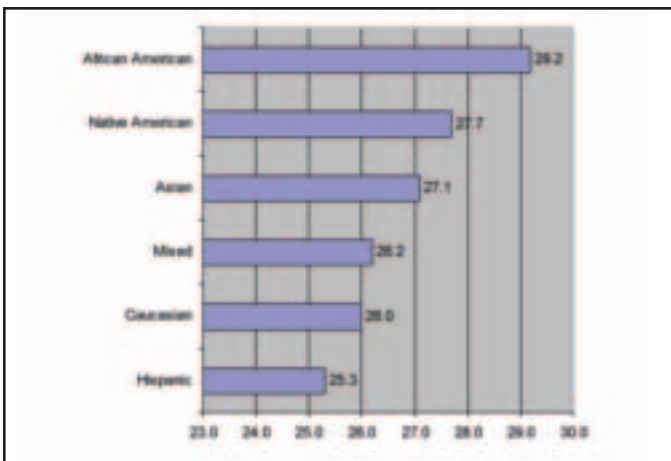
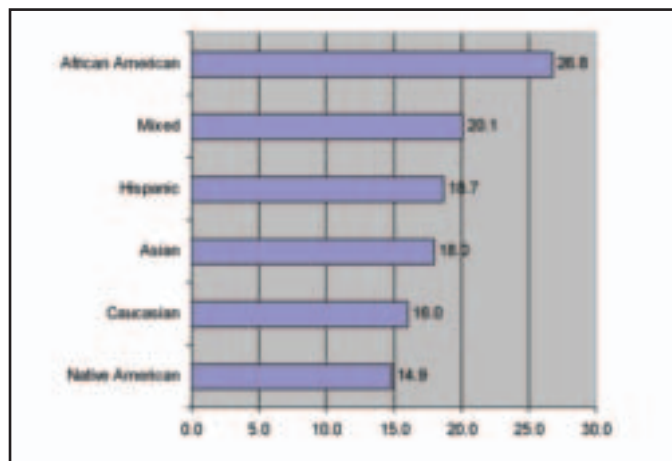


Figure 4. Race versus Poorly Maintained Facilities (%)



Other Comparative Analyses

Grade Point

There is a weak correlation that students with higher grade points tended to reject an institution because it did not have an important facility. However, those with the highest grade point were less likely to reject an institution. There is no difference between students with various grade points rejecting an institution because an important facility was inadequate. Students with a higher grade point were less likely to rule out an institution because of poor maintenance.

Students with a higher grade point evaluated the quality of maintenance as poorer versus students with a lower grade point.

There is no difference between students of various grade points and their satisfaction with campus facilities.

Students with a higher grade point are more enthusiastic about their college or university.

Students at private institutions have a slightly higher grade point.

Upperclassmen have a higher grade point than lowerclassmen. See Figure 5. Note the “sophomore slump” at the three highest grade point levels.

Females have a higher grade point than males.

Caucasian students have a higher grade point than non-Caucasian students.

Students who were home schooled are outperforming those from all other high school types.

There is a strong correlation of decreasing satisfaction with the college or university as students’ enrollment status changes from first-year student to graduate student. There is a strong correlation of a decreasing view of the quality of maintenance as students’ enrollment status changes from first-year to graduate student. There is a strong correlation of decreasing enthusiasm for their college or university as enrollment status changes from first-year to graduate student.

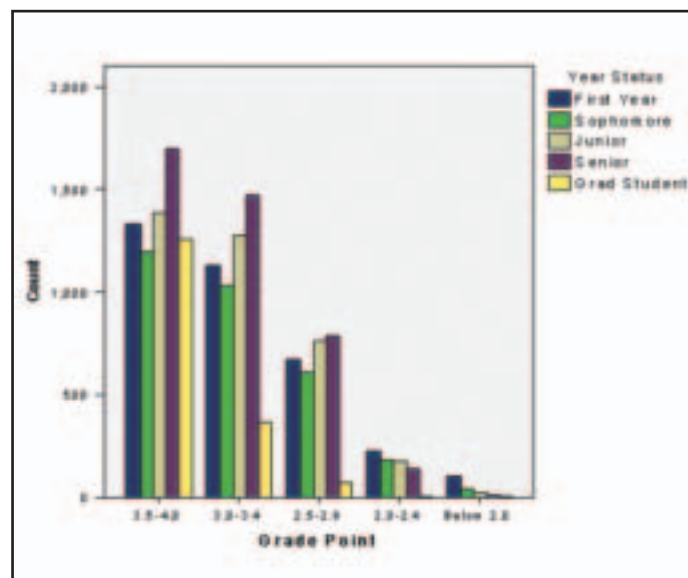
Voting Patterns

Since our survey was completed after the November 2004 U.S. Presidential elections, members of the Washington, D.C. Higher Education Secretariat asked APPA to include a question about election registration and voting. A total of 18.3 percent of the students reported that they registered to vote on campus, and 83.0 percent indicated that they had voted in the 2004 elections. Interestingly, students with a higher grade point were more likely to vote.

Transfer Students versus Non-transfer Students

Non-transfer students (students who are attending their institution of original choice) felt that the *Quality of the Facilities, Prestige, Attractive Campus, Intercollegiate Athletics, Extracurricular Activities, and Recommended by Friends/Family* were more important to them than for transfer students. Transfer students felt that *Strong Major, Preparation for Graduate School, Excellent Advising, Customizable Education, Technology, and Location* were more important to them than

Figure 5. Year-status versus Grade Point



The evidence suggests that as students move from underclassman to upperclassman, they become more critical of the institution and the institution's facilities.

for non-transfer students. For *Preparation for a Career, Excellent Teachers, Accessible Professors, Internships, Challenging Academics, and Climate/Weather*, the students felt the same.

For non-transfer students it was more important to see *Residential Facilities On Campus, Classrooms, Varsity Athletic Facilities, Student Union, Recreation/Fitness Facilities, and Open Space*. For transfer students it was more important to see *Residential Facilities off Campus, Library, Technology, and Research/Laboratory Facilities*, and they did not visit as often as non-transfer students. For *Facilities in My Major and Other* there was no difference.

There was no difference in the rejection rate of an institution by transfer or non-transfer students for a missing facility. Non-transfer students tended to reject an institution more often than transfer students for inadequate facilities. Non-transfer students tended to reject an institution more often than transfer students for poorly maintained facilities.

There is no difference in overall satisfaction of campus facilities between transfer and non-transfer students.

Non-transfer students are more enthusiastic about their college or university.

Conclusion

There are general trends that can be identified. The respondents tended to indicate that academic issues were at the top of their list when it came to choosing an institution. The campus and its facilities does play a role in the decision process but they are not necessarily a deciding factor, in some cases campuses were rejected for missing, inadequate or poorly maintained facilities. It may be safe to say that having quality facilities is a necessary but not sufficient condition to recruit and retain students.

There are differences between gender, race, students attending different types of institutions, and transfer and non-transfer students. For example, women and students attending private institutions are more discriminatory about missing, inadequate or poorly maintained facilities. Non-transfer students are interested in a range of facilities that will support their academic, living, and social life, while transfer students are more interested in facilities that will directly support their education.

There is not a correlation of grade point to satisfaction with campus facilities or enthusiasm for their institution.

The evidence suggests that as students move from underclassman to upperclassman, they become more critical of the institution and the institution's facilities.

Attention to these differences may help to fine tune recruitment and retention programs. Other correlations, trends and observations are left to the reader. 🏠

The full research report of *the Impact of Facilities on Recruitment and Retention of Students* will be published soon by APPA. The authors will present their findings at the *Campus of the Future* conference, in Honolulu on Monday, July 10, at 11:00 a.m.

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