oppaga
OFFICE OF PROGRAM POLICY ANALYSIS & GOVERNMENT ACCOUNTABILITY

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Higher Education Facility Construction Costs Are Reasonable; Some Improvements Could Maximize Use of Campus Classroom Space

at a glance

Both the university and community college systems are building reasonably cost-effective facilities compared to national norms. However, these costs continue to rise while Public Education Capital Outlay (PECO) funding, the primary state source of higher education funding, is predicted to decline after 2006-07. Postsecondary institutions will need to develop long-term strategies to reduce construction costs, which should include adopting prototypical designs, implementing energy cost sharing, and maximizing existing facility use.

In general, the allocation of university and community college space is consistent with available national benchmarks and institutional missions. Although a relatively small percentage of all space is used for classrooms, this allocation is consistent with national norms and institutional differences reflect the student populations served.

Classrooms at some state universities and community colleges are underutilized. Overall, only about half of all university classrooms and less than half of community college classrooms have classes scheduled in them throughout the week (Monday through Friday, 8 AM to 8 PM). Classroom usage rates vary considerably by time of day, day of week, and institution. Although some factors affecting underutilization may be outside the control of institutions, they can take steps to improve classroom utilization and delay the need to build additional classrooms.

Scope

OPPAGA conducted this project in response to a legislative request to identify steps public universities, community colleges and the Department of Education could take to improve cost efficiencies in post-secondary education construction programs. This report examines the reasonableness of postsecondary facility construction costs and how well universities and community colleges use existing facility space. A separate OPPAGA report examines the efficiency and effectiveness of the postsecondary facility planning process.

Background

Responsibility for public postsecondary facilities construction is decentralized. Since 1995, the state's public universities and community colleges have administered their own construction programs with oversight provided by individual boards of trustees. [1] Postsecondary institutions are responsible for the condition of their facilities and for identifying the need for maintenance, remodeling, acquisition or new construction funds to meet current needs and expected student growth. The institutions report this information through capital improvement plans that are submitted to their respective state-level divisions (the Board of Governors for the 11 colleges and universities and the

[1] Prior to the decentralization, the Department of Education staff, operating under the construction policy guidelines adopted by the Board of Regents, made the decisions regarding the construction programs for the 11 public universities. The 28 community colleges historically have exercised local control and management of their construction programs with approval from their local boards of trustees.

Division of Community Colleges and Workforce Education for the 28 community colleges). The state divisions use this data to develop statewide funding recommendations that are included in the Department of Education's K-20 Legislative Capital Outlay Budget Request. To assist in selecting projects to recommend for funding from among those submitted by the institutions, the state divisions use models and formulas that take into account projected student enrollment, space standards, and current facility inventories to determine unmet space needs. This process is comprehensive and includes multiple levels of review and coordination with the Board of Education, Board of Governors, local governments, and the institutions' strategic plans.

Postsecondary construction projects are funded from a variety of state and non-state sources. In Fiscal Year 2005-06, public universities and community colleges received $743.8 million for fixed capital outlay projects, which includes construction and infrastructure projects and land acquisition (see Exhibit 1). Public universities received 59% of these funds ($436.8 million) while community colleges received 41% ($307 million). (See Exhibits 2 and 3.)

Exhibit 1
The Legislature Appropriated $743.8 Million for Postsecondary Education Fixed Capital Outlay Programs for Fiscal Year 2005-06

Public University and Community College Construction Programs		
Fund Source	**Percentage of Funding**	**Amount**
State		
PECO	62.3%	$463,526,661
General Revenue	4.0%	29,504,369
Challenge Grant Program (state match)	5.4%	39,843,770
Capital Outlay and Debt Service	1.6%	12,223,771 [1]
SUS Concurrency	0.7%	5,400,000 [2]
Total	74.0%	**$550,498,571**
Non-State		
Challenge Grant (private funds)	5.4%	$39,843,770
Student Capital Improvement Fees	20.6%	153,485,087 [3]
Total	26.0%	**$193,328,857**
Florida Total	**100.0%**	**$743,827,428**

[1] Estimated.

[2] In accordance with s. 19(f)(2), Article III of the State Constitution, the University Concurrency Trust Fund, unless terminated earlier, will terminate on July 1, 2007.

[3] Student capital improvement and building fees are charged to students in addition to tuition to help finance student related fixed capital outlay projects. Generally, an appropriation is requested every three years based on the availability of funds.

Source: Board of Governors and Division of Community Colleges and Workforce Education.

Public Education Capital Outlay (PECO) funds are the largest source of legislative appropriation for postsecondary education fixed capital outlay projects. PECO funds are derived from gross receipt tax collections, bond sales and interest earnings. In Fiscal Year 2005-06, PECO funds accounted for 57.6% of fixed capital outlay appropriated funds for universities and 69% of community college capital outlay appropriations. Postsecondary institutions use PECO funds to pay for new construction as well as renovation, remodeling, maintenance, repair and site acquisition. The use of PECO funds is restricted to academic and academic support facilities such as classrooms, research facilities and office space. (Refer to Appendix B for more information on the source of PECO funds.)

In addition to PECO funds, there are several other fund sources for postsecondary education fixed capital outlay projects. These include general revenue, matching funds for donor contributions, (Challenge Grants) and concurrency funds. Postsecondary institutions generally use additional state funds for new construction that supports instruction or research. Concurrency funds are used to offset the impact of proposed campus developments on public facilities and services such as utilities, roads and drainage. The Legislature also appropriates non-state funds derived from student capital improvement and building fees. Postsecondary institutions generally use these fees to construct student-related specific projects such as student unions and recreation facilities.

Exhibit 2
Public University Construction Programs Received $436.8 Million for Fiscal Year 2005-06

Fund Source	**Percentage of Funding**	**Amount**
State		
PECO	57.6%	$251,522,143
General Revenue	4.8%	20,853,896
Challenge Grant Program	3.2%	14,142,393
SUS Concurrency	1.2%	5,400,000
Total	**66.8%**	**$291,918,432**
Non-State		
Challenge Grant (private funds)	3.2%	$14,142,393
Student Capital Improvement Fees	30.0%	130,722,927
Total	**33.2%**	**$144,865,320**
Florida Total	**100.0%**	**$436,783,752**

Source: Board of Governors.

Exhibit 3
Public Community College Construction Programs Received $307 Million for Fiscal Year 2005-06

Fund Source	Percentage of Funding	Amount
State Appropriations		
PECO	69.0%	$212,004,518
General Revenue	2.8%	8,650,473
CO and DS	4.0%	12,223,771[1]
Challenge Grant Program	8.4%	25,701,377
Total	**84.2%**	**$258,580,139**
Non-State Appropriations		
Challenge Grant (private funds)	8.4%	$ 25,701,377
Student Capital Improvement Fees	7.4%	22,762,160
Total	**15.8%**	**$ 48,463,537**
Florida Total	**100.0%**	**$307,043,676**

[1] Estimated.
Source: Division of Community Colleges and Workforce Education.

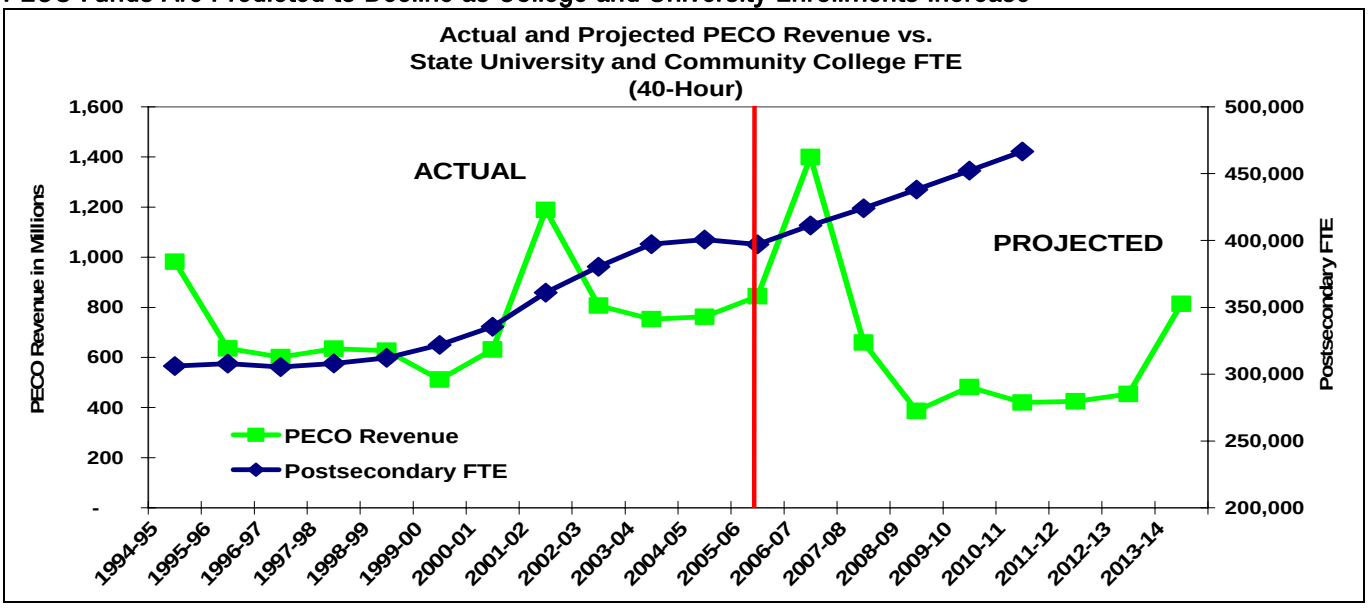
Postsecondary institutions also pay for fixed capital outlay projects using funds not subject to legislative appropriation and the fixed capital outlay budget process. These include projects financed by direct support organizations such as foundations, and those financed from revenue bonds from activities such as housing, parking, dining, retail, and athletic facilities where revenues are pledged to satisfy the debt. Although the Legislature must approve these capital projects, they are not subject to the legislative budget request development policy guidelines. [2]

See Appendix A for a description of the funds included in the exhibits.

The projected decreases in available PECO funds may make it difficult for postsecondary institutions to fund facility projects. As shown in Exhibit 4, the November 2005 Revenue Estimating Conference projected a steep decrease in available PECO funds after 2006-07. These projections are based on predictions that future economic conditions will decrease gross receipts tax revenues, which are the dedicated source of PECO funds. The Estimating Conference projects that the total available PECO funds will drop from $1.4 billion in Fiscal Year 2006-07 to $386 million in Fiscal Year 2008-09 before beginning a gradual recovery. Coinciding with this decrease in available PECO funds is a projected 3% increase in students enrolling in public colleges and universities and an anticipated increase in competition for PECO funds to build additional K-12 classrooms to meet the requirements associated with the state class size amendment. Because postsecondary institutions rely heavily on PECO funds to pay for fixed capital outlay projects, expected decreases in available PECO funds may make it more difficult for the state's public colleges and universities to fund new construction and renovation projects. (For more information on why PECO funds fluctuate refer to Appendix B.)

[2] Sections 1004.065 and 1013.78, *F.S.*

Exhibit 4
PECO Funds Are Predicted to Decline as College and University Enrollments Increase



Source: The Revenue Estimating Conference, updated November 4, 2005. The Board of Governors and the Division of Community Colleges and Workforce Education provided the enrollment projections.

In light of this situation, it is critical that postsecondary institutions minimize construction costs and use existing facilities as efficiently as possible. Therefore, this report examines

- whether postsecondary facility construction costs are reasonable compared to national benchmarks;
- what opportunities exist to further reduce these costs; and
- how postsecondary institutions allocate and use existing facility space, and whether there are ways to use space more efficiently.

Findings

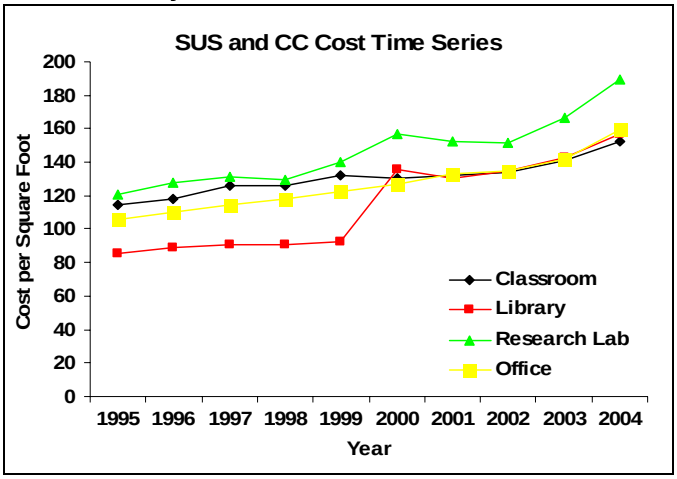
Florida's higher education construction costs below national averages but continue to climb

Educational facilities are more costly to build than many other types of construction. Reasons for these higher costs include the type of facilities built, higher land costs, and the stricter building codes, regulations, and standards that educational facilities must meet.[3] University facilities generally include state-of-the art technology as well as amenities to attract students. In addition, these facilities are designed for high use over long periods of time. Contractors are usually required to meet the highest industry coverage for insurance and bonding and often must build on occupied sites with minimal impact on campus life.[4] These factors all increase facility design and construction costs.

Florida's higher education construction costs are consistent with national norms. In general, Florida's postsecondary institutions build facilities at a relatively low cost. The "2005 Construction Report" from *College Planning and Management* compares state construction costs for categories of facilities to national norms. Exhibit 5 shows that compared to a 2005 national sample of college construction projects, Florida's postsecondary institutions built libraries and research laboratories in 2004 at an average price that was in the lowest national quartile. Florida's postsecondary institutions also built academic classrooms at a cost below the national median. Florida's costs for community college and university offices were above the national median but substantially below the highest quartile. Overall, Florida's postsecondary institutions' construction costs compared favorably with the costs of similar types of construction nationally.

Florida's higher education construction costs continue to climb. As Exhibit 6 demonstrates, the cost of constructing postsecondary facilities, such as classrooms, offices, research labs, and libraries, has increased 4.6% annually over the past 10 years. This increase mirrors the steady rise in construction costs across the country. The cost of construction has increased more steeply over the past three years because of factors including high demand for building materials and labor, international competition for raw materials such as steel, and unusually destructive hurricane seasons.

Exhibit 6
Postsecondary Construction Costs Continue to Climb



Source: Florida Department of Education construction cost data.

[3] Sections 1013.37 and 1013.371, *F.S.*

[4] Guckert, D. and King, J., "The High Cost of Building a Better University," *Facility Manager,* Volume 21, Number 3, May/June 2005.

Exhibit 5
Florida's Postsecondary Construction Costs Are Generally Lower Than National Benchmarks

Building Type	National Median Total Cost	National Low Quartile Cost /Square Foot	National Median Cost /Square Foot	National High Quartile Cost /Square Foot	Florida Median Cost /Square Foot (2004)
Academic	$ 8,000,000	$129.09	$172.82	$221.11	$148.73
Library	16,000,000	191.48	235.29	326.62	152.58
Office	6,500,000	107.64	138.44	235.29	155.11
Science	20,000,000	201.83	240.00	294.05	183.99

Source: "2005 Construction Report," *College Planning and Management,* February 2005 and OPPAGA analysis of Board of Governors and Division of Community Colleges and Workforce Education Data.

Universities and community colleges should adopt several strategies to address the rising construction costs

The rising cost of new construction has had a noticeable effect on postsecondary institutions. Several postsecondary education facility managers reported having difficulty getting responses to bids and were downsizing planned facilities in order to meet available funding. For example, Valencia Community College had to build a smaller building than originally planned because of rising costs during the three-year interval between planning, funding and completing the project. As construction costs are likely to continue to rise in the future while state funds available for capital outlay are projected to decrease, postsecondary institutions need to develop long-term strategies to reduce construction costs to the extent possible. These strategies should include using prototype designs, energy cost sharing, and maximizing use of existing facilities.

Prototypes can help to reduce postsecondary construction facility costs. Florida's school districts have successfully used prototypes, or repeating a designed model, to lower construction costs for building new elementary, middle and high schools. For example DOE awarded $350 million in School Infrastructure Thrift Awards to K-12 public schools and charter schools that used frugal construction methods, such as prototypes, to construct lower cost schools. In addition, the state has successfully used prototype designs for the Satellite Office Center.

The savings gained by using prototypes depends on a number of factors including the type of facility constructed, the number of times the design is used, and the number of modifications requested each time the design is reused. However, based on the experiences of Florida's school districts and the Satellite Office Center, prototype designs can reduce construction costs by as much as 6% to 9% due to lower architectural fees and time savings in developing, reviewing, and approving facility designs. Prototype designs also reduce the overall time of construction and cost increases due to inflation.

Some postsecondary institutions are beginning to use prototypes to reduce costs. The Division of Community Colleges and Workforce Education achieved a 12% to 15% savings in design costs in 2004 by developing a prototype nursing/science building that was used by four community colleges.[5] The prototype was designed by a single architect, avoiding the need for separate designs for each individual building. This prototype design can be used by other community colleges seeking to construct similar buildings. Division staff note that community colleges will achieve similar savings only if they avoid making extensive modifications to the prototype design, which the division cannot preclude given the decentralization of the facility construction process.

Increased use of capital equipment replacement cost sharing can produce savings. Colleges and universities also can maximize their capital outlay funds by partnering with utility companies or equipment manufacturers to install and upgrade capital equipment and systems and using the future energy savings as repayment. This concept, referred to as 'performance contracting,' may help postsecondary institutions stretch scarce fixed capital outlay funds for use in building new facilities and renovations. The 2004-05 Fiscal Year community college Capital Projects Plan identified 19 energy related projects statewide; therefore the potential for savings can be significant in reducing equipment replacement costs and future operating costs.

The *Florida Statutes* encourage state agencies, school districts, community colleges, and universities to consider energy performance contracting before making large investments in equipment.[6] Several universities and community colleges have benefited from this type of arrangement. For instance, Brevard Community College partnered with Florida Power and Light to take advantage of a campus chiller replacement at an installed cost of $6 million with guaranteed annual energy savings of $750,000 for 10 years. In addition, Miami-Dade Public Schools made improvements/replacements to lighting, water, chillers, EMS controls and cooling towers at a project dollar cost of $6.5 million with guaranteed annual energy savings of $418,000 annually for 10 years. Other universities or community colleges should investigate opportunities for similar savings. By entering into a contract with an outside energy service company (ESCO) under which the ESCO receives a portion of the guaranteed energy savings to offset and repay the up-front costs of the equipment provided, institutions may be able to upgrade capital equipment sooner than anticipated. The ESCO usually guarantees a specific level of energy savings.

[5] Lake-Sumter, Palm Beach, St. John's River, and South Florida community colleges.

[6] Sections 1013.23(3)(d) and 489.145(4)(b), *F.S.*

Some university and community colleges may be able to increase classroom utilization and delay the need for new classrooms

In addition to adopting cost-saving strategies when building or renovating facilities, postsecondary institutions also need to evaluate how they currently use space in order to avoid the need to build new facilities, particularly classrooms. Florida's higher education institutions devote between 3% and 23% of their space to classrooms. This range is consistent with national benchmarks and reflects institutional differences in the students they serve.

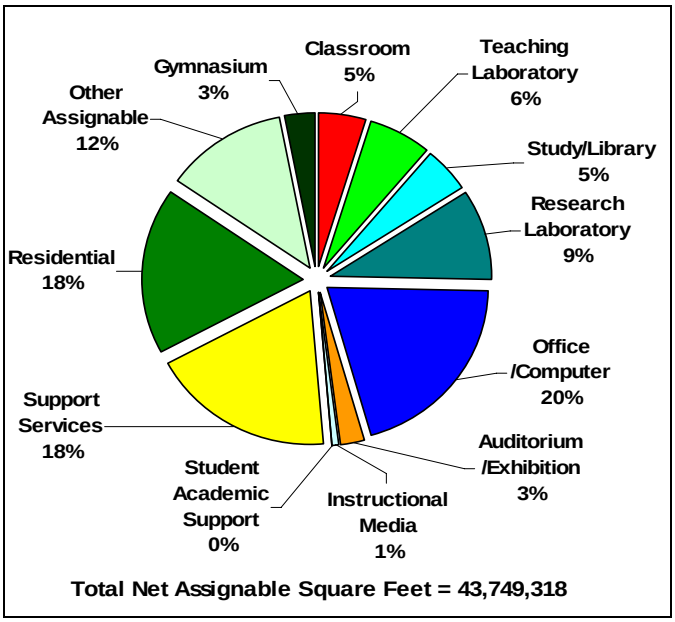
Classrooms at some state universities and community colleges are underutilized. Overall, only about half of all university classrooms statewide and less than half of community college classrooms have classes scheduled in them Monday through Friday, between 8 AM and 8 PM. Classroom usage rates vary considerably by time of day, day of the week, and institution. While some factors contributing to underutilization are outside the institutions' control, they can take steps to improve classroom utilization and delay the need to build additional classrooms.

Florida's use of postsecondary facility space is consistent with national benchmarks and institutional differences

Florida's allocation of university system space use is generally consistent with available national benchmarks. For instance, although classrooms comprise just 5% of total assignable space at state universities, this percentage is comparable to the 5.2% average among public universities nationally according to a study of 25 public universities conducted in 2002. [7, 8] In addition, the university system's allocation of office space, the largest category of space at 20%, is consistent with the 22.5% national norm. Exhibit 7 shows the allocation of university system space based on state reporting codes.

Space by use category varies across state universities and is influenced heavily by institutional missions. Research universities such as the University of Florida and Florida State University generally have a higher percentage of space allocated to research and a lower percentage of classroom space than other state universities. In contrast, less research-intensive universities such as Florida Gulf Coast University and the University of West Florida have a larger percentage of classroom space and a smaller percentage of their space devoted to research compared to the system as a whole. Although the percentages of space allocated to academic, administrative and support varies across universities, the ranges within the university system are within national norms.

Exhibit 7
State University System Space Allocation Is Consistent with National Benchmarks



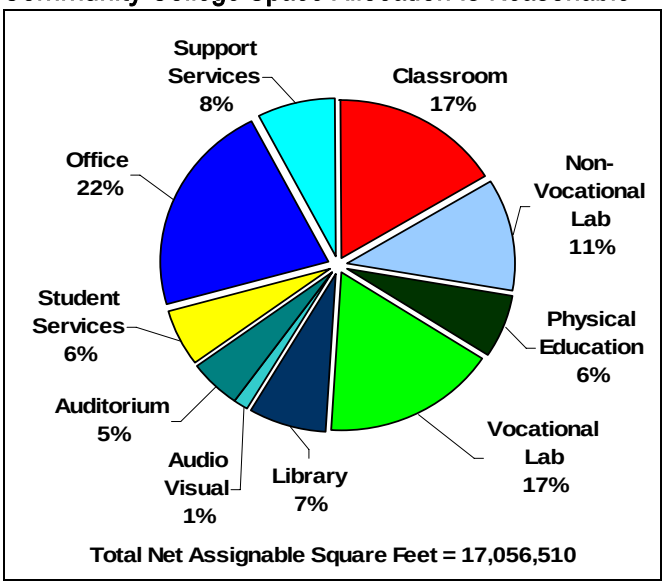
Source: Florida Department of Education.

We could not make a similar assessment of community colleges' space allocation due to the lack of similar national benchmarks. Exhibit 8 shows community colleges devote a higher overall percentage of their total space to classrooms than does Florida's university system (17% and 5%, respectively), a lower percentage of space to support services, and no space to residential facilities. This reflects the differences in the two systems' primary mission and student populations served. As community colleges are nonresidential schools, they do not require the infrastructure to support students living on campus and thus their amount of space devoted to classroom use would be expected to be higher. Also, community colleges do not have a primary research mission and serve a considerable number of students in vocational and technical programs.

[7] "Classroom Use and Utilization," *Facilities Manager,* May/June 2002.

[8] Instructional space in teaching and research laboratories is not included.

Exhibit 8
Community College Space Allocation Is Reasonable



Source: Florida Department of Education.

State universities and community colleges display different classrom utilization trends, but there is underutilization in both systems

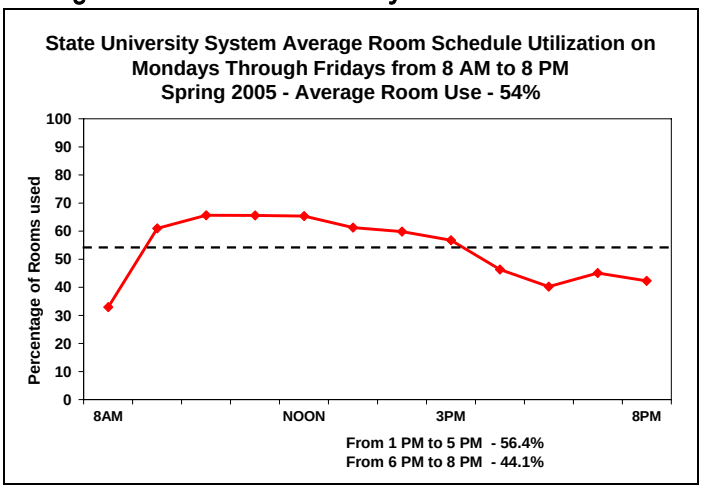
Overall, only about half of all university classrooms and less than half of community college classrooms have classes scheduled in them Monday through Friday, between 8 AM and 8 PM. Classroom usage is generally higher among state universities compared to community colleges. Exhibit 9 shows that, an average of 54% of university classrooms are scheduled for instructional use at any given hour of the week (Monday through Friday, between 8 AM and 8 PM). [9] Community colleges have lower classroom utilization, with an average of 41.4% of classrooms scheduled for instructional use at any given hour of the week.

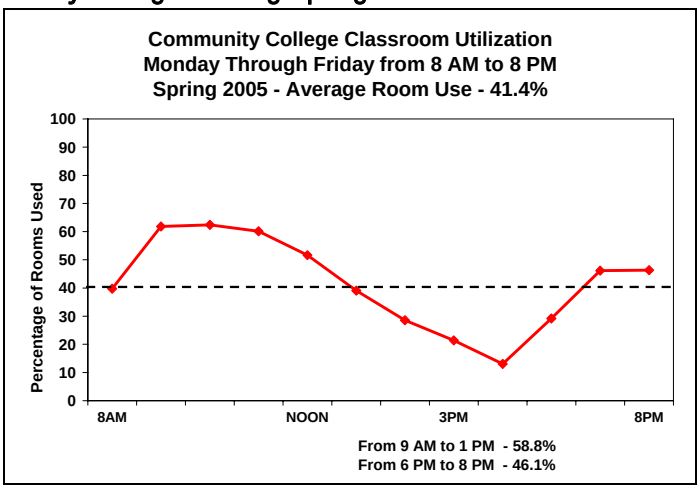
Average classroom utilization rates vary across institutions, with some having substantially higher usage rates than others. For instance, four universities (Florida Gulf Coast University, Florida State University, University of Central Florida, and the University of North Florida) have an average classroom usage rate of 60% or more, while six community colleges (Chipola, Florida Keys, North Florida, Okaloosa-Walton, Pasco-Hernando, and South Florida) have average classroom usage rates of less than 30%. Institutions' overall classroom utilization rates were sometimes affected by branch campuses that had very low utilization rates. For example, the Florida Atlantic University main campus (98 classrooms) has a usage rate of 50.1%, but the Davie branch campus (35 classrooms) has a usage rate of only 35.7%, bringing the institutional total to 46.3%. Please see Appendix C for utilization profiles for the individual institutions.

Classroom usage varies significantly by hour of the day. Some universities and community colleges have relatively even average classroom use throughout the day while others experience relatively large swings in usage ranging from periods in which almost all available classrooms are in use to periods in which many classrooms remain idle. Exhibit 9 also shows that the peak classroom usage hours for universities are

[9] For our analysis, we measured classroom utilization by counting hours of scheduled classroom use between 8 AM and 8 PM. Instructional space in teaching laboratories and research laboratories is not included.

Exhibit 9
Average Classroom Utilization by State Universities and Community Colleges During Spring 2005





Source: OPPAGA analysis of utilization data provided by the Board of Governors and by the Division of Community Colleges and Workforce Education.

from 9 AM through 1 PM, when approximately two-thirds of classrooms are in use. Usage typically declines steadily throughout the afternoon with a slight increase in the evening, with 56.4% of classrooms in use between 1 and 5 PM and 44.1% in use between 6 and 8 PM. This trend varies somewhat by institution reflecting differences in the students they serve. For instance, classroom use at the University of Florida and Florida State University, which are institutions serving mostly full-time and residential students, tapers off earlier in the day and drops more steeply in the afternoon than at institutions that serve more part-time and commuting students, such as the University of South Florida and the University of West Florida.

Community colleges tend to experience two peak classroom usage periods, with an initial peak between 9 AM to 1 PM when 58.8% of classrooms are in use systemwide. A second peak occurs between 6 and 8 PM when an average of 46.1% of all community college classrooms are in use. Community college administrators indicate that these patterns reflect student work patterns, with the steep dip in the utilization rate at 4 PM (when only 13% of classrooms are in use) occurring when students are commuting and transitioning to or from work.

Classrooms are underutilized on Fridays. As illustrated in Exhibit 10, classroom usage varies considerably by day of week. University and community college classrooms receive their highest use from Monday through Thursday, when on average 59.7% and 46.7%, respectively, are in use between 8 AM and 8 PM. Usage differences during this period are relatively small.

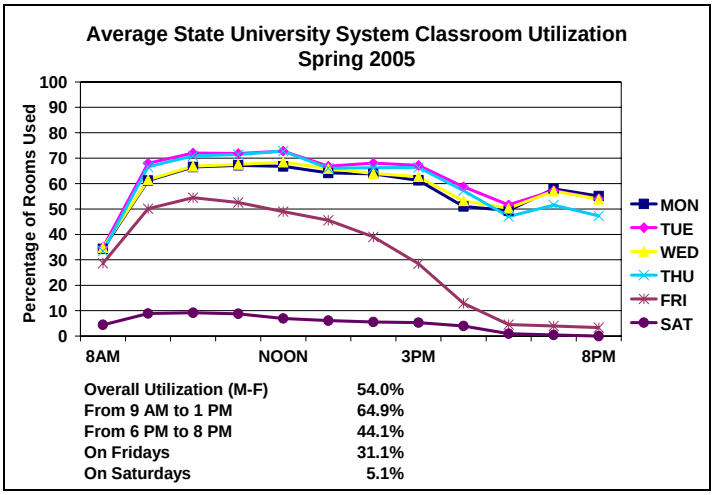
Both universities and community colleges experience significant declines in classroom usage on Fridays, particularly in the afternoon and evening hours. On average, only 31.1% of university classrooms are in use on Fridays, as are only 20.3% of community college classrooms. Underutilization of classrooms on Fridays is not unique to Florida but rather a nationwide phenomenon in higher education. National studies and Florida community college and university administrators indicated that both students and faculty often prefer to have few or no Friday classes; students wish to begin their weekend early and faculty use Fridays for meetings and research.

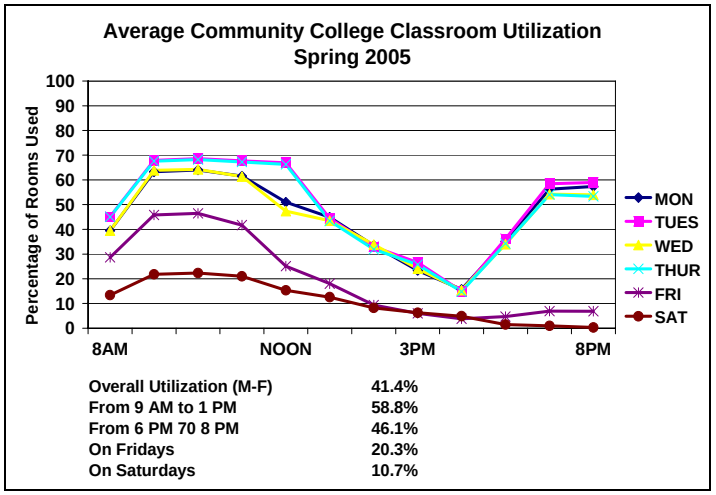
Although influenced by market driven forces, classroom underutilization can be addressed In several ways

Improved management of classroom utilization can help administrators avoid significant negative consequences for both institutions and students. As peak classroom usage tends to drive the need for additional classrooms as well as auxiliary facilities such as parking garages, unsuccessful classroom management practices can lead institutions to build additional facilities ahead of need to peak demand periods. It also can result in limiting course offerings at times during the week, which can limit students' choice of curriculum and possibly delay graduation if they can only attend school during specific times of the day or week.

The state's universities and community colleges face constraints in managing classroom utilization. They must compete with other postsecondary institutions for students and thus tend to offer courses when they believe students prefer to take them. In addition,

Exhibit 10
Utilization Varies by Day of Week and Time of Day





Source: OPPAGA analysis of Florida Department of Education utilization data.

students often have family and work responsibilities that can limit the days and times they are able to take classes. The physical environment itself also can hinder better classroom management. Some of the older, smaller university classrooms need to be remodeled to accommodate larger numbers of students to reduce the operating and instructional costs per student. However, our assessments of community colleges and universities with both high and low classroom utilization rates identified steps institutions can take to improve classroom management. These strategies are discussed below.

Establish institutional goals to increase classroom utilization. Universities and community colleges that have set classroom utilization goals have adopted successful strategies to increase utilization rates. For example, both Florida State University and the University of Central Florida have established goals that exceed the state's minimum standards for classroom utilization on their main campuses. Administrators at these universities indicate that setting these goals enabled them to focus on the issue and identify strategies to attain the goals. These universities report that by setting institutional goals to increase average classroom utilization and reporting back to faculty and staff on how well it is meeting these goals, institutions should be able to improve classroom utilization.

Disseminate more detailed information on classroom usage patterns and solicit suggestions for increasing utilization from administrators, faculty, and staff. Some of the institutions we contacted provided information on classroom usage patterns to faculty and staff to improve facility utilization. For example, the Hillsborough Community College facilities department performs a post hoc briefing of campus presidents and deans after each semester to share information and figure out how they can improve classroom utilization. Florida State University uses scheduling software that produces color coded charts to spot underutilized classrooms which can then be reassigned. This information is provided by the provost to faculty and staff. Both Hillsborough Community College and Florida State University believe that providing feedback to users has helped them increase their utilization rate over the past few years. By broadly sharing more detailed information on classroom usage patterns and asking administrators, faculty, and staff for their ideas on how to increase utilization, other postsecondary institutions may be able to experience similar improvements in utilization.

Improve utilization data submitted to institution managers and state policymakers. Managers and policymakers need complete and accurate data on how classrooms are being used to make informed choices about facility needs and space management. The DOE and Board of Governors require regular reporting of classroom utilization; however, data for some universities is incomplete. For instance, all universities report utilization data for their main campus which reflect the majority of their classroom space, but they do not provide complete information on their other campuses. State university administrators we spoke to and our review of available data suggest that classroom utilization on branch campuses was often much lower than main campuses. As a result, classroom utilization rates for universities that do not include data for all campuses are more likely to be slightly lower than reported. Under reported data was not a problem for community colleges.

In addition, Florida International University data reflected significant mismatches between the room inventory file and course file. A low match rate could result in under-representing the actual utilization rate if it was due to low usage rooms missing from the room inventory file. These errors should have been detected and corrected by either Florida International University and/or the Board of Governors when the data was originally submitted and before the instructional activity file was accepted. We worked with the Board of Governors and Florida International University staff to correct utilization data used in our analysis. However, currently there is no adequate process to identify and correct these problems.

Finally, although universities and community colleges are encouraged to look for joint use and shared use opportunities with other institutions to maximize the use of their space, data on shared use of classrooms is not reported.[10] For example, Pasco-Hernando Community College makes 13 classrooms available to the University of South Florida, but this shared use is not included in either institution's utilization data. According to university officials shared use of space is more common in the community college system than the university system. Without this information, classrooms may appear idle when, in fact, they are in use.

Despite these deficiencies, we determined that the data was complete enough to assess systemwide classroom

[10] A joint use facility is funded and built for cooperative use. Shared use is a room or space shared by the host institution and the visitor institution, that is, the room is not assigned to only one or the other but used by both.

utilization. However, these data reporting issues need to be addressed to ensure that managers can identify where problems are and to better inform policymakers on the needs for additional classrooms at individual institutions.

Review and improve scheduling practices. All of the institutions we interviewed consider the needs of academic units in cooperation with academic affairs or provost's offices to determine the number of course sections to offer based on enrollment history, for example a two- or three-year average for each section. A number of other considerations besides student work schedules also go into decisions about when and where classes are offered, such as accessibility, student and faculty commute time, and specific classroom technology needs. Over time, the process shapes the class schedule to meet the needs of students primarily and faculty to a lesser degree. However, administrators at the state postsecondary institutions we contacted indicated that they have implemented a variety of scheduling strategies to better manage classroom space to reduce peak usage times, relieve stress on support infrastructure and avoid restricting course offerings to mid week. For example, Florida State University posts courses in its on-line registration system in stages with the off-peak times offered first to boost enrollment during these times. In addition, the University of Central Florida reported that it cut traffic congestion in half and reduced the pressure on parking lots by adopting three-hour block scheduling for academic units. Any unassigned time periods in the block causes the academic unit to lose the entire block to centralized scheduling, so the academic units now cooperate better among themselves to schedule all of the time allotted to them. Other institutions schedule required courses during lower demand time and shift electives to more desirable peak periods. To make better use of Fridays, Hillsborough and Pasco-Hernando community colleges, which historically had no classes on Fridays, now schedule classes on Fridays. University of West Florida requires 60% of its 1000 and 2000 level courses to be MWF classes. Although the scheduling strategies differ among institutions, higher education administrators may want to contact other institutions to identify scheduling strategies that could be adopted to help them better manage demand.

Survey students to identify their preferences and limitations. Postsecondary institutions we contacted generally relied on observation and professional experience to determine student preferences and flexibility, and to determine which strategies might provide incentives for students to enroll in classes during non-peak hours. The opinions of experienced administrators often can be very reliable indicators of student preferences and ability to take courses during certain times of the times of the day or day of the week.

However, postsecondary institutions may benefit from directly asking students their preferences and limitations. This can be done in a variety of ways including by conducting periodic customer surveys or focus groups. For instance, by surveying students state colleges and universities would be able to verify whether their assumptions are true and identify which strategies to increase classroom utilization might appeal to students. Gathering information directly from students also may help identify changes in preferences over time.

Review the need for underutilized campuses and centers. Many of Florida's public postsecondary institutions have not developed criteria or formal review processes for opening or closing of sites, particularly branch campuses and centers. Rather, state colleges and universities we contacted generally relied on informal processes for establishing sites based on community development and projected enrollment. In addition, once created many sites remain open despite low classroom usage.

We identified eight community college campuses or centers with average classroom utilization rates of less than 20%. [11] Fewer of these underutilized sites may be created or maintained if institutions develop policies or guidelines for establishing and reviewing the performance of new campuses and centers. These policies would evaluate community growth patterns and projected enrollment, costs and benefits, and utilization thresholds before and after a campus or center is created. In addition, because classroom utilization may vary over time or it may take several years to build up demand at some of these campuses and centers, in the short term, institutions should explore joint-use possibilities with partner institutions such as private colleges and, if possible, local public schools to use underutilized classrooms. However, if these campuses and centers remain idle or underutilized over the long term, institutions should convert the classrooms to some other use or consider closing the sites all together.

Provide financial incentives to encourage students to take classes during low use periods. Another market-based approach to improve utilization would

[11] Broward Community College Downtown Center, Florida Community College at Jacksonville Nassau City Center, Okaloosa-Walton Community College Chatauqua and Sikes Center, St. Petersburg College Seminole Campus and Health Education Center, Santa Fe Community College Institute of Public Safety and South Florida Community College DeSoto Campus.

be to charge lower tuition rates for courses scheduled in non-peak periods. This solution would create economic incentives for students to take courses at heretofore unpopular time periods. Administrators we spoke to at Miami Dade College thought this idea might make afternoon classes more attractive to some of their students. To maximize use of its facilities, the University of Oregon reduced tuition rates by 15% for courses taken outside of its peak usage times, before 9 AM and after 3 PM. The university reports that 25% of its students took advantage of the plan during the 2003 fall term and estimated that it will offer 37% of its undergraduate credit hours under the reduced price plan. However, some of the other institutions we interviewed were unsure if lower tuition rates would work for their students since many of them did not pay their own tuition. Currently, community colleges have limited authority to charge variable fees, from 10% below or 15% above the combined total of the fee schedule adopted by the State Board of Education and the technology fee adopted by the board of trustees. The SUS institutions cannot charge variable tuition rates.

Some possible pitfalls pointed out by the institutions with this approach include a possible lack of administrative capacity to implement more complicated fee schedules and initial confusion on the part of fee-paying students. In addition, offering non-peak tuition rates could reduce tuition revenue unless it is offset by a tuition increase. The University of Oregon estimated it would forgo $1.5 million in tuition during the 2003-04 school year. A similar non-peak tuition plan utilized at Florida institutions would need to be offset by a 5% increase in tuition for students taking courses during peak times so that a tuition loss is not realized. [12] However, not all Florida institutions may need to implement a variable tuition plan. Institutions with large swings in classroom usage that experience both high and low usage during the week may benefit most from non-peak tuition. The amount of building costs that could be deferred would depend on which institutions implemented the policy and how many students took advantage of the plan. Other cost savings could include the need for fewer parking garages and other facilities required to accommodate the impact of students on campus during peak time periods. Although one solution will not work for all institutions, at a minimum, surveying students to determine if financial incentives would encourage students to take classes during non-peak hours could reveal whether this is a viable option.

[12] Based on 2004-05 tuition rates and credit hours taken by students, a total of $846 million would be generated in tuition without non-peak discounts. Tuition generated with a 15% discount and 25% of courses offered during non-peak hours would be $814 million. Thus, tuition revenue lost by instituting such a discount policy at all state universities and community colleges without a corresponding increase in tuition during other times would be $32 million.

Conclusions and Recommendations

While Florida's construction costs for higher education institutions are within national benchmarks, these costs and future demand for facilities continue to climb due largely to economic and demographic factors, while the funds available for construction projects are projected to decrease.

In addition, classrooms at some state universities and community colleges are underutilized. Overall, about half of all university classrooms and less than half of community college classrooms have classes scheduled in them Monday through Friday, between 8 AM and 8 PM. Classroom usage rates vary considerably by time of day, day of week and institution. Although some factors affecting underutilization may be outside the control of institutions, they can take steps to improve classroom utilization and delay the need to build additional classrooms.

We thus recommend that the Department of Education, the Board of Governors, and the state's public universities and community colleges develop strategies to minimize construction costs and use existing facilities as efficiently as possible. These strategies should include using prototypical building designs, energy cost sharing, and maximizing the use of existing facilities through better classroom management policies.

- The Legislature should consider requiring public colleges and universities to demonstrate that they have implemented comprehensive strategies to maximize use of existing classrooms before approving funding for additional classroom space. At a minimum, strategies should address
  - scheduling more class time to non-peak classroom usage periods;
  - fully utilizing Fridays when scheduling classes;
  - providing tuition incentives to students to take classes during non-peaks times; and
  - establishing institutional classroom usage goals, reviewing scheduling processes, and routinely collecting and reporting facility usage data on all campuses.

- Each postsecondary institution should report to its board of trustees, DOE, and the Board of Governors on the success of these strategies and provide utilization data by day of week and hour of day when requesting additional classroom space.
- The Legislature may wish to consider providing universities flexibility to offer variable tuition for classes scheduled during peak and off- peak demand times. Given the uncertainty regarding the effects of variable tuition, the Legislature could pilot a variable tuition program to determine the impact on classroom utilization, student enrollment patterns, and tuition revenue prior to granting tuition flexibility to all universities.
- Because national research shows that classroom utilization is a relatively good indicator of how efficiently other higher education space is used, local boards of trustees, DOE and the Board of Governors should consider requiring postsecondary institutions to examine how efficiently they use all major categories of space and consider this information when determining, prioritizing and funding fixed capital outlay projects. This information can be provided in the institution's capital improvement plan.
- To better inform policymakers on the needs for additional classrooms at individual institutions, DOE and the Board of Governors should ensure that all institutions provide utilization data for each campus and require institutions to submit updated inventory data each time utilization data is submitted.
- To ensure the accuracy of university classroom utilization data, the Board of Governors should work with universities to develop a procedure to identify and correct inaccurate data during the file submission process.
- To obtain a more complete picture of how well instructional space is scheduled and utilized, the DOE and BOG should consider including joint use and shared use of instructional space as additional, separate categories for data collection and analysis. When addressing this issue, the BOG and DOE should clarify and jointly agree which institutions should be credited for utilization of jointly owned classroom facilities.
- To save on construction, remodeling and renovation costs, universities and community colleges should evaluate potential savings from energy contracting before replacing or upgrading expensive equipment such as HVAC.

Agency Response

In accordance with the provisions of s. 11.51(5), *Florida Statutes,* a draft of our report was submitted to the Commissioner of Education and the Florida Board of Governors to review and respond. Both written responses are reproduced herein in Appendix D. Where necessary and appropriate, OPPAGA comments have been inserted into the responses.

OPPAGA supports the Florida Legislature by providing evaluative research and objective analyses to promote government accountability and the efficient and effective use of public resources. This project was conducted in accordance with applicable evaluation standards. Copies of this report in print or alternate accessible format may be obtained by telephone (850/488-0021 or 800/531-2477), by FAX (850/487-3804), in person, or by mail (OPPAGA Report Production, Claude Pepper Building, Room 312, 111 W. Madison St., Tallahassee, FL 32399-1475). Cover photo by Mark Foley.

Florida Monitor: www.oppaga.state.fl.us

Project supervised by David Summers (850/487-9257)
Project conducted by Rose Cook, Bob Cox, Mark Baird, and Gregory Perchine
Jane Fletcher, Education Staff Director (850/487-9255)
Gary R. VanLandingham, OPPAGA Director

Appendix A

Fixed Capital Outlay Legislative Budget

The following information contains definitions of common terms, source of funds, purpose and restrictions on funds for projects funded through the fixed capital outlay budget process.

Capital Outlay and Debt Service (CO & DS)

- Revenues from motor vehicle licenses
- Allocated to school districts and community colleges
- Revenues are bonded and proceeds allocated based on a funding formula

Facility Enhancement Challenge Grant Program

- Facility must support instruction or research
- Must be included in the institution's Five-Year Capital Improvement Program
- Private cash matching must be on deposit
- State matching funds are recommended for eligible projects

2005-2006 Capital Improvement Trust Fund Projects

- Generally requested every three years based on availability of funds
- Used for student-related projects such as student unions and recreational facilities
- Financed by fee collections and bonds issued with a pledge of revenues from the fees

2005-2006 Supplemental Special Request Project List

- Developed to address issues not financed by the SUS share of PECO funds and other SUS sources
- Issues include critical deferred maintenance, Americans with Disabilities Act corrections, federal grant matches, and other special projects

2005-2006 Projects That Require General Revenue for Operation

- Projects requiring state general revenue for operations but built with non-state funds

2005-2006 Authorization to Sell Revenue Bonds on Behalf of Universities

- Projects financed by revenue bonds
- Projects include dormitories, parking garages, and bookstores
- Operating revenues pledged to pay debt service

2005-2006 Authority for Financing and Acquisition of Facilities by Direct Support Organizations

- Facilities constructed or financed by Direct Support Organizations
- Typical projects include dormitories, athletic, research, and international studies facilities

2005-2006 PECO Remodeling/Renovation/Repair/ Maintenance Formula Funds Appropriation Request

- Allocated based on a depreciation formula to the education sectors from the total amount of available PECO funds
- Allocations made to public schools, community colleges, and state universities
- Funded from cash portion of available PECO revenues
- Funds used to expand or upgrade current educational facilities to prolong useful life

2005-2006 Concurrency Trust Fund Appropriation Request

- Trust fund supported by revenues from local option gas tax
- Funds used to correct deficiencies in public facilities and services caused by proposed campus development
- Impact determined through Campus Development Agreements between University Boards of Trustees and affected host local government

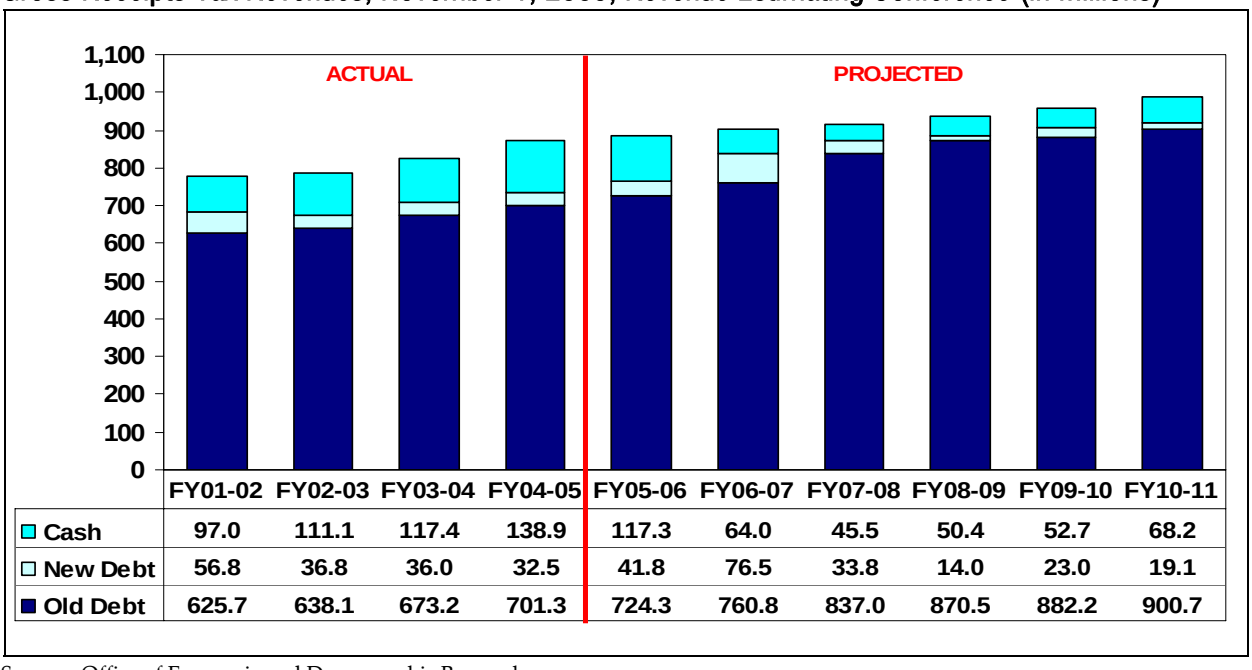
Appendix B

The Source of PECO Revenues and Why PECO Revenues Fluctuate

The source of PECO revenue is the revenues from the gross receipts tax on utilities services (2.5%) and communications services (2.37%) as defined in s. 203.01, *Florida Statutes*. Most of the PECO revenues are generated from bonding a portion of the gross receipt tax revenues. The gross receipts tax is a relatively stable and generally slow growing tax source, making it an ideal revenue source for financing the sale of bonds. PECO bond proceeds are the primary source of legislative funding for postsecondary academic facilities.

Constitutional and statutory restrictions limit the amount of revenues that can be devoted to bonding to 90%of the average of the past two years' of revenues. The remaining revenue must be spent as cash. Table B-1 shows the actual and projected gross receipts tax revenues from 2001-02 to 2010-11. Each bar is broken into three parts: revenue committed to paying off existing bonds and, thus, not available for appropriation (the bottom section); cash that is not available for bonding (the top section); and new revenues available for bonding (the middle section). The amount available for appropriation includes the cash (the top section) and the new revenues available from bonding the amount in the middle section of each bar.

Table B-1
Gross Receipts Tax Revenues, November 1, 2005, Revenue Estimating Conference (in Millions)



	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11
Cash	97.0	111.1	117.4	138.9	117.3	64.0	45.5	50.4	52.7	68.2
New Debt	56.8	36.8	36.0	32.5	41.8	76.5	33.8	14.0	23.0	19.1
Old Debt	625.7	638.1	673.2	701.3	724.3	760.8	837.0	870.5	882.2	900.7

Source: Office of Economic and Demographic Research.

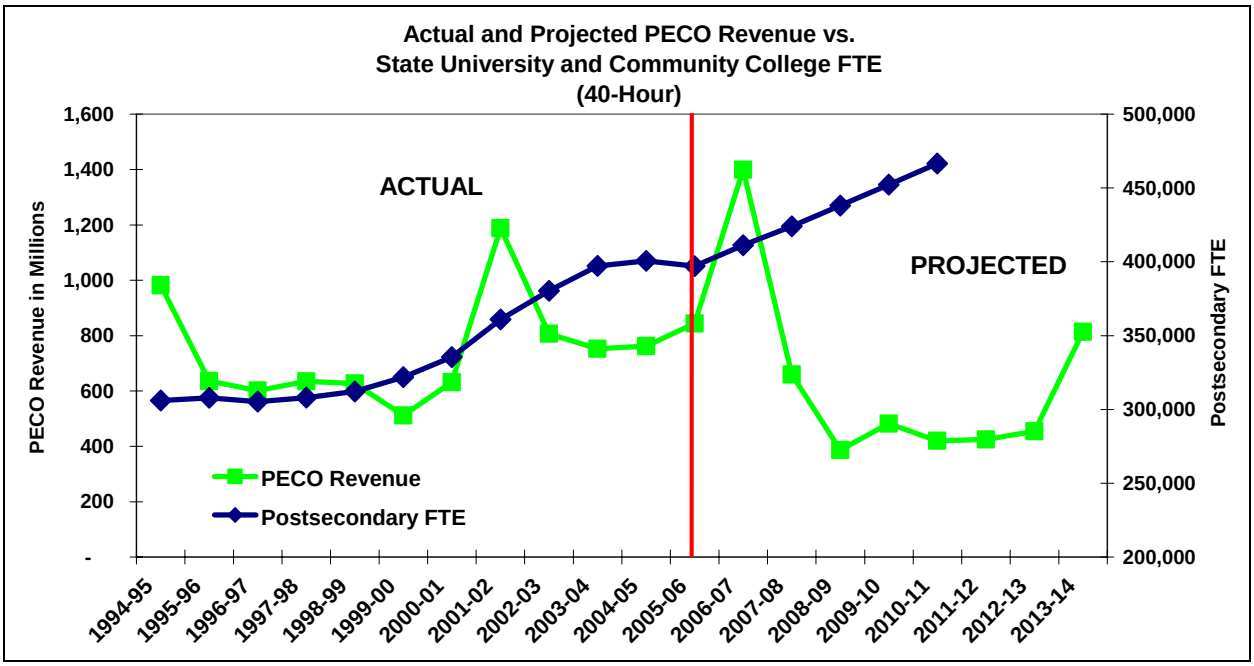
Sources of Fluctuation

According to the Office of Economic and Demographic Research (EDR), the amount of tax revenue available for appropriation and bonding is the product of several factors which combine to cause the significant fluctuation each year that is shown in Table B-2.

1. Bonding is primarily based on growth in the gross receipts tax on utilities and communications because existing revenues are committed to debt service on old bonds.
2. When revenues are underestimated, as occurred in 2005-06 due to the unexpected increase in fuel costs, subsequent appropriations can be larger for two reasons,
   a. non-recurring cash is available for cash expenditure from the initial year of underestimate, and
   b. the excess growth is added to the growth formerly anticipated for later years so that more than just one year's worth of growth in bonding capacity is available.
3. Bonds do not sell immediately and may not sell for several years after being authorized by the Legislature so that the interest paid on the bonds may be more or less than originally assumed in the Estimating Conference. The result is that more or less bonding capacity is available in later years than originally estimated.
4. Refinancing of old bonds at lower rates frees up additional bonding capacity for subsequent years. Table B-3 displays recent refinancing. Refinancing is not projected by estimating conferences and is only added to conference estimates after the refinancing has occurred. As a result, additional bonding capacity from refinancing generally will be available for a later year than is shown on Table B-3.
5. Finally, the gross receipts tax revenues are projected on a fiscal year basis (July to June) while bonding is calculated based on the 24-month period ending in September. As a result, annual estimates from the gross receipt tax and the PECO revenues from bonding are reported for different time periods.

As a result of the factors enumerated above, the fluctuations in tax revenue in Table B-1 cannot be directly compared to the fluctuation in PECO revenue in Table B-2. After 2006-07, the projected growth in tax revenues is expected to be much slower, partly due to anticipated declines in fuel prices. Therefore the amount of revenue not reserved for debt service and available for appropriation is much lower after 2006-07, as shown in Table B-2.

Table B-2



Note: The extreme points of fluctuation in Exhibit 2 represent years in which several of the sources of variation listed in the memo work in the same direction to produce a high or low level of PECO revenue.

Source: Office of Economic and Demographic Research.

Table B-3
Increase in PECO Bonding Capacity Due to Refinancing Activity (in Millions)

Fiscal Year	Amount of Bond Capacity Available for Appropriation	Amount of Bond Capacity Due to Refinancing Activity	Refinancing Activity as a Percentage of Total Bond Capacity
1999-00	$ 367.2	$ 76.9	21%
2000-01	428.3	36.0	8%
2001-02	887.6	30.1	3%
2002-03	613.4	37.1	6%
2003-04	516.3	57.9	11%
2004-05	473.4	36.6	8%
2005-06	616.3	86.7	14%
2006-07	1,097.3	55.0	5%

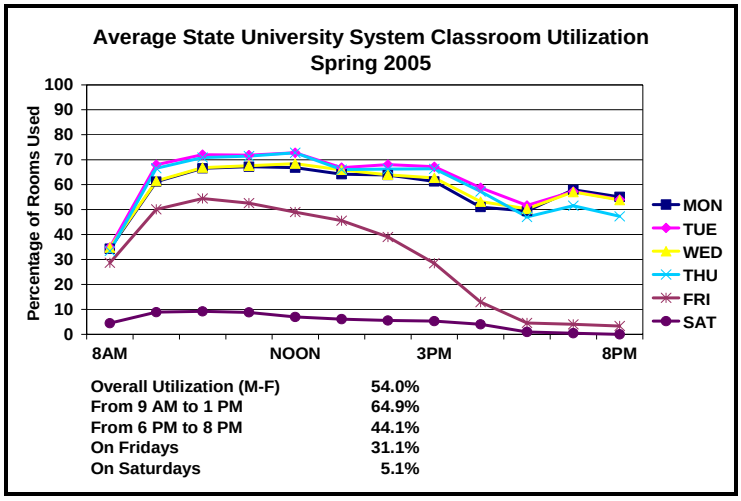
Source: Office of Economic and Demographic Research.

This appendix is based on information obtained from staff in the Office of Economic and Demographic Research as well as information on EDR's website at the following Internet address: http://edr.state.fl.us/conferences/peco/pecoflow.htm.

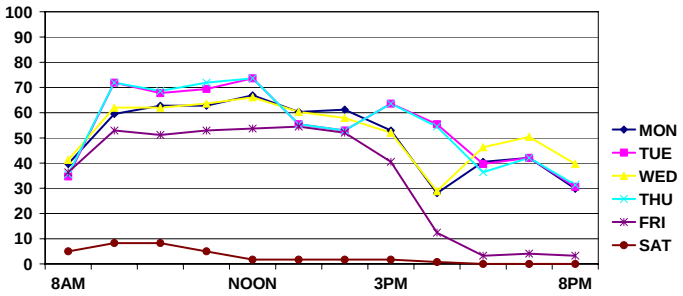
Appendix C

Disaggregated Classroom Utilization by Postsecondary Institution From 8AM to 8PM Monday Through Friday

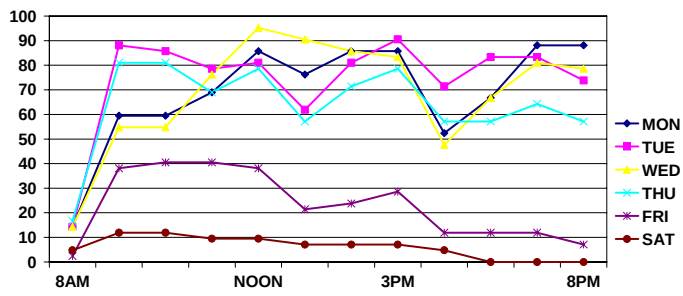
Universities



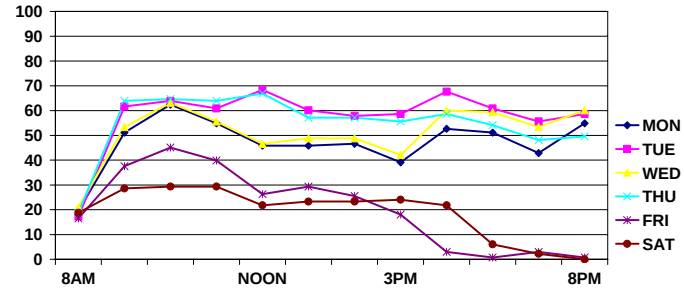
Overall Utilization (M-F)	54.0%
From 9 AM to 1 PM	64.9%
From 6 PM to 8 PM	44.1%
On Fridays	31.1%
On Saturdays	5.1%



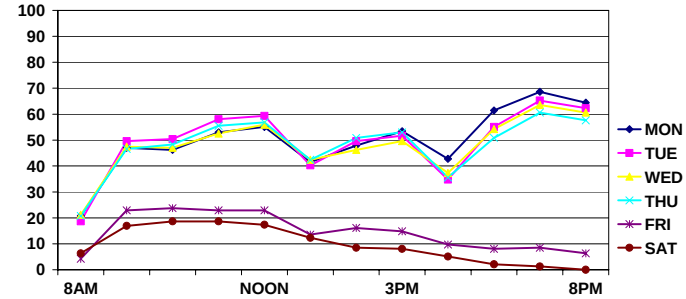
Overall Utilization (M-F)	49.5%
Utilization from 9 AM to 1 PM	64.3%
Utilization from 6 PM to 8 PM	31.6%
Utilization on Fridays	34.8%
Utilization on Saturdays	2.9%



Overall Utilization (M-F)	60.0%
Utilization from 9 AM to 1 PM	67.7%
Utilization from 6 PM to 8 PM	63.3%
Utilization on Fridays	23.0%
Utilization on Saturdays	6.1%

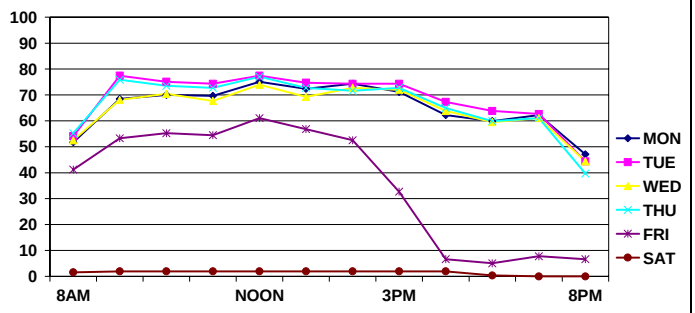


Overall Utilization (M-F)	46.3%
Utilization from 9 AM to 1 PM	54.8%
Utilization from 6 PM to 8 PM	42.7%
Utilization on Fridays	20.5%
Utilization on Saturdays	19.1%



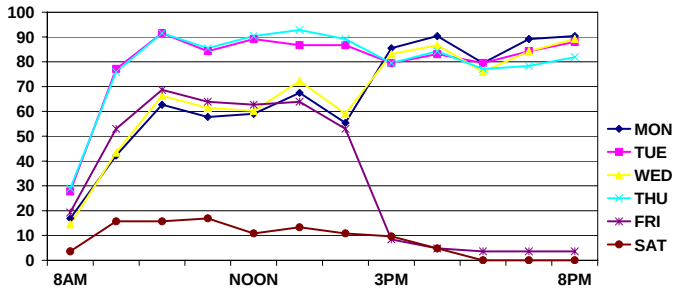
Overall Utilization (M-F)	42.1%
Utilization from 9 AM to 1 PM	46.1%
Utilization from 6 PM to 8 PM	51.8%
Utilization on Fridays	14.5%
Utilization on Saturdays	9.6%

Florida State University (FSU)



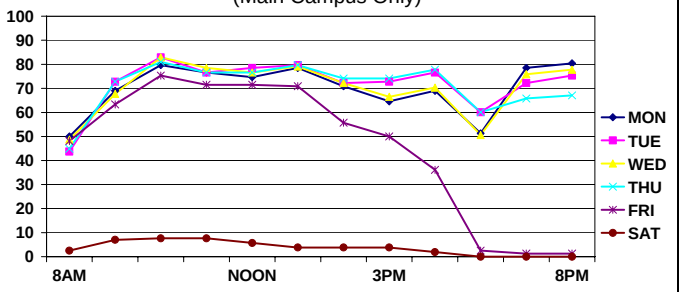
Overall Utilization (M-F)	60.2%
Utilization from 9 AM to 1 PM	69.6%
Utilization from 6 PM to 8 PM	43.7%
Utilization on Fridays	36.1%
Utilization on Saturdays	1.5%

University of North Florida (UNF)



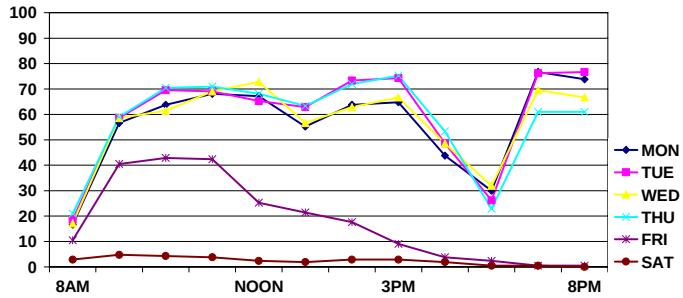
Overall Utilization (M-F)	65.2%
Utilization from 9 AM to 1 PM	69.3%
Utilization from 6 PM to 8 PM	69.3%
Utilization on Fridays	34.0%
Utilization on Saturdays	8.4%

University of Central Florida (UCF)
(Main Campus Only)



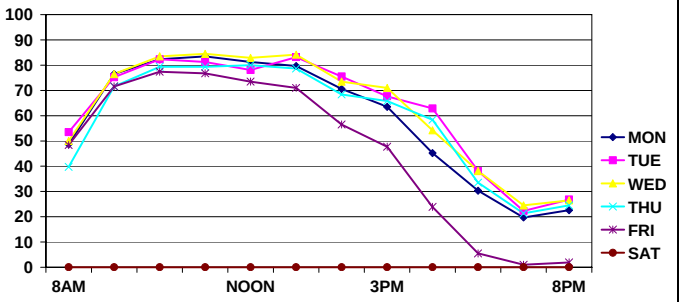
Overall Utilization (M-F)	65.9%
Utilization from 9 AM to 1 PM	75.3%
Utilization from 6 PM to 8 PM	59.6%
Utilization on Fridays	45.6%
Utilization on Saturdays	3.6%

University of South Florida (USF)



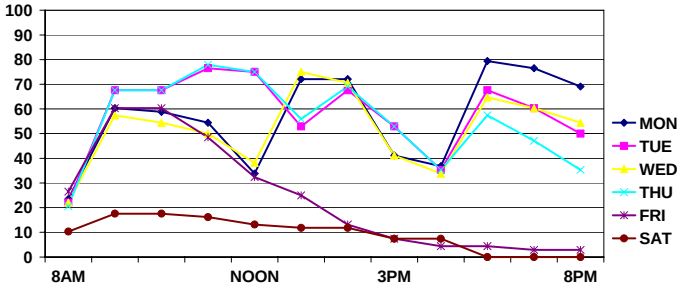
Overall Utilization (M-F)	49.9%
Utilization from 9 AM to 1 PM	60.0%
Utilization from 6 PM to 8 PM	56.2%
Utilization on Fridays	18.1%
Utilization on Saturdays	2.4%

University of Florida (UF)



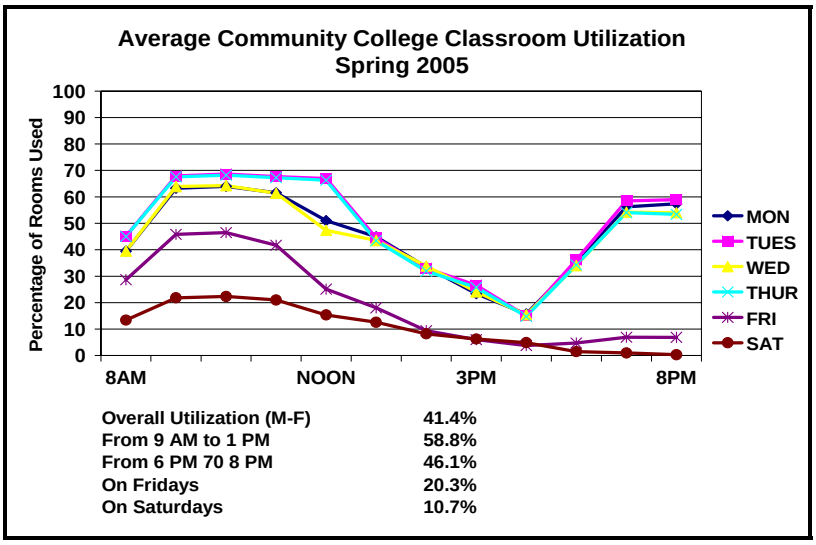
Overall Utilization (M-F)	57.6%
Utilization from 9 AM to 1 PM	78.9%
Utilization from 6 PM to 8 PM	19.1%
Utilization on Fridays	46.3%
Utilization on Saturdays	0.0%

University of West Florida (UWF)

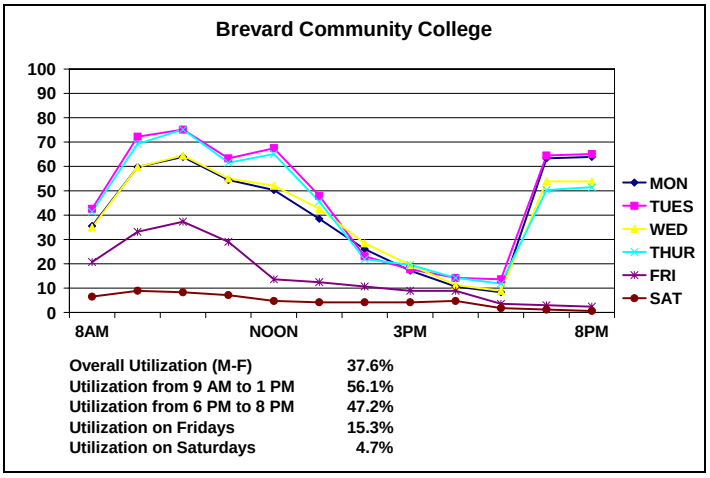


Overall Utilization (M-F)	49.1%
Utilization from 9 AM to 1 PM	59.2%
Utilization from 6 PM to 8 PM	45.9%
Utilization on Fridays	24.0%
Utilization on Saturdays	9.4%

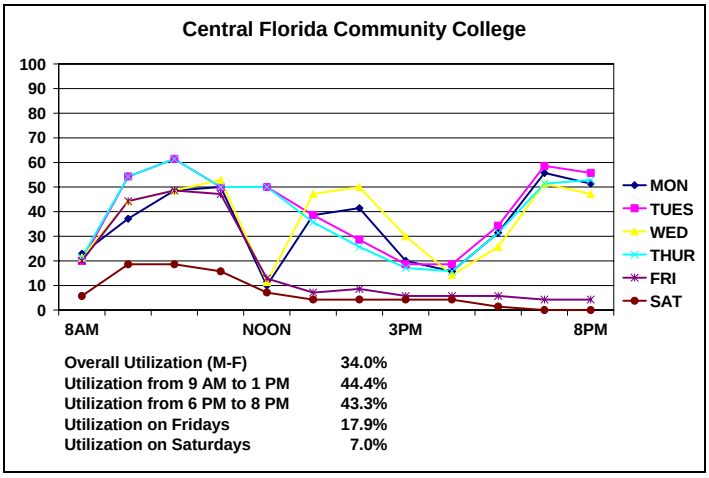
Community Colleges



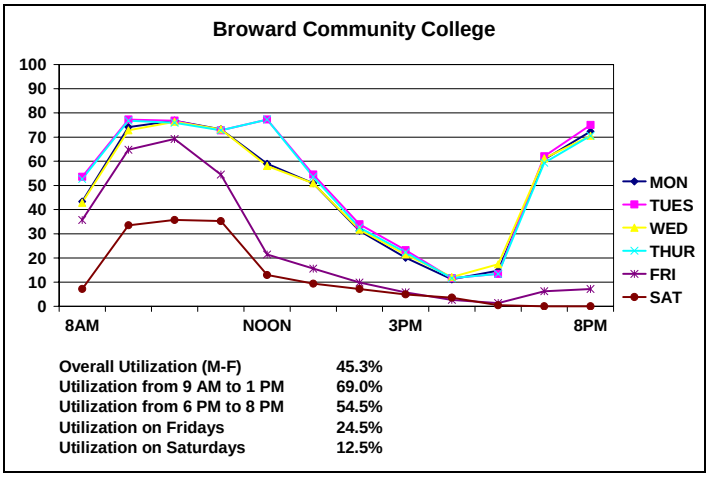
Overall Utilization (M-F)	41.4%
From 9 AM to 1 PM	58.8%
From 6 PM 70 8 PM	46.1%
On Fridays	20.3%
On Saturdays	10.7%



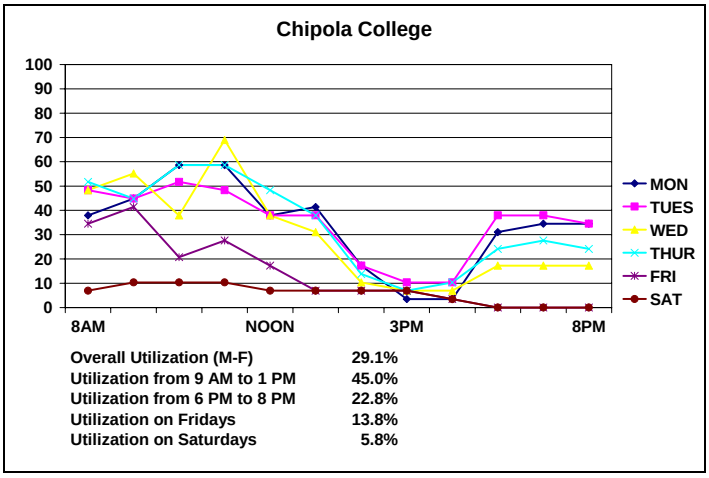
Overall Utilization (M-F)	37.6%
Utilization from 9 AM to 1 PM	56.1%
Utilization from 6 PM to 8 PM	47.2%
Utilization on Fridays	15.3%
Utilization on Saturdays	4.7%



Overall Utilization (M-F)	34.0%
Utilization from 9 AM to 1 PM	44.4%
Utilization from 6 PM to 8 PM	43.3%
Utilization on Fridays	17.9%
Utilization on Saturdays	7.0%

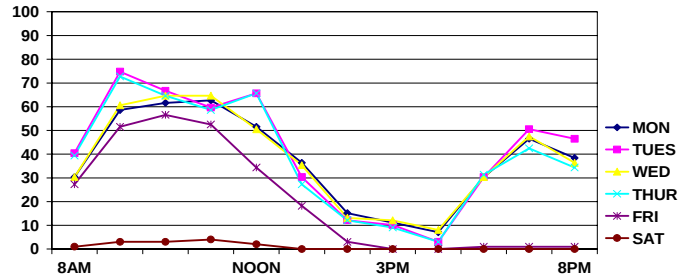


Overall Utilization (M-F)	45.3%
Utilization from 9 AM to 1 PM	69.0%
Utilization from 6 PM to 8 PM	54.5%
Utilization on Fridays	24.5%
Utilization on Saturdays	12.5%



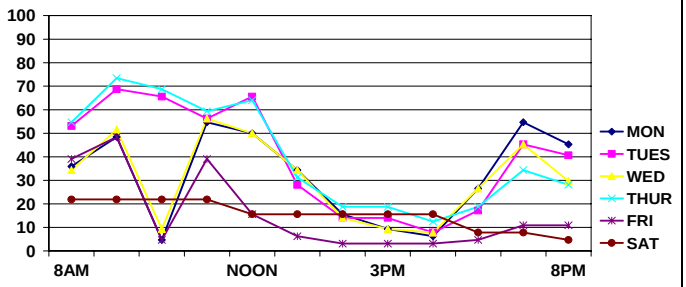
Overall Utilization (M-F)	29.1%
Utilization from 9 AM to 1 PM	45.0%
Utilization from 6 PM to 8 PM	22.8%
Utilization on Fridays	13.8%
Utilization on Saturdays	5.8%

Daytona Beach Community College



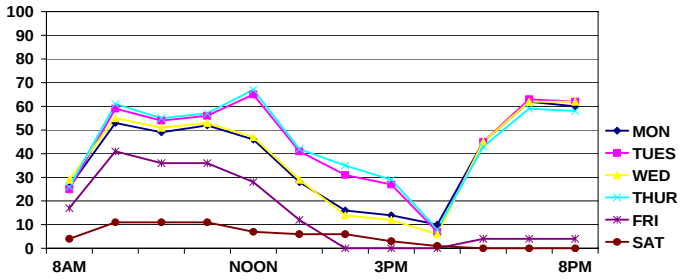
Overall Utilization (M-F)	35.0%
Utilization from 9 AM to 1 PM	59.9%
Utilization from 6 PM to 8 PM	34.4%
Utilization on Fridays	20.5%
Utilization on Saturdays	1.1%

Gulf Coast Community College



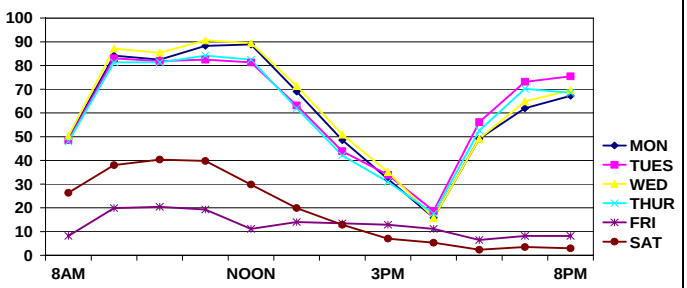
Overall Utilization (M-F)	31.7%
Utilization from 9 AM to 1 PM	47.7%
Utilization from 6 PM to 8 PM	34.5%
Utilization on Fridays	15.8%
Utilization on Saturdays	15.5%

Edison College



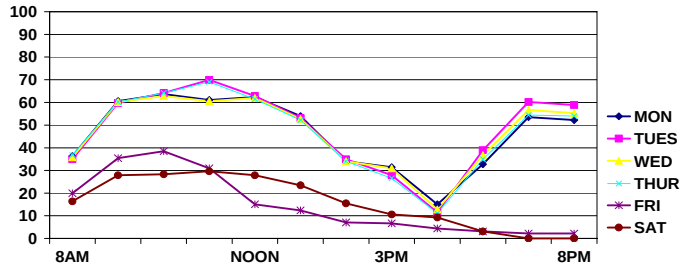
Overall Utilization (M-F)	36.4%
Utilization from 9 AM to 1 PM	51.1%
Utilization from 6 PM to 8 PM	49.6%
Utilization on Fridays	15.2%
Utilization on Saturdays	5.0%

Hillsborough Community College



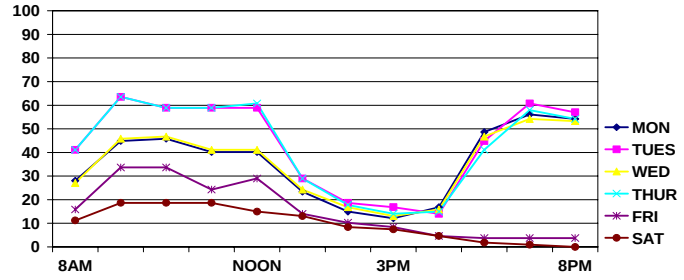
Overall Utilization (M-F)	51.9%
Utilization from 9 AM to 1 PM	71.3%
Utilization from 6 PM to 8 PM	56.7%
Utilization on Fridays	12.8%
Utilization on Saturdays	19.0%

Florida Community College at Jacksonville



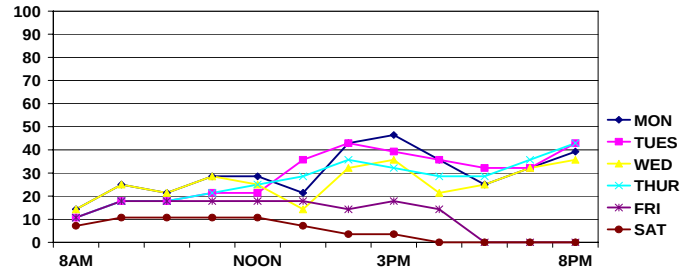
Overall Utilization (M-F)	40.5%
Utilization from 9 AM to 1 PM	56.2%
Utilization from 6 PM to 8 PM	45.0%
Utilization on Fridays	14.8%
Utilization on Saturdays	16.0%

Indian River Community College



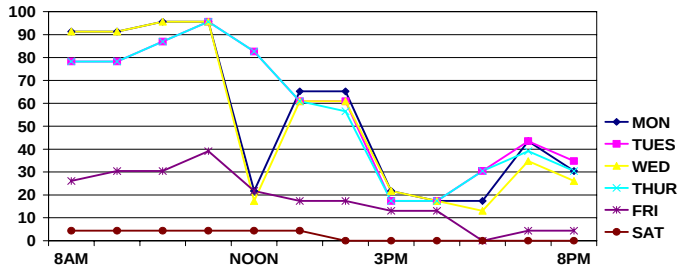
Overall Utilization (M-F)	34.5%
Utilization from 9 AM to 1 PM	47.4%
Utilization from 6 PM to 8 PM	45.5%
Utilization on Fridays	15.4%
Utilization on Saturdays	9.9%

Florida Keys Community College



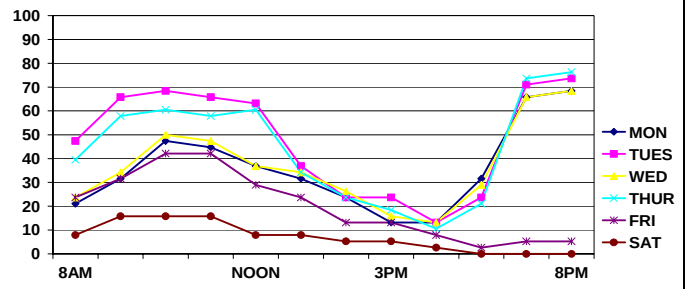
Overall Utilization (M-F)	24.9%
Utilization from 9 AM to 1 PM	21.8%
Utilization from 6 PM to 8 PM	29.3%
Utilization on Fridays	12.2%
Utilization on Saturdays	5.4%

Lake City Community College



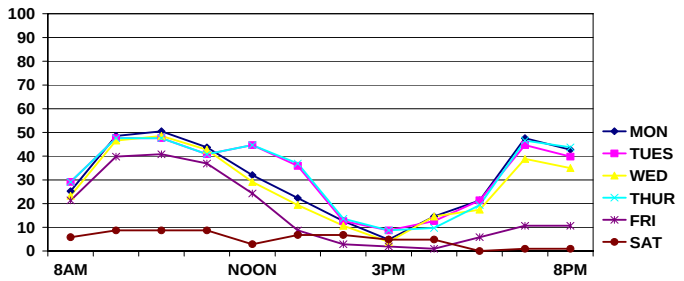
Overall Utilization (M-F)	47.7%
Utilization from 9 AM to 1 PM	70.7%
Utilization from 6 PM to 8 PM	29.1%
Utilization on Fridays	18.1%
Utilization on Saturdays	2.2%

Lake-Sumter Community College



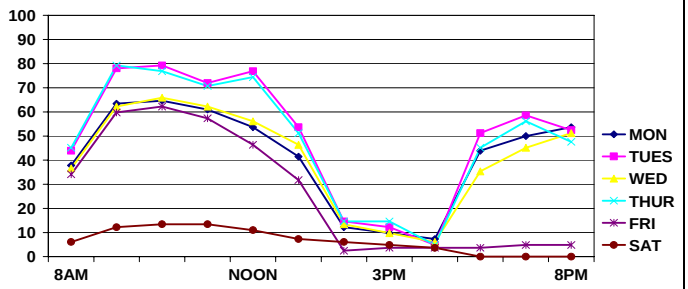
Overall Utilization (M-F)	37.1%
Utilization from 9 AM to 1 PM	48.7%
Utilization from 6 PM to 8 PM	57.4%
Utilization on Fridays	20.0%
Utilization on Saturdays	7.0%

Okaloosa-Walton College



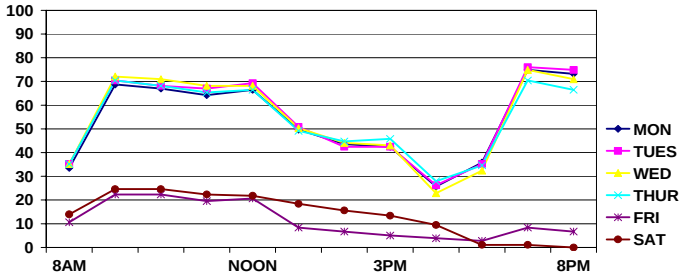
Overall Utilization (M-F)	27.9%
Utilization from 9 AM to 1 PM	42.2%
Utilization from 6 PM to 8 PM	36.0%
Utilization on Fridays	17.1%
Utilization on Saturdays	5.4%

Manatee Community College



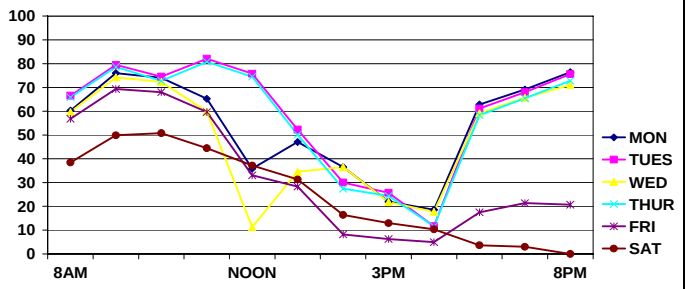
Overall Utilization (M-F)	41.4%
Utilization from 9 AM to 1 PM	66.1%
Utilization from 6 PM to 8 PM	42.4%
Utilization on Fridays	26.2%
Utilization on Saturdays	6.5%

Palm Beach Community College



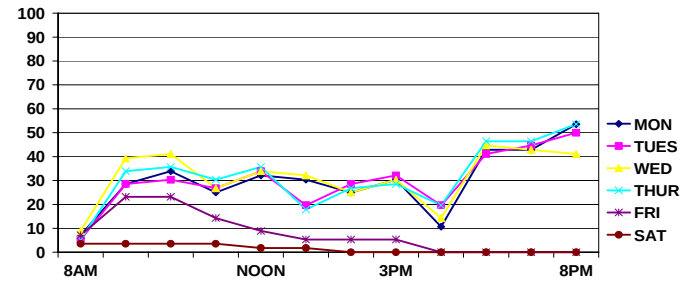
Overall Utilization (M-F)	45.6%
Utilization from 9 AM to 1 PM	58.8%
Utilization from 6 PM to 8 PM	59.7%
Utilization on Fridays	11.5%
Utilization on Saturdays	15.1%

Miami Dade College



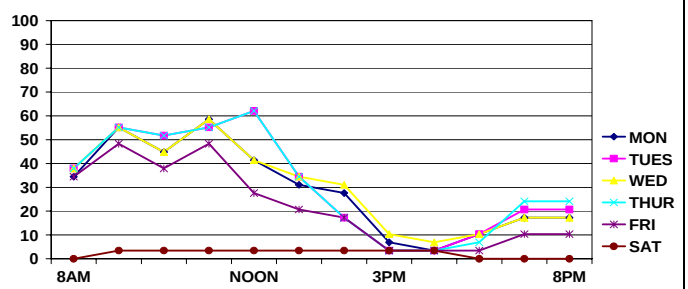
Overall Utilization (M-F)	50.1%
Utilization from 9 AM to 1 PM	65.9%
Utilization from 6 PM to 8 PM	60.6%
Utilization on Fridays	32.8%
Utilization on Saturdays	24.9%

Pasco-Hernando Community College



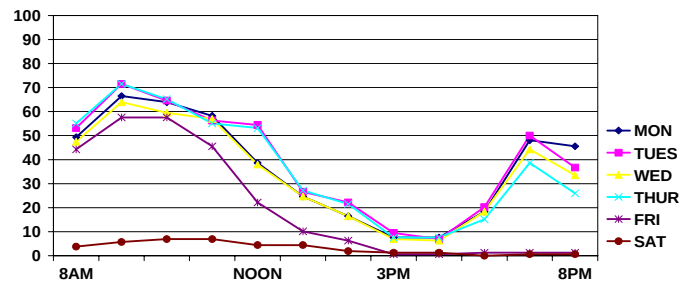
Overall Utilization (M-F)	26.3%
Utilization from 9 AM to 1 PM	29.3%
Utilization from 6 PM to 8 PM	37.5%
Utilization on Fridays	7.7%
Utilization on Saturdays	1.5%

North Florida Community College



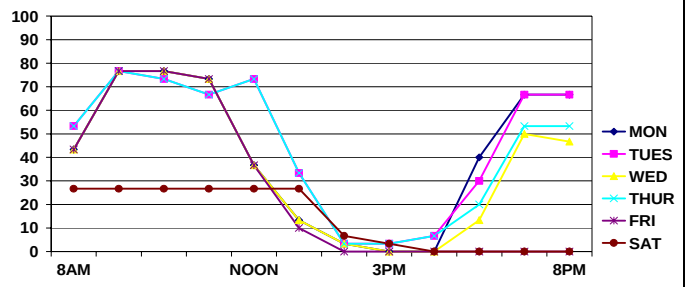
Overall Utilization (M-F)	28.8%
Utilization from 9 AM to 1 PM	50.5%
Utilization from 6 PM to 8 PM	17.9%
Utilization on Fridays	22.1%
Utilization on Saturdays	2.3%

Pensacola Junior College



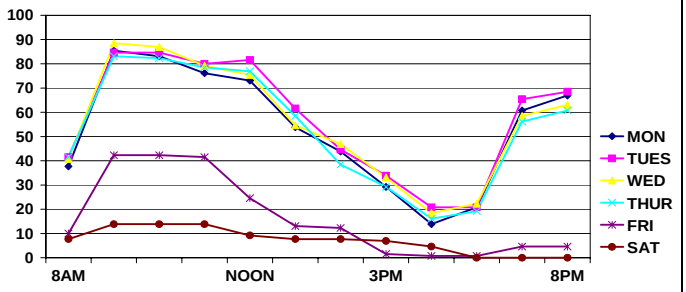
Overall Utilization (M-F)	33.8%
Utilization from 9 AM to 1 PM	56.0%
Utilization from 6 PM to 8 PM	32.5%
Utilization on Fridays	20.7%
Utilization on Saturdays	3.2%

Polk Community College



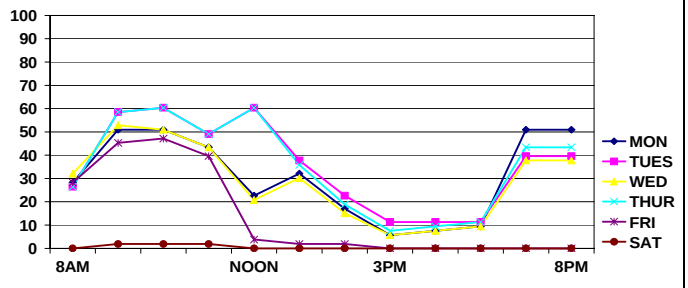
Overall Utilization (M-F)	38.6%
Utilization from 9 AM to 1 PM	68.5%
Utilization from 6 PM to 8 PM	47.0%
Utilization on Fridays	26.4%
Utilization on Saturdays	14.2%

Seminole Community College



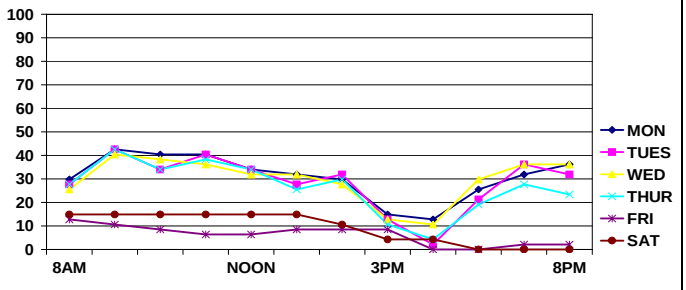
Overall Utilization (M-F)	47.3%
Utilization from 9 AM to 1 PM	72.5%
Utilization from 6 PM to 8 PM	50.9%
Utilization on Fridays	16.5%
Utilization on Saturdays	7.1%

St. Johns River Community College



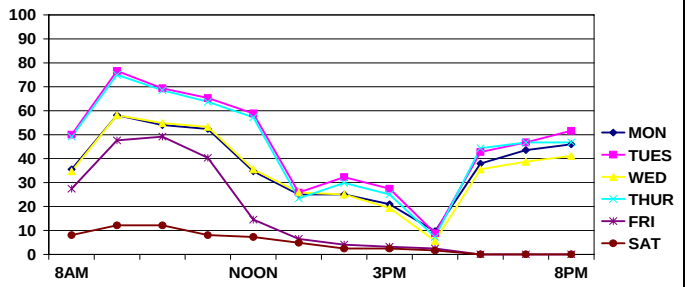
Overall Utilization (M-F)	28.9%
Utilization from 9 AM to 1 PM	46.4%
Utilization from 6 PM to 8 PM	34.3%
Utilization on Fridays	14.0%
Utilization on Saturdays	0.5%

South Florida Community College



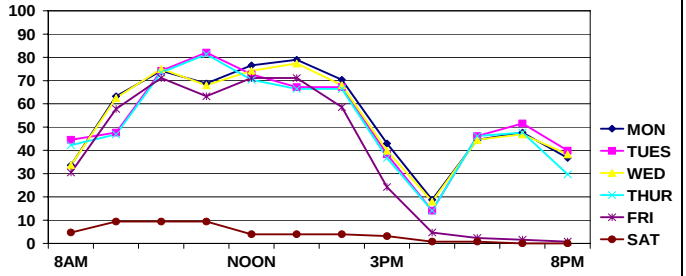
Overall Utilization (M-F)	24.4%
Utilization from 9 AM to 1 PM	31.8%
Utilization from 6 PM to 8 PM	26.4%
Utilization on Fridays	6.2%
Utilization on Saturdays	9.0%

St. Petersburg College



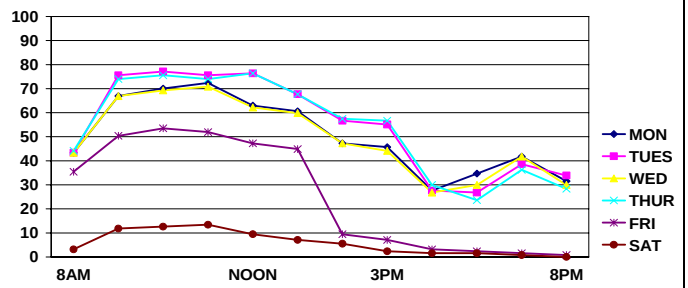
Overall Utilization (M-F)	36.0%
Utilization from 9 AM to 1 PM	54.4%
Utilization from 6 PM to 8 PM	36.1%
Utilization on Fridays	16.3%
Utilization on Saturdays	4.9%

Tallahassee Community College



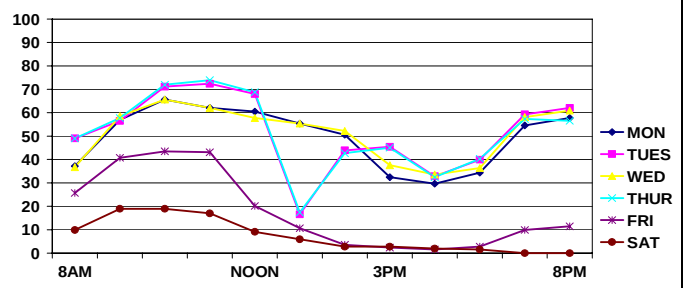
Overall Utilization (M-F)	50.4%
Utilization from 9 AM to 1 PM	71.1%
Utilization from 6 PM to 8 PM	34.1%
Utilization on Fridays	38.1%
Utilization on Saturdays	4.5%

Santa Fe Community College



Overall Utilization (M-F)	46.7%
Utilization from 9 AM to 1 PM	67.5%
Utilization from 6 PM to 8 PM	28.4%
Utilization on Fridays	25.7%
Utilization on Saturdays	5.8%

Valencia Community College



Overall Utilization (M-F)	44.3%
Utilization from 9 AM to 1 PM	58.8%
Utilization from 6 PM to 8 PM	48.8%
Utilization on Fridays	18.0%
Utilization on Saturdays	7.4%

Appendix D

FLORIDA DEPARTMENT OF EDUCATION

March 10, 2006

Mr. Gary R. VanLandingham
Director
Office of Program Policy Analysis
And Government Accountability
111 West Madison Street, Room 312
Tallahassee, Florida 32399-1475

Dear Mr. VanLandingham:

Please find attached the response to the preliminary and tentative audit findings and recommendations concerning the two reports *Higher Education Facility Planning Process Is Designed Reasonably Well; Improvements Could Maximize State Resources* and *Higher Education Facility Construction Costs Are Reasonable; Some Improvements Could Maximize Use of Campus Classroom Space.*

If you have any questions, please contact Inspector General John M. Franco at 850-245-0403 or email john.franco@fldoe.org.

Sincerely,

John L. Winn
Commissioner

JLW/jmf/br

Attachment

325 W. GAINES STREET, TALLAHASSEE, FL 32399-0400 • (850) 245-0505 • www.fldoe.org

Florida Department of Education
Office of Program Policy Analysis and Government Accountability
Preliminary and Tentative Audit Findings and Recommendations
March 10, 2006

Higher Education Facility Planning Process is Designed Reasonably Well; Improvements Could Maximize State Resources

In analyzing the recommendation for possibly changing the current standard of 40 hours per week and 60% occupancy to 50 hours per week and 70% occupancy, it was determined that this change would reduce the net square feet (NSF) needed for general classroom space by 32%. (See attached Space Needs Generation Formula Spreadsheet). This might have a negative impact on smaller schools when they begin developing their educational plant survey. It should be noted that a national study requested by the State University System several years ago from MGT of America, Inc., showed that the average standard is below 40 hours.

We are in agreement with the recommendation that State Requirements for Educational Facilities (SREF) space utilization formulas need to be reviewed and updated. This should be done in a collaborative effort with all those affected by any changes.

We are in full agreement with providing written instructions for completing the educational plant survey and in working towards automating the plant survey process. In discussions with the Office of Educational Facilities, they have indicated they will include this recommendation in their work program for this year.

Higher Education Facility Construction Costs Are Reasonable; Some Improvements Could Maximize Use of Campus Classroom Space

The recommendation concerning the consideration of providing variable tuition for classes scheduled during peak and off-peak demand times would be of limited value. In the state of Oregon, research concluded the paperwork burden was excessive and the benefit was minimal.

The recommendation for classroom utilization suggests examination of the other major space categories for efficiency. The colleges, who responded to our survey, expressed that this would be extremely time consuming and difficult to accurately assess the utilization rates of these other space categories.

The recommendation to better inform policymakers concerning the needs for additional classrooms at individual institutions is currently being provided through updated facilities, student and personnel databases. These reports are submitted

after each term as required by the Department of Education (DOE). Utilization data is calculated by the DOE after each database submission. The reports are then available to all constituents.

We are in agreement with the recommendation which suggests including joint-use facilities as an additional category for data collection and analysis. This should include joint-use facilities, university centers, charter schools, as well as the approved locations which are leased for more than 40 years and space that is utilized by other educational institutions. There is also a need to study how baccalaureate degree programs at community colleges are counted or not counted for space utilization purposes.

The recommendation concerning the use of energy contracting does have the potential for savings and many of the colleges already take energy consumptions under consideration when replacing or upgrading equipment. Many colleges are proactive with regard to energy conservation internally or through performance contracting.

FLORIDA BOARD OF GOVERNORS
325 West Gaines Street - Suite 1614 - Tallahassee, Florida - 32399-0400
(850) 245-0466 - www.flbog.org

March 21, 2006

Mr. Gary R. VanLandingham, Director
Office of the Program Policy Analysis
and Government Accountability
111 West Madison Street, Room 312
Claude Pepper Building
Tallahassee, Florida 32399-1475

Dear Mr. VanLandingham,

Thank you for the opportunity to review the following draft reports: "*Higher Education Facility Planning Process Is Designed Reasonably Well; Improvement Could Maximize State Resources*" and "*Higher Education Facility Construction Costs Are Reasonable; Some Improvements Could Maximize Use of Campus Classroom Space.*" We agree with many of the findings of these reports, such as:

Facility Planning Process

1. Because postsecondary institutions rely heavily on PECO funds to pay for fixed capital outlay projects, expected decreases in available PECO funds may make it more difficult for the state's public colleges and universities to fund new construction and renovation projects.

2. In general, Florida's postsecondary institutions build facilities at a relatively low cost.

3. Florida's allocation of state university system space use is generally consistent with available national benchmarks.

4. Underutilization of classrooms on Fridays is not unique to Florida but rather a nationwide phenomenon in higher education.

Mr. VanLandingham
March 21, 2006
Page 2

Facility Construction Costs

1. ...Florida's 40/60 standard for classroom utilization is comparable to standards used by other states...

2. The state's process for identifying and prioritizing higher education projects is comprehensive, includes multiple levels of review, and operates under guidelines to ensure coordination with higher education goals, local strategic plans, and community development plans.

We also agree with several of the recommendations that were made in these reports, such as reviewing the formulas that determine space needs, identifying shared use of instructional space and ensuring accurate utilization data is submitted for each campus.

We also have concerns about some of the recommendations. For example, the report documents the current deficiencies in the utilization data, such as incomplete data for some of the branch campuses, a lack of reporting of the usage of space shared with community colleges, and the fact that only *scheduled* usage is captured, rather than actual usage. In spite of the deficiencies in the data, the report recommends that the utilization standards be revised. It seems the data should first be "cleaned up," then compared to the current standards before it can be determined that new standards are needed. In addition, while new standards were recommended, a methodology for determining the proposed standards was not described. Considering that the revised standards will have an impact on the determination of need, it seems imprudent to recommend changes without better documentation to support the proposed standards.

OPPAGA Comments

The Legislature established the classroom utilization standard in statute to ensure that a consistent, reasonable method is used to demonstrate that existing classrooms at the state's community colleges and public universities are being fully utilized before it provides funds to build additional classrooms. The reasonableness of this standard is an important but separate issue from data deficiency issues. The current standard too narrowly defines the number of hours during the week a classroom is available and establishes an occupancy rate that is lower than similar rates established by many other states. Thus, Florida's current classroom utilization standard does not accurately portray the need for additional classroom space at the state's community colleges and public universities. We agree that the Board of Governors should work with universities to develop a procedure to identify and correct inaccurate data as part of the file submission process, and to ensure that all relevant data is included in determining the need for additional classroom space. OPPAGA made considerable effort to ensure the data used to make report conclusions was both accurate and reliable. We also believe that data on other classroom uses, such as shared use and non-instructional use, should be captured and considered separately when determining the need for additional classroom space.

We also question the recommendation that the Legislature should require institutions to implement comprehensive strategies to maximize use of existing classrooms *before approving funding for additional classroom space*. The recommendation states that, at a minimum, strategies include fully utilizing Fridays when scheduling classes, although the report indicates that underutilization of classrooms on Fridays is a national phenomenon. Fully utilizing Fridays may not be achievable, yet failure to successfully implement could prevent universities from having additional classroom space approved for funding. The same is true of providing tuition incentives to students to take classes during non-peak times. Providing tuition incentives could prove to be difficult administratively, in addition to resulting in lower revenues for the institution. Yet failure to implement this strategy could prevent an institution from receiving funding for additional classroom space. We suggest that this recommendation be re-worded to state that "The Board of Governors and the State Board of Education should consider requiring public colleges and universities to demonstrate that they have implemented comprehensive strategies to maximize use of existing classrooms. For example, strategies could address..."

OPPAGA Comments

Given the increasing demand for limited state funds used to construct K-12 and higher education facilities, postsecondary institutions have a responsibility to demonstrate that they are using existing facilities as efficiently as possible. Thus, each public college and university should be required to demonstrate it has implemented comprehensive strategies to maximize use of existing classrooms before receiving funding for additional classroom space. This additional information will enable the Department of Education and the Board of Governors to be more informed when making funding recommendations to the Legislature and will provide an additional layer of public accountability. This additional information also will provide the basis for institutions with legitimate reasons for not approaching 100% utilization to explain their need for additional classrooms.

Again, we thank you for the opportunity to review these reports.

Sincerely,

Mark B. Rosenberg
Chancellor

MBR/nmm

c: Mr. John Franco, Inspector General, DOE