PRIVATIZATION OF PUBLIC UNIVERSITY HOUSING: A COMPARATIVE COST ANALYSIS OF ALTERNATIVE MODELS FOR STUDENT HOUSING IN THE COMMONWEALTH OF KENTUCKY

by

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(ABSTRACT)

The conceptual and methodological issues of public university student housing were examined. Specific issues dealt with providing affordable student housing. The study performed a comparative cost analysis of the various student housing models currently available to public Kentucky universities.

Cost data were analyzed for the development and comparison of the baseline study project and three student housing models. Project development costs were analyzed to determine the development costs per square foot of student housing, the construction costs per square foot, the cost per resident or bed, and the cost to develop each bedroom or unit.

The study compared the affordability of each project by analyzing the net gains (or losses) of each model. Proforma analysis of cash flows were developed for each model and the baseline for comparison purposes. Such analysis considered typical revenues based on average rental rates and current building operating expenses. Debt coverage ratios for each project were calculated and compared to financial industry standards.

Currently many colleges and universities are privatizing their student housing. Although the majority of the educational institutions appear to be very successful with their efforts, institutions are not fully aware of the benefits, pitfalls, or processes involved in the privatization of student housing. There are a number of issues that must be addressed prior to obligating a public educational institution to a long-term leasing agreement with a private firm.

This research discussed the financial issues pertaining to the development costs of various student housing models. From this study, conclusions regarding the most cost effective development of student housing facilities were stated. The examination provided for the identification of issues necessary to assess the financial performance of the various student housing models. The discussion of such issues may contribute to more effective student housing decisions by higher education administrators. Implementation of the most cost effective model may provide a means for economically meeting their university's student housing needs.

DEDICATION

This research study is dedicated to Sarah, my princess. Thank you for your love, encouragement, patience, and understanding while I pursued this educational objective. You are truly the best daughter in the world and I am so proud of you.

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CHAPTER I

PROPOSAL

Introduction

Many colleges and universities are experiencing record enrollments without having adequate housing facilities to properly accommodate their students. Often such institutions of higher learning are delighted to see the increase in enrollments; however, the excitement of their marketing and recruitment efforts are diminished when the reality of their housing needs are realized. Many institutions find that as a result of their rapid growth they do not have the bonding capacity necessary to provide new residential housing facilities or to renovate existing facilities. Frequently their current debt load does not allow for the flexibility for additional debt service to pay for additional student housing facilities.

Colleges and universities must meet the housing needs of their students at the critical time the need arises. If the college or university can fulfill every academic need of the student, but can not accommodate the student in a safe, functional housing environment

that is at least remotely equivalent to the residential environment in which the student has lived in prior to attending college, then the student (or parents) may elect to attend another institution that can meet both their academic and housing requirements.

Privatization of public university housing has the potential to allow creativity for effectively meeting the housing needs of growing institutions. According to Doctrow, the term privatization has become a popular buzzword in government and higher education. Most often privatization is used in higher education literature to describe the process of contracting out (outsourcing) facilities and support services at educational institutions with the goal of reducing costs or improving the quality of services (1995). Privatization refers to the process of acquiring facilities and services at higher educational institutions from private firms, and to other similar means utilizing private sector capital, management, and development resources in the provision of public higher education (Doctrow, 1995). Operationally privatization can be defined as shifting the production of current goods and services; or the ownership of assets, into the private sector.

Philosophically privatization can be defined as relying more on the private institutions of society and less on government to satisfy the needs of the people. In reality the term privatization is an umbrella word meaning among other things outsourcing, contracting, franchising, purchasing, or temporary help. Today's definition of privatization is an alternative management strategy to in-house production or provision of services that shifts non-core functions of an institution or non-core functions of an entity within that institution, to outside individuals, agencies, of companies (Kearney, 1997). Public schools have for many years established quasi-private authorities or holding companies to circumvent state constitutional debt limitations. Perhaps some combination of such arrangements are more adaptable as efficient means of facility construction in higher education.

While the privatization of non-educational services has been around for decades, the concept of privatizing public university housing is relatively new. According to American School & University's 4th annual privatization survey, 52.5 percent of colleges and universities expect their use of contract services to increase over

the next few years (Agron, 1996, p. 33). With the costs associated with college and university housing construction on the increase and available public funding for university housing diminishing, more public higher education institutions may need to investigate privatizing their campus housing needs. Privatization of student housing efforts may simultaneously provide creative solutions for a greatly needed stream of cash in-flows for the university while effectively providing on-campus housing to compliment the university's academic community.

Statement Of The Problem

The problem investigated in this study deals with providing affordable student housing on the campuses of Kentucky's public universities. The study performed a comparative cost analysis of the various student housing models currently available to public Kentucky universities. Specifically the models investigated include: 1) a university-created housing corporation which would purchase land and construct new housing facilities or renovate existing facilities for university students; 2) the privatization of existing university property

and housing by a private development firm for use by university students and the purchase of land and construction of new housing by a private development firm for privatized student housing; and 3) the implementation of Kentucky House Bill 622 known as the University Management Bill which would allow the university to assume responsibility and accountability for all capital construction projects on campus, including the renovation of existing or construction of new student housing facilities. All models were analyzed and compared to the baseline method of capital construction project development currently utilized by the majority of public Kentucky universities. Attendant to the baseline comparison was the comparison and cost analysis of an existing student housing project that was devised to reflect adjustments in the baseline comparison of the actual project bid amount to within budget limitations of the approved project scope. This comparison provides a cost analysis of the actual baseline project bid after the project scope was reduced and modified within the approved project funding limitations. Such project value engineering allowed comparisons to be made whereby identical project

components could be studied.

Need For Study

Currently many colleges and universities are privatizing their student housing. Although the majority of the educational institutions appear to be very successful to date with their efforts, most institutions are not fully aware of the benefits, pitfalls, or processes involved in the privatization of student housing. Questions must be asked and objective answers provided before a college or university should pursue privatization. The privatization of student housing goes beyond merely finding a bed for every student. There are a number of legal and financial issues that must be resolved. Laws pertaining to the leasing of state owned property must be investigated. Local zoning ordinances must be reviewed prior to constructing or leasing facilities. The cost of capital proposed by a private firm must be compared to the tax-free cost of capital that could be obtained by the public educational institution. The ability of the educational institution to properly service new debt or their current bonding capacity must be considered.

Procedure and Methodology

The research project studied the models as they relate to financial, construction, and legal issues. The emphasis of this research was the comparative cost analysis of various models for providing student housing. The baseline model was an actual project designed and bid on a public Kentucky university campus. The baseline model reflects the capital construction project format currently in use by six of the eight public Kentucky universities. The study also compares the baseline model to models for new and existing student housing provided by a university-created housing corporation, the privatization of new or existing student housing, and new and existing student housing provided by the implementation of Kentucky House Bill 622 (currently utilized by two public Kentucky universities).

The comparative cost analysis data were developed through research consisting of articles on privatization and contracting services, personal interviews with privatization industry experts from across the nation and personal interviews with attorneys, architects, engineers, building contractors, and accountants. The comparative cost analysis

consists of a: 1) budget development including the "soft costs" of development (i.e. bond costs, legal fees, accounting fees, feasibility studies, development fees, etc.), construction costs including the general construction contract amount, construction management fees, architectural/engineering professional fees, construction inspections, testing and permit fees, etc. and a cost for furniture, fixtures, and equipment; 2) cost comparison of each model to the baseline model (actual project bid) and to the national research averages compiled by American School & University; and 3) a proforma analysis of cash flows.

The total project construction budget development is the cornerstone of the comparative cost analysis. All comparisons are directly related to the budget development. All components of the budget development are a percentage of the project's general construction contract amount. The baseline comparison amount is based on actual competitive bids received by a Kentucky public university for a student housing project during June, 1996. Competitive bids for the project were received from three general

contractors. From project contract data, general contractors, architects, and student housing privatization industry experts assisted with the development of construction cost estimates for the remaining models. Factors were considered to assure that the remaining model construction estimates were consistent with the actual project base bid format. This allowed for a uniform comparison of construction costs among all research models. Cost comparisons and methodologies were reviewed by certified public accounts, attorneys, general contractors, and privatization student housing industry experts for validity.

The proforma analysis of cash flows is included in the comparative cost analysis to help determine the affordability of each project. Each analysis was annualized over a 20-year term and makes the assumption that revenues and operating expenditures will grow at an annual rate of three (3) percent . This amount is consistent with acceptable student housing industry standards for projected growth rates. The revenue generated per bed for each semester is based on the published bed rental rate per semester for the baseline public

Kentucky university. This amount includes both single and double student occupancy rental rates and is considered by most to be conservative.

Organization Of The Study

This research is organized into seven chapters. Chapter I is the research study proposal containing the introduction, statement of problem, need for the study, procedure and methodology, and the organization of the study.

Chapter II consists of the review of literature and related research and a discussion of the conceptual models and comparisons between the various models studied.

Chapter III provides a detailed discussion of the procedure and methodology utilized for the cost analysis of the various models in this research. This chapter contains typical methods of data analysis.

Chapter IV provides a presentation of the data provided from the comparative cost analyses. Chapter V presents a discussion of the data.

Chapter VI presents the findings of the study that identify the

costs associated with the various models potentially providing public university student housing in the Commonwealth of Kentucky and draws conclusions from the findings. Chapter VII makes recommendations for future studies.

CHAPTER II

REVIEW OF THE LITERATURE

The review of literature relevant to the proposed research topic pertaining to the privatization of public university housing has revealed that the majority of the information is cutting-edge. The Educational Resources Information Center (ERIC) database provided industry-related journal articles pertaining to the research topic. Interviews and discussions with other public university facility and housing managers provided leads to various survey documents, reports, and studies useful to my research findings. Several textbooks provided valuable insight into the research topic. Attendance at an international symposium on the Privatization of Campus Housing in Higher Education in San Diego, California during January, 1997 provided several "cutting-edge" reports on this topic from various authors and journal publishing companies.

Residence hall construction is proliferating on the nation's campuses, and colleges and universities are spending more per student

and per square foot on these projects than years past. In addition, the size of today's median housing facility is larger and is being built to accommodate more students, according to American School & University's 7th annual survey of residence hall construction. The median residence hall costs $100 per square foot, or $28,098 per resident, and accommodates 147 residents in 40,000 square feet (AS&U, 1996, p. 6). The quest to attract more students to on-campus housing will require colleges and universities to provide facilities that incorporate the latest amenities. Without proper, adequate student housing, many higher education institutions will not be able to attract or retain potential students.

Proper student housing is a problem affecting the majority of colleges and universities today. Whether it is the need to replace worn-out or out-dated existing housing facilities or the need to provide new housing in an effort to stay ahead of rapidly growing enrollments, the need for university housing for students is paramount. The July, 1996 AS&U annual residence hall construction report tracked 38 student housing projects. Of this number, 20

residence halls were coeducational, 3 were provided for families or couples, and 15 were identified as same sex facilities. The project construction costs ranged from $320,000 to slightly more than $27 million and varied from 5,000 square feet housing 16 students to 250,000 square feet housing 1,000 students. The average facility housed 198 students, averaged 56,244 square feet, and cost approximately $6.05 million. From a square-footage basis the construction costs ranged from a low of $37.50 per square foot to $184.62 per square foot.

The average and median costs per square foot for student housing was $100 per square foot. This amount represents an increase of 8.1 percent per student in 1995 over the recorded amount in 1994 (AS&U, 1996, p. 5). Most colleges and universities can no longer afford to pay such costs for the construction of student housing. Unfortunately in the past institutions simply paid the price and subsequently passed the costs directly to the student by increasing housing fees. Today's student has a tendency to be more consumer oriented and value driven. The average student expects certain

housing amenities in addition to receiving a quality education.

There exists a need for providing alternatives to traditional public university housing. As colleges and universities are increasingly pressed to trim their escalating expenses and reengineer their operations, privatization of auxiliary services and of facilities has spread throughout higher education (Sturtz et al., 1996, p. 18). Much less common so far have been attempts to turn the management of some campus buildings over to private, outside firms. "Real property - academic buildings, dormitories, and land - is the major capital asset of most institutions" (Junker, 1990, p. 18). Some universities have built housing, shopping centers, offices, or research buildings on pieces of their peripheral real estate. But few have turned to firms which specialize in property management to handle their student housing for them. Some institutions have contracted with real estate developers to build new student residences. But privatizing existing, older dormitories or apartments is still rare (Sturtz et al., 1996, p. 18). More and more colleges and universities are concentrating on their core activities such as academics, research, and personal student

services. They are reengineering many of their ancillary activities such as housing in an effort to cut operating costs and provide more expert professional services.

The use of privatized non-educational services by schools and universities is a practice that has been in place for a number of decades (Agron, 1996). Privatization of both educational and non-educational services is a controversial topic, and people usually are either strongly for it or completely against it. During April, 1996 American School & University's 4th annual privatization survey was sent to a representative sample of 500 colleges and universities. Usable responses were received from 21 percent of those institutions surveyed. The vast majority (83 percent) of the colleges and universities surveyed had student enrollments between 1,000 and 19,999 students. A definite trend is developing among colleges and universities and their attitude towards privatization. Many now use private companies for a variety of non-educational services and each year the number continues to grow. Food service (74.3 percent), vending (65.3 percent), bookstore operations (33.7 percent), custodial

work of academic buildings (30.7 percent), and laundry (18.8 percent) are among the outsourced services that are gaining in popularity among higher-education institutions (Agron, 1996, p. 6). Of the colleges and universities surveyed, 52.5 percent indicated that they expect their use of contract services to increase over the next few years. Colleges most often turn to contract services to improve operations (95.4 percent), save money (88.2 percent), secure more-experienced personnel (67.8 percent), save management time (66.1 percent), and provide professional management (63.3 percent). In turn colleges most often avoid privatized services because it would threaten the jobs of loyal employees (29.2 percent), union contracts make it too difficult (15.3 percent), the attitude that if a contractor can make a profit, the college should be able to do it for less prevails (14.4 percent), public opposition (12.2 percent), and 11.4 percent indicate that the concept is too expensive (Agron, 1996, pp. 7-8).

According to a report by Wertz entitled Higher Education Interest in Privatization for the Reason Foundation, recently many colleges and universities have declared any non-academic service area

to be a candidate for privatization. The emergence of companies to provide the competition for possible privatization has allowed these colleges and universities to take an aggressive step forward in analyzing the campus services they provide. Companies are courting colleges and universities with very attractive terms to provide any number of services heretofore operated solely by the institution. The competition in business is providing colleges and universities an opportunity to deal with their financial shortcomings, yet still provide a viable service for their students in a vast array of service areas. Older companies looking to expand their share of the market in certain service areas have retooled and added new divisions to their entities to offer colleges and universities other opportunities to privatize services. This has helped institutions of higher learning "bid out" services to get the best deal (Wertz, 1997, p. 3).

Wertz goes on to report that a recent phenomenon on some campuses shows how far the privatization movement is going in higher education. Privatization is occurring not just on one campus in a system, but can be done for a whole university system. Penn State

University, with a main campus of 37,000 students and 20 other regional campuses located throughout Pennsylvania with a total of 70,000 students systemwide, signed a multi-million dollar contract with Barnes and Noble Company to manage the bookstores on all 21 campuses. Rutgers University as of August, 1994 signed a 10-year contract to sell Pepsi-Cola exclusively on its three campuses with 48,000 students. The University of Cincinnati signed with Pepsi-Cola exclusively for 10 years on its campus. Oregon State University signed an exclusive contract with Coca-Cola for twelve years, as did Indiana University with Coca-Cola for 10 years. In each instance, a multi-million dollar contract was involved, producing several million dollars for each university over an extended time period. In addition, Penn State signed an exclusive communications contract with AT&T for a 10-year period worth $27 million in shared revenue and gifts (Blumenstyk, 1994, pp. A41-A43). Taking their cue from Penn State, the Higher Education System of Pennsylvania, which includes 14 state institutions not in the Penn State system, recently signed a 10-year $12 million deal to sell Pepsi-Cola to the 95,000 students on the campuses

of this system.

Privatization is growing at a rapid pace on the campuses, systems, and state levels of higher education throughout the United States. Increasingly, colleges and universities are finding it more productive financially and more efficient and effective operationally to turn their services over to private businesses. The "privatization concept allows the institution to generate desperately needed revenue, offer a service more effectively, and get out of a business that perhaps the institution should not be involved in in the first place" (Wertz, 1997, p. 3).

Recently the University of Maryland at College Park, a 30,000-student campus near suburban Washington, D.C., developed a need for the renovation of existing graduate housing. The state's political leaders supported the moves to privatization and actually require by statute that state agencies investigate privatization efforts prior to proceeding with such initiatives within the governmental sector. University officials considered renovating the 331-unit complex with tax-exempt facility bonds, to be repaid from increases in apartment

rents. They also considered two other possibilities. One was to sell both buildings and replace them with new graduate housing at another location and the other possibility was to lease the apartments to a private operator who would then renovate the units for use by the university's students. The University of Maryland found that it could sell or lease the two apartment buildings to a private owner/operator for approximately $10 million and have the private party renovate the apartments without causing rents to rise above the levels projected by the university. It was recommended that the university participate in a conditional long-term lease of the two graduate student housing complexes rather than a sale. This arrangement would allow the university to share in future cash flows, hold on to the property for possible future uses, and offer the university a basis to influence the leasing policies. Legally and in financial markets, a long-term lease was recognized as a "sale"; but law and practice also recognized the university's interest and permitted it to establish conditions which the lease would have to respect (Sturtz et al., 1996).

As a result of the University of Maryland's willingness to take a

creative approach to meeting their housing needs, over the next 25 years the university will get an estimated revenue stream with a net present value of more than $10 million. It relieved itself of the need to manage the apartments and of the need for millions of dollars of renovations. At the conclusion of the 25 year lease, the university can renew the lease or resume full ownership of the properties (Sturtz et al., 1996, p. 21).

Privatization Of Student Housing

Colleges and universities have been observing with intense interest the rapidly growing developments in the area of privatization by both business and government. Continuing severe financial budget cuts in higher education have caused institutions of higher learning to adopt procedures and steps already taken by business and government in providing services at less cost. During this process, colleges and universities have been examining their own "core" business and mission and evaluating campus services as to how they should be offered and, more importantly, if they should be offered at all (Wertz, 1997).

Wertz further states that "state institutions of higher learning are increasingly being told by both state legislators and the public to run their entities more like businesses"(1997, p. 1). Governor Lawton Chiles of the State of Florida in 1993 told the State University of Florida Higher Education System to begin planning the privatization of as many services as possible (Lively, 1993, p. A28). This was followed in January of 1995 with the Board of Regents of the Florida System calling for a 25 percent budget cut for institutions in the system and directing presidents of these institutions to run them like businesses (Yasuda, 1995, p. 1). Florida appears to be typical of what other states will demand of their higher education systems. "As state funds for higher education dwindle, state institutions will continue to move from state supported to state assisted to state affiliated. This increased pressure will call for far more innovative ways for colleges and universities to provide on campus services" (Wertz, 1997, p. 1). Although student housing is an auxiliary service and typically required to be self-supporting financially, when academic and general services are required to tighten their budgets, student housing also feels the

pressure to do likewise.

Colleges and universities got into the student housing business (among other auxiliary functions) because there was no one else to provide them. Today there are "an ample supply of private entities ready, willing, and able to provide services the college or university is currently providing and able to provide it at less cost and better" (Wertz, 1997, p. 2). In the case of state institutions, the issue is why is the state college or university competing with private enterprise in providing on-campus services such as student housing. "The reluctance colleges and universities have demonstrated in turning over their self-operated services to private business is rapidly deteriorating in the face of the current financial crisis in higher education and charges of unfair business competition" (Wertz, 1997, p. 2).

Student housing has traditionally been provided by the institution on campus. When campus facilities were filled, the student was forced to go off campus and find private housing. It is now possible to have a private company manage institutionally owned property; lease privately owned facilities to the institution; build

facilities to be either owned or operated by the private company or by the institution; or any combination of the above. The institution can select from any number of options regarding managing, building, and providing student housing (Wertz, 1997).

In an annual report on higher education privatization to the Reason Foundation, Wertz identified eight reasons why institutions of higher education are looking to privatize their student housing services. They are as follows:

(1) The costs of operating campus services is too high. The maintenance of equipment and facilities and the costs of payroll and fringe benefits are no longer affordable for many services.

(2) The college or university cannot afford the renovation costs needed to bring a service up to standard.

(3) The institution does not have the expertise or technology to provide a service.

(4) The privatization of a campus service may generate a great deal of revenue for the institution.

(5) The privatization of a service gets a college or university out of providing a service they probably should not be operating to begin with.

(6) The privatization of a service allows the institution to continue providing a service and avoids either institutional bureaucracy, state bureaucracy, and internal or external layers of approval.

(7) Privatizing services takes the criticism away from colleges and universities by those that feel institutions of higher learning should not be competing with private businesses.

(8) The institution can rid itself of human resource problems or other problems associated with providing the service as self-operation, thereby turning its time and resources to its core mission which is educating (1997, pp. 1-2).

During a symposium presentation on the privatization of campus housing in higher education held in San Diego during January, 1997, Kearney identified a 5-part continuum model for providing student housing on university campuses. The model for housing operations consisted of: 1) in-house production of service; 2) cooperative production; 3) partnership; 4) outsourcing; and 5) privatization. Kearney indicated that the most common practice for housing operations was to provide somewhat of a hybrid approach utilizing various aspects of several continuum models. In an effort to determine which methodologies to utilize, Kearney suggests that the college or university answer the following questions:

(1) What is the institution's mission and strategic plan? What is our core mission? What are we doing in the student housing business?

(2) What is student housing's mission and strategic plan?

(3) Is student housing part of the core academic mission or peripheral to that mission?

(4) What is the financial expectation for housing operations?

(5) What are the goals for a particular service or facility?

(6) Are the goals tied to the academic mission or retention of students, or their intellectual and social enrichment? (1997, p. 4).

To the extent that an institution and its student housing operation share a common mission and have a mutual understanding of goals and strategic plans, there will be fewer perceived threats and more challenges and opportunities. In the event the following factors are properly provided for by the university student housing operation, the institution may favor the in-house side of the continuum model (or continue to provide the student housing service).

Such factors include:

(1) Part or all of the student housing is related to the core mission of the institution.

(2) The student housing operation is financially solvent.

(3) The student housing stays current with maintenance and renovation needs.

(4) Student occupancy rates are high and students are satisfied with the services.

(5) The student housing operation had the ability to borrow funds.

(6) There exists a clear picture of enrollment trends and housing needs.

(7) There is an unavailability of privatized student housing vendors.

(8) There is an unavailability of land for expansion or development (1997, P. 4).

Kearney also identified factors that may favor a move towards the privatization continuum. Such factors are as follows:

(1) Part or all student housing is unrelated to the core mission of the institution. Student housing operation is seen as a "shadow" campus.

(2) Student housing has a lack of borrowing ability and/or debt capacity.

(3) There is an uncertainty about enrollment trends.

(4) There are current financial and operational difficulties within the student housing operation. There is low confidence in the housing director/manager.

(5) There is a desire to generate income or profits.

(6) There is an availability of student housing privatization vendors.

(7) There is an availability of land for expansion or development.

(8) There is an interest in reducing or sharing risks.

(9) There is a need to hold or reduce costs of student housing operations (1997, pp. 4-5).

Should an institution answer "yes" to any of the above questions or the factors tend to move the institution towards any particular point on the continuum, the institution may seek guidance in the decision making process by utilizing the institutional self-study instrument provided by the Association of College and University Housing Officers-International (ACUHO-I).

During January, 1997 Wertz conducted a privatization survey for the National Association of College Auxiliary Services (NACUS). The survey was conducted in an effort to assess the privatization of services on the campuses of the nation's colleges and universities. A total of 2,974 survey instruments were sent to U.S. colleges and universities. A total of 934 surveys were returned, or 31 percent of those sent. The data indicate the number of institutions offering a particular service, the number of services that were privatized, and the resulting percentage of services that were privatized. There were three specific services related to the privatization of student housing in this national

survey. They include: 1) housing facility buildings; 2) housing operations; and 3) student housing staff. Basic student services such as health centers, housing, student unions, student activities, and counseling centers have traditionally not been contracted out in large numbers. According to the NACUS survey, it appears though there is a stronger interest by colleges and universities to review these areas as privatization candidates. Although the number of institutions contracting out these services are smaller than other service areas, there appears to be more movement in these areas. Housing facility buildings were privatized 150 times out of 594, or 25 percent of the survey respondents. Housing operations were contracted out by 21 out of 677, or 3 percent of the respondents. Student housing staff member operations were privatized 11 out of 659, or 2 percent of the survey respondents (NACUS, 1997, pp. 5-6).

According to the January, 1997 NACUS privatization survey, institutions of higher education are being forced to look at alternative methods of both operating campus services and of generating revenue. This has added to the pressure on colleges and universities to consider

privatizing or outsourcing services on their campuses. The survey identified several factors that are occurring in the higher education environment which are leading institutions to seriously consider privatizing one or several services on their campuses. These factors may include the following items:

(1) The costs of managing the campus service may be too high for the institution to continue to pay. These costs may be felt in the areas of employee compensation, maintenance of physical facilities, or the maintenance of equipment. Funds may be supporting an operation that could be better used for another project on campus. A private company may offer the college or university the opportunity of operating this service more economically and efficiently with better service for the institution and save money as well.

(2) A private company may be able to offer revenue to the institution for operating the service on campus. Companies which specialize in a particular business are often well prepared to operate a service on campus and produce revenue for both the institution and the business.

(3) A private company may offer to finance much needed renovations for the college or university. The company may also have the necessary expertise to plan the renovations and offer other assistance the institution may not have.

(4) A private company may be able to provide expertise and technology to a college or university in the operation of a campus service.

(5) A private company may be able to operate a service more

efficiently and effectively by avoiding the time consuming bureaucratic procedures often required of the college or university in operating a campus service.

(6) A private company may be able to solve those human resources problems that come with operating a campus service. A private company does not have to deal with the policies and procedures that are either mandated by a state government or the institution itself.

(7) The college or university may itself be questioning what it is doing operating a certain campus service in the first place. The institution may come to the conclusion that this service is best left to someone else to either provide or operate so that the institution can get back to its "core" mission, which is education (NACUS, 1997, pp. 1-2).

According to Wertz, there may be other reasons as well for colleges and universities to become interested in the prospect of privatizing a campus service. The point is that consideration is being given for the privatization of campus services and it appears as though the movement is increasing. The increased interest is coming from a variety of different directions. There may be pressure on state colleges and universities from the legislature of the state. Higher education is being asked to assume more of the financial burden of operating institutions of higher learning, but are being cautioned about not raising tuition. Presidents and chancellors of colleges and

universities themselves are bringing pressure to bear on administrators on their campuses to cut costs and come up with revenue to support the institution. This pressure is forcing administrators to look more carefully at privatization (NACUS, 1997).

State Privatization Trends

According to O'Leary in the Reason Foundation's tenth annual report on privatization conducted in 1996, states have generally lagged behind cities in joining the competition revolution that is transforming American government. Developments in 1995 indicate that the states may be starting to catch up. During 1995, devolution - the transfer of federal authority to state governments - was at the forefront of the public policy debate. Though any such transfer is likely to be slow and difficult, indications are that the next several years could see a significant shift of power from Washington, DC down to the states. States will have much greater flexibility to use competition to deliver a wide range of services. Several states, including New York, New Jersey, Georgia, Massachusetts, Virginia, California, North Carolina, and Florida, moved forward aggressively with privatization in 1995.

Despite a better financial picture than they have enjoyed for years, states are increasingly turning to competition and privatization (O'Leary, 1996, p. 4).

Georgia Governor Zell Miller has emerged as perhaps the leading privatization proponent among the country's governors. Governor Miller's privatization commission has targeted a host of state services, assets, and enterprises for privatization. The commission has recommended beginning with a number of privatization projects that don't require legislative approval thereby avoiding lengthy delays and parochial opposition from some legislators. "There are a lot of them that are going to require legislation," Miller said, "but what I can do administratively, I will. That's what a chief executive does. He executes" (O'Leary, 1996, p. 5). Massachusetts Governor William Weld remains a champion of more efficient government through competition, but the enactment of an anti-privatization law has greatly slowed the progress of privatization in Massachusetts. The so-called Pacheco law requires potential contractors to compete not against the current cost of a

public department but against a theoretical cost estimate of how the public department might operate if it were run efficiently. "Unfortunately, the law has achieved its intended purpose," says Weld advisor Steven Wilson. "It has had a chilling effect on contractors and on competition." In the two years prior to the Pacheco law's passage, Governor Weld had privatized more than 20 services. In the two years since, not a single major service has been contracted (O'Leary, 1996, p. 5).

The Virginia Government Competition Act of 1995 became effective on July 1, 1995, establishing the Commonwealth Competition Council in the executive branch of government. It is composed of four members from the executive branch, one member of the House of Delegates and one from the Senate, and four private citizen members - two appointed by the Governor and two appointed by the General Assembly. The Competition Council is intended to develop Virginia's effort to make competition a central part of state operations. In its first annual report, the council noted its founding act: "The Act is a clear statement recognizing the importance of

competition in providing both quality and cost-effective government services to the citizens of Virginia. It recognizes that privatization is a tool and, like any tool, it is well suited to certain tasks and ill-suited for other tasks. Careful analysis by the Council is required to determine the privatization potential of a program or activity" (O'Leary, 1996, p. 6).

The General Assembly of the Commonwealth of Kentucky passed the "Kentucky Privatization Act" (KRS 107.700 to KRS 107.760). The Act declares that the policy of the state "...is to assure its citizens adequate public services, at reasonable costs...," the Kentucky General Assembly acknowledged that "...the cost of constructing, owning, and operating capital facilities to meet the demand for those public services is becoming increasingly burdensome..." to alleviate this burden, the Act authorizes agencies to enter into "privatization contracts" with private entities (Hodge, 1996, p. 9). Kentucky Governor Paul Patton asked the Commission on Higher Education Institutional Efficiency and Cooperation "to recommend practices and procedures to increase institutional

administrative efficiency through the restructuring and redesign of procurement and contracting procedures, maintenance programs and facility use, and to propose privatization of services where practical, affordable and effective" (Chellgren, 1996).

Pressures To Change

Several major forces, or pressures, are behind the privatization movement: pragmatic, ideological, commercial, and populist (Savas, 1987, p. 4). According to Murphy, a variety of frames can be used to capture forces pushing privatization onto the policy stage. The strategy employed by Murphy is to identify major arguments for privatization into two broad categories - those that illuminate the rising tide of discontent with public provision of goods and services and those that help define an alternative philosophy about the proper role of government in society (Murphy, 1996, p. 66).

The rising tide of discontent with the delivery of certain public services fuel the pressure to change the way government does business. "People must see that there is a problem first in order to solve something by privatization" (Poole, 1985, p. 47). In an article on

bureaucracy and public economies, Niskanen stated "I am prepared to conclude that the public sector does not serve most of us very well" (Niskanen, 1994, p. 281). Even the President's Commission on Privatization indicated that "the political and economic concepts that have traditionally given legitimacy to government actions have come under growing criticism" (President's Commission on Privatization, 1988, p. 229). The declining confidence in the public sector is due in part, on "widespread citizen concerns over the increasing costs of government" (Hula, 1990, p. 4). The privatization movement has drawn support from a wide range of critics of the current scope of government (President's Commission on Privatization, 1988, p. 239).

All this fiscal stress has resulted in governments experiencing difficulty in providing the array of goods, services and facilities that citizens need (Seader, 1991, p. 29). Along with the rising tide of discontent with public sector activities, fiscal pressures have provided a wake-up call to public agencies, many of whom "are having to reconsider once again how they pursue their fundamental purposes" (Fitzgerald et al., 1990, p. 70), including "searching for new ways of

delivering services" (Peters, 1991, p. 53). As various analysts have noted, "when governments face severe fiscal stress, that is, when the cost of government activities is rising but the public's resistance to higher taxes is also rising, public officials seek any promising solution to their quandary" (Savas, 1987, p. 4). This same concept can be applied to student's attitudes towards the rising costs of student housing. Specifically, "all across the country revenue-pinched governments are turning to private firms as a way of saving money without impairing the delivery of services" (Worsnop, 1992, p. 977). Murphy calls this a "shift to the right" where

> dominant ideologies can change over time. In recent years, for example, the apparent resurgence of conservatism, libertarianism (or classical liberalism), and free-market ideas (especially among economists) encourages a more serious consideration of turning over public services to the marketplace (Fixler, 1991, p. 44).

Current market conditions and economic trends play a critical role in the privatization of any service. According to Ascher (1991), privatization via

> contracting out cannot be viewed as a unique political development but must be seen as part of a larger economic trend. Contracting out in the public sector and outsourcing in the private sector are much like fraternal twins - born of the

> same parents but with different names and appearances (1991, p. 301).

These same market conditions allow entrepreneurs to develop new business ventures to satisfy the business needs of the industry. "The reasons for privatization lie not only in the public sector's own failings, but also in the pursuit of new markets by large corporations" (Martin, 1993, p. ii). "While the debate about privatizing production...has its ideological side, most of it is intensely practical. It is very much a clash between competing producers, both of which want the government's business" (Kolderie, 1991, p. 254).

CHAPTER III

METHODOLOGY

Although moderate quantitative data analysis was performed for this study, the design best facilitated the analysis of qualitative data. "Qualitative data are a source of well-grounded, rich descriptions and explanations of processes in identifiable local contexts. With qualitative data one can preserve chronological flow, see precisely which events led to which consequences, and derive fruitful explanations" (Miles, 1994, p. 1).

When considering student housing needs, a college or university should study the current and projected future occupancy loads pertaining to student housing needs. This assessment should investigate the current quantity of student housing available on the university campus and provide a comparison with current and projected student enrollments. Such assessment may assist the university administrator in determining the need to provide additional student housing. The student housing assessment should also consider

the current condition of the existing student housing (i.e. structural concerns, life safety, mechanical infrastructure, age, life-cycle, etc.) in an effort to determine the physical need to repair or replace unsafe or inefficient facilities. Typical procedures for determining projected student occupancy loads include the comparison of trends in student housing and student enrollments. Such trends in determining student housing occupancy loads should include an analysis of the past year's student housing occupancy rates and a study of the projected student enrollment applications for the entering freshman class. This procedure is a valuable planning tool for determining student housing occupancy rates.

The study was also concerned with the various alternatives available to universities in using public and private options in facilitating building construction. Such alternatives considered: 1) legal issues (i.e. Attorney General opinions, current laws and regulations); 2) financial issues (i.e. current cost of capital, etc.); 3) maintenance and operational issues; 4) construction related issues; and 5) zoning issues (ordinances) that may have an impact on the

constructibility of privatized student housing.

The investigation also considered the implications associated with the privatization of student housing on the campuses of the public universities within the Commonwealth of Kentucky. The research investigated and compared the current Kentucky public school lease/purchase and built-to-suit lease agreement laws to the privatized development of public university student housing. The attributes, as well as the problems, associated with the privatization of student housing at five public universities located in other states that have now fully implemented the privatization of student housing were analyzed in an effort to identify model programs that have proven to be successful. Such attributes of successful programs are incorporated into the presentation of data. From the analysis of data, the study determined the qualities and attributes of each model as well as the problems and pitfalls associated with the various student housing models.

The Association of College and University Housing Officers-International (ACUHO-I) has developed an extensive evaluation

instrument that may assist university administrators with addressing issues pertaining to the privatization of campus student housing. Based on the criteria of this research study and the utilization of the ACUHO-I evaluation instrument, universities may be able to draw their own conclusions concerning whether or not to pursue the privatization of their student housing or to utilize the current, well established Kentucky capital construction project development methods, or to possibly implement Kentucky House Bill 622 granting the responsibility and accountability for the development of their own capital construction projects. Readers may wish to review the ACUHO-I evaluation instrument.

There are many strategies for properly conducting the literature search for a topic. Condensing information into a coherent, focused review helped to sharpen the conceptualization of the topic and provide methodological themes gleaned from the literature. This process led to the identification of methodological issues and possible insights into the study. These strategies helped to:

* Identify relevant literature
    - identify key authors and journals
    - use bibliographic reference sources
    - use computerized literature searches
    - obtain reprints and preprints
    - examine literature from other disciplines
    - use reference lists from articles, chapters, and books
* Critical review of the literature
    - identify themes
    - identify strengths and weaknesses of individual articles
    - identify strengths and weaknesses of the field as a whole

Typical Method for Analysis

According to Miles and Huberman (1994), some analytic practices may be used across different qualitative research types. The following is a common set of analytical initiatives arranged in sequence and utilized in this study:

* Drawing notes from observations
* Sorting and sifting through those materials to identify similar

phrases, relationships between variables, patterns, themes, distinct differences between subgroups, and common sequences

* Isolating these patterns and processes, commonalities and differences, and taking them out to the field in the next wave of data collection
* Gradually elaborating a small set of generalizations that cover the consistencies discerned in the database
* Confronting those generalizations with a formalized body of knowledge in the form of constructs or theories (1994, p. 9).

"The nature of the qualitative data is in the form of words. The words are based on observation, interviews, or documents" (Miles, 1994, p. 9).

Maxwell (1996) identified 4 main components of qualitative methods - what you will actually do in conducting a qualitative study - as follows:

1. The research relationship that you establish with those

individuals or methods you study.

2. Sampling: what times, settings, or individuals you select to observe or interview and what other sources of information you decide to use.
3. Data collection: how you gather the information you will use.
4. Data analysis: what you do with this information in order to make sense of it (1994, p. 65).

Analysis is often conceptually separated from design, especially by writers who see design as the precursor of data collection. Any qualitative study requires decisions about how the analysis will be done, and these decisions should influence, and be influenced by, the rest of the design (Maxwell, 1996, p. 77).

Although the emphasis of this research study was focused on models available to public universities within the Commonwealth of Kentucky, the results of the study should provide social utility for other state universities located throughout the United States. Fundamentally the concepts pertaining to the privatization of public

university student housing is consistent from state to state. This study reviewed state statutes regarding current or pending legislation concerning policies and procedures for the privatization of state properties, relevant cases, and Attorney General opinions. Information indicates that privatization is not only permitted in the Commonwealth of Kentucky, but encouraged.

Privatization strategies are classified by a variety of criteria, including, most commonly: 1) the extent of privatization; 2) the domain of activity - usually financing and production; and 3) where in the delivery of the service privatization takes root - policy, administration, or provision (Murphy, 1996). This study sought to address these needs by investigating the various models available to universities for meeting their student housing needs and provides criteria that may assist university administrators in making an educated decision pertaining to the best model to incorporate for meeting their particular student housing needs.

This research is delimited to the 8 public universities within the Commonwealth of Kentucky and five public universities that were

selected based on their experience and success with the implementation of privatized student housing. The 8 public universities within the Commonwealth of Kentucky are as follows: Eastern Kentucky University; Kentucky State University; Morehead State University; Murray State University; Northern Kentucky University; University of Kentucky; University of Louisville; and Western Kentucky University. The subjects were selected due to their relationship as public universities of the Commonwealth of Kentucky. The remaining five public universities are as follows: University of Maryland @ College Park; University of Texas @ Austin; Henderson State University (Arkansas); George Mason University (Virginia); and University of Texas @ San Antonio. These institutional projects were selected based on their experience and success with the implementation of privatized student housing. Each subject will be analyzed in accordance with the established perimeters of the research design.

This research study of privatization of public university housing performed a comparative cost analysis of the various student housing

models currently available to public Kentucky universities. The analysis identified advantages and associated disadvantages of the various student housing models and compared them with the privatization options available to public universities for meeting their student housing needs. The resulting cost analysis may assist university administrators in the decision making process by identifying those models that are most financially advantageous to the university when analyzed in accordance to established financial procedures. The cost analysis of the models provide a detailed comparison of the associated costs for implementing each model. A recent, actual student housing project designed and bid for a Kentucky university was utilized as a baseline comparison of all other models. The baseline model was designed and bid in accordance with the current methods for the development of Kentucky capital construction projects. The models to be analyzed are as follows:

A. Model 1A: University-created housing corporation for existing student housing facilities

In this model the university creates a housing corporation

as a separate entity for the purpose of providing student housing by renovating existing student housing facilities. The university would typically enter into a long-term lease/purchase agreement with the housing corporation for the university to help maintain the student occupancy level at a predetermined percentage of full occupancy. The housing corporation would typically guarantee the university a predetermined percentage of the profits from operations. Typically this arrangement results in a win-win scenario for the university and the housing corporation. The university houses their students with relatively low financial risk. The university also has the potential to receive cash in-flows should the housing corporation earn a profit from their operations. Since the mission of the housing corporation is to serve the housing needs of the university students, they are not totally profit-driven. They would need to determine through a break-even analysis what their margins would need to be in order to provide

quality amenities for their clients (the students) and to properly provide funds for maintenance and operations.

Model 1B: University-created housing corporation for new student housing facilities

This model is very similar to model 1A. The university creates a housing corporation as a separate entity for the purpose of providing student housing. The housing corporation would purchase land and develop/construct new student housing facilities. The university would typically enter into a long-term lease/purchase agreement with the housing corporation. The university-created housing corporation would typically function through the university's Foundation serving as the legal vehicle for the lease/purchase agreement.

B. Model 2A: Privatization of existing university property and housing by a private development firm

This model would allow a private housing development firm to lease existing university property or facilities for

the development of privatized student housing. Due to typical zoning ordinances, the private firm would not necessarily purchase the existing facility from the public university. The public university would enjoy certain exemptions from zoning ordinances that could be passed on to the lessee. Should the university wish to sell the property, the university would be required to publicly declare the property as surplus and receive formal approval for the sale. Although the university would seek formal approval for any such transaction, the declaration of surplus property and subsequent sale of the property may result in the university losing valuable control of the property. The private development firm could renovate the existing property and/or facilities as needed. In this model the university would receive often much needed cash in-flows from the private firm for the long-term lease of the property, the private firm would provide for the proper housing of the university students, the university

would assume little or no financial risks, and have their facilities renovated without costs to the university. In most cases the university can purchase the property at any time during the fiscal year at a predetermined price, often below fair-market value. At the conclusion of the lease period, the university can renew the lease or full ownership of the property reverts back to the university.

Model 2B: Privatization of new university property and housing by a private development firm

In this model the private development firm purchases or leases property from the university or other owner and constructs new student housing facilities. The private development firm must then adhere to all zoning ordinances and building codes (i.e. off-street parking, front/side yard setbacks, etc.) typical to the construction industry. The university typically may not receive any cash in-flows; however, the university receives new housing for their students at no financial obligation. The private firm

assumes all risks for the success of the venture and typically will manage the property for a minimum of three years. During the predetermined agreement period, the university can purchase the property/facility during any fiscal year at or below fair-market value.

C. Model 3A: Implementation of Kentucky House Bill 622 for existing student housing facilities

Kentucky House Bill 622, known as the "University Management Bill," was enacted by the 1982 Kentucky General Assembly. It was produced under the auspices of a committee appointed by the chairman of the Council of University Presidents, and is the product of 6 subcommittee reports. The subcommittees dealt with 6 principal aspects of the bill: 1) accounting, auditing, and payroll; 2) investments and interest income; 3) affiliated corporations; 4) capital construction; 5) purchasing; and 6) acquisition, disposition, and leasing of real property. Representation on the subcommittees for the noted

functional areas came from the public universities and from the state government including the Department of Finance, Office of the State Treasurer, Office of the State Auditor, Council on Higher Education, and the Legislative Research Commission. The bill allows public Kentucky universities to select the capital construction option which would transfer the responsibility and accountability for the construction of all capital projects (including student housing facilities) to the university. Although the university must continue to meet all applicable building codes, it is generally felt that the election of this option removes a level of government bureaucracy which in turn results in lower bid pricing. There is a cost to the university for the election of House Bill 622 which is typically in the form of additional personnel staffing requirements and associated costs for furniture, fixtures, and equipment. This model provides for the renovation of existing student housing.

Model 3B: Implementation of Kentucky House Bill 622 for new student housing facilities

This model is very similar to model 3A; however, model 3B provides for the construction of new university student housing facilities. As a state-agency project, construction labor costs for this model must utilize the prevailing wage rate (i.e. Davis-Bacon Act) for all general and subcontracted labor rates. It is estimated that the prevailing wage rate increases construction labor costs by approximately thirty (30) percent in the Commonwealth of Kentucky.

D. Baseline comparison and analysis of current methods for the development of capital construction projects

This item provides a baseline for the comparison of all other models. With the exception of two public Kentucky universities (University of Kentucky and University of Louisville), all public Kentucky universities currently utilize the process for capital construction projects

whereby the Commonwealth of Kentucky is the owner of the project even though the facility is located on the university's campus. This process provides for very limited involvement by the university and is considered by many to be ineffective, costly, and often does not allow the university any involvement in the educational or functional programming of the facility. This aspect of model identification will closely examine the process of capital construction currently utilized by the lion's share of public Kentucky universities. Prevailing wage rates are incorporated into the baseline project bids for this model. Attendant to the baseline comparison was the similar baseline comparison and cost analysis of the current methods of capital construction project development utilized by the Commonwealth of Kentucky. However, this item was devised to reflect adjustments in the baseline comparison of the model bid amount to within budget limitations of the approved project scope. This

comparison allowed for a study to be accomplished whereby identical model components could be compared, resulting in a more realistic cost comparison of various model components.

CHAPTER IV

PRESENTATION OF DATA

Comparative Cost Analysis

Table number 1 provides a general summary of the construction development cost comparisons of Kentucky public university student housing models. This table provides a general overview of the project development cost, the physical size of the facility in square feet, the number of residents to occupy the facility, the development costs per square foot, the construction costs per square foot, the average square feet assigned to each resident based on the facility design occupancy load, the cost per resident per bed, and the construction cost per unit or bedroom. The table also indicates the projected project loss/gain over the 20-year life of the project bond based on the proforma analysis of cash flows.

Table number 2 provides a general summary of a comparative analysis of total development costs for the university student housing models. This table divides the development costs into soft costs less

Table No. 1
Construction Development Cost Comparison of Kentucky Public University Student Housing Models

	AS&U Findings	Model #1A Unv. Hou.-Ex	Model #1B Unv. Hou.-New	Model #2A Priv. Exist	Model #2B Priv. New	Model #3A 622-Exist.	Model #3B 622-New	Baseline Comparison	Revised Baseline
Project Development Cost	$6,054,737	$7,902,349	$7,988,244	$8,104,584	$7,988,244	$7,302,723	$9,575,064	$8,580,810	$7,774,970
Facility Size (Sq. Ft.)	56,244	64,786	93,000	64,786	93,000	64,786	93,000	64,786	64,786
Residents per Facility	198	400	400	400	400	400	400	268	400
Development Cost/Sq. Ft.	DNA	$121.98	$85.90	$125.10	$85.90	$112.72	$102.96	$132.45	$120.01
Construction Cost/Sq. Ft.	$100.38	$82.36	$58.00	$82.36	$58.00	$82.36	$75.40	$97.74	$88.56
Sq. Ft./Resident	304	162	233	162	233	162	233	242	162
Cost/Resident-Bed	$28,966.00	$19,755.87	$19,970.61	$20,261.46	$19,970.61	$18,256.81	$23,937.66	$32,017.95	$19,437.43
Cost/Unit (Bedroom)	$30,579.48	$39,511.75	$79,882.44	$40,522.92	$79,882.44	$36,513.62	$95,750.64	$64,035.90	$38,874.85
Est.'ed Project Gain (Loss) @ 20 Yrs.	DNA	**($5,344,182)**	**$321,210**	**($5,696,471)**	**$321,210**	**($4,299,630)**	**($2,443,030)**	**($10,936,793)**	**($5,122,285)**

Model Scenarios

1). Model #1A: University-Created Housing Corporation for Existing Student Housing: Created by the university for the sole purpose of providing student housing. Corporation would purchase land and construct/develop student housing facilities. University would enter into a long-term lease agreement with the housing corporation for student housing.

2). Model #1B: University-Created Housing Corporation for New Student Housing: Similar to Model #1A, but for new student housing facilities.

3). Model #2A: Privatization of Existing University Housing: This model would allow a private housing development firm to lease existing university property/facilites through a ground-lease for the development of privatized student housing. University may participate in any profits generated by venture.

4). Model #2B: Privatization of New University Housing: In this model a private housing development firm would lease existing university property or purchase other private property and construct/develop student housing for university students. University may participate in any profits generated by venture.

5). Model #3A: Kentucky House Bill 622 Implementation for Existing Student Housing: In this model the university fully implements the capital construction section of KY H. B. 622 known as the University Management Bill. All capital construction projects would be administered by the University.

6). Model #3B: Kentucky House Bill 622 Implementation for New Student Housing: Similar to Model #3A, but for new student housing facilities.

7). Baseline Actual Bid Comparison of Kentucky Capital Project Construction: This item compares all other models to the actual June, 1996 project bid amount of $6,332,000.

8). Revised Baseline Comparison of Kentucky Capital Project Construction Revised to Project Scope: This item revises the actual project scope work requirements down to the approved project scope amount of $5,737,350 in an attempt to provide a true, uniform comparison for the project models.

Table No. 2
Comparative Analysis of Total Development Costs for University Student Housing Models

Model Description	Soft Costs Less Bond Issuance Costs	Bond Issuance Costs	Total Soft Costs	Total Construction Costs	Furniture, Fixtures, & Equipment Costs	Total Development Costs
Model 1A: University-Created Housing Corporation - Existing Housing	$783,326	$605,902	$1,389,228	$6,052,625	$460,497	$7,902,349
Model 1B: University-Created Housing Corporation - New Housing	$791,838	$612,490	$1,404,328	$6,118,414	$465,502	$7,988,244
Model 2A: Privatization of Existing Student Housing	$983,959	$605,902	$1,589,861	$6,054,226	$460,497	$8,104,584
Model 2B: Privatization of New Student Housing	$791,838	$612,490	$1,404,328	$6,118,414	$465,502	$7,988,244
Model 3A: Implementation of Kentucky House Bill 622 - Existing Housing	$330,440	$605,902	$936,342	$5,905,885	$460,497	$7,302,723
Model 3B: Implementation of Kentucky House Bill 622 - New Housing	$412,574	$796,234	$1,208,808	$7,761,103	$605,153	$9,575,064
Baseline Comparison of Actual Project Bid	$170,330	$718,999	$889,329	$7,145,029	$546,452	$8,580,810
Revised Baseline Project Adjusted to Approved Scope	$154,336	$651,475	$805,811	$6,474,026	$495,133	$7,774,970

Table No. 3

Rank Order Comparative Analysis of University Student Housing Models

Rank Order Based on Total Project Development Cost: All Models

Rank Order	Model Description	$ Cost
1	Model #3A: Kentucky Hse. Bill 622 - Existing	$7,302,723
2	Baseline Project Revised to Scope	$7,774,970
3	Model #1A: Univ.-Created Housing Corp. - Existing	$7,902,349
4 (Tie)	Model #2B: Privatization of New Housing	$7,988,244
4 (Tie)	Model #1B: Univ.-Created Housing Corp. - New	$7,988,244
5	Model #2A: Privatization of Existing Housing	$8,104,584
6	Baseline Actual Project Bid	$8,580,810
7	Model #3B: Kentucky Hse. Bill 622 - New	$9,575,064

Model Description

Model #1A	Univ.-Created Housing Corporation - Exist. Housing
Model #1B	Univ.-Created Housing Corporation - New Housing
Model #2A	Privatization of Existing Student Housing
Model #2B	Privatization of New Student Housing
Model #3A	Implementation of Kentucky H. B. 622 - Existing
Model #3B	Implementation of Kentucky House Bill 622 - New

Baseline Comparison of Actual Project Bid

Revised Baseline Comparison of Project Adjusted to Scope

Rank Order Based on Cost per Square Foot: All Models

Rank Order	Model Description	$ Cost/SF
1 (Tie)	Model #2B: Privatization of New Housing	$85.90
1 (Tie)	Model #1B: Univ.-Created Housing Corp. - New	$85.90
2	Model #3B: Kentucky House Bill 622 - New	$102.96
3	Model #3A: Kentucky House Bill 622 - Existing	$112.72
4	Baseline Project Revised to Scope	$120.01
5	Model #1A: Univ.-Created Housing Corp. - Existing	$121.98
6	Model #2A: Privatization of Existing Housing	$125.10
7	Baseline Actual Project Bid	$132.45

Note:

Each Model except the baseline assumes that the student occupancy of the facility will be 400 beds. The baseline comparison project bid reduced the occupancy load from 440 beds to 268 beds.

Rank Order Based on Cost per Resident/Bed: All Models

Rank Order	Model Description	$ Cost/Bed
1	Model #3A: Kentucky House Bill 622 - Existing	$18,256.81
2	Baseline Project Revised to Scope	$19,437.43
3	Model #1A: Univ.-Created Housing Corp. - Existing	$19,755.87
4 (Tie)	Model #2B: Privatization of New Housing	$19,970.61
4 (Tie)	Model #1B: Univ.-Created Housing Corp. - New	$19,970.61
5	Model #2A: Privatization of Existing Housing	$20,261.46
6	Model #3B: Kentucky House Bill 622 - New	$23,937.66
7	Baseline Actual Project Bid	$32,017.95

Rank Order Based on Net Gain (Loss) @ 20 Years: All Models

Rank Order	Model Description	Gain (Loss)
1 (Tie)	Model #2B: Privatization of New Housing	$321,210
1 (Tie)	Model #1B: Univ.-Created Housing Corp. - New	$321,210
2	Model #3B: Kentucky House Bill 622 - New	($2,443,030)
3	Model #3A: Kentucky House Bill 622 - Existing	($4,299,630)
4	Baseline Project Revised to Scope	($5,122,285)
5	Model #1A: Univ.-Created Housing Corp. - Existing	($5,344,182)
6	Model #2A: Privatization of Existing Housing	($5,696,471)
7	Baseline Actual Project Bid	($10,936,793)

Rank Order Based on Cost per Unit: All Models

Rank Order	Model Description	$ Cost/Unit
1	Model #3A: Kentucky House Bill 622 - Existing	$36,513.62
2	Baseline Project Revised to Scope	$38,874.85
3	Model #1A: Univ.-Created Housing Corp. - Existing	$39,511.75
4	Model #2A: Privatization of Existing Housing	$40,522.92
5	Baseline Actual Project Bid	$64,035.90
6 (Tie)	Model #2B: Privatization of New Housing	$79,882.44
6 (Tie)	Model #1B: Univ.-Created Housing Corp. - New	$79,882.44
7	Model #3B: Kentucky House Bill 622 - New	$95,750.64

Table No. 3

Rank Order Comparative Analysis of University Student Housing Models For the Renovation of Existing Facilities

Rank Order Based on Total Project Development Cost

Rank Order	Model Description	$ Cost
1	Model #3A: Kentucky Hse. Bill 622 - Existing	$7,302,723
2	Baseline Project Revised to Scope	$7,774,970
3	Model #1A: Univ.-Created Housing Corp. - Existing	$7,902,349
4	Model #2A: Privatization of Existing Housing	$8,104,584
5	Baseline Actual Project Bid	$8,580,810

Model Description

Model #1A	Univ.-Created Housing Corporation - Exist. Housing
Model #1B	Univ.-Created Housing Corporation - New Housing
Model #2A	Privatization of Existing Student Housing
Model #2B	Privatization of New Student Housing
Model #3A	Implementation of Kentucky H. B. 622 - Existing

Rank Order Based on Cost per Square Foot

Rank Order	Model Description	$ Cost/SF
1	Model #3A: Kentucky House Bill 622 - Existing	$112.72
2	Baseline Project Revised to Scope	$120.01
3	Model #1A: Univ.-Created Housing Corp. - Existing	$121.98
4	Model #2A: Privatization of Existing Housing	$125.10
5	Baseline Actual Project Bid	$132.45

Note:
Each Model except the baseline assumes that the student occupancy of the facility will be 400 beds. The baseline comparison project bid reduced the occupancy load from 440 beds to 268 beds.

Rank Order Based on Cost per Resident/Bed

Rank Order	Model Description	$ Cost/Bed
1	Model #3A: Kentucky House Bill 622 - Existing	$18,256.81
2	Baseline Project Revised to Scope	$19,437.43
3	Model #1A: Univ.-Created Housing Corp. - Existing	$19,755.87
4	Model #2A: Privatization of Existing Housing	$20,261.46
5	Baseline Actual Project Bid	$32,017.95

Rank Order Based on Net Gain (Loss) @ 20 Years

Rank Order	Model Description	Gain (Loss)
1	Model #3A: Kentucky House Bill 622 - Existing	($4,299,630)
2	Baseline Project Revised to Scope	($5,122,285)
3	Model #1A: Univ.-Created Housing Corp. - Existing	($5,344,182)
4	Model #2A: Privatization of Existing Housing	($5,696,471)
5	Baseline Actual Project Bid	($10,936,793)

Rank Order Based on Cost per Unit

Rank Order	Model Description	$ Cost/Unit
1	Model #3A: Kentucky House Bill 622 - Existing	$36,513.62
2	Baseline Project Revised to Scope	$38,874.85
3	Model #1A: Univ.-Created Housing Corp. - Existing	$39,511.75
4	Model #2A: Privatization of Existing Housing	$40,522.92
5	Baseline Actual Project Bid	$64,035.90

Table No. 3

Rank Order Comparative Analysis of University Student Housing Models for the Construction of New Facilities

Rank Order Based on Total Project Development Cost

Rank Order	Model Description	$ Cost
1 (Tie)	Model #2B: Privatization of New Housing	$7,988,244
1 (Tie)	Model #1B: Univ.-Created Housing Corp. - New	$7,988,244
2	Model #3B: Kentucky Hse. Bill 622 - New	$9,575,064

Rank Order Based on Cost per Square Foot

Rank Order	Model Description	$ Cost/SF
1 (Tie)	Model #2B: Privatization of New Housing	$85.90
1 (Tie)	Model #1B: Univ.-Created Housing Corp. - New	$85.90
2	Model #3B: Kentucky House Bill 622 - New	$102.96

Rank Order Based on Cost per Resident/Bed

Rank Order	Model Description	$ Cost/Bed
1 (Tie)	Model #2B: Privatization of New Housing	$19,970.61
1 (Tie)	Model #1B: Univ.-Created Housing Corp. - New	$19,970.61
2	Model #3B: Kentucky House Bill 622 - New	$23,937.66

Rank Order Based on Cost per Unit

Rank Order	Model Description	$ Cost/Unit
1 (Tie)	Model #2B: Privatization of New Housing	$79,882.44
1 (Tie)	Model #1B: Univ.-Created Housing Corp. - New	$79,882.44
2	Model #3B: Kentucky House Bill 622 - New	$95,750.64

Model Description

Model #1A	Univ.-Created Housing Corporation - Exist. Housing
Model #1B	Univ.-Created Housing Corporation - New Housing
Model #2A	Privatization of Existing Student Housing
Model #2B	Privatization of New Student Housing
Model #3A	Implementation of Kentucky H. B. 622 - Existing
Model #3B	Implementation of Kentucky House Bill 622 - New

Baseline Comparison of Actual Project Bid

Revised Baseline Comparison of Project Adjusted to Scope

Note:

Each Model except the baseline assumes that the student occupancy of the facility will be 400 beds. The baseline comparison project bid reduced the occupancy load from 440 beds to 288 beds.

Rank Order Based on Net Gain (Loss) @ 20 Years

Rank Order	Model Description	Gain (Loss)
1 (Tie)	Model #2B: Privatization of New Housing	$321,210
1 (Tie)	Model #1B: Univ.-Created Housing Corp. - New	$321,210
2	Model #3B: Kentucky House Bill 622 - New	($2,443,030)

the bond issuance costs, lists the estimated bond issuance costs, total soft costs, total construction costs, the costs for required furniture, fixtures, and equipment for the project, as well as the total development costs. Table number 3 provides a rank order comparative analysis of university student housing models. The table identifies the rank order listings of each model according to total project development costs, cost of development per square foot, cost of development per resident or bed, cost of development per unit or bedroom, and projected net gains (or losses) at the conclusion of the 20-year project term.

Model #1A: University-Created Housing Corporation for Existing Student Housing Facilities

General Information

In this model the University would typically create a housing corporation for the sole purpose of providing student housing. The University would typically enter into a long-term lease/purchase agreement with the housing corporation. The housing corporation would renovate the existing student housing facility and in turn the

University would ideally commit to provide student occupants for the student housing venture. As surety the University would seek to guarantee to maintain the student occupancy level at a predetermined percentage of full occupancy (typically 100 percent). The housing corporation would submit this commitment to their lending institution as surety for the service of the debt/mortgage payments. However, in the Commonwealth of Kentucky such university commitment of students to the housing corporation is synonymous with a pledge of revenue to the housing corporation. As a result, legally the university must seek and obtain approval from the central state government prior to such commitment for debt service payments or guaranteed housing corporation revenue.

Budget Development

The budget development estimate (Table No. 4) for this model assumes 200 double-occupancy units housing approximately 400 students at full occupancy. In every model comparison, every attempt was made to provide an identical, uniform comparison to the actual base bid project identified as the baseline comparison. The baseline

Table No. 4 - Model 1A: University-Created Housing Corporation - Existing Student Housing

BUDGET DEVELOPMENT Project Bid Amount: $5,336,000

Total Number of Units: 200 Number of Beds: 400 Total Square Footage: 64,786

	Est. Amount	Per Unit	Per Bed	Per Sq. Ft.
SOFT COSTS:				
Development Fee	393,263	1,966.32	983.16	6.07
Trustee and Trustee Council	10,138	50.69	25.35	0.16
Bond Issuance Costs				
Underwriting Fee	98,182	490.91	245.46	1.52
Rating Agency Fee	10,138	50.69	25.35	0.16
Issuer Counsel/Financial Advisor	19,743	98.72	49.36	0.30
Underwriter Counsel	29,882	149.41	74.70	0.46
Printing Miscellaneous	19,743	98.72	49.36	0.30
Bond Insurance	137,669	688.34	344.17	2.12
Funding via Surety Bond	31,482	157.41	78.71	0.49
Net Capitalized Interest	257,729	1,288.64	644.32	3.98
OFMEA	1,334	6.67	3.34	0.02
Title/Closing	59,230	296.15	148.07	0.91
Accounting/Audit	4,802	24.01	12.01	0.07
Legal Fee	117,926	589.63	294.81	1.82
Feasibility Study	10,138	50.69	25.35	0.16
Marketing	59,230	296.15	148.07	0.91
Initial Operations	29,882	149.41	74.70	0.46
Soft Cost Contingency	98,716	493.58	246.79	1.52
TOTAL SOFT COST:	1,389,228	6,946.14	3,473.07	21.44
CONSTRUCTION COSTS:				
General Contractor Contract	5,336,000	26,680.00	13,340.00	82.36
Landscaping/Outside Amenities	123,795	618.98	309.49	1.91
Signage	16,008	80.04	40.02	0.25
Construction Management	120,594	602.97	301.48	1.86
Architect & Engineering	133,400	667.00	333.50	2.06
Consultants	23,478	117.39	58.70	0.36
Professional Reimbursables	39,486	197.43	98.72	0.61
Lender & University Inspections	17,609	88.04	44.02	0.27
Survey/Testing/Soils/Permit Fees	61,364	306.82	153.41	0.95
Contingency	180,890	904.45	452.23	2.79
TOTAL CONSTRUCTION COST:	6,052,625	30,263.12	15,131.56	93.42
DEVELOPMENT COST	7,441,852	37,209.26	18,604.63	114.87
Furniture, Fixtures, & Equipment	460,497	2,302.48	1,151.24	7.11
TOTAL DEVELOPMENT COST	**7,902,349**	**39,511.75**	**19,755.87**	**121.98**

Table No. 5

Model # 1A: University-Created Housing Corporation - Existing Student Housing

Construction Development Cost Comparison of Model 1A to National Research Averages

	AS&U Findiings	Model #1A Housing Corp.	Net Change	Percent (%) Change
Project Cost	$6,054,737.00	$7,902,349.00	($1,847,612.00)	-30.52%
Size (Sq. Ft.)	56,244	64,786	(8,542)	-15.19%
Residents	198	400	-202	-102.02%
Cost/Sq. Ft.	$100.38	$121.98	($21.60)	-21.51%
Sq. Ft./Resident	304	162	142	46.72%
Cost/Resident-Bed	$28,966.00	$19,755.87	$9,210.13	31.80%
Cost/Unit	$30,579.48	$39,511.75	($8,932.27)	-29.21%

Construction Development Cost Comparison of Model 1A to the Actual Baseline Bid

	Baseline Comparison	Model #1A Housing Corp.	Net Change	Percent (%) Change
Project Cost	$8,580,810.00	$7,902,349.00	$678,461.00	7.91%
Size (Sq. Ft.)	64,786	64,786	0	0.00%
Residents	268	400	-132	-49.25%
Cost/Sq. Ft.	$132.45	$121.98	$10.47	7.91%
Sq. Ft./Resident	242	162	80	33.07%
Cost/Resident-Bed	$32,017.95	$19,755.87	$12,262.08	38.30%
Cost/Unit	$64,035.90	$39,511.75	$24,524.16	38.30%

actual bid completely renovated the existing student housing facility into suites or apartments. As a comparison, the revised baseline project only provides a general "facelift" renovation of the current double-loaded corridors and gang showers/toilets while providing necessary roof repairs and adding an air-conditioning system for the 40-year old student housing facility. Model 1A also provides for the renovation of existing student housing facilities located on the campus of the public university.

In the case of the model 1A project comparison for the existing student housing facilities, the University-Created Housing Corporation does not appear to be a viable option. The Commonwealth of Kentucky is the owner of the property and it may be difficult to legally have the property conveyed to the housing corporation (whether the housing corporation is affiliated or non-affiliated with the university). Although this appears to be a viable option for future development of off-campus student housing property, the current ownership of the baseline comparison property may present a legal challenge for the full, effective implementation of the model for the renovation of

existing facilities.

From a financial perspective when compared to other models (see Tables No. 3 and No. 5), model 1A is $678,461 (or 7.91 percent) less than the baseline actual bid for the project. It is estimated that the total project development for this model would be $7,902,349. This model is ranked third in five possible scenarios in terms of total project development costs, third in terms of the cost per square foot, third in terms of cost per resident/bed, and third in terms of cost per unit. It is ranked third in terms of net loss at 20 years. Compared to the national research averages compiled by AS&U (see Table No. 5), the total project development cost for this model is $1,847,612 (or 30.52 percent) higher than the mean project costs, $8,932.27 (or 29.21 percent) higher than the mean cost per unit, but $9,210.13 (or 31.80 percent) lower than the mean cost per resident/bed. The total model development costs of $7,902,349 are comprised of the following budget divisions (see Table No. 2):

Soft Costs less Bond Issuance Costs	$ 783,326
Bond Issuance Costs	$ 605,902

Total Soft Costs	$1,389,228
Total Construction Costs	$6,052,625
Furniture, Fixtures & Equipment	$ 460,497
Total Development Costs	$7,902,349

The budget development for all models makes the assumption that certain costs will be incurred by any entity developing the project. This particular model assumes that the model 1A university-created housing corporation would be paid a five (5) percent development fee. This fee is based on five (5) percent of the total estimated budget development cost and would basically be the profit above and beyond operating expenses. The development fee for this model is estimated to be $393,263. There are also other "soft costs" such as legal fees, accounting fees, bond issuance costs, costs for initial operations of the facility such as mobilization, etc. Each model also includes construction costs which would comprise the general contractor's bid price, landscaping and exterior amenities, construction related professional services such as construction management, architectural and engineering services, consultants, etc. In addition to the soft costs

and the construction costs, each model also includes an estimated cost for furniture, fixtures and equipment to be utilized within the facility. Such estimate would include items such as bedroom furniture, lounge/commons area furniture, kitchen equipment, etc. Each model budget development estimate also includes appropriate contingency amounts for the soft costs as well as the construction costs.

Proforma Analysis of Cash Flows

All models include a proforma analysis of cash flows. The purpose of this analysis (see Table No. 6) is to determine the affordability of the project based on estimated revenues (cash in-flows) versus such cash out-flows as operating expenses, debt service payments, and annual recommended repair and replacement reserve amounts. In an effort to make realistic projections, each revenue source and expenditure is estimated to grow at an annual rate of three (3) percent . This also assumes that the debt service payments on the bond will remain constant throughout the term of the indebtedness. In reality the annual bond payments will typically fluctuate from year to year depending on the account balance, current rate of interest/cost

Table No. 6 - Model 1A: University-Created Housing Corporation Comparison - Existing Student Housing

Proforma Analysis of Cash Flows

Project Bid Amount: $5,336,000 Term: 20 Years Revenue Growth Estimated at 3% per year

Project Development Cost: $7,902,349

Academic Year Occupancy @ 95% Summer Term Occupancy @ 50% Annualized Occupancy @ 83.75%

Unit Type: Double Occupancy Rooms Student Residents Per Room: 2 Number of Units: 200 Number of Beds: 400

Total Square Footage: 64,786

	Year 1 1998-99	Year 2 1999-2000	Year 3 2000-01	Year 4 2001-02	Year 5 2002-03	Year 6 2003-04	Year 7 2004-05
REVENUES							
Fall Semester	308,000	317,240	326,757	336,560	346,657	357,056	367,768
Spring Semester	308,000	317,240	326,757	336,560	346,657	357,056	367,768
Gross Potential Rent	616,000	634,480	653,514	673,120	693,313	714,113	735,536
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	100,100	103,103	106,196	109,382	112,663	116,043	119,525
Rental Revenue	515,900	531,377	547,318	563,738	580,650	598,069	616,012
Less: Operating Expenses	184,000	189,520	195,206	201,062	207,094	213,306	219,706
Utilities							
Maintenance							
Telephone							
Staff							
Cash Flow before Debt Service	331,900	341,857	352,113	362,676	373,556	384,763	396,306
Estimated Debt Service	688,295	688,295	688,295	688,295	688,295	688,295	688,295
Cash Flow after Debt Service	(356,395)	(346,438)	(336,182)	(325,619)	(314,738)	(303,532)	(291,989)
DEBT COVERAGE RATIO	0.4822	0.4967	0.5116	0.5269	0.5427	0.5590	0.5758
Cash Flow Restated	(356,395)	(346,438)	(336,182)	(325,619)	(314,738)	(303,532)	(291,989)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	18,480	19,034	19,605	20,194	20,799	21,423	22,066
Net Cash Flow	(374,875)	(365,472)	(355,787)	(345,812)	(335,538)	(324,955)	(314,055)

Table No. 6 - Model 1A: University-Created Housing Corporation Comparison - Existing Student Housing
Page 2 of 3

	Year 8 2005-06	Year 9 2006-07	Year 10 2007-08	Year 11 2008-09	Year 12 2009-10	Year 13 2010-11	Year 14 2011-12	Year 15 2012-13
REVENUES								
Fall Semester	378,801	390,165	401,870	413,926	426,344	439,134	452,308	465,878
Spring Semester	378,801	390,165	401,870	413,926	426,344	439,134	452,308	465,878
Gross Potential Rent	757,602	780,330	803,740	827,852	852,688	878,269	904,617	931,755
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	123,110	126,804	130,608	134,526	138,562	142,719	147,000	151,410
Rental Revenue	634,492	653,527	673,132	693,326	714,126	735,550	757,617	780,345
Less: Operating Expenses	226,297	233,086	240,078	247,281	254,699	262,340	270,210	278,317
Utilities								
Maintenance								
Telephone								
Staff								
Cash Flow before Debt Service	408,195	420,441	433,054	446,046	459,427	473,210	487,406	502,029
Estimated Debt Service	688,295	688,295	688,295	688,295	688,295	688,295	688,295	688,295
Cash Flow after Debt Service	(280,099)	(267,854)	(255,240)	(242,249)	(228,867)	(215,085)	(200,888)	(186,266)
DEBT COVERAGE RATIO	0.5931	0.6108	0.6292	0.6480	0.6675	0.6875	0.7081	0.7294
Cash Flow Restated	(280,099)	(267,854)	(255,240)	(242,249)	(228,867)	(215,085)	(200,888)	(186,266)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	22,728	23,410	24,112	24,836	25,581	26,348	27,139	27,953
Net Cash Flow	(302,828)	(291,264)	(279,353)	(267,084)	(254,448)	(241,433)	(228,027)	(214,219)

Table No. 6 - Model 1A: University-Created Housing Corporation Comparison - Existing Student Housing

	Year 16 2013-14	Year 17 2014-15	Year 18 2015-16	Year 19 2016-17	Year 20 2017-18
REVENUES					
Fall Semester	479,854	494,250	509,077	524,349	540,080
Spring Semester	479,854	494,250	509,077	524,349	540,080
Gross Potential Rent	959,708	988,499	1,018,154	1,048,699	1,080,160
Less Annualized Vacancy					
@ 16.25% (includes Summer Terms)	155,953	160,631	165,450	170,414	175,526
Rental Revenue	803,755	827,868	852,704	878,285	904,634
Less: Operating Expenses	286,666	295,266	304,124	313,248	322,645
Utilities					
Maintenance					
Telephone					
Staff					
Cash Flow before Debt Service	517,089	532,602	548,580	565,038	581,989
Estimated Debt Service	688,295	688,295	688,295	688,295	688,295
Cash Flow after Debt Service	(171,205)	(155,693)	(139,714)	(123,257)	(106,306)
DEBT COVERAGE RATIO	0.7513	0.7738	0.7970	0.8209	0.8456
Cash Flow Restated	(171,205)	(155,693)	(139,714)	(123,257)	(106,306)
Recommended Annual Repair					
and Replacement Reserve					
@ 3% of Gross Potential Revenue	28,791	29,655	30,545	31,461	32,405
Net Cash Flow	(199,996)	(185,348)	(170,259)	(154,718)	(138,711)

of capital, etc. For estimating purposes the proforma analysis of cash flows typically assumes a constant payment amount which is based on the highest estimated bond payment amount per year.

The student housing industry estimates that student housing occupancy rates will typically be approximately 95 percent during the Fall and Spring semesters and typically approximately 50 percent during the summer terms. This equates to an annualized occupancy rate of 83.75 percent. In the case of the university-created housing corporation model comparison, the earliest date that the facility could be occupied would be fiscal year 1998-99. The projected double room bed rental rate for that fiscal year is $770 per bed per semester (or $308,000 per semester at 100 percent occupancy). The adjusted annualized vacancy rate of 16.25 percent (-$100,100) applied to the gross potential annual revenue of $616,000 yields a net annual rental revenue of $515,900. Annual operating expenditures for the facility (i.e. staffing, utilities, maintenance, telephone, etc.) are estimated to cost $184,000 the first year and are adjusted at an annual growth rate of three (3) percent.

Most financial lending institutions typically require that a project receiving loan proceeds have a debt coverage ratio of 1.25 to 1.30 before the project is considered to be financially secure or low risk. This ratio is calculated by dividing the cash flow before debt service by the estimated debt service/bond payment. In the case of this model, the debt coverage ratio for fiscal year 1998-99 (year one in the project proforma analysis) is 0.4822 and only improves to 0.8456 over the next 20 years (FY 2017-18). This does not even take into consideration the recommended annual repair and replacement reserve account that is calculated at three (3) percent of the gross potential revenues. Based on this proforma analysis of cash flows, assuming that this project (model 1A) must generate appropriate revenues to cover operational and debt service expenditures, the university-created housing corporation renovation project for existing student housing facilities would not be cost effective. Assuming that a deficit situation would be allowed, based on this proforma analysis of cash flows for the university-created housing corporation model 1A, the project would lose an estimated amount of ($5,344,182) over the 20-year term of the

project indebtedness. Realistically the term for such a project would more than likely be 30 to 40 years; therefore, the estimated loss over a 20-year term may be somewhat conservative.

Model #1B: University-Created Housing Corporation for New Student Housing Facilities

General Information

In this model the University would typically create a housing corporation for the sole purpose of providing student housing. The housing corporation would be established to purchase land or utilize existing university land to develop/construct new student housing facilities. The University would typically enter into a long-term lease/purchase agreement with the housing corporation. The University would ideally commit to provide student occupants for the student housing venture. As surety the University would seek to guarantee to maintain the student occupancy level at a predetermined percentage of full occupancy (typically 100 percent). The housing corporation would submit this commitment to their lending institution as surety for the service of the debt/mortgage payments. However,

like model 1A, the legal issues involved in such a transaction may preclude the university from making any such financial commitment without legislative approval.

Budget Development

The budget development estimate (Table No. 7) for this model assumes construction of 100 single-occupancy units/suites housing approximately 400 students in 93,000 square feet at full occupancy. In every model comparison, every attempt was made to provide an identical, uniform comparison to the actual base bid project identified as the baseline comparison. The baseline actual bid completely renovated the existing student housing facility into suites or apartments. As a comparison, the revised baseline project only provides a general "facelift" renovation of the current double-loaded corridors and gang showers/toilets while providing necessary roof repairs and adding an air-conditioning system for the 40-year old student housing facility. Model 1B provides for new student housing facilities.

In the case of the model 1B project comparison for new student

housing facilities, the University-Created Housing Corporation does not appear to be a viable option. The Commonwealth of Kentucky would be the owner of any on-campus property and it may be difficult to legally have the property conveyed to the housing corporation (whether the housing corporation is affiliated or non-affiliated with the university). Although this appears to be a viable option for future development of off-campus student housing property, the ownership of any on-campus public university property may present a legal challenge for the full, effective implementation of the model for the construction of new student housing facilities by the university-created housing corporation.

From a financial perspective when compared to other models (see Tables No. 3 and No. 8), model 1B is $592,566 (or 6.91 percent) less than the baseline actual bid for the project. It is estimated that the total project development for this model would be $7,988,244. This model rank is tied for first place in three possible scenarios in terms of total project development costs, tied for first place in terms of the cost per square foot, tied for first place in terms of cost per

Table No. 7 - Model 1B: University-Created Housing Corporation - New Student Housing

BUDGET DEVELOPMENT Project Bid Amount: $5,394,000

Total Number of Units: 100 Number of Beds: 400 Total Square Footage: 93,000

	Est. Amount	Per Unit	Per Bed	Per Sq. Ft.
SOFT COSTS:				
Development Fee	397,538	3,975.38	993.84	4.27
Trustee and Trustee Council	10,249	102.49	25.62	0.11
Bond Issuance Costs				
Underwriting Fee	99,250	992.50	248.12	1.07
Rating Agency Fee	10,249	102.49	25.62	0.11
Issuer Counsel/Financial Advisor	19,958	199.58	49.89	0.21
Underwriter Counsel	30,206	302.06	75.52	0.32
Printing Miscellaneous	19,958	199.58	49.89	0.21
Bond Insurance	139,165	1,391.65	347.91	1.50
Funding via Surety Bond	31,825	318.25	79.56	0.34
Net Capitalized Interest	260,530	2,605.30	651.33	2.80
OFMEA	1,349	13.49	3.37	0.01
Title/Closing	59,873	598.73	149.68	0.64
Accounting/Audit	4,855	48.55	12.14	0.05
Legal Fee	119,207	1,192.07	298.02	1.28
Feasibility Study	10,249	102.49	25.62	0.11
Marketing	59,873	598.73	149.68	0.64
Initial Operations	30,206	302.06	75.52	0.32
Soft Cost Contingency	99,789	997.89	249.47	1.07
TOTAL SOFT COST:	1,404,328	14,043.28	3,510.82	15.10
CONSTRUCTION COSTS:				
General Contractor Contract	5,394,000	53,940.00	13,485.00	58.00
Landscaping/Outside Amenities	125,141	1,251.41	312.85	1.35
Signage	16,182	161.82	40.46	0.17
Construction Management	121,904	1,219.04	304.76	1.31
Architect & Engineering	134,850	1,348.50	337.13	1.45
Consultants	23,734	237.34	59.33	0.26
Professional Reimbursables	39,916	399.16	99.79	0.43
Lender & University Inspections	17,800	178.00	44.50	0.19
Survey/Testing/Soils/Permit Fees	62,031	620.31	155.08	0.67
Contingency	182,857	1,828.57	457.14	1.97
TOTAL CONSTRUCTION COST:	6,118,414	61,184.14	15,296.04	65.79
DEVELOPMENT COST	7,522,742	75,227.42	18,806.86	80.89
Furniture, Fixtures, & Equipment	465,502	4,655.02	1,163.76	5.01
TOTAL DEVELOPMENT COST	**7,988,244**	**79,882.44**	**19,970.61**	**85.90**

Table No. 8

Model # 1B: University-Created Housing Corporation - New Student Housing

Construction Development Cost Comparison of Model 1B to National Research Averages

	AS&U Findiings	Model #1B Housing Corp.	Net Change	Percent (%) Change
Project Cost	$6,054,737.00	$7,988,244.00	($1,933,507.00)	-31.93%
Size (Sq. Ft.)	56,244	93,000	(36,756)	-65.35%
Residents	198	400	-202	-102.02%
Cost/Sq. Ft.	$100.38	$85.90	$14.48	14.43%
Sq. Ft./Resident	304	233	72	23.52%
Cost/Resident-Bed	$28,966.00	$19,970.61	$8,995.39	31.05%
Cost/Unit	$30,579.48	$79,882.44	($49,302.96)	-161.23%

Construction Development Cost Comparison of Model 1B to the Actual Baseline Bid

	Baseline Comparison	Model #1B Housing Corp.	Net Change	Percent (%) Change
Project Cost	$8,580,810.00	$7,988,244.00	$592,566.00	6.91%
Size (Sq. Ft.)	64,786	93,000	(28,214)	-43.55%
Residents	268	400	-132	-49.25%
Cost/Sq. Ft.	$132.45	$85.90	$46.55	35.15%
Sq. Ft./Resident	242	233	10	3.93%
Cost/Resident-Bed	$32,017.95	$19,970.61	$12,047.34	37.63%
Cost/Unit	$64,035.90	$79,882.44	($15,846.54)	-24.75%

resident/bed, and tied for first place in terms of cost per unit. It is also tied for first place in terms of net gain at 20 years. Compared to the national research averages compiled by AS&U (see Table No. 8), the total project development cost for this model is $1,933,507 (or 31.93 percent) higher than the mean project costs, $9,361.74 (or 30.61 percent) higher than the mean cost per unit, but $8,995.39 (or 31.05 percent) lower than the mean cost per resident/bed. The total model development costs of $7,988,244 are comprised of the following budget divisions (see Table No. 2):

Soft Costs less Bond Issuance Costs	$ 791,838	
Bond Issuance Costs	$ 612,490	
Total Soft Costs		$1,404,328
Total Construction Costs		$6,118,414
Furniture, Fixtures & Equipment		$ 465,502
Total Development Costs		$7,988,244

The budget development for all models makes the assumption that certain costs will be incurred by any entity developing the project. This particular model assumes that the model 1B university-created

housing corporation would be paid a five (5) percent development fee. This fee is based on five (5) percent of the total estimated budget development cost and would basically be the profit above and beyond operating expenses. The development fee for this model is estimated to be $397,538. There are also other "soft costs" such as legal fees, accounting fees, bond issuance costs, costs for initial operations of the facility such as mobilization, etc. Each model also includes construction costs which would comprise the general contractor's bid price, landscaping and exterior amenities, construction related professional services such as construction management, architectural and engineering services, consultants, etc. In addition to the soft costs and the construction costs, each model also includes an estimated cost for furniture, fixtures and equipment to be utilized within the facility. Such estimate would include items such as bedroom furniture, lounge/commons area furniture, kitchen equipment, etc. Each model budget development estimate also includes appropriate contingency amounts for the soft costs as well as the construction costs.

Proforma Analysis of Cash Flows

All models include a proforma analysis of cash flows. The purpose of this analysis (see Table No. 9) is to determine the affordability of the project based on estimated revenues (cash in-flows) versus such cash out-flows as operating expenses, debt service payments, and annual recommended repair and replacement reserve amounts. In an effort to make realistic projections, each revenue source and expenditure is estimated to grow at an annual rate of three (3) percent . This also assumes that the debt service payments on the bond will remain constant throughout the term of the indebtedness. In reality the annual bond payments will typically fluctuate from year to year depending on the account balance, current rate of interest/cost of capital, etc. For estimating purposes the proforma analysis of cash flows typically assumes a constant payment amount which is based on the highest estimated bond payment amount per year.

The student housing industry estimates that student housing occupancy rates will typically be approximately 95 percent during the Fall and Spring semesters and typically approximately 50 percent

Table No. 9 - Model 1B: University-Created Housing Corporation Comparison - New Student Housing

Proforma Analysis of Cash Flows

Project Bid Amount: $5,394,000 Term: 20 Years Revenue Growth Estimated at 3% per year

Project Development Cost: $7,988,244

Academic Year Occupancy @ 95% Summer Term Occupancy @ 50% Annualized Occupancy @ 83.75%

Unit Type: Single Occupancy Rooms/Suite Student Residents Per Room: 1 Number of Units: 100 Number of Beds: 400

Total Square Footage: 93,000

	Year 1 1998-99	Year 2 1999-2000	Year 3 2000-01	Year 4 2001-02	Year 5 2002-03	Year 6 2003-04	Year 7 2004-05
REVENUES							
Fall Semester	442,000	455,260	468,918	482,985	497,475	512,399	527,771
Spring Semester	442,000	455,260	468,918	482,985	497,475	512,399	527,771
Gross Potential Rent	884,000	910,520	937,836	965,971	994,950	1,024,798	1,055,542
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	143,650	147,960	152,398	156,970	161,679	166,530	171,526
Rental Revenue	740,350	762,561	785,437	809,000	833,270	858,269	884,017
Less: Operating Expenses	184,000	189,520	195,206	201,062	207,094	213,306	219,706
Utilities							
Maintenance							
Telephone							
Staff							
Cash Flow before Debt Service	556,350	573,041	590,232	607,939	626,177	644,962	664,311
Estimated Debt Service	695,776	695,776	695,776	695,776	695,776	695,776	695,776
Cash Flow after Debt Service	(139,426)	(122,736)	(105,544)	(87,837)	(69,599)	(50,814)	(31,465)
DEBT COVERAGE RATIO	0.7996	0.8236	0.8483	0.8738	0.9000	0.9270	0.9548
Cash Flow Restated	(139,426)	(122,736)	(105,544)	(87,837)	(69,599)	(50,814)	(31,465)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	26,520	27,316	28,135	28,979	29,848	30,744	31,666
Net Cash Flow	(165,946)	(150,051)	(133,679)	(116,817)	(99,448)	(81,558)	(63,131)

Table No. 9 - Model 1B: University-Created Housing Corporation Comparison - New Student Housing
Page 2 of 3

	Year 8 2005-06	Year 9 2006-07	Year 10 2007-08	Year 11 2008-09	Year 12 2009-10	Year 13 2010-11	Year 14 2011-12	Year 15 2012-13
REVENUES								
Fall Semester	543,604	559,912	576,710	594,011	611,831	630,186	649,092	668,565
Spring Semester	543,604	559,912	576,710	594,011	611,831	630,186	649,092	668,565
Gross Potential Rent	1,087,208	1,119,825	1,153,419	1,188,022	1,223,663	1,260,373	1,298,184	1,337,129
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	176,671	181,972	187,431	193,054	198,845	204,811	210,955	217,284
Rental Revenue	910,537	937,853	965,989	994,968	1,024,818	1,055,562	1,087,229	1,119,846
Less: Operating Expenses	226,297	233,086	240,078	247,281	254,699	262,340	270,210	278,317
Utilities								
Maintenance								
Telephone								
Staff								
Cash Flow before Debt Service	684,240	704,768	725,911	747,688	770,119	793,222	817,019	841,529
Estimated Debt Service	695,776	695,776	695,776	695,776	695,776	695,776	695,776	695,776
Cash Flow after Debt Service	(11,536)	8,991	30,135	51,912	74,342	97,446	121,243	145,753
DEBT COVERAGE RATIO	0.9834	1.0129	1.0433	1.0746	1.1068	1.1401	1.1743	1.2095
Cash Flow Restated	(11,536)	8,991	30,135	51,912	74,342	97,446	121,243	145,753
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	32,616	33,595	34,603	35,641	36,710	37,811	38,946	40,114
Net Cash Flow	(44,152)	(24,603)	(4,468)	16,271	37,633	59,635	82,297	105,639

Table No. 9 - Model 1B: University-Created Housing Corporation Comparison - New Student Housing
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	Year 16 2013-14	Year 17 2014-15	Year 18 2015-16	Year 19 2016-17	Year 20 2017-18
REVENUES					
Fall Semester	688,622	709,280	730,559	752,475	775,050
Spring Semester	688,622	709,280	730,559	752,475	775,050
Gross Potential Rent	1,377,243	1,418,560	1,461,117	1,504,951	1,550,099
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	223,802	230,516	237,432	244,555	251,891
Rental Revenue	1,153,441	1,188,044	1,223,686	1,260,396	1,298,208
Less: Operating Expenses	286,666	295,266	304,124	313,248	322,645
Utilities					
Maintenance					
Telephone					
Staff					
Cash Flow before Debt Service	866,775	892,778	919,562	947,149	975,563
Estimated Debt Service	695,776	695,776	695,776	695,776	695,776
Cash Flow after Debt Service	170,999	197,002	223,786	251,373	279,787
DEBT COVERAGE RATIO	1.2458	1.2831	1.3216	1.3613	1.4021
Cash Flow Restated	170,999	197,002	223,786	251,373	279,787
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	41,317	42,557	43,834	45,149	46,503
Net Cash Flow	129,682	154,446	179,952	206,224	233,284

during the summer terms. This equates to an annualized occupancy rate of 83.75 percent. In the case of the university-created housing corporation model comparison, the earliest date that the facility could be occupied would be fiscal year 1998-99. The projected single room bed rental rate for that fiscal year is $1,105 per bed per semester (or $442,000 per semester at 100 percent occupancy). The adjusted annualized vacancy rate of 16.25 percent (-$143,650) applied to the gross potential annual revenue of $884,000 yields a net annual rental revenue of $740,350. Annual operating expenditures for the facility (i.e. staffing, utilities, maintenance, telephone, etc.) are estimated to cost $184,000 the first year and are adjusted at an annual growth rate of three (3) percent .

Most financial lending institutions typically require that a project receiving loan proceeds have a debt coverage ratio of 1.25 to 1.30 before the project is considered to be financially secure or low risk. This ratio is calculated by dividing the cash flow before debt service by the estimated debt service/bond payment. In the case of this model, the debt coverage ratio for fiscal year 1998-99 (year one in the project

proforma analysis) is 0.7996 and improves to 1.4021 over the next 20 years (FY 2017-18). This does not even take into consideration the recommended annual repair and replacement reserve account that is calculated at three (3) percent of the gross potential revenues. Based on this proforma analysis of cash flows, assuming that this project (model 1B) must generate appropriate revenues to cover operational and debt service expenditures, the university-created housing corporation project for the construction of new student housing facilities ties the privatization of new student housing facilities as the most economical financial performer. Based on this proforma analysis of cash flows for the university-created housing corporation model 1B, the project would earn an estimated amount of $321,210 over the 20-year term of the project indebtedness. Realistically the term for such a project would more than likely be 30 to 40 years; therefore, the estimated gain over a 20-year term may be somewhat understated.

Model #2A: Privatization of Existing University Property and Housing By a Private Development Firm

General Information

This model would allow a private housing development firm to lease existing university property or facilities through the mechanism of a "ground lease" for the development of privatized student housing. Due to typical zoning ordinances, the private firm would not necessarily purchase the existing facility from the university. The public university would enjoy certain exemptions from zoning ordinances that could be passed on to the lessee. In the case of the privatization of existing university property model, should the university wish to sell the property, the university would be required to publicly declare the property as surplus and receive formal approval for the sale. Although the university would not typically seek to sell the property, the declaration of surplus property and subsequent sale of the property may result in the university losing valuable control of the property. This would certainly not be a viable option in the case of the model 2A - privatization of existing university property project.

The ground lease is however a viable option that is utilized throughout the nation for similar privatization transactions. Typically the private development firm could renovate the existing property and/or facilities as needed and the university would often receive much needed cash in-flows from the private firm for the long-term lease of the property. The private firm would provide for the proper housing of the university students and the university would assume little or no financial risk while having their facilities renovated without costs to the university. The university could purchase the property at any time during the fiscal year at a predetermined price, often below the appraised fair-market value. At the conclusion of the lease period, the university can renew the lease or full ownership of the property reverts back to the university.

Although this appears to be a viable option for future development of new on-campus or off-campus student housing property, the privatized development of the existing baseline comparison project property may present a legal challenge for the full, effective implementation of the model and has the potential to be

excessively expensive when compared to other models.

Representatives of three major privatization student housing firms visited the study campus to discuss the university's housing needs and to review the baseline project facility. All indicated a willingness to work with the university; however, all three firms have stated that the privatization of the existing student housing project (model 2A and the study baseline comparison) would not be a viable option financially for the university or the housing development firm. Each firm indicated that the university would be better off to invest their housing construction funds into new student housing facilities rather than renovate existing student housing facilities. The primary reason for this recommendation by the housing development firms is that it is estimated that the privatization of existing student housing would incur development costs of $125.10 per square foot while the privatization of new student housing facilities would incur development costs of only $85.90 per square foot. Likewise the construction costs for the privatization of existing facilities are estimated to cost $82.36 per square foot compared to $58.00 per

square foot for the construction of new privatized facilities.

Budget Development

The budget development estimate (Table No. 10) for this model assumes 200 double-occupancy units housing approximately 400 students at full occupancy. The model provides a general "facelift" renovation of the current double-loaded corridors and gang showers/toilets while providing necessary roof repairs and adding an air-conditioning system.

From a financial perspective when compared to other models (see Tables No. 3 and No. 11), model 2A is $476,226 (or 5.55 percent) less than the baseline actual bid for the project. It is estimated that the total project development for this model would be $8,104,584. This model is ranked fourth in five possible scenarios in terms of total project development costs, fourth in terms of the cost per square foot, fourth in terms of cost per resident/bed, and fourth in terms of cost per unit. It is also ranked fourth in terms of net loss at the conclusion of the 20-year bond period. Compared to the national research averages compiled by AS&U (see Table No. 11), the total project

Table No. 10 - Model 2A: Privatization of Existing Student Housing

BUDGET DEVELOPMENT Project Bid Amount: $5,336,000

Total Number of Units: 200 Number of Beds: 400 Total Square Footage: 64,786

	Est. Amount	Per Unit	Per Bed	Per Sq. Ft.
SOFT COSTS:				
Development Fee	393,263	1,966.32	983.16	6.07
Title Policy/Other Closing Costs	31,482	157.41	78.71	0.49
Bond Issuance Costs				
Underwriting Fee	98,182	490.91	245.46	1.52
Rating Agency Fee	10,138	50.69	25.35	0.16
Issuer Counsel/Financial Advisor	19,743	98.72	49.36	0.30
Underwriter Counsel	29,882	149.41	74.70	0.46
Printing Miscellaneous	19,743	98.72	49.36	0.30
Bond Insurance	137,669	688.34	344.17	2.12
Funding via Surety Bond	31,482	157.41	78.71	0.49
Net Capitalized Interest	257,729	1,288.64	644.32	3.98
OFMEA	1,334	6.67	3.34	0.02
Title/Closing	59,230	296.15	148.07	0.91
Accounting/Ending Audit	8,004	40.02	20.01	0.12
Legal Fee	117,926	589.63	294.81	1.82
Feasibility Study	10,138	50.69	25.35	0.16
Marketing/Temporary Help/Leasing	235,318	1,176.59	588.29	3.63
Initial Operations	29,882	149.41	74.70	0.46
Soft Cost Contingency	98,716	493.58	246.79	1.52
TOTAL SOFT COST:	1,589,861	7,949.31	3,974.65	24.54
CONSTRUCTION COSTS:				
General Contractor Contract	5,336,000	26,680.00	13,340.00	82.36
Landscaping/Outside Amenities/Signage	139,803	699.02	349.51	2.16
Demolition/Site Preparation	31,482	157.41	78.71	0.49
Construction Management	120,594	602.97	301.48	1.86
Architect & Engineering	133,400	667.00	333.50	2.06
Consultants	23,478	117.39	58.70	0.36
Professional Reimbursables	39,486	197.43	98.72	0.61
Lender & University Inspections	17,609	88.04	44.02	0.27
Permit Fees	31,482	157.41	78.71	0.49
Contingency	180,890	904.45	452.23	2.79
TOTAL CONSTRUCTION COST:	6,054,226	30,271.13	15,135.56	93.45
DEVELOPMENT COST	7,644,087	38,220.43	19,110.22	117.99
Furniture, Fixtures, & Equipment	460,497	2,302.48	1,151.24	7.11
TOTAL DEVELOPMENT COST	**8,104,584**	**40,522.92**	**20,261.46**	**125.10**

Table No. 11

Model # 2A: Privatization of Existing University Housing

Construction Development Cost Comparison of Model 2A to National Research Averages

	AS&U Findiings	Model #2A Priv. Existing	Net Change	Percent (%) Change
Project Cost	$6,054,737.00	$8,104,584.00	($2,049,847.00)	-33.86%
Size (Sq. Ft.)	56,244	64,786	(8,542)	-15.19%
Residents	198	400	-202	-102.02%
Cost/Sq. Ft.	$100.38	$125.10	($24.72)	-24.62%
Sq. Ft./Resident	304	162	142	46.72%
Cost/Resident-Bed	$28,966.00	$20,261.46	$8,704.54	30.05%
Cost/Unit	$30,579.48	$40,522.92	($9,943.44)	-32.52%

Construction Development Cost Comparison of Model 2A to the Actual Baseline Bid

	Baseline Comparison	Model #2A Priv. Existing	Net Change	Percent (%) Change
Project Cost	$8,580,810.00	$8,104,584.00	$476,226.00	5.55%
Size (Sq. Ft.)	64,786	64,786	0	0.00%
Residents	268	400	-132	-49.25%
Cost/Sq. Ft.	$132.45	$125.10	$7.35	5.55%
Sq. Ft./Resident	242	162	80	33.07%
Cost/Resident-Bed	$32,017.95	$20,261.46	$11,756.49	36.72%
Cost/Unit	$64,035.90	$40,522.92	$23,512.98	36.72%

development costs for this model is $2,049,847 (or 33.86 percent) higher than the mean project costs, $9,943.44 (or 32.52 percent) higher than the mean cost per unit, but $8,704.54 (or 30.05 percent) lower than the mean cost per resident/bed. The total model development costs of $8,104,584 are comprised of the following budget divisions (see Table No. 2):

Soft Costs less Bond Issuance Costs	$ 983,959	
Bond Issuance Costs	$ 605,902	
Total Soft Costs		$1,589,861
Total Construction Costs		$6,054,226
Furniture, Fixtures & Equipment		$ 460,497
Total Development Costs		$8,104,584

The budget development for this model is very similar to the budget for all models. This particular model assumes that the privatized development firm would be paid a five (5) percent development fee. This fee is based on five (5) percent of the total estimated budget development cost and would basically be the profit above and beyond operating expenses. The development fee for this

model is estimated to be $393,263. There are also other "soft costs" such as legal fees, accounting fees, bond issuance costs, costs for initial operations of the facility such as mobilization, marketing the facility, temporary help, leasing costs, etc. Each model also includes construction costs which would comprise the general contractor's bid price, landscaping and exterior amenities, construction related professional services such as construction management, architectural and engineering services, consultants, etc. In addition to the soft costs and the construction costs, each model also includes an estimated cost for furniture, fixtures and equipment to be utilized within the facility. Such estimate would include items such as bedroom furniture, lounge/commons area furniture, kitchen equipment, etc. Each model budget development estimate also includes appropriate contingency amounts for the soft costs as well as the construction costs.

Proforma Analysis of Cash Flows

The purpose of this analysis (see Table No. 12) is to determine the affordability of the project. In the case of the privatized existing student housing model project, the earliest date that the facility could

Table No. 12 - Model 2A: Privatization of Existing Student Housing Comparison

Proforma Analysis of Cash Flows

Project Bid Amount: $5,336,000 Term: 20 Years Revenue Growth Estimated at 3% per year

Project Development Cost: $8,104,584

Academic Year Occupancy @ 95% Summer Term Occupancy @ 50% Annualized Occupancy @ 83.75%

Unit Type: Double Occupancy Rooms Student Residents Per Room: 2 Number of Units: 200 Number of Beds: 400

Total Square Footage: 64,786

	Year 1 1998-99	Year 2 1999-2000	Year 3 2000-01	Year 4 2001-02	Year 5 2002-03	Year 6 2003-04	Year 7 2004-05
REVENUES							
Fall Semester	308,000	317,240	326,757	336,560	346,657	357,056	367,768
Spring Semester	308,000	317,240	326,757	336,560	346,657	357,056	367,768
Gross Potential Rent	616,000	634,480	653,514	673,120	693,313	714,113	735,536
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	100,100	103,103	106,196	109,382	112,663	116,043	119,525
Rental Revenue	515,900	531,377	547,318	563,738	580,650	598,069	616,012
Less: Operating Expenses	184,000	189,520	195,206	201,062	207,094	213,306	219,706
Utilities							
Maintenance							
Telephone							
Staff							
Cash Flow before Debt Service	331,900	341,857	352,113	362,676	373,556	384,763	396,306
Estimated Debt Service	705,909	705,909	705,909	705,909	705,909	705,909	705,909
Cash Flow after Debt Service	(374,009)	(364,052)	(353,797)	(343,233)	(332,353)	(321,146)	(309,603)
DEBT COVERAGE RATIO	0.4702	0.4843	0.4988	0.5138	0.5292	0.5451	0.5614
Cash Flow Restated	(374,009)	(364,052)	(353,797)	(343,233)	(332,353)	(321,146)	(309,603)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	18,480	19,034	19,605	20,194	20,799	21,423	22,066
Net Cash Flow	(392,489)	(383,087)	(373,402)	(363,427)	(353,152)	(342,570)	(331,669)

Table No. 12 - Model 2A: Privatization of Existing Student Housing Comparison

	Year 8 2005-06	Year 9 2006-07	Year 10 2007-08	Year 11 2008-09	Year 12 2009-10	Year 13 2010-11	Year 14 2011-12	Year 15 2012-13
REVENUES								
Fall Semester	378,801	390,165	401,870	413,926	426,344	439,134	452,308	465,878
Spring Semester	378,801	390,165	401,870	413,926	426,344	439,134	452,308	465,878
Gross Potential Rent	757,602	780,330	803,740	827,852	852,688	878,269	904,617	931,755
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	123,110	126,804	130,608	134,526	138,562	142,719	147,000	151,410
Rental Revenue	634,492	653,527	673,132	693,326	714,126	735,550	757,617	780,345
Less: Operating Expenses	226,297	233,086	240,078	247,281	254,699	262,340	270,210	278,317
Utilities								
Maintenance								
Telephone								
Staff								
Cash Flow before Debt Service	408,195	420,441	433,054	446,046	459,427	473,210	487,406	502,029
Estimated Debt Service	705,909	705,909	705,909	705,909	705,909	705,909	705,909	705,909
Cash Flow after Debt Service	(297,714)	(285,468)	(272,855)	(259,863)	(246,482)	(232,699)	(218,503)	(203,881)
DEBT COVERAGE RATIO	0.5783	0.5956	0.6135	0.6319	0.6508	0.6704	0.6905	0.7112
Cash Flow Restated	(297,714)	(285,468)	(272,855)	(259,863)	(246,482)	(232,699)	(218,503)	(203,881)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	22,728	23,410	24,112	24,836	25,581	26,348	27,139	27,953
Net Cash Flow	(320,442)	(308,878)	(296,967)	(284,699)	(272,063)	(259,047)	(245,641)	(231,833)

Table No. 12 - Model 2A: Privatization of Existing Student Housing Comparison
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	Year 16 2013-14	Year 17 2014-15	Year 18 2015-16	Year 19 2016-17	Year 20 2017-18
REVENUES					
Fall Semester	479,854	494,250	509,077	524,349	540,080
Spring Semester	479,854	494,250	509,077	524,349	540,080
Gross Potential Rent	959,708	988,499	1,018,154	1,048,699	1,080,160
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	155,953	160,631	165,450	170,414	175,526
Rental Revenue	803,755	827,868	852,704	878,285	904,634
Less: Operating Expenses	286,666	295,266	304,124	313,248	322,645
Utilities					
Maintenance					
Telephone					
Staff					
Cash Flow before Debt Service	517,089	532,602	548,580	565,038	581,989
Estimated Debt Service	705,909	705,909	705,909	705,909	705,909
Cash Flow after Debt Service	(188,820)	(173,307)	(157,329)	(140,872)	(123,921)
DEBT COVERAGE RATIO	0.7325	0.7545	0.7771	0.8004	0.8245
Cash Flow Restated	(188,820)	(173,307)	(157,329)	(140,872)	(123,921)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	28,791	29,655	30,545	31,461	32,405
Net Cash Flow	(217,611)	(202,962)	(187,874)	(172,333)	(156,325)

be occupied would be fiscal year 1998-99. The projected double room bed rental rate for that fiscal year is $770 per bed (or $308,000 per year at 100 percent occupancy). The adjusted annualized vacancy rate of 16.25 percent applied to the potential annual revenue of $308,000 yields a net annual rental revenue of $515,000. Annual operating expenditures for the facility (i.e. staffing, utilities, maintenance, telephone, etc.) are estimated to cost $184,000 the first year and are adjusted at an annual growth rate of three (3) percent.

The debt coverage ratio for fiscal year 1998-99 (year one in the project proforma analysis) is 0.4702 and only improves to 0.8245 over the next 20 years (FY 2017-18). This does not take into consideration the recommended annual repair and replacement reserve account that is calculated at three (3) percent of the gross potential revenues. Based on this proforma analysis of cash flows, assuming that the privatization of existing student model project must generate appropriate revenues to cover operational and debt service expenditures, this model renovation project would not be cost effective. Assuming that a deficit situation would be allowed, based

on this proforma analysis of cash flows for the privatized existing student housing facility model, the project would lose an estimated amount of ($5,696,471) over the 20-year term of the project indebtedness. Realistically the term for such a project would more than likely be 30 to 40 years. Therefore, the estimated loss over a 20-year term may be somewhat conservative.

Model #2B: Privatization of New University Property and Housing By a Private Development Firm

General Information

This model is very similar to the above model whereby a private development firm leases existing university property through a ground lease or purchases property from another owner for the purpose of the construction and development of new student housing facilities. Should the private development firm purchase property from another owner, it must then adhere to all zoning ordinances and building codes (i.e. off-street parking, front/side yard setbacks, etc.) typical to the commercial construction industry. Often the university typically will receive moderate cash in-flows if the venture is profitable for the

developer and this model allows the university to receive new housing for their students at no financial obligation. The private firm assumes all risks for the success of the venture and typically will manage the property for a minimum of three years due to lending institution requirements. During the predetermined lease agreement period, the university can purchase the property/facility during any fiscal year at or below fair-market value. Research indicates that care should be taken by the university during the determination of the definition of "fair-market value." The true fair-market value should be determined preferably by an independent third party prior to the final contract or agreement with the privatization developer.

Budget Development

The budget development estimate (Table No. 13) for this model assumes the construction of 100 new garden-style suite apartments housing 400 students within 93,000 square feet. Each suite would contain four single-occupancy bedrooms, two full bathrooms, a kitchen, and living/dining room.

From a financial perspective when compared to other models

Table No. 13 - Model 2B: Privatization of New Student Housing

BUDGET DEVELOPMENT Project Bid Amount: 5,394,000

Total Number of Units 100 Number of Beds 400 Total Square Footage: 93,000

	Est. Amount	Per Unit	Per Bed	Per Sq. Ft.
SOFT COSTS:				
Development Fee	397,538	3,975.38	993.84	4.27
Trustee and Trustee Council	10,249	102.49	25.62	0.11
Bond Issuance Costs				
Underwriting Fee	99,250	992.50	248.12	1.07
Rating Agency Fee	10,249	102.49	25.62	0.11
Issuer Counsel/Financial Advisor	19,958	199.58	49.89	0.21
Underwriter Counsel	30,206	302.06	75.52	0.32
Printing Miscellaneous	19,958	199.58	49.89	0.21
Bond Insurance	139,165	1,391.65	347.91	1.50
Funding via Surety Bond	31,825	318.25	79.56	0.34
Net Capitalized Interest	260,530	2,605.30	651.33	2.80
OFMEA	1,349	13.49	3.37	0.01
Title/Closing	59,873	598.73	149.68	0.64
Accounting/Audit	4,855	48.55	12.14	0.05
Legal Fee	119,207	1,192.07	298.02	1.28
Feasibility Study	10,249	102.49	25.62	0.11
Marketing	59,873	598.73	149.68	0.64
Initial Operations	30,206	302.06	75.52	0.32
Soft Cost Contingency	99,789	997.89	249.47	1.07
TOTAL SOFT COST:	1,404,328	14,043.28	3,510.82	15.10
CONSTRUCTION COSTS:				
General Contractor Contract	5,394,000	53,940.00	13,485.00	58.00
Landscaping/Outside Amenities	125,141	1,251.41	312.85	1.35
Signage	16,182	161.82	40.46	0.17
Construction Management	121,904	1,219.04	304.76	1.31
Architect & Engineering	134,850	1,348.50	337.13	1.45
Consultants	23,734	237.34	59.33	0.26
Professional Reimbursables	39,916	399.16	99.79	0.43
Lender & University Inspections	17,800	178.00	44.50	0.19
Survey/Testing/Soils/Permit Fees	62,031	620.31	155.08	0.67
Contingency	182,857	1,828.57	457.14	1.97
TOTAL CONSTRUCTION COST:	6,118,414	61,184.14	15,296.04	65.79
DEVELOPMENT COST	7,522,742	75,227.42	18,806.86	80.89
Furniture, Fixtures, & Equipment	465,502	4,655.02	1,163.76	5.01
TOTAL DEVELOPMENT COST	**7,988,244**	**79,882.44**	**19,970.61**	**85.90**

Table No. 14

Model # 2B: Privatization of New University Housing

Construction Development Cost Comparison of Model 2B to National Research Averages

	AS&U Findiings	Model #2B Priv. New	Net Change	Percent (%) Change
Project Cost	$6,054,737.00	$7,988,244.00	($1,933,507.00)	-31.93%
Size (Sq. Ft.)	56,244	93,000	(36,756)	-65.35%
Residents	198	400	-202	-102.02%
Cost/Sq. Ft.	$100.38	$85.90	$14.48	14.43%
Sq. Ft./Resident	304	233	72	23.52%
Cost/Resident-Bed	$28,966.00	$19,970.61	$8,995.39	31.05%
Cost/Unit	$30,579.48	$79,882.44	($49,302.96)	-161.23%

Construction Development Cost Comparison of Model 2B to the Actual Baseline Bid

	Baseline Comparison	Model #2B Priv. New	Net Change	Percent (%) Change
Project Cost	$8,580,810.00	$7,988,244.00	$592,566.00	6.91%
Size (Sq. Ft.)	64,786	93,000	(28,214)	-43.55%
Residents	268	400	-132	-49.25%
Cost/Sq. Ft.	$132.45	$85.90	$46.55	35.15%
Sq. Ft./Resident	242	233	10	3.93%
Cost/Resident-Bed	$32,017.95	$19,970.61	$12,047.34	37.63%
Cost/Unit	$64,035.90	$79,882.44	($15,846.54)	-24.75%

(see Tables No. 3 and No. 14), model 2B is $592,566 (or 6.91 percent) less than the baseline actual bid for the project. It is estimated that the total project development for this model would be $7,988,244. This model rank is tied for first place in three possible scenarios in terms of total project development costs, tied for first in terms of the cost per square foot, tied for first in terms of cost per resident/bed, and tied for first in terms of cost per unit. It is also tied for first place in terms of net gains at 20 years. Compared to the national research averages compiled by AS&U (see Table No. 14), the total project development cost for this model is $1,933,507 (or 31.93 percent) higher than the mean project costs, $9,361.74 (or 30.61 percent) higher than the mean cost per unit, but $8,995.39 (or 31.05 percent) lower than the mean cost per resident/bed.

The total model development costs of $7,988,244 are comprised of the following budget divisions (see Table No. 2):

Soft Costs less Bond Issuance Costs	$ 791,838	
Bond Issuance Costs	$ 612,490	
Total Soft Costs		$1,404,328

Total Construction Costs	$6,118,414
Furniture, Fixtures & Equipment	$ 465,502
Total Development Costs	$7,988,244

The budget development for this model is very similar to the budget for all models. This particular model assumes that the privatized development firm would be paid a five (5) percent development fee. This fee is based on five (5) percent of the total estimated budget development cost and would basically be the profit above and beyond operating expenses. The development fee for this model is estimated to be $397,538. There are also other "soft costs" such as legal fees, accounting fees, bond issuance costs, costs for initial operations of the facility such as mobilization, marketing the facility, temporary help, leasing costs, etc. Each model also includes construction costs which would comprise the general contractor's bid price, landscaping and exterior amenities, construction related professional services such as construction management, architectural and engineering services, consultants, etc. In addition to the soft costs and the construction costs, each model also includes an estimated cost

for furniture, fixtures and equipment and appropriate contingency amounts.

Proforma Analysis of Cash Flows

The purpose of this analysis (see Table No. 15) is to determine the affordability of the project. In the case of the privatized new student housing model project, the earliest date that the facility could be occupied would be fiscal year 1998-99. The projected single room bed rental rate for that fiscal year is $1,105 per bed per semester (or $442,000 per year at 100 percent occupancy). The adjusted annualized vacancy rate of 16.25 percent (-$143,650) applied to the gross potential annual revenue of $884,000 yields a net annual rental revenue of $740,350. Annual operating expenditures for the facility (i.e. staffing, utilities, maintenance, telephone, etc.) are estimated to cost $184,000 the first year and are adjusted at an annual growth rate of three (3) percent.

The debt coverage ratio for fiscal year 1998-99 (year one in the project proforma analysis) is 0.7996 and improves to 1.4021 over the next 20 years (FY 2017-18). In this model the debt coverage ratio

Table No. 15 - Model 2B: Privatization of New Student Housing Comparison

Proforma Analysis of Cash Flows

Project Bid Amount: $5,394,000 Term: 20 Years Revenue Growth Estimated at 3% per year

Project Development Cost: $7,988,244

Academic Year Occupancy @ 95% Summer Term Occupancy @ 50% Annualized Occupancy @ 83.75%

Unit Type: Single Occupancy Rooms/Suite Student Residents Per Room: 1 Number of Units: 100 Number of Beds: 400

Total Square Footage: 93,000

	Year 1 1998-99	Year 2 1999-2000	Year 3 2000-01	Year 4 2001-02	Year 5 2002-03	Year 6 2003-04	Year 7 2004-05
REVENUES							
Fall Semester	442,000	455,260	468,918	482,985	497,475	512,399	527,771
Spring Semester	442,000	455,260	468,918	482,985	497,475	512,399	527,771
Gross Potential Rent	884,000	910,520	937,836	965,971	994,950	1,024,798	1,055,542
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	143,650	147,960	152,398	156,970	161,679	166,530	171,526
Rental Revenue	740,350	762,561	785,437	809,000	833,270	858,269	884,017
Less: Operating Expenses	184,000	189,520	195,206	201,062	207,094	213,306	219,706
Utilities							
Maintenance							
Telephone							
Staff							
Cash Flow before Debt Service	556,350	573,041	590,232	607,939	626,177	644,962	664,311
Estimated Debt Service	695,776	695,776	695,776	695,776	695,776	695,776	695,776
Cash Flow after Debt Service	(139,426)	(122,736)	(105,544)	(87,837)	(69,599)	(50,814)	(31,465)
DEBT COVERAGE RATIO	0.7996	0.8236	0.8483	0.8738	0.9000	0.9270	0.9548
Cash Flow Restated	(139,426)	(122,736)	(105,544)	(87,837)	(69,599)	(50,814)	(31,465)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	26,520	27,316	28,135	28,979	29,848	30,744	31,666
Net Cash Flow	(165,946)	(150,051)	(133,679)	(116,817)	(99,448)	(81,558)	(63,131)

Table No. 15 - Model 2B: Privatization of New Student Housing Comparison
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	Year 8 2005-06	Year 9 2006-07	Year 10 2007-08	Year 11 2008-09	Year 12 2009-10	Year 13 2010-11	Year 14 2011-12	Year 15 2012-13
REVENUES								
Fall Semester	543,604	559,912	576,710	594,011	611,831	630,186	649,092	668,565
Spring Semester	543,604	559,912	576,710	594,011	611,831	630,186	649,092	668,565
Gross Potential Rent	1,087,208	1,119,825	1,153,419	1,188,022	1,223,663	1,260,373	1,298,184	1,337,129
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	176,671	181,972	187,431	193,054	198,845	204,811	210,955	217,284
Rental Revenue	910,537	937,853	965,989	994,968	1,024,818	1,055,562	1,087,229	1,119,846
Less: Operating Expenses	226,297	233,086	240,078	247,281	254,699	262,340	270,210	278,317
Utilities								
Maintenance								
Telephone								
Staff								
Cash Flow before Debt Service	684,240	704,768	725,911	747,688	770,119	793,222	817,019	841,529
Estimated Debt Service	695,776	695,776	695,776	695,776	695,776	695,776	695,776	695,776
Cash Flow after Debt Service	(11,536)	8,991	30,135	51,912	74,342	97,446	121,243	145,753
DEBT COVERAGE RATIO	0.9834	1.0129	1.0433	1.0746	1.1068	1.1401	1.1743	1.2095
Cash Flow Restated	(11,536)	8,991	30,135	51,912	74,342	97,446	121,243	145,753
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	32,616	33,595	34,603	35,641	36,710	37,811	38,946	40,114
Net Cash Flow	(44,152)	(24,603)	(4,468)	16,271	37,633	59,635	82,297	105,639

Table No. 15 - Model 2B: Privatization of New Student Housing Comparison
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	Year 16 2013-14	Year 17 2014-15	Year 18 2015-16	Year 19 2016-17	Year 20 2017-18
REVENUES					
Fall Semester	688,622	709,280	730,559	752,475	775,050
Spring Semester	688,622	709,280	730,559	752,475	775,050
Gross Potential Rent	1,377,243	1,418,560	1,461,117	1,504,951	1,550,099
Less Annualized Vacancy					
@ 16.25% (includes Summer Terms)	223,802	230,516	237,432	244,555	251,891
Rental Revenue	1,153,441	1,188,044	1,223,686	1,260,396	1,298,208
Less: Operating Expenses	286,666	295,266	304,124	313,248	322,645
Utilities					
Maintenance					
Telephone					
Staff					
Cash Flow before Debt Service	866,775	892,778	919,562	947,149	975,563
Estimated Debt Service	695,776	695,776	695,776	695,776	695,776
Cash Flow after Debt Service	170,999	197,002	223,786	251,373	279,787
DEBT COVERAGE RATIO	1.2458	1.2831	1.3216	1.3613	1.4021
Cash Flow Restated	170,999	197,002	223,786	251,373	279,787
Recommended Annual Repair					
and Replacement Reserve					
@ 3% of Gross Potential Revenue	41,317	42,557	43,834	45,149	46,503
Net Cash Flow	129,682	154,446	179,952	206,224	233,284

does not exceed 1.25 until year 17 (FY 2014-15) at which time it is projected to be 1.2831. This does not take into consideration the recommended annual repair and replacement reserve account that is calculated at three (3) percent of the gross potential revenues. Based on this proforma analysis of cash flows, assuming that the privatization of new student housing model project must generate appropriate revenues to cover operational and debt service expenditures, this renovation project would not be cost effective. Based on this proforma analysis of cash flows for the privatization of new student housing model, the project would earn an estimated amount of $321,210 over the 20-year term of the project indebtedness. Realistically the term for such a project would more than likely be 30 to 40 years. Therefore, the estimated net gain over a 20-year term may be somewhat understated in this case. However, the project incurs an unacceptable net loss for the first 10-year period.

Also, in the case of the baseline project comparison model the university must consider the fact that if the university does not go forward with the development of the project as outlined by the State

of Kentucky capital project development and the university proceeds with new privatized housing to technically "replace" the existing student housing facility, the university would theoretically lose the value of the facility currently appraised at approximately $2,591,440 (64,786 SF x $40.00/SF). In addition to this amount the university would forfeit $340,000 already paid to the architects/engineers for the development of the project construction documents (plans and specifications) because they are only of value to the university if the renovation project (or portions thereof) is developed by the university. Also for consideration is the fact that if the facility is razed, the actual estimated cost to raze and properly dispose of the debris would be approximately $347,000. Therefore considering the fact that the university would no longer have use of the facility, the loss of the asset would be estimated to cost approximately ($3,278,440). The net loss for the development of this model would be estimated to be ($2,957,230) if the proposed new facility is designed to replace the baseline comparison facility and the existing facility is razed and disposed of [($3,278,440) loss of asset + $321,210 net gain from

development]. This scenario would apply if any new student housing model was developed to "replace" the baseline comparison facility. The calculated net loss of ($2,957,230) would apply to models 1B and 2B; however, the estimated net loss for the development of model 3B would be ($5,721,470) [($3,278,440) loss of asset + ($2,443,030) net loss from development].

Model #3A: Implementation of Kentucky House Bill 622 - The University Management Bill - for Existing Student Housing Facilities

General Information

Kentucky House Bill 622, known as the "University Management Bill," was enacted by the 1982 Kentucky General Assembly. It was produced under the auspices of a committee appointed by the chairman of the Council of University Presidents, and is the product of 6 subcommittee reports. The subcommittees dealt with 6 principal aspects of the bill: 1) accounting, auditing, and payroll; 2) investments and interest income; 3) affiliated corporations; 4) capital construction; 5) purchasing; and 6) acquisition, disposition, and leasing of real property. Representation on the subcommittees for the noted

functional areas came from the public universities and from the state government including the Department of Finance, Office of the State Treasurer, Office of the State Auditor, Council on Higher Education, and the Legislative Research Commission (Kentucky House Bill 622, 1983). The bill allows public Kentucky universities to select the capital construction option which would transfer the responsibility and accountability for the construction of all capital projects (including student housing facilities) to the university. Although the university must continue to meet all applicable building codes, it is generally felt that the election of this option removes a level of government bureaucracy which in turn results in lower bid pricing.

Budget Development

The budget development estimate (see Table No. 16) for this model assumes 200 double-occupancy units housing approximately 400 students at full occupancy. The model provides a general "facelift" renovation of the current double-loaded corridors and gang showers/toilets while providing necessary roof repairs and adding an air-conditioning system.

Table No. 16 - Model 3A: Kentucky House Bill 622 Implementation Comparison - Existing Student Housing

BUDGET DEVELOPMENT Project Bid Amount: $5,336,000

Total Number of Units: 200 Number of Beds: 400 Total Square Footage: 64,786

	Est. Amount	Per Unit	Per Bed	Per Sq. Ft.
SOFT COSTS:				
Bond Issuance Costs				
Underwriting Fee	98,182	490.91	245.46	1.52
Rating Agency Fee	10,138	50.69	25.35	0.16
Issuer Counsel/Financial Advisor	19,743	98.72	49.36	0.30
Underwriter Counsel	29,882	149.41	74.70	0.46
Printing Miscellaneous	19,743	98.72	49.36	0.30
Bond Insurance	137,669	688.34	344.17	2.12
Funding via Surety Bond	31,482	157.41	78.71	0.49
Net Capitalized Interest	257,729	1,288.64	644.32	3.98
OFMEA	1,334	6.67	3.34	0.02
Accounting/Audit	4,802	24.01	12.01	0.07
Legal Fee	117,926	589.63	294.81	1.82
Feasibility Study	10,138	50.69	25.35	0.16
Initial Operations	29,882	149.41	74.70	0.46
Agency Personnel Costs (prorated @ 25%	60,225	301.13	150.56	0.93
Agency Office Costs (prorated @ 25%)	8,750	43.75	21.88	0.14
Soft Cost Contingency	98,716	493.58	246.79	1.52
TOTAL SOFT COST:	936,342	4,681.71	2,340.85	14.45
CONSTRUCTION COSTS:				
General Contractor Contract	5,336,000	26,680.00	13,340.00	82.36
Landscaping/Outside Amenities	123,795	618.98	309.49	1.91
Signage	16,008	80.04	40.02	0.25
Construction Management/Administration	5,336	26.68	13.34	0.08
Architect & Engineering	133,400	667.00	333.50	2.06
Consultants	23,478	117.39	58.70	0.36
Professional Reimbursables	39,486	197.43	98.72	0.61
Lender & University Inspections	17,609	88.04	44.02	0.27
Testing Fees	29,882	149.41	74.70	0.46
Contingency	180,890	904.45	452.23	2.79
TOTAL CONSTRUCTION COST:	5,905,885	29,529.42	14,764.71	91.16
DEVELOPMENT COST	6,842,227	34,211.13	17,105.57	105.61
Furniture, Fixtures, & Equipment	460,497	2,302.48	1,151.24	7.11
TOTAL DEVELOPMENT COST	**7,302,723**	**36,513.62**	**18,256.81**	**112.72**

Note: Implementation of this Model will incur intitial Agency expenditures of $35,000 for Office support costs and annual reoccurring Agency expenditures of $240,900 for personnel costs. All expenditures are estimated.

Table No. 17

Model # 3A: Kentucky House Bill 622 Implementation - Existing Student Housing

Construction Development Cost Comparison of Model 3A to National Research Averages

	AS&U Findiings	Model #3A KY. H.B. 622	Net Change	Percent (%) Change
Project Cost	$6,054,737.00	$7,302,723.00	($1,247,986.00)	-20.61%
Size (Sq. Ft.)	56,244	64,786	(8,542)	-15.19%
Residents	198	400	-202	-102.02%
Cost/Sq. Ft.	$100.38	$112.72	($12.34)	-12.29%
Sq. Ft./Resident	304	162	142	46.72%
Cost/Resident-Bed	$28,966.00	$18,256.81	$10,709.19	36.97%
Cost/Unit	$30,579.48	$36,513.62	($5,934.13)	-19.41%

Construction Development Cost Comparison of Model 3A to the Actual Baseline Bid

	Baseline Comparison	Model #3A KY. H.B. 622	Net Change	Percent (%) Change
Project Cost	$8,580,810.00	$7,302,723.00	$1,278,087.00	14.89%
Size (Sq. Ft.)	64,786	64,786	0	0.00%
Residents	268	400	-132	-49.25%
Cost/Sq. Ft.	$132.45	$112.72	$19.73	14.90%
Sq. Ft./Resident	242	162	80	33.07%
Cost/Resident-Bed	$32,017.95	$18,256.81	$13,761.14	42.98%
Cost/Unit	$64,035.90	$36,513.62	$27,522.29	42.98%

In the case of model 3A, the implementation of Kentucky House Bill 622 for the renovation of existing student housing facilities does not appear to be a viable option. There is a cost to the university for the election of House Bill 622 which is typically in the form of additional personnel staffing requirements and associated costs for furniture, fixtures, and equipment. The minimum estimated annual reoccurring agency expenditures for personnel costs are $240,900 and the estimated initial one-time office support costs for furniture, fixtures, and equipment is $35,000. In the case of the baseline project comparison model, the agency personnel costs are prorated to cost approximately $60,225 and the agency office support costs are prorated to cost approximately $8,750. It is estimated that the full implementation of House Bill 622 to allow capital construction development would take a significant amount of time. The proper election of House Bill 622 would require a University Board of Regents resolution. After this process the university would be required to develop their staffing to accommodate the proposed change in capital construction projects. This process may take two to

three months to properly advertise, select, and hire individuals to accomplish these tasks. In the case of the University of Kentucky, facilities management officials estimated that it took the University of Kentucky approximately ten years to effectively implement the capital construction section of Kentucky House Bill 622. They also estimate that a public university should have a significant amount of annual capital construction projects to properly justify the implementation of Kentucky House Bill 622.

Technically the university owns the construction documents (plans and specifications) prepared for the baseline renovation project; however, the actual bid amount of $6,332,000 exceeded the approved project scope. Therefore the current plans and specifications would require modifications or value engineering in an effort to reduce the estimated expenditures to an amount that the university could afford.

From a financial perspective when compared to other models (see Tables No. 3 and No. 17), model 3A is $1,278,087 (or 14.89 percent) less than the baseline actual bid for the project. It is estimated that the total project development for this model would be

$7,302,723. This model is ranked first (less expensive to develop) in five possible scenarios in terms of total project development costs, first in terms of the cost per square foot, first in terms of cost per resident/bed, and first in terms of cost per unit. It is also ranked first in terms of estimated net loss at the conclusion of the 20 year bond period. Compared to the national research averages compiled by AS&U (see Table No. 17), the total project development cost for this model is $1,247,986 (or 20.61 percent) higher than the mean project costs, $5,934.13 (or 19.41 percent) higher than the mean cost per unit, but $10,709.19 (or 36.97 percent) lower than the mean cost per resident/bed. The total model development costs of $7,302,723 are comprised of the following budget divisions (see Table No. 2):

Soft Costs less Bond Issuance Costs	$ 330,440	
Bond Issuance Costs	$ 605,902	
Total Soft Costs		$ 936,342
Total Construction Costs		$5,905,885
Furniture, Fixtures & Equipment		$ 460,497
Total Development Costs		$7,302,723

Since the university/state owns the property, the soft costs of this budget development model are significantly less than most other models. The main elements of the budget development soft costs would be the bond issuance costs, moderate accounting fees, legal fees, and the prorated agency personnel costs and office support costs. There is a savings to be realized due to the fact the university would basically be developing its own property under House Bill 622; however, because of the prorated personnel and support costs this model's soft costs are slightly higher [$47,013] than the baseline bid comparison. This amount represents a net increase of only $47,013 because the bond issuance costs are higher due to the higher construction bid amount. There would not be any "developer" fee amounts associated with this particular model. The model also includes construction costs which would comprise the general contractor's bid price, landscaping and exterior amenities, construction related professional services such as construction management, architectural and engineering services (necessary for value engineering plan and specification changes), consultants, etc. In addition to the

soft costs and the construction costs, this model also includes an estimated cost for furniture, fixtures and equipment and appropriate contingency amounts.

Proforma Analysis of Cash Flows

The purpose of this analysis (see Table No. 18) is to determine the affordability of the project. In the case of the House Bill 622 project model 3A, the earliest date that the facility could be occupied would be fiscal year 1998-99. The projected double room bed rental rate for that fiscal year is $770 per bed per semester (or $308,000 per semester at 100 percent occupancy). The adjusted annualized vacancy rate of 16.25 percent (-$100,100) applied to the gross potential annual revenue of $616,000 yields a net annual rental revenue of $515,900. Annual operating expenditures for the facility (i.e. staffing, utilities, maintenance, telephone, etc.) are estimated to cost $184,000 the first year and are adjusted at an annual growth rate of three (3) percent.

The debt coverage ratio for fiscal year 1998-99 (year one in the project proforma analysis) is 0.5218 and only improves to 0.9150 over the next 20 years (FY 2017-18). This does not take into consideration

Table No. 18 - Model 3A: Kentucky House Bill 622 Comparison - Existing Student Housing

Proforma Analysis of Cash Flows

Project Bid Amount: $5,336,000 Term: 20 Years Revenue Growth Estimated at 3% per year

Project Development Cost: $7,302,723

Academic Year Occupancy @ 95% Summer Term Occupancy @ 50% Annualized Occupancy @ 83.75%

Unit Type: Double Occupancy Rooms Student Residents Per Room: 2 Number of Units: 200 Number of Beds: 400

Total Square Footage: 64,786

	Year 1 1998-99	Year 2 1999-2000	Year 3 2000-01	Year 4 2001-02	Year 5 2002-03	Year 6 2003-04	Year 7 2004-05
REVENUES							
Fall Semester	308,000	317,240	326,757	336,560	346,657	357,056	367,768
Spring Semester	308,000	317,240	326,757	336,560	346,657	357,056	367,768
Gross Potential Rent	616,000	634,480	653,514	673,120	693,313	714,113	735,536
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	100,100	103,103	106,196	109,382	112,663	116,043	119,525
Rental Revenue	515,900	531,377	547,318	563,738	580,650	598,069	616,012
Less: Operating Expenses	184,000	189,520	195,206	201,062	207,094	213,306	219,706
Utilities							
Maintenance							
Telephone							
Staff							
Cash Flow before Debt Service	331,900	341,857	352,113	362,676	373,556	384,763	396,306
Estimated Debt Service	636,067	636,067	636,067	636,067	636,067	636,067	636,067
Cash Flow after Debt Service	(304,167)	(294,210)	(283,954)	(273,391)	(262,511)	(251,304)	(239,761)
DEBT COVERAGE RATIO	0.5218	0.5375	0.5536	0.5702	0.5873	0.6049	0.6231
Cash Flow Restated	(304,167)	(294,210)	(283,954)	(273,391)	(262,511)	(251,304)	(239,761)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	18,480	19,034	19,605	20,194	20,799	21,423	22,066
Net Cash Flow	(322,647)	(313,245)	(303,560)	(293,585)	(283,310)	(272,727)	(261,827)

Table No. 18 - Model 3A: Kentucky House Bill 622 Comparison - Existing Student Housing
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	Year 8 2005-06	Year 9 2006-07	Year 10 2007-08	Year 11 2008-09	Year 12 2009-10	Year 13 2010-11	Year 14 2011-12	Year 15 2012-13
REVENUES								
Fall Semester	378,801	390,165	401,870	413,926	426,344	439,134	452,308	465,878
Spring Semester	378,801	390,165	401,870	413,926	426,344	439,134	452,308	465,878
Gross Potential Rent	757,602	780,330	803,740	827,852	852,688	878,269	904,617	931,755
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	123,110	126,804	130,608	134,526	138,562	142,719	147,000	151,410
Rental Revenue	634,492	653,527	673,132	693,326	714,126	735,550	757,617	780,345
Less: Operating Expenses	226,297	233,086	240,078	247,281	254,699	262,340	270,210	278,317
Utilities								
Maintenance								
Telephone								
Staff								
Cash Flow before Debt Service	408,195	420,441	433,054	446,046	459,427	473,210	487,406	502,029
Estimated Debt Service	636,067	636,067	636,067	636,067	636,067	636,067	636,067	636,067
Cash Flow after Debt Service	(227,872)	(215,626)	(203,013)	(190,021)	(176,640)	(162,857)	(148,661)	(134,039)
DEBT COVERAGE RATIO	0.6417	0.6610	0.6808	0.7013	0.7223	0.7440	0.7663	0.7893
Cash Flow Restated	(227,872)	(215,626)	(203,013)	(190,021)	(176,640)	(162,857)	(148,661)	(134,039)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	22,728	23,410	24,112	24,836	25,581	26,348	27,139	27,953
Net Cash Flow	(250,600)	(239,036)	(227,125)	(214,857)	(202,221)	(189,205)	(175,799)	(161,991)

Table No. 18 - Model 3A: Kentucky House Bill 622 Comparison - Existing Student Housing
Page 3 of 3

	Year 16 2013-14	Year 17 2014-15	Year 18 2015-16	Year 19 2016-17	Year 20 2017-18
REVENUES					
Fall Semester	479,854	494,250	509,077	524,349	540,080
Spring Semester	479,854	494,250	509,077	524,349	540,080
Gross Potential Rent	959,708	988,499	1,018,154	1,048,699	1,080,160
Less Annualized Vacancy					
@ 16.25% (includes Summer Terms)	155,953	160,631	165,450	170,414	175,526
Rental Revenue	803,755	827,868	852,704	878,285	904,634
Less: Operating Expenses	286,666	295,266	304,124	313,248	322,645
Utilities					
Maintenance					
Telephone					
Staff					
Cash Flow before Debt Service	517,089	532,602	548,580	565,038	581,989
Estimated Debt Service	636,067	636,067	636,067	636,067	636,067
Cash Flow after Debt Service	(118,978)	(103,465)	(87,487)	(71,030)	(54,079)
DEBT COVERAGE RATIO	0.8129	0.8373	0.8625	0.8883	0.9150
Cash Flow Restated	(118,978)	(103,465)	(87,487)	(71,030)	(54,079)
Recommended Annual Repair					
and Replacement Reserve					
@ 3% of Gross Potential Revenue	28,791	29,655	30,545	31,461	32,405
Net Cash Flow	(147,769)	(133,120)	(118,032)	(102,491)	(86,483)

the recommended annual repair and replacement reserve account that is calculated at three (3) percent of the gross potential revenues. Based on this proforma analysis of cash flows, assuming that the implementation of the Kentucky House Bill 622 model 3A must generate appropriate revenues to cover operational and debt service expenditures, this renovation project would not be cost effective. Assuming that a deficit situation would be allowed, based on this proforma analysis of cash flows for the implementation of the Kentucky House Bill 622 model 3A, the project would lose an estimated amount of ($4,299,630) over the 20-year term of the project indebtedness. Realistically the term for such a project would more than likely be 30 to 40 years; therefore, the estimated loss over a 20-year term may be somewhat conservative.

Model #3B: Implementation of Kentucky House Bill 622 - The University Management Bill - for New Student Housing Facilities

General Information

This model is very similar to model 3A. Where model 3A conducts an analysis of the renovation of existing public university

student housing facilities, model 3B studies the cost comparison of constructing new public university student housing facilities. Like the implementation of model 3A, it is generally felt that the election of this model removes a level of government bureaucracy which in turn results in lower bid pricing.

Budget Development

The budget development estimate (see Table No. 19) for this model assumes the construction of 100 single-occupancy units/suites housing approximately 400 students at full occupancy. Each suite would contain four single-occupancy bedrooms, two full bathrooms, a kitchen, and living/dining room.

In the case of model 3B, the implementation of Kentucky House Bill 622 for the construction of new student housing facilities does not appear to be a viable option. There is a cost to the university for the election of House Bill 622 which is typically in the form of additional personnel staffing requirements and associated costs for furniture, fixtures, and equipment. The minimum estimated annual reoccurring agency expenditures for personnel costs are $240,900 and the

Table No. 19 - Model 3B: Kentucky House Bill 622 Implementation Comparison - New Construction of Student Housing

BUDGET DEVELOPMENT	Project Bid Amount		$7,012,200	
Total Number of Units: 100	Number of Beds: 400	Total Square Footage: 93,000		
	Est. Amount	Per Unit	Per Bed	Per Sq. Ft.
SOFT COSTS:				
Bond Issuance Costs				
Underwriting Fee	129,024	1,290.24	322.56	1.39
Rating Agency Fee	13,323	133.23	33.31	0.14
Issuer Counsel/Financial Advisor	25,945	259.45	64.86	0.28
Underwriter Counsel	39,268	392.68	98.17	0.42
Printing Miscellaneous	25,945	259.45	64.86	0.28
Bond Insurance	180,915	1,809.15	452.29	1.95
Funding via Surety Bond	41,372	413.72	103.43	0.44
Net Capitalized Interest	338,689	3,386.89	846.72	3.64
OFMEA	1,753	17.53	4.38	0.02
Accounting/Audit	6,311	63.11	15.78	0.07
Legal Fee	154,970	1,549.70	387.42	1.67
Feasibility Study	13,323	133.23	33.31	0.14
Initial Operations	39,268	392.68	98.17	0.42
Agency Personnel Costs (prorated @ 25%	60,225	602.25	150.56	0.65
Agency Office Costs (prorated @ 25%)	8,750	87.50	21.88	0.09
Soft Cost Contingency	129,726	1,297.26	324.31	1.39
TOTAL SOFT COST:	1,208,808	12,088.08	3,022.02	13.00
CONSTRUCTION COSTS:				
General Contractor Contract	7,012,200	70,122.00	17,530.50	75.40
Landscaping/Outside Amenities	162,683	1,626.83	406.71	1.75
Signage	21,037	210.37	52.59	0.23
Construction Management/Administration	7,012	70.12	17.53	0.08
Architect & Engineering	175,305	1,753.05	438.26	1.89
Consultants	30,854	308.54	77.13	0.33
Professional Reimbursables	51,890	518.90	129.73	0.56
Lender & University Inspections	23,140	231.40	57.85	0.25
Testing Fees	39,268	392.68	98.17	0.42
Contingency	237,714	2,377.14	594.28	2.56
TOTAL CONSTRUCTION COST:	7,761,103	77,611.03	19,402.76	83.45
DEVELOPMENT COST	8,969,911	89,699.11	22,424.78	96.45
Furniture, Fixtures, & Equipment	605,153	6,051.53	1,512.88	6.51
TOTAL DEVELOPMENT COST	**9,575,064**	**95,750.64**	**23,937.66**	**102.96**

Note: Implementation of this Model will incur intitial Agency expenditures of $35,000 for Office support costs and annual reoccurring Agency expenditures of $240,900 for personnel costs. All expenditures are estimated.

Table No. 20

Model # 3B: Kentucky House Bill 622 Implementation - New Student Housing

Construction Development Cost Comparison of Model 3B to National Research Averages

	AS&U Findiings	Model #3B KY. H.B. 622	Net Change	Percent (%) Change
Project Cost	$6,054,737.00	$9,575,064.00	($3,520,327.00)	-58.14%
Size (Sq. Ft.)	56,244	93,000	(36,756)	-65.35%
Residents	198	400	-202	-102.02%
Cost/Sq. Ft.	$100.38	$102.96	($2.58)	-2.57%
Sq. Ft./Resident	304	233	72	23.52%
Cost/Resident-Bed	$28,966.00	$23,937.66	$5,028.34	17.36%
Cost/Unit	$30,579.48	$95,750.64	($65,171.16)	-213.12%

Construction Development Cost Comparison of Model 3B to the Actual Baseline Bid

	Baseline Comparison	Model #3B KY. H.B. 622	Net Change	Percent (%) Change
Project Cost	$8,580,810.00	$9,575,064.00	($994,254.00)	-11.59%
Size (Sq. Ft.)	64,786	93,000	(28,214)	-43.55%
Residents	268	400	-132	-49.25%
Cost/Sq. Ft.	$132.45	$102.96	$29.49	22.27%
Sq. Ft./Resident	242	233	10	3.93%
Cost/Resident-Bed	$32,017.95	$23,937.66	$8,080.29	25.24%
Cost/Unit	$64,035.90	$95,750.64	($31,714.74)	-49.53%

estimated initial one-time office support costs for furniture, fixtures, and equipment is $35,000. In this model the agency personnel costs are prorated to cost approximately $60,225 and the agency office support costs are prorated to cost approximately $8,750.

From a financial perspective when compared to other models (see Tables No. 3 and No. 20), model 3B is $994,254 (or 11.59 percent) less than the baseline actual bid for the project. It is estimated that the total project development for this model would be $9,575,064. This model is ranked last (most expensive to develop) in three possible scenarios in terms of total project development costs, last in terms of the cost per square foot, last in terms of cost per resident/bed, and last in terms of cost per unit. It is also ranked last in terms of estimated net loss at the conclusion of the 20 year bond period. Compared to the national research averages compiled by AS&U (see Table No. 20), the total project development cost for this model is $3,520,327 (or 58.14 percent) higher than the mean project costs, $17,295.84 (or 56.56 percent) higher than the mean cost per unit, but $5,028.34 (or 17.36 percent) lower than the mean cost per

resident/bed. The total model development costs of $9,575,064 are comprised of the following budget divisions (see Table No. 2):

Soft Costs less Bond Issuance Costs	$ 412,574	
Bond Issuance Costs	$ 796,234	
Total Soft Costs		$1,208,808
Total Construction Costs		$7,761,103
Furniture, Fixtures & Equipment		$ 605,153
Total Development Costs		$9,575,064

Since the university/state owns the property, the soft costs of this budget development model are significantly less than most other models. The main elements of the budget development soft costs would be the bond issuance costs, moderate accounting fees, legal fees, and the prorated agency personnel costs and office support costs. There is a savings to be realized due to the fact the university would basically be developing its own property under House Bill 622; however, because of the prorated personnel and support costs and higher general contractor's construction amount, this model's soft costs are significantly higher [$319,479] than the baseline bid

comparison. This amount represents a net increase of $319,479 because the bond issuance costs are higher due to the higher construction bid amount. There would not be any "developer" fee amounts associated with this particular model. The model also includes construction costs which would comprise the general contractor's bid price, landscaping and exterior amenities, construction related professional services such as construction management, architectural and engineering services, consultants, etc. In addition to the soft costs and the construction costs, this model also includes an estimated cost for furniture, fixtures and equipment and appropriate contingency amounts.

Proforma Analysis of Cash Flows

The purpose of this analysis (see Table No. 21) is to determine the affordability of the project. In the case of the House Bill 622 project model 3B, the earliest date that the facility could be occupied would be fiscal year 1998-99. The projected single room bed rental rate for that fiscal year is $1,105 per bed per semester (or $442,000 per semester at 100 percent occupancy). The adjusted annualized

Table No. 21 - Model 3B: Kentucky House Bill 622 Comparison - New Student Housing

Proforma Analysis of Cash Flows

Project Bid Amount: $7,012,200 Term: 20 Years Revenue Growth Estimated at 3% per year

Project Development Cost: $9,575,064

Academic Year Occupancy @ 95% Summer Term Occupancy @ 50% Annualized Occupancy @ 83.75%

Unit Type: Single Occupancy Rooms/Suite Student Residents Per Room: 1 Number of Units: 100 Number of Beds: 400

Total Square Footage: 93,000

	Year 1 1998-99	Year 2 1999-2000	Year 3 2000-01	Year 4 2001-02	Year 5 2002-03	Year 6 2003-04	Year 7 2004-05
REVENUES							
Fall Semester	442,000	455,260	468,918	482,985	497,475	512,399	527,771
Spring Semester	442,000	455,260	468,918	482,985	497,475	512,399	527,771
Gross Potential Rent	884,000	910,520	937,836	965,971	994,950	1,024,798	1,055,542
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	143,650	147,960	152,398	156,970	161,679	166,530	171,526
Rental Revenue	740,350	762,561	785,437	809,000	833,270	858,269	884,017
Less: Operating Expenses	184,000	189,520	195,206	201,062	207,094	213,306	219,706
Utilities							
Maintenance							
Telephone							
Staff							
Cash Flow before Debt Service	556,350	573,041	590,232	607,939	626,177	644,962	664,311
Estimated Debt Service	833,988	833,988	833,988	833,988	833,988	833,988	833,988
Cash Flow after Debt Service	(277,638)	(260,948)	(243,756)	(226,049)	(207,811)	(189,026)	(169,677)
DEBT COVERAGE RATIO	0.6671	0.6871	0.7077	0.7290	0.7508	0.7733	0.7965
Cash Flow Restated	(277,638)	(260,948)	(243,756)	(226,049)	(207,811)	(189,026)	(169,677)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	26,520	27,316	28,135	28,979	29,848	30,744	31,666
Net Cash Flow	(304,158)	(288,263)	(271,891)	(255,029)	(237,660)	(219,770)	(201,343)

Table No. 21 - Model 3B: Kentucky House Bill 622 Comparison - New Student Housing

	Year 8 2005-06	Year 9 2006-07	Year 10 2007-08	Year 11 2008-09	Year 12 2009-10	Year 13 2010-11	Year 14 2011-12	Year 15 2012-13
REVENUES								
Fall Semester	543,604	559,912	576,710	594,011	611,831	630,186	649,092	668,565
Spring Semester	543,604	559,912	576,710	594,011	611,831	630,186	649,092	668,565
Gross Potential Rent	1,087,208	1,119,825	1,153,419	1,188,022	1,223,663	1,260,373	1,298,184	1,337,129
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	176,671	181,972	187,431	193,054	198,845	204,811	210,955	217,284
Rental Revenue	910,537	937,853	965,989	994,968	1,024,818	1,055,562	1,087,229	1,119,846
Less: Operating Expenses	226,297	233,086	240,078	247,281	254,699	262,340	270,210	278,317
Utilities								
Maintenance								
Telephone								
Staff								
Cash Flow before Debt Service	684,240	704,768	725,911	747,688	770,119	793,222	817,019	841,529
Estimated Debt Service	833,988	833,988	833,988	833,988	833,988	833,988	833,988	833,988
Cash Flow after Debt Service	(149,748)	(129,221)	(108,078)	(86,300)	(63,870)	(40,766)	(16,969)	7,541
DEBT COVERAGE RATIO	0.8204	0.8451	0.8704	0.8965	0.9234	0.9511	0.9797	1.0090
Cash Flow Restated	(149,748)	(129,221)	(108,078)	(86,300)	(63,870)	(40,766)	(16,969)	7,541
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	32,616	33,595	34,603	35,641	36,710	37,811	38,946	40,114
Net Cash Flow	(182,364)	(162,815)	(142,680)	(121,941)	(100,579)	(78,577)	(55,915)	(32,573)

Table No. 21 - Model 3B: Kentucky House Bill 622 Comparison - New Student Housing
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	Year 16 2013-14	Year 17 2014-15	Year 18 2015-16	Year 19 2016-17	Year 20 2017-18
REVENUES					
Fall Semester	688,622	709,280	730,559	752,475	775,050
Spring Semester	688,622	709,280	730,559	752,475	775,050
Gross Potential Rent	1,377,243	1,418,560	1,461,117	1,504,951	1,550,099
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	223,802	230,516	237,432	244,555	251,891
Rental Revenue	1,153,441	1,188,044	1,223,686	1,260,396	1,298,208
Less: Operating Expenses	286,666	295,266	304,124	313,248	322,645
Utilities					
Maintenance					
Telephone					
Staff					
Cash Flow before Debt Service	866,775	892,778	919,562	947,149	975,563
Estimated Debt Service	833,988	833,988	833,988	833,988	833,988
Cash Flow after Debt Service	32,787	58,790	85,574	113,161	141,575
DEBT COVERAGE RATIO	1.0393	1.0705	1.1026	1.1357	1.1698
Cash Flow Restated	32,787	58,790	85,574	113,161	141,575
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	41,317	42,557	43,834	45,149	46,503
Net Cash Flow	(8,530)	16,234	41,740	68,012	95,072

vacancy rate of 16.25 percent (-$143,650) applied to the gross potential annual revenue of $884,000 yields a net annual rental revenue of $740,350. Annual operating expenditures for the facility (i.e. staffing, utilities, maintenance, telephone, etc.) are estimated to cost $184,000 the first year and are adjusted at an annual growth rate of three (3) percent.

The debt coverage ratio for fiscal year 1998-99 (year one in the project proforma analysis) is 0.6671 and only improves to 1.1698 over the next 20 years (FY 2017-18). This does not take into consideration the recommended annual repair and replacement reserve account that is calculated at three (3) percent of the gross potential revenues. Based on this proforma analysis of cash flows, assuming that the implementation of the Kentucky House Bill 622 model 3B must generate appropriate revenues to cover operational and debt service expenditures, this construction project would not be cost effective. Assuming that a deficit situation would be allowed, based on this proforma analysis of cash flows for the implementation of the Kentucky House Bill 622 model 3B, the project would lose an

estimated amount of ($2,443,030) over the 20-year term of the project indebtedness. Realistically the term for such a project would more than likely be 30 to 40 years; therefore, the estimated loss over a 20-year term may be somewhat conservative.

Baseline Actual Bid Comparison of Kentucky Capital Project Construction

General Information

This item provides a baseline for the comparison of all other models. With the exception of the University of Kentucky and the University of Louisville, all public Kentucky universities currently utilize the process for capital construction whereby the Commonwealth of Kentucky is the project owner even though the facility is located on the university's campus. The university is considered the agency. This process provides for very limited involvement by the university and is considered by many to be ineffective, costly, and often does not allow the university any involvement in the educational or functional programming of the facility.

Budget Development

The budget development estimate (Table No. 22) for this baseline comparison is based on the actual project construction competitive bidding process that occurred during June, 1996. The project received three bids ranging from a low bid in the amount of $6,332,000 to a high bid in the amount of $7,000,229. The project reduced the total number of units from 220 rooms housing 440 students to 134 rooms housing 268 students in apartment type suites. The suites would contain double occupancy bedrooms, two bathrooms, a kitchen, and living/dining areas. The renovation project would add an air-conditioning system to the facility, new gable roof system, and a new masonry facade.

In this case the full renovation of the baseline project does not appear to be a viable option. From a financial perspective when compared to other models (see Tables No. 3 and No. 23), the baseline comparison is ranked last (most expensive to renovate) in five possible scenarios in terms of total project development costs, fifth in terms of the cost per square foot, fifth in terms of cost per resident/bed, and

Table No. 22 - Baseline Comparison of Actual Student Housing Project Bid

BUDGET DEVELOPMENT Project Bid Amount: $6,332,000

Total Number of Units: 134 Number of Beds: 268 Total Square Footage: 64,786

	Est. Amount	Per Unit	Per Bed	Per Sq. Ft.
SOFT COSTS:				
Bond Issuance Costs				
Underwriting Fee	116,509	869.47	434.73	1.80
Rating Agency Fee	12,031	89.78	44.89	0.19
Issuer Counsel/Financial Advisor	23,428	174.84	87.42	0.36
Underwriter Counsel	35,459	264.62	132.31	0.55
Printing Miscellaneous	23,428	174.84	87.42	0.36
Bond Insurance	163,366	1,219.15	609.57	2.52
Funding via Surety Bond	37,359	278.80	139.40	0.58
Net Capitalized Interest	305,836	2,282.36	1,141.18	4.72
OFMEA	1,583	11.81	5.91	0.02
Accounting/Audit	5,699	42.53	21.26	0.09
Feasibility Study	12,031	89.78	44.89	0.19
Initial Operations	35,459	264.62	132.31	0.55
Soft Cost Contingency	117,142	874.19	437.10	1.81
TOTAL SOFT COST:	889,329	6,636.79	3,318.39	13.73
CONSTRUCTION COSTS:				
General Contractor Contract	6,332,000	47,253.73	23,626.87	97.74
Landscaping/Outside Amenities	146,902	1,096.29	548.14	2.27
Signage	18,996	141.76	70.88	0.29
Construction Management	143,103	1,067.93	533.97	2.21
Architect & Engineering	158,300	1,181.34	590.67	2.44
Consultants	27,861	207.92	103.96	0.43
Professional Reimbursables	46,857	349.68	174.84	0.72
Lender & University Inspections	20,896	155.94	77.97	0.32
Testing Fees	35,459	264.62	132.31	0.55
Contingency	214,655	1,601.90	800.95	3.31
TOTAL CONSTRUCTION COST:	7,145,029	53,321.11	26,660.56	110.29
DEVELOPMENT COST	8,034,358	59,957.90	29,978.95	124.01
Furniture, Fixtures, & Equipment	546,452	4,078.00	2,039.00	8.43
TOTAL DEVELOPMENT COST	**8,580,810**	**64,035.89**	**32,017.95**	**132.45**

Table No. 23

Baseline Actual Bid of Kentucky Capital Project Construction

Construction Development Cost Comparison of Baseline to National Research Averages

	AS&U Findiings	Baseline Actual Bid	Net Change	Percent (%) Change
Project Cost	$6,054,737.00	$8,580,810.00	($2,526,073.00)	-41.72%
Size (Sq. Ft.)	56,244	64,786	(8,542)	-15.19%
Residents	198	268	-70	-35.35%
Cost/Sq. Ft.	$100.38	$132.45	($32.07)	-31.95%
Sq. Ft./Resident	304	242	62	20.48%
Cost/Resident-Bed	$28,966.00	$32,017.95	($3,051.95)	-10.54%
Cost/Unit	$30,579.48	$64,035.90	($33,456.42)	-109.41%

fifth in terms of cost per unit. It is also ranked fifth in terms of estimated net losses at the conclusion of the 20 year bond period. Compared to the national research averages compiled by AS&U (see Table No. 23), the total project development cost for this model is $2,526,073 (or 41.72 percent) higher than the mean project costs, $33,456.42 (or 109.41 percent) higher than the mean cost per unit, and $3,051.95 (or 10.54 percent) higher than the mean cost per resident/bed. The total baseline comparison development costs of $8,580,810 are comprised of the following budget divisions (see Table No. 2):

Soft Costs less Bond Issuance Costs	$ 170,330	
Bond Issuance Costs	$ 718,999	
Total Soft Costs		$ 889,329
Total Construction Costs		$7,145,029
Furniture, Fixtures & Equipment		$ 546,452
Total Development Costs		$8,580,810

Ironically the baseline comparison has the next to the least expensive budget development soft costs when compared to all other

models. Since the university/state owns the property, the soft costs of this budget development baseline comparison are significantly less than most other models. The main elements of the budget development soft costs would be the bond issuance costs and moderate accounting fees. There are savings to be realized due to the fact the university/state would basically be developing its own property under this baseline comparison. There would not be any "developer" fee amounts associated with this particular comparison. The baseline comparison also includes construction costs which would comprise the general contractor's bid price, landscaping and exterior amenities, construction related professional services such as construction management, architectural and engineering services, consultants, etc. In addition to the soft costs and the construction costs, this baseline comparison also includes an estimated cost for furniture, fixtures and equipment and appropriate contingency amounts.

Proforma Analysis of Cash Flows

The purpose of this analysis (see Table No. 24) is to determine the affordability of the project. In the case of the baseline project

Table No. 24 - Baseline Comparison of Actual Student Housing Project Bid

Proforma Analysis of Cash Flows

Project Bid Amount: $6,332,000 Term: 20 Years Revenue Growth Estimated at 3% per year

Project Development Cost: $8,580,810

Academic Year Occupancy @ 95% Summer Term Occupancy @ 50% Annualized Occupancy @ 83.75%

Unit Type: Double Occupancy Rooms Student Residents Per Room: 2 Number of Units: 134 Number of Beds: 268

Total Square Footage: 64,786

	Year 1 1998-99	Year 2 1999-2000	Year 3 2000-01	Year 4 2001-02	Year 5 2002-03	Year 6 2003-04	Year 7 2004-05
REVENUES							
Fall Semester	206,360	212,551	218,927	225,495	232,260	239,228	246,405
Spring Semester	206,360	212,551	218,927	225,495	232,260	239,228	246,405
Gross Potential Rent	412,720	425,102	437,855	450,990	464,520	478,456	492,809
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	67,067	69,079	71,151	73,286	75,484	77,749	80,082
Rental Revenue	345,653	356,023	366,703	377,704	389,035	400,707	412,728
Less: Operating Expenses	184,000	189,520	195,206	201,062	207,094	213,306	219,706
Utilities							
Maintenance							
Telephone							
Staff							
Cash Flow before Debt Service	161,653	166,503	171,498	176,643	181,942	187,400	193,022
Estimated Debt Service	747,389	747,389	747,389	747,389	747,389	747,389	747,389
Cash Flow after Debt Service	(585,736)	(580,886)	(575,891)	(570,746)	(565,447)	(559,988)	(554,366)
DEBT COVERAGE RATIO	0.2163	0.2228	0.2295	0.2363	0.2434	0.2507	0.2583
Cash Flow Restated	(585,736)	(580,886)	(575,891)	(570,746)	(565,447)	(559,988)	(554,366)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	12,382	12,753	13,136	13,530	13,936	14,354	14,784
Net Cash Flow	(598,117)	(593,639)	(589,027)	(584,276)	(579,382)	(574,342)	(569,151)

Table No. 24 - Baseline Comparison of Actual Student Housing Project Bid
Page 2 of 3

	Year 8 2005-06	Year 9 2006-07	Year 10 2007-08	Year 11 2008-09	Year 12 2009-10	Year 13 2010-11	Year 14 2011-12	Year 15 2012-13
REVENUES								
Fall Semester	253,797	261,411	269,253	277,331	285,651	294,220	303,047	312,138
Spring Semester	253,797	261,411	269,253	277,331	285,651	294,220	303,047	312,138
Gross Potential Rent	507,594	522,821	538,506	554,661	571,301	588,440	606,093	624,276
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	82,484	84,958	87,507	90,132	92,836	95,622	98,490	101,445
Rental Revenue	425,110	437,863	450,999	464,529	478,465	492,819	507,603	522,831
Less: Operating Expenses	226,297	233,086	240,078	247,281	254,699	262,340	270,210	278,317
Utilities								
Maintenance								
Telephone								
Staff								
Cash Flow before Debt Service	198,813	204,777	210,920	217,248	223,766	230,479	237,393	244,515
Estimated Debt Service	747,389	747,389	747,389	747,389	747,389	747,389	747,389	747,389
Cash Flow after Debt Service	(548,576)	(542,611)	(536,468)	(530,140)	(523,623)	(516,910)	(509,996)	(502,874)
DEBT COVERAGE RATIO	0.2660	0.2740	0.2822	0.2907	0.2994	0.3084	0.3176	0.3272
Cash Flow Restated	(548,576)	(542,611)	(536,468)	(530,140)	(523,623)	(516,910)	(509,996)	(502,874)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	15,228	15,685	16,155	16,640	17,139	17,653	18,183	18,728
Net Cash Flow	(563,804)	(558,296)	(552,623)	(546,780)	(540,762)	(534,563)	(528,178)	(521,602)

Table No. 24 - Baseline Comparison of Actual Student Housing Project Bid
Page 3 of 3

	Year 16 2013-14	Year 17 2014-15	Year 18 2015-16	Year 19 2016-17	Year 20 2017-18
REVENUES					
Fall Semester	321,502	331,147	341,082	351,314	361,854
Spring Semester	321,502	331,147	341,082	351,314	361,854
Gross Potential Rent	643,004	662,294	682,163	702,628	723,707
Less Annualized Vacancy					
@ 16.25% (includes Summer Terms)	104,488	107,623	110,852	114,177	117,602
Rental Revenue	538,516	554,672	571,312	588,451	606,105
Less: Operating Expenses	286,666	295,266	304,124	313,248	322,645
Utilities					
Maintenance					
Telephone					
Staff					
Cash Flow before Debt Service	251,850	259,406	267,188	275,203	283,460
Estimated Debt Service	747,389	747,389	747,389	747,389	747,389
Cash Flow after Debt Service	(495,538)	(487,983)	(480,201)	(472,185)	(463,929)
DEBT COVERAGE RATIO	0.3370	0.3471	0.3575	0.3682	0.3793
Cash Flow Restated	(495,538)	(487,983)	(480,201)	(472,185)	(463,929)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	19,290	19,869	20,465	21,079	21,711
Net Cash Flow	(514,829)	(507,852)	(500,666)	(493,264)	(485,640)

comparison, the earliest date that the facility could be occupied would be fiscal year 1998-99. The projected double room bed rental rate for that fiscal year is $770 per bed per semester (or $206,360 per semester at 100 percent occupancy). The adjusted annualized vacancy rate of 16.25 percent (-$67,067) applied to the gross potential annual revenue of $412,720 yields a net annual rental revenue of $345,653. In the case of the baseline comparison representing the actual project bid, less occupants would be required to pay for higher renovation/construction expenditures. Annual operating expenditures for the facility (i.e. staffing, utilities, maintenance, telephone, etc.) are estimated to cost $184,000 the first year and are adjusted at an annual growth rate of three (3) percent.

The debt coverage ratio for fiscal year 1998-99 (year one in the project proforma analysis) is 0.2163 and only improves to 0.3793 over the next 20 years (FY 2017-18). This is the lowest debt coverage ratio of all models compared and does not take into consideration the recommended annual repair and replacement reserve account that is calculated at three (3) percent of the gross potential revenues. Based

on this proforma analysis of cash flows, assuming that this project must generate appropriate revenues to cover operational and debt service expenditures, this renovation project would not be cost effective. Assuming that a deficit situation would be allowed, based on this proforma analysis of cash flows for this baseline comparison, the project would lose an estimated amount of ($10,936,793) over the 20-year term of the project indebtedness. Realistically the term for such a project would more than likely be 30 to 40 years; therefore, the estimated loss over a 20-year term may be somewhat conservative.

Revised Baseline Bid Comparison of Kentucky Capital Project Construction - The Comparison of the Actual Project Bid Revised to the Approved Project Scope Amount and Compared to All Other Models

General Information

This item attempts to provide a baseline for the identical, uniform comparison of all other models. The comparison adjusts the actual project bid to the renovation components of providing a general "facelift" for the baseline project model.

Budget Development

The budget development estimate (Table No. 25) for this comparison assumes 200 double-occupancy units housing approximately 400 students at full occupancy. This comparison only provides a general "facelift" renovation of the current double-loaded corridors and gang showers/toilets while providing necessary roof repairs and adding an air-conditioning system.

In the case of this comparison, it does not appear to be a viable option. From a financial perspective when compared to other models (see Tables No. 3 and No. 26), this comparison is $805,840 (or 9.39 percent) less than the baseline actual bid for the baseline project. It is estimated that the total project development for this comparison would be $7,774,970. This comparison is ranked second in five possible scenarios in terms of total project development costs, second in terms of the cost per square foot, second in terms of cost per resident/bed, and second in terms of cost per unit. It is also ranked second in terms of estimated net losses at the conclusion of the 20 year bond period. Compared to the national research averages

Table No. 25 - Revised Baseline Comparison of Student Housing Project Bid Revised to Approved Scope

BUDGET DEVELOPMENT Project Bid Amount: $5,737,350

Total Number of Units: 200 Number of Beds: 400 Total Square Footage: 64,786

	Est. Amount	Per Unit	Per Bed	Per Sq. Ft.
SOFT COSTS:				
Bond Issuance Costs				
Underwriting Fee	105,567	527.84	263.92	1.63
Rating Agency Fee	10,901	54.50	27.25	0.17
Issuer Counsel/Financial Advisor	21,228	106.14	53.07	0.33
Underwriter Counsel	32,129	160.65	80.32	0.50
Printing Miscellaneous	21,228	106.14	53.07	0.33
Bond Insurance	148,024	740.12	370.06	2.28
Funding via Surety Bond	33,850	169.25	84.63	0.52
Net Capitalized Interest	277,114	1,385.57	692.79	4.28
OFMEA	1,434	7.17	3.59	0.02
Accounting/Audit	5,164	25.82	12.91	0.08
Feasibility Study	10,901	54.50	27.25	0.17
Initial Operations	32,129	160.65	80.32	0.50
Soft Cost Contingency	106,141	530.70	265.35	1.64
TOTAL SOFT COST:	805,811	4,029.05	2,014.53	12.44
CONSTRUCTION COSTS:				
General Contractor Contract	5,737,350	28,686.75	14,343.38	88.56
Landscaping/Outside Amenities	133,107	665.53	332.77	2.05
Signage	17,212	86.06	43.03	0.27
Construction Management	129,664	648.32	324.16	2.00
Architect & Engineering	143,434	717.17	358.58	2.21
Consultants	25,244	126.22	63.11	0.39
Professional Reimbursables	42,456	212.28	106.14	0.66
Lender & University Inspections	18,933	94.67	47.33	0.29
Testing Fees	32,129	160.65	80.32	0.50
Contingency	194,496	972.48	486.24	3.00
TOTAL CONSTRUCTION COST:	6,474,026	32,370.13	16,185.06	99.93
DEVELOPMENT COST	7,279,837	36,399.18	18,199.59	112.37
Furniture, Fixtures, & Equipment	495,133	2,475.67	1,237.83	7.64
TOTAL DEVELOPMENT COST	**7,774,970**	**38,874.85**	**19,437.42**	**120.01**

Table No. 26

Revised Baseline Comparison of Kentucky Capital Proj. Construction Revised to Scope

Construction Development Cost Comparison of Rev. Baseline to National Research Averages

	AS&U Findiings	Revised Baseline	Net Change	Percent (%) Change
Project Cost	$6,054,737.00	$7,774,970.00	($1,720,233.00)	-28.41%
Size (Sq. Ft.)	56,244	64,786	(8,542)	-15.19%
Residents	198	400	-202	-102.02%
Cost/Sq. Ft.	$100.38	$120.01	($19.63)	-19.56%
Sq. Ft./Resident	304	162	142	46.72%
Cost/Resident-Bed	$28,966.00	$19,437.43	$9,528.58	32.90%
Cost/Unit	$30,579.48	$38,874.85	($8,295.37)	-27.13%

Construction Development Cost Comparison of Revised Baseline to the Actual Baseline Bid

	Baseline Comparison	Revised Baseline	Net Change	Percent (%) Change
Project Cost	$8,580,810.00	$7,774,970.00	$805,840.00	9.39%
Size (Sq. Ft.)	64,786	64,786	0	0.00%
Residents	268	400	-132	-49.25%
Cost/Sq. Ft.	$132.45	$120.01	$12.44	9.39%
Sq. Ft./Resident	242	162	80	33.07%
Cost/Resident-Bed	$32,017.95	$19,437.43	$12,580.53	39.29%
Cost/Unit	$64,035.90	$38,874.85	$25,161.05	39.29%

compiled by AS&U (see Table No. 26), the total project development cost for this comparison is $1,720,233 (or 28.41 percent) higher than the mean project costs, $8,295.37 (or 27.13 percent) higher than the mean cost per unit, but $9,528.58 (or 32.90 percent) lower than the mean cost per resident/bed.

The total comparison development costs of $7,774,970 are comprised of the following budget divisions (see Table No. 2):

Soft Costs less Bond Issuance Costs	$ 154,336	
Bond Issuance Costs	$ 651,475	
Total Soft Costs		$ 805,811
Total Construction Costs		$6,474,026
Furniture, Fixtures & Equipment		$ 495,133
Total Development Costs		$7,774,970

This comparison has the least expensive budget development soft costs when compared to all other models. Since the university/state owns the property, the soft costs of this budget development comparison are significantly less than most other models. The main elements of the budget development soft costs would be the

bond issuance costs and moderate accounting fees. There are savings to be realized due to the fact the university/state would basically be developing its own property under this comparison. There would not be any "developer" fee amounts associated with this particular comparison. The comparison also includes construction costs which would comprise the general contractor's bid price, landscaping and exterior amenities, construction related professional services such as construction management, architectural and engineering services (necessary for scope revision), consultants, etc. In addition to the soft costs and the construction costs, this comparison also includes an estimated cost for furniture, fixtures and equipment and appropriate contingency amounts.

Proforma Analysis of Cash Flows

The purpose of this analysis (see Table No. 27) is to determine the affordability of the project. In the case of this project, the earliest date that the facility could be occupied would be fiscal year 1998-99. The projected double room bed rental rate for that fiscal year is $770 per bed per semester (or $308,000 per semester at 100 percent

Table No. 27 - Revised Baseline Comparison of Student Housing Project Bid Revised to Approved Scope

Proforma Analysis of Cash Flows

Project Bid Amount: $5,737,350 Term: 20 Years Revenue Growth Estimated at 3% per year

Project Development Cost: $7,774,970

Academic Year Occupancy @ 95% Summer Term Occupancy @ 50% Annualized Occupancy @ 83.75%

Unit Type: Double Occupancy Rooms Student Residents Per Room: 2 Number of Units: 200 Number of Beds: 400

Total Square Footage: 64,786

	Year 1 1998-99	Year 2 1999-2000	Year 3 2000-01	Year 4 2001-02	Year 5 2002-03	Year 6 2003-04	Year 7 2004-05
REVENUES							
Fall Semester	308,000	317,240	326,757	336,560	346,657	357,056	367,768
Spring Semester	308,000	317,240	326,757	336,560	346,657	357,056	367,768
Gross Potential Rent	616,000	634,480	653,514	673,120	693,313	714,113	735,536
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	100,100	103,103	106,196	109,382	112,663	116,043	119,525
Rental Revenue	515,900	531,377	547,318	563,738	580,650	598,069	616,012
Less: Operating Expenses	184,000	189,520	195,206	201,062	207,094	213,306	219,706
Utilities							
Maintenance							
Telephone							
Staff							
Cash Flow before Debt Service	331,900	341,857	352,113	362,676	373,556	384,763	396,306
Estimated Debt Service	677,200	677,200	677,200	677,200	677,200	677,200	677,200
Cash Flow after Debt Service	(345,300)	(335,343)	(325,087)	(314,524)	(303,644)	(292,437)	(280,894)
DEBT COVERAGE RATIO	0.4901	0.5048	0.5200	0.5356	0.5516	0.5682	0.5852
Cash Flow Restated	(345,300)	(335,343)	(325,087)	(314,524)	(303,644)	(292,437)	(280,894)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	18,480	19,034	19,605	20,194	20,799	21,423	22,066
Net Cash Flow	(363,780)	(354,377)	(344,693)	(334,717)	(324,443)	(313,860)	(302,960)

Table No. 27 - Revised Baseline Comparison of Student Housing Project Bid Revised to Approved Scope
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	Year 8 2005-06	Year 9 2006-07	Year 10 2007-08	Year 11 2008-09	Year 12 2009-10	Year 13 2010-11	Year 14 2011-12	Year 15 2012-13
REVENUES								
Fall Semester	378,801	390,165	401,870	413,926	426,344	439,134	452,308	465,878
Spring Semester	378,801	390,165	401,870	413,926	426,344	439,134	452,308	465,878
Gross Potential Rent	757,602	780,330	803,740	827,852	852,688	878,269	904,617	931,755
Less Annualized Vacancy @ 16.25% (includes Summer Terms)	123,110	126,804	130,608	134,526	138,562	142,719	147,000	151,410
Rental Revenue	634,492	653,527	673,132	693,326	714,126	735,550	757,617	780,345
Less: Operating Expenses	226,297	233,086	240,078	247,281	254,699	262,340	270,210	278,317
Utilities								
Maintenance								
Telephone								
Staff								
Cash Flow before Debt Service	408,195	420,441	433,054	446,046	459,427	473,210	487,406	502,029
Estimated Debt Service	677,200	677,200	677,200	677,200	677,200	677,200	677,200	677,200
Cash Flow after Debt Service	(269,005)	(256,759)	(244,146)	(231,154)	(217,773)	(203,990)	(189,794)	(175,171)
DEBT COVERAGE RATIO	0.6028	0.6209	0.6395	0.6587	0.6784	0.6988	0.7197	0.7413
Cash Flow Restated	(269,005)	(256,759)	(244,146)	(231,154)	(217,773)	(203,990)	(189,794)	(175,171)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	22,728	23,410	24,112	24,836	25,581	26,348	27,139	27,953
Net Cash Flow	(291,733)	(280,169)	(268,258)	(255,990)	(243,353)	(230,338)	(216,932)	(203,124)

Table No. 27 - Revised Baseline Comparison of Student Housing Project Bid Revised to Approved Scope
Page 3 of 3

	Year 16 2013-14	Year 17 2014-15	Year 18 2015-16	Year 19 2016-17	Year 20 2017-18
REVENUES					
Fall Semester	479,854	494,250	509,077	524,349	540,080
Spring Semester	479,854	494,250	509,077	524,349	540,080
Gross Potential Rent	959,708	988,499	1,018,154	1,048,699	1,080,160
Less Annualized Vacancy					
@ 16.25% (includes Summer Terms)	155,953	160,631	165,450	170,414	175,526
Rental Revenue	803,755	827,868	852,704	878,285	904,634
Less: Operating Expenses	286,666	295,266	304,124	313,248	322,645
Utilities					
Maintenance					
Telephone					
Staff					
Cash Flow before Debt Service	517,089	532,602	548,580	565,038	581,989
Estimated Debt Service	677,200	677,200	677,200	677,200	677,200
Cash Flow after Debt Service	(160,111)	(144,598)	(128,620)	(112,162)	(95,211)
DEBT COVERAGE RATIO	0.7636	0.7865	0.8101	0.8344	0.8594
Cash Flow Restated	(160,111)	(144,598)	(128,620)	(112,162)	(95,211)
Recommended Annual Repair and Replacement Reserve @ 3% of Gross Potential Revenue	28,791	29,655	30,545	31,461	32,405
Net Cash Flow	(188,902)	(174,253)	(159,164)	(143,623)	(127,616)

occupancy). The adjusted annualized vacancy rate of 16.25 percent (-$100,100) applied to the gross potential annual revenue of $616,000 yields a net annual rental revenue of $515,900. Annual operating expenditures for the facility (i.e. staffing, utilities, maintenance, telephone, etc.) are estimated to cost $184,000 the first year and are adjusted at an annual growth rate of three (3) percent.

The debt coverage ratio for fiscal year 1998-99 (year one in the project proforma analysis) is 0.4901 and only improves to 0.8594 over the next 20 years (FY 2017-18). This does not take into consideration the recommended annual repair and replacement reserve account that is calculated at three (3) percent of the gross potential revenues. Based on this proforma analysis of cash flows, assuming that this project must generate appropriate revenues to cover operational and debt service expenditures, this renovation project would not be cost effective. Assuming that a deficit situation would be allowed, based on this proforma analysis of cash flows for this comparison, the project would lose an estimated amount of ($5,122,285) over the 20-year term of the project indebtedness. Realistically the term for such

a project would more than likely be 30 to 40 years; therefore, the estimated loss over a 20-year term may be somewhat conservative.

Study of Selected Student Housing Privatization Programs

Five public universities outside of Kentucky were selected and studied as a result of their successful student housing privatization programs. Those public universities were: 1) University of Maryland at College Park; 2) University of Texas at Austin; 3) Henderson State University in Arkansas; 4) George Mason University in Virginia; and 5) University of Texas at San Antonio. Although each university was somewhat unique in terms of characteristics, each has experienced success in privatizing their student housing development and operations.

The University of Maryland at College Park developed a 331-unit graduate student housing complex. This renovation of existing student housing required a long-term 25-year lease. The university may retain ownership of the property after the 25-year lease period or may renew the lease agreement for a negotiated period of time. The most attractive aspect of this venture was that the university was able

to renovate their existing facilities, properly house their students in a competitive environment, and the agreement between the university and the private development firm produced an estimated $10 million net present value cash flow to the university (Sturtz et al., 1996). The proceeds of the venture could be utilized by the university as unrestricted funds. The University of Maryland at College Park was able to meet their student housing needs without incurring a financial liability on their balance sheet.

The University of Texas at Austin developed the Dobie Center, one of the nation's largest privatized student housing complexes. The Dobie Tower is a 947 bed 27 story student residence hall that sits on top of Dobie Mall, a 96,000 square foot retail mall. The facility also includes a 668 car commercial parking garage. The facility is staffed with approximately 100 employees responsible for all areas of operation including business administration, residence life/student development, food service, maintenance, and accounting. Services are administered by a professional management team in conjunction with a para-professional staff consisting of a resident director and 20

student resident assistants. The center underwent an extensive $5,000,000 physical renovation including the full-service student residence hall and cafeteria, study rooms, computer center, basketball court, volleyball court, swimming pool and jacuzzi, and fitness center. The privatized renovation project increased occupancy from 70 percent to 100 percent, increased student retention in the housing facility from 10 percent to 25 percent, and increased the facility market value from $10,200,000 to $39,500,000. The facility generates annual revenues in excess of $7 million dollars and has an annual operating budget in excess of $4.5 million dollars. At the conclusion of the 20-year lease agreement period, the University of Texas at Austin can purchase the facility for one ($1) dollar (Bayless, 1996). This privatized student housing venture allowed the university to properly house its students in a modern facility with many amenities while significantly improving the facility. The university also participates in annual profits from the venture.

Henderson State University in Arkadelphia, Arkansas developed a project in 1996 consisting of 120 privatized on-campus apartments

with a clubhouse and pool/spa situated on 5.5 acres. The efficiency units house 288 students in apartment style 2 bedroom, 2 bath or 4 bedroom, 2 bath units. The project was especially important to Henderson State University because it allowed the closure of five residence halls which previously accommodated 455 students. The project utilized private capital thus relieving the university from any financial obligations while effectively closing out-dated student housing facilities and providing modern, competitive housing for the students. The university and private development firm authored a significant, model ground lease agreement for this project (Sramek, 1996).

Privatization is not new to George Mason University in Fairfax Virginia. "The university currently has approximately $30 million in contracts with private companies that provide more than 50 services" (Freeman, 1995, p. 1). During 1996 George Mason University went a step further than most campuses. It may be the first public university in the nation to privatize the management of its entire student housing operations - 2,500 beds in all. "The impetus came primarily from two sources: unprecedented cuts of about $500 million in Virginia's

higher education funding between 1990 and 1994 and a strategic decision to focus the university on its core mission of education" (Biddison, 1996, p. 19). According to Freeman, "residence halls are usually viewed as a special category. Dorms have the aura of university supervision, and college officials fear parents will worry if an outside party takes charge" (1995, p. 1). "The problem with contracting out residence halls has been what to do about students' residence life - the *in loco parentis* role that universities traditionally have played," says George Schwarzmueller, executive director of the Association of College and University Housing Officers - International. "Who's going to be in charge of education, counseling, activities, discipline - all the things that are a daily part of residence hall life - if not the university itself?" (Freeman, 1995, p. 1).

Officials of George Mason University shared these concerns, but they believed that good contractual agreements could address them. Their overriding goal was to attract more students to campus residence halls by providing additional amenities (Freeman, 1995). The George Mason University situation differs from that of some

other universities because many of their students are commuters. The university has no residence requirement, even for freshmen. Eighty to 85 percent of their students hail from the local area, making off-campus housing especially tempting. "Given the changing nature of today's students, we felt we needed to do a much better job in residential services," says Ken Bumgarner, GMU Associate Vice President/Dean of student services. "We wanted a private company to come in and run our student housing operations like it was a hotel that could offer more than we could." (Freeman, 1995, p. 1).

During May, 1995, the George Mason University's board of trustees voted to turn control of all campus housing operations, with a capacity of more than 2,800 beds, to a newly formed partnership called Campus Hospitality. Under a three-year contract, the university will pay Campus Hospitality from $225,000 to $275,000 annually to run two large dorms and assorted smaller units, including garden apartments and town houses - approximately 60 facilities total. For every bed Campus Hospitality fills above the 2,500 beds occupied during the 1994-95 school year, the company will receive an additional

$90 from the university. University officials hope that Campus Hospitality's efforts will entice 200 to 300 more students to live on campus, bringing in an extra $1.4 million dollars in housing revenues during the next three years while keeping the fee for living in university housing at its current levels (Freeman, 1995).

Much like the University of Texas at Austin, the University of Texas at San Antonio has developed privatized student housing. During 1992, 600 apartment-style units were developed housing 1,456 students. The efficiency apartments include 1 bedroom, 1 bath units; 2 bedroom, 1 bath units; 2 bedroom, 2 bath units; and 4 bedroom, 2 bath units. The on-site amenities include 2 clubhouses for students, 2 fitness centers, 3 pavilions with barbecue grills, 3 outdoor swimming pools/spas, 2 sand volleyball courts, and a basketball court. According to the developer, this venture has been extremely successful in terms of effectively housing the university's students as well as producing profits for the university and developer (Sramek, 1996).

The development of privatized student housing on the campuses of the above referenced 5 public universities outside of Kentucky have

proven to be beneficial to the universities. Privatization of student housing first and foremost provided an effective means of meeting their student housing needs. In addition to accomplishing this goal, the privatization of student housing also provided much needed renovations to some existing facilities while enhancing the cash flows of each university studied. Specific benefits to the educational institutions were as follows:

1) No financial investment required on the part of the educational institution.

2) The projects were not secured in any way by the balance sheets of the educational institutions.

3) A very attractive lease period (typically 20 years), at the end of which the educational institution may purchase the facility (typically for $1).

4) A low cost of capital for the development and construction and/or acquisition and renovation of the facility that will provide the institutions with optimal cash flows from the operations.

5) The option for the educational institution to purchase the facility at the end of each fiscal period, at an amortized price well below the "fair market value" of the facility.

6) The ability of the institutions to cancel the lease, and option to purchase, at the end of each fiscal period thus limiting the institution's financial liability.

7) Significant capital reserves to ensure the facility is maintained in top condition.

8) Professional student housing management by firms with proven track records in the privatized student housing industry.

9) Maximum control over the management of the facility via the management committee typically evenly staffed by developer and university personnel (Bayless, 1996, p. 11).

Traditionally, students at institutions of higher education throughout the nation have two choices when it comes to choosing housing accommodations; the on-campus residence hall or an off-campus apartment. These products are at opposite ends of the student housing spectrum. Both have advantages, but neither provides the optimal housing alternative for many of today's college students. Some of the positive attributes of the typical on-campus residence hall and the typical off-campus apartment are as follows:

Positive Attributes of a Typical On-Campus Residence Hall

* Convenient on-campus location
* On-site residence life staff
* Academic atmosphere, an extension of the classroom
* Fully furnished accommodations

* No utility deposits
* No monthly utilities
* No hidden costs
* Individual liability lease
* Reasonable lease terms if you graduate or transfer
* Being part of a "Student Community"
* Educational, recreational and social programs
* Opportunities for personal growth
* Exposure to social & multi-cultural issues
* A "perceived" safer environment

Positive Attributes of a Typical Off-Campus Apartment

* The product students want to live in
* The ability to have a private bedroom
* Having your own living room to watch what you want to watch on TV
* The ability to have your own kitchen to cook what you want to eat, when you want to eat it
* Having a private bath or sharing one with only one other person

* The luxury of apartment amenities
* Quieter than a residence hall with common corridors and floor lounges (Bayless, 1996, p. 15).

The privatized student housing product coupled with its specialized student services program typically incorporates all of the attributes of each of the above products, offering the optimal student housing alternative. The product fills the void on the student housing product spectrum with a balanced offering that meets the needs of the student, addresses the concerns of parents, and enables the educational institution to increase students' exposure to a sound residence life and student development program.

CHAPTER V

DISCUSSION OF DATA

In the Commonwealth of Kentucky, if a public university makes the decision to construct new or renovate existing student housing facilities, the construction of the student housing facilities would be subject to the provisions of the Kentucky Model Procurement Code (KRS 45A.070 to 45A.165) and the Capital Construction Act (KRS 164A.595). Accordingly, the construction or major renovation of the building must be publicly bid, the payment of the general contracted and subcontracted labor must be in accordance with the prevailing wage rate laws, and the funds allotted or allocated to such a project must be approved by the central state government. In this study, this process was followed during the development of the baseline comparison project, the development of the revised baseline project comparison, and the implementation of Kentucky House Bill 622 for new or renovated student housing facilities.

Model 1A and 1B deal with the creation of a non-profit

corporation for providing housing for university students. If by definition the corporation were "affiliated" to the university within the meaning of the Kentucky Revised Statutes, it would be subject to the same accounting procedures that the university would be required to follow, and any contracts awarded or services purchased would be subject to the provisions of the Kentucky Model Procurement Code. Any construction would necessarily involve the solicitation of bids or a request for proposals. Moreover, if any of the funds used on a student housing project were to pass through the public university, then the expenditure of those funds would be subject to the approval of the requisite official of the central state government. Very similar to any commitment of university students to the housing corporation project.

If, however, the non-profit corporation were non-affiliated, meaning not controlled or funded by the university, then state approval of a student housing project might not be required. The difficulty in this arrangement lies in complying with the Kentucky Model Procurement Code. It is the legal opinion of some that

providing student housing for a public university falls within the definition of a "service" under the Kentucky Model Procurement Code. Thus, the Code's provisions must be followed. Moreover, if the university makes a commitment to send its students to student housing facilities provided by this unaffiliated corporation, the commitment could be viewed as a commitment of public university funds to the housing corporation. As such, the expenditure of funds would be subject to the approval of the appropriate office of the central state government.

The Kentucky statute concerning higher education finance (KRS 164A.555 to 164A.630) states that nothing in the statute shall be construed as impairing the right or ability of an individual or other entity to give, devise, bequeath, or in any other way convey property to a state/public university (KRS 164A.615). It follows that, if such individual or entity is able to build a student housing facility with its own funds, then it is well within its rights to give the facility to the university. It would still be the university's role or responsibility to manage such facility.

Models 2A and 2B deal with the privatized development and construction of existing and new university student housing facilities. The Model 2A development of existing student housing facilities on state-owned land would require significant involvement by the central state government. In Model 2B, if the privatization/development corporation which specializes in constructing new student housing facilities and administering university student housing could be hired by a university to develop student housing on private land, the university would be required to follow the procedures outlined by statute in the Kentucky Model Procurement Code. Typically, the procurement of such services would be in accordance with the request for proposal (RFP) process. Should a university directly or indirectly pay this independent housing corporation, then the funds allotted to such an entity would be subject to the approval of the central state government.

If, however, there were no commitment by the university to send students to the facilities constructed by such a corporation, then the approval of the state government would not be required. This

arrangement would seem to be no different than one in which a person or private corporation constructed an apartment complex and made it available to university students. The difficulty in this scenario is that it seems improbable that a person or other corporation would construct a housing facility without a commitment from the university to fill it with students.

A Kentucky public university could contract with a private entity to construct a student housing facility on state-owned land under a "built-to-suit" lease arrangement (KRS 56.8175 and 56.820). In such an arrangement, the university conveys its own property to a firm or other entity, which then constructs the housing facility on the land. The university then leases the property back from the private firm. At the conclusion of the lease, the university has the option to buy the facility. Because all state land is owned by the Commonwealth of Kentucky rather than the public university, such a financing arrangement must be approved by the central state government. From a cost perspective, this financial scenario would be similar to the baseline project cost comparison.

A similar lease arrangement was reviewed legally for use by Kentucky public universities. This arrangement was the use of a ground lease as utilized by Henderson State University of Arkansas. This arrangement involves a lease of state-owned property from the university to the private, constructing entity, with the university retaining the right to "buy out" the newly constructed facility at the end of the lease term. One advantage to the university is that no funds are paid out under this arrangement. The private constructing entity takes the risk that its proceeds from student rentals will amply exceed its investment (Arkansas, 1996). Selection of the contracting entity would be subject to the Model Procurement Code bidding procedures for Requests for Proposals (RFP), and the entire arrangement would be subject to the approval of central state government. Similar ground lease agreements are utilized successfully by universities, privatization firms, and state governments across the nation.

Fully implementing a public Kentucky university's election to renovate existing student housing facilities or the construction of new

student housing facilities in lieu of the Kentucky Finance and Administration Cabinet under House Bill 622 (models 3A and 3B) would limit the involvement of the central state government in each of the proposed arrangements. However, bidding requirements would still have to be followed where applicable. The Capital Construction Act (KRS 164A.595) would still apply and the Finance and Administration Cabinet would still have to approve transfers of interest in real estate.

There have been legal discussions regarding the definition of a "political subdivision" as it pertains to Kentucky public universities. Some feel that a public university is a "political subdivision" of the state, while others believe that it is difficult to make an analogous argument to allow a public university to be a "political subdivision" by definition. Such legal connection is important to public state universities because as a "political subdivision" a university could participate in the "Government Leasing Act" (KRS 65.942) as well as take full advantage of the "Kentucky Privatization Act" (KRS 107.700 to 107.760). Some argue that the Kentucky Privatization Act was

intended to allow municipalities to construct infrastructure items such as water and wastewater treatment plants, etc. Others argue that such infrastructure items only prompted the privatization act to be developed and that its intent is to truly "...assure its citizens adequate public services, at reasonable costs..." (KRS 107.700) regardless of where the public services are located - manhole or university campus. Subsection 9 defines "political subdivision" as "the state or any city, county, urban-county, improvement district, water conservancy district, special district, special taxing district, drainage district, metropolitan water district, irrigation district, separate legal or administrative entity constituting a political subdivision under the laws of the state." (KRS 107.710). Some legal experts support the opinion that this definition does not include an entity such as a state university. Since there is no other definition in this section which would include a state university, it is their opinion that the provisions of that Chapter do not apply to state universities. Should a public university be considered a "political subdivision" it may allow some form of utilizing the public school lease/purchase arrangement for student housing construction.

The development of student housing on-campus or off-campus may, in certain instances, require some form of assistance by established non-affiliated foundations or non-profit corporations developed by the universities. In Frankfort Publishing Co., Inc. v. Kentucky State University Foundation, Inc. 834 S.W.2d 681 (Ky. 1992). This case states that the Kentucky State University Foundation is a public agency subject to the Open Records Act. The state university foundation filed declaratory judgement action after the newspaper made a request under the Open Records Act. The Circuit Court entered judgement in favor of the newspaper and the foundation appealed. The Court of Appeals reversed, and further appeal was taken.

The Foundation is a nonprofit Kentucky Corporation, the purpose of which is to receive funds, gifts, grants, devises and bequests and apply them for the benefit Kentucky State University or its students, faculty, staff or agents. The controversy was precipitated when a staff writer for the Frankfort Publishing Co., Inc. d/b/a The State Journal, made a written request of the Foundation, pursuant to

the Open Records Act, KRS 61.870, for a recent audit of the Foundation's records relating to travel and entertainment expenses paid by the Foundation. The request was denied by the President of the Foundation based on his belief that the Foundation was not subject to the Open Records law. Pursuant to KRS 61.880(2), the newspaper sought an opinion from the Attorney General who determined that the Foundation was a public agency within the meaning of the law and the records requested should be furnished promptly. Thereafter the Foundation instituted a declaratory judgement action in the circuit court pursuant to KRS 61.880(5). The circuit court entered summary judgement in favor of the newspaper. The Court of Appeals reversed the circuit court, and the appeal followed.

In Kentucky Tax Commission v. Sandman, it was noted that a legislative act should be read in light of the act as a whole regarding its legislative intent and policy. An interpretation of KRS 61.870(1), which does not include the Foundation as a public agency, is clearly inconsistent with the natural and harmonious reading of KRS 61.870

considering the overall purpose of the Kentucky Open Records law. The obvious purpose of the Open Records law is to make available for public inspection, all records in the custody of public agencies by whatever label they have at the moment. Statutes are to be interpreted with a view to promote their objects and to carry out the intent of the legislature (KRS 446.080). In Lexington Herald-Leader v. University of Kentucky, 732 S.W.2d 884 (1987) the case deals with the Open Meetings Act and reflects the legislative intent embodied in similar laws and noted that the clear intent of the law was that the public be informed.

The Court did not believe that an analogy to Courier Journal and Louisville Times Company v. University of Louisville Board of Trustees, Ky. Alp., 596 S.W.2nd 374 (1980) is sound. That case held that the University of Louisville Foundation was not a public agency as defined in KRS 61.805, but that because the governing Board of Directors of U. of L. Foundation included the entire membership of the U. of L. Board of Trustees, all meetings were required to be open pursuant to KRS 61.810. The decision is a combination of the Open

Meetings and Open Records law. A group of citizens should be entitled to form an organization for purposes of raising money and engaging in other activities beneficial to a state university without being subject to the Open Records Act. The determination should be whether any such organization was, in fact, an agency of the university or was a private entity which merely intended to serve a public purpose (Courier Journal, 1980).

Attorney General opinion OAG 94-63 deals with construction of the University of Kentucky library project. Money will be allocated to fund the construction of a new library for the University of Kentucky. This money will not be expended directly by the University of Kentucky, but rather will be transferred from the Athletic Association to the University of Kentucky Alumni Association, Inc., which will use the money to pay the debt service on the bonds issued by the Lexington Fayette Urban County Government. When the bonds are retired, the Alumni Association will transfer ownership of the library to the University of Kentucky. It is the opinion of the Attorney General that the University of Kentucky library project is not subject

to the provisions of the Capital Construction Act. Thus, the state government in not entitled to approve the project.

Additionally, this Opinion defines an affiliated corporation as a corporate entity which is not a public agency and which is organized pursuant to the provisions of KRS Chapter 273 over which an institution exercises effective control and which did not exist or effectively operate in the absence of substantial assistance from the institution of higher education. It then concludes that the University of Kentucky Alumni Association is not an affiliated corporation because the University of Kentucky does not exercise effective control over it and because it can exist and operate without substantial assistance from the University.

Attorney General opinion OAG 84-189 states that the university management legislation (KRS 164A.550 to 164A.630) would not prevent the Murray State University Foundation from becoming or remaining nonaffiliated with Murray State University or any other state agency.

In OAG 82-520, the Attorney General issued an opinion that

even though KRS 41.290 permits universities to keep private funds and not transfer those funds to the treasurer, does that also mean the purchasing procedures of KRS Chapters 45 and 45A do not apply either. It is the opinion of the Attorney General that state universities are generally not required to follow the procedures of KRS Chapters 45 (the Capital Construction Act) and 45A (the Model Procurement Code) in the expenditure of private funds or contributions so long as no germane provisions in House Bill 622 are applicable.

Attorney General opinion OAG 82-521 deals with the issue whether state universities have a choice as to whether the provisions of House Bill 622 apply to their affiliated corporations (i.e., whether these provisions are mandatory or whether they only apply to universities who elect to perform under the provisions of House Bill 622). The Opinion concludes that state universities are at liberty to elect some of, or none of the provisions of House Bill 622. State universities have a choice as to whether or not to organize an affiliated corporation pursuant to KRS Chapter 273 to be subject to revisions of House Bill 622. KRS 1648.560(1) provides that state

universities may elect to perform in accordance with the provisions of House Bill 622, regarding various matters, including affiliated corporations.

The above cases and attorney general opinions are included in this study because the university foundation may play a critical role in the development of future student housing projects on the various campuses of Kentucky public universities. It is very important that the readers (and perhaps users) of this study realize the legal role of the current (and perhaps future) university foundations. The university foundation has the potential to become a provider or facilitator of student housing. The Kentucky public universities have several legally viable options for addressing its student housing situations. All of the options may require some involvement of the Kentucky central state government, with the exception of a ready-to-use facility built entirely with private funds and donated to the university.

Student Housing in Kentucky Public Universities

Currently all 8 public universities within the Commonwealth of Kentucky house students on their campuses. Those universities are:

1) Eastern Kentucky University; 2) Kentucky State University; 3) Morehead State University; 4) Murray State University; 5) Northern Kentucky University; 6) University of Kentucky; 7) University of Louisville; and 8) Western Kentucky University. Of these universities, the University of Kentucky and the University of Louisville have fully implemented Kentucky House Bill 622. This bill, known as the "University Management Bill," was enacted by the 1982 Kentucky General Assembly. There are 6 principal aspects of the bill: 1) accounting, auditing, and payroll; 2) investments and interest income; 3) affiliated corporations; 4) capital construction; 5) purchasing; and 6) acquisition, disposition, and leasing of real property. Specifically, of interest to this research study is Section IV - Capital Construction of the bill. The development of student housing on any public Kentucky university campus is considered capital construction.

Section IV - Capital Construction of Kentucky House Bill 622 provides policies and procedures to allow "any university to elect to perform its own capital construction function" (Kentucky House Bill

622, 1982, p. 28). Although the University of Kentucky and the University of Louisville have elected to implement this bill, they are each required to follow the Kentucky Model Procurement Code and applicable Kentucky Revised Statutes pertaining to general policies and procedures. Typically prior to the development of a capital construction project, the university must employ an architect. The architect would typically be selected through the use of a Request for Proposal (RFP) for professional services in accordance with the Kentucky Model Procurement Code. Once the architect is selected, "there are five basic services that can be expected from an architect when that person is hired: 1) schematic design; 2) design development; 3) contract document development; 4) bidding advisement; and 5) construction monitoring" (Earthman, 1992, pp. 109-110). After the architectural firm is selected and construction documents (plans and specifications) are prepared, the student housing project is publicly bidded, a contract awarded to the general contractor, and project construction is commenced. There are some individuals within the State of Kentucky that feel the overall base bid

for a capital construction project is lower when the state agency (university) bids and manages the capital construction project instead of the state's full involvement. These feelings helped to support the development of Kentucky House Bill 622, the "University Management Bill."

According the Kentucky Revised Statutes (KRS) Chapter 7A.010, a "capital project" means: (a) any undertaking which is to be financed or funded through an appropriation by the General Assembly of general fund, road fund, bond fund, trust and agency fund, or federal fund moneys, where the expenditure is a capital expenditure pursuant to statute or under standards prescribed by the Legislative Research Commission under the authority of KRS Chapter 48; or (b) any undertaking which is to be financed by a capital expenditure for use by the state government or one of its departments or agencies, as defined in KRS 12.010 or enumerated in KRS 12.020, including projects related to the construction or maintenance of roads, and including projects of institutions of higher education as defined in KRS 164A.550(2); or (c) any capital construction item, or any

combination of capital construction items necessary to make a building or utility installation complete, estimated to cost four hundred thousand dollars ($400,000) or more, or any item of movable equipment, estimated to cost one hundred thousand dollars ($100,000) or more, regardless of the source of funds; or (d) any lease of real property whose value is two hundred thousand dollars ($200,000) or more, or (e) any lease of an item of movable equipment if the total cost of the lease, lease-purchase, or lease with an option to purchase is one hundred thousand dollars ($100,000) or more. According to the capital planning definitions, a "state agency" means any department, commission, council, board, bureau, committee, institution, or other entity of the executive, judicial, or legislative branch of the state government.

By definition, the 8 public Kentucky universities are considered agencies of the state; therefore, development and construction of student housing facilities on the university campuses would be governed by the capital construction regulations. With the exception of the University of Kentucky and the University of Louisville since

implementation of Kentucky House Bill 622 provisions, the remaining 6 public Kentucky universities are required to follow the policies and procedures of the Commonwealth of Kentucky, Finance and Administration Cabinet. Finance and Administration Cabinet policy number B0-200-10-00 defines that the scope of the Kentucky Department for Facilities Management is to be responsible for the state capital construction projects program: the procurement of necessary consulting services related to the study and design of construction and renovation projects; the advertisement and award of construction contract services and the monitoring and inspection of construction contracts; the formation of state communications policy procedures, systems required and promotion of economy and efficiency in communications systems for State Government; to provide general maintenance and operation services for state owned buildings and grounds in the Frankfort, Kentucky area with the exception of Kentucky State University and Department of Military Affairs; acquisition and disposal of real property, managing space of state owned and leased properties and leasing of property for state use

(KRS 42.014 and KRS 42.027).

The Department for Facilities Management is divided for administrative and functional purposes, into a Division of Engineering, a Division of Contracting and Administration, a Division of Telecommunications, a Division of Real Properties, and a Division of Physical Plant. The Department of Facilities Management Division of Engineering is responsible for administering the capital construction funded program, consisting of but not necessarily limited to, employment of consultants, project programming, cost estimates, monitoring of design and construction and construction project funds. The Division of Contracting and Administration is responsible for performing the advertisement and awarding of all construction projects and monitoring the agency construction procurement process. Currently the state allows architectural and engineering fees to be charged as a basic fee based on the cost of construction. For new construction projects costing up to $25,000, the architectural and engineering fee would be 12 percent of the construction costs. For new construction projects costing $3,000,000 or more, the architectural

and engineering fee would be five (5) percent of the construction costs. For renovation of existing projects, the state would multiply the basic fee by 1.25 and allow the resulting percentage of the construction costs to be charged by the architects/engineers. Some feel that such fee schedules are too high and contribute to inflated project development costs and that the architectural and engineering firm selection process is not extremely competitive. It is also felt that when the state selects the architectural and engineering firms for the agency (university) project, the architectural and engineering firm only has loyalty to the state and not the agency. Often this attitude results in minimal participation by the state and architectural and engineering firm into the educational or functional programming of the agency's facility. This is extremely unfortunate because the agency (university) must utilize the facility in their program and also maintain the facility for the life cycle of the facility.

Northern Kentucky University contracted with a private entity to construct a student housing facility on state-owned land. Under the "built-to-suit" lease arrangement (KRS 56.820), the university conveyed

its own property to a private firm, which then constructed the housing facility on the university's land. The university then leased the property back from the private firm. At the conclusion of the lease, the university has the option to buy the facility (Northern Kentucky University RFP# 041790, 1990). Because all state land is owned by the Commonwealth of Kentucky rather than the university, such financing arrangements had to be approved by the central state government. Kentucky Revised Statute 56.820 defines the "built-to-suit" lease arrangement that must be followed by a state agency for such ventures. The RFP for the Northern Kentucky University student housing project invited proposals from "qualified lessors or developers who were interested in constructing on a built to suit and lease back basis a suitable, affordable residential development on the campus of Northern Kentucky University" (NKU, 1990, p. 1). The lessor/developer had to assume responsibility for the design, financing, construction, furnishing, maintenance and upkeep of the desired facility in exchange for a not to exceed 20-year contractual lease agreement guaranteeing, to the extent authorized and provided by law,

rental payment sufficiently covering the costs of development, construction, maintenance, etc. The structures were to be operated and maintained by Northern Kentucky University.

The Commonwealth of Kentucky leased the facility from the lessor/developer through biennially renewable leases by Northern Kentucky University, for a period not to exceed 20 years with rental payments covering the total cost of the design, financing, furnishing, maintenance, upkeep and repair, and construction of the residential facility. At the end of the 20 year period, the lessor/developer shall convey the development to the Commonwealth in fee simple with covenant of general warranty of title, free of any mortgages, liens, or other encumbrances of title; provided, however, that the Commonwealth shall have the option of purchasing the development at any time prior to the end of such period (NKU, 1990).

Although Northern Kentucky University encountered moderate difficulties as the "pioneer" for the development of university student housing utilizing this arrangement, the project was successfully developed. Since that time, several other "built-to-suit" projects have

been successfully implemented by state agencies other than public universities. A public Kentucky university may wish to pursue this legally viable option for the development of new student housing facilities.

CHAPTER VI

FINDINGS AND CONCLUSIONS

Purpose

The purpose of this study was to provide a comparative cost analysis of various student housing models currently available to public universities located within the Commonwealth of Kentucky. A derivative of this analysis may be to assist in the determination of the most appropriate student housing model for effectively and efficiently providing such student housing. Before any university can determine which model may be appropriate for their particular student housing situation, they must determine their student housing goals and purpose. The importance of establishing goals and purposes is illustrated in this quote from Alice in Wonderland:

> "Would you tell me please, which way I ought to go from here?" asked Alice. "That depends a good deal on where you want to go," said the Cheshire Cat. "I don't much care where," replied Alice. "Then it doesn't matter which way you go," said the Cat (Daley, 1989, p. 2).

It is extremely important for a public university to possess some

knowledge of where they are now and where they wish to be at some point in the future regarding their student housing program before merely selecting any given model or procedure to utilize. What particular student housing model corrects one situation on one campus, may compound a similar situation on another public university campus. The implementation of any program or model should require careful analysis of the existing situation and some indication of what goals, purposes, or mission the university would like to achieve for student housing on their given campus. Even in the presence of a global society, student housing situations tend to differ from campus to campus. According to an article by Banning, McGuire, and Stegman entitled Housing That Makes a Difference: Designing Residential Facilities to Meet the Changing Needs of Today's Student Population,

> "Many college and university buildings, including residence halls, were designed and built during a boom of construction in the late '50s and '60s. Many of those buildings are now being renovated and, in addition, there appears to also be a 'mini-

boom' of new construction in campus housing. Whether it is renovation or new construction, several important questions emerge. Are the designs of the past working for today's student? Do current housing facilities have an impact on student decisions to attend a particular campus? What are today's students' preferences in regard to type of housing and what amenities are they seeking? Not only is it important to look at designs of the past, it is also important to look at new and future designs of campus housing in light of students' needs and preferences" (Banning et al., 1996, pp. 53-54).

Findings

Cost data were analyzed for the development of existing and new student housing facility models. Project development costs were analyzed to determine the development costs per square foot of student housing, the construction costs per square foot, the cost per resident or bed, and the cost to develop each bedroom (see Table No. 1). Proforma analysis of cash flows were also analyzed in an effort to determine the affordability of each model based on current and

projected revenues generated by room rental rates.

Total project development costs ranged from a low of $7,302,723 (Model No. 3A; Implementation of House Bill 622 for the renovation of existing student housing facilities) to a high of $9,575,064 (Model 3B; Implementation of House Bill 622 for the construction of new student housing facilities). Such project development costs considered soft costs consisting of development fees, bonding costs, legal and accounting fees, etc.; construction costs consisting of the general contractor's fees, architects and engineers professional service fees, construction management, inspections, landscaping, etc.; and estimated costs for furniture, fixtures, and equipment necessary to complete the project. In an effort to make an identical comparison of costs, the project development costs and construction costs were analyzed on a square footage basis. Project development costs per square foot ranged from a low of $85.90 (Model No. 1B; University-Created Housing Corporation for New Student Housing Facilities and Model No. 2B; Privatization of New Student Housing Facilities) to a high of $132.45 (Baseline Actual Project Bid). Construction costs on a square

footage basis ranged from a low of $58.00 per square foot (Model No. 1B; University-Created Housing Corporation for New Student Housing Facilities and Model No. 2B; Privatization of New Student Housing Facilities) to a high of $97.74 per square foot (Baseline Actual Project Bid). The national average construction cost per square foot presented by AS&U is $100.38 per square foot (see Table No. 1).

The models considered housing a high of 400 residents per facility (Models 1A; 1B; 2A; 2B; 3A; 3B; and Revised Baseline Comparison) to a low of 268 residents per facility (Baseline Actual Project Bid). The national average presented by AS&U is 198 students per facility. The student housing facilities ranged in physical size from a high of 93,000 square feet (Models 1B; 2B; and 3B) to a low of 64,786 square feet (Models 1A; 2A; 3A; Baseline Actual Bid Comparison; and Revised Baseline Project Comparison). The national average as presented by AS&U for student housing facility sizes is 56,244 square feet. This results is a range of space (square footage) per resident from a low of 162 square feet per resident

(Models 1A; 2A; 3A; and Revised Baseline Comparison) to a high of 242 square feet per resident (Baseline Comparison). Models 1B, 2B, and 3B provide 233 square feet of usable space per resident. The national average as presented by AS&U is 304 square feet of usable space per resident.

The cost per resident or bed ranged from a low of $18,256.81 (Model No. 3A) to a high of $32,017.95 (Baseline Comparison). The national average as presented by AS&U is $28,966.00 per resident or bed. The cost per unit or bedroom ranged from a low of $36,513.62 (Model No. 3A) to a high of $95,750.64 (Model No. 3B). The national average is $30,579.48 per unit or bedroom.

The study also compared the affordability of each project by analyzing the net gains (or losses) of each model. Proforma analysis of cash flows were developed for each model. Such analysis considered typical revenues based on average rental rates and current building operating expenses. Revenues and operating expenses were estimated to grow at an annual rate of three (3) percent over the term of the project indebtedness. Debt service bond payments were

estimated to remain constant over the term of the bond and were calculated at the highest annual bond rate to allow for required bond payment reserves. Debt coverage ratios for each model were calculated and compared to financial industry minimal requirements.

The study concluded that as an auxiliary service, each student housing model considered must be required to be self-supporting financially. As an auxiliary service, university educational and general (E&G) funds should not be utilized to support the housing operations. Over the 20-year term of the bond indebtedness, models incurred estimated gains ranging from a high of $321,210 (Models No. 1B and No. 2B) to an estimated loss of ($10,939,793) (Baseline Comparison). The affordability data for the proforma analysis of cash flows were calculated at the current and projected revenues for room rental rates. It was determined that this method of calculation would produce a more realistic financial statement. Theoretically revenues could be increased by raising room rental rates to a point of financial breakeven or perhaps reduce net gains or profits. However, it is generally felt that such a scenario may not be "politically correct" on a

public college or university campus or allowed from a business marketing point of view. It may be extremely difficult in a price-competitive market for a public college or university to require students to pay more to live in campus housing than the local private-sector housing market available to students. As discussed in this research study, there are tangible and intangible benefits to the student for actually living on-campus, but bottomline logic may not allow a public college or university to charge inordinate room rental rates.

Financial lending institutions typically require that a project receiving loan/bond proceeds have a debt coverage ratio of 1.25 to 1.30 before the project is considered to be financially secure or low risk. This ratio is calculated by dividing the cash flow before debt service by the estimated debt service/bond payment. The following table (No. 28) indicates the beginning and ending debit coverage ratios for each model:

Table No. 28: Model Debt Coverage Ratios

Model Description	Year 1 FY 1998-99	Year 20 FY 2017-18
Model No. 1A: University-Created Housing Corporation - Existing Housing	0.4822	0.8456
Model No. 1B: University-Created Housing Corporation - New Housing	0.7996	1.4021
Model No. 2A: Privatization of Existing Student Housing Facilities	0.4702	0.8245
Model No. 2B: Privatization of New Student Housing Facilities	0.7996	1.4021
Model No. 3A: Implementation of Kentucky House Bill 622 - Exist. Housing	0.5218	0.9150
Model No. 3B: Implementation of Kentucky House Bill 622 - New Housing	0.6671	1.1698
Baseline Actual Project Bid	0.2163	0.3793
Revised Baseline Bid Adjusted to Approved Project Scope Amount	0.4901	0.8594

Based on the information, a typical financial lending institution would view the Baseline Actual Project Bid as the project incurring the most financial risk for bond repayment ability and model number 1B - University-Created Housing Corporation for New Student Housing Facilities and model number 2B - Privatization of New Student

Housing Facilities - as the project models incurring the least financial risk in terms of bond repayment ability. As the most desirable financial performers, model numbers 1B and 2B debt coverage ratios do not exceed 1.25 until year 17 (FY 2014-15) at which time it is projected to be 1.2831. The findings from the literature and from the data yield numerous conclusions regarding the development of existing and new student housing facilities on the campuses of public Kentucky universities.

Conclusions

From a financial comparative cost analysis perspective for the development of existing student housing facilities, model number 3A - Implementation of Kentucky House Bill 622 for Existing Student Housing Facilities - appears to be the most cost effective of all models for the renovation of existing student housing facilities considered in this study. From a rank order comparative analysis of all 5 models and baseline comparisons for the renovation and development of existing student housing facilities, model number 3A was ranked number 1 of 5 (most cost effective) in terms of total project

development cost at $7,302,723; development cost per square foot at $112.72; cost per resident/bed at $18,256.81; cost per unit at $36,513.62 for 200 units; and produced less net loss at the conclusion of the 20 year bond period ($4,299,630) than the other models considered in this study (see Table No. 3, p. 2). It is important to note that all models considered in this study for the renovation of existing student housing facilities produced an unacceptable net loss throughout the project bond indebtedness and all existing facility projects had unacceptable debt coverage ratios throughout the project repayment period. From a financial perspective, it may be somewhat difficult for the university to obtain funding/bonding for such a student housing project if the project is required to be financially independent. Also, as previously discussed within this study, it is important to note that a public Kentucky university should have a significant amount of reoccurring capital construction projects to properly justify the full implementation of the capital construction section of Kentucky House Bill 622. Financial consideration should be given to any decision to implement the election of the University Management Bill due to the

perpetual financial impact on the salaries and fringe benefits of the new full-time positions within the university as well as the initial first costs for additional office space, furniture, and fixtures.

From a financial comparative cost analysis perspective for the development of new student housing facilities, there was a tie for first place between model number 1B - University-Created Housing Corporation for New Student Housing Facilities and model number 2B - Privatization of New Student Housing Facilities. Among the new student housing facilities considered in this study, models 1B and 2B are tied for first place in each of the rank order comparative analysis categories. For each of the two models (1B and 2B), the total project development cost was $7,988,244; development cost per square foot was $85.90; cost per resident/bed was $19,920.61; cost per unit was $95,750.64 for 100 units; and each model produced net gains at the conclusion of the 20 year bond indebtedness period in the estimated amount of $321,210 (see Table No. 3, p. 3). It is important to note that models 1B and 2B are the only models considered in this entire study that produced net gains at the end of the 20 year bond

indebtedness. All other student housing models (renovation of existing housing facilities and construction of new housing facilities) produced unacceptable net losses throughout the bond repayment period. The debt coverage ratios for models 1B and 2B do not exceed 1.25 until year 17 (FY 2014-15). Considering the fact that this auxiliary service student housing project may be required to be financially independent, lending institutions may exhibit some reluctance to finance this new student housing project based on its slow economical performance.

The budget development for models 1B and 2B are identical. It is assumed that the costs associated with the development and construction of new student housing facilities on public university property for any private-sector entities will be the same, regardless of whether it is the university-created housing corporation or privatization/development firm. It is further assumed that each entity will earn the customary five (5) percent development fee and encounter related soft costs and construction costs associated with project development. Like all other models, development and

construction costs for these models were validated by accountants, attorneys, engineers, and general contractors. All models for the development of new student housing facilities considered revenues based on current and projected room rental rates. This method allowed the proforma analysis of cash flows for all models to be compared on an identical basis.

From a comparative cost analysis perspective, the development of model number 1B - university-created housing corporation for new student housing facilities and model number 2B - privatization of new student housing facilities should be considered identical. However, from a realistic, practical perspective as the two models relate to the development of new student housing facilities for public Kentucky universities, they are somewhat different. As this research indicates, the university-created housing corporation may not be a viable student housing development option due to the noted legal considerations discussed within this study. Whether the housing corporation is affiliated or non-affiliated with the university (much like a university foundation), it may present a significant legal challenge for the full,

effective implementation of this model. In regard to the university-created housing corporation, universities that wish to own, manage, or control a project to achieve certain programmatic or rate-of-return objectives can certainly act as their own project developer. For tax status reasons, it is usually better to do so through a separate real estate development entity created as a related corporation of the institution (i.e. 501 C 3 not-for-profit corporation). In actuality, most institutions have considerable experience in planning, construction, and management of real property. However, they may lack experience in certain aspects of zoning, environmental approvals, commercial financing vehicles, and other aspects of commercial development. In general, an institution should assess the potential value that a private developer adds to a project before deciding to engage one (Kaiser, 1992, p. 898).

Unlike the university-created housing corporation, there now exists many private-sector firms that specialize in the development and construction of college and university student housing facilities. Such private-sector firms, referred to in this study as privatization firms,

typically are in the position to become extremely creative in terms of their ability to offer and produce significant capital investments for the college or university (much like the University of Maryland at College Park study, various soft-drink company transactions with universities, various telecommunication company transactions with universities, etc. as reported in this study). Typically the university-created housing corporation is not able to compete with such entities on a financial basis due to cash flow limitations or more rigid restrictions placed upon the university-created housing corporation's disbursement of funds. Whether affiliated or non-affiliated with the university, the university-created housing corporation may be required to follow the established asset disbursement regulations of the central state government where the privatization firm may only be required to report any such accounting transaction in accordance with generally accepted accounting principles. Any such "sweetheart deals" are legal for the private-sector firms when negotiated by the university during the request for proposal (RFP) negotiation process.

When fully compared to the university-created housing

corporation for the development and construction of new student housing facilities, it appears that the privatization of new student housing facilities may offer the public college or university greater opportunities for additional services, amenities, or cash flows than the university-created housing corporation. On a mere comparative cost analysis basis, the two models appear to be equal. However, in reality based on other similar experiences by colleges and universities, the privatization firms typically allow the college or university to participate in profitable ventures. Typically such profits are equally divided among the private-sector firm and the college or university. For the purpose of this comparative cost analysis study such profits are difficult to quantify; therefore, profits were not reported or identified on the proforma analysis of cash flows. In reality such profits often do exist and their disbursement can be a point of negotiation during the RFP selection process. Typically potential profit margins vary among projects due to variables such as management issues, maintenance issues, the tax-free cost of capital obtained by the developer, etc. College and university officials should

be aware that potential profits are available and should be prepared to negotiate with a developer for the shared disbursement of any available profits from the student housing venture.

Often the privatization of new student housing facilities is considered to be a joint-venture development where the college or university is a partner in development with the private-sector entity. With variations, this alternative usually includes an equity position and an active role for the institution. The developer typically will be engaged in the development planning, financing, marketing, and project management. Various models for such partnerships have been utilized by colleges and universities with varying degrees of success.

The models for the development of new student housing facilities provide appropriate square footage for each resident while providing considerable amenities for the residents.

Discussion

Universities must provide student housing facilities that are safe, functional, and financially marketable. These issues relate to the concept of ecological congruence. Accordingly,

"Ecological congruence refers to the relationship or the 'fit' between students and their campus environment. In the cast of campus housing, ecological congruence focuses on the relationship between student preferences for their living space and the actual built environment of the residence hall. Does the perception or expectation of a 'bad fit' impact the decision to enroll? Does the experience of a 'bad fit' contribute to not returning to the residence hall? Does incongruence lead to the often-heard saying - 'I know it's a great school, but I hated the dorms'? (Banning et al., 1996, p. 54).

The days of the double-loaded corridors and gang toilets and showers are gone. Students typically do not wish to reside in such housing facilities and if given the opportunity will choose to live in more private, functional facilities. "Students today don't want double rooms or even to share a bathroom with more than one other person," says Jim Short, senior VP, Century Property Management. "They want less intrusion into their college living experience" (Freeman, 1995, p. 3).

Regarding student housing demographics, "popularity of housing types are relatively clear. Students are generally reported as preferring the apartment/town house arrangement over all other types. In general, the traditional double loaded corridor is the least preferred unless the doubles are offered as singles and suites are seen as more attractive than the traditional, but less attractive than apartment/town house arrangements (Banning et al., 1996, p. 55). During 1995, Perry Dean Rogers & Partners surveyed approximately 500 college and university housing directors. Fifty-eight (58) percent of the survey instruments were returned by public institutions of higher education. Regarding current student housing and its impact on admission, the top 3 positive elements of current housing programs that impact enrollment are: 1) availability of housing in close proximity to campus; 2) availability of quality facilities; and 3) availability of policies requiring and/or guaranteeing housing. Concerning the impact of student preferences and amenities, the pattern is clear. Students prefer more privacy and larger spaces and less regulations and policies. Amenities, conveniences, and greater control also

emerge as important considerations (Banning et al., 1996, p. 55).

The development of the baseline actual project bid would not be cost effective for the university project studied. The project has a projected net loss of ($10,939,793), not considering the initial investment of $340,000 for architectural/engineering services and $120,000 for asbestos abatement requirements. The debt coverage ratio for the first year was projected to be 0.2163 and only improved to 0.3793 over the next 20-year period of the bond term. From a financial perspective the project is not economically feasible. Also for consideration by the university should be the fact that the proposed project reduced the facility student occupancy load from 440 students to 268 students. In essence, the baseline comparison project would require less students to pay more in terms of the facility renovation costs. In an effort to present an equitable situation for all students living on campus, the university should not require students living in older, less functional student housing facilities to bear the costs of the renovated housing facility. Based on this information, the university should not pursue the renovation of this particular facility for student

housing purposes. Alternative educational and general uses should be investigated for this particular facility.

CHAPTER VII

RECOMMENDATIONS

Student housing and campus residence life are important auxiliary services of the public university and contribute to the total education of students living away from their respective homes during their higher education experience. Student housing facilities need to be safe, functional, and efficient and be provided at the lowest cost possible to the students. Although it is important for student housing facilities to be located in a convenient manner to the academic, administrative, and other auxiliary services (i.e. dining facilities, etc.) offered by the university, students are not typically concerned with who develops or manages the student housing facilities.

According to Sturtz, Doctrow, and Lawrence, higher education appears to face continued reductions in public financial support, and will need to continue to look carefully at opportunities to gain new revenues. "The real estate holdings of a college or university, where significant financial assets are found, may present such an opportunity"

(Sturtz et al., 1996, p. 22). The trend towards using competitive markets in education continues strong. Indicators point to the continued strength of educational privatization for services. An annual survey by American School & University magazine focused on support-service contracting and found that 93 percent of colleges and universities contract for at least one type of non-instructional support service (O'Leary, 1996, p. 27).

The privatization of new student housing appears to be the most cost effective method of providing new student housing on the campuses of Kentucky's public universities. The full development of such student housing will need to be effectively communicated to the central state government officials in an effort to gain the much needed approval for the development and implementation of privatized student housing. Likewise the implementation of Kentucky House Bill 622 appears to be the most cost effective method for the renovation of existing student housing facilities on the campuses of public Kentucky universities. It is important for any public Kentucky university to consider their long-term commitment to capital construction projects

prior to their election of the capital construction section of the University Management Bill - Kentucky House Bill 622.

According to Coopers and Lybrand, regardless of the specific function, service, or activity, there is a core set of issues and questions that management needs to consider in every contract management and/or self-operation decision. These core "decision factors" can be grouped into 6 categories:

1. Financial - the direct and indirect cost to the institution of providing the service through each of the operational/management options available to them.

2. Human Resources - the effect on employees both within and outside the functional area being considered, including the impact on employee compensation, staffing levels, performance evaluation, and compliance with AA/EEO policies.

3. Mission and Culture - the impact on the institution's mission and culture and the implications of choosing an alternative that is not consistent with the institution's historical mission and culture.

4. Management Control and Efficiency - the likely impact that each option will have on the institution's ability to control the overall direction and operational priorities of the functional area and the implications of choosing a management philosophy that features decreased or increased control. Does the institution have the necessary management infrastructure (people, systems, facilities) in place to provide a particular service? Can these capabilities be acquired cost-effectively?

5. Service Quality - the effect each option will have on meeting the needs of its primary customers (students, faculty, and staff).

6. Legal and Ethical Considerations - the level of risk and potential for liability posed by each option, potential conflicts of interest, tax ramifications, and the potential pitfalls and power of the contract (Goldstein, 1993, p. 5).

The relative importance that each of these decision factors has in selecting an operating model will vary from institution to institution and between functional areas.

Implications

There are a number of implications of the transition of a public university's student housing to privatized student housing. Ken Bumgarner of George Mason University identified the following implications associated with their recent transition to privatized student housing. It appears that these implications would apply to any public college or university making the transition to privatized housing. They are as follows:

1. Resident Assistants: The traditional resident advisor staffing pattern is recognized as contributing primarily to residence education rather than management functions of university housing. In privatized housing, all staffing expenses are to be evaluated in light of their contribution to efficient management.

2. Noise violations and vandalism: As in a commercial complex, violations of the decorum sections of the contract will be regarded as lease or license violations and will be handled according to the terms of the contract. Mediation and "student development" contracts will no longer be a resolution process.

3. Psychological emergencies: Management will most likely call local authorities (police/ambulance) to respond. If the hospital or police deem it necessary to notify anyone, it could be "next of kin" as well as the Dean of Students or the counseling center. University officials will normally become involved after the "emergency" is controlled.

4. Roommate incompatibility: Students will have more personal responsibility to resolve the situation themselves. They could be offered an opportunity to move if other accommodations are available.

5. Parental notification: If parents are co-signers of the rental agreement, they could be notified of any violations of the rental contract.

6. Violations of law (alcohol, drugs, assault, etc.): These will be handled as lease violations and/or criminal acts. They will also be reviewed to determine if university judicial action is justified. If it is determined that a significant university interest exists, appropriate university discipline will be pursued.

7. Social interaction: Management staff will attempt to create community to the same degree as a commercial apartment complex. There will no longer be intrusive community building or educational programming.

8. Complaints to University Officials: These will be referred to the appropriate management person in residence hall operations. The complaint will then be handled in the context of lease

provisions. The university's main interest will be that student rights under the lease be respected.

9. Freshmen special needs: It is recognized that entering freshmen have special needs that become even more critical if the student is to be a campus resident. Staffing and appropriate procedures will be developed in cooperation with non-housing departments to respond to those needs.

10. University special interests: It may be necessary to retain enhanced university involvement in a small building to handle special interests. Examples might be a student accused of assault who must be moved from their then-current assignment until a case is adjudicated, scholarship athletes, etc. These units should be operated under special rules that accommodate the special use.

    Orientation to this atypical situation will be needed for both resident students and their parents. They will need to know what to expect in the new arrangement and what the residents' new responsibilities encompass. However, in the context of a committed "customer-provider relationship," it will be clear that the quiet possession provide a more satisfactory situation for everyone involved (Bumgarner, 1997, pp. 19-20).

In addition to the implications affecting students, the transition to privatized student housing may also affect university administration. Such implications may include administrative areas, such as the housing operations office, human resources, accounting, financial management, and facilities management. Careful planning prior to the transition to privatized student housing should make all work

areas aware of the role they play in the successful implementation of privatized student housing.

Goldstein indicates that while the circumstances faced by each campus are unique, the actual conceptual decision process is the same. To be successful, campus decision makers need to employ a structural methodology that enables them to consider a wide range of issues and to arrive at a decision that is in the best interest of the institution and that can withstand the close scrutiny of the many members of the campus community who are likely to have strong opinions on the topic (1993).

The major components or phases of the structural decision process identified by Goldstein are as follows:

1. Identify Key Participants
2. Develop Analytical Framework
3. Assess the Current Environment
4. Identify Customer Requirements
5. Develop Operating Design
6. Identify Operating Alternatives

7. Review Legal, Ethical, and Community Considerations

8. Compare and Contract Proposed Alternatives

9. Select Preferred Alternative

10. Establish Continuous Assessment/Improvement Process (1993, p. 6).

In an effort to effectively implement the transition to privatization of university student housing, several steps have been developed that seem to be essential to the process:

1. The institution's leaders should commit to managing their real estate for peak performance, and identify a single person to spearhead the efforts.

2. Benchmark the university's real estate operating costs, renovations, and development against those for similar projects in the private sector.

3. Obtain first-rate real estate, legal, and financial advice.

4. Take time to discuss with and explain to the university community the reasons for privatization before serious negotiations begin. Solicit other person's views and criticisms.

5. Start with a prototype project to introduce the concept of real estate privatization on campus, using the project to perfect the techniques of implementing the transition (Goldstein, 1993, p. 28).

Recommendation for Further Study

The development of this dissertation study reinforces the need for cost effective student housing on a public university campus. As a result of this study, two closely related topics have emerged as areas needing further study. Consideration should be given for the study of the full privatized operations and management of all public university housing by a private entity. Not only are there now competent private entities available for the cost effective development and construction of student housing, but also private firms specializing in the management of student housing operations - regardless of who develops or constructs the housing facilities. It appears that private housing management firms may be extremely competitive in their pricing for the operation and management of student housing. Universities should again question whether or not they wish to be in the student housing business.

Consideration should also be given to the further study of the Kentucky "built-to-suit" lease arrangement for the development and construction of student housing on public/state land or private land.

An institution may convey control of property by means of a long-term ground lease to a private developer who, in turn, builds and owns the leasehold improvements; typically undertakes all marketing, leasing, and management; and receives the entire return on the development. The college or university receives ground-lease rental payments, which may or may not be tied to revenues generated by the project. For the institution, this is a form of investment that, like stocks and bonds, is entirely passive, requires little or no management, and has a fixed return. Risk is reduced to the risk that the project will fail entirely and the developer might default on ground rent payments. In addition, there is "image risk" in that, if the development is tied to the institution's name, its failure will be a public relations failure for the institution. One of the most interesting features of this kind of development is that ownership of all leasehold improvements reverts to the institution at the end of the lease (Kaiser, 1992, p. 898 - 899). This legal arrangement enabled Northern Kentucky University to effectively develop student housing on their campus. Although moderate difficulties with the arrangement were incurred, the central

state government now appears to be more receptive to such legal arrangements allowing private entities to develop facilities on state-owned property or on private property for state agency use.

Summation

Although public university student housing facilities will only be renovated, developed, or constructed by two entities - the public sector or the private sector - the models studied in this research project may not necessarily represent the only student housing renovation or new development alternatives currently available to a public university in Kentucky. For the purpose of this study, however, the noted models were identified as those most likely utilized by a public university in Kentucky. The privatization of public university student housing is a dynamic industry with research being conducted almost daily across the nation. It appears that the trends are clearly pointing in the direction of partial or full privatized student housing on the nation's public university campuses.

The fundamental arrangement for privatized campus housing is still in the process of being built. While successful on many university

campuses, it will not always necessarily predict performance for other institutions. If the impetus to consider privatizing student housing development, construction, or management is to improve financial performance while effectively housing its students, then university officials should investigate all issues related to privatized student housing - cash flows, capitalization, compensation, working capital, shared obligations, and legal ramifications. Institutions not fully understanding the implications of these issues should proceed with caution and seek appropriate guidance.

Aggressive, growing institutions of higher education should consider every opportunity to provide effective housing for their students. It appears that the privatization of public university housing will provide such an opportunity. This creative approach to meeting the housing needs of students has the potential to improve effective management of scarce university resources. Public colleges and universities should be required to investigate privatizing opportunities prior to expending public funds for student housing. As fiscal support for public colleges and universities is reduced at the state and federal

levels of government, institutions should seek alternative methods of providing effective ancillary operations. Colleges and universities must revisit their core mission, which should be to educate students. They must ask themselves, what are we doing in the student housing business? Services often provided were traditionally offered by colleges and universities because no one else made them available. Today many private entities stand ready, willing, and able to provide student housing services for colleges and universities. Effective implementation of privatized student housing should allow the limited funds in higher education to be utilized for the core activities of the university - - educating the students.

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Danville Community College
Associate in Applied Science, Business Management, 1983

Occupational Experience:
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Projects Coordinator/Engineer, City of Danville, Virginia, 1976-1987

Technical/Professional Reports:
10-Year Major Maintenance Projects/Capital Improvement Plan, Henry County Public Schools, Virginia

Facility Directory, Henry County Public Schools, Virginia

Technical/Professional Reports - Continued:
Americans with Disabilities Act Transition Plan and Self-Evaluation Plan, Henry County Public Schools, Virginia

Comparative Analysis of Facilities and Operations Related Salaries, Henry County Public Schools, Virginia (VPI&SU Study for School Finance Class Requirements)

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