AN EXAMINATION OF THE FACILITIES SPACE PLANNING MODELS USED BY THE BOARD OF REGENTS AND STATE BOARD OF COMMUNITY COLLEGES

Final Report and Recommendations

Submitted to:

Florida Postsecondary Education Planning Commission

Submitted by:

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1.0 INTRODUCTION AND BACKGROUND

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1.1 Legislative Mandate

This study is in direct response to the following appropriation bill proviso language adopted by the 1999 Florida Legislature:

> *In consultation with the Board of Regents and the State Board of Community Colleges, the Postsecondary Education Planning Commission shall examine the facilities space planning models used by the two systems and determine what, if any, modifications are needed in the standards and procedures used to generate need. A report and recommendations shall be submitted to the Legislature and the State Board of Education by January 31, 2000.*

This study is just one of a series of related initiatives that have taken place during the past few years to assist the state in preparing for the significant increases in higher education enrollment projected to occur over the next several years. A central theme of the 1998 PEPC master plan was the need for the State to look for policy solutions to address this enrollment growth. Clearly, an assessment of the adequacy of university and community college space is a key component of this strategy.

1.2 Key Findings from 1998-99 Study of Postsecondary Facilities Capacity

During 1998-99, MGT worked with PEPC, the State Board of Community Colleges (SBCC), and Board of Regents (BOR) staff on a related study, in response to a request by the Chairman of the Senate Committee on Natural Resources. In general, the results of that study indicated that there was a need in Florida for an accepted, objective, and simplified basis for postsecondary education facilities planning and budgeting at the state level. Key findings from this study were as follows:

- Under the current space planning models used by both the SBCC and BOR, both systems have a significant current and projected need for new space and capital outlay funding (11 million assignable square feet; $1.8 billion)

- Under the previous space planning models used by both systems, the current and projected need for space is lessened substantially (5.4 million assignable square feet; $883.3 million)

- Comparisons with similar institutions in the region suggest that the current amount of space in Florida's universities and community colleges is lower on a per student basis.

In summary, regardless of the analytic approach used, the results of this study suggest that the state will need more postsecondary facilities space to accommodate the projected growth in student enrollment within both sectors over the next several years. Because of these pending needs, it is important that the state examine current facilities space planning models and procedures for adequacy and appropriateness.

1.3 Study Methodology

The methodology for this study involved the collection and analysis of data from a variety of sources, including the following:

- Interviewing key facilities planning staff at the Florida Department of Education, BOR, and SBCC;

- Collecting and reviewing existing documentation on facilities space planning procedures in the BOR and SBCC;

- Benchmarking instructional space planning guidelines (classroom and teaching laboratory) used by the BOR and SBCC with those used nationally;

- Surveying selected Florida community college facilities directors on facility inventory quality control issues; and

- Surveying selected state-level higher education agencies on facilities space planning procedures used in these states.

This methodology allowed for a variety of perspectives to be gathered on the issues underlying this study.

1.4 Overview of Remainder of Report

This report is comprised of six chapters, including this introductory chapter. The remaining chapters are as follows:

- **Chapter 2.0: Overview of State University System and Community College System Facilities.** This chapter provides a brief overview of the types and magnitude of space within both sectors that are eligible to receive state capital outlay funding.

- **Chapter 3.0: Current BOR and SBCC Facilities Space Planning Models and Procedures.** This chapter provides a brief overview of the current facilities space planning models and procedures used by both sectors.

- **Chapter 4.0: Selected National Comparisons of Space Planning Standards.** This chapter presents comparisons of the current instructional space (i.e., classroom and teaching laboratory) planning guidelines used by both sectors with those used by other states.

- **Chapter 5.0: Related Facilities Space Planning Issues.** This chapter presents the results of the surveys of Florida community college facilities directors and other state-level higher education agencies nationally.

- **Chapter 6.0: Summary of Findings and Proposed Recommendations.** This final chapter presents an overview of the key study findings as well as a set of proposed recommendations for consideration by Commission members.

Additional information is presented in the Appendix at the end of the report.

2.0 OVERVIEW OF STATE UNIVERSITY SYSTEM AND COMMUNITY COLLEGE SYSTEM FACILITIES

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This chapter outlines the types of space in the State University System (SUS) and Community College System (CCS) that are eligible for state capital outlay (i.e., PECO) funding, and overviews the distribution of space according to these types in both systems.

2.1 State University System Space Eligible for PECO Funding

There are ten types of space in the State University System (eight of which are equivalent or similar with those in the CCS and two that are unique, i.e., research laboratory and student academic support facilities). These space types are outlined in Exhibit 2-1.

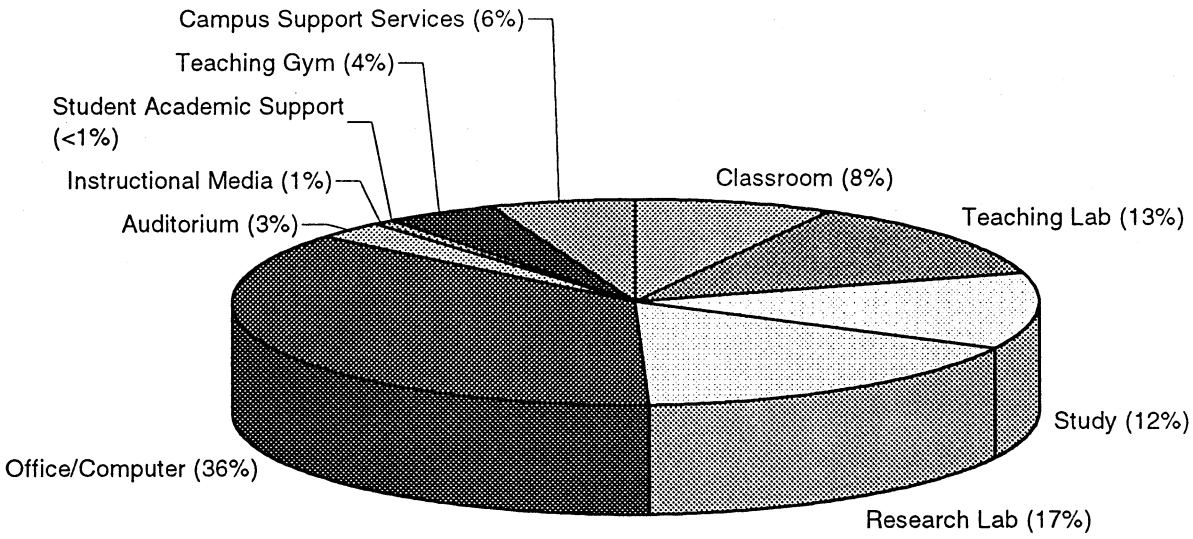
EXHIBIT 2-1
TYPES OF STATE UNIVERSITY SYSTEM SPACE ELIGIBLE FOR PECO FUNDING

Types of State University System Space
Classroom Facilities
Teaching Laboratory Facilities
Research Laboratory Facilities
Study Facilities
Instructional Media Facilities
Auditorium/Exhibition Facilities
Teaching Gymnasium Facilities
Student Academic Support Facilities
Office/Computer Facilities
Campus Support Facilities

The SUS has 14.8 million net assignable square feet (NASF) of eligible space. The largest proportion of this space, 36 percent, is dedicated to office and computer

facilities. Other significant proportions of space are dedicated to research and instruction, with research labs accounting for 17 percent, teaching labs accounting for 13 percent, study facilities accounting for 12 percent, and classrooms accounting for 8 percent of the total space eligible for PECO funding. The overall distribution of SUS space by type is depicted in Exhibit 2-2.

EXHIBIT 2-2
DISTRIBUTION OF STATE UNIVERSITY SYSTEM SPACE BY TYPE



According to current practice, not all facilities or types of space on a college or university campus are eligible for state funding. Examples of space that typically is funded through other revenue sources (such as self-supporting enterprises) are residence halls, food services, bookstores, and similar facilities. Approximately one-fourth of the space in the State University System is funded from non-state sources; the rate is much smaller for community colleges.

2.2 Community College System Space Eligible for PECO Funding

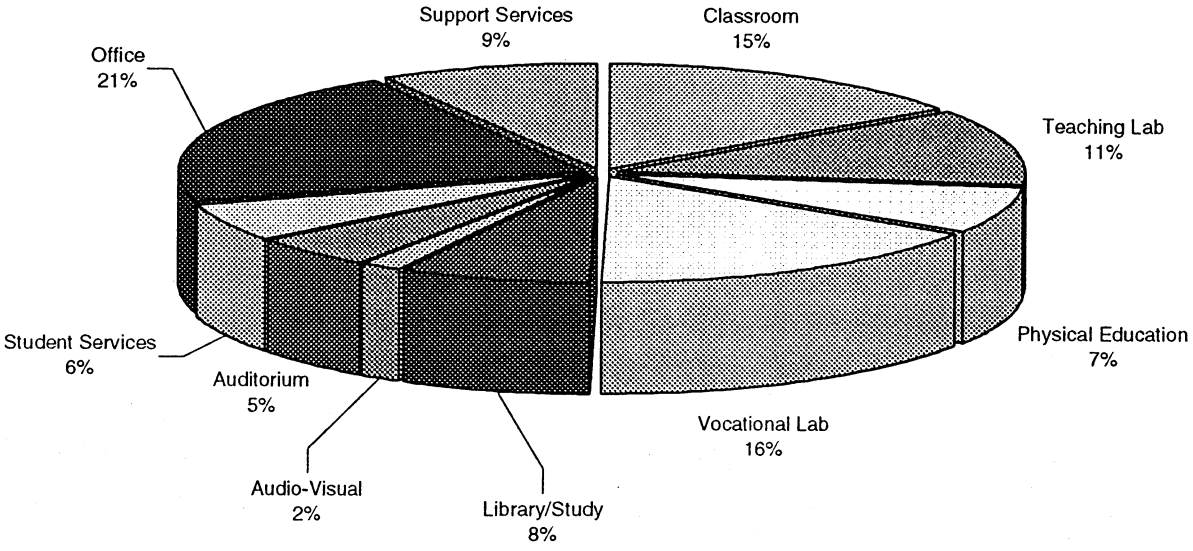
There are ten types of space in the CCS eligible to receive state capital outlay funding (eight that are equivalent or similar to those in the SUS and two that are unique, i.e., vocational teaching laboratories and student services facilities). These space types are outlined in Exhibit 2-3.

EXHIBIT 2-3
TYPES OF COMMUNITY COLLEGE SYSTEM SPACE ELIGIBLE FOR PECO FUNDING

Types of Community College Space
Classroom Facilities
Teaching Laboratory Facilities (non-vocational)
Teaching Laboratory Facilities (vocational)
Library/Study Facilities
Audio-Visual Facilities
Auditorium/Exhibition Facilities
Physical Education Facilities
Student Services Facilities
Office Facilities
Support Services Facilities

The CCS has 15.2 million NASF of eligible space. As with the SUS, the largest proportion of space in the CCS is dedicated to office facilities (21%). Other significant proportions of space are dedicated to instruction, with vocational labs accounting for 16 percent, classrooms accounting for 15 percent, and teaching labs accounting for 11 percent. The overall distribution of CCS space by type is depicted in Exhibit 2-4.

EXHIBIT 2-4
DISTRIBUTION OF COMMUNITY COLLEGE SYSTEM SPACE BY TYPE



2.3 Summary

The SUS and CCS both have ten types of instructional and support space eligible to receive PECO funding. The SUS has 14.8 million NASF, most of which is dedicated to office and computer facilities, laboratories (teaching and research), study facilities, and classrooms. The CCS has 15.2 million NASF, most of which is dedicated to office facilities, teaching laboratories (vocational and non-vocational), and classrooms.

3.0 CURRENT SPACE PLANNING MODELS AND STANDARDS USED BY THE BOARD OF REGENTS AND STATE BOARD OF COMMUNITY COLLEGES

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This chapter describes the purposes of establishing statewide space planning guidelines and provides an overview of the space planning models and standards that are currently used by the BOR and SBCC.

3.1 Purposes of Statewide Facilities Space Planning Guidelines

There are a number of purposes in implementing statewide facilities space planning guidelines, including:

- promoting equity among institutions in similar types of facilities space;
- ensuring a basic level of facilities space adequacy for students, faculty, and staff;
- promoting efficiency in resource allocation and utilization;
- creating predictability in assessing current and future facilities space needs;
- ensuring relative stability in instructional and support facilities space availability; and
- providing assistance in long-term financial planning by the State and institutions.

3.2 Overview of Current BOR and SBCC Space Planning Models and Standards

The two systems' space planning models, which are generally similar, translate enrollment levels into space requirements for each of several types of space (e.g., labs, classrooms, offices, etc.) and eventually into funding requirements. An allowance of assignable square feet per full-time-equivalent student (ASF/FTE) is typically provided for each type of instructional and related space.

In general, the space planning models for the BOR and the SBCC encompass policies and practices related to:

- Enrollment Counting
- Space Allowances
- Computational Rules

Each of these three topics is covered below. Additionally, brief descriptions of the models and issues related to their use by the BOR and the SBCC are provided.

3.2.1 Enrollment Issues

The number of students for which facilities are needed is the "driver variable" in the facilities planning models. Although counting students would seem to be a relatively straightforward endeavor, the methods used to determine enrollments for facilities planning involve several complexities.

The first issue involves the relevant time period for enrollment counting. Given the extended time period required for design and construction of educational facilities, the long-standing practice in Florida has been to determine space needs using projected enrollment for both systems. That is, the calculations are based on how many square feet will be needed to serve the students who are projected to be enrolled five or six years in the future rather than on current enrollment levels. This approach means that while a campus may currently have an adequate amount of space or even a surplus with respect to its current student population, the facilities planning model can show that more space is needed if enrollments are expected to increase. Each system produces its own enrollment projections with the community colleges having separate projections for each site and the universities for the main campus only. In addition, the community colleges have separate projections for "vocational" and "non-vocational" FTE students. By definition, projecting community college student enrollment is difficult given that these

students tend to enroll part-time and are generally more susceptible to changes in the economy (up or down) than traditional university students.

The other major issue in enrollment counting is the determination of eligible enrollment, or what the SBCC calls "capital outlay FTE." Basically, only some (albeit most) students generate space needs for the colleges or universities where they are enrolled. Examples of students who are excluded from the capital outlay enrollment count are those who do not take courses on campus, such as those in study abroad programs, on military bases, at employer sites, or perhaps in K-12 facilities. Generally speaking, only those students who actually use campus facilities are counted in the facilities planning model.

3.2.2 Space Allowance Issues

Once the appropriate number of students is determined, the second component of the facilities planning equation is the space allowance. Several issues relate to the space allowances, including the types of space that are eligible to be built with state monies and the amount of space of each type that is allowed per student.

Each room is classified according to type of space, and the types are based on the primary purpose for which the room is used (e.g., classrooms, teaching labs, library or study space, offices, etc.). As described in the previous chapter, the BOR and the SBCC each have ten types of space, most of which are parallel. These space types were originally based on a national model for classification of space that was developed by the National Center for Educational Statistics several years ago.

Two different kinds of space allowances (by type of space) are used in facilities planning at the state level. The Florida Administrative Code (Chapter 6A-2) contains detailed listings of space allowances by type of space for use by architects and space designers. These allowances are used to describe how much space should be provided

in new buildings for each purpose the building is to serve. Typically, the allowances are expressed as ranges of assignable square feet (ASF) per FTE student, with low, medium and high allowances listed. These listings are very detailed, with separate allowances for laboratories based on the academic discipline or program being supported, the position or responsibility of the person for whom the office is intended, etc.

A separate set of allowances, basically a subset of the space design allowances, is used for long-range planning, budgeting and priority-setting purposes. The planning factors generally represent the mid-range of the design factors and, when applicable, are the average of several of the design factors for that type of space (e.g., the single rate for teaching labs is an average of the numerous discipline-based allowances for labs). These factors and the related planning processes are the primary focus of the 1999 legislative mandate. The space planning factors used by the two systems are described more fully later in this chapter.

3.2.3 Computational Practices

A final issue in the use of facilities planning models is whether a surplus of space of one type should offset a shortage of space of a different type when determining total requirements. A similar issue relates to whether surplus space in one location should offset need in another location. The practice in Florida has been to recognize only unmet needs for space, even when there is a surplus of a different type of space.

The rationale for not offsetting needs by type of space is that facilities must be built in fairly sizeable increments that are expected to serve over a number of years. For instance, libraries are built at a single point in time to serve expansion needs over a number of years; they are not built by adding a few square feet per year to handle a relatively small number of new students or new books in any particular year. If a library

were built that was 10,000 square feet larger than initially needed, for example, adherence to an offsetting practice would ignore the need for 10,000 square feet of classroom space for approximately 800 students.

Similarly, space-offsetting practices are not followed for multiple locations of individual institutions. That is, a community college with 10,000 ASF of surplus space at one location does not lose its need for a similar amount of space at another site.

Implicit in the space planning process is the fact that each system's current facilities space inventory (i.e., the amount of current total facilities space by type at each university campus and community college site) is the basis against which future space needs are measured. Both the BOR and SBCC maintain space inventories for their respective institutions. Because inaccuracies in current space inventories could result in either an understatement or overstatement of future facilities needs for community colleges and universities in Florida, the ongoing maintenance of these inventories by both systems, and their accuracy, are critically important.

3.3 Board of Regents Space Planning Model

The BOR space-planning model is used primarily to address the need for new facilities at the main campus locations of the ten universities, although there are some minimum space planning guidelines in place for non-main campus sites as well. The model considers ten types of space, with a separate formula calculation for each type. In general, the model estimates the total amount of space by type that will be required to adequately serve the eligible enrollment projected for six years in the future (five years beyond the current request year). Then, the estimated space inventory for the same projected year is deducted to determine net space need by type of space.

A critical part of the space-planning model is the schedule of allowances for each type of space. For the several types of instructional space, the allowance is expressed in terms of assignable square feet per FTE student. The allowance for offices is based on the number of positions requiring such space, and the allowance for campus support services is expressed as a percentage of all other space. Exhibit 3-1 displays the allowances and calculation procedures for each type of space in the current model.

The educational plant survey is conducted at each SUS institution on a five-year cycle with supplements as necessary. Staff from the Board of Regents coordinate this overall process, work with institutional staff members to implement the survey, and validate the institutional facilities space data.

3.4 State Board of Community Colleges Space Planning Model

The SBCC space-planning model is used to address the need for new facilities at each of the 56 sites of the 28 community colleges. The model considers ten types of space, with a separate calculation for each type. The process for determining space needs utilizes student enrollment projections, space needs generation formulas, space utilization formulas, educational program information, and size of space and occupant design criteria.

1. Student Enrollment Projections – The State Board of Community Colleges annually prepares statewide capital outlay full-time-equivalent (COFTE) student enrollment projections for a five-year period for nonvocational, vocational, and total students, by site and by college.

2. Space Needs Generation Formulas - There is a space needs generation formula for each assignable space category and nonassignable type of facilities. For each site, the formulas are calculated using the appropriate factors (e.g., COFTE, minimum allowance, etc.) and the proper standards, by site type, to find the aggregate amounts of square feet in the different space categories and nonassignable facilities needed at that particular site. Exhibit 3-

2 displays the allowances for space needs generation formulas in the CCS.

EXHIBIT 3-1
ALLOWANCES FOR SPACE NEEDS GENERATION FORMULA
BOARD OF REGENTS

Space Type	Current Factors Used
Classroom Facilities	12 NASF/FTE (22 NASF/Student Station)
Teaching Lab. Facilities	15 NASF/FTE (25 to 125 NASF/Student Station)
Research Lab. Facilities	
Research Faculty	75 to 450 NASF/FTE
Graduate Students	
Advanced Graduate	75 to 450 NASF/FTE
Beginning Graduate	3 to 90 NASF/FTE
Study Facilities	
Study Rooms	25 NASF/station for 25% of the Undergraduate FTE
Computer Study Rooms	1 station/15 FTE with a station size of 30 NASF
Carrels	
Beginning Graduate FTE	30 NASF/station for 25% of the Beginning Graduate FTE
Law FTE	30 NASF/station for 50% of the Law FTE
Advanced Science Graduate FTE	30 NASF/station for 25% of the Advanced Graduate Science FTE
Advanced Non-Science Graduate FTE	30 NASF/station for 50% of the Advanced Graduate Non-Science FTE
Science FTE Faculty	20 NASF/station for 5% of the Science FTE Faculty
Non-Science FTE Faculty	20 NASF/station for 25% of the Non-Science FTE Faculty
Stack Areas	
Non-Law Stacks	0.10 NASF/volume for the first 150,000 volumes
	0.09 NASF/volume for the second 150,000 volumes
	0.08 NASF/volume for the next 300,000 volumes
	0.07 NASF/volume for all volumes above 600,000
Law Stacks	0.14 NASF/volume for the first 150,000 volumes
	0.12 NASF/volume for the second 150,000 volumes
	0.10 NASF/volume for the next 300,000 volumes
	0.09 NASF/volume for all volumes above 600,000
Study Facilities Service Areas	5% of the total NASF for Study Rooms, Carrels, and Stack Areas
Instructional Media Facilities	
Main Campuses	Minimum of 10,000 NASF and 0.5 NASF/FTE over 4,000
Branch Campuses	0.5 NASF/FTE with no minimum allowance
Auditorium/Exhibition Facilities	3 NASF/FTE with a 25,000 NASF minimum allowance for Main Campuses
Teaching Gymnasium Facilities	Minimum of 50,000 NASF/FTE for the first 5,000 FTE plus 3 NASF/FTE for each enrollment over 5,000 FTE
Student Academic Support Facilities	0.6 NASF/FTE
Office/Computer Facilities	145 NASF/FTE position requiring office space, plus 3 NASF per position for faculty and staff lounges
Campus Support Facilities	5% of the TOTAL NASF generated from the above areas plus other areas maintained by the physical plant staff

EXHIBIT 3-2
ALLOWANCES FOR SPACE NEEDS GENERATION FORMULAS
STATE BOARD OF COMMUNITY COLLEGES

Space Type	Current Factors Used
Classroom Facilities	13.5 NSF/FTE (27 NSF/Student Station)
Non-Vocational Laboratory Facilities	13.75 NSF/FTE (55 NSF/Student Station)
Vocational Laboratory Facilities	68.5 NSF/FTE (137 NSF/Student Station)
Library/Study Facilities	
Campus	With 1,000 or less FTE, a minimum of 2,100 NSF plus 10 NSF for each FTE With more than 1,000 FTE, a minimum of 12,100 NSF plus 11 NSF for each FTE over 1,000
Center	With 1,000 or less FTE, a minimum of 2,100 NSF plus 10 NSF for each FTE With more than 1,000 FTE, a minimum of 12,100 NSF plus 11 NSF for each FTE over 1,000
Special Purpose Center	10 NSF/FTE with no minimum allowance
Audio-Visual Facilities	5% of the total space needs generated by Classrooms, Non-Voc. Labs, and Voc. Labs
Auditorium/Exhibition Facilities	
Campus	Minimum of 10,000 NSF for the first 2,000 FTE, plus 3 NSF for each FTE greater than 2,000
Center	Minimum of 5,000 NSF for the first 1,000 FTE, plus 3 NSF for each FTE greater than 1,000
Special Purpose Center	3 NSF/FTE with no minimum allowance
Physical Education Facilities	
Campus	Minimum of 20,000 NSF for the first 2,000 FTE, plus 5 NSF for each FTE greater than 2,000
Center	Minimum of 10,000 NSF for the first 1,000 FTE, plus 5 NSF for each FTE greater than 1,000
Special Purpose Center	5 NSF/FTE with no minimum allowance
Student Services Facilities	7.5 NSF/FTE
Office Facilities	
Campus, Center, or Special Purpose Center	12.5 NSF/FTE
Districtwide Administration	3 NSF/FTE
Support Services Facilities	5% of total space needs generated by the above categories

3. Space Utilization Formulas – There is a space utilization formula for each of the three instructional space categories. For each educational site, the COFTE projections are applied to the space utilization formulas to determine the number of classroom, nonvocational laboratory, and vocational laboratory student stations needed to accommodate the COFTE at that site.

4. Educational Program Information – The numbers of stations are used in conjunction with the educational program information. The number of nonvocational stations needed at a site is distributed among the nonvocational laboratory programs located there, and the number of vocational stations needed is distributed among the vocational laboratory programs.

5. Size of Space and Occupant Design Criteria – For educational sites, nonvocational and vocational program laboratories and related spaces are selected from the size of space and occupant design criteria tables contained in State Requirements for Educational Facilities. Choices are based on numbers of student stations

needed, educational program information, and viable program laboratories that already exist.

The educational plant survey, conducted by each community college on a five-year cycle, compares the existing educational and ancillary plants against the determination of future needs. This comparison guides the formation of recommendations to resolve the differences. The survey report includes a list of written recommendations for each site. All the recommendations together comprise the comprehensive fixed capital outlay plan for the college. Unlike the process used by the Board of Regents, the community college plant survey is implemented by each individual community college based on guidelines written by the OEF and included in Chapter 6, State Requirements for Educational Facilities, 1999. There are no procedures in place for validation of the data by the SBCC. However, the SBCC does hold an annual "MIS Workshop" where space inventory maintenance is one of several data issues that are discussed. The previous support that was provided by the Office of Educational Facilities in the Florida Department of Education (i.e., 6-7 staff members who assisted with community college surveys and validation of data) was discontinued in 1995 due to downsizing resulting from legislative action.

3.5 Summary

A number of states have adopted space planning guidelines for university and community college systems. The purposes of such standards are generally to promote adequacy of space, equity within and between institutions, efficiency, and long-term planning. The space planning models used the BOR and the SBCC are similar in nature, with a few differences in the types of space maintained as well as with the coordination of the plant survey and facilities data validation. The BOR has a staff member dedicated to coordination of the survey process and validation of the data at

individual institutions while the SBCC relies exclusively on institutional staff members to implement the survey process.

4.0 SELECTED NATIONAL COMPARISONS OF SPACE PLANNING STANDARDS

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This chapter presents selected national comparisons of space planning standards between Florida and other states. Two major types of space were selected for national comparisons of space planning standards in this study: classroom and teaching lab. Given the anticipated growth in post-secondary enrollment within the state over the next several years, the Florida Legislature has been most concerned with the adequacy of instructional space planning guidelines used for the State University System (SUS) and Community College system (CCS). The source data used in making these comparisons comes from a national survey conducted by MGT in August 1998.

4.1 Comparisons of Classroom and Teaching Lab Space Planning Standards - SUS

The SUS classroom space standards were compared with those used by 23 other states for their four-year colleges and universities. As shown in Exhibit 4-1, the SUS applies a classroom usage standard of 40 hours per week. This is reasonably close to the typical classroom usage standard applied by the other states. However, most of the other states that responded to the survey used 30-35 hours per week as the applied standard for university classroom usage. Florida's standard occupancy rate of 60 percent for SUS classrooms is similar to many of the other states, although at the low end. Finally, Florida's standard of 22 net assignable square feet (NASF) per SUS classroom student station is slightly higher than most of the other states (i.e., 16-18 NASF).

EXHIBIT 4-1
SUS COMPARISON OF UNADJUSTED CLASSROOM STANDARDS/GUIDELINES AMONG SURVEYED STATES

STATE UNIVERSITY SYSTEM	WEEKLY ROOM HOURS	STANDARD OCCUPANCY RATE (%)	NASF/STUDENT STATION
Florida	**40.0**	**60.0**	**22.0**
Alaska	30.0	60.0	16.0
Arizona	35.0	65.0	19.0
California[1]	42.0	71.4	15.0
Colorado	30.0	67.0	15.0
Kansas	30.0	60.0	15.0
Kentucky	38.0	67.0	20.0
Louisiana	30.0	60.0	18.0
Maryland[2]	30.0	60.0-70.0	17.6
Nebraska[3]	30.0	65.0	16.0
New Hampshire	30.0	60.0	16.0
New York (CUNY)	30.0	60.0	10.0-20.0
North Carolina	35.0	65.0	18.0
Ohio	31.5	67.0	15.0
Oklahoma[4]	54.0-60.0	80.0	16.0
Oregon	33.0	60.0	16.0
South Carolina	35.0	60.0	21.0
South Dakota	28.0-32.0	55.0-65.0	15.0-17.0
Tennessee	30.0	67.0	15.0
Texas	38.0	66.7	[5]
Utah	34.0	66.7	17.0
Washington	Net seat hrs=20.0	60.0	16.0
Wisconsin	30.0	67.0	16.0
Wyoming	33.0	60.0	18.0

Source: MGT of America, Inc. survey, August 1998.

[1]California State University System and University of California System.

[2]Only the University of Baltimore is calculated on the basis of evening enrollments using a WRH of 20 per week.

[3]University of Nebraska only.

[4]Factors based on three-system sum of student WSCH.

[5]Method of calculation is not comparable to other states.

In addition, Florida's standards for SUS usage of teaching lab space were compared with those used by 22 other states. Florida uses a weekly room hours standard for SUS teaching lab space of 20-24 hours which is similar to the standard used by the other states (Exhibit 4-2). Further, Florida's standard occupancy rate for SUS teaching labs is 80 percent, which is similar to the standard used by most other states. Finally, Florida's NASF student station range of 25-125 for teaching lab space is

reasonably similar to ranges used by the other 19 states that provided a standard for this measure.

EXHIBIT 4-2
SUS COMPARISON OF UNADJUSTED TEACHING LAB[1] STANDARDS/GUIDELINES AMONG SURVEYED STATES

STATE UNIVERSITY SYSTEM	WEEKLY ROOM HOURS	STANDARD OCCUPANCY RATE (%)	NASF/STUDENT STATION
Florida	**20.0 - 24.0**	**80.0**	**25.0-125.0**
Alaska	20.0	80.0	25.0-175.0
Arizona	11.25-25.0	80.0	32.5-150.0
California	25.0	80.0	35.0-110.0
Colorado	20.0-30.0	80.0	15.2-240.0
Kansas	20.0	80.0	25.6-166.4
Kentucky	23.0	80.0	No Standard
Louisiana	20.0	80.0	No Standard
Maryland	21.0	78.7	72.0-86.4
Nebraska	20.0	65.0	15.0-182.0
New Hampshire	18.0-24.0	70.0	20.0-162.0
New York (CUNY)	22.0	75.0	20.0-160.0
North Carolina	20.0	75.0	33.0-108.0
Ohio	22.5	80.0	35.0-200.0
Oklahoma	48.0	80.0	38.0-144.0
Oregon	16.0-24.0	75.0-80.0	35.0-110.0
Pennsylvania	24.0-28.0	80.0	30.0-65.0
South Carolina	16.0-18.0	75.0	20.0-160.0
South Dakota	16.0-20.0	75.0-85.0	40.0-60.0
Tennessee	18.0-24.0	80.0	60.0
Texas	25.0	80.0	[2]
Utah	22.5	80.0	65.0
Washington	24.0	80.0	71.5

Source: MGT of America, Inc. survey, August 1998.

[1]Includes academic, vocational, and career labs.

[2]Method of calculation is not comparable to other states.

4.2 *Comparisons of Classroom and Teaching Lab Space Planning Guidelines - CCS*

In addition to university-related space standards, the Community College System (CCS) classroom space usage standards were compared with 20 other states that responded to an August 1998 survey conducted by MGT. The CCS uses a standard of 40 weekly classroom hours which is reasonably similar to the other states that typically

use a standard of 30-35 hours for this measure (Exhibit 4-3). The standard CCS classroom occupancy rate of 60 percent used in Florida is similar to, but on the low end of the standard used by most other states (i.e., 60-68 percent). Standard NASF per student station is 27 in Florida, which is slightly higher than the standard used by most of the other states (i.e., 16-18 NASF).

EXHIBIT 4-3
CCS COMPARISON OF UNADJUSTED CLASSROOM SPACE STANDARDS/GUIDELINES AMONG SURVEYED STATES

COMMUNITY COLLEGE SYSTEM	WEEKLY ROOM HOURS	STANDARD OCCUPANCY RATE (%)	NASF/STUDENT STATION
Florida	**40.0**	**60.0**	**27.0**
Alaska	30.0	60.0	16.0
California	42.0	71.4	15.0
Colorado	30.0	67.0	15.0
Kansas	30.0	60.0	15.0
Kentucky	38.0	67.0	20.0
Louisiana	30.0	60.0	18.0
Maryland	30.0-33.0	60.0-65.0	16.3
New Hampshire	30.0	60.0	16.0
New York (CUNY)	30.0	80.0	10.0-20.0
North Carolina	35.0	65.0	18.0
Ohio	31.5	67.0	17.0
Oklahoma[1]	54.0-60.0	80.0	16.0
Oregon	33.0	60.0	16.0
Pennsylvania	23.0-36.0	67.0-80.0	8.5-20.0
South Carolina	35.0	60.0	21.0
Tennessee	30.0	67.0	15.0
Texas	38.0	66.7	[2]
Utah	34.0	66.7	17.0
Wisconsin	30.0	67.0	16.0
Wyoming	33.0	60.0	18.0

Source: MGT of America, Inc. survey, August 1998.

[1]Factors based on three-term sum of student WSCH.

[2]Method of calculation is not comparable to other states.

Finally, Florida's standard for CCS teaching lab space usage was compared with standards used by 21 other states that responded to the August 1998 survey. Florida uses 30 hours per week as the standard for CCS teaching lab weekly room hours compared with a usage standard ranging from 20-25 hours per week for most of the

other states (Exhibit 4-4). A standard occupancy rate of 80 percent is used by Florida and most of the other states. The NASF per student station standard range of 55 to 137 used in Florida is reasonably similar to the range used in most of the other states listed.

EXHIBIT 4-4
CCS COMPARISON OF UNADJUSTED TEACHING LAB[1] STANDARDS/GUIDELINES AMONG SURVEYED STATES

COMMUNITY COLLEGE SYSTEM	WEEKLY ROOM HOURS	STANDARD OCCUPANCY RATE (%)	NASF/STUDENT STATION
Florida	**30.0**	**80.0**	**55.0-137.0**
Alaska	20.0	80.0	25.0-175.0
California	27.0	80.0	33.0-185.0
Colorado	20.0-30.0	80.0	15.2-240.0
Kansas	20.0	80.0	25.6-166.4
Kentucky	23.0	80.0	No Standard
Louisiana	20.0	80.0	No Standard
Maryland	20.0-23.0	75.0-80.0	60.0
New Hampshire	24.0	70.0	20.0-162.0
New York (CUNY)	22.0	75.0	20.0-160.0
North Carolina	20.0	75.0	33.0-108.0
Ohio	22.5	80.0	35.0-200.0
Oklahoma	48.0	80.0	38.0-144.0
Oregon	24.0	80.0	35.0-110.0
Pennsylvania	24.0-28.0	80.0	30.0-65.0
South Carolina	25.0	75.0	20.0-160.0
South Dakota	18.0	80.0	80.0
Tennessee	24.0	80.0	60.0
Texas	25.0	80.0	[2]
Utah	22.5	80.0	65.0
Wisconsin	24.0	80.0	71.5
Wyoming	20.0	75.0	33.0-185.0

Source: MGT of America, Inc. survey, August 1998.

[1]Includes academic, vocational, and career labs.

[2]Method of calculation is not comparable to other states.

4.3 Summary

Space usage standards applied in Florida for both classroom and teaching lab space are comparable to those standards used in several other states, for both the SUS and CCS. Interest in national comparisons of these space use standards stems from the Florida Legislature's concern with adequacy of instructional space for higher education

in view of the anticipated increase in enrollments over the next several years. Florida's use of classroom and teaching lab space standards that are comparable with many other states helps to ensure that these space planning standards are suitable measures of the specific space needs for instructional space among Florida's higher education institutions.

5.0 RELATED FACILITIES SPACE PLANNING ISSUES

5.0 RELATED FACILITIES SPACE PLANNING ISSUES

This chapter begins with a summary of the space planning issues that were raised in initial interviews with state-level facilities planning staff, including representatives from the BOR, the SBCC, and the Office of Educational Facilities (OEF) of the Department of Education. In order to follow-up on the issues from these interviews, two telephone surveys were implemented to gather information on space planning models. The first survey was conducted with facilities directors in selected Florida community colleges. The second survey was conducted with state-level facility planners in a number of states that have demographic characteristics similar to Florida. The remainder of this chapter focuses on the findings for both of the surveys, including:

- findings related to facilities space inventory quality control among Florida community colleges;
- findings related to space inventory quality control in other states;
- enrollment projection techniques and processes related to space planning in other states; and
- other related issues.

5.1 Summary of Issues Raised in Interviews

The following is a list of the major issues that were raised during the initial interviews of state-level facilities planning staff:

1. Consistency of the data reported through the community college space surveys – Since the responsibility for maintaining the campus space inventory rests with each institution, there are some concerns about inter-institutional data reporting consistency and reliability. There is no consistent process in place for validating each institution's space inventory.

2. Other community college space utilization and space needs factors, formulas, and standards issues –

- There is a feeling that the 40-hour per week utilization standard for classrooms is too low and, consequently, affects the perceived validity of the space needs projections. (Note: The SUS has the same standard.)

- There is a belief that fall FTE rather than the annual FTE should be used to project space needs since that is the time of highest enrollments and greatest space needs.

- It was suggested that program-specific space standards should be developed for Vocational, Adult Education, and Workforce Development programs.

- It was suggested that a capital outlay enrollment projection conference should be established.

3. There are a number of issues of concern for the future due to advances in technology and changes in postsecondary education delivery:

   - The impact of distance learning and other instructional technologies must be incorporated into the space standards for both community colleges and the state universities.

   - The upper-division instruction that is provided on Community College campuses through contracts with four-year institutions will need to be incorporated into the existing space standards.

The information gleaned from these interviews was then used to structure the issues addressed in the remainder of the current study.

5.2 Overview of Surveys and Results

As part of the follow-up on the aforementioned issues, two telephone surveys were conducted to gather information both within Florida and nationally. This section will provide a brief description of the surveys along with an overview of the related findings.

The first survey was conducted with facilities directors in selected Florida community colleges. The survey questions focused on procedures for conducting the educational plant survey and maintaining the space inventory at individual colleges. A total of nine community colleges were represented in the sample. These nine were

selected in consultation with facilities planning staff at the SBCC to reflect diversity in institutional size and geographic location:

- Broward Community College
- Daytona Beach Community College
- Edison Community College
- Florida Community College at Jacksonville
- Manatee Community College
- Miami-Dade Community College
- Polk Community College
- Seminole Community College
- Tallahassee Community College

The individuals participating in the phone interviews included vice presidents, directors of facilities and planning, and other staff members who assist with the facilities planning process. A copy of the survey instrument is included in Appendix A.

The second phone survey was conducted with facilities planning staff at state university system and/or community college system central offices in seven selected states:

- Arizona
- California
- Georgia
- Illinois
- New York
- Texas
- Virginia

These seven states were selected due to their large and complex university and community college systems, and the fact that several of the states are currently experiencing (or expecting) a rapid growth in enrollment as is the case in Florida. Participants included state level directors of space, facility, or fiscal planning for both the community college and public university systems. Survey questions centered around three major areas: plant/space inventory maintenance, use of enrollment projections for space planning, and emerging space planning guideline issues (i.e., instructional

technology, off-campus instruction, and workforce/vocational training space needs). A copy of the survey instrument is included in Appendix B.

5.2.1 Space Inventory Quality Control in Florida

One or more staff members in the areas of administrative services or facilities planning and management typically maintain the space inventory at each community college. Most of the participating community colleges provided no additional campus training to this staff member (see Exhibit 5-1). However, most staff had attended the statewide "MIS Workshop" that includes discussion of the facilities space inventory among other topics. Comments related to the issue of training included:

- The survey participants, in general, indicated a strong interest in receiving additional training opportunities and more written materials.
- A few participants suggested that revisions to the *Annual Reports Workshop Reporting Manual* (distributed at the MIS Workshop) should be highlighted via cover letter so that facilities directors do not have to compare the old and new versions line by line for changes.
- One participant who has responsibility for the campus space inventory indicated that there has been no supervisory support to attend the MIS Workshop.

EXHIBIT 5-1
SUMMARY OF SURVEY OF FLORIDA COMMUNITY COLLEGE FACILITIES DIRECTORS

Survey Questions	# of Responses	
	Yes	No
Do you provide any formal training regarding maintenance of the space inventory outside of that provided each year by the Community College System at the statewide MIS Workshop?	1	8
Do you feel that your college has categorized the various types of space consistently over time according to the System's specific space definitions?	8	1
Do you feel that there are improvements that could be made to the way in which college space inventory data are reported to and/or maintained by the Community College System office?	9	0
Does your college conduct a comprehensive plant survey more frequently than the five-year cycle required by state law?	1	8
Are educational plant survey data verified by a third party?	0	9

Source: MGT Survey, November – December, 1999.

The one campus that provides additional training does so through the campus information systems office. This allows for more in-depth coverage of use and procedures for maintaining the space inventory database. The same institution also developed a related manual for use at their campus.

All of the colleges surveyed update their inventories as changes occur or as they become aware of discrepancies in the data. These updates are then submitted to the SBCC three times a year (i.e., September, January, and May). While most of the colleges indicated an overall campus consistency in categorizing the various types of space over time (see Exhibit 5-1), some were rather tentative in their affirmation. Those who were most confident in their data tended to be at institutions with staff members who had been in place for several years or at institutions where consultants were hired to assist with the process. Survey participants noted a number of typical problems with current space inventory data, including:

- finding and interpreting the space type definitions to be used;
- reporting of changes in room use, especially among the different sites of a given institution;
- detecting areas of non-compliance (e.g., teaching in a conference room); and
- integrating the space inventory data elements with other databases on campus.

When asked about the manner in which college space inventory data are reported to and/or maintained by the SBCC, all nine institutions indicated that improvements could be made. The participants provided a wide range of suggestions as summarized by category below.

1. Communication – In general, there was consensus that communication related to the space inventory and survey process could be improved. The participants were interested in having a forum for discussion, feedback, and exchange of information with SBCC and OEF staff. Specific suggestions included:

- sending an annual letter to facilities directors to solicit feedback regarding changes in space definitions;

- creating a review committee that includes community college representatives as well as DCC and OEF staff and the outside consultants;

- putting more information in writing and making it available through a Web page or a mailing list; and

- putting OEF back in place to coordinate and assist with the overall process.

2. Technology – Several participants indicated difficulty with the limitations of the facilities database and problematic interaction between the space inventory and other databases. Specific suggestions or comments included:

   - establishing interactive databases from the state and individual community college offices that would allow for viewing and pulling of information from a space inventory; and

   - establishing a program that will generate all the separate and extensive reports that are currently typed and re-typed (e.g., Survey Recommendations, Project Priority List, and Bond Request).

3. Definitions and Procedures – In general, participants indicated that the space definitions and the procedures for implementing the survey need to be updated, simplified, and clarified. Without the help of OEF, many of the participants felt overwhelmed in their responsibilities. Specific suggestions included:

   - updating the space definitions and use codes to account for technology and distance learning (e.g., the line between a classroom and a laboratory is very thin due to the incorporation of computers into instruction);

   - changing the COFTE methodology to account for regional growth and fluctuations by including other indicators (e.g., high school graduates, changes in birth rate, etc.) so that the college is not forced to develop a plan for projected growth that does not come to fruition;

   - accounting for open-ended utilization in the space planning model (i.e., there are non-traditional hours on the weekend that are not necessarily considered for space utilization);

- revising the room utilization calculation formula to include time that the space is used for purposes outside the space definition from the inventory; and

- changing the FTE calculations in some cases (e.g., FTEs currently are not counted for unsatisfactory space, classes without assigned room numbers, or labs that are not scheduled for daily use).

While only one of the participants indicated that they conduct a comprehensive plant survey more frequently than the five-year cycle required by law, several have conducted survey amendments. Referred to informally as a spot survey, the amendment is a legal modification of the survey and must go through the same channels of approval as the comprehensive survey (i.e., approved by the Board of Trustees and then audited by OEF). Although most thought the process was too labor-intensive to conduct more often than the five-year cycle, one institution indicated an interest in making the survey a dynamic process. Another participant felt that the 1995 OEF downsizing eliminated the core knowledge-base of the plant survey process.

Any one or combination of the following persons generally conducts the plant survey at a community college:

- one or more staff members in the areas of administrative services or facilities planning and management, generally at the level of vice president or director;

- a campus-wide committee of administrators, including representatives from academic affairs, business services, facilities, etc.; or

- consultants hired by individual community colleges.

There is no external validation of the plant survey data at any of the nine community colleges that participated in this survey. However, a number of survey participants indicated a strong desire to reincorporate this step as part of the process.

5.2.2 Space Inventory Quality Control in Other States

Telephone interviewees participating in the national survey were initially asked several questions related to plant/space inventory maintenance. All except one respondent indicated that their state university system is involved in maintaining a centralized space inventory. Of the community college systems, four of the seven reported involvement with a centralized space inventory while the others reported that space inventories were left to the discretion of individual districts or institutions. Some specific comments about this question included:

- In Illinois, a statewide capital development board maintains a centralized space inventory for all government buildings including higher education institutions. Institutions self-report space inventory data to the capital development board and include a report on the physical condition of the facilities.

- In California, the following three systems maintain their own centralized space inventories: University of California, California State University, and the California Community College System.

According to five of the seven community college systems interviewed, responsibility for the initial plant survey resides with individual institutions (as in Florida). In the other two community college systems, responsibility for the initial plant survey belong to the state system. With regard to state university systems, responsibility for the initial plant survey is shouldered by the institutions in four of these systems and by the state system in the other three (as in Florida).

Several other questions related to space inventories were addressed. Concerning the frequency of plant surveys, most reporting systems conduct these on an annual basis (Exhibit 5-2). In the state of Virginia, these are conducted on a biennial basis. In a few other settings, these inventories are conducted at varying intervals.

EXHIBIT 5-2
FREQUENCY OF POSTSECONDARY FACILITIES PLANT SURVEYS IN OTHER STATES

System	Annually	Biennial	Varied: per Institutions' Discretion
Community College Systems	4	1	2
University Systems	4	1	2

Source: MGT Survey, November – December, 1999.

The vast majority of interviewees reported that responsibility for ongoing maintenance of space inventories resides with the institutions. Only in the City University of New York (CUNY) and Illinois does the system assume responsibility for ongoing maintenance of space inventories. In the Arizona community college system, each institution's maintenance of their space inventory is combined with monitoring of deferred maintenance.

As indicated by Exhibit 5-3, most state systems update inventories on an annual basis. In the CUNY system, the Texas community college system, and the Illinois community college system, updates to space inventories are done throughout the year as changes occur. Updates are done biennially in Virginia for both the community college system and the state's four-year institutions. Other comments related to frequency of space inventory updates included:

- In the Arizona university system, inventory updates are driven by a bi-annual capital improvement process that necessitates an annual update of the space inventory.
- In the Georgia community colleges, space changes that occur during a given year are not credited until the space inventory update that occurs at the end of each year.

EXHIBIT 5-3
FREQUENCY OF SPACE INVENTORY UPDATES

System	Annually	Biennial	As Changes Occur During the Year	Per Institution's Discretion
Community College Systems	3	1	2	1
University Systems	5	1	1	0

Source: MGT Survey, November – December, 1999.

None of the community college or state university systems reported use of a third party to verify accuracy of plant/space inventory data. Comments from interviewees concerning verification of inventory data included:

- At CUNY, staff teams from the central office conduct inspections of space configuration changes. Also, central office staff conduct random audits of space inventories throughout each year.
- In the Texas public universities, outside consultants are occasionally used to verify space inventories although this function is typically performed by the Texas Higher Education Coordinating Board Office of Campus Planning.
- In the Arizona university system, system office staff verify plant surveys.
- In each of the three California systems, the system offices verify inventory data. This is done in a more formalized manner for the state's universities than at the community colleges.

5.2.3 Enrollment Projection Techniques and Processes Related to Space Planning

All of the states that participated in the interviews make use of enrollment projections in facilities space planning. Four of the seven community college systems reported that one source was used for enrollment projections. Three of the seven state university systems reported using one source for enrollment projections used in space planning. As seen in Exhibit 5-4, many of the systems do not use one source for enrollment projections; rather they rely on a variety of sources including individual institutions, state systems, boards of regents, and other state agencies. In California, for example, three major sources are used to develop enrollment projections -- the

Department of Finance Demographic Research Unit, each of the three higher education systems (University of California, California State University, and California Community College System), and the California Post-secondary Education Commission. In Texas, however, the Texas Higher Education Coordinating Board is the sole source of enrollment projections for the institutions.

EXHIBIT 5-4
SOURCES OF ENROLLMENT PROJECTIONS FOR FACILITIES SPACE PLANNING USED BY OTHER STATES

System	Institution	State System	Board of Regents	Several Sources	Other State Agency
Community College Systems	3	2	1	1	0
University Systems	3	1	1	1	1

Source: MGT Survey, November – December, 1999.

Survey participants were questioned about the time period that they use for space planning, and the frequency with which they update enrollment projections. As indicated in Exhibit 5-5, the most frequently mentioned time period used in space planning projections is five years. In addition, all but four of the 14 interviewed systems update their enrollment projections on an annual basis. Of the other four, three do enrollment projection updates as needed, and one does them biennially (see Exhibit 5-6).

EXHIBIT 5-5
TIME PERIOD USED FOR FACILITIES SPACE PLANNING IN OTHER STATES

System	Annually	Biennial	5 Years	4-6 Years	Not Defined
Community College Systems		1	4	1	1
University Systems	1		4	1	1

Source: MGT Survey, November – December, 1999.

EXHIBIT 5-6
FREQUENCY OF ENROLLMENT PROJECTION UPDATES IN OTHER STATES

System	Annually	Biennial	As Needed
Community College Systems	4	1	2
University Systems	6	0	1

Source: MGT Survey, November – December, 1999.

5.2.4 Other Issues

The survey of the states also collected information on three other topics of interest for this study:

- space planning standards for instructional technology;
- space planning standards for off-campus instructional sites; and
- space planning standards for workforce training at community colleges.

Space Planning Guidelines for Instructional Technology. Only four of the 14 community college and university systems reported involvement in development of space planning guidelines related to instructional technology space needs. Some specific comments from interviewees on this matter included:

- A great deal of thought had been devoted to this issue, but no guidelines had been developed for fear that they would soon be out dated in view of rapidly advancing technology.
- Each situation is evaluated individually in regards to instructional technology space needs.
- Rather than guidelines, a formal process is followed concerning instructional technology space needs. This process entails consideration of the unique features of each structure and the system in which it resides.

Space Planning Guidelines for Off-Campus Sites. Four of the community college systems and three of the university systems reported use of developed guidelines concerning off-campus instructional sites. One system lacking such guidelines reported that the main-campus guidelines were tailored to apply to the needs of off-campus instructional sites.

Guidelines for off-campus instructional site space planning used in the state of Georgia include the following:

- Any off-campus instruction must come clearly within the mission and strategic plan of the institution proposing to create the off-campus instructional site.

- Off-campus instructional sites should involve collaboration between/among academic programs and institutions (including sharing of faculty resources where possible) and encouraging complimentary coursework and degrees.

- Sharing of space in off-campus sites should be maximized between/among institutions with various needs for such space.

- Commuting time to any off-campus program sites should be no more than forty-five minutes from the central point of the community.

- Distance education should be employed to the extent possible, prior to proposing an off-campus instructional site.

Space Planning Guidelines Specific to Workforce Training Needs. Finally, only one of the seven community college systems reported use of guidelines specific to workforce training/vocational space needs. The one system that uses these guidelines reported that they were "woefully inadequate" and as a result were being updated. Another system reported that each institution, in collaboration with the local school district, individually develop workforce training/vocational training space needs guidelines. Furthermore, an additional community college system reported that the state board of community colleges reviews and approves all renovations and new construction that must be interwoven with the institution's five-year plan.

5.3 Summary

The results of the telephone survey with facilities directors in Florida community colleges indicates a number of current space planning issues for consideration:

- The support that was once provided by OEF is now being provided by consultants who have worked with the process through that office or through a Florida community college. However, not all colleges have the funding to pay for these services, so the consultants are not used consistently throughout the community college system.

- The staff members at individual campuses are interested in having more frequent and formal communication and training about the space planning process. They are interested in sharing a number of

ideas for updating and simplifying the process, perhaps through an on-going review process.

- The staff members at individual campuses are interested in having more consistent support and assistance with implementation of the plant survey. There is a belief that the loss of OEF assistance has had a negative impact on the individual colleges.

- There are technology considerations that could enhance the submission and maintenance of space inventory data.

The telephone survey of selected states has provided some indication of the use of space inventories and enrollment projections in space planning. Major points gained through the survey include the following:

- Most state higher education systems are involved in the establishment and maintenance of centralized space inventories. This process seems to be less centralized with community college systems.

- Responsibility for initial plant surveys tends to reside with individual institutions.

- In most systems, plant surveys are conducted and updated on an annual basis.

- Responsibility for ongoing maintenance of space inventories tends to reside with individual institutions.

- None of the interviewed systems reported use of a third party to verify accuracy of space inventories.

- All of the interviewed systems make use of enrollment projections in space planning typically from various sources rather than one source.

- The typical time period used in space planning is five years.

- Enrollment projections are updated annually according to most of the interviewed systems.

- Among the interviewed systems, about half have developed guidelines for space planning relative to off-campus instructional sites.

- Few systems have developed guidelines specific to instructional technology space needs or in the case of community college systems, workforce development space needs.

6.0 SUMMARY OF FINDINGS AND PROPOSED RECOMMENDATIONS

6.0 SUMMARY OF FINDINGS AND PROPOSED RECOMMENDATIONS

This final chapter of the report presents an overview of the key study findings as well as some proposed recommendations for consideration by the Commission.

6.1 Summary of Major Study Findings

The data and other information analyzed through this study provided a number of findings. The key findings are summarized below:

- From a structural standpoint, the BOR and SBCC have similar facilities space planning models and procedures. The primary difference is in the level of centralization of the facilities space planning process. (the BOR has a much more centralized process than the SBCC).

- For both the BOR and SBCC, facilities space planning guidelines for instructional space (i.e., classrooms and teaching laboratories) are comparable to those used for universities and community colleges in several other states.

- Facilities planning staff at several Florida community colleges noted various areas in need of improvement with regard to the current facilities space inventory maintenance and plant survey processes, including the following:

  - more specific training and support from the SBCC central office staff;

  - more formalized and systematic communications between the facilities planning staff at the SBCC central office and the individual colleges;

  - improved use of technology in the space inventory maintenance process;

  - simplifying and clarifying space-type classifications (e.g., office, vocational lab); and

  - establishing a process for externally validating college facilities space inventories.

- The survey of selected other state university and community college systems indicated no significant differences between the facilities

space planning practices and processes in place within Florida, and those in other states.

6.2 Proposed Recommendations

As indicated in Chapter 1.0, the legislative proviso language mandating this study requires that PEPC submit recommendations on "...what, if any, modifications are needed in the standards and procedures used to generate need" for facilities space by the BOR and SBCC. The following are recommendations proposed for the consideration of the Commission.

Recommendation 1: The current facilities space planning guidelines and factors used by the BOR and SBCC should be maintained.

The comparative information presented in Chapters 4.0 and 5.0 regarding guidelines and factors used for facilities space planning in other states suggests that those used by the BOR and SBCC are in line with current practices nationally. Thus, there does not appear to be a compelling reason for change or other modifications.

Recommendation 2: The State Board of Community Colleges central office, in conjunction with the campuses, should conduct a detailed review of the services it provides to campus facilities planners, and formulate a plan for improvement. At a minimum, this review should consider the following areas: (1) enhancements that could be made to technical assistance and training related to the periodic plant survey and ongoing facilities space inventory maintenance; and (2) the need for periodic audits of campus plant survey and space inventory maintenance processes and related databases, including the data generated by joint use facilities shared by state universities and community colleges.

The diagnostic survey conducted as part of this study (see Chapter 5.0) involving nine community colleges indicated a number of potential areas for improvement in the services provided to campus facilities planners by the SBCC central office staff and related procedures. Survey participants made a number of suggestions for improvement in specific areas including communications, technology use, and training, all of which

have a material impact on the facilities planning process. As indicated earlier, the current facilities space inventories for each campus are the bases against which future space needs are compared. Thus, while outside the scope of this current study, a more comprehensive review involving all campuses and the SBCC central office seems to be warranted by these initial results.

Recommendation 3: The Board of Regents should evaluate the need for the development of more specific facilities planning guidelines and procedures for non-main campus instructional facilities.

As indicated in Chapter 3.0, the BOR facilities space planning guidelines are primarily designed for main campus facilities although there are some minimum space guidelines for off-campus sites. However, as indicated earlier, one component of the Board of Regents 1998 Strategic Plan is to meet the expected growth in undergraduate enrollment within Florida through branch campuses and co-located facilities. In short, the Board's goal is to grow and expand undergraduate offerings at non-main campus sites across the state in future years.

Because of this future emphasis, we recommend that the BOR staff evaluate whether more specific facilities space planning guidelines are needed for SUS off-campus instructional sites and co-located facilities with community colleges. The survey of other states (see Chapter 5.0) indicate that other university systems have developed such standards which may serve as a model for the BOR.

Recommendation 4: The Board of Regents and State Board of Community Colleges, in consultation with the Legislature and other relevant agencies, should establish an annual capital outlay FTE enrollment projection conference.

The current processes for developing enrollment projections for use in facilities space planning for both systems are isolated and not uniform. In fact, both state-level and campus-level (community college) facilities planning staff interviewed as part of this

study were skeptical of the accuracy of current enrollment projections used. Thus, it would seem that the credibility and usefulness of the enrollment projections would be improved by establishing an annual conference where the projections for both systems (and individual institutions) could be refined through discussion among system staff, institutional staff, legislative staff, and executive agency staff.

6.3 Conclusion

In summary, this study indicated that there are a number of potential enhancements and other modifications that could be made to the standards and procedures used to generate facilities space need for Florida's universities and community colleges. While the actual space planning guidelines and factors currently used (e.g., ASF per student, building utilization rates) appear to be adequate and in keeping with those used in other states, there are improvements that could be made to the planning procedures used by both systems, as reflected in our proposed recommendations. As noted in Chapter 1.0, the work of the Commission in developing its 1998 master plan, as well as the 1998-99 PEPC study of postsecondary facilities needs in Florida, suggests that facilities adequacy and availability will continue to be a critical issue for the state as it seeks to meet the projected growth in demand from Floridians over the next several years.

APPENDICES

APPENDIX A:

SURVEY OF FLORIDA COMMUNITY COLLEGE FACILITIES DIRECTORS

APPENDIX A

SURVEY OF FLORIDA COMMUNITY COLLEGE FACILITIES DIRECTORS

Phone Interview Guide

Name: _____

Title: _____

Institution:_____ Interviewer:_____

Phone Number:_____ Date:_____

MGT of America, Inc., has been hired by the Florida Postsecondary Education Planning Commission to examine the facilities space planning models used by the State University System and the Community College System. The purpose of the study is to determine what modifications, if any, are needed in the standards and procedures used to generate need. An issue that was raised in our initial interviews with facilities planning staff at the state level was the comparability and consistency of the current procedures for conducting plant surveys and maintaining space inventories at community colleges in the state. Are you the appropriate person to speak with about the plant survey and space inventory at your institution? If not, who should we contact?

1. Who is primarily responsible for maintaining the space inventory at your college?

   _____

   _____

   _____

   _____

2. Do you provide any formal training to that individual, either initially or ongoing, regarding maintenance of the space inventory outside of that provided each year by the Community College System at their statewide MIS Workshop?

   Yes___ No___

   Comments:

   _____

   _____

   _____

   _____

3. How often does your college update its space inventory?

   Once a semester___ Once a year___ As changes occur___

   Other

   _____

   _____

   _____

   _____

4. How often does your college submit space inventory changes to the Community College System office?

   Once a year___ Twice a year___ Three times a year___

   Other

   _____

   _____

   _____

   _____

5. Do you feel that your college has categorized the various types of space (e.g., classroom, vocational lab, etc.) consistently over time according to the System's specific space definitions?

   Yes___ No___

   Comments:

   _____

   _____

   _____

   _____

6. Do you feel that there are improvements that could be made to the way in which college space inventory data are reported to and/or maintained by the Community College System office?

   Yes___ No___

   Comments:

   _____

   _____

   _____

   _____

7. Does your college conduct a comprehensive plant survey more frequently than the five-year cycle required by state law?

8. When was your last plant survey conducted?

9. Who conducts the survey?

10. Are those data verified by a third party? If so, by whom?

Thank you for participating in this survey.

APPENDIX B:

SURVEY ON STATE-LEVEL SPACE PLANNING PROCESSES AND GUIDELINES

APPENDIX B

SURVEY ON STATE-LEVEL SPACE PLANNING PROCESSES AND GUIDELINES

Phone Interview Guide

State:_____

Name: _____

Title:_____

Agency:_____ Interviewer:_____

Phone Number:_____ Date:_____

MGT of America, Inc., has been hired by the Florida Postsecondary Education Planning Commission to examine the facilities space planning models used by the State University System and the Community College System. The purpose of the study is to determine what modifications, if any, are needed in the standards and procedures used to generate need. One component of this study is to review space planning standards and procedures used nationally for comparison. In this review, we have specifically targeted states that, like Florida, have experienced significant enrollment growth in recent years. Are you the appropriate person to speak with about university and community college space planning? If not, who else should we contact?

Plant Survey/Space Inventory Maintenance

1. At the state level, do you get involved with conducting plant surveys or maintaining a centralized space inventory?

   CC: Yes___ No___

   _____

   _____

   Univ: Yes___ No___

   _____

   _____

2. Who has responsibility for the initial plant survey?

   CC: State___ System___ Institution___ Other_____

   _____

   _____

   Univ: State___ System___ Institution___ Other_____

   _____

   _____

3. How often is the plant survey conducted?

   CC: _____

   _____

   _____

   Univ: _____

   _____

   _____

4. Who has responsibility for ongoing maintenance of the space inventory?

   CC: State___ System___ Institution___ Other_____

   _____

   _____

   Univ: State___ System___ Institution___ Other_____

   _____

   _____

5. How many times per year is the space inventory updated?

   CC: _____

   _____

   _____

Univ: _____

_____

_____

6. Does a third party verify the accuracy of the plant survey or inventory?

CC: Yes___ No___

_____

_____

Univ: Yes___ No___

_____

_____

7. If so, who verifies the plant survey or inventory?

CC: _____

_____

_____

Univ: _____

_____

_____

Enrollment Projections for Space Planning

8. Are enrollment projections used in space planning processes?

CC: Yes___ No___

_____

_____

Univ: Yes___ No___

_____

_____

9. Is one source used for all enrollment projections?

CC: Yes___ No___

_____

_____

Univ: Yes___ No___

10. If not, where do enrollment projections come from?

CC: System Office___ Institution___ Other _____

Univ: System Office___ Institution___ Other _____

11. What period of time is used for space planning (in years)?

CC: _____

Univ: _____

12. How often are enrollment projections updated (e.g., every year or every few years)?

CC: _____

Univ: _____

Emerging Space Planning Guideline Issues

13. Does the state have, or is the state in the process of developing guidelines related to instructional technology space needs (e.g., distance learning labs & computer labs)?

    CC: Yes___ (please send) No___

    _____

    _____

    Univ: Yes___ (please send) No___

    _____

    _____

14. Does the state have special space planning guidelines or allowances for off-campus instructional sites?

    CC: Yes___ (please send) No___

    _____

    _____

    Univ: Yes___ (please send) No___

    _____

    _____

15. Does the state have, or is the state in the process of developing guidelines related to workforce training/vocational training space needs at community colleges?

    CC: Yes___ (please send) No___

    _____

    _____

    Univ: Yes___ (please send) No___

    _____

    _____

Other Notes: _____

_____

_____

_____