

A Cost-Benefit Analysis of Residence Hall Renovation at a Regional Institution of Higher Education

Jeremy Sheffield

College of Business and Technology
University of West Alabama
Livingston, AL 35470, USA.

Abstract

This paper examines the case of a regional higher education institution that sought to renovate a dormitory via exploring its options to increase the number of on-campus residence hall beds. One option was the renovation of an existing residence hall. Using a cost-benefit analysis approach, the objective of this study was to quantify the costs associated with the renovation decision weighed against the projected positive academic, social, and monetary benefits to the host institution. The outcomes showed that the monetary values of renovating the considered dormitory did not exceed the cost, with a profitability index (PI) of 0.703 and 0.867, using total net operating income and total revenue, respectively.

Keywords: Higher education; cost-benefit analysis; profitability index; residence hall

1. Introduction

The host institution is situated in the geographic center of the Alabama Black Belt region. Geographically, the Black Belt stretches across multiple states from Texas to Maryland. However, the vast majority of the region spans the states of Mississippi, Alabama, and Georgia. Within the Black Belt, many students who attend the host institution come from disenfranchised backgrounds and socioeconomic disparity. Many potential students in the area surrounding the host institution are simply financially unable to attend college because of cost. Students who attend the host institution experience additional monetary commitments besides tuition (e.g., books, etc.). In conjunction with rising tuition costs, the cost of living on-campus increases steadily. Although there are many benefits to living on-campus (higher GPA, increased retention and graduation rates, etc.), many students choose to live off-campus to save funds for other expenses. As the host institution loses on-campus students, graduation rate deteriorates statistically, the retention rate lowers, and the host institution loses potential revenue. Such situations are not uncommon; they are a reality of many higher education institutions nationally.

Campus housing acts not only as a meaningful contributor toward learning and success academically, but also is a competitive resource for attracting and retaining students. Campus housing provides a means of not only housing students, but enhancing the overall collegiate experience for students. Living on-campus often improves levels of engagement among students. In some cases, campus housing may be the only living option that is realistically feasible for some students whereas others may opt to commute to school. Regardless, for a variety of different reasons, campus housing is an essential aspect of modern higher education institutions.

After the spring, 2012 semester, the considered dormitory was taken offline as a residence hall facility. This action was a response to the construction of a new 459 bed residence hall which opened at the beginning of the fall, 2012 semester. However, because of an increase in the number of upperclassman applying to live on-campus and an increase in the size of the 2013 entering freshman class, the considered dormitory was used as an overflow residence hall. During the fall, 2015 semester over 85 residents were temporary housed in the considered dormitory. After room consolidations and a vacancy assessment, approximately 60 residents were permanently assigned to the considered dormitory. Because of projected enrollment increases and upperclassman choosing to return to on-campus housing, it was necessary to increase the total number of permanent beds on-campus. Therefore, this study examines the cost versus benefit of renovating the considered dormitory in order to increase the total number of available beds on-campus.

This analysis was accomplished through surveying current students, interviewing key stakeholders, and completing a peer institution analysis. Essentially, this paper examines the economic potential of renovating an existing residence hall at the host institution to offer affordable, quality, on-campus housing.

2. Brief History of Campus Housing

The first campus housing era began with the establishment of Harvard College in 1636 and terminated at the beginning of the Civil War in 1861 (Frederiksen, 1993). This phase was unique because of the significant influence of English universities on the American system (Frederiksen, 1993). Colonial colleges were founded with the intent to serve the local community. However, as time passed, more and more students from outside the community were admitted into the colleges (Leonard, 1956). The communities in which colleges were located possessed insufficient housing to meet the needs of incoming students. Therefore, the lack of housing forced the Colonial colleges to build dormitories. Early dormitories were usually crude log houses with two to three students assigned to each room, and had no amenities (e.g., furniture, bedding, or candles) (Leonard, 1956).

From its origin, American higher education was modeled after established, reputable English universities (e.g., Oxford and Cambridge). In England, residential communities were erected to accommodate students who regularly traveled long distances from home to campus. Professors were responsible for teaching while other staff emphasized discipline and student supervision. At the forefront of the English model, the main focus involved faculty forging meaningful relationships with students without the responsibility of monitoring behavior or discipline. Administrators of U.S. colleges and universities strived to replicate the English model of residential communities with an overall goal of building positive relationships between faculty and students. However, numerous factors made it challenging. American students often traveled great distances to receive a formal education. Parents of students sending their children far from home expected an institution to provide adequate living and learning environments (Henry, 2003). Unlike England, because of insufficient funding, faculty were charged with the responsibilities of formal educational instruction and the discipline of students (Schroeder & Mable, 1994). Administrators assumed the roles of teacher, parent, and disciplinarian. The approach to teaching was known as *in loco parentis* (i.e., in place of the parent) (Willoughby, Carroll, Marshall, & Clark, 2009).

Early Colonial colleges and universities were significantly hampered financially compared to their English counterparts. Instead of blending the academic and social lives of students, the root of the English system of residential facilities, few meaningful relationships between students and faculty were formed in the American models (Henry, 2003). As a consequence, questionable conduct and unruliness, traits often stereotypically associated with the characteristics of a dormitory, emerged. Poor living conditions, disciplinary issues, and adversarial relationships between faculty and students did not mirror the facilities in England as was originally intended. The English model continued to influence functions of American colleges and universities until the time of the Civil War (Frederiksen, 1993).

The second phase of American higher education occurred during the mid-to-late nineteenth century, and was influenced by the German education system. Following the Civil War, numerous Americans ventured to Germany to supplement their education. German education primarily emphasized research without much attentiveness to student development (Veysey, 1965). Because graduates of German institutions brought back this new concept to American institutions, the gap between internal classroom and external classroom experiences widened (Shroeder, 1994). Many college administrators promoted the German philosophy that academic institutions should emphasize research and instruction. Institutions began to devalue the importance of student housing and the benefits of education external to classrooms (Rudolph, 1990). During this period, several American university presidents criticized residence halls as a waste of university funds and deemed any construction and upkeep as wasteful spending (Frederiksen, 1993). Because of these negative perception, few campuses erected new student housing. This era saw the largest decline of student housing in American history because of the influences of German educational models (Vevsey, 1965).

By start of the new century, university administrators supported the concept of on-campus student housing. Cowley (1934) indicated that construction of residence halls occurred at a quicker pace than any prior time American higher education history. This expansion of student housing defined the third housing stage. Since funds were limited, many university construction projects were supported through private gifts. The restricted financial support for erecting student housing continued until federal involvement happened in the 1930s.

In 1933, with the establishment of the Federal Emergency Administration of Public Works, by President Franklin D. Roosevelt, the federal government reduced unemployment through construction and other public works (Frederiksen, 1993). The division of housing, under the umbrella of the Public Works Administration, endorsed programs that contributed to low-cost, general housing. Several American universities were funded through this initiative, and expanded their student residential housing (Frederiksen, 1993).

The next significant growth of collegiate student housing came after World War II. A constant, rapid growth of enrollment among American institutions of higher education occurred because of the introduction of The Servicemen's Readjustment Act of 1944 (i.e., G.I. Bill) (Lucas, 1994). The G.I. Bill provided opportunities to over 16 million World War II veterans, and was signed into law by President Roosevelt on June 22, 1944. This act delivered federal aid for assisting veterans when readjusting to civilian statuses. Monetary assistance was given for homes purchases, businesses, and higher education. By 1947, over two million World War II veterans were enrolled in colleges and universities (Lucas, 1994). The G.I. Bill almost doubled the number of students enrolled in the American higher education system within the first year. The effect of larger enrollment created overcrowded environments at almost all institutions (Frederiksen, 1993). Current housing facilities were outdated and inadequate which prompted the building of new residential facilities to accommodate veterans.

The federal government predicted that an increase of college enrollment would continue throughout the 1950s and 1960s (Fredriksen, 1993). In 1950, Title IV of the Housing Act was passed by Congress to create stable solutions for the collegiate housing shortage (Frederiksen, 1993). Title IV provided loans for educational institutions to erect new facilities and to repair existing structures. These loans had low interest rates over many years that attracted both public and private universities. Nationally, student housing construction flourished during the 1950s and 1960s because of Title IV funding. However, many facilities were not designed for the quality of an educational experience. Instead, these facilities accommodated many students, serving as a fast solution to the collegiate housing shortage.

From the 1950s to the 1970s, the most used model of student housing consisted of high-rise towers with traditional hallway designs and shared bathrooms. They were designed to include central elevators, anchored furniture, and shared bathrooms. Long hallways of rooms were designed to achieve the maximum capacity of residents. During the 1970s, many institutions changed their policies, and required students to reside on-campus. This policy change occurred because of the increasing indebtedness of universities and the inability to maximize the capacity of residence halls (Henry, 2003). The concept of *in loco parentis* was abandoned and replaced with rules, regulations, and endeavors that contributed toward developing students (Upcraft & Pilato, 1982). Anchored furniture was replaced with movable furniture, residents were encouraged to decorate their rooms, and many institutions remodeled older hallway designs into two double bedroom apartment style residence halls in an effort to meet student desires for flexibility, space, and privacy. Renovation included bathrooms for each apartment. The majority of traditional residence halls built throughout the 1980s included bathrooms between rooms to create adjoined suite-style rooms (Upcraft & Pilato, 1982). Because of such policy and facility modifications, collegiate housing occupancy stabilized.

Nationally, during the 1980s, colleges and universities experienced increases of students desiring to live on-campus in residence halls. Reasons included an increase in females attending college, an increase in African-American students, and an overall increase in males (Frederiksen, 1993). Erecting dorms was the primary method of addressing increased enrollments (Henry, 2003). During the 1990s, many institutions constructed apartment-style residence halls using suite-style rooms that contained two double rooms, a living room, and bathroom. They emphasized amenities, such as air conditioning, full kitchens, and private bathrooms. Renovations of older residence halls continued as campuses provided more amenities to pre-existing structures. As the new millennium emerged, American higher education experienced its largest growth in enrollment in history. The arrival of the first 100-million-person-generation, or the millennials, instigated campus expansion to accommodate its needs (Howe & Strauss, 2000).

3. Campus Experience

The college experience is often exhilarating and rousing. Living on-campus has long been an integral part of many student's collegiate experience. For the first time, numerous students find themselves responsible for significant choices that will determine the course of their lives for many years. Living on-campus is a significant period for any student toward a solid foundation for future success. Living on-campus involves networking, building community, and finding one's place academically and socially.

Students who live on-campus are more invested and involved in campus life. They are more likely to be satisfied with their university experience, develop a strong affinity to the institution, and persist and progress at higher rates than those who have never lived on-campus (Astin, 1977).

Student housing has existed, in one form or another, throughout the history of American higher education. Originally referred to as dormitories, now known as residence halls, institutional housing developed from modeling English universities (Winston & Anchors, 1993). Crowded and meagerly furnished, American dormitories of the 19th century provided students with a sense of shared experience while satisfying housing needs of (Rudolph, 1990). Throughout the 1950s and 1960s, on-campus housing grew at an increased rate because of the G.I. Bill. The passage and enactment of Title IV of the Housing Act of 1950 provided federal monies for the building of collegiate housing thereby fueling the growth of dormitories. Title IV of the Housing Act of 1950 gave institutions the ability to take full advantage of the number of students who could be housed for the least cost (Schroeder & Mable, 1994). Consequently, many multi-storied, compact, and congested facilities were built on many college campuses. During this period, little thought was given to the educational potential of the on-campus lifestyle.

As on-campus student housing became more prevalent on university campuses, their function shifted from simply housing students to creating an all-encompassing educational environment. By the 1970s, personnel changes occurred at many institutions. Housemothers, who had primarily served in a parent role enforcing curfews, bed checks, and so forth, were replaced with student affairs professionals. An emphasis was placed on advising students, providing social and educational programming, self-governance, and coordinating services for students in order for superior academic achievement (Fredriksen, 1993). University personnel deemed these buildings as residence halls in an effort to emphasize the provision of an educationally-rich living environment (Fredriksen, 1993). With residence hall staff members originating from backgrounds in education, research commenced among residence hall environments to discover what benefits might be reaped from dormitory lifestyles.

Researchers examined the potentially positive effects of students residing in on-campus housing facilities, and ascertained that the experience could impact positively personal development and overall academic performance (Fredriksen, 1993). Many studies, conducted during the 1970s and 1980s, reported an assortment of benefits from living on-campus compared to living off-campus. Benefits found in these studies were an increase in retention, more students graduating, and greater involvement in university life. Astin (1977) indicates that living in a residence hall may add as much as a 12% advantage to a student's chances of persisting and attaining a degree. Chickering (1974) established that students residing in private off-campus housing were less satisfied, not as fulfilled with their college experience, and not as likely to return to school the following term when compared to students who were living in on-campus housing.

Students living in a residence hall have consistently shown higher levels of persistence and degree attainment compared to those who live off-campus (Astin, 1973). Even when factors such as socioeconomic status and past academic achievement are controlled for, students who live in on-campus residence halls exhibit considerably higher rates of persistence and graduation than students who have never had the experience of living on-campus (Blimling, 1989). Correspondingly, students living on-campus traditionally have shown higher levels of participation in college activities and engagement in university life than students living off-campus (Pascarella, 1984). The importance of involvement in activities was researched and reported by Astin (1984) who indicated that students who are more involved with their college or university are more likely to be retained. Increased participation in organizational decisions contributes toward greater levels of organizational commitment (Sumrall, Cox, Doss, & Jones, 2008; Sumrall, Cox, & Doss, 2007; Sumrall, 2006). Thus, engaging on-campus students in the decisions of housing communities may enhance their level of commitment to the community or academic institution. On-campus students are traditionally more involved than off-campus students in many ways, including a greater likelihood of being a member of student government, interacting with faculty and staff outside of the classroom, and by participating in other extracurricular activities (Astin, 1984).

4. Research Inquiry

The cost of higher education has increased throughout the country, and the host institution is no exception. Over the last 45 years, college tuition and fees prices increased approximately twice as fast as the rate of inflation, as measured by the consumer price index (Tuition and Fees, 2014). At the host institution, and numerous other institutions of higher education, along with the rising costs of tuition, the costs of living on-campus have continued to increase at a steady rate.

Four-year public universities across the nation have increased charges for room and board by an average of 9% above inflation in the past five years. Not factoring in adjustment for inflation, fees for room and board at public higher education institutions have climbed sharply by more than 20% since 2009 (Immerwahl & Johnson, 2007). As prices rise, students may pursue any way possible to decrease the costs of their education.

One of the main ways students of the host institution seek to decrease costs is by moving off-campus. However, by moving off-campus, students sacrifice countless benefits. This notion is a serious issue that the host institution currently experiences. Many students do not realize the hidden costs of living off-campus nor do they realize the potential negative consequences. While there are many benefits to living on-campus, such as a higher grades, proximity to professors, and easier access to campus resources, many students choose to live off-campus as soon as they can in order to save funds for other collegiate expenses. As the host institution loses its on-campus students, statistically the graduation rate deteriorates, the retention rate lowers, and the host institution loses potential revenue. Students living in a residence hall have consistently shown higher levels of persistence and degree attainment compared to those who live off-campus (Chickering, 1974). Even when factors such as socioeconomic status and past academic achievement are controlled for, students who live in on-campus residence halls exhibit considerably higher rates of persistence and graduation than students who have never had the experience of living on-campus (Astin, 1984). On-campus residential living has long been documented as a significant positive factor for college students' persistence as well as other notable gains related to academic and social development. Living on-campus encourages students to become involved on the campus, integrate into the social and academic systems, and develop personally as an individual.

The overall purpose of this study was to answer a number of important questions that are necessary for the host institution to continue to grow and develop as a regional leader in higher education, and for the Office of Housing and Residence Life to meet the developing demands of the modern student. This inquiry was accomplished by surveying and analyzing the quality of life of current students, assessing the need of additional upperclassman beds on-campus, and determining the cost versus benefit of renovating the considered dormitory.

5. Methodology

The methodology involved a Likert-scale survey coupled with the use of economic and financial cost-benefit analysis. The survey addressed four primary inquiries: 1) campus safety, 2) maintenance, 3) environment, and 4) security. Data was gathered with the assistance of the Housing and Residence Life department and the Office of Institutional Effectiveness. This study examined whether off-campus students were satisfied with their decision of living off-campus and if more affordable options were available on-campus, whether the student would move back to campus. Four questions gauged the respondents' quality of life. These questions were used in the Department of Housing and Residence Life's annual assessment of on-campus living to determine resident satisfaction and happiness. Survey statements were:

Question 1: I feel safe where I live

Question 2: Things that were broken were fixed in a responsible amount of time

Question 3: The atmosphere where I live is conducive to studying

Question 4: I feel that my belongings are secure when I leave

This study explored the relationship of student satisfaction and perceived financial burden between on-campus and off-campus students at the host institution. Approval for research from the host institution's Institutional Review Board was obtained before pursuing this research endeavor.

The primary data processing method was cost-benefit analysis. Among institutions of higher education, financial analysis may be used to examine facets of capital investments (Doss, et al., 2015; Doss, Troxel, & Sumrall, 2010). Cost-benefit analysis is an approach suitable for such tasks (Campbell & Brown, 2016; Blank & Tarquin, 2012; Lasher, 2006).

The survey was administered during the spring 2015 semester throughout a one-month period. In all, a total of 520 student participants completed the survey, which represents almost 31% of the entire targeted student population. A total of 16 responses were eliminated because of incompleteness. Participation was limited to only full-time freshman, sophomore, junior, senior, and graduate students whom were enrolled at the host institution.

6. Findings

The survey outcomes showed that approximately 57% of respondents were female whereas 43% were male. Approximately 61% of the respondents were between the ages of 18 and 21 years of age. Approximately 30% of the respondents were between the ages of 22 and 24 years of age. Approximately 8% were over the age of 24, and only 1% was under the age of 18. Approximately 22% of the respondents were freshman, 20% sophomore, 24% junior, 26% senior, and 8% graduate student. Approximately 48% of the respondents lived off-campus while approximately 52% lived on-campus.

The first survey query investigated perceptions of campus safety. Table 1 shows the responses.

Table 1 Campus Safety Responses

Level of Agreement	Off-Campus Student Responses	On-Campus Student Responses
Strongly Agree	43%	64%
Agree	26%	30%
Neutral	9%	6%
Disagree	18%	No Response
Strongly Disagree	4%	No Response

The second survey question investigated whether repairs were made within an acceptable time. Table 2 shows the responses to this question.

Table 2 Maintenance Query Responses

Level of Agreement	Off-Campus Student Responses	On-Campus Student Responses
Strongly Agree	28%	44%
Agree	19%	32%
Neutral	14%	11%
Disagree	30%	7%
Strongly Disagree	18%	5%

The third survey question investigated the study environment. Table 3 shows the outcomes for this query.

Table 3 Environment Query Responses

Level of Agreement	Off-Campus Student Responses	On-Campus Student Responses
Strongly Agree	29%	37%
Agree	29%	34%
Neutral	14%	14%
Disagree	20%	12%
Strongly Disagree	8%	3%

The fourth survey question investigated environmental security. Table 4 shows the responses to this question.

Table 4 Security Query Responses

Level of Agreement	Off-Campus Student Responses	On-Campus Student Responses
Strongly Agree	35%	54%
Agree	23%	32%
Neutral	11%	10%
Disagree	23%	4%
Strongly Disagree	8%	No Response

Responses showed that off-campus students were primarily dissatisfied with the quality of available housing services. Responses indicated that off-campus students exhibited lower rates of satisfaction compared to on-campus students. More off-campus students indicated disagreement than on-campus students on all four quality of life questions.

Based on the 249 off-campus respondents, 177 indicated that they would move back to campus if more affordable and higher quality upperclassman halls were available. This quantity represents approximately 71% of the total number of off-campus survey respondents.

Based on capacity and application numbers, in order to accommodate an increase in total on-campus residents, additional upperclassman beds were necessary. This research shows that a substantial demand for more upperclassman beds exists on-campus.

The analysis showed that the monetary values of renovating the considered dormitory did not exceed the cost, with a profitability index (PI) of 0.703 and 0.867 using total net operating income and total revenue, respectively. A PI of less than 1.0 means the monetary benefit is less than its cost (Blank & Tarquin, 2012). However, unlike commercial organizations, universities do not make decisions about residential structures based only on the profitability of rental revenue. Instead, universities reap other intangible benefits, such as increased enrollment numbers, persistence rates, and graduation percentages. The renovation of the considered dormitory provides a key service to current and future students, and it affords the institution numerous benefits. Affordable, quality on-campus housing is necessary for the host institution to continue as a competitive regional institution of higher education.

7. Conclusions

It is concluded that an increased perceived quality of life exists for current on-campus students compared to current students living off-campus. However, the research failed to show a positive monetary regarding the renovation of the considered dormitory. However, it is expected that the addition of more affordable and quality upperclassman beds on-campus will contribute to an increase in overall academic performance and social integration. These intangible benefits will strengthen the host institution's mission to serve and meet the needs of its service area. Based on the assumptions made in the modeling of the costs and the final results, it is evident that there is a high level of uncertainty associated with the estimation of costs and projected monetary benefits. Although some uncertainty exists in the quantification of the benefits, all years of the analysis for net present benefit value were positive thereby indicating positive revenue. It is concluded that the project would be a success for the host institution.

Modern residence hall environments have dramatically changed since the late 1970s and 1980s. Colleges and universities are building and renovating existing residence halls in order to accommodate record numbers. Furthermore, the student's expectations for residence halls have changed. Students are wanting a greater level of privacy and improved amenities in residence halls. Institutions are developing in order to meet the new demands of the modern student. Very few institutions are constructing the typical residence halls of the past that included community-style bathrooms and long hallways. Modern residence halls represent an apartment style which typically offers single bedrooms, shared living rooms, full kitchens, and bathrooms. This style has emerged from new student demand, as well as from newly increased competition from off-campus apartment complexes (Banning, McGuire, & Stegman, 1995).

During modern times, higher education institutions must satisfy unique niches to enhance their competitiveness and to attract students (Doss, et al., 2015; Doss, et al., n.d.). Regardless of the institution, some effort must be made to ensure quality experiences academically and socially for students and the personnel with whom they interact. However, any perception of quality is unique for the individual that experiences an event (Doss, Guo, & Lee, 2012). Thus, it is impossible to satisfy the expectations of quality for all students whom reside on-campus. In any instance, modern housing must provide competitive amenities whereby most student expectations of quality are satisfied. As a result, student retention may occur thereby abating student attrition rates.

Any capital investment toward campus housing necessitates a long-term commitment of resources financially and economically. Analytical methods, such as internal rate of return or net present worth, are deemed appropriate for examining endeavors among higher education institutions (Doss, Troxel, & Sumrall, 2010; Doss, et al., 2015). Other methods may include cost-benefit analysis, break-even analysis, profitability index, and other forms of capital budgeting (Doss, Sumrall, McElreath, & Jones, 2013; Doss, Sumrall, & Jones, 2012). Any consideration of campus housing must not be viewed solely as a financial cost, but also as a commitment toward enhancing the betterment of campus life, student retention, and student success through time.

Modern times are tumultuous both domestically and internationally. Campus housing may exhibit a mix of difference ethnicities, nationalities, and backgrounds among residents. Safety becomes a critical factor of any modern higher education institution regarding the housing of students. Although police forces may be available, they represent after-the-fact entities whose response activities generally occur after an incident occurs (Doss, 2011; McElreath, et al., 2013).

Any number of incidents may occur that affect the safety of campus residents, ranging from natural disasters to man-made events (McElreath, et al., 2014a; McElreath, et al., 2014b). Certainly, the dangers of terrorism cannot be ignored when considering the potential of both domestic and overseas groups to target U.S. interests and residents (Doss, Jones, & Sumrall, 2010; Wigginton, et al., 2015). Thus, college campuses may become the targets of terrorist events. Campus housing should also accommodate the ability to summon assistance quickly if emergencies occur. Any number of resources exist to satisfy this requirement, such as the Internet, emergency call boxes, 911 awareness, and so forth (Doss, Glover, Goza, & Wigginton, 2015). Given these notions, when crafting policies that affect campus housing, higher education administrators must acknowledge and accommodate the potentials of such endangerments when designing and erecting campus housing.

Modern campus housing exhibits designs and amenities that were unimaginable during the formative years of American higher education. Students live in relative comfort and safety while studying and living away from their respective homes. Although modern campus housing seems capacious and satisfactory, it will evolve continuously to satisfy the expectations of future generations. In due time, as generations pass and academic institutions respond to their respective needs and wants, the characteristics of future campus housing will emerge as reflections of societal and academic expectations within the higher education domain. Throughout such change, higher education institutions must address the same question that was pondered by preceding generations of administrators: how does the institution retain students and lower student attrition within the campus? Given the arguments of Astin (1973, 1977, 1984), Banning, McGuire, and Stegman (1995), Blimling (1989), Chickering (1974), Schroeder and Mable (1994), and Winston and Anchors (1993), campus housing represents a resource through which this question may be addressed among future generations.

Campus housing is now an expected aspect of the American educational experience among traditional institutions of higher education. The existence of modern campus housing exhibits a rich history of change that commenced with the most basic of accommodations and that culminated in contemporary apartment-style residences. Modern students experience the comforts of home while studying and living away from home. Any investment in campus housing is an investment for not only academic institutions, but also an investment toward the success of future generations. Given the expectations of society, institutions, and students, housing will experience change to satisfy the dynamics of future generations. Through time, the unceasing evolution of campus housing will affect future generations just as it did preceding generations.

References

- Astin, A. W. (1973). The impact of dormitory living on students. *Educational Record*, 54, 204-210.
- Astin, A. W. (1977). *Four critical years*. San Francisco, CA: Jossey-Bass.
- Banning, J., F. McGuire, & J. Stegman. (1995). Housing that makes a difference: Designing residential facilities to meet the changing needs of today's student population. *College Services Administration*, 19(1), 53-58.
- Blank, L. & A. Tarquin. (2012). *Engineering Economy* (7th ed.). New York, NY: McGraw-Hill Publishing.
- Blimling, G.S. (1989). A meta-analysis of the influence of college residence halls on academic performance. *Journal of College Student Development*, 30, 298-308.
- Campbell, H. & Brown, R. (2016). *Cost-benefit analysis: Financial and economic appraisal using spreadsheets* (2nd ed). New York, NY: Routledge.
- Chickering, A. W. (1974). *Commuters versus residents*. San Francisco: Jossey Bass.
- Doss, D. (2011). *The Alabama anthology: Readings and commentaries in criminal justice*. Acton, MA: Copley Publishing.
- Doss, D., Glover, W., Goza, R., & Wigginton, M. (2015). *The foundations of communication in criminal justice systems*. Boca Raton, FL: CRC Press.
- Doss, D., Guo, C., & Lee, J. (2012). *The business of criminal justice: A guide for theory and practice*. Boca Raton, FL: CRC Press.
- Doss, D., Henley, R., McElreath, D., Lackey, H., Jones, D., Gokaraju, B., & Sumrall, W. (in press). Homeland security education: Managerial vs. non-managerial market perspectives of an academic program. *Journal of Education for Business*, (in press).
- Doss, D., Jones, D., Sumrall, W., Henley, R., McElreath, D., Lackey, H., & Gokaraju, B. (2015). A net present worth analysis of considered academic programs at a private, regional higher education institution. *Journal of Interdisciplinary Studies in Education*, 4(1), 55-77.

- Doss, D., Jones, D., & Sumrall, W. (2010, September). *A quantitative analysis of Animal Liberation Front incidents versus Earth Liberation Front incidents: 1998-2007*. Paper presented to the annual meeting of the Southern Criminal Justice Association. Clearwater Beach, FL.
- Doss, D., Sumrall, W., & Jones, D. (2012). *Strategic finance for criminal justice organizations*. Boca Raton, FL: CRC Press.
- Doss, D., Sumrall, W., McElreath, D., & Jones, D. (2013). *Economic and financial analysis for criminal justice organizations*. Boca Raton, FL: CRC Press.
- Doss, D., Troxel, S., & Sumrall, B. (2010). Using the internal rate of return method to consider the potential degree offerings of a liberal arts college. *American Journal of Business Education*, 3(5), 31-38.
- Frederiksen, C. (1993). A brief history of collegiate housing. *Student housing and residential life*. San Francisco, CA: Jossey-Bass.
- Henry, C. S. (2003). The history of campus housing in the United States. In Dunkel, N.W. & Grimm, J. C. (Eds), *Campus Housing Construction*. Columbus, OH: The Association of College and University Housing Officers-International.
- Howe, N. & Strauss, W. (2000). *Millennials rising: The next great generation*. New York: Vintage Books.
- Immerwahl, J., & Johnson, J. (2007). *Squeeze play: How parents and the public look at higher education today*. San Jose, CA: National Center for Public Policy in Higher Education.
- Lasher, W. (2005). *Practical financial management*. (4th ed.). Mason, OH: Thomson-Southwestern Publishing.
- Leonard, E.A. (1956). *Origins of personnel services in American higher education*. Minneapolis, MN: University of Minnesota Press.
- Lucas, C. J. (1994). *American higher education: A history*. New York: St. Martin's Press.
- McElreath, D., Doss, D., Jensen, C., Wigginton, M., Kennedy, R., Winter, K., Mongue, R., Bounds, J., & Estis-Sumerel, J. (2013). *Introduction to law enforcement*. Boca Raton, FL: CRC Press.
- McElreath, D., Doss, D., Jensen, C., Wigginton, M., Nations, R., Van Slyke, J., & Nations, J. (2014a). *Foundations of emergency management*. Dubuque, IA: Kendall-Hunt Publishing.
- McElreath, D., Jensen, C., Wigginton, M., Doss, D., Nations, R., & Van Slyke, J. (2014b). *Introduction to homeland security* (2nd ed.). Boca Raton, FL: CRC Press.
- Pascarella, E. (1984). Reassessing the effects of living on campus versus commuting to college: A causal modeling approach. *Review of Higher Education*, 7, 247-260.
- Rudolph, F. (1990). *The American college and university: A history* (Second Edition). Athens, GA: The University of Georgia Press.
- Schroeder, C.C. & Mable, P. (1994). *Residence halls and the college experience: Realizing the educational potential of residence halls*. San Francisco: Jossey-Bass.
- Sumrall, W.H. (2006). *The relationship between reported level of faculty participation in institutional decision making and organizational commitment of faculty in the Mississippi community college system*. Unpublished dissertation, Arkansas State University.
- Sumrall, W., Cox, D., & Doss, D. (2007, November). *The relationship between reported levels of faculty participation in institutional decision making and organizational commitment of faculty in the Mississippi community college system*. Paper presented at the annual meeting of the Mid-South Educational Research Association (MSERA). Hot Springs, AR.
- Sumrall, W., Cox, D., Doss, D., & Jones, D. (2008). Participative decisions and organizational commitment: A Quantitative Analysis. *Southern Business Review*, 33(1), 39-52.
- Tuition and Fees. (2014). Tuition and Fees and Room and Board over Time, 1974-75 to 2014-15, Selected Years. *Trends in Higher Education*. Retrieved from <http://trends.collegeboard.org/sites/default/files/2014-trends-college-pricing-final-web.pdf>.
- Upcraft, M.L., & Pilato, G.T. (1982). *Residence hall assistants in college*. San Francisco: Jossey-Bass.
- Veysey, L.R. (1965). *The emergence of the American university*. Chicago, IL: The University of Chicago Press.
- Wigginton, M., Burton, R., Jensen, C., McElreath, D., Mallory, S., & Doss, D. (2015). Al Qods force: Iran's weapon of choice to export terrorism. *Journal of Policing, Intelligence, and Counter Terrorism*, 10(2), 153-165.
- Willoughby, B.J., Carroll J.S., Marshall W.J., & Clark, C. (2009). The decline of in loco parentis and the shift to coed housing on college campuses. *Journal of Adolescent Research*, 24(1), 21-36.
- Winston, R.B. & Anchors, S. (Eds.). (1993). *Student Housing and Residential Life: A handbook for professional committed to student development goals*. San Francisco, CA: Jossey-Bass Publishers.