

The Impact of New or Renovated Collegiate Recreation Centers on Recruitment and Retention

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Colleges and Universities have invested a great deal of resources in constructing and renovating recreational facilities over the course of time. These facilities serve as a location for health, fitness, and socialization, and provide many other wellness benefits. This study examines the impact of new/renovated collegiate recreational facilities on three different campuses and the return on investment (ROI). The ROI is measured through student participation, impact on recruitment, and retention. Additionally, this study intends to provide other institutions with examples on how they can provide data to reflect the collegiate recreation facility ROI.

Keywords: enrollment, new facilities, student experience

History of Collegiate Recreation Facilities

Recreation facilities on college campuses have been in existence for almost 90 years. According to Bogar (2008), the first collegiate intramural sports building in the United States was built in 1928 at the University of Michigan, costing \$743,000, and is still being used today. Originally, this facility was built for men's participation in intramural sports and physical education classes (Neuman, 2013).

Throughout the next several decades, there was moderate growth in construction of student recreation centers (SRCs), with their primary focus being physical education. Much of this growth can be attributed to the formation of the National Intramural Association (NIA) where “twenty intramural directors from 11 Historically Black Colleges formed the National Intramural Association (NIA) at the first Intramural Conference held at Dillard University in New Orleans” (NIRSA History, 2016). The introduction of the NIA gave the profession an identity, a voice, and a dedicated focus to the field of collegiate recreation. This, in turn, provided the framework for the future growth of collegiate recreation on college campuses.

In the mid 1970s, the members in the NIA voted to change the name to the National Intramural-Recreational Sports Association (NIRSA). One could argue

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that the change of name, introduction of what is now called the Career Opportunity Center, and launch of the NIRSA journal (NIRSA History, 2016) led to the growth in the collegiate recreation profession, expansion of programs, and, ultimately, an increase in construction of new recreation facilities. As requirements declined for physical education activities in curriculum, many physical education facilities were being used primarily for intramurals and recreation (Bogar, 2008). In addition to facility priorities changing, many of the newly constructed buildings were designed primarily for recreation activities (Blumenthal, 2009). Two other important changes occurred during this decade. Up until 1959, women were included as members in the NIA, but it was not until 1971 when they were reinstated as members (NIRSA History, 2016). Additionally, the introduction of Title IX received federal financial assistance (Pauline, 2012). Title IX forced campuses to rethink how and what they offered to their students. The difference, according to Neuman (2013), was “both men and women were participating in campus recreation, and modest student fees supported the operation and in some cases a portion of the construction debt” (p. 74). Not only were fees introduced to students, but for the first time, faculty, staff, and alumni were also charged a modest user or membership fee.

During the 1970s and 1980s construction was seen primarily on larger campuses such Bowling Green State University in 1979, which was the first dedicated student-funded collegiate recreation center in the country (NIRSA History, 2016). Conversely, facilities that were most commonly built during this time period were multifunction, with multiple entry points, classrooms, offices, and research labs. Dedicated SRCs were, in most cases, not being constructed or even discussed. It would take another decade before the focus changed, as students expected quality programs and dedicated spaces to recreate. This was the first period of time where national discussion was taking place where both males and females impacted the construction designs of SRCs (Neuman, 2013).

As researchers started focusing their efforts on the benefits cocurricular activities had on the development of students and their academic performance, campus administrators began to realize the importance of placing a greater focus on SRCs. The construction boom for facilities that focused on the needs of the student outside of the classroom was a shift from previous decades. Students’ expectations continued to increase, where stand-alone facilities on large and small universities and colleges were becoming the norm (Zizzi, Ayers, Watson & Keeler, 2004).

According to Neuman (2013, p. 74), “Facilities are in demand by students and others as ‘quality of life’ necessities.” Campuses of all sizes are building large stand-alone recreation facilities in order to keep up with the trend, as well as to recruit and retain their students. Student recreation centers are often the first location university tour guides begin to lead tours, through multistory facilities with large windows and open areas where people can see activities occurring, rather than the boxy configurations with uninviting walls surrounding programming spaces (Neuman, 2013). Often there are intentional collision spaces where students, faculty, and staff will engage in formal and often informal conversations. Today’s facilities are places for people to recreate and engage themselves with others.

Recreation Facilities Impacting Students' Decisions

There are myriad factors impacting a student's decision in selecting one institution of higher education over another. Does it provide my major course of study? What is the faculty/student classroom ratio? What will be the total cost? Does it provide any possible scholarships? Where is it located? Do my parents want me to continue their legacy? Prospective students visiting a public institution in Pennsylvania were administered a questionnaire at the end of their tour asking why they selected a certain institution. Of the 11 factors reported as to why they selected the institution, "Campus Atmosphere" was number four and "Campus Facilities" was number eight. Commonly mentioned words included athletic and recreation facilities (M. Rudolph, personal communication, March 11, 2016).

Based on the current and future economic situation, shifting demographics, and the high cost of college education, it has been projected that fewer students will be attending colleges/universities (Kampf, 2010), so it's no surprise that today's institutions are vying for those first-year students selecting their institution. It is apparent that higher education has become more business oriented in regard to managing enrollment.

According to Woosnam, Dixon, and Brookover (2006), the nature of academics is no longer the number one reason a student selects a certain institution over another. Students now realize that university campuses must provide cocurricular activities and/or programs to address their "needs" outside of the classroom. Some of the findings of their 2006 study revealed that more than one in three students indicated that their decision to attend the university was based in part on a positive perception of the recreation facilities. In addition, Woosnam et al. (2006) found that "more than half of the students influenced by recreation facilities in their decision to attend the university were shown campus recreation facilities during a pre-enrollment campus tour" (p. 70). Steinback (2007) found that university administrators are examining the quality of campus life and their amenities when benchmarking their institutions against their competitors.

In a survey conducted at The Ohio State University, 89% of the students surveyed stated that recreational sports and facilities were an important part of their college experience (Haines, 2001). Forrester (2014) reported that 68% of the students surveyed reported that campus recreation facilities influenced their decision as to which institution they would attend.

Astin (1984) stated that the "amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program" (p. 298). There appears to be a relationship between student satisfaction and cocurricular involvement on a college campus (NIRSA, 2004). Kuh, Kinzie, Schuh, and Whitt (2005), Pascarella (1985), Ryan (1990), and numerous other researchers have all documented that participation in such programs and/or activities have a positive impact on student satisfaction and the quality of campus life. In addition, there is also data substantiating that student involvement in campus recreation components, such as fitness, intramural sports, and sport clubs, etc., have contributed to students' academic performances (Belch, Gebel, & Maas, 2001; Bryant, Banta & Bradley, 1995; Maas, 1999; Smith and Thomas, 1989). Kilgo, Mollet, and Pascarella (2016) reported that there is extensive research focused on student involvement in higher

education, suggesting that quality involvement leads to higher levels of student learning and development.

Based on the documented research, one can deduce that recreation facilities and recreational/cocurricular programs are important factors and certainly contribute to first-year students deciding on which institution to attend for their collegiate experience.

Financing Recreation Facilities

Turman and Hendel (2004) reported that colleges and universities are spending millions of dollars on the construction of facilities that are not just for athletes, but rather for recreational facilities for students, in order for colleges and universities to remain competitive in the marketplace of first-year students. These colleges and universities are investing in their future. Rick Creehan, former president of Alderson Broaddus University, simply stated, “Our philosophical starting point was to get into the minds of 17-year-olds” (Cohen, 2012, p. 24).

Between 2008 and 2013 at least 174 colleges and universities were either in the construction, expansion, or renovation phase of 219 recreation facilities. These capital projects were projected to total approximately \$4 billion. The average project cost was \$20.7 million (Blumenthal, 2009). These new recreation facilities are no longer the simple two to three court gymnasiums with locker rooms and showers, but rather include amenities such as lazy rivers with water slides and fountains, climbing walls, elevated walking/jogging tracks, large areas for strength training and cardio, multipurpose activity courts (MAC) for a variety of sporting activities, group fitness studios with floating wooden floors, cycle studios, saunas, and concession areas with lounges. These extravagant recreation facilities are what first-year college students are looking for in the institution they select.

Student referendums are funding a number of new construction and renovation projects. A student referendum is where students vote to tax themselves by an increased dollar amount in order for a bond to be procured for financing the construction, expansion, or renovation. In 2011, a student government at a university in Louisiana presented such a referendum to the general student population to upgrade their gymnasium and recreation facility. The “upgrade” included a lazy river designed in the shape of the institution’s initials, a climbing wall, a ropes course, and a 40,000 square foot strength training and cardio facility. The total cost was \$85 million. The students voted to increase their fee an additional \$200 per semester. The fee increase was approved by 84% of the students. Additional examples included a university in Texas, where they spent \$8 million on a 700-foot lazy river by raising the student fee by \$10 per semester, as well as a university in Ohio that renovated its recreational facilities at the cost of \$140 million, which included a 250-foot hot tub (Woodhouse, 2015).

It is becoming apparent that in order to attract first-year students and be competitive in the higher education marketplace, administrators should attempt to understand prospective students. Administrators are approving such referendums presented by student governments, even though they are very conscious of the current general fees in place and how the increase in such fees would impact future students.

Retention

The attrition rates of college students tend to be higher during their first year of enrollment. Studies have indicated this attrition rate can range between 20–30%. Low retention rates lead to lower enrollment and less income generated by the institution (Bean, 2005). Tinto (2006) suggests the financial and academic success of an institution can be correlated to freshmen retention rates. Tinto's theory on retention centers on the ability of the college freshmen to integrate into the institution academically and socially. Students face a lot of adjustments during their first year at a college/university. Challenges occur in adapting to personal, academic, and social transitions. Debard, Spielman, and Julka (2004) found that students had a greater persistence rate when they were involved in campus activities. In a study of college freshmen, Turner and Thompson (2014) found that academic success can be tied to social transitioning of the first-year student. They emphasized the need to promote and provide activities outside the classroom in order to enhance the first-year student's transition into college.

Institutions of higher education have recognized the integral positive effects of college recreation programs on student recruitment, retention, and satisfaction. The college recreation program can have a significant impact on a student integrating into campus life. Recent studies are providing data exhibiting the correlation of a college recreation program's influence on retention. Lindsey and Sessoms (2006) found that 37.3% of students surveyed indicated the availability of a college recreation program was important/very important in influencing their decision to remain at the institution. Moffitt (2010) found that students who participated in intramurals, compared to nonparticipants, were more likely to be engaged in academics and other campus activities. Additionally, it was emphasized that there is a need to examine other campus recreation activities to see if there is a correlation to participation and retention. McElveen and Russow (2014) found that students who participated in intramural sports were provided the opportunity to be engaged with campus. This increased their chances of being retained from the first year in college to the second. As it relates to collegiate recreation facilities, Kampf (2010) found that recruitment and retention tend to increase when a new campus recreation center is built or renovated.

In a study on the relationship of a college recreation center on student retention, Henchy (2011) found that campus recreation facilities and programs have an influence on a student's decision to remain at their university. The study revealed that 31% of the students surveyed indicated that recreational programs and facilities had an influence on the decision to remain at their institution. Furthermore, 81% of students surveyed indicated that participating in college recreation programming has helped them feel more at home at the university. The involvement of students in a college recreation program aids with the integration into the social atmosphere of the university. Miller (2011) examined the impact of using a collegiate recreation center to foster retention and found that a majority of students indicated that they formed a strong emotional tie with the institution through use of the recreation facility. Students indicated that the facility provided a space to create social bonding and establish relationships with other students. Additionally, students agreed that the recreation center improved their sense of belonging and increased their overall satisfaction with the university.

Kampf and Teske (2013) conducted a study to examine the impact of a college recreation program on retention. The study examined retention rates of first-time full-time (FTFT) college students and found that attending the SRC, participating in a club sport, and working as a student employee had a positive impact on retention. Furthermore, it was found that attending the SRC more than 10 times during a year had a significant relationship to retention. The strength of this illustrates the impact of a college recreation program as it relates to serving as an informal social integration into student life.

Methodology

The authors collected data from their respective institutions that are relevant to this study. School 1 collected data via card swipes as students entered the SRC. Each student's entry was collected in RecTrac (Essex Junction, VT) software. On the 15th day of the year examined, data was extracted from RecTrac listing the student's identification number and number of visits during the specified time period beginning the first day of the fall semester and ending the last day of the spring semester. Institutional research provided the list of students returning each year with their grade point average (GPA). This list was matched with the student identification numbers of the SRC users to conduct data analysis.

School 2 collected data via card swipes as students entered the SRC using Fusion (London, Ontario) software, and used all the same methods as school 1 to obtain retention rates and GPA information. School 2 participated in a consortium study conducted by Campus Labs in collaboration with the National Association of Student Personnel Administrators (NASPA) and NIRSA. Two specific questions from the study were examined: "*When deciding to attend this college, how important were the REC facilities in your decision?*" and "*In deciding to continue to attend this college, how important were the REC facilities?*" Answers to these questions were then compared among the first-year student population, total population average, and total national average.

School 3 collected data as students entered the SRC by swiping their ID through a card reader. Picture Perfect (GE Security, Boston, MA) was the software used to collect the data to obtain retention rates and GPA information. School 3 also assessed data from a study conducted by Campus Labs for the NASPA and NIRSA during the spring of 2013. Two specific questions from the study were examined: "*When deciding to attend this college, how important were the REC facilities in your decision?*" and "*In deciding to continue to attend this college, how important were the REC facilities?*" Answers to these questions were then compared among the first-year student population, total population average, and total national average.

Institutional Impact: School 1

School 1 is a public institution located in the Midwest, with a total enrollment of 19,000+ students. This institution's collegiate recreation department employs 10 full-time professional staff, eight graduate assistants, and more than 250 student employees. The total operating budget is more than \$3.5 million dollars. Personnel

cost account for 37% of the budget's expenses and operating and fixed expenses account for the remaining 63%. Revenue from nonstudents accounts for 37% of the budget with the other 63% coming from student fee support. This institution has observed 63% of the student population participating in this program. Participation is measured as unique users (Milton & Patton, 2011) who have entered the recreation facility at least once or registered for intramurals or club sports.

School 1's SRC was constructed in 1979 and is an 186,000 square foot facility that includes programming for fitness, group exercise, open recreation, and aquatics, as well as a climbing wall, wellness, and administrative offices. The facility experienced a major renovation project that was completed in 2014. The over \$14 million dollar project accounted for the expansion of the front of the building, new flooring, new lighting, upgraded mechanical systems, more than \$750,000 in new strength, cardio, and selectorized weight equipment, and many other improvements. The footprint of the facility was changed dramatically to provide better access and sightlines throughout the facility. Overall, entries in the newly renovated facility have increased 25% when compared to previous year entries. Overall student satisfaction was 98% when surveyed 1 year after opening the renovated facility.

Retention. A significant impact as a result of the new renovation at this facility can be found in the FTFT student retention rate and GPA of users who visited the facility 10 or more times, as evident in Tables 1 and 2. Students who visited the SRC 10 times or more had a fall-to-fall retention rate of 82% versus those that visited less than 10 times (retained at 73%). Similar numbers were obtained the following year, with an 81% retention rate for FTFT student users of the recreation facility versus a 70% retention rate for those visiting less than 10 times during the year. Additionally, the GPA tended to be in higher in the FTFT student who visited

Table 1 School 1 Retention

Year	Overall Institutional Retention	FTFT Retention Rate of Student Users With 10+ Visits to the Recreation Facility	FTFT Retention Rate of Student Nonusers of the Recreation Facility
2014–2015	77.5%	82%	73%
2015–2016	75.9%	81%	70%

Abbreviation: FTFT = first-time full-time student.

Table 2 School 1 Grade Point Average (GPA)

Year	FTFT GPA of Student Users With 10+ Visits to the Recreation Facility	FTFT GPA of Student Nonusers of the Recreation Facility
2014–2015	2.6	2.2
2015–2016	2.6	2.1

Abbreviation: FTFT = first-time full-time student.

the student recreation center 10 or more times when compared to the 10-or-less user.

Recruitment. From a historic prospective, the SRC from this campus was taken off the admission's tour 10 years ago due to the age and condition of the facility. Other competing institutions were investing in new collegiate recreation facilities and it was thought the current facility on this campus was old and outdated. At the completion of the renovation, the SRC was placed back on the tour and is at the halfway point of the predetermined course. The admission's personnel from this campus commented, "... students and parents appreciate seeing the facility on the tour and view the facility as a piece of student life." When asked if the SRC had an impact on students' decisions to attend the university, the admission's personnel responded, "... it's a piece of the decision making process and is combined with academics, housing, and dining available on campus" (A. Spoon, personal communication, October 14, 2016).

The competitive nature of college admissions has caused universities to invest in infrastructure amenities that are showcased during a college admission's tour. Admissions personnel added that "students and parents are visiting multiple campuses and compare the amenities from one school to another", so having a new or renovated collegiate recreation center plays a part in the decision-making process (A. Spoon, personal communication, October 14, 2016).

Some interesting statistics were discovered during discussions with the college's admissions personnel. When the SRC reopened in 2014, applications increased from 3–5% in each year and FTFT student acceptance grew from 3,036 in 2014, to 3,405 in 2015, and 3,562 in 2016, representing total growth more than 15% over 3 years. Additionally, it was found that once a student visited this college campus for a tour, there was a 50–55% yield for the student to commit to admittance. In conclusion, the admissions personnel stated: "The campus environment has changed over the past years to include new facilities (including the SRC renovation) and this is all a part of enhancing the student experience" (A. Spoon, personal communication, October 14, 2016).

Institutional Impact: School 2

School 2 is a public institution in the Northeast, with a total enrollment of 8,000+ students. This institution's collegiate recreation department employs 6.5 full-time professional staff, four graduate assistants, and more than 165 student employees. The total operating budget is more than \$1.4 million dollars. Personnel costs accounted for 52% of the budget's expenses and operating and fixed expenses accounted for the other 48%. Total revenue from nonstudents accounted for 61% of the budget, with the remaining 39% coming from student fee support. Currently, 80% of its student body participates in at least one of its programs. Since the opening of the new SRC in July 2012, club sport participation members increased from 566 to 982 (73.5%), with club teams increasing from 18 to 27. It is noteworthy that a majority of the club teams use the SRC for competition or practice. Participation is measured as unique users (Milton & Patton, 2011) who have entered the recreation facility at least once, registered for an intramural or club sport team, or who participated in a Campus Recreation organized event.

The new SRC at school 2 is a 140,000 square foot facility that includes programming for fitness, group exercise, and open recreation, as well as a field house and administrative offices. The facility bid came in under budget, which resulted in some additional spaces either being created and/or renovated, including a 72-person conference room, group exercise room, and food court, as well as elevators and hallways for inside direct access to three buildings. At a cost of \$44 million, the facility received a designation of Leadership in Energy and Environmental Design (LEED) Gold certification, with many unique features such as an underground ice vault to assist with air cooling during the warmer months. The project had a budget of \$1.7 million in furniture, fixtures, and equipment, including \$1 million spent in the fitness center.

Retention. A significant impact as a result of the new facility can be found in the FTFT retention rate and a slight increase in the GPA of users. The census cohort from 2013–2014 FTFT students had a fall-to-fall 1-year retention rate of 82.2%. The incidences of retention (percent retained) as it relates to those students who entered the student recreation center 10 or more times are reported in Table 3. An analysis was conducted and found that entering the facility more than 10 times increased retention rates to 86.3% versus those who did not use the facility (77.2%). The GPA impact for those who used the facility versus those who did not was not as significant; however, there was a 0.2 increase for those who used the facility versus those who did not (Table 4).

Recruitment. Prior to the SRC being built, the athletic facilities (2) were shared by Athletics, Campus Recreation, Nursing and Kinesiology, Sports Science, and Physical Education. While the facilities encompassed many aspects of a comprehensive recreation facility, both were built in the late 60s and early 70s, and had undergone only minor renovations and upgrades. Although it stayed on the campus tour, primarily due to approximately 10% of the student body participating in

Table 3 School 2 Retention

Year	Overall Institutional Retention	FTFT Retention Rate of Student Users With 10+ Visits to the Recreation Facility	FTFT Retention Rate of Student Nonusers of the Recreation Facility
2013–2014	82.2%	86.3%	77.2%

Abbreviation: FTFT = first-time full-time student.

Table 4 School 2 Grade Point Average (GPA)

Year	Overall Institutional FTFT	FTFT GPA of Student Users With 10+ Visits to the Recreation Facility	FTFT GPA of Student Nonusers of the Recreation Facility
2013–2014	2.9	3.0	2.8

Abbreviation: FTFT = first-time full-time student.

intercollegiate athletics and being home to 15% of the majors on campus, the facility was not the main attraction of the tour.

While construction was occurring, the college was heavily promoting the project in as many ways as possible, including videos produced by the architects, a remote construction camera, open house presentations, and more. When speaking with the assistant vice president for enrollment management about the facility, he indicated the SRC is an “integral part of the tour experience” (R. Langston, personal communication, September 19, 2016). He suggested that “the way students sometimes choose their college is based on emotions. Facilities are one of the main factors when considering where to attend” (R. Langston, personal communication, September 19, 2016). The recreation center has been referred to by many as the “jewel” of the campus. The assistant vice president also indicated that it has been a game changer as far as recruitment. At a time when there has been a significant decline in high school graduation rates, he offered that the facility has helped stabilize the applications pool. He indicated that, “It shows well to students and has all the equipment and technology students need and want” (R. Langston, personal communication, September 19, 2016).

Based on the NASPA and NIRSA study conducted by Campus Labs during the spring of 2013, the results of these studies indicated that the new SRC had a positive impact on the first-year student cohort’s decision to attend school 2 by approximately 17% when compared to their total population and the national average (Table 5). In addition, when asked if the SRC had some impact on continuing to attend, the first-year cohort indicated that the SRC did have some impact, by more than 14% when compared to the school’s student population and the national average (Table 6).

Table 5 School 2 Deciding to Attend*

	Some Level of Importance	Not at all Important
First-year student population	84.5%	15.5%
School 2 total population average	66.9%	33.1%
National total average	67.7%	32.3%

* Percentages obtained by asking: “When deciding to attend this college, how important were the REC facilities in your decision?”

Table 6 School 2 Deciding to Continue*

	Some Level of Importance	Not at all Important
First-year student population	89.4%	10.6%
School 2 total average	75.2%	24.8%
National total average	73.4%	26.6%

*Percentages obtained by asking: “In deciding to continue to attend this college, how important were the REC facilities?”

Institutional Impact: School 3

School 3 is a public university located in the Mid-Atlantic region of the United States. Currently, it has a total enrollment of 17,000+. The Department of Campus Recreation employs four full-time recreational professionals, one full-time support person, five graduate assistants, and approximately 150 student staff.

A student referendum was passed in 2002 for a new SRC. Construction began in 2010 and the facility opened in August 2012. The cost of the facility was \$28.6 million, which was highlighted in the 2010 American School & University Architectural Portfolio issue. The total square footage is 72,575 ft. The total campus recreation budget is \$4,343,000. Personnel account for 21% of the budget's expenses and operating and fixed expenses account for the other 79%. The total revenue generated from nonstudents accounts for 3.5% of the budget, with the remaining 96.5% coming from the SRC fee.

Since the SRC opened in 2012 an average of 1,500 unique students enter the facility during the week. There was also an increase in the number of club sports and club sport participants. Since the opening of the SRC in 2012, club participation increased from 589 to 1,104 (87.4%), and teams increased from 24 to 31.

Retention. There was a slight impact as a result of the new facility in the FTFT retention rate, and minor differences were found in the GPA of users (see Tables 7 and 8). The census cohort from 2014–2015 FTFT students had a fall-to-fall 1-year retention rate of 87.9%. Incidence of retention (percent retained) as it relates to those students who entered the SRC 10 or more times is reported in Table 7. An analysis was conducted and found that entering the facility more than 10 times increased retention rates to 89.4%, compared to 86.1% for those who did not use the facility.

Table 7 School 3 Retention

Year	Overall Institutional Retention	FTFT Retention Rate of Student Users With 10+ Visits to the Recreation Facility	FTFT Retention Rate of Student Nonusers of the Recreation Facility
2014–2015	87.9%	89.4%	86.1%

Abbreviation: FTFT = first-time full-time student.

Table 8 School 3 Grade Point Average (GPA)

Year	Overall Institutional FTFT	FTFT GPA of Student Users With 10+ Visits to the Recreation Facility	FTFT GPA of Student Nonusers of the Recreation Facility
2014–2015	3.1	3.1	3.1

Abbreviation: FTFT = first-time full-time student.

Recruitment. As reported in Table 9, using the data from the NASPA and NIRSA study conducted by Campus Labs during the spring of 2013, the results of these studies indicated that the new SRC had a positive impact on the first-year student cohort's decision to attend school 3 by approximately 13% when compared to their total population and the national average. In addition, when asked if the SRC had some impact on continuing to attend, the first-year cohort indicated that the SRC did have some impact, by more than 11% when compared to the school's student population and the national average (Table 10).

Discussion

The purpose of this investigation was to ascertain if there was a relationship between the construction/renovation of new recreation centers and their impact on student retention and academic performance (GPA). Three different construction projects that have occurred over the past 10 years were examined. The three institutions invested more than \$86 million dollars for construction/renovation and this study sought to determine if there was any return on investment (ROI) which, for the purpose of this study, is being measured through student participation and impact on recruitment and retention. The students who visited their respective recreation facilities 10 or more times demonstrated a positive effect regarding retention of FTFT when compared to students who did not visit their respective facility. When examining academic performance, defined in this investigation as GPA, of the students that visited their respective facility 10 or more times, there was as a significant impact at school 1 and school 2 regarding students' academic performance. With regard to the academic performance of those students in school 3, there was a slight increase in GPA for those visiting the recreation facility 10 or more times.

Table 9 School 3 Deciding to Attend*

	Some Level of Importance	Not at all Important
First-year student population	91.7%	8.3%
School 3 total population average	78.1%	21.9%
National total average	72.4%	27.6%

*Percentages obtained by asking: "When deciding to attend this college, how important were the REC facilities in your decision?"

Table 10 School 3 Deciding to Continue*

	Some Level of Importance	Not at all Important
First-year student population	92.5%	7.5%
School 3 total population average	81.5%	18.9%
National total average	64.0%	36.0%

*Percentages obtained by asking: "In deciding to continue to attend this college, how important were the REC facilities?"

Based on these findings, there was a positive impact on the retention rate of those students visiting their respective recreation facility 10 or more times when compared to nonusers. However, the academic performance of those students visiting their respective recreation facility was only increased for school 1 and 2. Even though this investigation found a higher rate of retention for all three schools, it would be inaccurate to deduce that utilizing a student recreation center is the primary reason for the increased retention rate of FTFT students. Other factors, such as academic preparation, academic engagement, social engagement, financing college, demographic characteristics, and others, certainly had an impact (Demetriou & Schmitz-Schborski, 2011).

This study only investigated the retention rate and academic performance of the students using the three recreation centers focused in this study. It did not specify the participation of students in any campus recreation programming components. The study did illustrate a possible connection between the construction or renovation of a student recreation facility at the three institutions studied, and student retention rate and academic performance of FTFT students.

Conclusion

This study attempted to identify measurements related to the ROI for colleges and universities when renovating or constructing a new collegiate recreation facility. Data was collected from three public institutions that either recently had renovated their recreation facility or constructed a new facility. The study examined the FTFT students who were both users and nonusers. The results showed that, for each campus, the facility did have a positive impact on their retention rate, ranging from 3.3% to 11%. To a lesser degree, two of the three institutions had a GPA increase for those who were users of the facility versus those who were not. Schools 2 and 3 utilized data from a consortium study to investigate the positive impact new facilities may have had on the decision making that first-year students have in deciding to attend an institution. First-year students indicated that the SRCs had some level of importance in their decision to attend, ranging from 84.5% to 91.7%. It was also found that when first-year students were deciding whether to continue to attend the institution or not, the SRC had some level of importance, ranging from 89.4% to 92.5%. As a result of renovations/new construction, students were seen participating at a higher rate in all three facilities. It is clear that when campus decision makers at an institution are considering ways to increase recruitment, retention, GPA, and other areas, they should look into the benefits that can be obtained from a renovated or newly-constructed facility. Student participation in a collegiate recreation program may play a role in contributing to higher retention rates and GPA of the first-year student.

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