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Findings, Conclusions, and Recommendations

Instructional Space

Classroom Scheduling, Use, and Utilization

Classroom Space Management and Planning

Classroom Technical Services

Classroom Facilities Environment

Classroom Support

Schoenbaum Hall, Room 105, 250 Stations

XI. FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This section provides findings, conclusions, and recommendations based on the data gathering, analysis, interviews, and research conducted as part of The Ohio State University, Instructional Space Feasibility Study.

Background

Classrooms are environments and spaces that must provide: (1) the most effective learning environments based on desired pedagogy; (2) an environment designed to enhance a student's ability to understand, observe, and participate in active learning; (3) an environment that is comfortable for students and instructors as well as durable, reliable, and easy to maintain; and (4) a room that is easy for faculty and student equipment operators to use through standardization of controls, layouts, and equipment.[1]

This study has many findings, as identified in this section, ranging from data on room use and utilization, to the need for facility improvements in instructional spaces. Clearly the current improvements in instructional space are recognized and welcomed, but there is more yet to be done.

The IFA findings, conclusions, and recommendations included in this section are classified under the following six typologies:

- Instructional space

- Classroom scheduling, use, and utilization

- Classroom space management and planning

- Classroom technical services

- Classroom facilities environment

- Classroom support

Because this Instructional Space Feasibility Study for The Ohio State University is an omnibus study, the results of this study fall into many categories ranging from operational to future needs. The overarching primary finding, conclusion, and recommendation of this study is not contained in any of these above six categories. Rather, it is an umbrella recommendation that covers and encompasses all six.

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1   Source: University of Washington, Classroom Services, Facility Design Information, General Assignment Classrooms, August 2002 Guidelines, p. Classroom Support Services – 01.

Primary Study Finding: There is a Lack of and a Need for an Identified Office of Classroom Management and Services

The Ohio State University has many units and activities devoted to classroom management and support. While these units share a common purpose, there was and still is no overall "big picture" of instructional space at The Ohio State University. There is no single point on campus that can identify the range of functions instructional space should cover or who should be responsible for overall instructional space management.

Many of the instructional space support units have separate reporting responsibilities and sources of funding. Each performs a task or tasks, most often as a central activity, serving the entire campus. At the same time, the separate, individual departments at The Ohio State University can establish their own classroom management and technology units, as well as use their departmental resources to operate as independent technology service providers, serving only one department.

In terms of square footage of instructional space and instructional space scheduling, about 30 percent of instructional space resources at The Ohio State University is centrally held, while the other 70 percent is in departmental control.

Primary Study Conclusion

The diversity and decentralization of instructional space (classroom) management and support at Ohio State means that the whole is often less than the sum of its parts. The result is fragmentation of responsibility among instructional space units and activities. These activities should be more closely aligned and working toward a more common purpose, as evidenced by instructional space management models at other institutions who have faced concerns similar to that of The Ohio State University.

Primary Study Recommendation

The Ohio State University create an office or unit that has overall specific campus-wide responsibility for management of The Ohio State University (general use) pool classrooms and departmentally-scheduled classrooms, and general responsibility for all instructional space, both scheduled and unscheduled. This unit should reside within The Ohio State University Provost's Office of Academic Affairs.

The following list of specific findings, conclusions, and recommendations are offered in support of the creation of this entity. They are identified by topical area below and spelled out in this section.

A.   Instructional Space

A1.   Instructional Space Inventory
A2.   Classroom Inventory
A3.   Additional Pool Classrooms
A4.   Additional Departmentally-Scheduled Classrooms
A5.   Unscheduled Instructional Space

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B6.   Scheduled Days of Class per Week

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F.   Classroom Support

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F2.   Technology in Instruction

F3.   Classroom Services Website

A.   INSTRUCTIONAL SPACE

A1. Instructional Space Inventory

Finding: The Ohio State University has nearly 1.1 million assignable square feet in its instructional space inventory. Of this space, approximately 30 percent is in scheduled pool classrooms (general assignment classrooms) that are scheduled and assigned by the Registrar. This group of scheduled pool classrooms totals 328,700 square feet, includes 361 separate rooms, and covers 20,216 teaching stations.

Departments control the remaining 70 percent of the instructional space inventory at The Ohio State University, categorized as departmentally-scheduled classrooms, departmentally-scheduled class laboratories and computer laboratories, unscheduled departmentally-controlled class laboratories, and unscheduled departmentally-controlled computer laboratories.

Departmentally-scheduled classrooms account for 14 percent of all instructional space. They enclose 149,300 square feet, include 146 rooms, and total 7,964 stations.

Departmentally-scheduled class laboratories and computer laboratories account for nearly 24 percent of the instructional space inventory. They enclose 257,300 square feet, in 192 rooms with 4,929 stations.

Unscheduled departmental class laboratories account for nearly 24 percent of the instructional space inventory. These unscheduled departmental class laboratories enclose 251,900 square feet, in 315 rooms with a total of 4,895 stations.

Another eight percent of the instructional space inventory is in unscheduled departmental computer laboratories. These rooms total 90,000 square feet in 128 rooms with a total of 2,672 stations.

Conclusion: Because departmentally-controlled instructional space, both scheduled and unscheduled, is nearly 70 percent of the instructional space inventory, it needs to be and should be scheduled and managed as carefully as the centrally-controlled pool classroom inventory.

Recommendation: *The Ohio State University should enlarge its scope of instructional space management to incorporate all departmentally-controlled space, both scheduled and unscheduled, as well as centrally-scheduled pool classrooms.*

A2. Classroom Inventory

Finding: The Ohio State University has a substantial inventory of scheduled pool and scheduled departmental classrooms (507 total rooms) and likewise a substantial number of stations (seats) in these classrooms (28,180 total stations).

Conclusion: While The Ohio State University has a large inventory of pool (general assignment) and departmentally-scheduled classrooms and classroom stations, the University is actually short of scheduled classrooms and classroom space. A good rule of thumb is that there should be approximately 0.70 schedulable classroom seats per full-time student. At The Ohio State University, there are approximately 0.61 classroom seats per full-time student.

Recommendation: *The Ohio State University should increase both the number of classrooms and the number of classroom stations.*

A3. Additional Pool Classrooms

Finding: The Ohio State University currently has 361 separate pool classrooms with a capacity of 20,216 stations. This is approximately 72 percent of the scheduled classroom space at the University; the remainder are departmentally-scheduled classrooms.

Conclusion: While the pool classroom inventory at The Ohio State University still has additional use and utilization capacity, the University requires the ability to continuously update and upgrade its instructional spaces. Among the most important of these are the pool classrooms. One strategy for doing this would be to increase the number of pool classroom spaces, including adding one additional large lecture hall with up to 400 seats. The remainder of the additional capacity would provide The Ohio State University the ability to develop new classrooms with the latest in instructional technology. It would also allow The Ohio State University the ability to construct new classrooms that are flexible and can meet constant changes in instructional technology. Increasing the pool classroom capacity is a long-term planning target and not one that needs to be urgently met. This strategy would allow the University considerable flexibility in having classroom space available when another building loses its space, either temporarily or permanently, due to renovations or other changes.

Recommendation: *The Ohio State University should add up to 2,000 additional pool classroom stations, including one large lecture hall, with up to 400 stations, as part of a long-term plan to improve its instructional space. The distribution of these rooms should mirror the current distribution of classrooms on the campus.*

A4. Additional Departmentally-Scheduled Classrooms

Finding: Currently, The Ohio State University has 146 departmentally-scheduled classrooms with a total of 7,964 stations. These rooms, on balance, are used and utilized to a lesser degree than the pool classroom space on the campus.

Conclusion: Because departmentally-controlled classrooms have been constructed with each new departmentally-centered building or renovation, they create a pattern of decentralization and wide distribution of classroom instructional space on the campus. This results in departments having immediate access to instructional space, while at the same time, it precludes classroom resources from being brought together in a more common and central location on the campus for the benefit of many.

Recommendation: *The Ohio State University should discontinue the practice of adding new departmentally-controlled classrooms to each new building or renovation project. Additional new classroom space should, instead, be brought together and built as part of increasing the centrally-scheduled pool classroom inventory of the University.*

A5. Unscheduled Instructional Space

Finding: Based on data from The Ohio State University's facility inventory database, almost one-third of all instructional space at The Ohio State University is in unscheduled departmental class laboratories and unscheduled departmental computer laboratories.

This unscheduled space includes 251,900 assignable square feet in 315 unscheduled departmental class laboratories and another 90,000 assignable square feet in 128 unscheduled departmental computer laboratories. In other words, there is almost the same amount of square footage in unscheduled departmental class laboratories as in the scheduled department class laboratories (257,300 assignable square feet). The unscheduled space includes large class laboratory space, as well as some space which is apparently service space to the laboratories.

Conclusion: The unassigned departmental square footage in class laboratories and computer laboratories provides a potentially large reservoir of space that could be converted to other instructional or campus uses if it is little used or in need of significant renovation.

Recommendation: *The Ohio State University should carefully study these unscheduled departmental class laboratories and unscheduled computer laboratories for their potential reuse. The study should identify if and how often these rooms are used, as well as the condition and alternative uses of the rooms in the event that they are held in the departmental space inventory "just in case."*

B.   CLASSROOM SCHEDULING, USE, AND UTILIZATION

B1. Pool Classroom Use is Higher than Departmentally-Scheduled Classroom Use

Finding: The Ohio State University achieves a higher classroom use and utilization from those pool (general assignment) classrooms under the jurisdiction of and centrally-scheduled by the Registrar's Office than those classrooms scheduled individually by departments. Scheduled pool classrooms have an average computed use of 89 percent and a utilization rate of 90 percent. Scheduled department classrooms have a use rate of 48 percent and a utilization rate of 39 percent.

Conclusion: Opportunities exist for better use and utilization of instructional facilities if scheduled pool classroom and scheduled department classroom efforts were more closely linked and aligned.

Recommendation: *The Ohio State University should establish an operating procedure whereby the departmentally-scheduled classrooms are scheduled by the Registrar's Office or, alternatively stated, there should be the opportunity for the Registrar's Office to schedule and use unoccupied departmentally-scheduled classroom space.*

B2. Departmental Classroom Space Assignment

Finding: Instructional space classrooms are assigned to (held by) dozens of individual departments and by the Registrar's Office. Overall, about 30 percent of instructional classrooms (146 out of 507 rooms) are held and scheduled by individual departments. This amounts to nearly 30 percent of all scheduled classroom instructional stations (7,964 out of a total of 28,180 stations).

Conclusion: The Ohio State University is similar to other institutions of higher education in that departments can schedule instructional space, which on most campuses is considered to be general assignment space and available for campus-wide use when not in departmental use. Since the departments have had a long history of owning and scheduling instructional space, this practice is embedded in the space use culture of The Ohio State University. Rather than dramatically change this culture, accommodation should be made whereby departmentally-scheduled classrooms are co-scheduled by the Registrar's Office and offered for general assignment.

Recommendation: *The Ohio State university should schedule and allocate departmentally-controlled classrooms, especially during those times when departmental assignment is low, which is primarily during the time frame from noon until 2:00 p.m. daily.*

B3. Pool Classroom Space Assignment

Finding: The Registrar's Office at The Ohio State University schedules more than 360 instructional classrooms and 20,200 instructional stations contained within these classrooms.

Conclusion: While the Registrar's Office schedules these general assignment pool classrooms, the Registrar's activities appear to be limited to this single purpose function. At other campuses, the organization entity that schedules classrooms plays a larger role in the management and readiness of these rooms for instructional purposes than occurs at Ohio State. As a result, the Registrar's Office is limited in its ability to affect change in the classroom environment as it shares classroom management responsibilities with other units on campus.

Recommendation: *The Ohio State University should assemble its current and various classroom readiness organization units and individuals into a single organization that has considerably larger oversight over classroom space assignment and space management than each of the separate units has at present.*

B4. Peak Periods of Classroom Use

Finding: Pool classroom use at The Ohio State University is consistent from Monday through Thursday, with classrooms heavily scheduled and used during the 10:00 a.m. to 3:00 p.m. period, and to a lesser degree before and after that time. Friday use is approximately one-half of that of the remainder of the week.

Departmentally scheduled classroom use is heaviest at 11:00 a.m., then drops between noon and 1:00 p.m., and increases to peak levels again at 2:00 p.m. and 3:00 p.m. Departmentally-scheduled classroom use drops off markedly at 4:00 p.m. and later. Friday use is approximately one-half of that of the remainder of the week.

Conclusion: The best model for effective classroom use and utilization is one that spreads classroom assignments across the week and across all time blocks. The less than optimal scheduling of departmentally-scheduled classrooms through the peak demand hours of the day, and the capacity for increased scheduling of courses on Friday puts pressure on the scheduling of classrooms.

Recommendation: *The Ohio State University should centrally schedule all classrooms, both pool classrooms and departmentally-scheduled classrooms, to improve classroom use and utilization and spread it out more consistently through the day and the week, including increased use and utilization of classrooms on Fridays.*

B5. Departmentally-Controlled Instructional Space

Finding: Departments control nearly 70 percent of the instructional space square footage, 70 percent of rooms devoted to instruction, and more than 50 percent of the stations available for instructional use on The Ohio State University campus. This includes both those rooms departments schedule or have under their control and use as well as rooms that are not regularly scheduled. The departmentally-scheduled classrooms have markedly lower measures of use and utilization than the centrally-scheduled pool classrooms.

Conclusion: Departmentally-controlled instructional space at The Ohio State University is a large, untapped space resource that if better identified and managed could conceivably allow Ohio State to greatly increase the space devoted to instruction without adding more space.

Recommendation: *The Ohio State University should create a new arrangement for the scheduling of departmentally-controlled classroom and class laboratory space with the intent of gaining back spaces which have little or no use, and for greatly improving the use and utilization of departmentally-controlled spaces that are scheduled but underused. These spaces could and should be assigned centrally.*

B6. Scheduled Days of Class per Week

Finding: One change in instruction that has taken place not only at The Ohio State University but also at other U.S. campuses is that instruction takes place on fewer days per week than in the past. In Autumn 2007, 30 percent of the courses meeting in scheduled pool classrooms met only one time per week. Another 52 percent of courses met only two days per week. This distribution of courses is symptomatic of how courses are recorded at The Ohio State University; that is, it is unclear whether a scheduled course represents a section of a course or an entire course.

Among departmentally-scheduled classrooms, instruction is scheduled based on even fewer course meetings. For example, 90 percent of the departmentally-scheduled courses meet two times per week or less, including 60 percent of the courses that meet only one day per week and 30 percent that meet two days per week.

Conclusion: The changing academic calendar with courses meeting fewer times per week creates a situation where the remainder of the available time in the hourly course schedule time block cannot be used unless the course scheduling software identifies this and fills the intervals with similar courses.

Recommendation: *The Registrar, in scheduling classrooms, should first allocate classroom space and times to those courses which meet most often during the week, followed by backfilling the gaps in the course schedule with courses which meet less often during the week. This currently is not a policy of scheduling of the University Registrar.*

B7. Cancelled Courses

Finding: In Autumn 2007, of the 7,500 scheduled courses at The Ohio State University, more than 600 were cancelled and did not take place. In other words, cancellations amounted to about eight percent of all scheduled courses, or about one in 16 courses. Some of these cancellations were due to an expected enrollment not occurring and the departments identifying a course which was not needed.

Conclusion: While it is expected that some courses would be cancelled because it is not always possible to identify the demand for courses when they are shown in the course catalog, too many cancellations are disruptive to course scheduling. The Ohio State University should continue to remain diligent in identifying courses that are cancelled in one year from being rescheduled during a second year to avoid gaps in the scheduling of rooms.

Recommendation: *The Ohio State University should develop a target percentage above which it would consider there to be an excessive number of course cancellations. One such target is that course cancellations be limited to five percent of the course calendar, rather than the eight percent that occurred in Autumn 2007. This is the same target that is in use at the University of Minnesota.*

C.   CLASSROOM SPACE MANAGEMENT AND PLANNING

C1. No Single Voice for Classroom Needs and Issues

Finding: Because of the decentralized management of the myriad of classroom activities at The Ohio State University, there is no single place where classroom issues are voiced. The Classroom Readiness Committee has stepped in to fill some of this gap, but it has no line responsibility; it is advisory only.

Conclusion: If classrooms are to gain more attention as an important component of The Ohio State University facilities, they need to be structured so that a "champion" or spokesperson for classrooms is identified.

Recommendation: *The Ohio State University should create an office or unit that has overall campus-wide responsibility for management of The Ohio State University pool (general use) classrooms and departmentally-scheduled classrooms.*

C2. Courses, Course Sizes, and Classroom Inventory Size

Finding: In the autumn quarter 2007, among pool classrooms, there were nearly 3,600 scheduled courses, ranging in size from 1 student to 671 students. Overall, there were 221 distinct sizes of courses scheduled in pool classrooms based on number of students enrolled. One-half of these courses enrolled 29 or fewer students; one-half enrolled 30 or more.

Among departmentally-scheduled classrooms, in Autumn 2007, there were 730 scheduled courses, ranging in size from 2 students to 287 students. Overall, there were 98 different sizes of departmentally-scheduled courses as measured by enrollments. One-half of these courses enrolled 22 or fewer students; one-half enrolled 23 or more.

Conclusion: While The Ohio State University enrolls a significant number of students, more than one-half of the courses can be considered relatively small for an institution of its size. Should Ohio State continue to encourage and foster small class sizes, the mix of classrooms would need to continue to reflect this policy.

Currently, 46 percent of pool classrooms and 51 percent of departmentally-scheduled classrooms seat 39 or fewer students, which is the appropriate size room for courses that enroll 29 or fewer students, allowing for course enrollments to increase during the registration period without rescheduling the course to another room.

Recommendation: *The Ohio State University should establish a target that 50 percent of its classroom space inventory seat 39 or fewer students, if current class sizes are to continue into the future.*

C3. Converting from Quarters to Semesters

Finding: As a result of the State of Ohio policy on instructional space at Regents institutions, The Ohio State University will migrate from quarters to semesters. The faculty senate has already voted its support. Other institutions in Ohio, who are not already on the semester system, have indicated they will be on semesters by the fall of 2012, including Ohio University, the University of Cincinnati, and Wright State University.

Conclusion: The impact on the instructional space facilities inventory as a result of the conversion will require The Ohio State University to estimate the number of courses to be taught under the semester system relative to the number of courses currently taught under the quarter system. The expected change (increase) in course-by-course enrollments, which has not been forecast, will also need to be calculated.

As part of any task force studies at The Ohio State University on the conversion of instruction from quarters to semesters, an analysis should be made of the impact on the classroom inventory as a result of this change. If the result is a shift toward fewer courses with larger enrollments, then The Ohio State University could find itself with an inadequate number of larger classrooms (40 stations or more) at the time the semester conversion takes effect.

Recommendation: *The Ohio State University should predict the expected number of courses and their size as a means to identify the classroom resource the University will need at the time it moves from quarters to semesters. [Note: If the number of courses remains relatively in the same order of magnitude as presently exists, the change from quarters to semesters should have no impact on classroom facilities.]*

C4. Classrooms in Every Building

Finding: Historically, every new building at The Ohio State University has included classroom space.

Conclusion: This practice of including classrooms in every building is consistent with the decentralized management of instructional space at The Ohio State University. It has also resulted in a distribution of classrooms across the campus, with the effect that there is no centroid of classroom space on the campus. During the period when classroom technology was at a minimum on U.S. campuses, this pattern of distributed classrooms was neither positive nor negative. However, in today's classroom environment, with its emphasis on technology, the widespread distribution of instructional rooms means that it is more difficult to provide a high level of on-site services to a building with few classrooms.

As The Ohio State University proposes and plans future buildings on campus, the need for classroom space should be viewed as an institutional, rather than a departmental, requirement. The need for larger classrooms on the campus, including additional large lecture rooms, will need to be considered in each new building.

Recommendation: *The Ohio State University should advocate for classrooms beyond those serving a department and sponsor them in any new building.*

C5. Cost of Classroom Instruction

Finding: It was not apparent that The Ohio State University measures the cost of classroom instruction, either per square foot, per student, or per classroom.

Conclusion: Having a measurement of the actual cost along any of these performance indicators would allow The Ohio State University to compare an estimated requirement for operational cost per classroom square footage per year to the actual funding. This would provide a measure on how well classroom activities are financially supported.

Recommendation: *The Ohio State University should develop and use financial measures as well as use and utilization measures as a gauge for determining improvements needed in classroom and instructional space management.*

C6. Large Lecture Halls

Finding: The Ohio State University has three pool classrooms and one departmentally-scheduled classroom that seat 300 or more students for a total of four large lecture halls on campus. The three large lecture halls that are part of the pool classrooms are heavily utilized; the one large lecture hall that is a departmentally-scheduled classroom is less heavily utilized.

Conclusion: Demand exists for some very large classrooms (lecture halls) on the Ohio State campus. Scheduling these large rooms as evidence of demand suggests that additional space is required. While there is no universal gauge or benchmark to suggest how many large lecture halls there should be on a campus, The Ohio State University has fewer such rooms than all but one of the comparison campuses in this study, including all Big Ten campuses.

Since there is no measure by which to gauge either the number or size of large lecture halls on a campus, having these rooms provides benefits to the campus in terms of assembly, offering courses that require little student-faculty interaction, and providing a location for introductory courses. The Ohio State University, with only four such rooms, faces a long-term issue if any of these rooms are taken out of the inventory or if the building is razed and the site reused. Campuses with such large rooms find that on a formula-funded basis, they are able to generate considerable income to the campus for relatively little resource expenditure.

Recommendation: *The Ohio State University should add at least one large lecture hall classroom (300 or more seats). Such a classroom should be centrally located and be institutionally, rather than departmentally, sponsored. The Ohio State University should also proactively replace the one very large classroom in Independence Hall that may be displaced if the site is chosen for a new, larger replacement building. [Note: The 728 seat lecture hall in Independence Hall is the largest instructional space on campus.]*

C7. Classroom Design Standards

Finding: Apparently, because there are no classroom design guidelines at The Ohio State University, each time a new building is designed, or an existing one renovated, the design architect can incorporate into the building those features of classroom design they feel to be important.

Conclusion: Leaving the design of classrooms up to each separate design architect can create inconsistencies from room-to-room as well as inefficiencies in the usefulness of the room at The Ohio State University. The post-occupancy feedback on what works and should be replicated and what does not work is also a necessary feature of improving classroom design.

Recommendation: *The Ohio State University should develop a classroom facilities design and operations manual to overcome the inadvertent changes that occur in the development of new instructional space from one designer to another, and from one building to another.*

C8. Communications about Classrooms

Finding: The Ohio State University has recently updated its classroom services website. This website provides quick links for finding the right classroom, requesting on-site staff assistance, reserving equipment online, and other options for providing assistance to prospective classroom users.

Conclusion: While the new classroom services website is of considerable aid to those searching for classrooms, communicating the characteristics of classrooms to faculty and instructors searching for a room can still be improved. This improvement should be in two areas: first, continuously monitoring the website to make it as informative and user-friendly as possible; and second, proactively informing potential users of its existence as a resource.

With regards to improving the usability of the website, as currently structured it offers much useful information, yet there are still improvements that could be made to help potential users navigate through the information available. Issues with this website include the use of building name abbreviations instead of full building names and some photos that are outdated.

Recommendation: *The Ohio State University should continue to upgrade its classroom services website and, in so doing, provide broadcast announcements to the faculty and instructional staff community that the website has been updated. In the updating, the University should provide the opportunity for comment and feedback as a method to continue to improve and meet user needs. Questions about using the website should also be added to any regular surveys about classrooms that the University plans to give in the future.*

C9. Feedback for Improvement

Finding: The Registrar-sponsored web-based survey of faculty comments on classrooms was, by all measures, an overwhelming success. More than 2,100 faculty and instructors comments to the survey were recorded and provided considerable and valuable information on their attitudes about classrooms and classroom management at The Ohio State University.

Conclusion: The Registrar-sponsored web-based survey was an important step in obtaining a broad spectrum of information about users' (faculty, staff, and instructors) attitudes about classrooms at The Ohio State University. The largest number of comments about the classrooms concentrated on classroom conditions, including issues of heating, ventilating, and air conditioning and of general maintenance, which is evidence that some aspects of classroom management are beyond the direct control of the classroom faculty or instructor. Aspects of classroom management under user control, such as technology, lighting, or projection, were also identified as important issues that needed attention, but were not nearly as important as those regarding the facility conditions of the classrooms. Continuing to discover users' attitudes about classrooms is important; doing something about it is even more important.

Recommendation: *The Ohio State University should continue both to survey and poll its classroom users on their attitudes and experiences with classrooms at the University. This information should be used in capital project requests that respond to the identified needs: better heating, ventilating, and air conditioning (HVAC) and HVAC controls, improved general maintenance, and overall better cleanliness of the rooms.*

C10. Reporting Classroom Issues

Finding: As this study of instructional space indicated, the classroom issues at The Ohio State University cover many topical areas, ranging from facilities to technology, scheduling, and location.

Conclusion: Obtaining information about technology issues and putting the information to use will be a continuous need as The Ohio State University improves its classrooms. To create a single location (unit) for receiving comments and issues is important. This methodology for gaining information can be both passive and active. The passive methodology is also the source that provides the most immediate and current information. Passive means that the user initiates the comment, which can begin by posting "help line" phone numbers in the classroom or providing phone service in each classroom so that the immediate issues can be identified and responded to. The active methodology means seeking out information from the users about facility and technology issues. This would involve continuing and repeating the Registrar's autumn 2008 web-based survey of faculty, follow-up meetings with faculty committees, continuing to schedule open forums with students, faculty, and staff, and seeking information about issues from all available sources.

Recommendation: *The Ohio State University should continue and repeat its current activities of obtaining information about facility and technology issues in the classroom. If and when the University provides a single source (unit) on the campus for classroom management and support, these issues would be received by that unit. In the interim, the issues would continue to be received by all who currently have responsibility for classroom facilities, technology, scheduling, and use.*

D.   CLASSROOM TECHNICAL SERVICES

D1. Distributed Technology Services

Finding: At least four different units at The Ohio State University, each reporting separately, provide one or another technical or technology service in support of classroom instruction. These include FTAD (Faculty and TA Development), which reports to the Office of Academic Affairs; the Digital Union, which reports to the Library; Technology Enhanced Learning and Research (TELR), which reports to the Chief Information Officer; and, Applied Technology Services, which reports to the Office of Information Technology, which in turn reports to the Chief Information Officer of the University. Each of these units provides a different technical or technology service to students, faculty, and staff at the University.

Conclusion: While these four units (FTAD, Digital Union, TELR, and Applied Technology Services) work together informally, there is no common goal or direction that unites them. Although this decentralized model, in terms of reporting, mission, funding, and goals, is consistent with other aspects of decentralization at The Ohio State University, the "classroom management best practices" model at other major universities has these types of disparate units reporting to and through a common organization.

Recommendation: *The Ohio State University should redefine and realign these four technology support units, along with those providing other classroom support, into a single division of classroom support and management to enlarge the scope of their services, to create a one-stop shop, and to identify gaps in the supply of the services to the campus. This does not mean these units will lose their identity; rather their individual objectives will be brought together to identify gaps, or even duplications, in services.*

D2. Technology Enhanced Rooms

Finding: Of the 361 pool classrooms, technology to make the room a smart classroom has been installed in 241 rooms. Of the 146 departmentally-scheduled classrooms, there is no computation or data to show how many have technology to allow them to function as smart classrooms. Based on the workshops held with students, faculty, and staff, a minimal level of technology should be supplied in each instructional space on campus.

Conclusion: While The Ohio State University has made great strides in improving technology in the classroom, not all classrooms have yet received technology enhancement. Moreover, there is no systematic approach to installing and equipping technology in the rooms based on overall institutional objectives.

Recommendation: *The Ohio State University should establish a standard that every pool classroom and departmentally-scheduled classroom have a minimum level of technology. This would include a digital projector, internet connectivity, a permanent or portable podium, wireless connectivity, and a hot-line phone connected to a help desk.*

D3. Standards for Classroom Technology

Finding: If The Ohio State University has standards for classroom technology, it was not apparent.

Conclusion: The lack of a common design standard for instructional space technology means that each building can be developed without a common set of technology design parameters.

Recommendation: *The Ohio State University should develop a set of technology design standards for its new or renovated classrooms. Many institutions have highly workable and tested standards that Ohio State could use as a starting point.*

D4. Decentralized Computer Purchases and Services

Finding: The Ohio State University is likely unique among institutions in the amount of decentralization and autonomy granted to departments regarding technology. Departments, in general, can make their own computer purchases, choose their own software vendors, and maintain their own equipment.

Conclusion: The decentralization of technology to the departments results in discontinuity in the ability to provide a constant level of technology support across the campus. It is unlikely that any apparent cost savings in this model outweigh the benefits of a more uniform, bounded, and managed set of guidelines for on-campus technology.

Recommendation: *The Ohio State University should move away from its current decentralized model of each department having autonomy over its technology resources toward a more centralized model whereby hardware and software can be centrally supported.*

D5. Technology Delivery and Application

Finding: The delivery of technology to the classroom and the use of technology in the classroom at The Ohio State University appears fragmented as a result of the lack of campus policy direction and oversight.

The absence of a technology plan for The Ohio State University is evident when reading the current six strategic goals for "Making the Coming Year Ohio State's Time" as issued by President Gordon Gee. None of the six strategic goals include or stress the use of technology and none use the word technology.

Conclusion: If The Ohio State University is to embrace technology in instruction, it will need a strategy to do so, including making plans for customer service, training, funding for technology services, funding for classroom improvements, and a built-in methodology to assess its achievements or lack thereof. At a minimum, a clear vision for the use of technology in the classroom at The Ohio State University is necessary.

Recommendation: *The Ohio State University should add a separate strategic goal regarding policy or institutional direction on technology on campus and explain that filling this vacuum will better serve its students.*

D6. Separate Technology Plans

Finding: The absence of an overall plan for instructional technology at The Ohio State University means that each of the operating units devises its own.

Conclusion: A technology plan for instruction or an instructional technology plan for The Ohio State University would bring together and fill in the experiential and policy gaps that currently exist. It would set the direction for Ohio State's response and provide a clear statement of Ohio State's intent. As it now stands, technology is an add-on rather than an integrated component of facilities planning, classroom improvements, assistance to faculty, and support to students.

Recommendation: *The Ohio State University should develop a comprehensive approach to and plan for technology in instructional space. This should accompany the review of changes in curriculum and pedagogy currently underway at the University.*

D7. Distributed Technology

Finding: Every department and college has its own computer network, servers, and security.

Conclusion: The lack of technology uniformity across The Ohio State University campus diminishes the economies of scale and opportunities for better collaboration that would come from a better controlled and managed system of technology on campus. More centralization would, when accompanied by common standards, lead to improved knowledge on the use of technology and gains from its use. This is both a cultural and organizational issue.

Recommendation: *The Ohio State University should provide more centralized guidance to and control over technology applications, hardware, and software across the campus.*

E.   CLASSROOM FACILITIES ENVIRONMENT

E1. Environmental Controls

Finding: One of the common themes identified in the Registrar's web-based survey of classroom users, in interviews with the Instructional Space Readiness Committee, and the subcommittee of the faculty senate, and others, is that better environmental controls are needed in the classroom. Many have said there is no way to adjust the temperature of the room; it is either too hot or too cold.

Conclusion: With nearly one-half of those responding to the Registrar's web-based survey indicating the need for better HVAC controls in the classroom, this is an area that deserves additional campus attention.

Whereas at one time universities favored zone controls for temperature, where an entire floor or wing of a building would have only one set of temperature controls, today that is no longer necessary. The ability to control temperature on a room-by-room basis is cost effective, energy efficient, and readily available.

Recommendation: *The Ohio State University should establish a standard that each modernization of a classroom or group of classrooms go beyond cosmetic improvements and lead to the replacement of HVAC systems with room-by-room controls.*

E2. Cleanliness and Maintenance of Classrooms

Finding: One concern raised in the web-based survey is that the condition of the classrooms could be improved and, in some instances, the classrooms were not clean.

Conclusion: Because the classrooms are in constant use, keeping them clean and the equipment in working order is important. It also means finding the time when custodial and maintenance staff can keep up the room. This should result in a decreased amount of service requests.

Recommendation: *The Ohio State University should begin a daily classroom inspection to ensure instructional spaces remain are looked after. One-third of the instructional spaces should be inspected daily and 100 percent of instructional spaces should be inspected every three days.*

E3. Individual and Group Gathering Places

Finding: Both in observations on building walkthroughs and through discussion with students, students want and appreciate the ability to have individual or group gathering spaces in or near classrooms so that during their time before and after the instructional period they can have a place to sit, to study, to talk, to use their computer, or to wait.

Conclusion: The Ohio State University does better than most universities in providing this type of informal gathering space. Not only does this space exist outside of many of The Ohio State University classrooms, but students also seek out and use unscheduled or unused classrooms for the same purposes. This feature distinguishes and sets The Ohio State University apart from others.

Recommendation: *The Ohio State University should program all new, renovated, and remodeled classroom facilities with space for informal individual and group gatherings.*

F.   CLASSROOM SUPPORT

F1. Decentralized Teaching and Learning Technology

Finding: Instructional technology, whether it is a teaching or learning technology, is decentralized, like other forms of technology interface at The Ohio State University. While separate technology organizations within the University offer portions of a comprehensive program, there is no overall organizational direction that was apparent.

Conclusion: The generational changes that are occurring in the use of technology, both occasioned by the hiring of new faculty and by the enrollment of students who have grown up with technology, will require The Ohio State University to engage more deliberately in the area of instructional technology, ranging from classroom instruction to distance education. This is, on many campuses, a component of classroom or instructional space management.

Recommendation: *The Ohio State University should be more active and proactive in the area of instructional technology, both for the benefit of students and for the assistance to faculty. This may require organizational changes, space, and a funding source.*

F2. Technology in Instruction

Finding: While there are some outposts of the use of technology in instruction at The Ohio State University, it is ad hoc rather than comprehensive.

Conclusion: The Ohio State University needs to decide what its future should be regarding the use of technology in the classroom. The decentralized, ad hoc model creates many gaps. These include questions of the technology needs of courses; the space needs for technology; the funding for classroom upgrades, both in terms of facilities and technology; the understanding of the match between pedagogy and the need for technology; the requirement of space for training and demonstration; and, the need for space for experimentation.

Recommendation: *The Ohio State University should create a technology plan that is progressive, rather than remedial. The plan should identify the technology future of Ohio State, rather than one which simply focuses on bringing The Ohio State University to the present instead of to the future.*

F3. Classroom Services Website

Finding: The Ohio State University classroom services website ranked among the better classroom websites among the Big Ten institutions in a review conducted by IFA. However, at the time of this report, the last reported update of the classroom services website had been more than seven months earlier, in August 2008.

Conclusion: While the classroom services website is useful, it needs to be maintained. Moreover, other words similar to classroom and classroom services need to be linked to this website.

Recommendation: *The Ohio State University should continue to work to improve and redesign the classroom services website, including links to other classroom affinity groups on campus. Any future classroom design, management, or scheduling guidelines should also be posted here for easy access.*