

EXISTING UNIVERSITY CENTER ANALYSIS

History

The University Center opened in 1967, and was followed shortly thereafter with the UC Underground and the UC Satellite both in 1973. For more than forty years the UC Complex has been a center for dining, recreation, meetings, special events, student activities and shopping on campus. The UC Complex totals approximately 247,625 gross square feet, with the UC Satellite at just over 34,000 gross square feet.

Referred to as the "living room" of the University of Houston campus, the UC Complex is the home to UH's student organizations and Student Government Association, as well as many University offices and student services. It offers visitors food service, a campus Bookstore, a ballroom, banking and retail centers, an open arbor, a variety of lounges and meeting rooms, and a games room with bowling.

Campus Framework Plan

The 15-Year Framework Plan responds to UH's strategic plan to increase enrollment from 35,000 to 45,000 over a ten year period and correspondingly increase the on-campus residential population to 25% with 11,000 students living on campus.

Among its attributes, the Plan doubles the academic space, from 8 million square feet to 15 million square feet, doubles the amount of living space, redirects vehicular traffic away from the campus core to its edges, and connects the campus to its neighborhood in a series of "lawns and greens."

It defines Four Perimeter Campus Precincts:



1 Professional Precinct

Northeast portion of campus along Calhoun, the plan calls for an urban mixed-use residential street that caters to graduate and married students. This precinct also houses engineering, business, and law in addition to the University Center Complex

2 Arts Precinct

This precinct on the north side of campus presently includes facilities for music, theater, fine arts, and architecture. Future plans propose loft housing, museum, amphitheater, and a sculpture garden.

3 Stadium Precinct

This is intended to be a new social center of campus that brings together academic and retail space with access to rail and bus lines. As part of its development, there will be the new Cougar Walk, new housing, offices, and a stadium addition with dining, retail and suites.



Professional Precinct

4 Wheeler Precinct

The Wheeler precinct is planned to be the center for undergraduate residential living with new apartment-style residences.

The Framework Plan is already being implemented. The Master Plan for the University Center and UC Satellite takes into consideration the planning principals established, the projected growth in student population and in particular residential population and, and the proposed mixed-use developments identified for the various precincts.

Physical Conditions

The University of Houston University Center and UC Satellite both represent a fairly common building type within the history of unions on campuses across the country. The original building, built in 1967, has several challenges as it faces its fifth decade of service.

The building has multiple and serious challenges that are masked by the quality of the maintenance and cleanliness. An extensive analysis was completed in 2002 which detailed deferred maintenance and capital renewal initiatives. The analysis of existing conditions for purposes of this study was based on visual inspection of the building. Tours of the UC Complex made evident six critical considerations: mechanical, electrical, plumbing, structural, accessibility and egress systems. The deficiency in each of these categories relates to quality and efficiency of the operation, the magnitude of cost to repair and operate, and life safety issues that must be met.

Each type of space currently available for programmed activities was considered. In addition to the quantitative look at the amount of space, qualitative characteristics were assessed as well. Many of the existing facilities are physically outdated and in need of some care.

- **Accessibility:** Though technically accessible for a majority of the spaces, the building does not provide an easy way to navigate through the varying floors. The ease and comfort getting through the building is difficult. The building is a challenge for providing handicap accessibility to all areas. Though the current building provides access to most of the areas, it is sometimes provided in



The World Affairs lounge is not an inviting space for interaction



Dining areas do double service as lounge space for students to hangout



Dean of Students Office does not present welcoming environment for students

a less than acceptable manner. The building signage is also inadequate for persons with sight impairments, and in general is lacking.

- **Building Design:** The UC is centrally located and nearby to the M.D. Anderson Library and Campus Recreation and Wellness Center, two popular destinations. However, the building is essentially opaque, with few opportunities to see activities occurring within; it does not have an inviting entry and the exterior access to Underground is difficult to find, as well as unwelcoming.
- **Lounge Spaces:** The amount of space is inadequate and the physical environment, location and mix of types of lounges are unsatisfactory. The decor in certain areas is out-dated, and furniture in some rooms is not considered comfortable or easily movable. Opportunities for students to "see and be seen," are few and there is little visibility into the social and student activity spaces both from within the building and from outside. Apart from the Arbor, which is unpleasant in inclement weather, there is little open space. Many destination spaces and services are remotely located and interspersed throughout the building. Students often choose not to participate because they can not locate certain offices because of the lack of wayfinding, as well as the inaccessible locations of programs and services.
- **The Houston Room:** The Houston Room functions well and is in great demand. The configuration of perimeter meeting rooms make it difficult to schedule them since the breakout rooms must remain free to have scheduling flexibility for the Houston Room. There is also a desire for a second ballroom space with a larger seating capacity that could be divisible into smaller rooms.

- **Conference/Meeting Rooms:** There is a fairly good distribution of meeting room capacities but a need for a few additional smaller meeting rooms. Meeting space fixtures, furnishings, and equipment should be upgraded to contemporary ergonomic and technological standards to meet the needs of the campus community.
- **Bookstore:** Is moderately undersized and lacks the proper distribution of space that might allow for a larger retail sales area and more efficient office and storage spaces.
- **Food Service:** Requires an increase in space with a greater variety of food selections and dining areas. Substantial improvements are needed for service and food prep areas.
- **Student Organizations:** Amount of space is inadequate and in a poor location in the Underground. It requires substantial reconfiguration and enhancements to aesthetic environment. It needs to offer more opportunities for student and staff interaction, and 24/7 student access. The basement location does not signify the importance of student life on campus and should be viewed as a major shortcoming. There is a need for more functional and flexible carrel configurations and areas for banner-making and meetings.
- **Retail Tenants:** The UC currently houses several retail establishments. Some tenants require additional space and all desire greater visibility and access.
- **Games Room:** The amount of space is sufficient overall but there is a desire to have additional proximate storage space and a more functional service counter with staff office.
- **Administration:** Amount of space is adequate though some relocation of offices is required to improve access and efficiency.
- **Outdoor Areas:** The UC currently offers minimal opportunity for outdoor programming and no amenities are provided to encourage informal gathering or planned activities. A new or expanded space might include additional outdoor seating, wireless internet access, an outdoor performance area and access to food service creating an outdoor lounge space.



The Cougar Den does not function well as a large meeting room

Building Systems Assessment

Shah Smith Associates conducted an analysis of the building systems for the UC and UC Satellite. The full report is included in the Appendix, with a summation of the existing condition of these systems presented below.

University Center

Mechanical Systems

The equipment and distribution systems (with some exceptions) date to the original construction in 1967 and 1973. This places the equipment, ductwork and piping well beyond their normal expected service life.

Supply Air System Description

The ground floor and first floor are served by a combination of single zone and multi-zone air handling units with lined supply air duct and direct mixing of return and outside air in the primary air handling units. These systems are not as energy efficient as variable air volume systems which are the norm in current institutional construction. In addition, they provide poor humidity control because they bypass humid air around the cooling coil during off-peak cooling conditions. The result of poor humidity control is occupant discomfort, mold and mildew.

The kitchen areas receive makeup air from the general air conditioning system. Although there was not sufficient design information available to document this, field observations indicated that the makeup air from the air units was insufficient to maintain positive pressurization of the building. As a result, the building draws in outside air (usually warm and humid) through doors and other openings in the building. This exacerbates the humidity problems in the building and increases energy costs.

The second floor is served by a combination of multi-zone units and constant volume dual duct air units. Constant volume dual duct units are operationally similar to the multi-zone units used for the first two floors, and suffer the same humidity control issues.

Exhaust Air Description

Kitchen exhaust is through non-compensating hoods connected to stainless steel ductwork. The systems appear to be functional and in good shape, but there is not any source of dedicated outside air to the space, which results in both pressurization and comfort problems within the kitchen areas.



Fraying ductliner



Hot Water Piping



Modified Federal Pacific Motor Control Center Bucket

Chilled Water

The pumps and pipe appear to be original 1960's construction and are well past their normal service life. Insulation on the pipes has been removed in places over the years as the result of wear and maintenance, resulting in condensation of pipe surfaces (lost energy, additional corrosion, and moisture in semi-conditioned spaces).

Heating Hot Water

The pumps and pipe appear to be original 1960's construction and are well past their normal service life. The heating hot water piping is in poor shape as indicated by extensive corrosion on the exterior.

Electrical Service

Portions of the electrical service to the building were damaged and refurbished during the flood caused by Tropical Storm Allison in 2001. Through anecdotal evidence the 15kV automatic transfer switch has failed to reliably operate when a 15kV phase conductor failed upstream of the device. The main transformers and main switchboard are the original equipment installed as part of the original building project and thus are reaching the end of their useful life. The transformers that serve the building on the surface appear to have serviceable life left; however, internal insulation damage may exist that was not present or identifiable during field investigations. The main switchboard is showing signs of surface rusting and component failure and unfortunately is not serviceable due to Federal Pacific Electric going out of business in the 1980s. Attempts to retrofit components from other manufacturers into the existing Federal Pacific gear have met with mixed results.

Normal power system

Virtually all distribution gear and branch circuit panelboards are showing signs of age through minor corrosion, locks that will not function, and lack of spare breaker capacity. The gear was manufactured by a company that was forced out of business in the 1980s. While branch circuit panelboards have adequate ampere capacity to serve the loads presently required, the same panelboards lack adequate spare circuit breaker capacity. Most branch circuit panelboards in the building have little or no spare circuit breakers or spaces.

Several devices located in areas subject to constant moisture exposure, such as kitchen equipment, are showing signs of major corrosion.

Emergency power system

The emergency generator and ATS were replaced in 2001 following Tropical Storm Allison. The electrical distribution equipment is in similar condition to the rest of the electrical distribution equipment in the building in that the panelboards are no longer serviceable and are showing signs of age. The emergency panelboard in the basement is missing protective covers exposing live parts on the interior of the panelboard.

Lighting System

Lighting levels appear to be adequate. Luminaire finishes are relatively aged, but the luminaires themselves are typically in good, working condition. As is expected, some luminaires show signs of minor corrosion.

Fire Alarm System

The fire alarm system for the entire building was upgraded in 2004, at which time the present SimplexGrinnell system was installed. All detection and alarm devices appear new and in good working order.

Plumbing and Fire Protection

Plumbing piping and equipment are (for the most part) original to the 1967 construction. There are numerous plumbing issues associated mostly with the kitchen and the foundation problems.

Hot potable water comes from a steam to water heat exchanger located

in the base floor mechanical room. There is only one heat exchanger, and if it fails, the building has no source of hot water. The hot water is not softened, and based on the scale that has been found in both hot and cold water pipes, is likely to scale the heat exchangers.

UC Satellite

Mechanical Systems

The mechanical systems were replaced after tropical storm Allison in 2001 (work was completed in 2003). The equipment appears to be in good condition, and with relatively few exceptions, is in no need of replacement.

Electrical Systems

Most of the electrical service to the building was damaged and refurbished during the flood caused by Tropical Storm Allison in 2001. Renovations were completed in 2003. The equipment noted in the field investigation appears to be in relatively good condition. The service gear is manufactured by GE and still serviceable through conventional channels.

Emergency Power System

The emergency generator and ATS are in like-new condition.

Lighting System

Lighting levels appear to be adequate. Luminaires are in like-new condition.

Fire Alarm System

The fire alarm system for the entire building was upgraded in 2003, at which time the present SimplexGrinnell system was installed. All detection and alarm devices appear new and in good working order.

Plumbing and Fire Protection

Plumbing piping and equipment were replaced as part of the 2001 renovations and are in good condition. No significant issues have been reported.

Meeting / Event Space Usage Analysis

An analysis of the University Center facilities reservation data for event / meeting spaces was conducted to identify current volume and usage patterns. The findings provide an understanding of the usage pattern for spaces and guide recommendations for sizing and quantity of spaces for the project program.

Information was gathered from interviews with the UCAF Conference and Reservations Services staff, inquiries during focus groups, and user interviews about existing event planning challenges as well as an analysis of reports from the department's room scheduling software for 2006 through 2008. A summary chart of the scheduling data is provided in the Appendix.

Bldg.	Meeting Rooms	Room Category	Sq. Feet	Standing (Empty)	Row Chairs	Banquet	Class-room	Conference / Square	U-Shape Tables
UC	Palo Duro	Small	351	NA	NA	NA	NA	15	NA
UC	Rio Grande	Small	375	NA	NA	NA	NA	14	NA
UC	San Jacinto	Small	350	NA	NA	NA	NA	15	NA
UC	Saltgrass	Small	450	50	30	24	18	18	15
UC	Rodeo	Small	475	NA	NA	NA	NA	NA	21
UC	Baltic	Small	540	NA	NA	NA	NA	NA	20
UC	Aegean	Small	540	60	30	16	18	18	21
UC	Spindletop	Medium	575	65	40	40	27	18	18
UC	Tejas	Medium	575	65	40	40	27	18	18
UC	Caribbean	Medium	620	70	40	16	18	24	21
UC	Caspian	Medium	620	70	40	16	18	24	21
UC	Bayou City	Large	825	90	60	40	27	30	36
UC	Lone Star	Large	900	100	60	56	27	27	45
UC	Bluebonnet	Large	1,050	120	75	56	36	40	30
UC	Pacific	Large	1,240	NA	NA	NA	73	NA	NA
UC	Atlantic	Large	1,240	NA	NA	NA	64	NA	NA
Event Rooms									
UC	*Houston (Inc. Perimeter Rooms)	Event	10,838	1,500	1,200	500	300	DSD	DSD
UC	Cougar Den	Event	4,176	460	200	120	105	48	39
UC	Mediterranean	Event	1,876	200	100	80	45	33	33
UC	World Affairs Lounge	Event	3,000	330	75	104	45	42	33
UCS	Claudette	Small	522	55	NA	NA	NA	14	NA
UCS	Allison	Large	810	90	63	48	30	30	27

* Perimeter Rooms not reserved stand-alone

DSD = Dependent on Setup Details

Existing Meeting and Event Space

The adjacent table provides information on existing meeting and event space inventory of the UC.

There is a considerable amount of meeting space provided for student, faculty, and staff use in the University Center Facilities. These spaces have a variety of set-up configurations and size capacities. The "size category" in the table above has been developed from B&D's experience with more than 50 student center / union projects to analyze the conference / meeting space capacity:

- Small: seating less than 25 participants (typically fixed setup)
- Medium: seating 25-75 participants (may be flexible or fixed setup)

- Large Meeting: seating 75-125 participants (could also accommodate small events such as dinners, receptions, etc.)
- Ballroom: seating 125+ participants

Currently, the Union has eight (8) rooms that would be classified as small meeting rooms; four (4) medium meeting rooms; six (6) large meeting rooms; one (1) large multipurpose room; and four (4) large event rooms / spaces.

Ballroom / Multipurpose Space

The Houston Room is typically used for lectures, movie screenings, concerts, banquets, dances and receptions. The room is not laid out effectively, with nearly as much of its square footage in low-ceiling perimeter breakout rooms as in large-volume ballroom space. The lack of an auditorium / theater space in the UC forces the Houston Room to be used as a lecture hall / movie theater quite often, despite the inefficiencies of the set-up requirements as well as the lack of appropriate acoustics and audio/visual systems.

UC Rooms Not in Analysis	Room Category	Sq. Feet	Standing (Empty)	Row Chairs /Theater	Banquet	Class-room	Conference / Square	U-Shape Tables
Austin*	Medium	676	75	50	36	27	27	24
Corpus Christi*	Medium	624	70	50	36	27	28	21
Dallas*	Large	988	105	50	50	36	40	30
El Paso*	Medium	624	70	50	36	27	27	21
Fort Worth*	Large	988	105	50	50	36	40	30
San Antonio*	Medium	676	75	50	36	30	27	23
Total Square Footage		4576						

* Perimeter Rooms not reserved stand-alone

The two large and four medium-sized "Texas City" breakout rooms, shown in the table below, are part of the Houston Room and represent 13% of the UC's meeting / event space Inventory. These rooms host only 3% of total bookings due to issues with sound bleed-over resulting from the inadequate folding partitions and the challenge of room set-up as these rooms are more often configured to make the under-sized Houston room larger than as stand-alone rooms.

Space Usage Demand

The following graph shows the average number of room reservation "bookings" annually during 2006, 2007 and 2008. The total number of bookings has increased by only 3% over the past three years, and the number of "reservation hours" (the entire number of hours a space is reserved for a single booking) and the number of "event hours" (the number of hours a space is in use not including set-up/tear-down) has declined during the same timeframe.

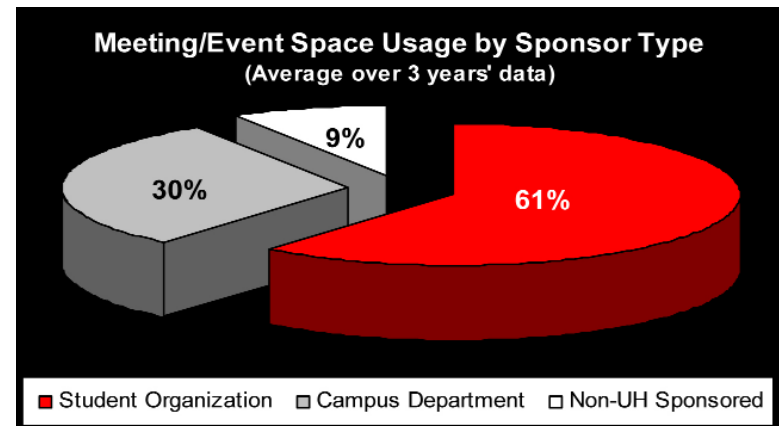
While trending the partial room reservation data for the 2008 academic year indicates the UC facilities are projected to book just slightly more reservations in 2007-2008 than in 2005-2006 and 2006-2007.

Overall, usage of meeting and event space in the University Center Facilities is low relative to the quantity of student organizations, enrollment and the square footage devoted to this type of space. A primary factor in this is likely to be that the existing spaces do not meet the current needs and expectations of the UH community.

Overall, the number of room reservations booked by student organizations and university departments are similar from 2005-2006 through 2007-2008. The number of bookings by student organizations is significantly higher than that of campus departments and off-campus groups. This is bodes well for student leadership support of the University Center project as it indicates that students depend on the UC facilities for meeting / event space and that the UC has established student access to meeting / event space as a preminent priority.

The volume of reservations is lower than might be expected for an institution the scale of UH, especially in light of the amount of square footage devoted to meeting and event space. The UC Underground meeting and conference service spaces' location is clearly not convenient to either on-campus or off-campus users. The demand for meeting / event space is further challenged by both on- / near-campus competitors such the Hilton Hotel as well as the greater Houston marketplace, so every enhancement is important, particularly if rental income is to be an important component of the UC Facilities' financial position.

Average Annual Usage by Room Type		
Bldg.	Room Category	Ave. Annual Bookings
UC	Small	2060
	Medium	1040
	Large	1810
Subtotal		4910
UC	Event - Houston + Event - MP Rooms	400 750
	Subtotal	1150
UCS	All	50
Both	Other Usage	1000
Total - All Mtgs/Events		7110



Survey Analysis

B&D developed a web-based survey to quantitatively test the demand for a variety of spaces that could be provided within a renovated University Center and UC Satellite by students.

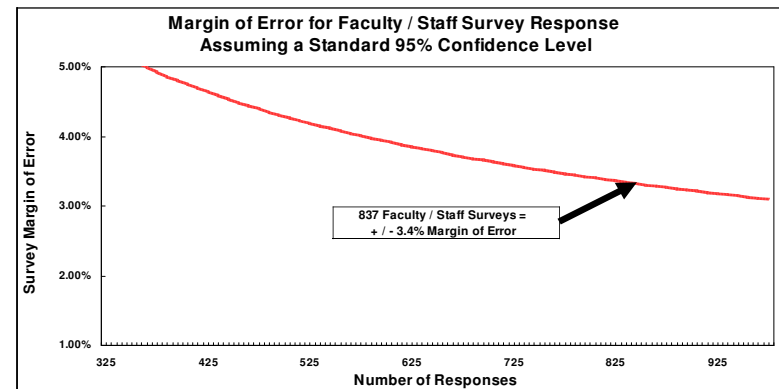
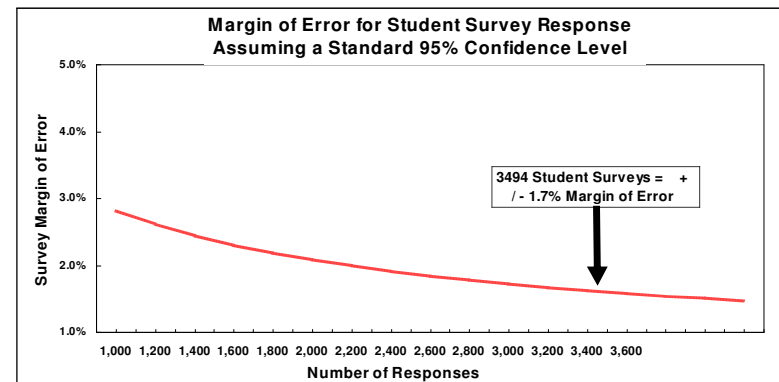
The survey was designed to identify existing and projected union usage patterns, sensitivities to specific facility and service improvements, and the level of campus support for facility improvements, in a statistically reliable manner. Data collected through the survey also forms the basis for B&D's projection of the type and amount of activity spaces described in the next section, Demand-Based Programming.

Methodology

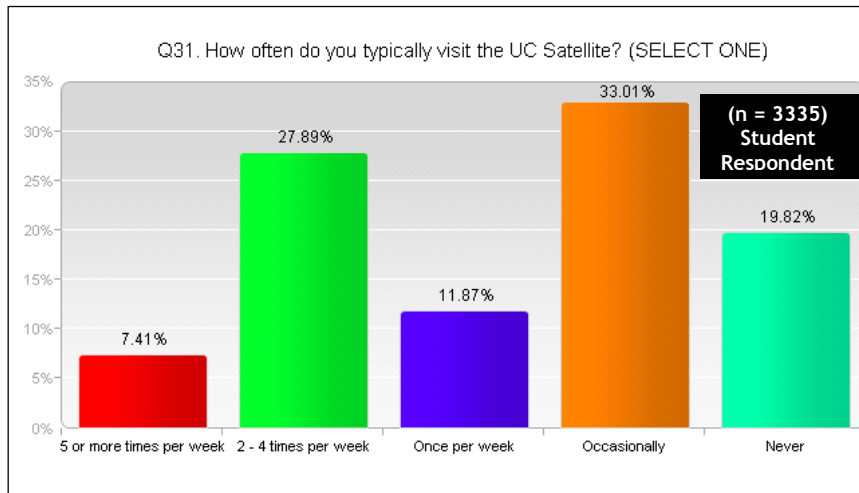
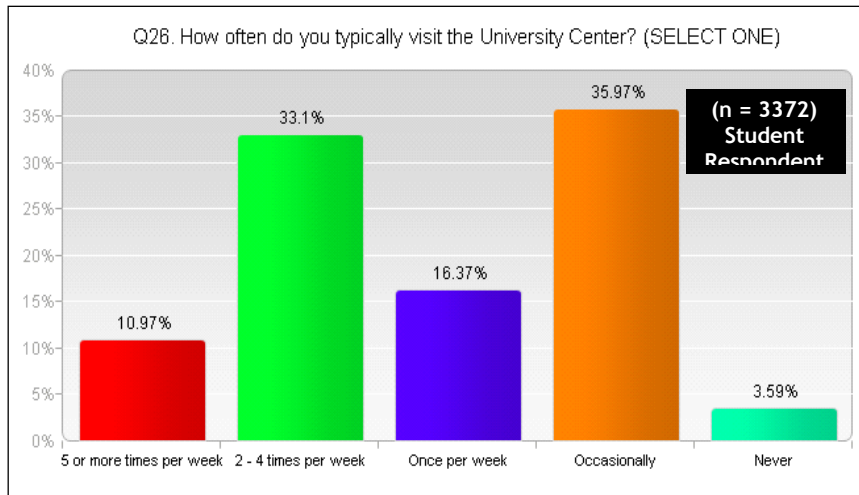
Survey questions were designed to assess both students and faculty's use of the current UC and Satellite. These questions were developed to better understand current usage habits, preferences, dining and retail trends, and fee tolerance. B&D in coordination with the University preliminarily tested a fee range to determine tolerance that would be associated with some proposed project concepts. Responses options were structured to maximize informational utility for projecting desirable facility characteristics and square footage requirements by type of space. Data could also be sorted by various demographic characteristics to identify differences in behavior among sub-populations. Detailed survey results, including respondent comments, can be found in the Appendix of this report.

Surveys were distributed to entire campus community, including faculty, staff, and students via email. The email distribution list was provided by the UH. In total, 4,331 surveys were collected via B&D's web-based system. Based on the student sample population using a standard 95% confidence level, the survey response margin or error was +/- 1.7%. The faculty / staff sample population using a standard 95% confidence level had a survey response margin of error was +/- 3.4%.

Graphs showing the margin of error are followed by a chart comparing the demographic categories for the student responses followed by the faculty / staff survey samples to the campus population.



Student Survey Sample Demographics vs. Spring 2008 Student Demographics	Students in Survey Sample		UH Students - Spring 2008		Sample Difference
	Survey Count	Survey Percent	University Count	University Percent	
Gender					
Male	1396	47%	15,869	49%	1.2%
Female	1552	53%	16,789	51%	-1.2%
TOTAL	2,948		32,658		
Age					
Under 18	8	0%	48	0%	0.1%
18-19	456	15%	1,632	13%	-1.9%
20-24	1464	49%	5,044	41%	-7.6%
25-29	576	19%	2,596	21%	2.0%
30-39	327	11%	1,709	14%	3.1%
40-49	101	3%	734	6%	2.6%
50-59	44	1%	338	3%	1.3%
60 & Over	7	0%	45	0%	0.1%
Unknown	0	0%	28	0%	0.2%
TOTAL	2,983		12,174		
Class Status					
Freshman	381	13%	4,902	15%	2.2%
Sophomore	421	14%	4,986	15%	1.2%
Junior	695	23%	6,048	19%	-4.8%
Senior	694	23%	9,170	28%	4.8%
Graduate / Professional	722	24%	5,540	17%	-7.3%
Other	61	2%	1,909	6%	3.8%
TOTAL	2,974		32,555		
Enrollment Status					
*Full Time (12+ hrs for undergrad / 10+ hrs grad)	2414	82%	24,391	70%	-11.3%
*Part Time (< 11 hrs undergrad / < 9 hrs for grad)	543	18%	10,292	30%	11.3%
TOTAL	2,957		34,683		
Place of Residence					
On-Campus	431	12%	4,386	13%	1.0%
Off-Campus	3,040	88%	28,275	87%	-1.0%
TOTAL	3,471		32,661		
College Affiliation (Select One)					
Architecture	62	2%	699	2%	0.1%
Business	540	18%	5,164	16%	-2.3%
Education	289	10%	3,253	10%	0.3%
Engineering	300	10%	2,159	7%	-3.4%
Hotel and Restaurant Management	69	2%	894	3%	0.4%
Law	100	3%	1,011	3%	-0.3%
Liberal Arts and Social Science	611	20%	7,875	24%	3.6%
Natural Sciences and Mathematics	389	13%	3,735	11%	-1.6%
Optometry	33	1%	429	1%	0.2%
Pharmacy	146	5%	1,188	4%	-1.3%
Social Work	40	1%	336	1%	-0.3%
Technology	155	5%	1,636	5%	-0.2%
Undeclared	86	3%	0	0%	-2.9%
University Studies	109	4%	4,258	13%	9.4%
Other (Specify)	52	2%	0	0%	-1.7%
TOTAL	2,981		32,637		
Ethnic Background					
African American	284	10%	4,267	13%	3.3%
Asian / Pacific Islander	775	27%	6,429	20%	-7.0%
Hispanic	558	19%	6,289	19%	0.1%
International	80	3%	2,691	8%	5.5%
Native American	11	0%	109	0%	0.0%
White / Other	1136	39%	12,168	37%	-1.8%
Unknown	58	2%	647	2%	0.0%
TOTAL	2,902		32,600		
Notes:					
University demographic data supplied by UH Institutional Research, Assessment & Planning Office					
College Affiliation includes undergraduate, graduate and first time professional students where appropriate.					
** Based on Fall 2007 numbers as Spring 2008 semester numbers were not available.					

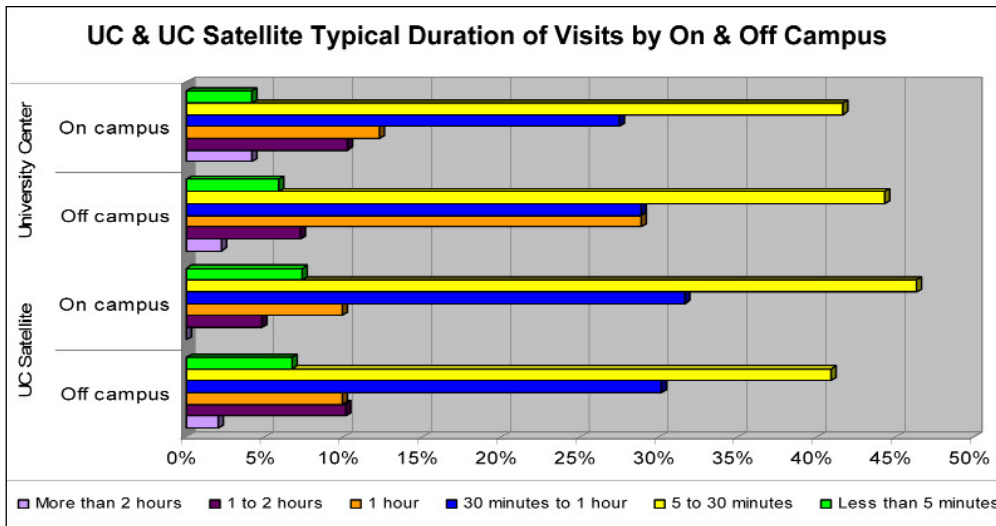
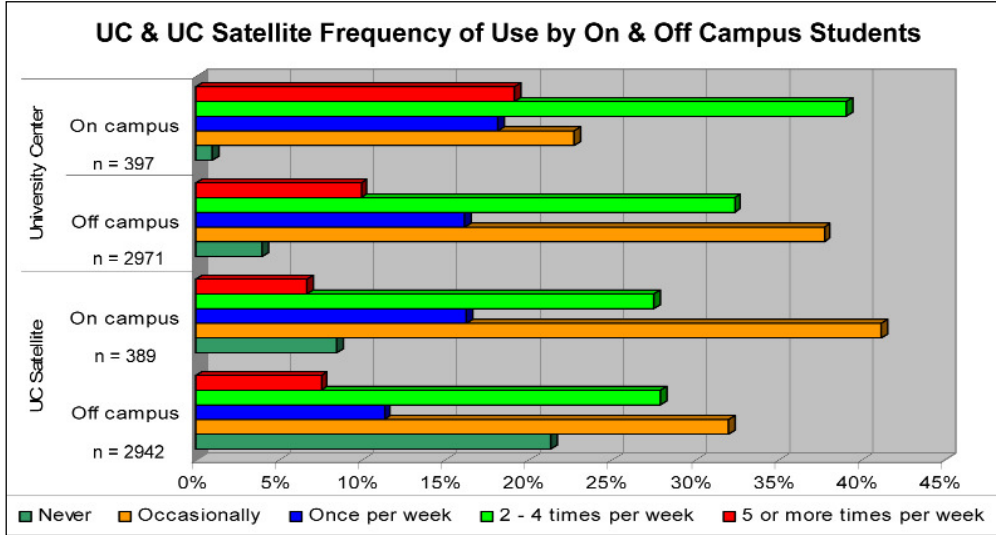


Overall, the demographic representation of the student community within the student survey was exceptional. Because full-time and part-time status statistics were not available for Spring 2008, the comparison of survey sample to enrollment is based on the Fall 2007 status values and that affects the validity of this analysis. A demographic analysis of faculty and staff was not conducted since the full population statistics were not available.

Summary of Findings

Survey respondents were asked to indicate how often they typically visit the UC. Forty-four percent of students indicated that they visit the UC more than '2-5 times per week.' Fifty-two percent of students reported that they visit the UC "at least once per week" or "occasionally." Only 28% of faculty and staff said that they visit the University Center "2-5 times per week," while 67% responded that they visit the UC at "at least once per week" or "occasionally." This data indicates that students are the most frequent users of the UC.

The same question was asked about frequency of visiting the Satellite. Thirty-five percent of students indicated that they visit the Satellite more than '2-5 times per week,' while only 42% reported visiting the Satellite "at least once per week" or "occasionally." Fifty-nine percent of faculty and staff responded that they visit the Satellite "at least once per week" or "occasionally," but only 19% said that they visit the Satellite "5 or more times per week."

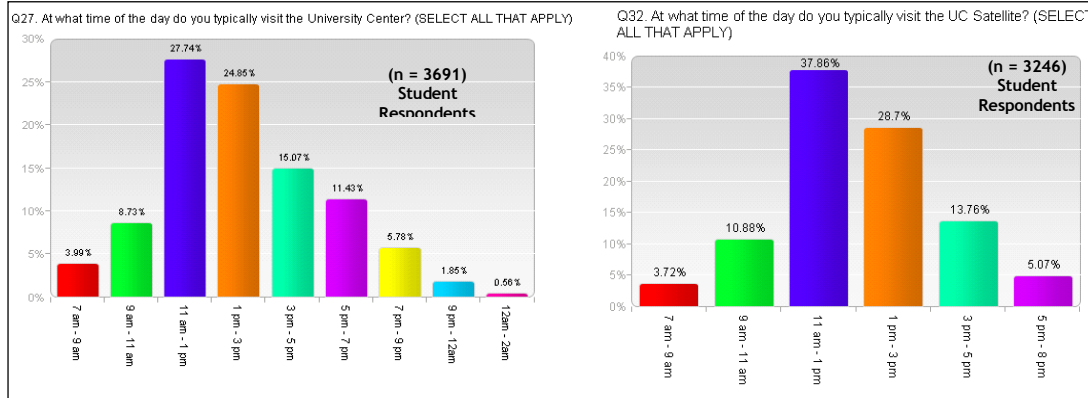


Responses were analyzed to determine how students who live on- or off-campus depend on the existing the UC facilities as part of their daily experience at UH. B&D considers usage of "once per week," "occasionally," or "never" as indicative that a facility is not an important campus service to any population. As the corresponding chart illustrates, the UC facilities are visited once a week or more by a significant proportion of both residential students and commuters.

A large number of both student and faculty / staff respondents indicated that they typically use the UC for "less than 30 minutes" when they visit. Even when student usage was analyzed based on living on or off campus, the average duration of visits did not show a substantial increase, indicating that the existing facilities may not provide the contemporary types of spaces, programs and services that engage students on a daily basis.

Faculty and staff responses were similar to students in the amount of time they typically spend visiting the UC, only 39% reported using it for "30 minutes - 1 hour" and the Satellite for "30 minutes - 1 hour." This suggests the value of the Satellite may be its convenient location near the academic core, which may challenge the role of "community center" where students, faculty and staff spend time together and that neither facility brings the campus community together as frequently or for as long as might be desired.

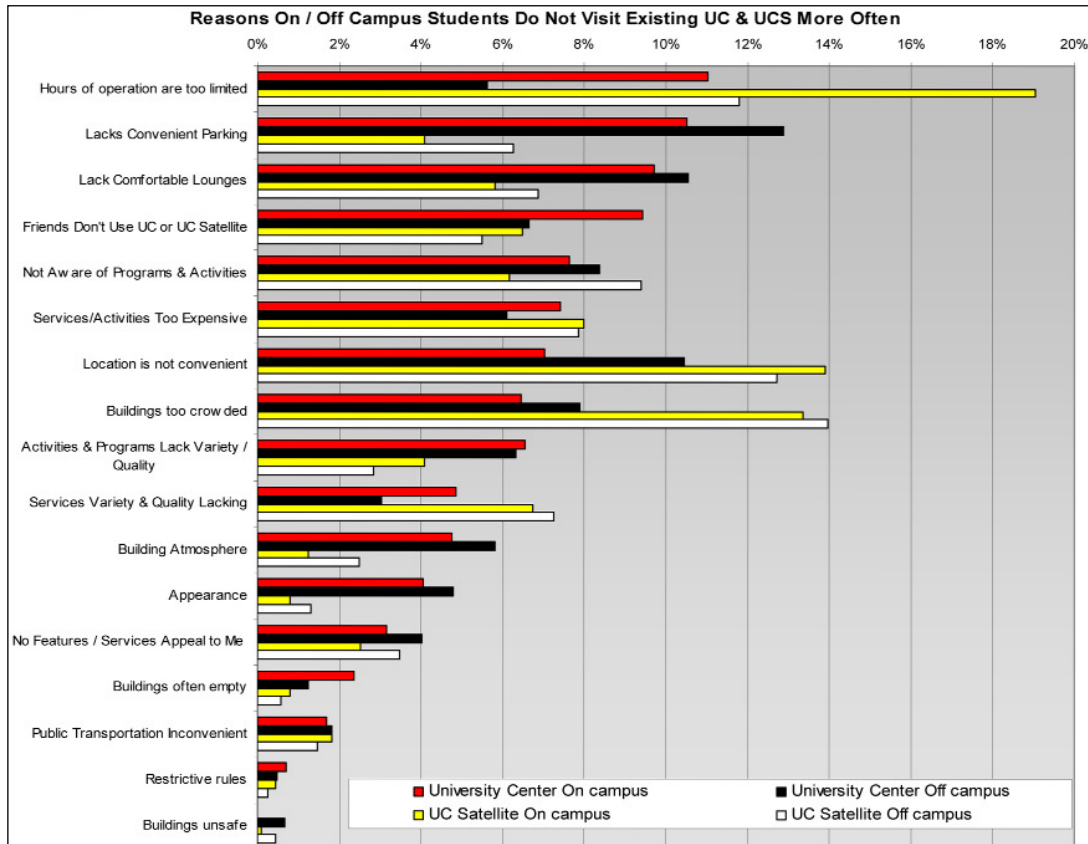
Responses about time of day users typically visit the UC and Satellite provide the opportunity to analyze usage to determine existing facilities' peak hours of demand. Most students (52%) reported usually visiting the UC between 11:00 a.m. - 3:00 p.m. As the graph below indicates, activity in the UC typically declines sharply from 3:00 p.m. until closing. Students report-



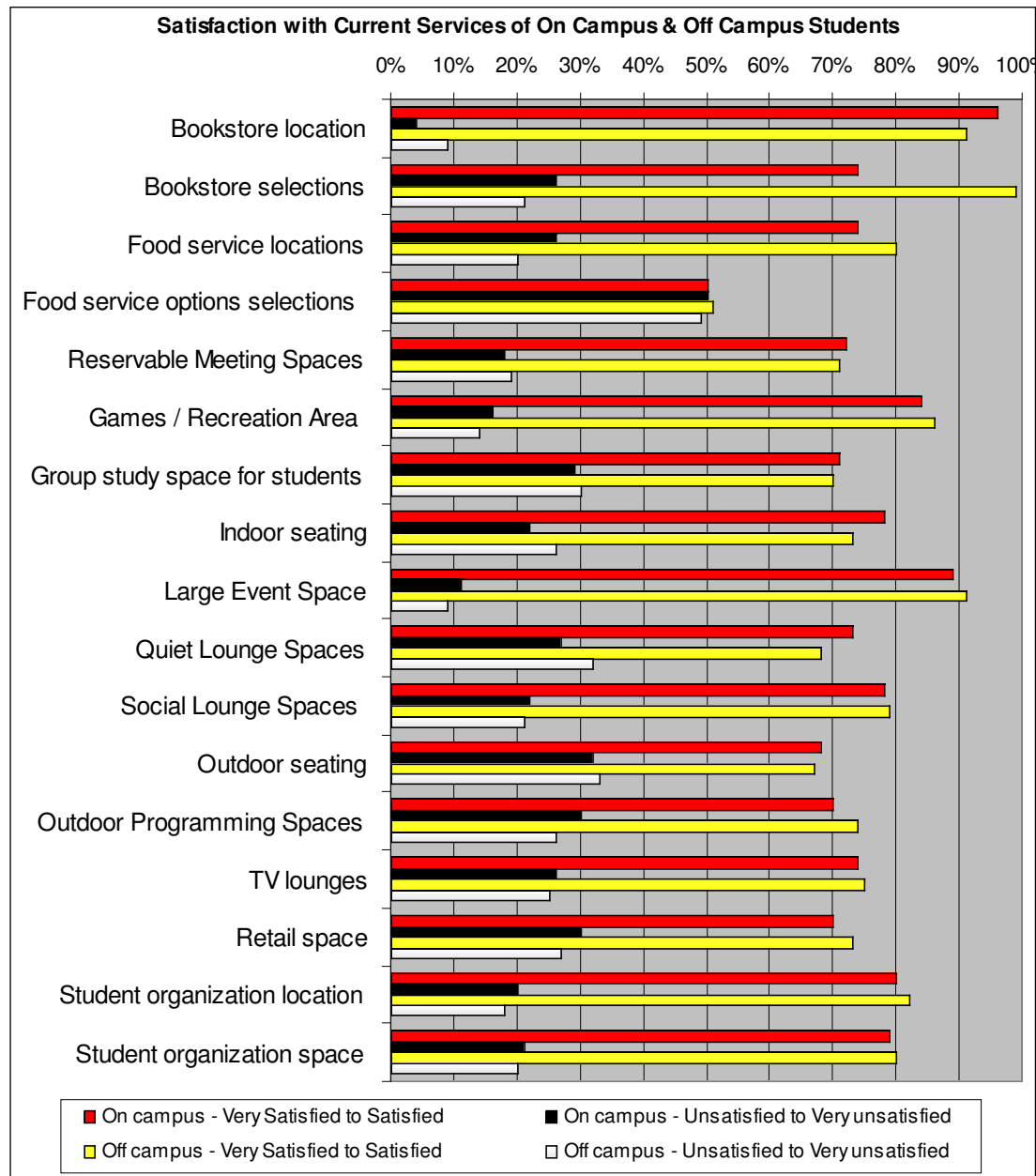
ed similar usage patterns of the Satellite with most (67%) reporting usage between 11:00 a.m. - 3:00 p.m. and from 3:00 p.m. - 8:00 p.m., when the UC Satellite closes.

The chart below shows that the lack of comfortable lounge space was cited by both student residents and commuters as the third most typical reason the UC was not used more often, behind limited hours and inconvenient parking.

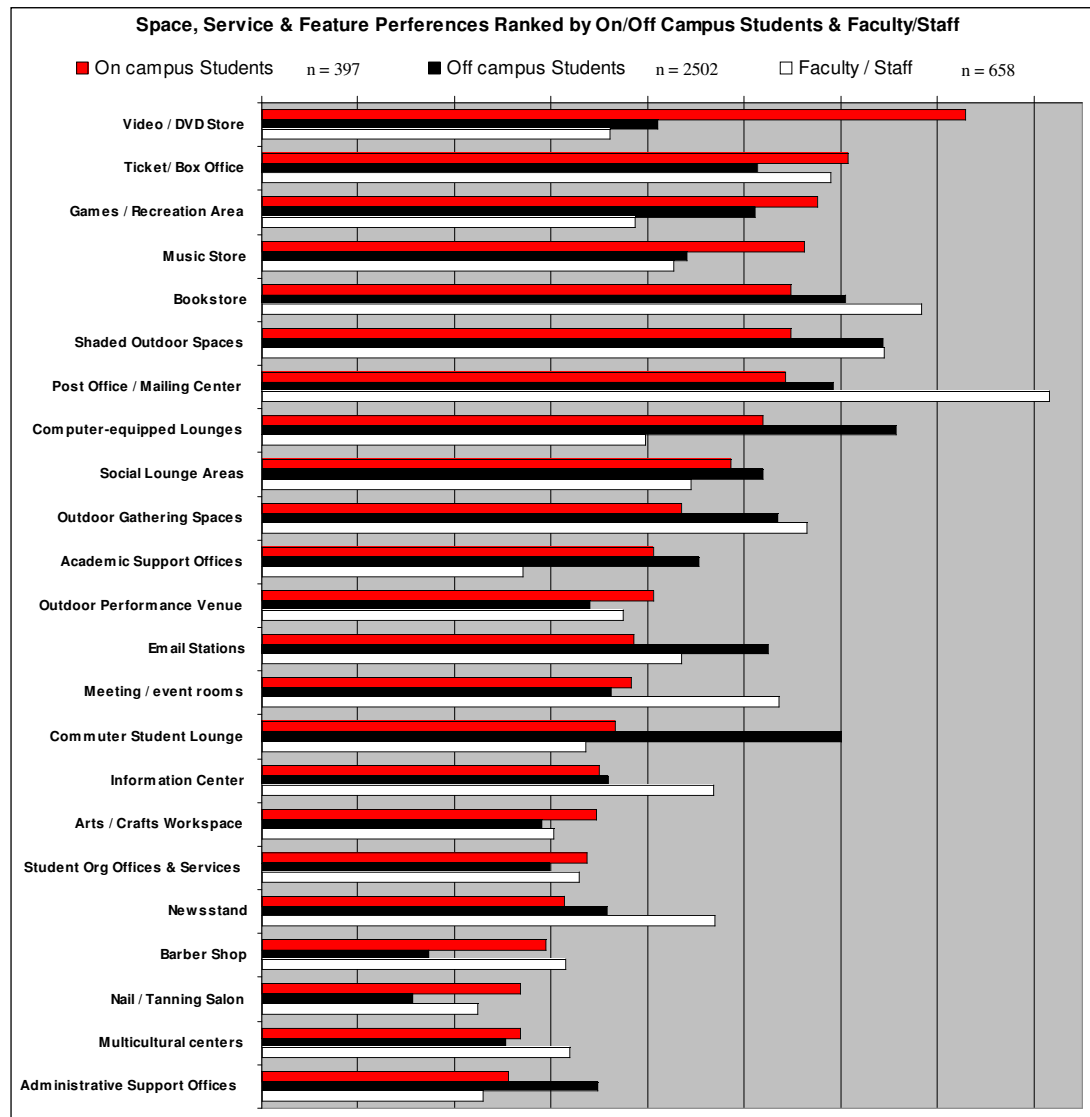
While parking issues might not be resolved as part of a UC Facilities project, late night-even 24-hour-service, more lounge spaces and several of the other factors identified could be ameliorated as part of a significant renovation.



A comparative analysis of student responses concerning their satisfaction with existing amenities, listed in the graph which follows, indicates relatively similar patterns of satisfaction or dissatisfaction among on-campus residents and students living off campus. Students seem very satisfied with the UH Bookstore's presence in the University Center. While overall it appear these responses indicate a generally high level of satisfaction, it is important to note that the levels of satisfaction diminish as the respondents evaluate spaces / physical settings rather than service locations and product mix.



UH student and faculty/staff responses regarding existing facilities indicate some adaptation to the current conditions but also some expectation that facilities and amenities could be better. Both focus group findings and survey comments corroborate this view. Usage patterns show that neither the UC nor the Satellite are currently providing much more than a "stop by" or "pass through" type of experience for the majority of the campus community. This seems at odds with the intended role of these facilities as destinations and focal points for campus life. While special events and daily necessities draw traffic, especially at lunch time, the lack of contemporary features has resulted in students, faculty and staff finding other places and spaces for informal activity.

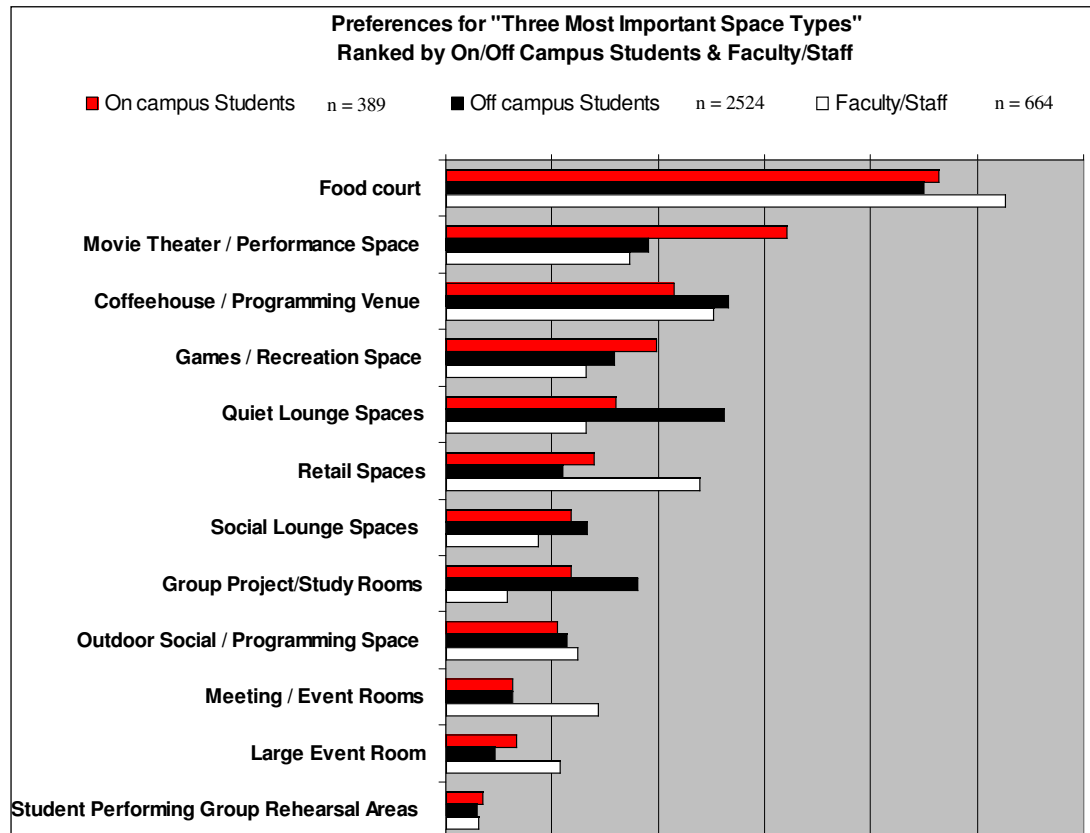


Potential New Facilities & Improvements

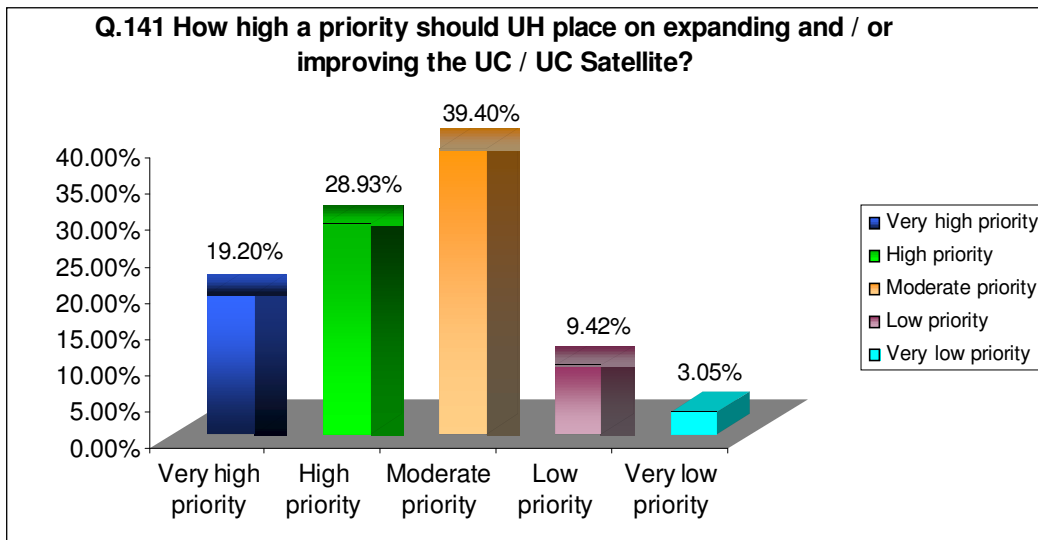
In addition to the demand-based programming section of the survey, a variety of questions asked respondents to indicate what types of spaces, services and features they would like to see added or improved in the UC and Satellite. The online survey included a photographic collage of recently-completed student union / center projects to help respondents visualize how UH campus life facilities could be enhanced. By responding to a rank-ordering of more than 20 functions, as shown below, students, faculty and staff began identifying priorities and preferences

Comparative analysis of the rank-order results indicates some very common priorities among both on-campus residents and commuting students as well as between students and faculty / staff. A "forced-choice" question required survey participants to prioritize space and feature types by relative importance. Analysis of these responses, shown in the accompanying graph, provides some differentiation among the respondent groups. On-campus students responses were used to rank these responses, but the preferences of commuters and faculty/ staff are listed as well.

All three segments placed similar importance on a Food Court, a Coffeehouse/Programming Venue, and Outdoor Social / Programming Space. However, resident students placed a much higher priority on a Theater / Performance space and somewhat higher value on a Games / Recreation Area than commuting students, who clearly valued quiet lounges and study spaces much more.



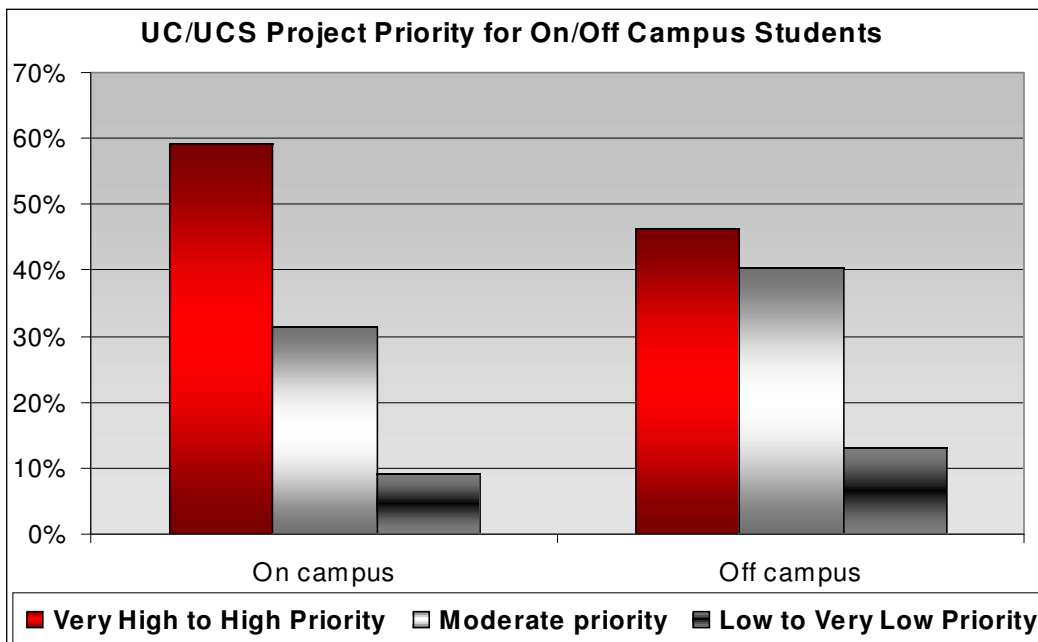
No single question or methodology can determine the programmatic priorities for a project of this scale. For example, while student organization office space and meeting room space did not rank highly, both of these important functional areas are clearly outdated and not effective in their current state. By combined these results with the demand-based programming tool presented in another section and the qualitative data gathered by the team, a much more vibrant and cohesive University Center facility begins to emerge. More importantly, the results outline the project parameters that are most likely to garner campus support as they make the UC facilities responsive to the UH community that exists today.

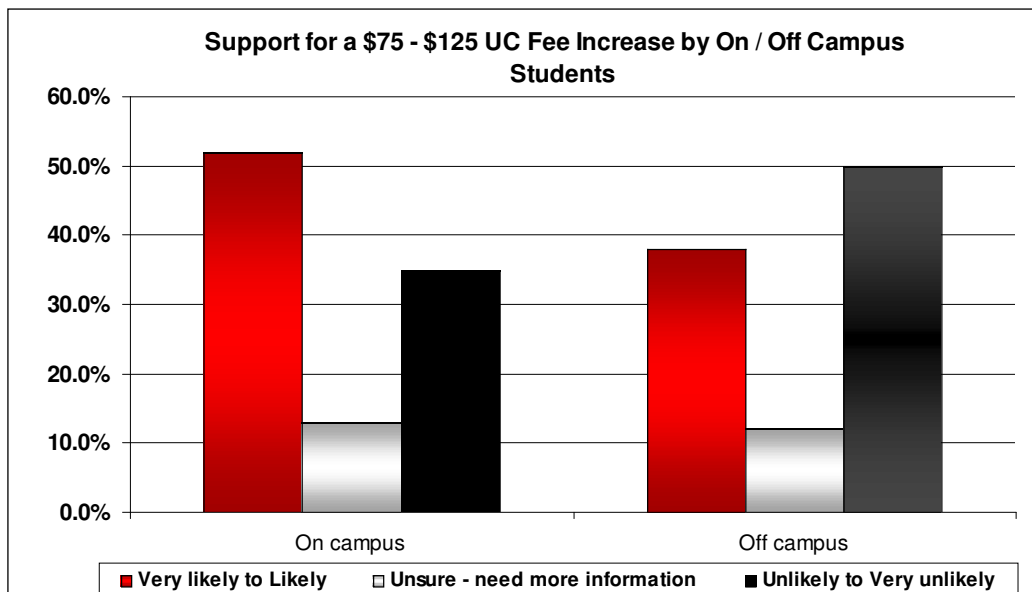
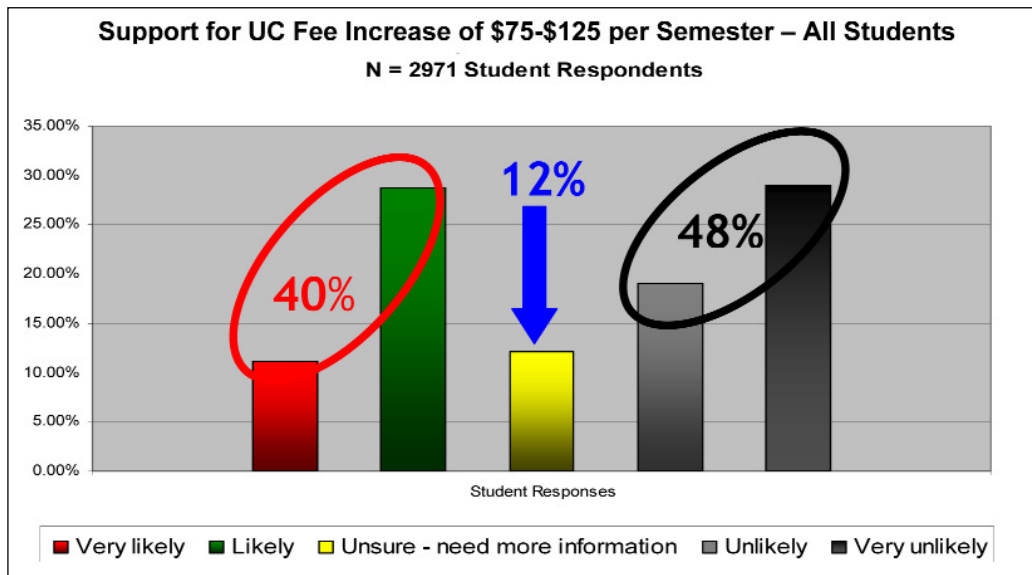


Project Support

All respondents were asked how high a priority UH should place on improving the UC and Satellite facilities. Student respondents expressed their support by indicating the level of importance of "very high priority - high priority" at 48%. Faculty / staff also indicated their level of importance virtually mirroring the same level of importance as the students at 48% "very high priority - high priority."

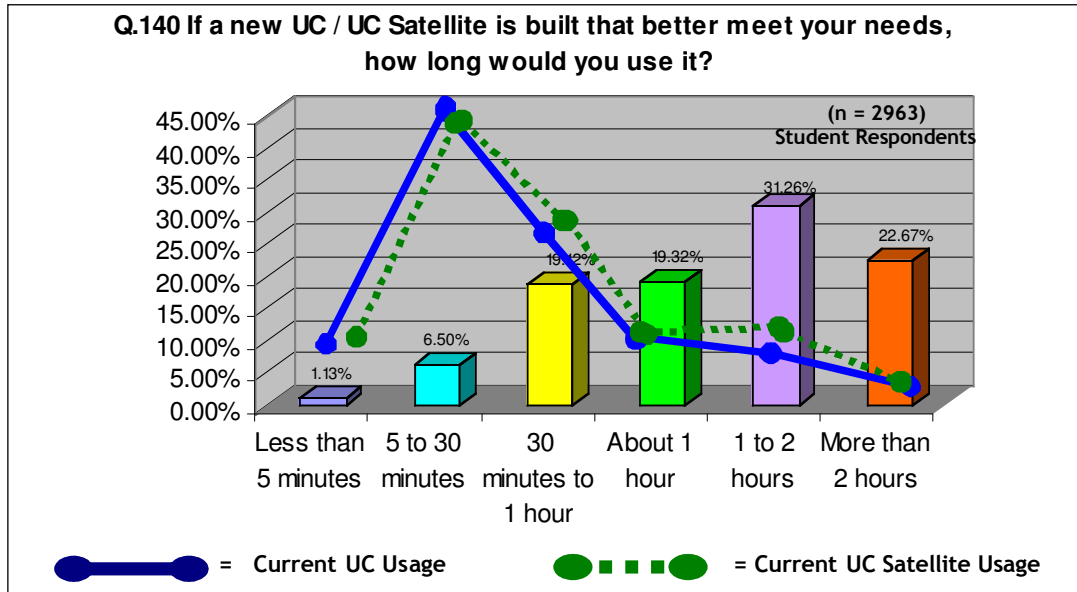
When project priority was analyzed for students living on and off campus, very different but not wholly surprising results were identified. In the graph below, "very high" and "high priority" are combined, as are "very low" and "low priority." Residential students' priority 10% higher than the total survey response and off campus student priority is equal to that of the total response. Clearly, students see that some improvements are needed to the UC facilities.





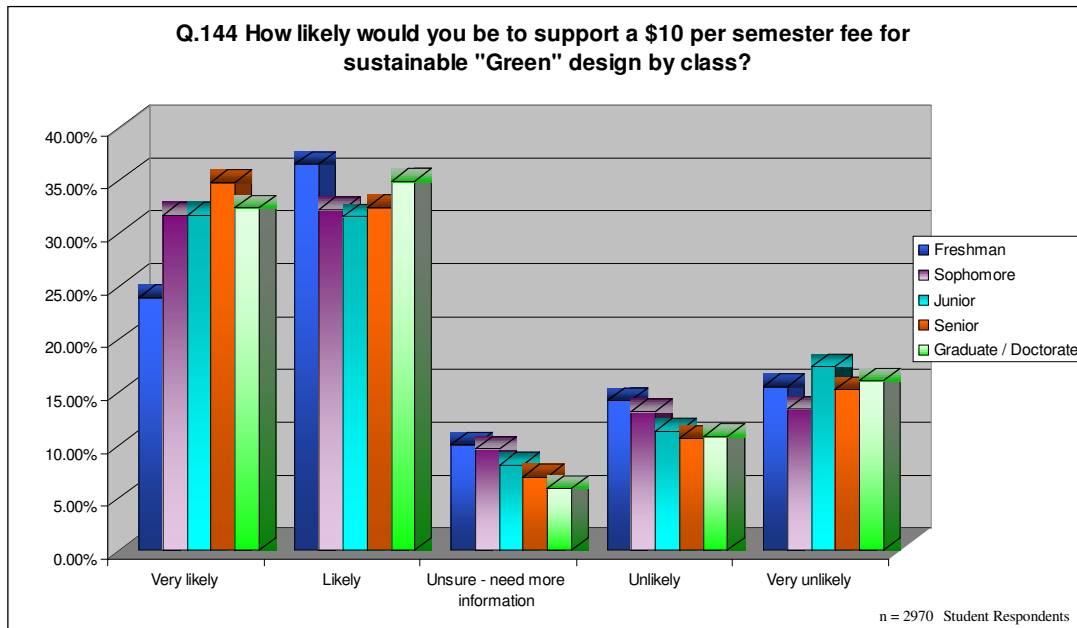
Beyond determining the perceived priority of the project, the survey also gauged the willingness of the UH student body to support an increase in the University Center Fee to pay for the renovated / expanded facilities. A preliminary fee increase range of \$75 to \$125 was used to test students' fee tolerance. Forty percent of all student respondents indicated that they would "very likely" or "likely" to support a fee increase in this range. However, 48% of all students responding indicated that they would be "unlikely" to "very unlikely" to support a fee increase. The 12 % who indicated that they were unsure and needed more information represent a potential group of supporters if an effective project information / education effort were undertaken.

Fifty-two percent of on-campus student residents indicated they would support a fee increase, while 13% were unsure without more information and 37% did not support an increase. Commuter students responded in almost the exact inverse with 50% unwilling to support an increase, 39% in support and 11% needing additional information.



While support for increasing the UC Fee was not clear cut, student respondents did indicate that renovations / additions made to UC facilities would improve their usage. As noted in the graph below, the number students who predicted they spend "about an hour" in the enhanced facilities doubled and for tripled among those spending "1 to 2 hours" in either facility. Conversely, the number of "passers-by" spending less than 5 minutes to 30 minutes would decline by more than 40%. These results indicate a significant change in traffic and usage patterns for these facilities that would likely translate into a dramatic improvement in the sense of campus life.

Because sustainable building design and construction is important to UH and to most college students, respondents were asked if they would be willing pay an additional fee of \$10 per semester to ensure sustainable/"Green" design could be a part of the UC Facilities Master Plan. Student support for this initiative was clear as the chart below illustrates.



University Bookstore

Industry Background / Issues

There are many issues that impact the university bookstore industry and bookstore facility/space requirements such as online textbook sales, digital delivery of course materials, textbook rental programs, used textbooks, etc. The following is an overview of some of the key issues currently facing the industry that also impact facility/space requirements.

Online Textbook Sales

Online competition for textbook sales, including overseas online booksellers, has made the textbook marketplace extremely competitive. Bookstores have invested large sums of money to compete effectively with online booksellers. Many of the original online textbook companies have gone out of business due to high operating expenses (i.e., fulfillment costs, inventory costs, marketing costs, freight costs, etc.) and reduced advertising revenue. However, enough online competition remains, in particular with organizations such as half.com (part of Ebay) and amazon.com to provide a competitive threat to the Bookstore.

If a large portion of the Bookstore's textbook market share were to be lost to online booksellers, then the facility/space requirements for the Bookstore would be reduced. However, it is assumed that textbooks and course materials will remain the core business of the University of Houston Bookstore.

Digital Delivery of Course Materials

The digital delivery of course materials is evolving and there is a great deal of uncertainty as to its future impact on textbook sales. The term "digital delivery" is used rather broadly in the bookstore industry and covers a wide range of products and mediums. Essentially, digital delivery covers any medium that utilizes digitized content, including the following:

- Books on CD for use in a desktop computer, laptop, or portable reader
- Books and articles accessible online. (Note: Most services provide some type of download option.)
- Coursepack services that provide coursepacks for online access or in printed form.
- Online course instruction via computer. This can be live or via prerecorded tape/CD.



- Use of the internet to disseminate course information such as class syllabi, assignments, online exams, etc.

If a large portion of the Bookstore's textbook market share were to be replaced by digital delivery and if the Bookstore were bypassed by students obtaining course materials from alternate sources, then the facility/space requirements for the Bookstore would be reduced. However, CBC assumes that the Bookstore will remain the primary solution and provider of course materials and will therefore need the additional space that will be provided in the University Center to compete effectively. For example, as digital textbooks become more prevalent, the Bookstore needs to be the distribution channel (e.g., selling passcodes) for digital textbooks.

Textbook Rental Programs

Textbook rental programs, although limited nationally, are often referred to as a potential model to assist with controlling and/or reducing the cost of textbooks to students. Textbook rental programs typically operate by charging a flat rental fee to students that covers the use of required textbooks for each semester or term. Challenges with textbook rental programs include the following:

- Significant start-up costs
- Increased bookstore operating overhead
- Limited textbook choices due to requiring longer adoption cycles
- Students do not accumulate personal libraries
- Significant facility/space requirements

In addition to textbook rental programs that are offered on campuses, there are also online textbook rental options available to students. For example, BookRenter.com offers textbook rentals and indicates that renting books through BookRenter.com can save students up to 75%.

Used Textbooks

It is important to have an understanding of the used textbook business and its impact on the Bookstore operation in order to properly evaluate the Bookstore. A strong used textbook program is a "win/win" situation for students and the Bookstore. Students benefit through lower prices when

they purchase their books at the beginning of the semester and they receive cash when they sell books back at the end of the semester. The store benefits because used textbooks carry a higher gross profit margin than new textbooks.

The Bookstore buys used textbooks from two main sources:

- Used Book Wholesalers. There are several major national used book wholesalers who buy books from, and sell books to, college and university bookstores.
- Students (through buyback at the Bookstore).

Clearly, an effective used textbook program will save UH Students a great deal of money and is therefore an integral component of the Bookstore's strategy to protect its textbook market share. The Bookstore has the opportunity to improve its used textbook program (see "Used Textbook Ratio Trend,"). A strong used textbook program requires sufficient space for an effective buyback program and processing space to receive, clean, prepare, and price/sticker used textbooks. The expanded space that will be provided through the renovation of the University Center should improve the Bookstore's ability to provide an efficient and effective used textbook program.

Financial Review

In order to determine the UH Bookstore facility requirements, it is important to understand the Bookstore's financial performance. CBC reviewed and analyzed the financial performance of the UH Bookstore for the past five fiscal years. The Bookstore's financial data has been analyzed and the Bookstore's financial performance has been benchmarked against Industry Averages. The UH Bookstore's financial data for the past five years was obtained from the following reports and sources:

- The "University of Houston - #510 Sales & Other Income Report" for the past five years (January-December time period).
- The "University of Houston - Law Center #168 Sales & Other Income Report" for the past two years (January-December time period).
- Historical enrollment figures for 2003 through 2007.

- The "Barnes & Noble College Booksellers U of Houston Main Rollup Operating Profit And Loss Statement" for the past five fiscal years.

(Note: All financial reports were provided to CBC by Mr. Keith Kowalka, Director, University Center and Associated Facilities, and Ms. Esmeralda Valdez, Director, Business Services, University of Houston)

Industry data has been obtained from the National Association of College Stores (NACS) College Store Industry Financial Reports for Fiscal '03 through Fiscal '07. The Industry Average numbers have been obtained from the following reported categories:

<u>Industry Financial Report</u>	<u>Sales Volume</u>	<u>Total</u>
	<u>Respondents</u>	
2004 Report- Fiscal '03	\$10-\$14 million	22
2005 Report- Fiscal '04	\$10-\$14 million	20
2006 Report- Fiscal '05	\$10-\$14 million	28
2007 Report- Fiscal '06	\$10-\$14 million	32
2008 Report- Fiscal '07	\$10-\$14 million	22

Note: The reporting categories for Fiscal '03 through Fiscal '07 were for all stores (two and four-year institutions combined).

Industry Average figures are almost exclusively from institutionally operated and private bookstores. However, since industry data is not available for contract-managed bookstores, CBC has included the NACS data to assist the University of Houston with evaluating the Bookstore's financial performance.

A university bookstore's financial performance can be measured against Industry Averages in a number of areas. The UH Bookstore's "Key Financial Indicators" are analyzed in this Section.

YEAR	TOTAL SALES	\$ INC. / DEC. vs. PRIOR YR.	% INC. / DEC. vs. PRIOR YR.	INDUSTRY AVERAGE
Fiscal '03	11,031,544	-	-	5.09%
Fiscal '04	10,208,628	(822,916)	(7.46%)	1.51%
Fiscal '05	10,037,720	(170,908)	(1.67%)	3.90%
Fiscal '06	10,248,213	210,493	2.10%	3.30%
Fiscal '07	10,829,434	581,221	5.67%	N/A

2A. Sales Trend

YEAR	TOTAL TEXTBOOK SALES (New, Used, & Coursepacks)	TOTAL SALES	TOTAL TEXT SALES % OF TOTAL SALES	INDUSTRY AVERAGE
Fiscal '03	9,416,932	11,031,544	85.36%	61.99%
Fiscal '04	8,779,006	10,208,628	86.00%	64.59%
Fiscal '05	8,484,540	10,037,720	84.53%	64.00%
Fiscal '06	8,525,152	10,248,213	83.19%	62.90%
Fiscal '07	9,039,729	10,829,434	83.47%	55.70%

2B. Sales Trend Mix

YEAR	USED TEXTBOOK SALES	\$ INC./DEC. vs. PRIOR YEAR	% INC./DEC. vs. PRIOR YEAR
Fiscal '03	1,665,183	-	-
Fiscal '04	1,448,802	(216,381)	(12.99%)
Fiscal '05	1,778,475	329,673	22.75%
Fiscal '06	1,697,382	(81,093)	(4.56%)
Fiscal '07	2,272,800	575,418	33.90%

2C. Used Textbook Sales Trend

Sales Trend:

1. Sales decreased \$202,110 (1.83%) between Fiscal '03 and Fiscal '07. Sales increases have been below the Industry Average in recent years.
2. Total Sales figures were obtained from the "University of Houston - #510 Sales & Other Income Report" for the past five years and the "University of Houston - Law Center #168 Sales & Other Income Report" for the past two years (January - December time period). Law Center sales figures were reported separately beginning in Fiscal '06.
3. Enrollment increased 1.7% between Fiscal '03 and Fiscal '07.

Sales Trend Mix:

1. The Bookstore's "Sales Mix Trend" figures have been considerably above the Industry Average for the past five years, indicating that the Bookstore sold less non-textbook merchandise than other university bookstores with a similar sales volume. Non-textbook merchandise typically carries a higher gross margin than textbooks.
2. Total Textbook Sales include new textbook sales, used textbook sales, and coursepacks.

Used Textbook Sales Trend:

1. Used Textbook Sales increased \$607,617 (36.49%) between Fiscal '03 and Fiscal '07.
2. Used Textbook Sales have fluctuated during the past five years and reached their highest level in Fiscal '07. Providing a strong used textbook program is a major financial and customer service opportunity for the Bookstore. Used textbooks sell at a higher gross margin than new textbooks and provide substantial savings to students.
3. The average Used Textbook Sales figure for the past five years is \$1,772,528.

YEAR	USED TEXTBOOK SALES	TEXTBOOK SALES (New & Used)	USED TEXTBOOK RATIO	INDUSTRY AVERAGE
Fiscal '03	1,665,183	9,416,932	17.68%	31.34%
Fiscal '04	1,448,802	8,779,006	16.50%	29.43%
Fiscal '05	1,778,475	8,483,467	20.96%	28.28%
Fiscal '06	1,697,382	8,525,152	19.91%	27.03%
Fiscal '07	2,272,800	9,039,729	25.14%	34.65%

2D. Used Textbook Ratio Trend

YEAR	TOTAL SALES	SQUARE FEET	SALES PER SQUARE FOOT	INDUSTRY AVERAGE
Fiscal '03	11,031,544	14,783	746	718
Fiscal '04	10,208,628	14,783	691	1,009
Fiscal '05	10,037,720	14,783	679	1,101
Fiscal '06	9,802,540	14,783	664	914
Fiscal '07	10,271,443	14,783	695	1,017

2E. Sales Per Square Foot Selling Space Trend

4. Used Textbook Sales figures were obtained from the "University of Houston - #510 Sales & Other Income Report" for the past five years and the "University of Houston - Law Center #168 Sales & Other Income Report" for the past two years (January - December time period).

Used Textbook Ratio Trend:

1. The Bookstore's Used Textbook Ratio figures (used textbook sales expressed as a percentage of total textbook sales) have been below the Industry Average for the past five years.
2. CBC estimates that the Bookstore should be able to achieve and maintain a Used Textbook Ratio in the 30%-40% range or above.

Sales Per Square Foot Selling Space Trend:

1. Industry Average data represents Sales Per Square Foot for selling space. The Bookstore's square foot figure is for selling space for the Main Bookstore only (i.e., the sales figures and the selling space figures do not include the Law Center).
2. The Bookstore's Sales Per Square Foot figures have been significantly below the Industry Average for three of the past four years.
3. The Bookstore's square footage breakdown (for the Main Bookstore) including retail, storage, and office space is as follows:
 - Selling Space 14,783 square feet
 - Office Space 1,163 square feet
 - Storage Space 8,624 square feet
 - Other Space 355 square feet
 - Total Space 24,925 square feet

YEAR	TOTAL SQUARE FEET	TOTAL FTE STUDENTS	SQ. FT. PER FTE STUDENT	INDUSTRY AVERAGE
Fiscal '03	24,925	26,974	0.9	1.4
Fiscal '04	24,925	27,483	0.9	1.2
Fiscal '05	24,925	27,662	0.9	1.2
Fiscal '06*	14,783	27,906	0.5	1.1
Fiscal '07*	14,783	27,421	0.5	1.0

2F. Square Feet Per FTE Student Trend

YEAR	TOTAL SALES	TOTAL FTE STUDENTS	SALES PER FTE STUDENT	INDUSTRY AVERAGE
Fiscal '03	11,031,544	26,974	409	651
Fiscal '04	10,208,628	27,483	371	762
Fiscal '05	10,037,720	27,662	363	692
Fiscal '06	*10,248,213	27,906	367	863
Fiscal '07	*10,829,434	27,421	395	994

2G. Sales Per Per FTE Student Trend

Square Feet Per FTE Student Trend:

- * It should be noted that Industry Average data for Fiscal '03 - Fiscal '05 represents Square Feet Per FTE Student for total space, and for Fiscal '06 it represents Square Feet Per FTE Student for selling space. The Bookstore's square foot figure for Fiscal '06 and Fiscal '07 is for selling space. (Note: Square footage figures are for the Main Bookstore only.)
- The Bookstore's "Square Feet Per FTE Student Trend" figures have been below the Industry Average for the past five years, indicating that the current amount of space is not adequate to support future sales growth. NACS recommends 1.5-2 Square Feet Per FTE Student for universities with enrollments over 10,000.

Sales Per Per FTE Student Trend:

- The Bookstore's "Sales Per FTE Student Trend" figures have been significantly below the Industry Average for the past five years. In other words, Sales Per FTE Student at the UH Bookstore were lower during those years than at other university bookstores with a similar sales volume.
- * Fiscal '06 and Fiscal '07 Total Sales include sales at the Main Bookstore and sales at the Law Center.
- Total Sales figures were obtained from the "University of Houston - #510 Sales & Other Income Report" for the past five years (January - December time period) and from the "University of Houston - Law Center #168 Sales & Other Income Report" for the past two years (January-December time period).

YEAR	TOTAL TEXTBOOK SALES (New, Used & Coursepacks)	TOTAL FTE STUDENTS	TEXTBOOK SALES PER FTE STUDENT	INDUSTRY AVERAGE
Fiscal '03	9,416,932	26,974	349	N/A
Fiscal '04	8,779,006	27,483	319	N/A
Fiscal '05	8,484,540	27,662	307	N/A
Fiscal '06	*8,525,152	27,906	305	440
Fiscal '07	*9,039,729	27,421	330	470

2H. Textbook Sales Per FTE Student Trend

Textbook Sales Per FTE Student Trend:

1. The Bookstore's Textbook Sales Per FTE Student figure for Fiscal '07 was \$330, which is considerably below the Industry Average. The Bookstore's "Textbook Sales Per FTE Student Trend" figures have averaged \$322 for the past five years, which is lower than many other university bookstores with a similar sales volume.
2. *Fiscal '06 and Fiscal '07 Total Textbook Sales include sales at the Main Bookstore and sales at the Law Center.
3. Total Textbook Sales figures were obtained from the "University of Houston - #510 Sales & Other Income Report" for the past five years (January - December time period) and from the "University of Houston - Law Center #168 Sales & Other Income Report" for the past two years (January-December time period).
4. Industry Average information for Textbook Sales Per FTE Student was not available prior to Fiscal '06.



UC Pot Wash Area



University Center Back of House



UC Satellite Food Court



Wendy's at the UC

Food Service Assessment

The consulting team toured and observed the existing retail dining operations that are operated and managed by ARAMARK. The University Center's Dining Services back of house areas have a considerable amount of deferred maintenance and standards for safety and sanitation are not a level they should be or they are not being enforced. Examples of this include an electrical outlet a few inches above the floor in the pot wash area, mildew around the walk-in coolers and freezers, missing and damaged ceiling tiles, and unkempt floors.

The front of the house has seen facelifts in recent years; however, the allocation of space for the retail dining areas area is less than ideal and creates unnecessary congestion, poor traffic and circulation patterns, and ultimately dissatisfied customers. Examples of this include Wendy's, which is located on main corridor / circulation pattern, and the UC Food Court, which does not have enough queuing space in front of the food concepts resulting in undistinguishable lines. This situation precludes the customer from viewing menu options that are being offered for that meal. The customer also has to stand in long lines at least twice - once to order their food and another time to pay for their meal.

The UC Satellite has been renovated and in some respects is more attractive than the UC. It has a better distribution of the dining venues within the building; however, the overall ambiance tends to be dark, partly due to its underground configuration. The building creates challenges for the Dining Services team in that there is inadequate storage; and the back of house kitchen and some of the venues in the Food Court do not have enough production space. Due to its underground location, this venue can be difficult to find, especially to guests visiting the campus.