STATE OF FLORIDA — OPPAGA

REVIEW OF THE CAPITAL OUTLAY FACILITIES SPACE OF FLORIDA'S STATE UNIVERSITY SYSTEM

SMITHGROUP

December 2019

TABLE OF CONTENTS

APPENDICES A–E | CASE STUDIES 177

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ABBREVIATIONS

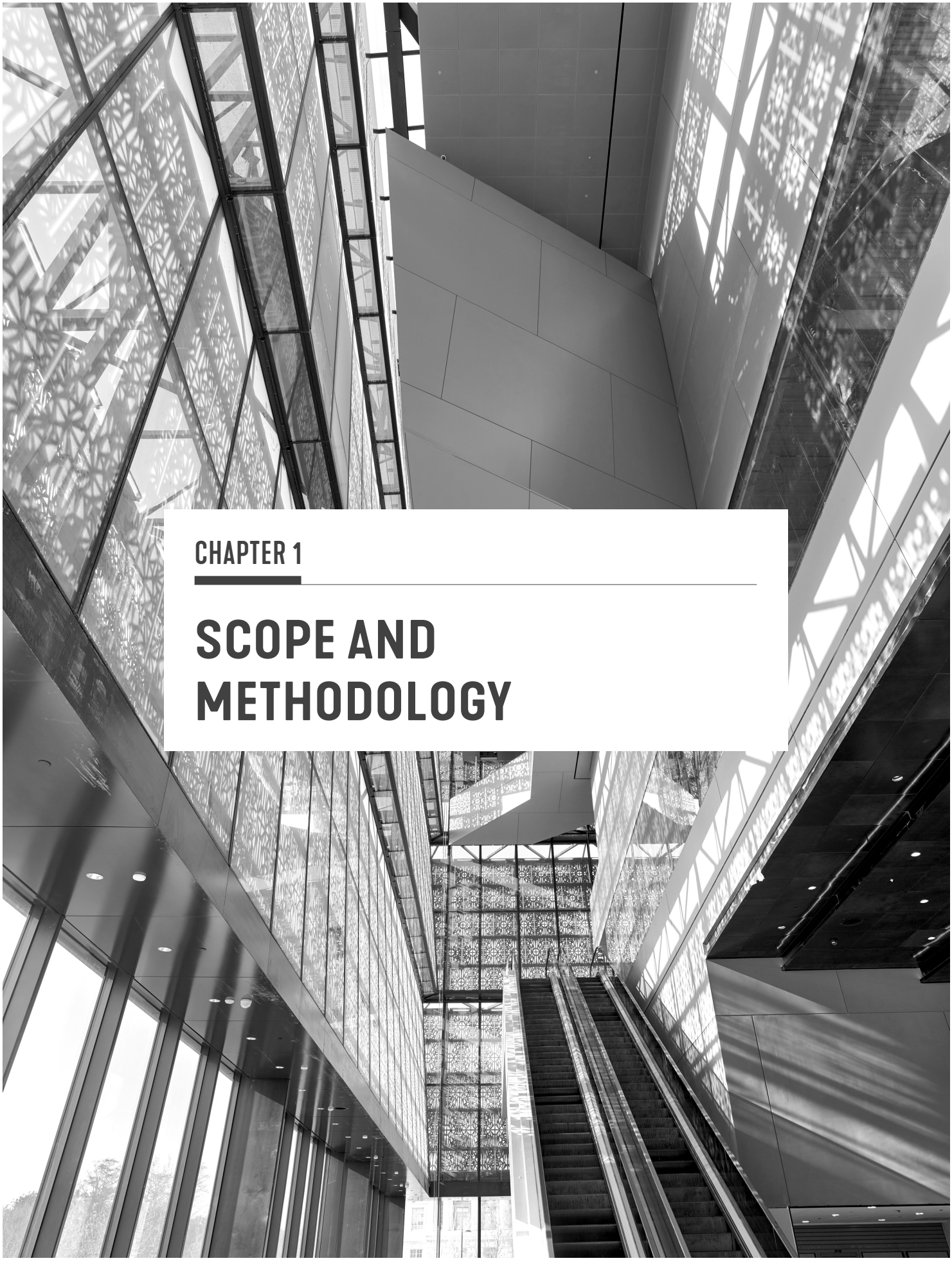
BoG	Board of Governors
C&G	Contract and Grants
CIP	Capital Improvement Plan
E&G	Education and General
EPS	Educational Plant Survey
LBR	Legislative Budget Request
PECO	Public Education Capital Outlay and Debt Service (PECO) Trust Fund
SACS	Southern Association of Colleges and Schools
SUS	State University System of Florida
STEM	Science, Technology, Engineering, and Math

ACADEMIC SPACE PLANNING

ASF	Assignable Square Feet
CAFM	Computer Aided Facilities Management
CEFPI	Council of Educational Facility Planners International
FTE	Full Time Equivalent
PI	Principal Investigator
R&D	Research and Development
SS	Student Station
SSO	Student Station Occupancy
WRH	Weekly Room Hour
WSCH	Weekly Student Credit/Contact Hour
WSH	Weekly Seat Hour

FLORIDA UNIVERSITIES

FAMU	Florida Agricultural and Mechanical University
FAU	Florida Atlantic University
FGCU	Florida Gulf Coast University
FIU	Florida International University
FPoly	Florida Polytechnic University
FSU	Florida State University
NCF	New College of Florida
UCF	University of Central Florida
UF	University of Florida
UNF	University of North Florida
USF	University of South Florida
UWF	University of West Florida



CHAPTER 1

SCOPE AND METHODOLOGY

CHAPTER 1: SCOPE AND METHODOLOGY

PURPOSE OF THE STUDY

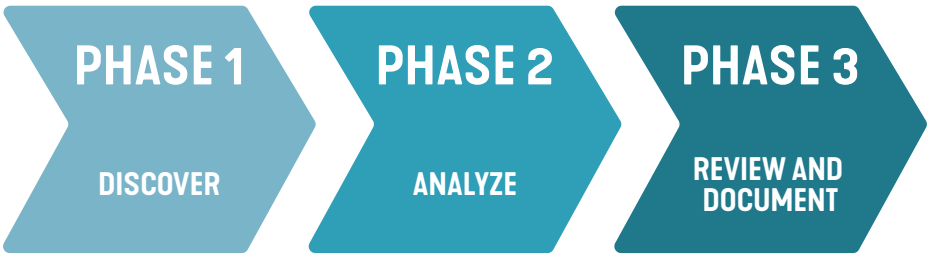
The purpose of this study is to fulfill the requirements of Ch. SB 2500, Laws of Florida, found in Specific Appropriation 2754, passed during the 2019 session of The Florida Legislature. The Legislature has requested that SmithGroup conduct a comprehensive review of capital outlay facilities space at Florida's 12 state universities pursuant to 2019 Florida Statutes, Title XLVIII K-20 Education Code, Chapter 1013 Educational Facilities, Section 1013.31 Educational Plant Survey; Localized Need Assessment, PECO Project Funding. The review is restricted to Education and General (E&G) space. The relevant portion states as follows:

> *From the funds in Specific Appropriation 2754, the Office of Program Policy Analysis and Government Accountability is directed to contract with an independent third party consulting firm to conduct a review of the processes used to determine capital outlay facilities space needs of state universities and Florida colleges pursuant to s. 1013.31, Florida Statutes. The review shall evaluate whether state-level processes and those used by individual institutions are consistent with the institution's overall mission, and support state-level goals. The review shall examine space and utilization factors to determine whether they accurately reflect deficits or surpluses of each type of space and result in the most efficient and effective use of space. The review shall also assess the extent to which each institution efficiently and effectively utilizes its current space. The final report shall present the consultant's findings and make specific recommendations to improve the processes used to identify capital outlay projects for state funding, identify any changes or alternatives to ensure that current space and utilization factors represent optimum space requirements, and describe how each institution could use its current space more efficiently and effectively. OPPAGA shall submit the final report to the chair of the Senate Appropriations Committee and the chair of the House of Representatives Appropriations Committee by November 15, 2019.*

RESEARCH QUESTIONS

In accordance with Specific Appropriation 2754 in Ch. SB 2500, Laws of Florida, SmithGroup conducted a comprehensive review of capital outlay facilities space at Florida's 12 state universities pursuant to s. 1013.31, Florida Statutes. The contract document detailed specific research tasks that SmithGroup was required to address in its review. These tasks are summarized into the four broad categories below.

1. Whether the processes used by individual institutions are consistent with the institution's overall mission and support state-level goals;
2. Whether state-level processes support state-level goals;
3. Whether currently used space and utilization factors accurately reflect deficits or surpluses of each type of space and result in the most efficient and effective use of space and,
4. The extent to which each institution efficiently and effectively utilizes the following space types: classrooms, teaching laboratories (vocational and academic), office, study, and research laboratories.



METHODOLOGY

SmithGroup conducted the study in three general phases: Discover, Analyze, and Review and Document. The process was structured to investigate the intended four research tasks:

1. Evaluate whether the processes used by individual institutions are consistent with their overall missions and support state-level goals.
2. Evaluate whether state-level processes support state-level goals.
3. Examine space and utilization factors to determine whether they accurately reflect deficits or surpluses of each type of space and result in the most efficient and effective use of space.
4. Assess the extent to which each institution efficiently and effectively utilizes the following space types: classrooms, teaching laboratories (vocational and academic), office, study, and research laboratories.

PHASE 1: DISCOVER

SmithGroup commenced the Discover Phase with the *Office of Program Policy Analysis and Government Accountability* (OPPAGA) to establish the research objectives, investigate existing campus conditions, collect and review relevant information from the Board of Governors, and ascertain key issues. This phase included:

- Onboarding with OPPAGA: SmithGroup met with OPPAGA staff in late September 2019 to clarify research study expectations; establish project milestones, campus visits, and meeting dates, deliverables, early priorities; and, identify points of contact at the Board of Governors and at each university who facilitated data collection and scheduled meetings at each university.
- Board of Governors Staff: SmithGroup met with Board of Governors staff in late September 2019 to understand availability of data sets; understand methodologies currently used to calculate utilization and model space projections; explore the goals and expectations of the Board of Governors for this review study; and, understand their assessment of the current process and their goals for the capital outlay process.
- Document and Data Request, Review, and Collection: Throughout September, October, and November, SmithGroup collected and reviewed publicly accessible documents such as strategic and academic plans, educational plant surveys, accountability plans, enrollment projections, and space management policies. SmithGroup assembled data about each university from external sources from National Center for Education Statistics and the National Science Foundation. SmithGroup requested significant data from the Board of Governors regarding facilities, coursework, staffing, and enrollment projections. SmithGroup requested additional data from every university regarding capital outlay processes, enrollment projection methods, and research activity. SmithGroup examined the completeness, accuracy, and reliability of the data and corrected it in concert with the Board of Governors and each university.

PHASE 2: ANALYZE

SmithGroup addressed the four specific research tasks concurrently. In support of these research tasks, this phase included:

- Online Survey: Throughout October 2019, SmithGroup conducted a pre-interview online survey with every university that asked questions about capital planning processes and space management practices.
- Interviews: SmithGroup interviewed the administrative leadership at every university during October 2019. For seven universities, SmithGroup interviewed university representatives via multiple hour telephone calls. For five universities, these interviews occurred on campus. The interviews focused on the four research tasks and the university leaders expressed their concerns and suggestions about the capital outlay process.

- Case Studies: To understand the specific capital outlay process for five case study projects, SmithGroup interviewed university officials at five universities about five recent projects.
  - Florida A&M University, Pharmacy Building Phase II (completed FY 2015–2016), interviewed October 1
  - Florida Gulf Coast University, Innovation Hub Research (completed FY 2014–2015), interviewed October 16
  - Florida International University, Student Academic Support Center (completed 2014–2015), interviewed October 17
  - Florida State University, Earth, Ocean & Atmospheric Science Building (under construction), interviewed October 1
  - University of South Florida St Petersburg, Business School Phase 1 (completed FY 2015–2016), interviewed October 15
- Capital Outlay Process Analysis: SmithGroup assessed the alignment of capital project requests with space needs assessments, the consistency with role and mission, and their alignment with both university-level and state-level goals. SmithGroup also evaluated if the processes used to develop the capital outlay programs consider such alignment in selecting and prioritizing capital projects.
- Capital Planning Process Flow Diagrams: SmithGroup prepared capital outlay process diagrams that explained the typical outlay process and those used at each university and the Board of Governors.
- Enrollment Projection Analysis: SmithGroup assessed the accuracy of the enrollment projection processes through an analysis of Accountability Plans/Work Plans.
- Current and Alternate Space Formulas and Utilization Factor Analysis: SmithGroup created space models for all 12 universities to understand current Board of Governor space factors and their relationship to national best practices and SmithGroup experience. The considered E&G uses were classrooms, class laboratories, research laboratories, offices, and study spaces. SmithGroup adapted the space models for all 12 universities to test alternative space formulas and utilization factors.
- State System Benchmarking: SmithGroup benchmarked the space formulas and utilization factors from more than five state university systems and compared their values and processes with Florida's system.
- Space Management Best Practices: SmithGroup surveyed the 12 universities regarding their adoption of best space management practices.
- Space Utilization Analysis: SmithGroup modeled the existing space utilization of classrooms, class laboratories, research laboratories, offices, and study spaces. SmithGroup then modeled improved utilization assuming the incorporation of best space management practices.

PHASE 3: REVIEW AND DOCUMENT

- SmithGroup integrated the four research tasks of Phase 2 into a series of sound, well-documented conclusions on the state-level and university-level processes used to determine capital outlay facilities space needs of state universities and on each university's utilization of existing facilities space.
- Current Conditions Analysis Review with Universities: SmithGroup shared interim analysis of existing space needs and space utilization with university representatives for their review and concurrence.
- Report Outline: SmithGroup submitted to OPPAGA a Report Outline on November 15. SmithGroup integrated OPPAGA suggestions into the Report Outline.
- Draft Report: SmithGroup submitted the Draft Report on November 25. SmithGroup integrated OPPAGA suggestions into the Draft Report.
- Final Report: SmithGroup submitted the Final Report on December 18.

CHAPTER 2

EXECUTIVE SUMMARY

CHAPTER 2: EXECUTIVE SUMMARY

This summary condenses major findings and recommendations of each chapter in a consolidated narrative format. See the remainder of this report for supporting data and analyses. In general, SmithGroup found that:

- University capital outlay processes are sound and produce projects in line with institutional and statewide needs.
- The Board of Governors can play a role to coordinate enrollment management throughout the system to leverage existing capacity and reduce capital needs.
- The one-size-fits-all model for projecting spaces within the Educational Plant Survey needs does not accurately reflect the diversity of institutional categories, roles, and missions. The space needs model also does not adjust to account for an institution's strategic goals, such as reducing its faculty-to-student ratio. Furthermore, the space model within the Educational Plant Survey underestimates classroom space need per student.
- Other factors are as or more important than space needs when identifying and prioritizing capital needs. For example, the nearly $1 billion backlog on ten campuses to address failed and failing building systems that was reported in 2017.[1] Therefore, the capital planning process should be modified to include consideration of other capital needs related to factors such as age of building, facility condition, and suitability of the facility for programmatic needs. National organizations such as the National Association of College and University Business Officers and APPA (the leading national organization of facilities management professionals) have recognized these factors. An APPA publication on strategic capital planning identifies four major categories of capital needs according to their drivers: (1) Space Capacity; (2) Facility Quality; (3) Special Facilities; and, (4) Infrastructure, Campus Environment, and Sustainability. Focusing solely on Space Needs/Capacity does not provide a full picture of needs.
- The characteristic institutional strategic goals, roles, and missions should have greater influence within the capital planning process, as there is great diversity of institutions within the state. When the Board of Governors is more involved in both the institutional strategic planning and campus master planning, it will have a greater understanding of institutional needs. The alignment of projects with these plans should then be more strongly considered as part of the prioritization process.
- Universities are largely utilizing their instructional space well. However, universities do not widely analyze or report classroom, teaching laboratory, and research laboratory utilization, and thus it is not a part of the capital outlay planning process. There are opportunities for improving space efficiencies and standards, and the Board of Governors can play a role to promulgate these improvements.

1 Sightlines, State University System of Florida, ROPA+ Presentation, October 2017

SUMMARY OF CHAPTER 3: UNIVERSITY PROCESSES

Capital outlay processes at each university should recommend projects that support each university's mission and statewide and SUS goals. When university-level capital outlay processes support the university's mission and statewide goals, the State maximizes its return on the investment on projects that fully advance the State's ambitious higher education goals and aspirations.

SmithGroup found that state-level goals for the State University System and its governing board are clearly identified, and there is strong alignment between the State's goals and institutional missions and goals. The institutions understand the role of the Board of Governors, and all universities support the state-level goals. University administrators involved in the capital outlay process have a clear understanding of mission and strategic goals on both the institutional and state levels. Institutional type is clearly defined in all guiding documents and clearly articulated in the capital outlay requests. Capital outlay procedures at each university recommend projects that support the university's mission along with supporting State goals. Not following Board of Governors procedures results in projects not advancing in the funding process.

SmithGroup found a strong alignment with institution-level goals, state-level goals, and a direct correlation to capital outlay process. The universities have conducted a concerted effort to work with the Board of Governors staff, Board of Governors members, University Trustees, and legislators to understand and meet the State of Florida's higher education needs.

SmithGroup identifies opportunities for improvement and recommends the following policy and process changes to strengthen current capital outlay process:

- **Through legislative changes, the Legislature should increase the involvement of Board of Governors staff in the master planning phase and program planning phase.** Campus master plans play a key role in bridging an institution's strategic plan with implementation and capital project planning. The program planning phase identifies room-level space needs for a particular project and represents an opportunity to drive efficiencies in space planning. These changes in the roles of Board of Governors staff would require that additional resources be allocated to Board of Governors staff.
- **Allow more flexibility for Preeminent universities.** Preeminent universities feel the capital prioritization procedures prescribed by Board of Governors do not provide sufficient flexibility even though the Board of Governors has an appeals process. A separate or more flexible prioritization process for Preeminent universities would overcome many of the concerns of senior leaders at these universities. Consider capital outlay requests in the context of national competition.
- **Reduce data requests or tailor data requests to the mission of the university.** The Board of Governors should develop a process that requires less data or should better tailor their data requests to the profile of the university. Reduce the overall data provision requirement by coordinating Board of Governors data request with Southern Association of Colleges and Schools re-accreditation procedures.
- **Reassess the capital planning process.** Overall, the universities desire the process be streamlined. The institutions comply with the Board of Governors process but feel that the process needs a major overhaul or minimally needs to be streamlined to make a more efficient and effective process.
- **Carefully indicate preferred project types.** Any prioritization scoring process has inherent preferences. To more accurately determine the highest capital needs of the universities, the Board of Governors should carefully allocate prioritization points to preferred types of projects in order not to distort the university prioritization process.

SUMMARY OF CHAPTER 4: STATE PROCESSES AND STATE-LEVEL GOALS

The capital outlay processes within the Board of Governors should result in recommended projects that support the State's goals, such as the Board of Governors Strategic Plan and the Governor's higher education plans. When the Board of Governors processes result in project recommendations that fully support State goals, the Legislature can confidently use the Board of Governors prioritized list and fund the projects on it. When the Board of Governors processes do not appear to support the State goals, the Legislature may not consider the Board of Governors prioritized list to be a credible listing of the State's highest priorities, or the Legislature may not be aware of other project opportunities that would more fully meet State goals.

The Board of Governors is involved both indirectly and directly in the entire capital outlay process, from the preparation of the Educational Plant Survey through the submittal of the Public Education Capital Outlay and Debt Service Trust Fund List to the Legislature, except for master planning and program planning. The process is data-driven, vision-driven, and defensible. The prioritized projects that emerge from the Board of Governors directly pursue state-level goals.

However, the ultimate funding decisions are often not related to the university-level and the Board of Governors-level capital planning process. The process itself frustrates many universities, and SmithGroup has determined that it does not meet the goals for a process that is flexible, tailored to university needs, transparent, and equitable.

SmithGroup identifies opportunities for improvement and recommends the following process changes to strengthen current capital outlay process:

- **The Board of Governors should consider more the university's strategic and master plans.** The Board of Governors should increase the importance of the alignment of proposed projects with university strategic and master plans in the project prioritization process and reduce the importance of scoring based on the space needs.
- **The Board of Governors should evaluate and prioritize projects regarding both statewide and institutional goals**. Board of Governors prioritized projects should promote not only State strategic goals, but also university strategic goals. The goals of universities are as varied as the universities themselves, and that allowance variety should be considered within the state-level processes. For example, a Regional and Statewide institution may have a greater need to focus on instructional and study space, while a Preeminent university may need to focus more strategically on research and development.
- **The Board of Governors should review other state processes to consider best practices that could be incorporated into the SUS capital outlay process.** Given the widespread frustration with the current process, SmithGroup recommends reviewing systems across the country that have completed their own internal reviews and have developed more effective processes. Effective best practices can be learned from the state-level processes in several state university systems.
- **The Board of Governors should pause the listing of new projects in the current system and collaborate with the universities to review and incorporate the best practices from other states**. University leaders and Board of Governors staff agree that the current capital outlay process should be re-examined and national best practices should be incorporated.

SUMMARY OF CHAPTER 5: SPACE FORMULAS AND UTILIZATION FACTORS

SECTION 5.1: PROCESSES USED TO ESTABLISH FULL-TIME EQUIVALENT PROJECTIONS

The universities prepared student full-time equivalent enrollment projections that were relatively accurate when forecasting two to three years in advance. There was greater variability in the four to five year projections, though it could not be determined if the improvement seen in the two to three year forecasts was due to changes in forecasting methodology or greater stability in the market place. It was noted that there are differing degrees of sophistication at the universities in modeling forecasts among the institutions.

Using population projections from the Office of Economic and Demographic Research, a research arm of the Legislature, and current university participation rates, an additional 26,000 resident Florida students ages 18 to 24 could be anticipated to be enrolled in four-year institutions by 2030.

SmithGroup identifies opportunities for improvement and recommends the following process changes to strengthen current capital outlay process:

- **The Board of Governors should review and evaluate enrollment projections.** Given that the cycle for completing individual capital projects can be five years or more, the length of time when enrollment projections have been less accurate, the Board of Governors should engage the institutions in more detailed discussions about and evaluations of enrollment projection methodologies, especially for capital projects requests that are driven by projected capacity needs.
- **Reassess the five-year FTE enrollment projection methods.** Greater scrutiny and discussion of institutional five-year projections would be worthwhile.
- **The Board of Governors should coordinate enrollment management to reduce need for new space.** The State would benefit from a system-level coordination of enrollment growth plans and the development of approaches to accommodate the 10% resident population increase forecast for 18 to 24 year olds by the Office of Economic and Demographic Research. A coordinated approach could maximize existing surplus space capacities and minimize the need for capital investment. The Board of Governors should take a new stronger role in managing enrollment growth across the State University System of Florida. The Board of Governors should develop a coordinated approach among the enrollment management administrators across the universities to optimize the use of existing capacity and potentially reduce the need for new space driven by enrollment growth. However, it should be noted that other capital needs driven by poor facility conditions, deferred maintenance, and programmatic suitability would still need to be addressed at all universities.

SECTION 5.2: SPACE NEED FORMULAS AND UTILIZATION FACTORS

Universities are no longer required to follow the State Requirements for Educational Facilities (SREF, 2014) space guidelines, since the creation of the Board of Governors by constitutional amendment, though there are misperceptions about this at the university-level. The Board of Governors is therefore free to establish more effective space guidelines.

The Educational Plant Survey should be more flexible and consistent. The Educational Plant Survey process is robust and positive in that it provides oversight from other universities. However, some institutions expressed concerns that the five-year cycle is not sufficiently flexible for more frequent updates and that data can be reported inconsistently among universities, such as for Education and General (E&G) and Contracts and Grants (C&G) space.

The one-size-fits-all model for projecting spaces within the Educational Plant Survey needs does not accurately reflect the diversity of institutional categories, roles, and missions. The space needs model also does not adjust to account for an institution's strategic goals. For example, if an institution is focused on smaller class sizes or hiring additional research faculty, this is not considered when office space need is calculated. Furthermore, the space model within the Educational Plant Survey underestimates classrooms space need per student. The space needs for office and research laboratory space are indirectly calculated.

The inflexibility of the space needs assessment model has had unintended consequences at the project planning level. For example, if a space model indicates a surplus of office space on a campus, then a new construction project is not permitted to include offices in its space program, which can create programmatic inefficiencies and operational issues.

The current space model only recognizes one driver of capital needs—student full-time equivalent enrollment—among several potential others. Capacity for growth is a valid driver of need, but so are facility age and condition, quality, deferred maintenance, special needs, and the suitability of the facility to accomplish programmatic goals. For example, the State University System of Florida repair backlog was estimated at nearly $1 billion in 2017.[2] The current model does not include evaluation of deferred maintenance issues. The Board of Governors does not assess facility condition and suitability.

The date of occupancy recorded indicates that over half of all university buildings are 25 years or older, which is significant because most major buildings systems, such as mechanical and roofing, have a useful life of 25 to 30 years. The Board of Governors does not currently collect data on the age and condition of buildings, though some states like Texas do.

Greater accuracy in the assessments of space needs is possible, but would require greater complexity and additional supportive data, which in turn requires more university effort to produce. It is also important to note that assessments of space needs are not always indicators of efficiency and effectiveness. The process should be expanded to include discussion of these issues during master planning and project program planning.

The Board of Governors does not require the reporting of instructional space utilization and therefore does not consider it when evaluating projects. Other state university systems such as Texas, Tennessee, Virginia, and North Carolina require reporting of utilization for classrooms and teaching laboratories.

2 Sightlines, State University System of Florida, ROPA+ Presentation, October 2017

SmithGroup identifies opportunities for improvement and recommends the following process changes to strengthen current capital outlay process:

- **The Board of Governors should clarify that universities may establish more effective space guidelines than those found in State Requirements for Educational Facilities (SREF, 2014) and promote space saving standards.** The Board of Governors should promulgate more effective and progressive space guidelines than those found in SREF. Universities should adopt newer, progressive replacement space standards that promote flexibility, multi-purpose, and shared-use and activity-based design principles, which allocate space according to functional need rather than employee position or title.
- **The Board of Governors should craft space needs formulas and utilization factors for each university.** The great diversity of institutions with differing roles, missions, student profile, and strategic goals are not well served by a single set of space factors. The linear regression analysis did not generally indicate a strong correlation between space metrics and size of institution. Therefore, formulas and factors characteristic of the mission and program mix of each university would provide the most accurate space needs assessment. This recommendation will likely require that the Legislature allocate more resources to the Board of Governors.
- **The Board of Governors should revise its utilization factors and space formulas to better model actual space needs.** The Board of Governors space formulas and methodologies should be adjusted to better align with standard practices and methodologies. The Board of Governors should change the classroom space factor to more accurately reflect the need for classroom flexibility. For the other E&G space categories, the Board of Governors should consider forming a systemwide study group to evaluate alternate space needs metrics that seek the right balance between complexity and accuracy and that better reflect the needs of each diverse university.
- **The Board of Governors should encourage the optimization of existing space.** The Board of Governors should help institutions focus on optimizing existing space by facilitating the sharing of best practices and encouraging campus-level space studies. In interviews, two institutions reported that they had engaged third party consultants to prepare campus-level space studies.
- **The Board of Governors should consider beyond space needs.** To evaluate efficiency and effectiveness, the evaluation of space needs and practices should be expanded to consider other factors such as utilization rates, efficiency measures, and space management practices. Therefore, the universities should collect, monitor, and report data on the age, condition, and suitability of facilities and on the utilization of instructional and research spaces. Such efforts would require funding of additional resources to collect and report this additional data.

SUMMARY OF CHAPTER 6: SPACE MANAGEMENT PRACTICES AND SPACE UTILIZATION

Universities are utilizing their classrooms well across the system. Six universities met or exceeded the recommended utilization target.

However, most campuses have a low square footage per student station metric, indicating that many of the classrooms are very traditional and highly inflexible, pointing to a corresponding need for renewal and configuration. The Preeminent and Emerging Preeminent universities had the least flexible space. Newer campuses such as Florida Gulf Coast University and Florida Polytechnic University have higher square footage per student station metrics, indicating more flexible and contemporary learning environments.

While the amount of classroom space may be adequate, the configuration of that space may not be supportive of institutional strategic goals such as smaller class sizes. There may be a mismatch between the classroom inventory and section sizes desired to achieve performance metrics.

Teaching laboratory utilization was mostly in line with expected targets with some exceptions which merit further study. However, strong demand in STEM and healthcare fields could place undue pressure on teaching laboratories in the sciences going forward into the future. Since teaching laboratories are not interchangeable (language laboratories cannot be used for chemistry laboratories, for example), the focus on STEM instruction could create demand which outstrips supply for STEM laboratories.

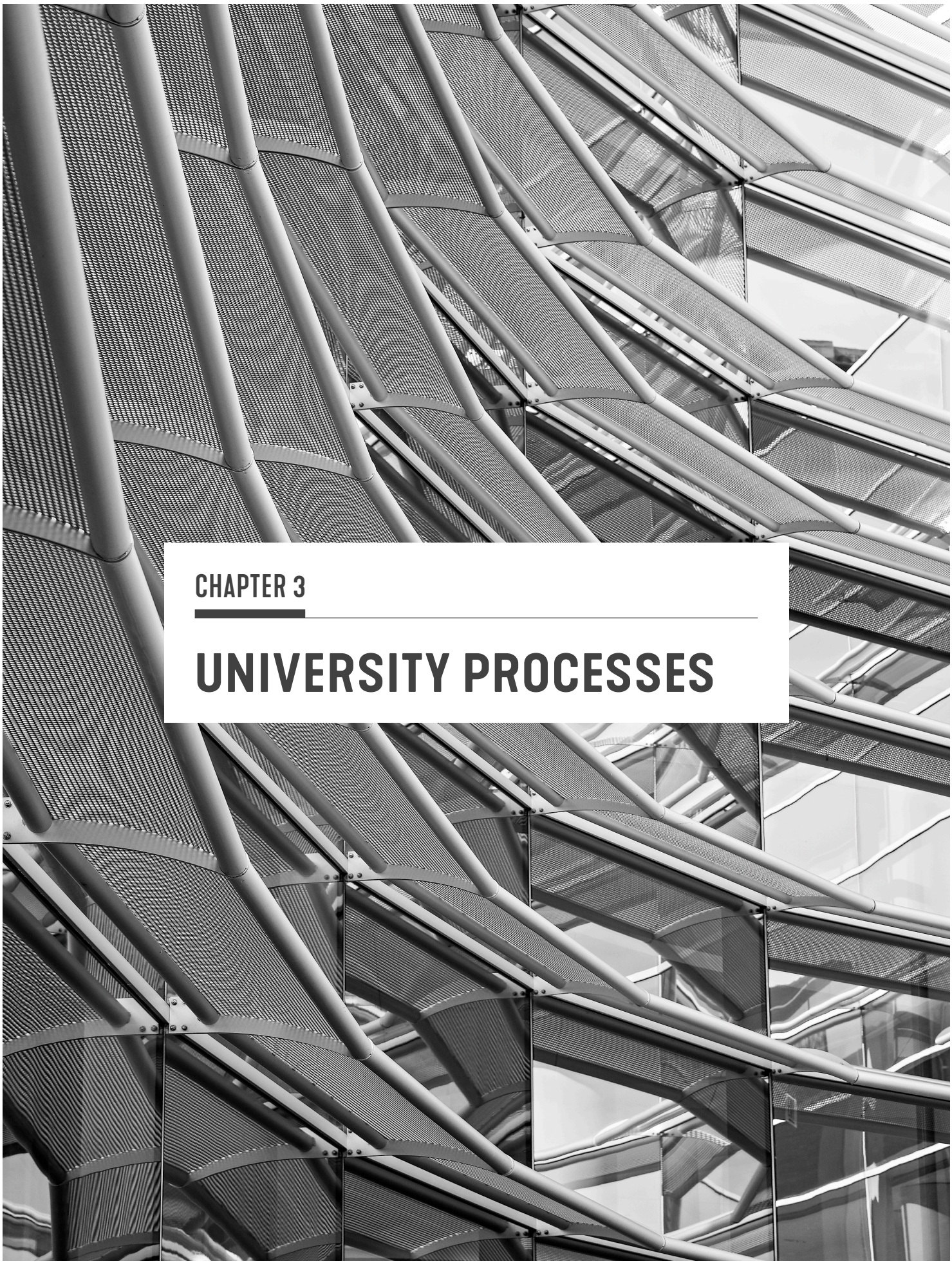
Office sizes and utilization seemed mostly in line with expected targets. Larger research (Preeminent) universities tend to have more space per faculty and staff full-time equivalents since faculty research offices have traditionally been larger to provide meeting space with graduate students. However, universities with older, legacy buildings suffer from having an office inventory built to out-of-date size standards. Therefore, adequate space may exist but not in the proper configuration. This becomes especially problematic when a university's strategic plan seeks to reduce class size and increase research space by hiring hundreds of faculty.

Study space appears adequate. Productivity of research space varied considerably, and few universities reported tracking any utilization metrics. The modified space guidelines indicate a need for additional research laboratory space.

Universities are increasingly focused on space management practices, but opportunities remain to improve space utilization, in terms of technology, policies, and procedures. Two universities – Florida Gulf Coast University and New College of Florida – reported not using software applications to track space inventories. Many reported having some level of policies and procedures, but they did not seem to focus resources on identifying and implementing projects to improve utilization. Such efforts would require allocation of additional university resources.

SmithGroup identifies opportunities for improvement and recommends the following process changes to strengthen current capital outlay process:

- **The Board of Governors should calculate utilization metrics for instructional space.** The Board of Governors should use available data or require that the individual institutions report utilization metrics. This will require additional resources.
- **The Board of Governors should require minimum utilization rates in addition to space needs when prioritizing capital outlay projects.** The evaluation of space needs and practices should be expanded to consider other factors such as adopted space management practices, space utilization rates, and other efficiency measures. In particular, research space is expensive to build, own, and operate. Therefore the Board of Governors should evaluate the functionality and utilization of existing research space as a condition for capital funding new research space. This will require additional resources.
- **The Board of Governors should explore and disseminate best practices regarding space management.** The Board of Governors should facilitate statewide meetings with all 12 institutions focused on sharing best practices for space optimization. This may require some additional resources.
- **All universities should employ space management software applications to maintain the space inventory records and resources to analyze utilization.** The Board of Governors should require all universities to employ space management software applications to maintain their space inventory. This will require additional resources for some institutions.
- **Universities should more widely adopt effective space management practices for classrooms and class laboratories.** Universities should investigate the adoption of more effective classroom and class laboratory space management practices. They should:
  - Adopt space policies and procedures to value space as an asset to be allocated according to strategic priorities and used efficiently and effectively
  - Invest in space management software to manage space and resources to analyze utilization
  - Monitor utilization performance, including research productivity
  - Centrally scheduling classrooms and teaching laboratories by the registrar (with possible first right of refusal by departments for classroom space) to optimize use of instructional space
  - Schedule standardized time blocks to maximize efficiency
  - Coordinate hybrid courses to share a single classroom in complementary manner
  - Require departments to schedule outside of "prime time".
  - Provide incentives for off-hour class times, such as additional stipends for faculty or tuition discounts for students
- **Universities should more widely adopt effective space management practices for offices.** Since offices represent the single largest category of space on the campuses, universities should investigate the adoption of more effective office space management practices. Universities should offer incentives for faculty and staff to work remotely or share offices and adopt policies which require part-time staff share offices.
- **Universities should more widely adopt effective space management practices for research laboratories.** Universities should investigate the adoption of more effective research laboratory space management practices. Universities should develop policies, procedures, and productivity metrics regarding research lab space assignment and use.



CHAPTER 3

UNIVERSITY PROCESSES

CHAPTER 3: UNIVERSITY PROCESSES

Capital outlay processes at each university should recommend projects that support each university's mission and statewide and SUS goals. When university-level capital outlay processes support the university's mission and statewide goals, the State maximizes its return on the investment on projects that fully advance the State's ambitious higher education goals and aspirations.

SmithGroup found that state-level goals for the State University System and its governing board are clearly identified, and there is strong alignment between the State's goals and institutional missions and goals. The institutions understand the role of the Board of Governors, and all universities support the state-level goals. University administrators involved in the capital outlay process have a clear understanding of mission and strategic goals on both the institutional and state levels. Institutional type is clearly defined in all guiding documents and clearly articulated in the capital outlay requests. Capital outlay procedures at each university recommend projects that support the university's mission along with supporting State goals. Not following Board of Governors procedures results in projects not advancing in the funding process.

SmithGroup found a strong alignment with institution-level goals, state-level goals, and a direct correlation to capital outlay process. The universities have conducted a concerted effort to work with the Board of Governors staff, Board of Governors members, University Trustees, and legislators to understand and meet the State of Florida's higher education needs.

SECTION 3.1: STATE-LEVEL GOALS

FLORIDA'S STATE UNIVERSITY SYSTEM

The State of Florida offers a very diverse system of higher education. This diversity has been a theme for decades and reflects the composition of the state, as well as the diversity of the learning environments offered in Florida's institutions. The system has consistently ranked high in national academic metrics. Florida has three Preeminent universities and the University of Florida is a member of the prestigious Association of American Universities (AAU).

By establishing institutions with missions to meet the student on their level of interest and ability, the State of Florida has provided its students multiple options. For example, at the New College of Florida and Florida Polytechnic University, there is a diversity in pedagogical offerings. There is ethnic diversity at Florida International University and Florida Agricultural & Mechanical University. Student academic support is a focus at University of West Florida and University of North Florida.

This diversity has created a robust academic enterprise. Higher education is a rapidly evolving industry; arguably one of the fastest changing of all industries in our country. The Board of Governors recognizes this fact and has worked hard to establish goals and criteria for the 12 universities, which serve over 400,000 students. The SUS has a long history of comprehensive planning dating to 1905 with the Buckman Act.

VISIONS, MISSION, AND ACCOUNTABILITY

Shortly after the establishment of the Florida Board of Governors in 2002, the 2005 Strategic Plan was adopted. The format of goals, distinctive mission, optimum structures, and accountability reporting are the foundation for this and future plans.

Consistent themes and language are used in all the plans and amendments since then. For example Goal I from the 2005 Strategic Plan states: "The Board has established specific, measurable goals related to: access to and production of degrees, meeting state professional and workforce needs, and building world-class academic programs and research capacity, while defining and approving university missions that meet community needs and fulfill unique institutional responsibilities."

The SUS Board of Governors 2025 System Strategic Plan updates the university system's tripartite mission around three key themes—Teaching and Learning, Scholarship, Research and Innovation, and Community and Business Engagement. The System Strategic Plan further states three points of emphasis that will help meet these goals—Excellence, Productivity, and Strategic Priorities for a Knowledge Economy.[1]

The establishment of a clear vision, with goals, mission, and performance indicators is a common thread in all System Strategic Plans. The Board of Governors measures and monitors institutional progress in meeting the performance indicators. The performance indicators are the feedback loop for achieving the SUS vision and goals. The designated programs of strategic emphasis is not static and is updated periodically to reflect the changing needs of Florida. Higher education is a rapidly changing industry, and current programs include Science, Technology, Engineering and Math (STEM), Health, and global competitiveness.

These goals and others recognize that higher education should be nimble to satisfy the goal of producing educated graduates with skills to compete in the workforce. The 2025 System Strategic Plan states that by reviewing the progress of these goals, SUS is more productive and strategic. The chart below displays the priorities of the SUS.

STATE UNIVERSITY SYSTEM GOALS	EXCELLENCE	PRODUCTIVITY	STRATEGIES PRIORITIES FOR A KNOWLEDGE ECONOMY
TEACHING & LEARNING (Undergraduate, Graduate, and Professional Education)	Strengthen Quality and Reputation of Academic Programs and Universities	Increase Degree Productivity and Program Efficiency	Increase the Number of Degrees Awarded in STEM and Other Areas of Strategic Emphasis
SCHOLARSHIP, RESEARCH, AND INNOVATION	Strengthen Quality and Reputation of Scholarship, Research, and Innovation	Increase Research and Commercialization Activity	Increase Collaboration and External Support for Research Activity
COMMUNITY AND BUSINESS ENGAGEMENT	Strengthen Quality and Reputation of Commitment to Community and Business Engagement	Increase Levels of Community and Business Engagement	Increase Community and Business Workforce

1 *State University System of Florida Board of Governors 2025 Strategic Plan, amended March 2016. The 2025 System Strategic Plan amended October 2019 was not used in this analysis.

SmithGroup compared the 12 institution's strategic plans, goals, mission statements and master plans for alignment with the SUS vision and goals. All 12 institutions have a process in place to develop and refresh these guiding documents. The process typically engages a committee structure of members of the academy, key staff members, and the leadership of the university. Often additional information is included such as core values, strengthening financial foundation, alumni support, sustainable practices, institutional uniqueness, and points of pride.

Since the establishment of the Board of Governors in 2002 and its 2005 Strategic Plan, institutions have developed strategic plans, goals, and mission statements to support the guiding principles of the SUS vision. It should be noted that no documents are developed in a vacuum. The institutions support the SUS and the SUS supports the institutions. There is a symbiotic relationship between the goals and advancing higher education in Florida. SmithGroup was limited by time and scope to definitively say how interactive the two processes are, but it is clear a great deal of communication occurs among leadership at the universities, the SUS Chancellor, and Board of Governors members.

SECTION 3.1 CONCLUSIONS

SmithGroup found that state-level goals for the State University System and its governing board are clearly identified.

SECTION 3.1 RECOMMENDATIONS

None

SECTION 3.2: INSTITUTION-LEVEL MISSIONS AND STRATEGIC GOALS

INSTITUTIONAL UNDERSTANDING OF THE BOARD OF GOVERNORS' STRATEGIC GOALS

In interviews, SmithGroup found strong alignment between the State's goals and institutional missions and goals. The institutions understand the role of the Board of Governors, and all universities expressed support for the State-level goals. In interviews, all universities reported to SmithGroup that there is a balance between university autonomy and governance with the Board of Governors' role. As stated above, the communication concerning instructional goals and SUS vision and goals appears strong and frequent. In SmithGroup interviews, presidents and provosts shared that they had conversations with Board of Governor members, legislators, and senior members of the Board of Governors staff. Senior staff at universities relayed they are in constant contact with their counterparts in the Board of Governors office. Legislative liaisons expressed the same level of communication with legislative officials. All this communication points to understanding and alignment of goals and objectives. There is little room for misinterpretation of the Board of Governors' goals.

INSTITUTIONAL GOAL FORMULATION AND CAPITAL OUTLAY

SmithGroup compared the 12 institution's strategic plans, goals, mission statements, and master plans for alignment of the State's goals as it relates to capital outlay request. All plans have embedded themes and threads of the SUS vision and goals including performance indicators and other metrics. The Alignment of University Type, Mission, Goals, and Capital Projects matrix on pages 26-31 demonstrates the alignment of each university's mission, strategic goals, type of institution, and recent capital outlay requests.

Additionally, the Southern Association of Colleges and Schools Commission on Colleges (SACS COC) require these same documents. All of Florida's 12 universities are accredited by SACS and therefore produce these documents as part of accreditation and re-accreditation. SACS has divided the criteria for accreditation into 14 sections. All sections have application to this question, but Section 2, Mission; Section 4, Governing Board; Section 7, Institutional Planning and Effectiveness; Section 12, Academic Student Support Services; and, Section 13, Financial and Physical Resources have direct application. These sections specifically address SUS's capital outlay process as it relates to mission, goal formulation, accountability metrics (SACS term is Quality Enhancement Plan or QEP), buildings, and grounds that provide the physical support to the academic offerings.

The universities were established by an act of the legislature with specific missions in mind. For example, University of Florida and Florida Agricultural and Mechanical University are land grant universities. With their mission at the forefront of the institution's existence, by definition, capital outlay requests must support the mission. All this planning and accountability further reinforces alignment with SUS vision and goals. Universities use a five- or ten-year cycle to refresh the institution's strategic goals. SmithGroup found that capital outlay requests go through a rigorous process that ensures alignment with mission, SUS vision and goals, and SACS accreditation guidelines that are consistent with institutional type.

MASTER PLANNING AND ALIGNMENT

The master plan is another instrument used to ensure alignment of State goals and capital requests. The importance of a master plan document cannot be overstated. Buildings are a physical manifestation of the strategic and academic plans. Building size, function, adjacency, and support to the existing campus buildings are determined through the master planning process. The master plan serves as a guide for the university leadership, supports decisions that senior leadership makes, and further assures compliance to mission. Capital outlay requests are 50 or more year decisions and can have profound impact to the campus and the institution. Master plans assure smart building and good capital outlay decisions. In SmithGroup's survey, 10 of 12 universities responded that they integrate the Educational Plant Survey into their master plan, which reflects the importance placed on the master plan.

Placement of buildings in the fabric of campus is critical in supporting the concept of the outlay request. University officials for all five case studies and officials at several other interviewed universities told SmithGroup that the building location supported their mission. Examples are Florida International University's Academic Support Center and Florida State University's Earth, Ocean & Atmospheric Science Building.

- Florida International University's Academic Support Center has become a physical gateway to the campus and functions as an academic support bridge on a campus that boasts 67% first generation college students. The support center functions reduce dropout rates, increase GPA, and provide dozens of programs aimed at supporting an underserved population. The director of the Academic Support Center told SmithGroup the building's architecture and location indicates "you have arrived at college."

- Florida State University's Earth, Ocean & Atmospheric Science Building is located among existing science buildings. This location will support similar fields of science, advance the research mission of Florida State University, provide badly needed teaching laboratories, and set up a system of swing space for renovation of aged buildings in proximity. These examples are only two but illustrate so many of the SUS goals and alignment with mission.

FLORIDA'S INSTITUTIONAL CLASSIFICATION AND DIVERSITY OF STRATEGIC PLAN GOALS

To pursue the SUS goal of Excellence, the Board of Governors identified university preeminence as one of three pillars of excellence. The Board of Governors has established a four-tiered system of institutional classification. The classification system is based on the ability to meet 12 metrics, including graduation rates, student retention rates, research expenditures, and the number of patents awarded.

1. Preeminent universities must meet at least 11 of 12 metrics. They are currently University of Florida, Florida State University, and University of South Florida.
2. Emergent Preeminent universities must meet at least 9 of 12 metrics. They are currently University of Central Florida and Florida International University.
3. Regional universities are currently University of West Florida, University of North Florida, Florida A&M University, Florida Atlantic University, and Florida Gulf Coast University.
4. Mission-specific universities are New College of Florida and Florida Polytechnic University.

Each university's Strategic Plans sets the stage for the capital requests that follow. The Strategic Plans of universities across the institutional classifications demonstrate the diversity of university missions and goals. These four short examples illustrate the different missions and goals among Florida's universities.

- Preeminent: Florida State University 2017–2022 Strategic Plan has six goals or platforms that aim to strengthen existing programs or advance the university. Florida State University's goal is clear—an established institution with a national reputation striving to improve. The introductory page says, "Look around FSU and you will see signs everywhere that this is our breakout moment."
- Emergent Preeminent: Florida International University's 2020–2025 Next Horizon Plan uses three strategic priorities—Amplify Learning Success & Institutional Affinity; Accelerate Preeminence & Research; and Innovation Impact and Assure Responsible Stewardship. Florida International University's vision as stated in their document: "FIU will achieve exceptional student-centered learning and upward economic mobility, produce meaningful research and creative activities and lead transformative innovation locally and globally resulting in recognition as a Top-50 public university."
- Regional: University of West Florida 2017–2022 Strategic Plan uses it Mission/Vision/Values to support the strategic plan with five strategic directions. University of West Florida uses its mission of providing high quality undergraduate and graduate teaching as the driver in the plan and expression of its uniqueness.
- Mission-specific: New College of Florida's 2018–2028 plan Cultivating Curiosity, Unleashing Potential, enumerates its national standing, faculty ratio, graduation rates, and its special place in Florida and the country as an elite Liberal Arts College.

SECTION 3.2 CONCLUSIONS

Florida's universities have a clear understanding of mission and strategic goals on both institutional and state levels. Institutional type is clearly defined in all guiding documents and clearly articulated in the capital outlay requests. Capital outlay procedures at each university recommend projects that support the university's mission along with supporting State goals. Not following Board of Governors procedures results in projects not advancing in the funding process.

SmithGroup survey results show that all institutions use the following factors in their capital outlay requests, either formally or informally:

Educational Plant Surveys	12 of 12
Board of Trustee's Goals	12 of 12
Institutional Strategic Goals	12 of 12

While there is strong alignment among individual institutions' overall missions and strategic goals related to capital projects, the type of institution, and SUS- and State-level goals, there are multiple disconnects in how the SUS- and State-level goals are measured and prioritized.

- **The SUS Strategic Plan is Open to Interpretation.** The universities seek to name and describe their priority capital needs in relation to the SUS Strategic Plan. SmithGroup believes that the SUS Strategic Plan, while a good document for its type, allows for enough interpretations that all capital plans put forward by the universities could fit into one of the strategic plan categories.
- **STEM Goals and Funding and Space Formulas.** The State's goals and the SUS System Strategic Plan emphasize STEM instruction. Yet institutions expressed frustration with the lack of funding for capital projects, particularly for STEM facilities. Not only did the universities feel the funds were inadequate to achieve State goals, such as the STEM initiative, but they felt they were falling behind. Additionally, STEM instruction often incorporates different pedagogical delivery methods, but, as described in Chapter 5, the State and SUS goals for STEM instruction are not fully supported by Board of Governors' space needs formulas.
- **University Uniqueness and One-Size-Fits-All Metrics.** With a few exceptions, all universities from the smallest and newest institutions to the largest feel the uniqueness of their missions are often not weighted enough in the final analysis. This is particularly relevant for the Preeminent universities. The administrative leaders at both Florida State University and University of Florida have felt restricted by the Board of Governors' metrics. The leaders of these Preeminent institutions feel the inflexibility of the Board of Governors' use of metrics to measure the achievement of State-level goals does not reflect their institutional goals for national ranking. Both Florida State University and University of Florida stated that they are competing against national peers and aspirants, however the Board of Governors' space needs metrics do not consider these objectives. The institution's "faculty 500 target" requires hiring 500 new faculty with the target of having 19 students to 1 faculty ratio in the classroom. These universities must provide offices for these newly hired faculty, yet Board of Governors space needs metrics prohibit the universities from requesting funding for new faculty office space. At the same time, the Regional universities need more instructional space and less research space than the Preeminent universities. The Preeminent universities feel their unique position requires a different set of metrics and a less numbers-weighted process in the capital outlay system. However, in response to SB 190, the Board of Governors staff have drafted a new prioritization method for the Board of Governors capital outlay process. This new process is patterned after the Florida College System's process and is more numbers-weighted.

- **High Demands for Data and Return on Investment.** The amount and frequency of data requested by the Board of Governors is costly for institutions to produce and maintain. All universities expressed frustration with the effort necessary to continuously respond to data requests and prepare the key performance measures in Accountability Plans. A Preeminent university president expressed frustration with the Board of Governors data requests — "We are being data requested to death." A Preeminent university CFO noted that the data requested by the Board of Governors is not getting to the real goals of where his institution is heading. If anything, it is inhibiting the progress being made. Additionally, maintaining Preeminent status requires yearly monitoring. There is an actual cost associated with personnel necessary to respond to data requests. Most universities estimated three to five full-time employees collect and report data. Florida Agricultural and Mechanical University said they use as many as three part-time staff to finalize the reports. The university leader expressed that with recent levels of capital funding for higher education facilities that there is little return on the investment of maintaining and reporting data.
- **Master Plan Importance and Board of Governors Review Role.** The universities confirmed that the master plan was a guiding tool in the capital outlay process. Within the master planning process, universities evaluate multiple building locations, update district plans, and reevaluate final placement of requested new buildings. Despite the importance of the campus master plan, the Board of Governors staff has no permitted role in the drafting or review of the master plans. Board of Governors staff only has access to the master plans.
- **Transparency and Flexibility.** The current space model has the unintended effect of forcing changes to new projects that are often counterproductive. For example, a campus may show a surplus of office space due to older legacy buildings with offices that exceed current office space standards, and that surplus will preclude new projects from including office space that is needed for programmatic purposes; this then causes inefficiency by disconnecting office space from the programs they serve.

ALIGNMENT OF UNIVERSITY TYPE, MISSION, GOALS, AND CAPITAL PROJECTS

University	Enrollment (FY 2017-2018 Actual FTE)	Florida Ranking	Carnegie Classification		Characteristic Instructional Method
Florida Agricultural and Mechanical University	9,590 Undergrad 7,644 Graduate 1,947	Regional and Statewide	**Classification** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting:	**Category** Doctoral Universities: High Research Activity Balanced Art & Sciences/professions, some graduate coexistence Research Doctoral: Professional-dominant High undergraduate Full-time, selective higher transfer-in Medium, primarily residential	Land grant Historically Black College or University
Florida Atlantic University	24,920 Undergrad 21,439 Graduate 3,481	Regional and Statewide	**Classification** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting:	**Category** High Research Activity Balanced Art & Sciences/professions, high graduate coexistence Research Doctoral: Professional-dominant High undergraduate Medium full-time, selective, higher transfer-in Large, primarily nonresidential	Multi-campus public research
Florida Gulf Coast University	12,996 Undergrad 12,119 Graduate 877	Regional and Statewide	**Classification** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting:	**Category** Master's Colleges & Universities: Larger Programs Professions plus Art & Sciences, some graduate coexistence Research Doctoral: Single program-Education Very high undergraduate Medium full-time , selective, higher transfer-in Large, primarily residential	Comprehensive institution
Florida International University	46,935 Undergrad 38,534 Graduate 8,401	Emerging Preeminent	**Classification** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting:	**Category** Doctoral Universities: Very High Research Activity Balanced Art & Sciences/professions, high graduate coexistence Research Doctoral: Comprehensive programs, with medical/veterinary school High undergraduate Medium full-time, selective, higher transfer-in Large, primarily nonresidential	Urban, multi-campus, public research university
Florida Polytechnic University	1,372 Undergrad 1,361 Graduate 11	Regional and Statewide	**Classification** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting:	**Category** Baccalaureate Colleges: Diverse Fields Professions focus, some graduate coexistence Post-baccalaureate: Art & Sciences-dominant Very high undergraduate Full-time, more selective, lower transfer-in Small, primarily nonresidential	New pedagogical approach for project-based learning

Mission	University Strategic Goals	Capital Projects	Alignment of University Type/Mission/ Goals/Capital Projects (check mark if true)
FAMU is an 1890 land-grant institution dedicated to the advancement of knowledge, resolution of complex issues and the empowerment of citizens and communities. The University provides a student-centered environment consistent with its core values.	Exceptional Student Experience – Student Success Excellent and Renowned Faculty – Faculty Excellence High Impact Research, commercialization, outreach and extension services – Research that makes a difference Transformative alumni, community, and business engagement – building and expanding partnerships	Pharmacy Building Phase II Student Affairs Building FAMU/FSU College Engineering Phase III Dyson Building Remodeling Engineering Technology Building Perry-Paige Addition Banneker Complex Remodeling Social Science Building Coleman Library Phase III Performing Arts Center College of Arts and Sciences Teaching Facility General Classroom Phase II Howard Hall Remodeling Lucy Moten Renovation	✓
Florida Atlantic University is a multi-campus public research university that pursues excellence in its missions of research, scholarship, creative activity, teaching, and active engagement with its communities	Boldness – A uniquely competitive student body Synergy – prominent team of researchers and scholars Place – Deep engagement with South Florida's global communities	Jupiter STEM/Life Sciences Building A D Henderson Lab School BOCA Library Renovation College of Science 43 and 45 renovation Social Science Building 44 Renovation College of Education Building 47 Renovation Arts and Letters Building 9 Renovation and Addition	✓
Florida Gulf Coast University, a comprehensive institution of higher education, offers undergraduate and graduate degree programs of strategic importance to Southwest Florida and beyond. FGCU seeks academic excellence in the development of selected programs and centers of distinction in science, technology, engineering and mathematics (STEM) disciplines, health professions, business, and marine and environmental sciences.	Student Success Academic Excellence Entrepreneurship Health Sciences Community Engagement and Outreach	Integrated Watershed and Coastal Studies (Prev. Classrooms/Offices/Labs – Academic 9) Health Sciences (Prev. Multipurpose Education Facility)	✓
Florida International University is an urban, multi-campus, public research university serving its students and the diverse population of South Florida. Committed to high-quality teaching, state-of-the-art research and creative activity, and collaborative engagement with our local and global communities.	Amplify Learner Success & Institutional Affinity Accelerate Preeminence &Research and Innovation Impact Accelerate Preeminence &Research and Innovation Impact Assure Responsible Stewardship	Engineering Building Phase I & II Remodeling/renovation of C.A.S.E. Building Honors College Science Laboratory Complex Academic Health Center Study Complex Remodeling/renovation of D.M. Building Green Library addition for study, hub and student success space Science and Humanities Center Remodeling/renovation of Academic Data Center Remodeling/renovation of OE Building Graham University Center Wolfe University Center Renovations	✓
Florida Polytechnic University serves students and industry through excellence in education, discovery and application of engineering and applied sciences	Degree alignment: Build prominent programs in high-paying industries Student success: Prepare students for a lifetime of success	Applied Research Center Student Achievement Center Faculty Staff Office Building	✓

ALIGNMENT OF UNIVERSITY TYPE, MISSION, GOALS, AND CAPITAL PROJECTS (CONT.)

University	Number of Students FTE (2017–18)	Florida Ranking	Carnegie Classification		Characteristic Instructional Method
Florida State University	39,649 Undergrad 32,408 Graduate 7,242	Preeminent	**Classification** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting:	**Category** Doctoral Universities: Very High Research Activity Balanced Art & Sciences/professions, high graduate coexistence Research Doctoral: Comprehensive programs, with medical/veterinary school High undergraduate Full-time, more selective, higher transfer-in Large, primarily nonresidential	Metropolitan research university
New College of Florida	958 Undergrad 937 Graduate 21	Regional and Statewide	**Classification** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting:	**Category** Arts & Sciences Focus Art & Sciences focus, no graduate coexistence Research Doctoral: Single program-Education Very high undergraduate Full-time, more selective, lower transfer-in Very small, highly residential	Liberal arts education
University of Central Florida	56,334 Undergrad 50,180 Graduate 6,154	Emerging Preeminent	**Classification** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting:	**Category** Very High Research Activity Professions plus Art & Sciences, high graduate coexistence Research Doctoral: Comprehensive programs, with medical/veterinary school High undergraduate Medium full-time, selective, higher transfer-in Large, primarily nonresidential	Metropolitan research university
University of Florida	50,632 Undergrad 36,262 Graduate 14,339	Preeminent	**Classification** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting:	**Category** Very High Research Activity Balanced Art & Sciences/professions, high graduate coexistence Research Doctoral: Comprehensive programs, with medical/veterinary school Majority undergraduate Full-time, more selective, higher transfer-in Large, primarily residential	Metropolitan research university

Mission	University Strategic Goals	Capital Projects	Mission/Type/ Goals/Capital Project Alignment (check mark if true)
Florida State University preserves, expands, and disseminates knowledge in the sciences, technology, arts, humanities, and professions, while embracing a philosophy of learning strongly rooted in the traditions of the liberal arts.	Deepening distinctive commitment to continuous innovation Amplifying excellence across our academic and research programs Realizing the full potential of diversity and inclusion	Kellogg Research Building Remodeling Biology Building Unit Remodeling Library System Improvements – Phase I Winchester Building Remodeling Dittmer Building Remodeling Veterans Legacy Complex FAMU-FSU College of Engineering, Building C Academic Support Building	✓
New College of Florida offers a liberal arts education of the highest quality in the context of a small, residential public honors college with a distinctive academic program which develops the student's intellectual and personal potential as fully as possible; encourages the discovery of new knowledge and values while providing opportunities to acquire established knowledge and values; and fosters the individual's effective relationship with society.	Recruit more students who will thrive at New College: Tell the New College story, target intellectually curious, enroll students who reflect Florida's racial and economic diversity Keep them here four years: Make campus a place where students want to be, immerse students in curricula that inspires, work with students to help each knit together a superlative education	New/Replacement Dental & Medical Services Technology Building Student Services Center Building Remodel Library/Learning Center, Building 113 Remodel Administration Building Enrollment Center, Building 102 Remodel Cafeteria, Building 105 Remodel Cosmetology Lab, Building 158 Remodel Testing Center, Building 101 Administration/Student Services Building, PBG Medical Simulation Building Joint FAU Science and Technology Building	✓
The University of Central Florida is a public, multi-campus, metropolitan research university, dedicated to serving its surrounding communities with their diverse and expanding populations, technological corridors, and international partners. The mission of the university is to offer high-quality undergraduate and graduate education, student development, and continuing education.	Harness the power of scale to transform lives and livelihoods. Attract and cultivate exceptional and diverse faculty, students, and staff whose collective contributions strengthen us. Deploy our distinctive assets to solve society's greatest challenges.	Maintenance and utility infrastructure Research II – Science, Engineering and Commercialization Facility Learning Laboratory – Active Learning, Teaching Lab and Maker Space Facility Engineering Building I Renovation Biological Sciences Renovation Florida Solar Energy Center Renovation Chemistry Renovation Health Sciences and College of Nursing Building Performing Arts Complex Phase I UCF Downtown Campus Building II Howard Phillips Hall Renovation John C. Hitt Library Renovation Phase II Creative School for Children	✓
The University of Florida is a comprehensive learning institution built on a land grant foundation. A diverse community dedicated to excellence in education and research and shaping a better future for Florida, the nation and the world. Mission is to enable students to lead and influence the next generation and beyond for economic, cultural, and societal benefit.	The New American City: Collaborative investigation into solutions for most pressing societal and sustainability challenges. Proximity: Direct engagement by re-centering growth in the eastern third of campus and coordinate with the City to encourage development between downtown and the campus	Data Science and Information Technology Building New Music Building Dental Science Building Architecture Building Whitney Center for Marine Animal Health Public Safety Building & Emergency Management Center Renovation Florida Natural History Museum Earth Systems Addition Peabody Hall Dean of Students Renovation	✓

ALIGNMENT OF UNIVERSITY TYPE, MISSION, GOALS, AND CAPITAL PROJECTS (CONT.)

University	Number of Students FTE (2017–18)	Florida Ranking	Carnegie Classification		Characteristic Instructional Method
University of North Florida	14,383 Undergrad 12,840 Graduate 1,543	Regional and Statewide	**Classification** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting:	**Category** Doctoral/Professional Universities Balanced Art & Sciences/professions, some graduate coexistence Research Doctoral: Single program-Education Very high undergraduate Medium full-time, selective, higher transfer-in Large, primarily nonresidential	Comprehensive institution
University of South Florida	43,756 Undergrad 34,837 Graduate 8,919	Emerging Preeminent	**Classification** ***Tampa (main) Campus*** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting: ***Sarasota-Manatee Campus*** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting: ***St. Petersburg Campus*** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting:	**Category** ***Tampa (main) Campus*** Doctoral Universities Very High Research Activity Balanced Art & Sciences/professions, high graduate coexistence Research Doctoral: Comprehensive programs, with medical/veterinary school High undergraduate Full-time, more selective, higher transfer-in Large, primarily nonresidential ***Sarasota-Manatee Campus*** Master's Colleges & Universities: Small Programs Balanced Art & Sciences/professions, some graduate coexistence Post-baccalaureate: Business-dominant, with other professional programs Very High undergraduate Higher part-time Small, primarily nonresidential ***St. Petersburg Campus*** Master's Colleges & Universities: Larger Programs Balanced Art & Sciences/professions, some graduate coexistence Post-baccalaureate: Comprehensive programs Very High undergraduate Medium full-time , selective, higher transfer-in Medium, primarily nonresidential	Metropolitan research university
University of West Florida	10,446 Undergrad 8,507 Graduate 1,939	Regional and Statewide	**Classification** Basic: Undergraduate Instructional Program: Graduate Instructional Program: Enrollment Profile: Undergraduate Profile: Size and Setting:	**Category** Large Programs Professions plus Art & Sciences, some graduate coexistence Research Doctoral: Single program-Education High undergraduate Medium full-time, selective, higher transfer-in Medium, primarily nonresidential	Comprehensive institution

Mission	University Strategic Goals	Capital Projects	Mission/Type/ Goals/Capital Project Alignment (check mark if true)
At the University of North Florida, academically talented students receive individualized attention and opportunities to engage in transformational learning, community engagement, internships, and research. Dedicated faculty and staff create a rich learning environment on a beautiful campus that provides an inspiring setting for our diverse community. Through our efforts, we drive the economic and cultural development of our growing metropolitan region.	The pursuit of truth and knowledge carried out in the spirit of intellectual and artistic freedom Ethical conduct Community engagement Diversity Responsibility to the natural environment Mutual respect and civility	Renovations Roy Lassiter Hall Renovation/Addition Honors Hall, Coggin Business Expansion (Incorporates Shultz Hall) Renovations to Brooks College of Health (B39) Student Assembly Center (Previously Sanctuary)	✓
The University of South Florida System, which includes USF Tampa, USF St. Petersburg, and USF Sarasota-Manatee, catalyzes and coordinates initiatives at and among its interdependent institutions to prepare students for successful 21st century careers; advances research, scholarship, and creative endeavors to improve the quality of life; and engage sits communities for mutual benefit. Well-educated and highly skilled global citizens through our continuing commitment to student success. High-impact research and innovation. A highly effective, major economic engine, creating new partnerships. Sound financial management to establish a strong and sustainable economic base.	Well-educated and highly skilled global citizens through our continuing commitment to student success High-impact research and innovation to change lives, improve health, and foster sustainable development and positive societal change A highly effective, major economic engine, creating new partnerships to build a strong and sustainable future for Florida in the global economy Sound financial management to establish a strong and sustainable economic base in support of USF's continued academic advancement	Judy Genshaft Honors College Renovate Bio-Science Facility Research Labs ENR and ENG Remodel Academic STEM Facility USF Health Student Resource Center – Phase I USFSP Coquina Hall Student Space Modification Phase II USFSP University Student Center Remodel	✓
University of West Florida provides high-quality undergraduate and graduate education. Conduct teaching and research that services the body of knowledge. Contribute to the needs of professions and society.	Learner centered and focused Personnel investment and engagement Academic programming, scholarship and research Community and economic engagement Infrastructure	Laboratory Sciences Annex, Phase I of II Laboratory Sciences Annex, Phase II of II Laboratory Sciences Renovation University Commons Renovation Educational Development Center Renovation Science Collections Laboratory and Auditorium Science and Engineering Addition College of Education and Professional Studies Education Building University Honors/Living Complex University Union (Partial Funding from PECO) Confucius Institute	✓

SECTION 3.2 RECOMMENDATIONS

- **Through legislative changes, the Legislature should increase the involvement of Board of Governors staff in the master planning phase and program planning phase.** Campus master plans play a key role in bridging an institution's strategic plan with implementation and capital project planning. The program planning phase identifies room-level space needs for a particular project and represents an opportunity to drive efficiencies in space planning. These changes in the roles of Board of Governors staff would require that additional resources be allocated to Board of Governors staff.
  - Other state university systems have more robust staffs to be able to accomplish tasks that are expected of them.
  - Board of Governors staff involvement in master plan preparation would more tightly connect SUS- and State-level goals with university master plans. Board of Governors staff involvement in this phase of the capital planning process will help improve communication and alignment between the state, the university, and local city and regional governments. Higher Education Coordinating Boards in other states play a formal role. For example, Tennessee has formal approval responsibility. This additional oversight would require legislative action.
  - Board of Governors staff should review and test programs. The Board of Governors staff should have a role in reviewing and testing programs for suggested capital projects. University planners and Board of Governors staff can collaboratively adapt the one-size-fits-all EPS space formulas and the space program to best meet the unique needs of each university. Through this process, the Board of Governors staff can confirm that existing space is fully utilized before the construction of new space.
- **Allow more flexibility for Preeminent universities.** Preeminent universities feel the capital prioritization procedures prescribed by Board of Governors do not provide sufficient flexibility even though the Board of Governors has an appeals process. A separate or more flexible prioritization process for Preeminent universities would overcome many of the concerns of senior leaders at these universities. Consider capital outlay requests in the context of national competition.
  - For example, the Board of Governors should consider modifying space needs formulas to support institutions that are striving for national rankings and the uniqueness of their missions.
  - For those universities with institutional goals to compete nationally, consider national ranking goals and the fact that out-of-state peers are in a competition for the same highest quality students, faculty, and researchers and research grants. Nationally higher education is an extremely competitive industry. This competition includes research, equipment, top talent, and other factors that drive institutions to continuously refurbish and resupply the physical plant. Florida's institutions must compete in the same race.
- **Reduce data requests or tailor data requests to the mission of the university.** The Board of Governors should develop a process that requires less data or should better tailor their data requests to the profile of the university. Reduce the overall data provision requirement by coordinating Board of Governors data request with Southern Association of Colleges and Schools re-accreditation procedures.
  - The Board of Governors should consider using the SACS re-accreditation materials as much as possible. Southern Association of Colleges and Schools Commission on Colleges (SACS COC) require many of the same documents as the Board of Governors, yet that same information must be formatted and presented in a different way for the Board of Governors. All 12 universities are accredited by SACS and therefore produce these documents as part of accreditation and re-accreditation.
  - Data requests should be reduced. For example, the reaffirmation for accreditation for the Southern Association of Colleges and Schools Commission on Colleges is limited to 75 written pages and 25 images.

SECTION 3.3: INSTITUTIONS' IDENTIFICATION OF CAPITAL OUTLAY NEEDS

All 12 universities use similar capital outlay processes that have been established by the Board of Governors. The prescribed process includes the preparation, submittal, and updating of the Educational Plant Survey and the Capital Improvement Plan every five years. A graphical representation of the typical capital planning process is on pages 36–37. Note that the capital planning process described in this section predates the implementation of the new project ranking process required by SB 190. It is premature to assess the intended and unintended consequences of the new SB 190 ranking process.

CAPITAL OUTLAY PROCESS INITIATION

Senior leadership direction and involvement throughout the process is at the core of the capital planning process at all institutions.

- **Inception.** The concept of a capital project usually starts with a Dean or other senior member of the institution. The inception for a capital outlay request could have numerous starting points or justification drivers. The genesis of capital requests can be based on:
  - Strategic Plan Goals and University Mission.
  - Legislative support—Legislative support can also advance a project quickly.
  - Donor-driven gifts—A donor may want to support a capital project.
  - Deferred maintenance—All institutions have great demand for new space and renovation backlogs.
- **Integration of goals and data.** The institution's guiding documents, mission, strategic plan, academic plans, and the master plan are all touchstone components that are part of the capital outlay process. SmithGroup surveyed all 12 universities regarding the internal processes and considerations universities use in developing their requests. Universities indicated incorporating the following data points into the initiation of the capital planning process. All universities used a master plan, Educational Plant Survey, and Capital Improvement Plan as prescribed by the Board of Governors.

Educational Plant Survey	12 of 12
Board of Trustee's Goals	12 of 12
Institutional Strategic Goals	12 of 12
Institutional Goals	12 of 12
Performance Indicator Targets	12 of 12
Quality of the Space	11 of 12
Deferred Maintenance	11 of 12
Enrollment Trends	11 of 12
Suitability for Program	11 of 12
State Demographics	6 of 12

- I**dentification of space needs.** Working through processes and metrics determined by the Board of Governors, the universities determine their space needs. See Chapter 5 for a detailed assessment of this process.
- **Supporting data production.** A case must be developed around the need. The university produces large amounts of data and academic justification supporting the request. Justification data is in the form of quantitative analysis and written description supporting reports. Criteria such as space deficiencies in classrooms, research laboratories, teaching laboratories, or other categories are required. The process requires different personnel to meet and exchange information and factor in countless databases to support the capital outlay request.
- **Project prioritization.** In an environment of limited resources, universities put forward their needs with the best chances for funding. Even when there is donor or legislative support, the institution's request is not guaranteed capital outlay funding.

- **Additional studies.** University departments and committees such as academic affairs, space management, facilities management, and legislative liaisons are engaged to help with supporting documentation. Studies are conducted or expanded, such as building programs, energy assessment, environmental impact, infrastructure demands, etc. As the request progresses more data is added, like architectural conceptual design and three-dimensional analysis.
- **Board of Governors workshop.** The capital planning process concludes with the Board of Governors workshop. All institutions report they inform and update Board of Governors staff throughout the entire capital planning process.

The process is a learning loop where information builds and the justification for the request is refined. New information or vetted information is incorporated, and the process moves through internal reviews.

PROJECT SHEPHERDS

Universities often have personnel that support and move the request through the different stages and years. The process usually has a shepherd, normally the university architect, which gathers the information and helps build the case for the expenditure.

CAPITAL OUTLAY PROCESS ADAPTIONS

While the Board of Governors mandates a general process at the university-level, each university has adapted the typical process to reflect their individual missions, facility challenges, and leadership styles. See Chapter 7: University Snapshots for graphic depictions of each university's capital planning process.

- **Mission.** Every university uses their strategic plan as a foundation for the capital planning process. For example, Florida Gulf Coast senior leadership team considers their strategic plan as a malleable tool. They stated they "wanted to be positioned to exploit opportunities." Their philosophy is that a static capital-planning tool is unworkable for their mission and student needs. The leadership wants the maximum flexibility so they can "pivot" to the needs of the institution. Within this common capital-planning framework, the internal processes differ based on the specific challenges, opportunities, and people.
- **Board of Trustees Role.** All institutions inform their Board of Trustees of emerging capital outlay requests, some sooner than others. For example, Florida Gulf Coast uses their trustees as a sounding board and advisory group.
- **Complexity.** The larger more complex universities typically have additional steps or further refinement, necessary since projects at these universities are also larger and more complex. Proposed buildings at these institutions often spark a domino effect that involves many program moves and internal renovations.
- **Average Building Age.** All universities must address deferred maintenance, but universities with older facilities or historic buildings more fully integrate deferred maintenance into the internal process[2]. The deferred maintenance backlogs are factors they consider in proposing new capital projects. (Note that the new capital outlay process adopted by the Board of Governors in 2019 will give greater weight to renovations, deferred maintenance, and capital renewal projects.)
- **Formality.** The formality of the process differs among universities. For example, the Florida International University internal process is far more ordered than typical. The university architect, a facilities professional, shepherds emerging project requests through the numerous internal steps until approval. Interviewed senior leadership highly complimented this process, crediting the in-depth knowledge of this individual and his professional demeanor for the university's successful process.

2 Sightlines, State University System of Florida, ROPA+ Presentation, October 2017

SECTION 3.3 CONCLUSIONS

SmithGroup has found that all decision-making processes are fundamentally similar, because the Board of Governors has established criteria that all institutions must follow. The origins of the ideas and the approval process, as well as data gathering, are the same. The uniqueness and size of the institution may create additional internal steps but fundamentally the process results are homogeneous.

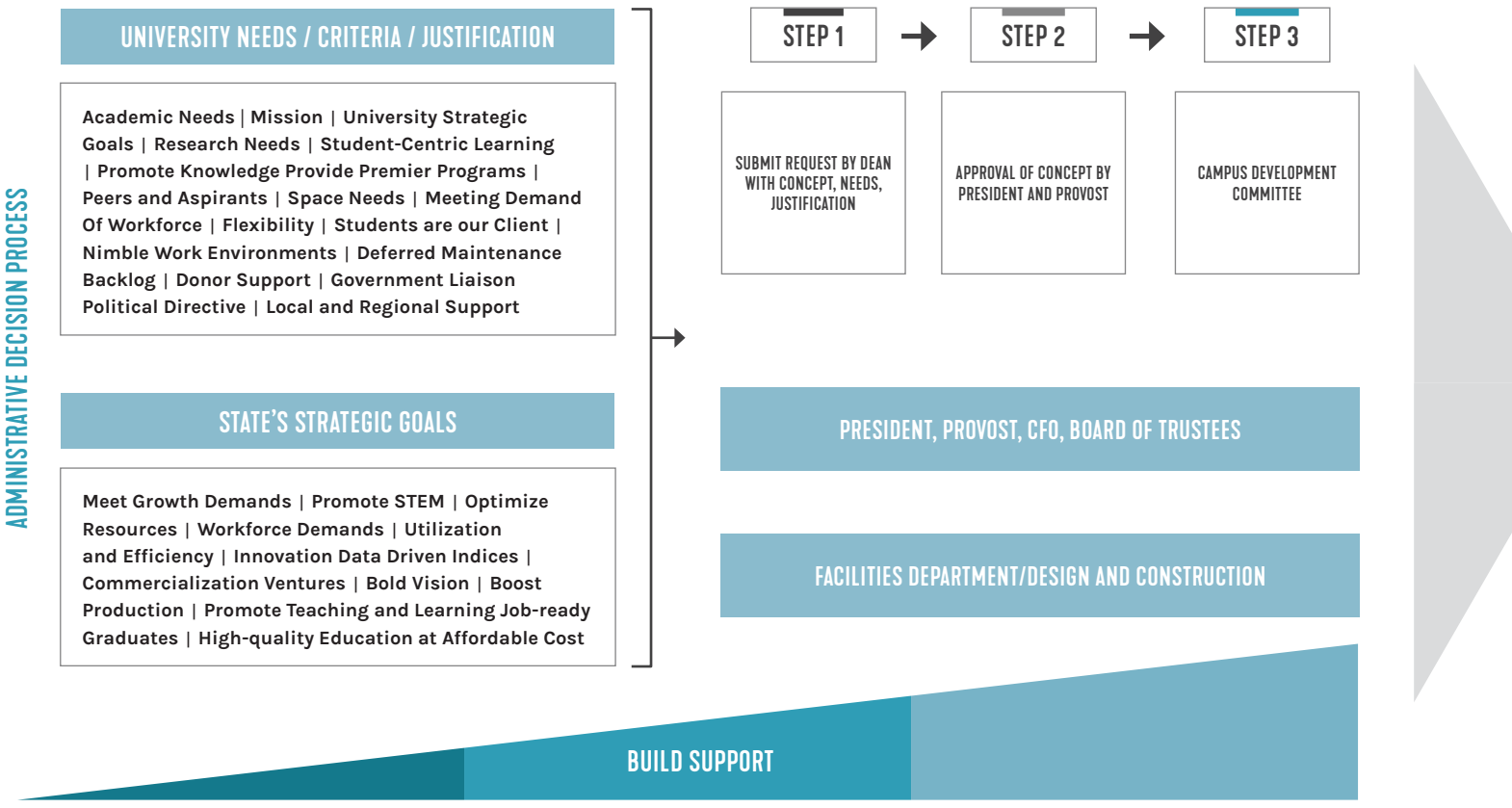
SmithGroup noted the following critiques of this established process.

- Space needs are determined solely by the number of full-time equivalent students. Space should also be driven by student degree program demand, competitive awards for researchers, the quality of existing space, the needs of changing pedagogies, and other factors. In the end, both the quality and quantity of space are fundamental in creating meaningful degree programs. Space assignment rubrics have little to offer if the quality/adequacy of space is wanting. See Chapter 5 for analysis and recommendations on this topic.
- The existing planning process follows a logical, methodical path from establishment of need through request for funds. The process breaks down thereafter when funding for PECO projects does not come in a timely manner. It may take a decade or more to receive construction funding for Educational Plant Survey-recommended projects. This lengthy process consumes a great deal more of the State's resources than would a more streamlined process. It also makes planning academic growth of the university challenging when it takes so many years to implement supporting facilities.

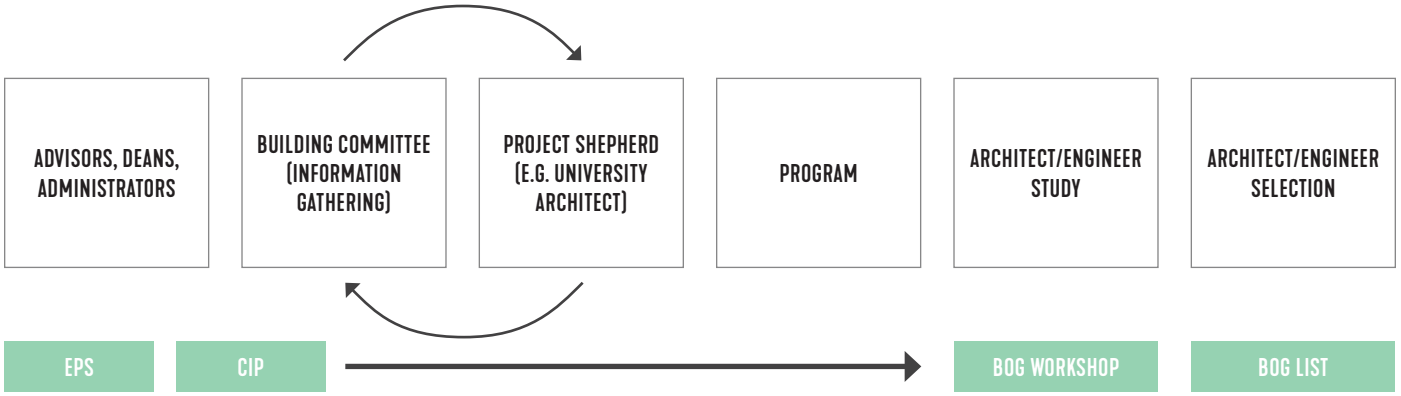
SECTION 3.3 RECOMMENDATIONS

- **Reassess the capital planning process.** Overall, the universities desire the process be streamlined. The institutions comply with the Board of Governors process but feel that the process needs a major overhaul or minimally needs to be streamlined to make a more efficient and effective process.
  - One participant suggested that "the Board of Governors consider a series of state-level summits for different stakeholders to talk and work through the [capital outlay process]. An outcome from the summits would be an institution-SUS strategy presented to the state executive and legislative branches. The different stakeholders would include Academic Affairs, Facilities, and institution-level executives."

TYPICAL UNIVERSITY CAPITAL OUTLAY PROCESS



COMMITTEE STRUCTURE



UNIVERSITY DATA & ANALYSIS

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
CAMPUS MASTER PLAN	CAPITAL IMPROVEMENT PLAN	CAPITAL IMPROVEMENT PLAN	CAPITAL IMPROVEMENT PLAN	CAPITAL IMPROVEMENT PLAN
MISSION	UTILIZATION	UTILIZATION	UTILIZATION	UTILIZATION
STRATEGIC PLAN VISION PLAN	SPACE INVENTORY UPDATE	SPACE INVENTORY UPDATE	SPACE INVENTORY UPDATE	SPACE INVENTORY UPDATE
ENROLLMENT PROJECTIONS			SUPPLEMENTAL EDUCATIONAL PLANT SURVEY	
EDUCATIONAL PLANT SURVEY				

ALIGNMENT WITH UNIVERSITY AND STATE GOALS PROGRAM REFINEMENT COST ESTIMATING AND REFINEMENT SITE IMPACT ASSESSMENT

SECTION 3.4: INSTITUTIONS' PRIORITIZATION OF CAPITAL OUTLAY PROJECTS

There are always multiple projects competing for funding, which requires project prioritization. Criteria that contributes to the prioritization process includes space needs, performance metrics, enrollment projections, and current utilization. Competing requests must be weighed against these criteria before the project is selected and advanced. Additionally, each university president uses institutional knowledge gathered by staff, strategic plans, mission, and academic needs to prioritize the university's capital requests.

In comments provided through an online survey and in personal interviews, university senior leaders indicated that the deficient functionality of classrooms and teaching laboratories and the deficient quantity of research laboratories and informal study spaces are the most pressing capital outlay issues.

Ultimately, universities consider how their potential project requests will be ranked and prioritized at the state-level. Any ranking process has inherent preferences, including the Board of Governors capital project prioritization process. The Board of Governors prioritization points allocation has promoted Science, Technology, Engineering, and Math (STEM) projects and projects with significant non-state funding support. Interviewees told SmithGroup that the new SB 190 process have changed the inherent preferences in the state-level project ranking to be more heavily weighted to renovations.

The universities shape their requests to maximize the number of earned points and thus the ranking of their projects. The projects that receive the highest ranking by the state are not necessarily the universities' highest prioritized needs. University leaders noted that funding challenges have acted to create sub-optimal choices, which occur when institutions are guided by political aspirations. For example, officials from several universities point to a building project that received legislative funding even though the project was not the receiving institution's highest need nor even on the institution's capital outlay list. The institution nonetheless was grateful for the building and put the building to good use. The building replaced old facilities and greatly expanded the academic offering. This example should not imply that the institution did not need the building. There are always many needed facilities on the capital outlay list and many more with good justification that never make the list. Everyone understands there are limited resources. During interviews, institutional leaders indicated to SmithGroup that this particular project was not an isolated case.

SmithGroup found in both interviews and survey data that all 12 institutions heavily use information from the Educational Plant Survey, Board of Governors goals, institutional strategic goals, institutional goals, and performance indicator targets. Thus, the cornerstones of the capital outlay request are mission-driven and data-supported. As stated in sections above, mission is defined by institutional type, therefore the capital outlay concepts must meet these criteria or fail in the beginning stages. There are checks and balances in place at both the universities and at the Board of Governors, including the Board of Governors workshop, that stop capital outlay requests from advancing that are not mission driven.

The SUS 2025 System Strategic Plan clearly outlines state-level goals. Through the Accountability Plans, performance indicators are measured and updated every three years and institutions are held accountable if they achieve the goal or fall short. Likewise, all institutions responded that they expend large amounts of personnel time in building a capital outlay request and aligning the request with institutional needs and Board of Governors goals. See section 4.1 State-Level Processes for a description of the state-level processes used to determine capital priorities.

SECTION 3.4: CONCLUSIONS

SmithGroup found a strong alignment with institution-level goals, state-level goals, and a direct correlation to capital outlay process. The universities have conducted a concerted effort to work with the Board of Governors staff, Board of Governors members, University Trustees, and legislators to understand and meet the State of Florida's higher education needs.

Any capital outlay process that gives inherent preferences to one type of project will distort capital outlay priorities. SmithGroup found that universities shape their capital requests to maximize their chances of a high ranking and thus funding, which sometimes is not connected with the university's greatest needs.

Interviewed university senior leadership was skeptical that the new SB 190 process for capital outlay will solve the most pressing needs of the institutions, specifically demands for new space and renovation of existing space. SB 190 has changed the inherent preference from STEM projects to deferred maintenance. The Sightlines study[3] identified nearly $1 billion in deferred maintenance needs on ten SUS campuses in 2017. Interviewees felt this change will help but not solve the problems they feel need to be addressed.

The new preference for deferred maintenance in the SB 190 revised point system could create unforeseen consequences. Institutions will likely adapt their capital outlay requests to gain funding for deferred maintenance projects over higher priority new buildings. Renovations, if not funded fully and planned for properly, could be far more costly than new construction. Renovations disrupt research, teaching, and the rhythm of the impacted departments. New construction and renovations should be complementary, and consideration should be given to both equally. In some cases, building a new building and using the new space as swing space until the renovation is completed may be the less costly and more effective option. For example, the University of West Florida, New College of Florida, and Florida Polytechnic University all indicated a need to renovate high-demand instructional spaces, but each are fully utilizing their instructional space so renovations will be highly disruptive. New buildings and renovations should be planned and funded in logical sequences. Campus master plans can be effective in determining the most cost-effective balance of renovations and new construction, but only when both are funded.

SECTION 3.4: RECOMMENDATIONS

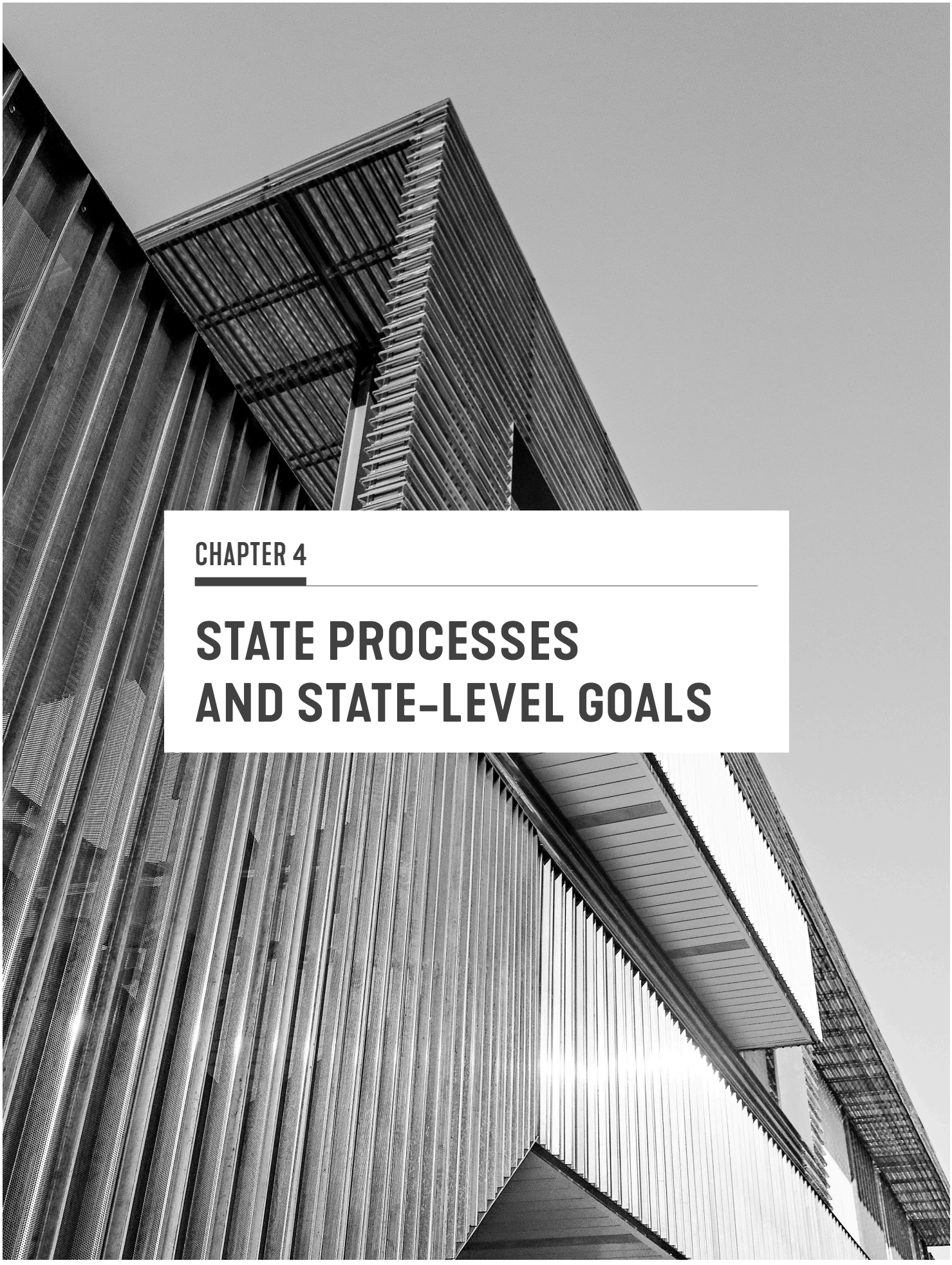
While each university's capital planning process is directly tied to institution-level and state-level goals, most university senior leadership expressed concern that the process is not effective.

SmithGroup found that the reason behind a great deal of frustration with the capital outlay process is a disconnect between the level of effort at the university-level that the process requires and the benefits that are awarded to the universities. Universities noted that the level of frustration with the process was lower over a decade ago when capital requests were more fully funded. In short, the universities do not see sufficient return on their investment in the capital outlay process.

For the current capital outlay process to be effective, most university senior leaders felt that a consistent stream of funding for capital outlay projects and deferred maintenance must be established. SmithGroup heard that limited and unpredictable funding has resulted in frustration while universities seek to achieve the State's higher education goals and the SUS System Strategic Plan. This was a common refrain along with frozen tuition, lack or decline in PECO funds, inconsistent funding for physical plant resources, deferred maintenance and capital renewal, and the suspension of operating matching fund programs.

- **Carefully indicate preferred project types.** Any prioritization scoring process has inherent preferences. To more accurately determine the highest capital needs of the universities, the Board of Governors should carefully allocate prioritization points to preferred types of projects in order not to distort the university prioritization process.

3 Sightlines, State University System of Florida, ROPA+ Presentation, October 2017



CHAPTER 4

STATE PROCESSES AND STATE-LEVEL GOALS

CHAPTER 4: STATE PROCESSES AND STATE-LEVEL GOALS

The capital outlay processes within the Board of Governors should result in recommended projects that support the State's goals, such as the Board of Governors Strategic Plan and the Governor's higher education plans. When the Board of Governors processes result in project recommendations that fully support State goals, the Legislature can confidently use the Board of Governors prioritized list and fund the projects on it. When the Board of Governors processes do not appear to support the State goals, the Legislature may not consider the Board of Governors prioritized list to be a credible listing of the State's highest priorities, or the Legislature may not be aware of other project opportunities that would more fully meet State goals.

The Board of Governors is involved both indirectly and directly in the entire capital outlay process, from the preparation of the Educational Plant Survey through the submittal of the Public Education Capital Outlay and Debt Service Trust Fund List to the Legislature, except for master planning and program planning. The process is data-driven, vision-driven, and defensible. The prioritized projects that emerge from the Board of Governors directly pursue state-level goals.

However, the ultimate funding decisions are often not related to the university-level and the Board of Governors-level capital planning process. The process itself frustrates many universities, and SmithGroup has determined that it does not meet the goals for a process that is flexible, tailored to university needs, transparent, and equitable.

SECTION 4.1: STATE-LEVEL PROCESSES USED TO DETERMINE CAPITAL OUTLAY PRIORITIES

The State influences the capital outlay priorities both informally at the university-level and formally at the state-level. The university-level and SUS-level capital outlay processes have numerous built-in checks and balances to ensure capital requests are in accordance with Board of Governors procedural guidelines. SmithGroup believes that the processes that institutions follow align with State-level goals. The rigorous vetting from inception to completion by senior-level administration down to the implementation by staff assures compliance with the process.

BOARD OF GOVERNORS GUIDANCE AT THE UNIVERSITY-LEVEL

The capital outlay process starts at the university-level and is driven by the universities. Yet the Board of Governors staff is involved informally throughout each university's capital planning process.

Perhaps the greatest influence that the Board of Governors has in the capital outlay process at the university-level is in the space planning guidelines that are required by the Board of Governors. The Board of Governors provides guidelines to the universities regarding the process, data, prioritization, and general information needed for the universities to develop a capital outlay request. Space planning guidelines are analyzed in Chapter 5.

The Board of Governors sets criteria that institutions must employ when preparing the Educational Plant Survey every five years, which then forms the basis for the annual Capital Improvement Plan. As noted in Chapter 3, this university-level process is data intensive and there are numerous checks and balances to ensure institutional adherence to the process. Several universities expressed satisfaction in the Educational Plant Survey and Capital Improvement Plan processes and felt the exercises were good for the institution.

The universities and the Board of Governors collaborate on the preparation of the Educational Plant Survey. Teams made up of senior staff from other institutions visit their peer universities and review the Educational Plant Survey inputs. The Board of Governors staff rely on these peer review teams to ensure the numbers are reported accurately and consistently.

Although the Board of Governors staff are not directly involved in the development of the campus master plan and the Capital Improvement Plan, they have a good understanding of these documents before the Board of Governors receives the lists of recommend capital projects from the universities. The Board of Governors staff confirmed that they frequently coordinate with the institutions throughout the university-level capital planning.

The state-level process is highly dependent on open and clear communication among Board of Governors staff and university capital planning staff prior to submitting priority projects to the Board of Governors. Often a project shepherd, typically the chief facilities officer, works throughout the year communicating with the Board of Governors staff so there are no surprises in what the university will submit to staff and what the university will present at the Board of Governors workshop. This level of communication, together with the internal checks and balances, is cost effective compared to processes used in other states where consultants assemble capital outlay requests.

The Boards of Trustees of each university approve the Educational Plant Surveys, campus master plans, and Capital Improvement Plans. The portion of the capital planning process that is directed by universities culminates in the Board of Governors workshop, when university leaders directly present their priorities to the Board of Governors Facilities Committee.

BOARD OF GOVERNORS INTERNAL PROCESSES

The formal role of the Board of Governors staff in the preparation of the PECO List commences after the universities submit their list of prioritized capital requests. The Assistant Vice Chancellor (AVC) and staff assess university requests against statewide goals through a ranking system, which has recently changed due to SB 190. The AVC presents a draft prioritized statewide list to the SUS Chief Financial Officer (CFO), discussing each university's priorities and their relationship to statewide needs. The CFO and AVC then confer with the SUS Chancellor. The SUS Chancellor advises the AVC regarding any legislative priorities and other areas of concern, which may influence project ranking. The AVC and/or the CFO speak with the chair of Board of Governors Facilities Committee about each university's request, so that Board members understands the institutions' priorities.

During the Board of Governors workshop, university leaders speak directly to the Facilities Committee of the Board of Governors regarding their institution's capital priorities. The Board of Governors staff told SmithGroup that, in their opinion, the workshop was the best part of the capital outlay process. The workshop offers the latest and best information for the universities to put the final polish on their proposal.

After the workshop, the entire state-level ranking process is repeated, but in light of the new data provided by the universities and the comments of the workshop participants. Board of Governors staff said the universities often use the feedback from the workshop to modify their priority capital requests. SmithGroup was told by the Board of Governors staff that adjustments are often made to several components:

- Proposed construction cost estimates adjustment to that are much higher than other projects of similar campuses or building types.
- Scope reduction, and thus project fee reduction.
- Offers to seek non-state funding partners for a portion of the project cost.
- Funding interests of the Legislature—Board of Governors staff may also pass along advice based on the type of project and whether the Legislature may be interested in funding a specific type of building, such as a STEM-focused building. This information is "advice only" for the university's consideration.

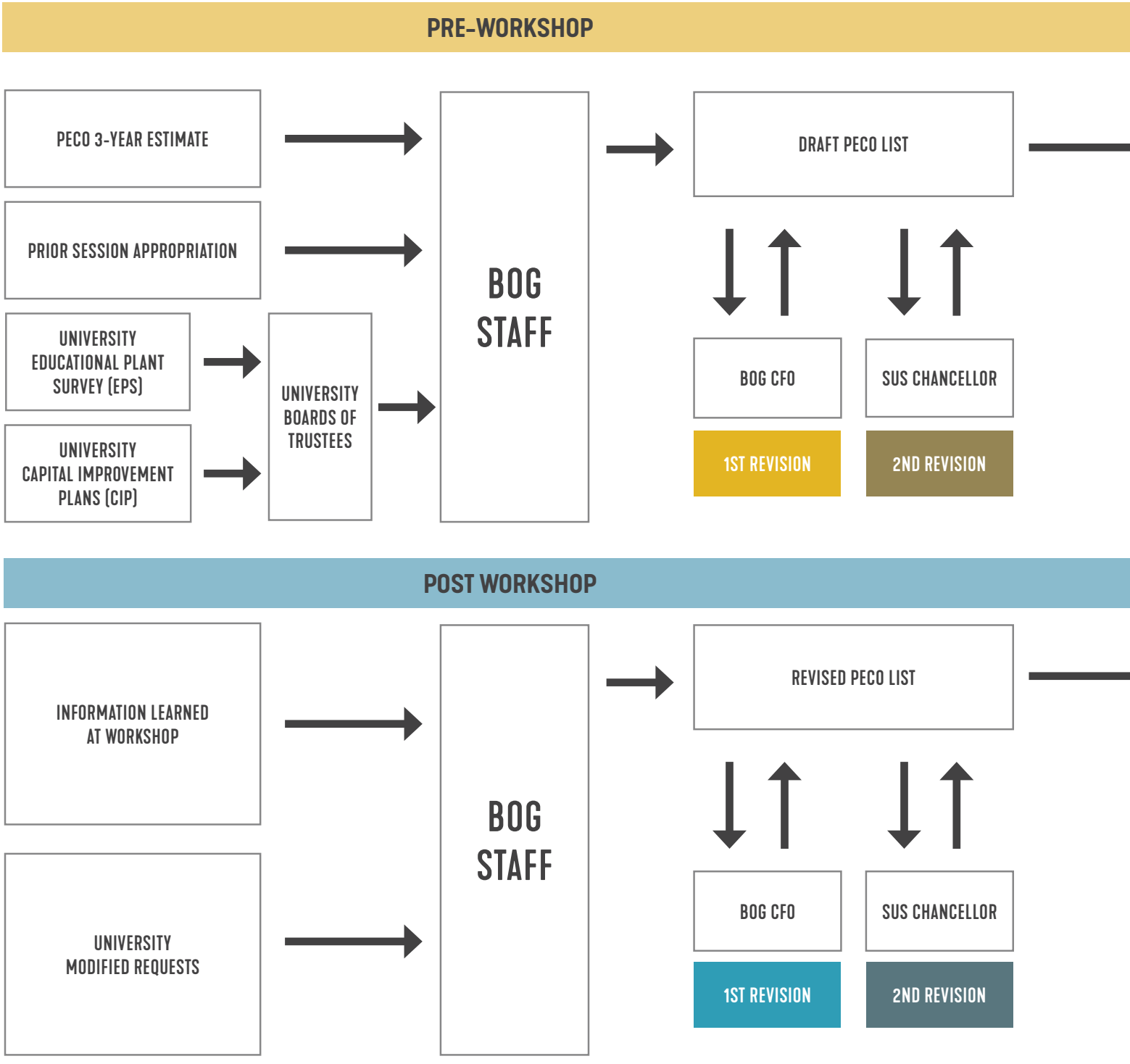
The Board of Governors staff work directly with each university for these modifications. Since these communications are not public, other universities may perceive the post-workshop university capital list modifications as something that the Board of Governors staff determines. This, in the Board of Governors staff's opinion, is why some people think the Board of Governors has a different set of criteria after the workshop. The Board of Governors staff assured SmithGroup that the universities make the final decisions, and the universities present their highest capital needs to the Legislature.

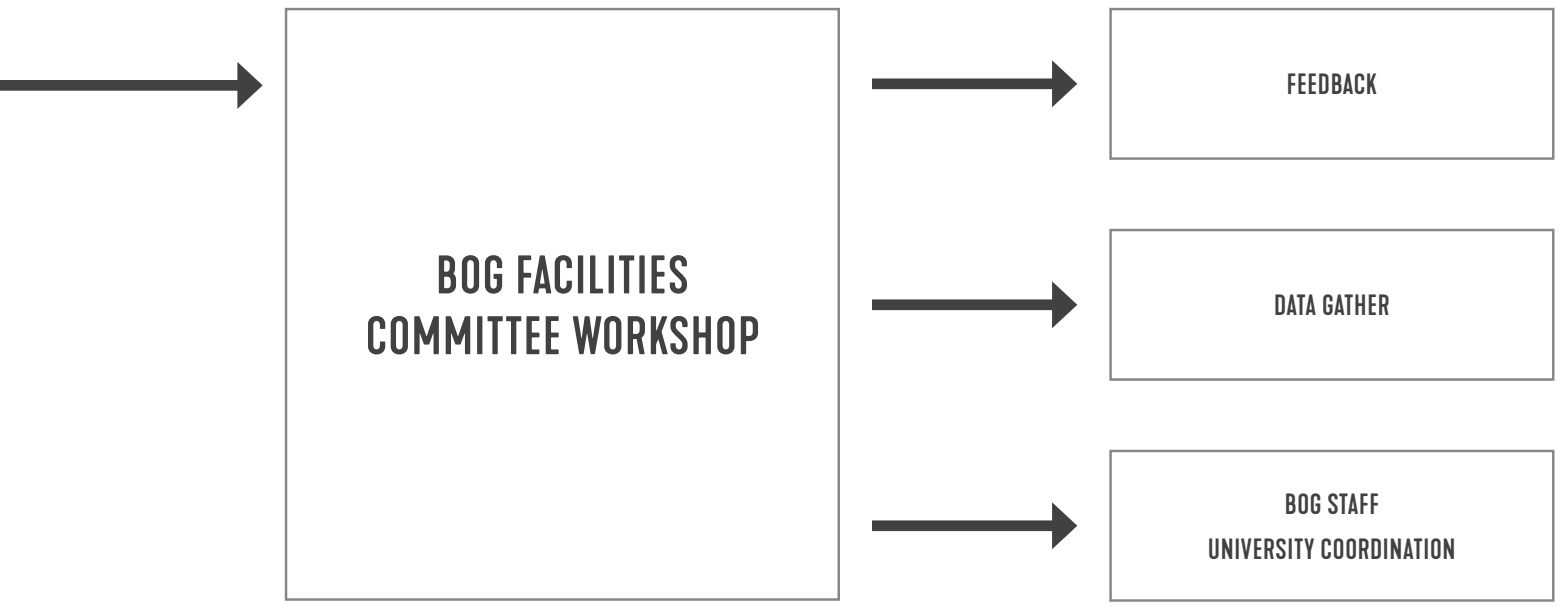
The Board of Governors staff revises the PECO List, which the Board of Governors then reviews, edits, and adopts. A prioritized capital list is forwarded to the Legislature as the Legislative Budget Request. See the graphical summary of the Board of Governors internal process on pages 46–47.

SECTION 4.1 CONCLUSIONS

- **Exemplary projects and processes.** The capital outlay processes within Board of Governors should result in recommended projects that support the State's goals. When the Board of Governors processes result in project recommendations that fully support State goals, the Legislature can confidently use the Board of Governors prioritized list and fund the listed projects. Florida State University's Earth, Ocean & Atmospheric Science Building is an example of a capital outlay project that met numerous touchstones on the SUS's strategic goals, and both the Board of Governors staff and SmithGroup feel this building helped address the highest capital need for the State. This project is exemplary of how the process should work.
- **One-size-fits-all.** The Board of Governors process by design intentionally allows for very few derivations in order to provide parity at the Board of Governors level. This is also a point of frustration with many institutions. SmithGroup heard that the "one-size-fits-all" approach is unfair and not a balanced way to evaluate capital outlay.
- **No direct state role at the university-level.** Board of Governors staff are not directly involved in the formulation and programming of capital requests. There is no direct role for the State within the university-led process prior to the Board of Governors workshop. Other state university systems (see the Georgia University System example below) have a formal review/approval role for the system staff, and thus state-level priorities can shape project requests before they are finalized. This role also allows system staff to correlate the university's calculated spaces needs with the program of the conceptual project.
- **Program managers in Georgia have a direct role in the university-led capital outlay process.** The Georgia University System assigns a program manager for each system university. Most program managers are architects and they act as a liaison to the universities on all matters related to design, construction, and space management. The program manager works with university staff to support the preparation of capital requests. The Georgia University System Vice Chancellor looks to the program managers for their knowledge of campus, its master plan, and its capital requests. The program managers' role is purely informational with no decision-making authority, but they can color capital outlay requests. Prior to capital outlay presentations to the Board, the Vice Chancellor, the Director of Planning, and the program managers meet often to brief the Vice Chancellor and deliberate the capital requests. The Director of Planning analyzes the space data for every project request and defends or refutes the university's claim for additional space and right-sizes the proposed projects. Based on these deliberations, the Vice Chancellor advises the Chancellor and Board members regarding the highest priority capital projects. (Note that in the Georgia system, the four Carnegie Classification R1 institutions are not part of their deliberations, but rather each R1 institution is provided annual funding for capital projects, renovations, and infrastructure.)
- **Inflexibility.** The process is not as nimble and responsive to changing university needs as many institutions would like. SmithGroup heard mixed reactions about the ability to change the capital project list as the result of new opportunities or changes in priorities. The Educational Plant Survey, updated every five years and Capital Improvement Plan process, updated every year, start to lock in projects. The state-level process is perceived as inflexible within the five-year cycles. Several universities expressed that since projects typically take many years to receive funding and the funding is not consistent, universities cannot shift course. When asked about the Supplemental Education Plant Survey, participants acknowledged the existence of the option, but expressed the general feeling that once the process is started, variation is not an advisable course of action. SmithGroup notes that a few universities, like Florida Gulf Coast University, did make changes to their capital outlay request during the process and were not hindered.
- **Ultimate decisions are not solely based on data.** SmithGroup found that the Board of Governors has created a university-level capital planning process that is data-driven, vision-driven, and defensible. Interviewed university leaders expressed frustration that the process at the state-level is less transparent and less data-driven than the university-level process. These leaders feel they put significant and continuous effort into time-consuming data reporting and monitoring, yet decisions made at the state-level, both within the Board of Governors and within the Legislature, are ultimately made by considerations that are separate from the data-driven justification. All institutions interviewed felt the capital planning process was onerous and the result was "not worth the effort" if in the end "politics is the determining factor." Many institutions have bypassed the Board of Governors prioritization process and have hired legislative liaisons and work

BOARD OF GOVERNORS LEGISLATIVE BUDGET REQUEST PROCESS




BOG FACILITIES COMMITTEE WORKSHOP
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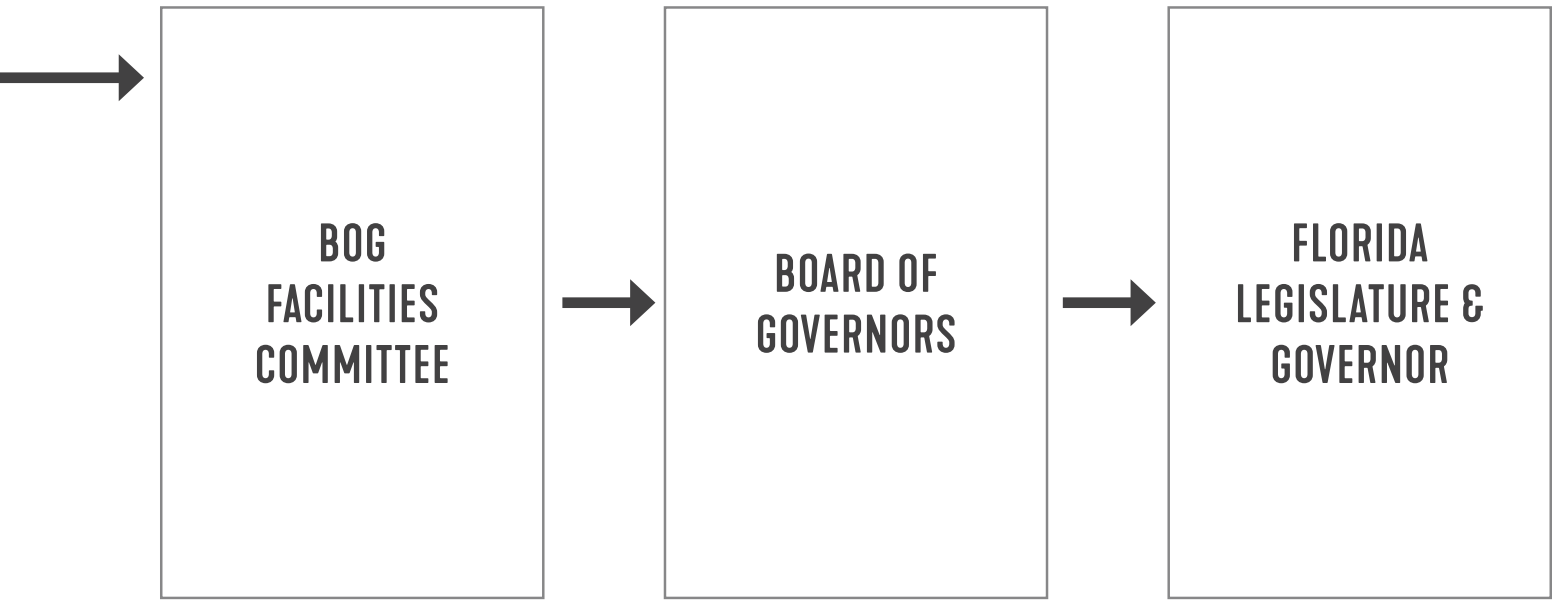
BOG STAFF
UNIVERSITY COORDINATION


BOG FACILITIES COMMITTEE
BOARD OF GOVERNORS
FLORIDA LEGISLATURE & GOVERNOR

with their political representatives to inform legislators directly of the university's priority needs. There is a great deal of frustration with the process at the university-level that includes the length of time it takes to get a project approved to being governed by a data-driven set of metrics that the institutions feel accomplish little. The SB 190 ranking process promises to be more straight-forward, but university leaders are skeptical that it will reduce political influence from the ultimate capital funding decisions.

- **The Legislature does not receive the universities' highest priorities.** SmithGroup found that while the state-level capital planning process appears to be data-driven, it is also modified and shaped by politics. Universities game the capital planning process to increase their chances of receiving funding. SmithGroup found that the prioritization of projects at the university- and state-level are influenced by the perceived priorities of the Legislature. The capital needs of the universities are great, and while the first priority projects on each university list may not truly represent the university's very highest need, those projects still reflect important data-justified capital needs.

SECTION 4.1 RECOMMENDATIONS

When the Board of Governors processes do not seem to support the State goals, the Legislature may not consider the Board of Governors prioritized list to be credible and may fund other projects that are not listed. The Legislature has the right to fund any project that it chooses—the direct funding of projects by Legislatures is not uncommon and happens in every state. SmithGroup was told about several buildings that were not prioritized by the Board of Governors but nonetheless gained Legislative support and received funding, a sign that the state-level capital planning process is not fully effective. SmithGroup understands that the Legislature, Board of Governors, and the universities all seek a process that is perceived to be as fair and balanced as possible, where the occurrences of project funding primarily driven by politics is rare. Minimizing the outliers and assuring the Legislature that the Board of Governors PECO list represents that State's greatest needs are the desired outcomes of the following recommendations.

- **The Board of Governors should consider more the university's strategic and master plans.** The Board of Governors should increase the importance of the alignment of proposed projects with university strategic and master plans in the project prioritization process and reduce the importance of scoring based on the space needs.
- **The Board of Governors should evaluate and prioritize projects regarding both statewide and institutional goals**. Board of Governors prioritized projects should promote not only State strategic goals, but also university strategic goals. The goals of universities are as varied as the universities themselves, and that allowance variety should be considered within the state-level processes. For example, a Regional and Statewide institution may have a greater need to focus on instructional and study space, while a Preeminent university may need to focus more strategically on research and development.
- **The Board of Governors should review other state processes to consider best practices that could be incorporated into the SUS capital outlay process.** Given the widespread frustration with the current process, SmithGroup recommends reviewing systems across the country that have completed their own internal reviews and have developed more effective processes. Effective best practices can be learned from the state-level processes in several state university systems.
  - The Tennessee Higher Education Commission process is far less data-driven and the point system used puts far less emphasis on space needs and space utilization than the current Board of Governors process. The Tennessee Higher Education Commission gives space data only 35 points maximum out of 100.
  - The Tennessee Higher Education Commission explicitly states the minimum match requirements from gifts, grants, institutional funds, student fees, and other non-state sources. The Tennessee Higher Education Commission match requirements differ based on renovations (lower) or new construction (higher), and Carnegie classification. In Florida, for example, Preeminent universities could have higher match requirements than Emerging Preeminent universities, with the lowest match requirements for Regional and Statewide universities.
  - The Texas Higher Education Commission Board uses a point system related to Space Usage Efficiency Factors, and is now required to collect planning information in the form of capital expenditure and master plans. It also collects campus condition reports and creates standards and assess compliance in the areas of cost, efficiency, space need and space use.
  - Virginia and North Carolina both evaluate utilization criteria.

- Utah and Maryland have graduated space needs according to type and size of institution.
- Many state systems such as Colorado and Texas also distinguish among types of projects, such as deferred maintenance, capital renewal and/or new capital construction, and create project recommendations for each category.
- The Colorado system acknowledges the political nature of the legislature's capital funding decisions. After the Department of Higher Education submits their capital priority list to the legislature, the Capital Development Committee, a joint committee of representatives from both the House and Senate, holds hearings and each institution testifies about their capital project funding requests. The Department of Higher Education administrators still provide their guidance and priorities to the legislature.

- **The Board of Governors should pause the listing of new projects in the current system and collaborate with the universities to review and incorporate the best practices from other states**. University leaders and Board of Governors staff agree that the current capital outlay process should be re-examined and national best practices should be incorporated.
  - Recommendation 1 from the Board of Governors report titled "A Review of Space Needs Calculation Methodologies" dated October 31, 2019 recommends that: "The State University System Facilities Space Planners, in consultation with the Board of Governors' Office of Finance and Facilities, should review the current space needs calculation methodology and funding formula to recommend an equitable policy and process". Adding a review of national best practices would enhance this effort.
  - The university presidents and Board of Governors staff disagree on how this pause in the process should occur. One Preeminent university leader suggested a moratorium for new capital outlay requests, but with continued funding of projects that have been partially funded to date. He suggested that over a one-year period, a committee of Chief Financial Officers, Chief Facilities Officers, and a consultant should develop a new state-level process. However, Board of Governors staff expressed concerns that a moratorium on new capital outlay requests could have unintended consequences, and that existing SB 190 process should continue until such time as the best practices study is complete and any changes to the existing system are adopted by the Board of Governors and Legislature, if needed.
  - Under Governor DeSantis's plan called A Bold Vision for High Quality Education, the governor called for a new spending plan to address operating costs, maintenance, and new construction. This could be the right time to implement a new leaner and faster system.

SECTION 4.2: CASE STUDIES OF THE UNIVERSITY- AND STATE-LEVEL PROCESSES USED TO DETERMINE CAPITAL OUTLAY PRIORITIES

The Case Studies systematically trace the origins, justification, supporting analyses, and ultimate recommendation for funding for five recent projects. SmithGroup, in coordination with the Board of Governors staff, selected five funded projects based on their geographic location in the state, size of the institution, and alignment with SUS's Strategic Plan guidelines. Each project, according to the university's leadership, represented the institution's highest and most urgent demand at the time of the submission. The selected five case study projects also represent a diversity of project type (classroom, teaching laboratories, research laboratories, student support space), university mission, and legislative funding efficiency.

- Florida State University, Earth, Ocean & Atmospheric Science Building (under construction)
- Florida International University, Student Academic Support Center (completed 2014–2015)
- University of South Florida St Petersburg, Business School Phase 1 (completed FY 2015–2016)
- Florida Gulf Coast University, Innovation Hub Research (completed FY 2014–2015)
- Florida Agricultural and Mechanical University, Pharmacy Building Phase II (completed FY 2015–2016)

In summary, the capital outlay process for each case study project aligned with each institution's goals and mission and with State goals. In each case, the university leadership reviewed the projects at various stages ensuring compliance with stated objectives. The Board of Governors appropriately reviewed and prioritized these projects for the State Legislature.

SECTION 4.2 CONCLUSIONS

In all five case studies, there is clear alignment with state-level and institution-level strategic goals. The motivation behind these projects stem from a sudden shift in priorities (Florida International University's Student Academic Success Center), to a long-term academic development (Florida State University's Earth, Ocean & Atmospheric Science Building and Florida Agricultural and Mechanical University's Pharmacy Building Phase II), to a marriage of rising trends and local support (Florida Gulf Coast University' Emergent Technologies Institute and University of South Florida St. Petersburg's Business School Building). In all cases, the Strategic Plan, the Educational Plan Survey, and the capital outlay request were aligned. In each case, the university leadership reviewed the projects at various stages ensuring compliance with stated objectives. The Board of Governors appropriately reviewed and prioritized these projects for the State Legislature.

SmithGroup found all five capital outlay requests were consistent with the mission of the institution-level and state-level goals. The following objectives are common and appropriate for new university buildings:

- **Launch new directions.** The Florida Gulf Coast University's Innovation Hub Research Building expands the university's role within the region. The project provided space for a fledgling research startup university that supports and builds on undergraduate, graduate and post-doctoral research. The focused research direction—water resources—is a local South Florida major issue. Community connections is a major driver in Florida Gulf Coast University's mission and the focus on water resources supports the institutional mission.
- **Student retention.** The Florida International University's Student Academic Support Center improves existing programs to further support and serve at-risk student. The States foremost and fundamental goal is graduating job ready citizens. Florida International University has developed a support system that has exceeded expectations in removing students roadblocks to matriculation.
- **Civic engagement, innovation, and dissemination of information.** The University of South Florida St Petersburg's Business School Phase 1 achieves this goal. The business program at University of South Florida St. Petersburg consolidated its academic programs into one building allowing the Kate Tiedemann College of Business to better serve the students and community. The University of South Florida Business School Building services many functions and meets many goals established in the SUS's System Strategic Plan. The connection between the Kate Tiedemann College of Business and the St. Pete Innovation District will provide students with real world experience and resume building credentials. This type of working knowledge of business will elevate students, the university, and the community.

- **World leadership in research and breakthroughs in STEM**. Florida State University's Earth, Ocean & Atmospheric Science Building is an example of how leading-edge research will contribute to the institutional mission as a Preeminent university. Within pharmaceutical sciences, Florida Agricultural and Mechanical University's College of Pharmacy and Pharmaceutical Sciences has been ranked as the 6th largest in the nation, and number 1 in the southeast and number 9 in the country in research funding from the National Institutes of Health. The Pharmacy Building Phase II further advances Florida Agricultural and Mechanical University's leading research.

The case studies differ on their origination and driving forces.

- State's priority for STEM-related initiatives: Florida State University Earth, Ocean & Atmospheric Science Building, The Florida Agricultural and Mechanical University Pharmacy Phase II
- Student retention: All case studies, but in particular: Florida International University Student Academic Success Center, Florida Agricultural and Mechanical University Pharmacy Phase II
- Recruit new students and diversify the teaching portfolio: Florida Gulf Coast University's Emergent Technologies Institute, University of South Florida St. Petersburg's Business School Building
- Facilitate graduate research and encourage interdisciplinarity: Florida State University Earth, Ocean & Atmospheric Science Building

SmithGroup's high-level conclusions are presented below. The more detailed case studies are presented in the Appendices A–E at the end of this report.

- Florida State University's Earth, Ocean & Atmospheric Science Building is an example of how the capital outlay process should work. In SmithGroup's opinion, the goals of the SUS and the institution are fully aligned. For example, the building's function solidly supports STEM programming. The university's highest leadership personally confirmed that the project was the university's highest need. The building was located on a site where older buildings were razed to accommodate the Earth, Ocean & Atmospheric Science Building. The buildings that were razed would have cost more to renovate than to remove, within the context of a campus with limited land. The teaching functions within the building support flexible teaching and the latest pedagogical teaching methods. The building added badly needed teaching laboratories and advanced Florida State University's research mission and national reputation. This project was cited by Board of Governors staff as the best example of meeting the most criteria that has been presented in several years.
- The Florida International University Student Academic Support Center undertook a lengthy process of building program refinement and vetting of the mission to ensure institutional goal compliance. Florida International University boasts a very diverse student body, as well as the highest number of first-generation students to attend college of any university in the SUS. The university studied the reasons so many students dropped out between their first and second years of college. Using this data, Florida International University determined the reason was not monetary, but lack of support in understanding the complexities of the college experience, academic demands, and the host of changes that come along with entering college. First generation college students lacking a support structure are more often candidates for dropout. Given the diverse multicultural background of Florida International University's student population, Florida International University knew their students needed support grappling with these issues. The Student Academic Support Building was designed inside and out to provide that support. This case study illustrates how effective the university- and state-level capital outlay processes can be. The university performed in-depth research about why its students were not succeeding. It determined that the consolidation and broadening of student academic support services were necessary, and the academic support project became a university priority. The case study is a good example of when the university deliberated and determined its own student retention priority, and then generated legislative support behind it. The case study underscores the importance of the campus master plan to consider the program and location of new projects within the context of the entire campus. The location of the Student Academic Success Center changed twice, as the university determined how to maximize the effectiveness of the student success programming. The Student Academic Success Center project was constructed adjacent to the student center within larger gateway of coordinated student services. This finding supports the recommendation that the Board of Governors staff should be involved in the preparation of campus master plans.

- The University of South Florida Business School Phase 1 project had community support and linkages with city district plans. The greatest driver for this project's prioritization and funding is the support it received from the local business community and municipality, and a sense of equity. It was not demonstrated to SmithGroup that this project was the highest priority need of either the University of South Florida System or the state. This case study illustrates the importance of support by the local community when setting capital facility priorities by university and Board of Governors. The Business School Building was the top legislative priority of St. Petersburg Chamber of Commerce, and it supported the City of St. Petersburg's goals for its innovation district to provide students with experiential learning and the opportunity to advance in early job placement. The project had committed champions within the Board of Governors and the Legislature. The non-state financial contribution that University of South Florida St. Petersburg provided supported prioritization and ultimately state funding. At the time, University of South Florida St. Petersburg had not received capital funding for a period of time, and the Board of Governors included it on the PECO prioritization list out of sense of equity.
- The Florida Gulf Coast University Innovation Hub/Emergent Technologies Institute also had community support and is the anchor to a fledgling business park. Florida Gulf Coast University prides itself on being nimble and opportunistic. Florida Gulf Coast University is forward thinking to embrace the Innovation Hub, an off main campus project. The research on water and water quality is very germane to the region and has wide support from the local community. This case study illustrates the importance of community and Legislative support in receiving high priority rankings and gaining funding. The university leadership, external community partners, and municipal leaders were all unified in support of the project, and thus the Board of Governors also ranked it high. The project was sufficiently funded within only three years. It also illustrates how well before formal deliberation by the Legislature occurs, that the perception of political support shapes project prioritization at the university- and state-levels, and that as the result the project that was funded did not meet the highest needs of the university. In interviews, Florida Gulf Coast University leadership indicated that this project was opportunistic – from the donation of land and funding from the community and state capital outlay request. The project program and its location were largely determined by parties external to the university, those that donated funding for the academic program and the land. The university perceived that it was the one identified need that would gain the most amount of Legislative support. This case study also illustrates the importance of integrating capital outlay requests with the campus master plan. Perhaps if the Emergent Technologies Institute program and location were integrated with the campus master plan, the program and location of the Emergent Technologies Institute could have been more strategic.

- The Florida Agricultural and Mechanical University Pharmacy Building Phase II is very closely aligned with institutional and state-level goals. Pharmaceutical research space is fundamental to supporting the academic mission and goals of Florida Agricultural and Mechanical University and is in line with the SUS's Strategic Plan and other State-level goals. Perhaps most striking in this case study is the contrast between how well this project meets the goals of the state and the university and the project timeline. Thirteen years passed between the initial PECO funding and final PECO funding sufficient for some construction. Florida Agricultural and Mechanical University relied solely on PECO funding for this project, so it did not rank well at the state-level for several years. Per interviews and communication with SmithGroup, it was reported that university leadership encouraged the College of Pharmacy and Pharmaceutical Sciences leadership to diversify the funding sources to include private fundraising. According to university officials, because state funding was insufficient to complete the project as programmed, the College of Pharmacy and Pharmaceutical Sciences chose to proceed with construction of the building anyway. The results are that not all intended departments were co-located in the new building and two floors of space were shelled. This case study illustrates several problems with the capital outlay process. The project prioritization process at the Board of Governors level did not adequately indicate the importance that the university should support each capital request with a diverse and substantial amount of non-state funding. The process also does not provide sufficient flexibility in the prioritization process. Since many years pass between initial capital request and the provision of the final requested funds, the priorities of universities may change over this time. During the thirteen years that it took for this project to be funded, Florida Agricultural and Mechanical University listed other projects as the university's highest priority. The Board of Governors staff interpreted this shift that the Pharmacy Building Phase II was no longer a university priority, and as a result it was not considered as a state priority. The process should allow universities to adjust their priorities without being penalized when the state considers what the state's highest priorities are.

SECTION 4.2 RECOMMENDATIONS

The institutions comply with the Board of Governors process but feel, as reflected above, that the process needs a major overhaul or minimally needs to be streamlined to make a more efficient and effective process. The process change recommendations supported by and informed by these case studies are found in other sections of this report.

CHAPTER 5

SPACE FORMULAS AND UTILIZATION FACTORS

CHAPTER 5: SPACE FORMULAS AND UTILIZATION FACTORS

FULL-TIME EQUIVALENT STUDENT ENROLLMENT PROJECTIONS

The universities prepared student full-time equivalent enrollment projections that were relatively accurate when forecasting two to three years in advance. There was greater variability in the four to five year projections, though it could not be determined if the improvement seen in the two to three year forecasts was due to changes in forecasting methodology or greater stability in the market place. It was noted that there are differing degrees of sophistication at the universities in modeling forecasts among the institutions.

Using population projections from the Office of Economic and Demographic Research, a research arm of the Legislature, and current university participation rates, an additional 26,000 resident Florida students ages 18 to 24 could be anticipated to be enrolled in four-year institutions by 2030.

SPACE NEED FORMULAS AND UTILIZATION FACTORS

Universities are no longer required to follow the State Requirements for Educational Facilities (SREF, 2014) space guidelines, since the creation of the Board of Governors by constitutional amendment, though there are misperceptions about this at the university-level. The Board of Governors is therefore free to establish more effective space guidelines.

The Educational Plant Survey should be more flexible and consistent. The Educational Plant Survey process is robust and positive in that it provides oversight from other universities. However, some institutions expressed concerns that the five-year cycle is not sufficiently flexible for more frequent updates and that data can be reported inconsistently among universities, such as for Education and General (E&G) and Contracts and Grants (C&G) space.

The one-size-fits-all model for projecting spaces within the Educational Plant Survey needs does not accurately reflect the diversity of institutional categories, roles, and missions. The space needs model also does not adjust to account for an institution's strategic goals. For example, if an institution is focused on smaller class sizes or hiring additional research faculty, this is not considered when office space need is calculated. Furthermore, the space model within the Educational Plant Survey underestimates classrooms space need per student. The space needs for office and research laboratory space are indirectly calculated.

The inflexibility of the space needs assessment model has had unintended consequences at the project planning level. For example, if a space model indicates a surplus of office space on a campus, then a new construction project is not permitted to include offices in its space program, which can create programmatic inefficiencies and operational issues.

The current space model only recognizes one driver of capital needs—student full-time equivalent enrollment—among several potential others. Capacity for growth is a valid driver of need, but so are facility age and condition, quality, deferred maintenance, special needs, and the suitability of the facility to accomplish programmatic goals. For example, the State University System of Florida repair backlog was estimated at nearly $1 billion in 2017.[1] The current model does not include evaluation of deferred maintenance issues. The Board of Governors does not assess facility condition and suitability.

The date of occupancy recorded indicates that over half of all university buildings are 25 years or older, which is significant because most major buildings systems, such as mechanical and roofing, have a useful life of 25 to 30 years. The Board of Governors does not currently collect data on the age and condition of buildings, though some states like Texas do.

1 Sightlines, State University System of Florida, ROPA+ Presentation, October 2017

Greater accuracy in the assessments of space needs is possible, but would require greater complexity and additional supportive data, which in turn requires more university effort to produce. It is also important to note that assessments of space needs are not always indicators of efficiency and effectiveness. The process should be expanded to include discussion of these issues during master planning and project program planning.

The Board of Governors does not require the reporting of instructional space utilization and therefore does not consider it when evaluating projects. Other state university systems such as Texas, Tennessee, Virginia, and North Carolina require reporting of utilization for classrooms and teaching laboratories.

SECTION 5.1: PROCESS USED TO ESTIMATE FULL-TIME EQUIVALENT (FTE)

Student full-time equivalent (FTE) enrollment is currently the primary driver of the space needs calculations used in the EPS capital planning process.

FTE x a space factor = space needs in assignable square feet (ASF)

Projecting enrollment at a future state is therefore relevant in assessing the need for a capital project request.

Board of Governors staff provided data regarding institution projections and actuals of enrollment for the 2017 academic year. SmithGroup checked this against Work Plans (prior to 2016) and Accountability Plans (2016 and later) from each institution and found numbers between SUS reporting and institutional plans consistent from 2016 through 2018. We found very minor reporting inconsistencies for 2014 and 2015, with the largest difference amounting to 88 student FTE. For data integrity, the enrollment summary was reproduced using only the institutional plan data.

Projections are less accurate further into the future. The four- and five-year projections had the most variability between projection and actuals. Therefore, it is appropriate for the space needs calculations used in the Educational Plant Survey capital planning process to be based on near-term enrollment projections. Even if a project is planned for four to five years out, perhaps due to project funding that is distributed over multiple years, the space needs calculations should use the near-term enrollment projections or update those planning assumptions throughout the funding cycle.

Overall, there was accuracy observed in projections across the system. The variance for 2016 through 2018 was less than 1%.

ANALYSIS OF INSTITUTIONAL PLANS FOR 2017–18 UNDERGRADUATE FTE
PERCENT DIFFERENCE BETWEEN PLANNED AND ACTUAL

YEAR APPROVED	TYPE	FAMU	FAU	FGCU	FIU	FPoly	FSU	NCF	UCF	UF	UNF	USF	UWF	SUS
2013	PLAN	24%	5%	11%	-10%	208%	-7%	1%	-6%	-4%	1%	-4%	28%	**-0.8%**
2014	PLAN	27%	-1%	11%	3%	51%	-1%	4%	-4%	2%	0%	-1%	17%	**1.7%**
2015	PLAN	29%	-1%	1%	1%	45%	0%	9%	-3%	1%	-2%	-2%	-3%	**0.2%**
2016	PLAN	-1%	0%	1%	1%	-10%	-3%	2%	-3%	1%	-6%	0%	1%	**-0.9%**
2017	PLAN	8%	1%	-1%	-1%	0%	0%	0%	-1%	0%	-4%	-1%	1%	**-0.4%**
2018	PLAN	0%	0%	0%	-2%	0%	0%	-1%	0%	0%	0%	0%	0%	**-0.3%**

-30% and below — 0% — 30% and above

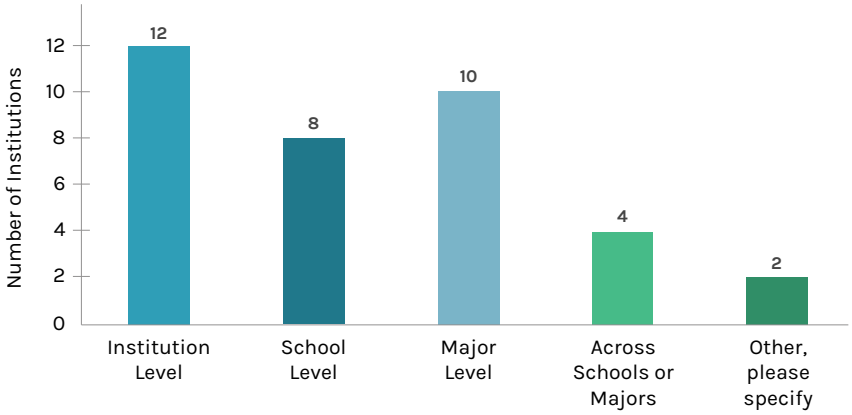
However, enrollment projections for the smaller institutions were generally less accurate than larger ones. The greatest variances for 2016 through 2018 were at Florida Agricultural and Mechanical University (8%), Florida Polytechnic University (-10%), and University of North Florida (-6%). This may be due to their sensitivity to micro-changes, their lack of resources available for enrollment planning, or both. There is a general perception on the part of Board of Governors staff and SmithGroup, based upon the interviews, that enrollment projection methodology varies between a sophisticated analysis of inputs and the use of simple trendlines from historic actuals to create a projection.

Enrollment projections will be inaccurate when the institution makes fundamental structural changes, such as the consolidation of University of South Florida when admission standards changed for some campus sites.

An additional assessment was made using the 2030 Florida projections from the Office of Economic and Demographic Research, which supplies such data to the Legislature. Assuming that the participation rate of 18 to 24 year olds at the 12 universities will remain the same as the current 13.86% rate, then an additional 26,377 Florida resident students could be enrolled by 2030. There are many variables that could affect that rate, such as the role of Florida colleges providing four-year degrees. However, in this one scenario, the potential impact on facility needs could be minimized by matching capacity with growth, if on the other hand, student enrollment follows the current distribution, then the larger universities will carry a disproportionate share of that growth, although both Florida State University and University of Florida have indicated interest in stabilizing enrollment at current levels.

All 12 institutions were surveyed to understand at what level student population growth and projected needs were assessed. Eight institutions indicated that the assessments were made at the school level and ten institutions indicated that assessments were made at the major level.

LEVEL AT WHICH STUDENT POPULATION AND PROJECTED NEEDS WERE ASSESSED



Only one third (four universities) reported that they did not consider a decline in one field, such as history and how that might relate to an increase in another, such as engineering. From a space planning perspective, however, many institutions reported that micro-changes, such as matching a faculty increase of five in one department with a faculty decrease of three in another, are difficult to manage effectively. This is due to a variety of reasons, such as geographic location within a campus and suitability of space (e.g., putting an engineering professor in art space). Tenure track faculty also depend upon departmental relationships for career advancement, so co-location is important for recruitment and retention. A more effective approach is to take advantage of space vacancies at a group level, such as a center or administrative support unit. Thus, even if all universities projected enrollment at the major level, space needs and space management practices cannot fully respond to these micro-changes.

Very few SUS institutions were willing or able to provide school or major level enrollment figures. SmithGroup obtained completions by academic program (Classification of Instruction Programs from the National Center for Education) for each institution, and they are provided in Appendix F. Program completions between 2013 and 2017 indicate consistency with national trends for growth in STEM and healthcare fields.

SECTION 5.1 CONCLUSION

- **Changing the institutions' current FTE projection process would not result in more efficient or effective use of space.** The current FTE projection process results in relatively accurate near-term enrollment projections. However, there was greater variability in longer term projections that might coincide with the delivery cycle of capital projects.

SECTION 5.1 RECOMMENDATIONS

- **The Board of Governors should review and evaluate enrollment projections.** Given that the cycle for completing individual capital projects can be five years or more, the length of time when enrollment projections have been less accurate, the Board of Governors should engage the institutions in more detailed discussions about and evaluations of enrollment projection methodologies, especially for capital projects requests that are driven by projected capacity needs.
- **Reassess the five-year FTE enrollment projection methods.** Greater scrutiny and discussion of institutional five-year projections would be worthwhile.
- **The Board of Governors should coordinate enrollment management to reduce need for new space.** The State would benefit from a system-level coordination of enrollment growth plans and the development of approaches to accommodate the 10% resident population increase forecast for 18 to 24 year olds by the Office of Economic and Demographic Research. A coordinated approach could maximize existing surplus space capacities and minimize the need for capital investment. The Board of Governors should take a new stronger role in managing enrollment growth across the State University System of Florida. The Board of Governors should develop a coordinated approach among the enrollment management administrators across the universities to optimize the use of existing capacity and potentially reduce the need for new space driven by enrollment growth. However, it should be noted that other capital needs driven by poor facility conditions, deferred maintenance, and programmatic suitability would still need to be addressed at all universities.

SECTION 5.2: CURRENT SPACE NEEDS FORMULAS AND UTILIZATION FACTORS

SmithGroup identified eight leading state systems for best practices regarding space models: Georgia, Maryland, North Carolina, Texas, Tennessee, Utah, Virginia, and Washington. Space formulas for each state were examined and compared with Florida to provide context for evaluating the SUS space planning criteria. SmithGroup also examined national space standards published by the Council of Education Facilities Planners (CEFPI) which are widely used and well recognized.

Several key differences were observed with the calculation of student FTE and in most all space categories.

STUDENT FULL-TIME EQUIVALENT (FTE) CALCULATION

When using student FTE figures, CEFPI and seven of the eight leading state systems use Fall Semester FTE in their space needs formulas; in contrast, SUS uses annualized FTE. In the SUS approach, the FTE is calculated by adding summer, fall, and spring weekly student credit (SCH) and dividing by 30 (it is assumed the average full-time student enrolls in 30 hours of credit courses a year). CEFPI uses Fall weekly student contact hours (WSCH) divided by 15 (it is assumed the average full-time student enrolls in 15 hours of credit courses a semester).

Calculating space needs based on student contact hours is superior because a contact hour measures how much time the student actually spends in the classroom. For example, a four credit hour course could meet for six hours. Using the credit hour value would underestimate the classroom time by one third. Each institution has a different ratio of credit hour to contact hour, depending on curriculum. Therefore this methodology would underestimate classroom needs for institutions with lower ratio of credit hours to contact hours.

Calculating space needs based on only fall term is superior for two reasons. First, the annualized approach creates differences between institutions which have significant enrollment in summer sessions (e.g., University of Central Florida) and those who have none (e.g. New College of Florida). The SUS FTE is overestimated at universities with significant summer enrollment, potentially resulting in overbuilding facilities to accommodate an FTE that is spread across the entire year. Additionally, the annualized approach may not be accurate in reflecting the highest pressure point for classrooms and teaching laboratories, since it is a blend of three semesters. CEFPI uses fall semester because it represents the highest likely demand.

CLASSROOM UTILIZATION – WEEKLY SEAT HOURS

All surveyed state systems measure classroom utilization. States can measure classroom utilization through a variety of methods.

Surveyed states measure the percent of classrooms in use during the week, sometimes reported as a percentage of a weekly hour expectation. These states will consider constructing more classroom space after existing classrooms are scheduled a minimum number of hour per week. States differ on the length of the week that utilization is assumed, ranging from 30 hours to 60 hours. The SUS targets 40 hours of use; SmithGroup recommends 36 WRH. Regardless, the WRH metric by itself is one dimensional and does not paint a full picture. As noted in the February 2018 OPPAGA research paper, a classroom could be highly scheduled, but only marginally full.

Many state systems and CEFPI also consider the student station occupancy (SSO). SSO measures how full classrooms are, as a percentage of the number of seats that are occupied. Among the surveyed states, the expectations for classroom SSO ranged from 60% to 67%. The SUS target is 60%; SmithGroup recommends 67%. Assessing SSO alone is insufficient, since a classroom could host a small number of full classes but remain unused the rest of the week.

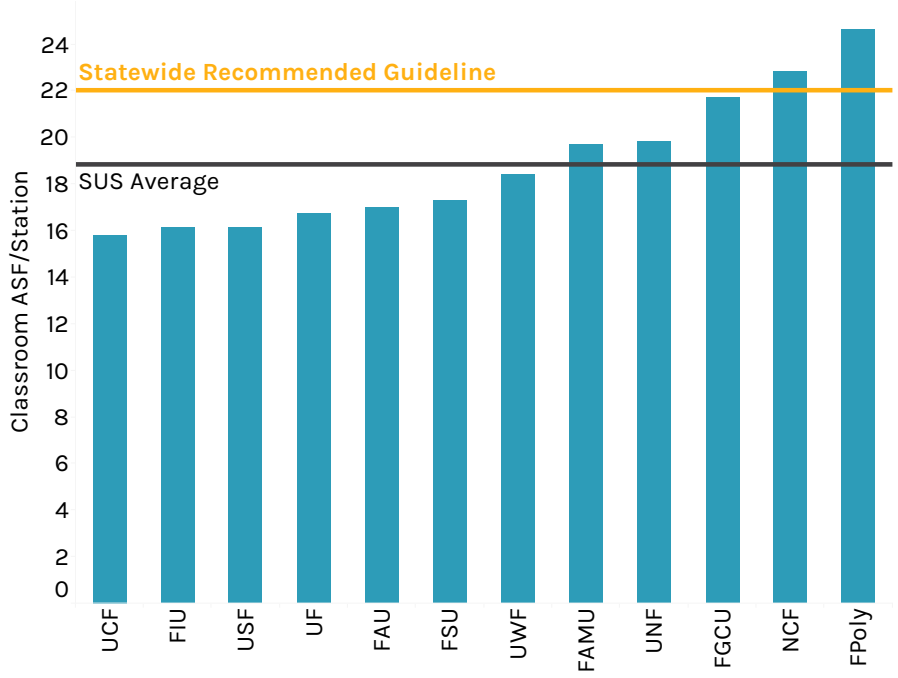
Therefore, for a single utilization metric, SmithGroup recommends the WSH, which is the product of WRH and SSO. For example, if the utilization targets are 36 WRH and 67% SSO, then the WSH target is 24.0. This is also noted in the CEFPI literature. Progressive systems, such as the University System of Georgia, use a variation of this in which they also focus on the utilization of seats. They calculate weekly student contact hours as a percent of each seat being used 40 hours a week, and then define a space need as exceeding 70% of the target. For the purposes of this analysis, WSH will serve as the primary utilization metric because it accounts for both WRH and SSO.

Some state systems use differentiated guidelines based on the size of the institution. The SUS has one utilization expectation for universities with differing enrollment sizes and missions.

CLASSROOM FLEXIBILITY – ASSIGNABLE SQUARE FEET PER STUDENT STATION (ASF/SS)

This ratio is not a measure of utilization, but rather the flexibility of the space. A low value indicates low flexibility; 12 ASF/SS is indicative of a raked (sloped) lecture hall with fixed seats. 15–20 ASF/SS indicates a traditional classroom with forward facing tablet armchairs. Active learning environments require 25–35 ASF/SS to accommodate increased circulation/interaction and movable/reconfigurable tables and chairs. Learning science has shown improved student outcomes with active learning environments, so many universities are strategically reconfiguring classrooms for smaller sections and greater flexibility. Within SUS, the approximate average is 18 ASF/SS, indicating that an older, traditional configuration is predominant. The newer institutions, such as Florida Polytechnic University, are among the highest with 20–22 ASF/SS on average. Among the surveyed states, the ASF/SS expectation ranged from 14–26 ASF/SS. SmithGroup recommends 22–24 ASF/SS in recognition of learning science research which indicates that flexible, active learning environments produce better student outcomes. The SUS has a 22 ASF/SS expectation and is therefore within range of surveyed states and SmithGroup expectations.

CLASSROOM ASF PER STATION BY UNIVERSITY



Note that the five Preeminent and Emerging Preeminent Universities likely have less effective classrooms. A low amount of space per student is efficient but not necessarily effective. Research in the emerging field of learning science has shown that active learning produces better student outcomes than traditional lecture. However, four of the five Preeminent and Emerging Preeminent universities had the lowest amount of space per student station (seat) in the system. This is indicative of learning space that is traditional and highly inflexible. For example, a sloped, 1960's era lecture hall with 240 seats might be very efficient at delivering lectures, but four 60 seat sections held in a flexible classroom with space for working in teams may be more successful in producing more effective learning outcomes.

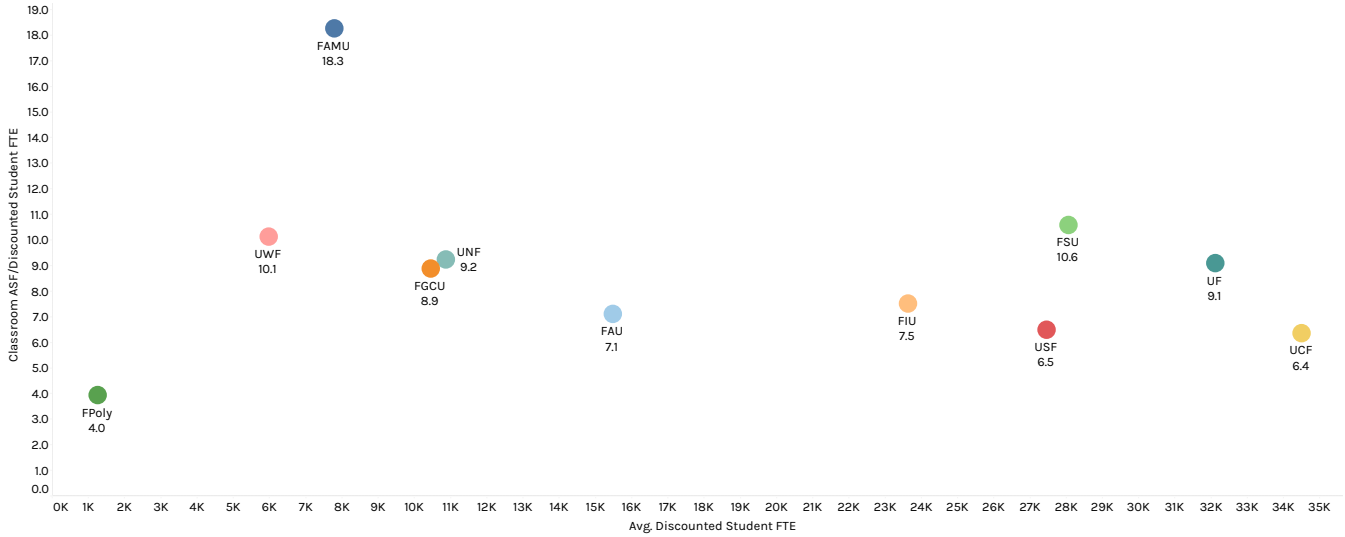
The three metrics discussed above also play a critical role in determining space needs. The SUS uses the CEFPI calculation of a space factor: ASF/SS divided by (SSOxWRH). CEFPI then multiplies this by the fall Weekly Student Contact Hours (WSCH), as previously discussed. The SUS uses annualized FTE based on a credit hour calculation and not contact hours.

CLASSROOM SPACE NEED – ASSIGNABLE SQUARE FEET PER STUDENT FULL-TIME EQUIVALENT ENROLLMENT (ASF/FTE)

One way to measure classroom space is ASF per student FTE enrollment (ASF/FTE) space factor. Institutions with high values may have programs that require intensive classroom use or may be overbuilt. Institutions with low values may have programs with minimal classroom need (e.g. extensive teaching laboratory use, off-campus externship programs) or may be underbuilt.

An analysis of the existing conditions shows a wide range in ASF/FTE for classrooms throughout the SUS. Actual classroom space ranged from 4–28 ASF/FTE. The approximate system average is 10–12 ASF/FTE of classroom space, with most values between 6–10 ASF/FTE.

CLASSROOMS ASF PER STUDENT FTE (BY INSTITUTION SIZE)



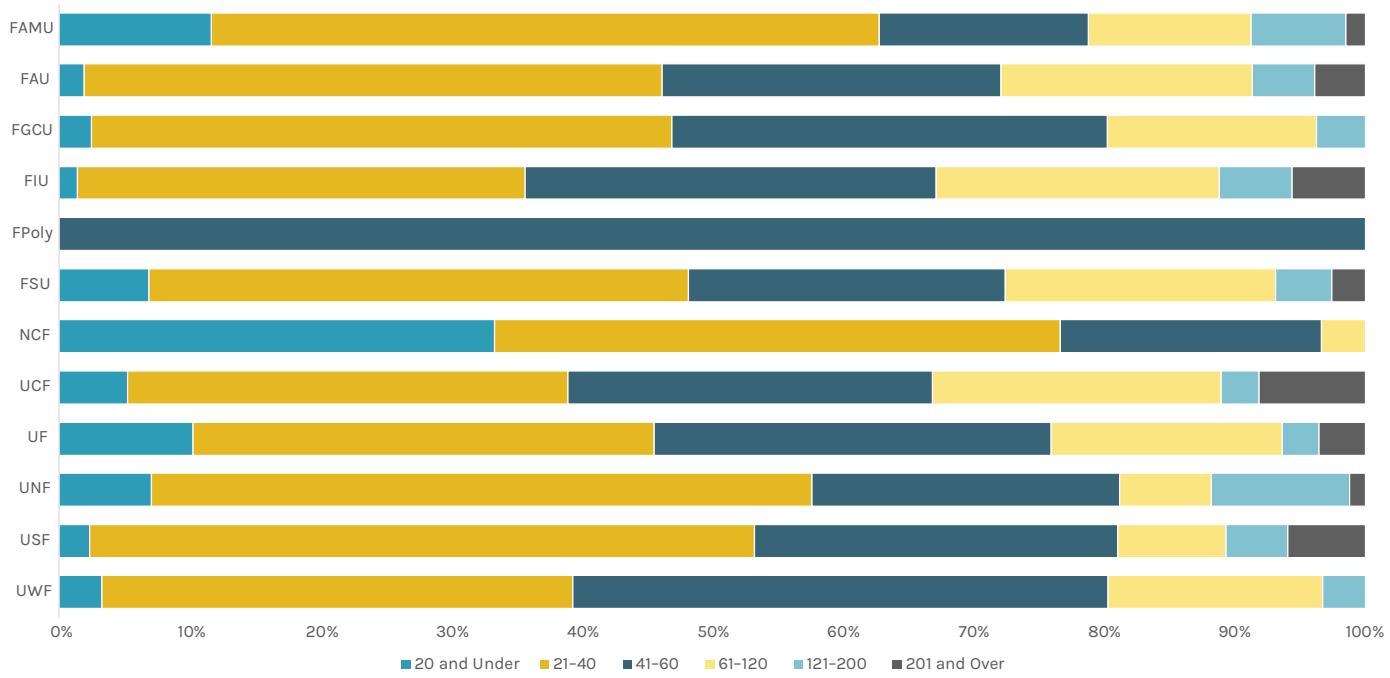
Note that New College of Florida was analyzed separately. Due to its unique curriculum and pedagogy, a course file was not available. However, its space was benchmarked against 12 comparable liberal arts colleges. Among the institutions surveyed, an average of 20.7 ASF/Student FTE was observed, as compared with 28 ASF/Student FTE at New College of Florida.

Board of Governors staff calculates classroom space need based on ASF/FTE. The current classroom space factor is 9 ASF/FTE. Board of Governors staff have noted the classroom space factor was been reduced from a more accurate rate as a means to reduce space needs as a reflection of reduced funding realities. (The Board of Governors reduced the classroom space factor from 12 ASF/FTE to 9 ASF/FTE in 2016.) The 9 ASF/FTE space factor is lower than approximate actual SUS average of 10–12 ASF/FTE of classroom space and lower than the average space factors of surveyed states. Increasing the space per student station metric (ASF/SS) to account for active learning would increase the ASF/FTE space need.

Florida Polytechnic University is at the low end of the scale and the space needs analysis indicates a greater need for classrooms than other SUS institutions. On the other hand, Florida Agricultural and Mechanical University has capacity for significant growth.

It should also be noted that there is variance in the classroom inventory profile of the institutions across the SUS. The following chart shows the distribution of classrooms by size for each institution.

PERCENT OF CLASSROOMS BY CLASSROOM SIZE



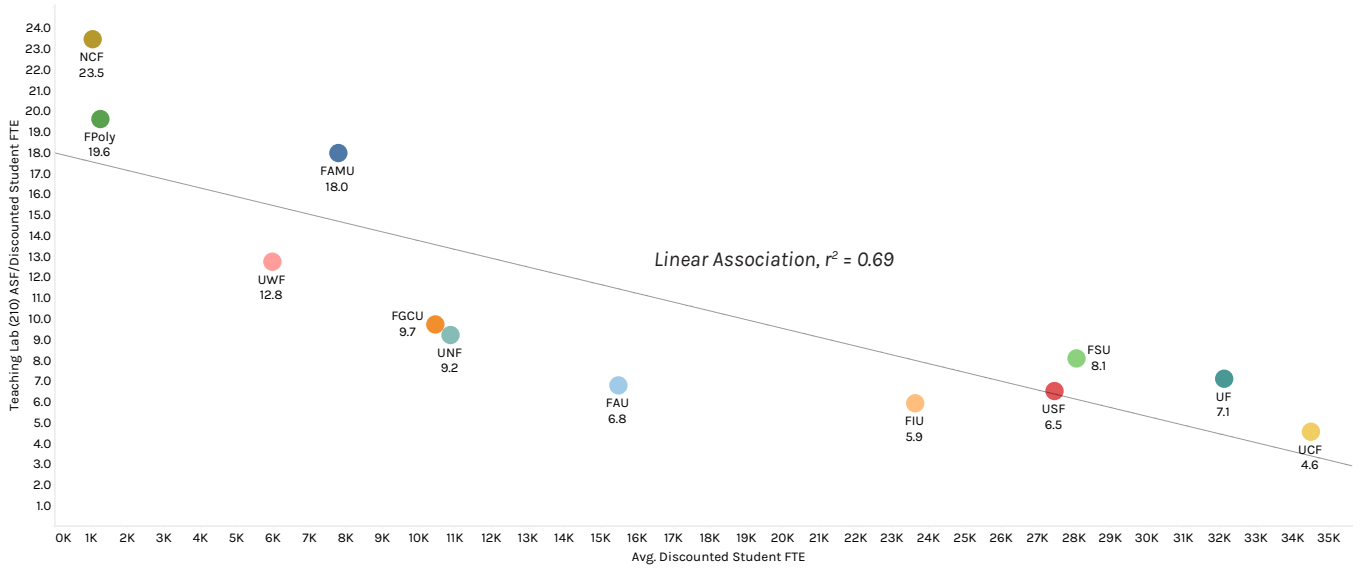
TEACHING AND OPEN LABORATORIES

Like classrooms, teaching laboratories are mission critical in providing an educational experience and delivering academic programs. They are also critical to delivery of degree programs in high demand fields related to STEM and health professions.

The SUS uses a utilization metric of 20 WRH at 80%. The surveyed states had utilization targets that ranged from 15–22.5 WRH at 60–80% SSO. The SUS utilization target matches the recommendation of CEFPI.

Teaching laboratory utilization metrics factor into the space needs guideline by the same CEFPI formula as described for classrooms: (ASF/SS)/(SSOxWRH). The SUS uses a single space factor for all types of teaching laboratories. However, CEFPI and other state systems recognize that teaching laboratories are discipline-specific and space needs vary greatly by those disciplines. For example, a computer laboratory might be functional with 30 ASF/SS, while a biology laboratory needs 75 ASF/SS and a civil structural laboratory needs 150 ASF/SS. The profile of teaching laboratory space needs will also vary from institution to institution, depending upon the distribution of these academic programs.

210 TEACHING LABORATORIES ASF PER DISCOUNTED STUDENT FTE



Analysis of the existing conditions within the SUS indicate a range of 9.6–22.9 ASF/Student FTE among the institutions for teaching laboratories. The approximate system average is 16.0 ASF/FTE of teaching laboratory space.

The SUS space factor for teaching laboratories also includes the category of open laboratories; these are unscheduled spaces that are open for student use at any time. Examples include computer laboratories, art and architecture studios, and nursing simulation laboratories. They also can include student tutorial space and centers for writing or math. The Tennessee Higher Education Commission assigns an ASF/FTE for open laboratories independent of teaching laboratories. The linear regression analysis of the 210 teaching laboratory space (ASF) per discounted student FTE found a fair correlation (r^2 value of 0.69) with institution size. However, teaching laboratories are by definition, discipline-specific and therefore subject to program growth, especially in STEM and healthcare. For this reason, SmithGroup chose to use a methodology which assigns space needs at the course level. The data above is generally indicative that smaller institutions have more of this space type than large universities. This is because there is a minimum requirement for a chemistry or biology laboratory, but larger institutions have larger enrollments to use them, so the ASF/Student FTE goes down. It should also be noted that some institutions with a engineering focus (Florida Polytechnic University) or an agricultural focus (Florida Agricultural and Mechanical University) also tend to have a higher concentration of these laboratories.

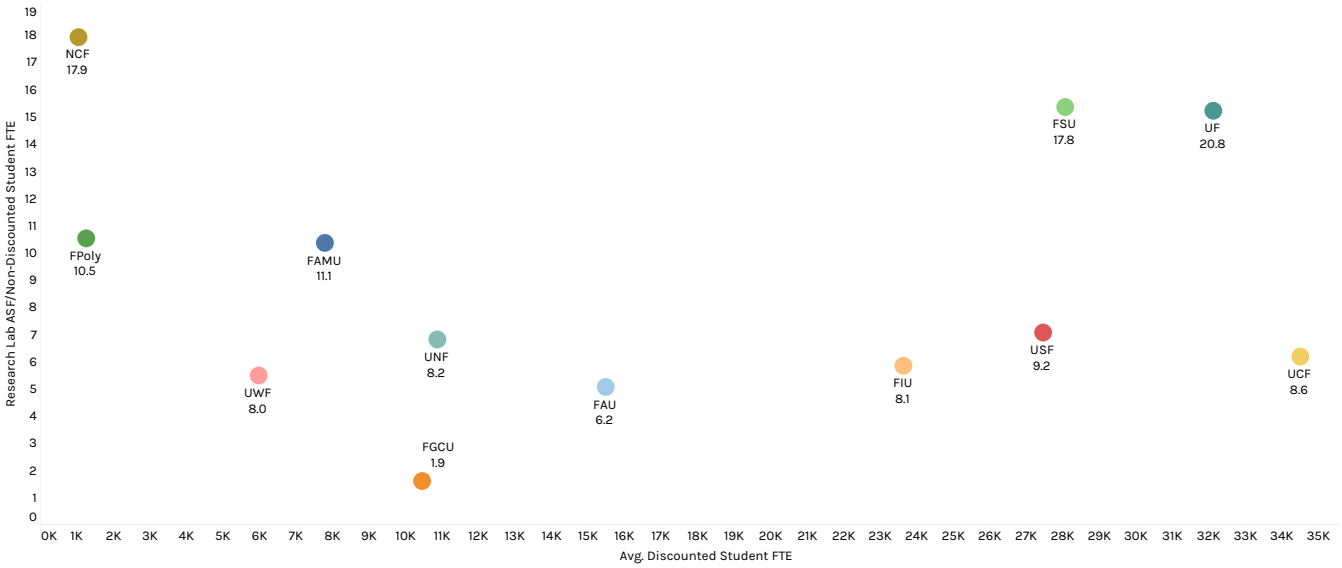
The SUS calculates teaching and open laboratory space needs based on ASF/FTE. The current combined teaching laboratory and open laboratory space factor is 11.25 ASF/FTE, which is lower than approximate SUS institutional average of 15.9 ASF/FTE of teaching laboratory/open laboratory space and lower than the average space factors of surveyed states. Applying different space factors that are specific to the types of teaching laboratories would increase calculated space needs and this formed the basis of the space model used for this analysis. An alternative to this CEFPI approach would be to consider the linear regression trendline (linear association of $r^2 = 0.69$) for the values of ASF/Discounted Student FTE. Comparing New College of Florida with 12 other small liberal arts institutions, they are within 10% of the comparative benchmark (29.7 versus 26.3) for teaching laboratories and open laboratories combined.

RESEARCH LABORATORIES

Research laboratories provide dedicated and customized space to advance basic and applied research and are mission critical to Preeminent and Emerging Preeminent universities. Research laboratories are among the most expensive space types to build, operate, and maintain.

The SUS uses a space factor of 18.75 ASF/Student FTE to calculate research space needs. The existing conditions show a range of 1.9–20.8 ASF/Non-Discounted Student FTE for research laboratories. This approach departs significantly from both the national standards established by CEFPI as well as practices among all surveyed state systems.

RESEARCH LABORATORIES ASF PER NON-DISCOUNTED STUDENT FTE



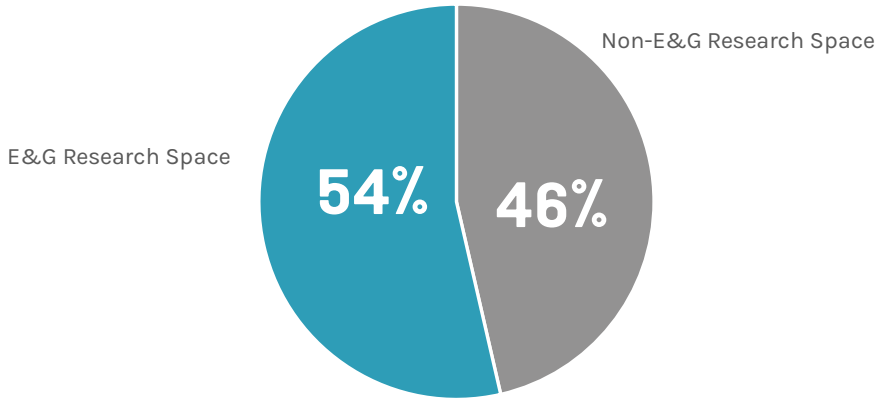
The linear regression analysis of the Board of Governors' metric of ASF/Student FTE does not show any correlation with institution size.

The more conventional approach recognizes that research space needs are driven not by student FTE, but rather by either the number of principal investigators or expenditures. In both cases, the metric needs to be discipline-specific. Similar to teaching laboratories, research laboratories need varies greatly according to the field. For example, research in public policy can be conducted in an office setting, whereas biomedical research requires wet laboratory benchtops and core equipment facilities. Typical metrics include ASF/Faculty FTE or Principal Investigator (PI) by discipline, or ASF/Expenditure by discipline.

Very few SUS institutions reported analyzing productivity metrics for research laboratory space. SmithGroup produced research laboratory utilization rates for each surveyed university using several productivity metrics—ASF/Faculty FTE, ASF/PI, Expenditures ($)/ASF and Expenditures ($)/PI—and these are detailed in the Chapter 7: University Snapshots.

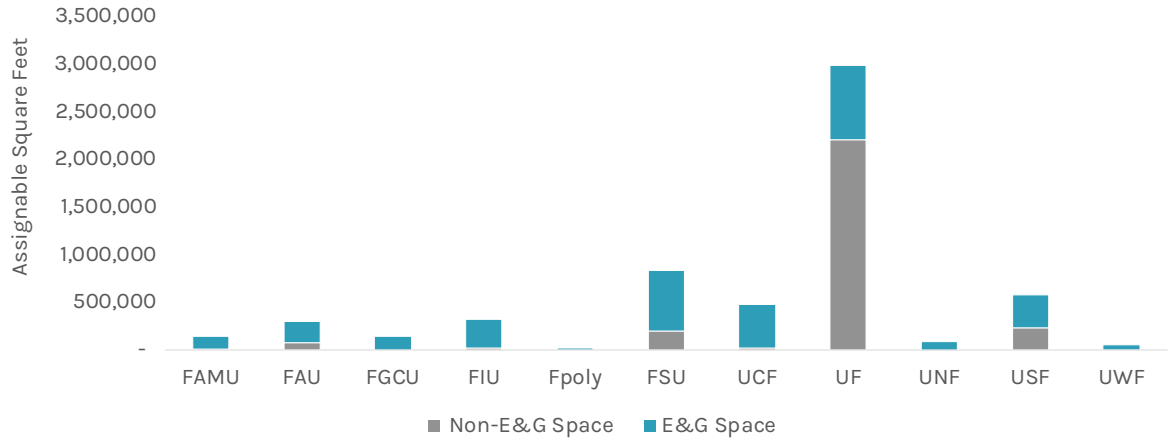
During interviews, SmithGroup detected a lack of clarity regarding the distinction between E&G (Education & General) and C&G (Contracts & Grants) space. A comparison of E&G and C&G space as reported by universities showed considerable variation, which could possibly be indicative of inconsistencies with recording and reporting that space. Although only E&G categorized research space was analyzed for this study, such a distinction is not found in other states surveyed and it is not clear that it serves a useful purpose for assessing space needs.

STATEWIDE E&G (EDUCATION & GENERAL) AND C&G (CONTRACTS & GRANTS) RESEARCH COMPARISON



The prevailing space planning practices as described above are applied to the whole of the research enterprise without any attempt to separate E&G from C&G space. Combining these spaces and using a more comprehensive space planning approach for all university-related research activity raises the larger policy question of how research and development should be supported as an overall statewide strategic goal.

STATEWIDE RESEARCH E&G VS. NON-E&G SPACE



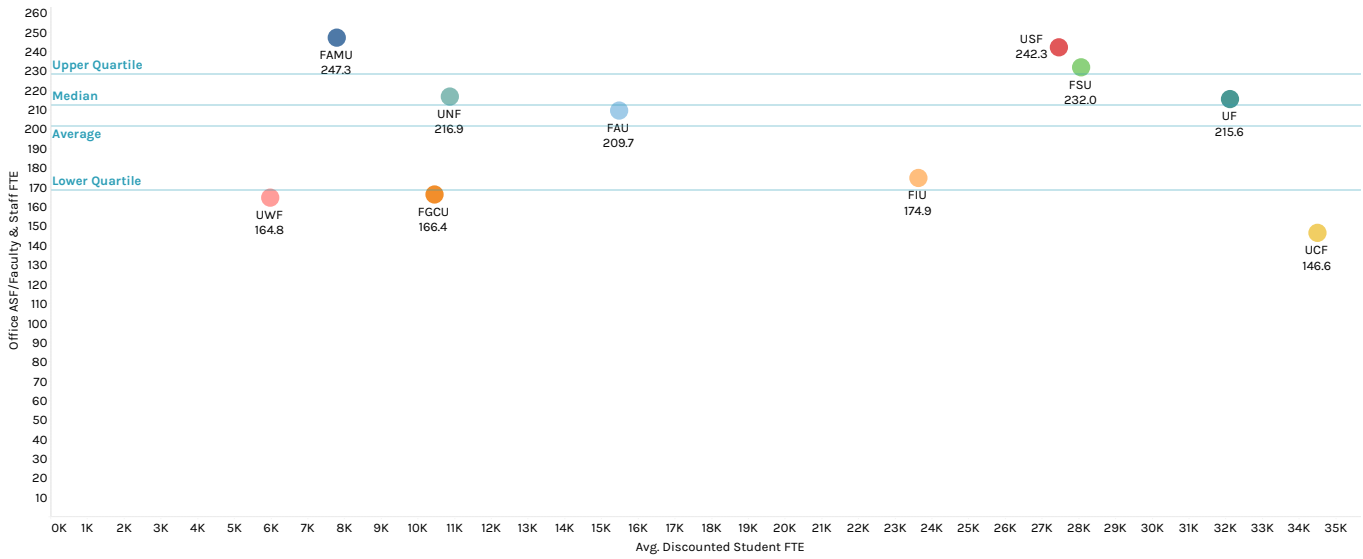
Since some campuses have Research ASF in off-campus locations, the calculation of space needs cannot be limited to the main campus site to get an apples-to-apples comparison of the spaces. Calculating space needs on research space using PI or Expenditure data for the institution should use institution-wide ASF in the calculation since these variables cannot be isolated by location. This report's analysis was limited to E&G space (institution-wide), but this does not necessarily paint an accurate apples-to-apples comparison due to the differences in reporting laboratory space. (Spaces flagged with "Space Needs Exclude" were not considered for this analysis. Florida Gulf Coast University, Florida Polytechnic University, and University of West Florida do not have any off-campus research space coded as Non-E&G.)

OFFICES

Offices represent the single largest space type of every SUS institution's space portfolio. The SUS uses a space factor of 22.5 ASF/Student FTE to calculate office space needs. Analysis of the 12 institutions showed a range of office provision from 12.6 ASF/Student FTE to 79.6 ASF/Student FTE.

The SUS use of ASF/FTE for offices spaces deviates from national methodologies established by CEFPI and practices at the state systems surveyed. The predominant metric is ASF/Employee (Faculty and Staff) FTE, which recognizes that employees, not students, are the primary users of office space and therefore drive that space need. Of the other state systems surveyed, space standards ranged from 170–220 ASF/Employee (Faculty and Staff) FTE. SmithGroup calculated current ASF/Employee (Faculty and Staff) FTE for all 12 institutions. The current ASF/Employee (Faculty and Staff) FTE (faculty and staff) ranged from 64.6–295.2 ASF/Employee (Faculty and Staff) FTE.

OFFICES ASF PER FACULTY & STAFF BY INSTITUTION SIZE (DISCOUNTED STUDENT FTE)



Note: FPoly and NCF excluded as outliers. FPoly = 64.6 ASF/Employee (Faculty and Staff) FTE. NCF = 295.2 ASF/Employee (Faculty and Staff) FTE.

In looking at the office space per Employee FTE, most institutions fell in the range of 154–247 ASF/FTE. In the linear regression analysis there was a significant correlation with the trendline (r^2 = 0.0003). Research institutions tend to have more due to graduate students and larger offices for PIs. New College of Florida is an outlier because their curriculum model, based on New College at Oxford, involves a tutorial model in which faculty regularly meet with two to five students at a time. This requires a larger office for faculty. Florida Polytechnic University is atypical in housing faculty in a very large open office setting.

When Florida Polytechnic University and New College of Florida are excluded as outliers, no statistical relationship is seen between the student population and the amount of office space per Employee FTE. However, the institutions on average fall within around 30 ASF of the statewide average, with a range of 8–55 ASF away from the average of 201.7 ASF/Employee (Faculty and Staff) FTE.

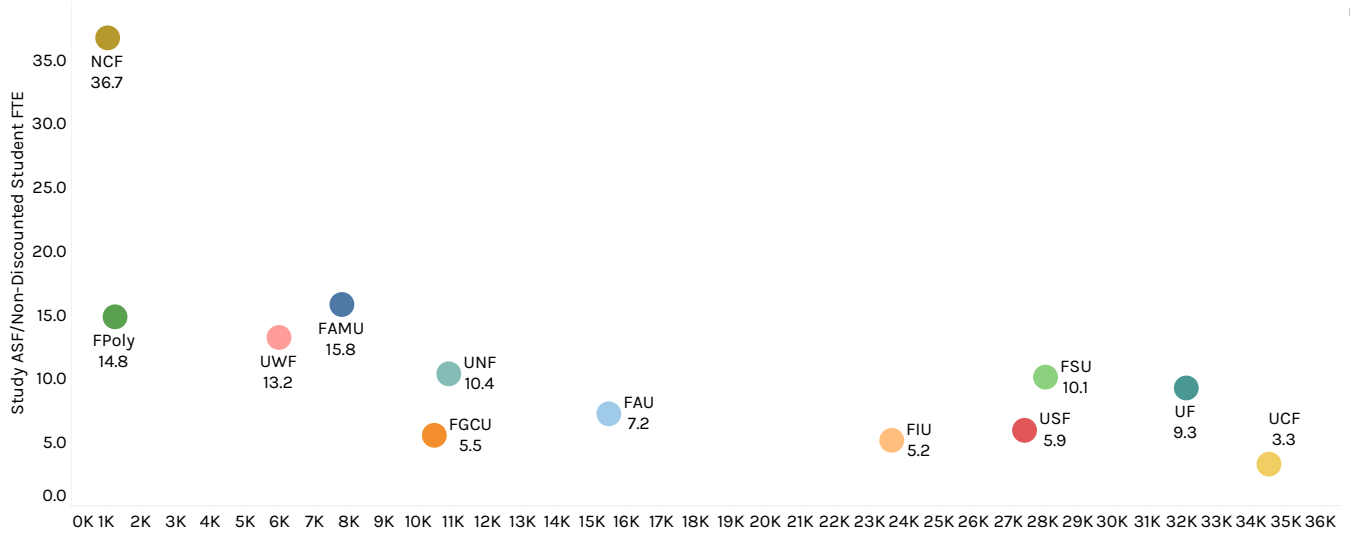
STUDY SPACES

Predominant space planning standards, established by CEFPI and adopted by many universities and systems, calculate library stack space and study space separately. However, as information has become digitized, the function of libraries on university campuses are evolving to meet needs.

The analysis of existing conditions shows a range of 3.3 ASF/Student FTE to 36.7 ASF/Student FTE. The SUS space factor for study spaces is 13.5 ASF/Student FTE, and all universities except New College of Florida, Florida Agricultural and Mechanical University, and Florida Polytechnic University are below that guideline. The 13.5 ASF/Student FTE space factor appears to be reasonable based on existing conditions data, though the Board of Governors may consider using the space factor with the Discounted Student FTE to account for purely online students who may not need access to these facilities.

The Board of Governors should adapt its study space factor for New College of Florida, which has a pedagogical approach that requires additional student study space.

STUDY ASF PER NON-DISCOUNTED STUDENT FTE (BY INSTITUTION SIZE)

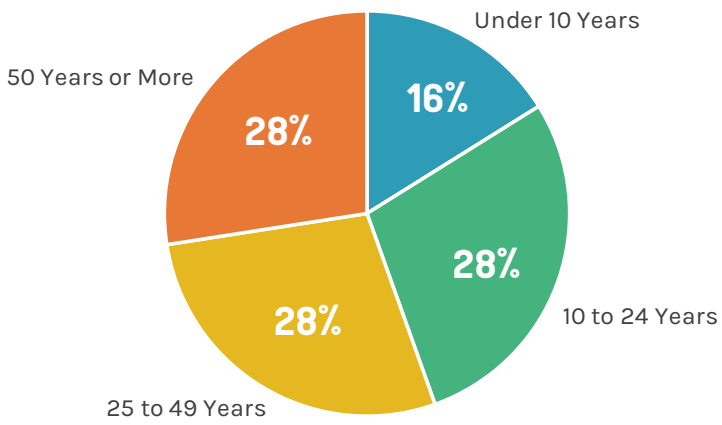


OTHER CONSIDERATIONS

The SUS calculates the need for classrooms, teaching and open laboratories, research laboratories, offices, and study space by a one-size-fits-all ASF/Student FTE approach. The current SUS space needs formulas consider only the quantity of space. The actual need is complicated and factors such as the age, functionality, and suitability of the space should also be considered.

- **Age and Functionality**: It is noteworthy that a significant portion of the SUS space assets are more than 30 years old. This is significant because of the deferred maintenance backlog for these buildings; the useful life of many building systems end after 25 to 30 years. The chart below indicates the average building age across the system. Most of the inventory is more than 25 years old. The State University System of Florida repair backlog was estimated at nearly $1 billion in 2017.[2]
- **Suitability:** National organizations such as APPA, the leading association of higher education facility managers, and NACUBO, the National Association of College and University Business Offices, have published extensively on the insufficiency of considering only space needs. They advocate for a process to not only inventory space and assess facility conditions, but to also consider the suitability of the buildings to serve programmatic needs. For example, a 1960's building may function adequately, but it may not be sufficiently flexible to deliver pedagogy and academic programs for 21st Century learning. A traditional 300-seat raked (sloped) auditorium with fixed seats cannot be used effectively for students working in teams; it certainly cannot accommodate smaller class sizes, such as five 60-student sections, very efficiently.

AGGREGATE AGE OF BUILDINGS IN STATE UNIVERSITY SYSTEM



Other notes regarding SUS space needs formulas.

- **E&G and C&G Reporting.** As noted in the section on Research Laboratories, only E&G space was considered for this study. However, SmithGroup observed that the amount of E&G space as compared with non-E&G space varied widely between campuses, suggesting that there may be inconsistencies in reporting.
- **Instructional Media:** This category of space is largely outdated, since projector rooms and other support space have largely been replaced by digital media. Distance learning studios and support space may still be needed, but for simplification, it is recommended that any space needs for this category be combined with another category.

2 Sightlines, State University System of Florida, ROPA+ Presentation, October 2017

SECTION 5.2 CONCLUSIONS

- **The data collection process for documenting space is sound.** The existing five-year cycle for updating space records uses a peer-based evaluation process, similar to Texas. This produces reliable results. However two institutions (Florida Gulf Coast University and New College of Florida) reported not having space management software to maintain the data. Others expressed that there was not sufficient flexibility in the five-year cycle for more frequent updates and that there are inconsistencies between institutions in the reporting of space data, especially between E&G space and C&G space.
- **Universities are free to establish more effective space guidelines.** The universities are no longer required to follow State Requirements for Educational Facilities (SREF, 2014) space guidelines. The majority of universities follow the space planning standards listed in the SREF manual because they perceive SREF space standards as required by State Law. Upon discussion with Board of Governors staff, it was explained that this is a common misconception and when the Board of Governors was created, the universities were removed from Department of Education jurisdiction. It is therefore no longer applicable. Confusion is understandable because SREF language still contains detailed references to university space guidelines.
- **The Board of Governors space formulas underestimate actual classroom space need.** Board of Governors staff noted that the classroom space factors have been reduced from more accurate rates as a means to reduce space needs as a reflection of reduced funding realities. SmithGroup modeled recommended space factors for each surveyed university, and Board of Governors space formulas for other E&G space categories – teaching laboratories, research laboratories, offices, and study space – were sufficiently close to an estimated actual need. For more detailed information by institution, refer to Chapter 7: University Snapshots.
- **The Board of Governors space formulas do not account for the diversity of universities.** The current methodology for projecting space needs uses a one-size-fits-all approach and cannot consider differences in individual institutions role and mission, strategic goals, and varying needs according to discipline. For example, an institution who strategically wants to ascend in the rankings and improve student success, might want to lower student-to-faculty ratios and schedule smaller class sizes. Hiring faculty requires office space and small class sections may not line up with the classroom sizes available in the space inventory. Both would have impacts on the assessment of space needs, but they are not accounted for in the space factors or the Educational Plant Survey process. Florida State University is strategically reducing class size below 20 students but 88% of their classroom counts and almost 93% of their classroom square footage have more than 21 seats. The disconnect between the specific needs of institutions and one-size-fits-all space needs formulas and utilization factors means that space factors cannot justify the distinct spaces that some universities would use most effectively.
- **The Board of Governors space formulas do not address space quality.** The Board of Governors space factors do not take into account the quality of space and therefore do not provide a complete picture of space needs. Leading national organizations such as NACUBO and APPA have focused attention on the negative impact of deferred maintenance on the condition of facilities in higher education. They advocate for assessing both the facility condition and the suitability of buildings to accommodate the programmatic needs. Older facilities may not meet current standards for climate control or ADA access, and they may also be obsolete for 21st century teaching and learning. Mid-century buildings are often purpose-built and inflexible for accommodating more effective learning and program delivery. Suitability of the space to effectively deliver programs for 21st century education should be considered. The condition, suitability and configuration, and overall quality of existing space can be more important to institutions achieving strategic goals than quantity of space.
- **The Board of Governors space formulas are too simplistic to accurately assess space needs.** All space factors are multiplied against student FTE, which is appropriate for classrooms, class laboratories, and study spaces. Best practices indicate alternate ways to calculate office and research space needs, using data that is readily available to universities. The alternate space factors and methodologies are more complex and time-consuming than the current Board of Governors space formulas and methodologies.

- **All five Preeminent and Emerging Preeminent Universities have less effective classrooms.** A low amount of space per student is efficient by not necessarily effective. Research in the emerging field of learning science has shown that active learning produces better student outcomes than traditional lecture. However, the five Preeminent and Emerging Preeminent universities had the lowest amount of space per student station (seat) in the system. This is indicative of learning space that is traditional and highly inflexible. For example, a sloped, 1960's era lecture hall with 240 seats might be very efficient at delivering lectures, but four 60-seat sections held in a flexible classroom with space for working in teams may be more successful in producing more effective learning outcomes.
- **Changing the SUS space formulas and utilization factors would result in more effective use of space.** Evaluations of effectiveness rely on the fit of the space assets to their use, that is, how they are being utilized. The SUS model to assess space needs is one dimensional in that it looks at only the quantity of space needs, with a one-size-fits-all approach. The data shows a wide range of conditions related to institution size, role, and mission. More tailored space formulas and utilization factors would result in building programs that more accurately reflect the need of universities, and thus would be more effectively used.
- **Changing the SUS space formulas and utilization factors would not result in more efficient use of space.** Target utilization rates for classrooms and teaching laboratories published by the SUS are in line with national practices and standards for other surveyed state systems. As demonstrated in Chapter 6, universities are generally meeting or exceeding utilization targets for the assessed space types. Most universities exceed utilization targets for classrooms and teaching laboratories, the primary spaces necessary to achieve educational missions.
- **Accuracy requires complexity.** Due to the great range of diversity of institutional role, mission, and clientele, greater accuracy requires more complicated space models with a greater number of variables and inputs. This in turn requires greater effort with data collection, with potentially diminishing returns. The business processes and the resources they require which are used to develop space models should be aligned with the capital investments being made. It could be argued that large investments merit greater accountability than small ones. Sophisticated space models do have a place with master planning efforts. At this level of capital project planning, it may be sufficient to have moderately complex space models combined with other prioritization metrics which evaluate utilization and space management practices. Tennessee prioritized projects with a rubric that weights 24% of the scoring on need and another 20% on utilization. Texas, Virginia, North Carolina, and Georgia all include utilization in reporting requirements.

For the alternate space modeling in this report, SmithGroup used the following space planning guidelines.

Space Category	Current SUS Space Factor	Alternate Space Factor
Classrooms	9 ASF/Student FTE	A space factor of 22 ASF/(60% SSO x 40 WRH) was applied to actual student contact hours as measured from the individual course files for each institution. Approximately 12 ASF/Student FTE
Teaching Laboratories	11.25 ASF/Student FTE	A space factor using a discipline specific ASF/SS was applied to actual student contact hours as measured from the individual course file for each institution. These station sizes ranged from 35 ASF/SS for a computer laboratory to over 100 ASF/SS for engineering laboratories.
Open Laboratories	SUS Space Factors combine Teaching and Open Laboratories	SmithGroup added a guideline of 5 ASF/Student FTE to the teaching laboratory space need calculation
Research Laboratories	18.75 ASF/Student FTE	1,200 ASF/PI. **Note: some institutions expressed concern with this approach due to issues with data sources.* Alternate Guideline: 700 ASF/$100,000 Research Expenditures
Office	22.5 ASF/Student FTE	200 ASF/Employee FTE (Faculty + Staff)
Study	13.5 ASF/Student FTE (Undiscounted)	13.5 ASF/Student FTE (Discounted)

Utilization	Current SUS Method	Alternate Method
Classrooms	40 WRH at 60% Station Occupancy	36 WRH at 67% Station Occupancy
Teaching Laboratories	20 WRH at 80% Station Occupancy	Minimum 20 WRH at 80% Station Occupancy More for lower division undergraduate coursework; less for upper division

SECTION 5.2 RECOMMENDATIONS

SmithGroup identifies opportunities for improvement and recommends the following process changes to strengthen current capital outlay process:

- **The Board of Governors should clarify that universities may establish more effective space guidelines than those found in State Requirements for Educational Facilities (SREF, 2014) and promote space saving standards.** The Board of Governors should promulgate more effective and progressive space guidelines than those found in SREF. Universities should adopt newer, progressive replacement space standards that promote flexibility, multi-purpose, and shared-use and activity-based design principles, which allocate space according to functional need rather than employee position or title.
- **The Board of Governors should craft space needs formulas and utilization factors for each university.** The great diversity of institutions with differing roles, missions, student profile, and strategic goals are not well served by a single set of space factors. The linear regression analysis did not generally indicate a strong correlation between space metrics and size of institution. Therefore, formulas and factors characteristic of the mission and program mix of each university would provide the most accurate space needs assessment. This recommendation will likely require that the Legislature allocate more resources to the Board of Governors.
  - For example, different standards could be developed by SUS classification (Preeminent, etc.) or Carnegie classification.
  - A better alternative to developing a graduated and more complex space model would be to create a more flexible process similar to those used in Texas and Georgia, which would allow Board of Governors staff to exercise professional judgment to consider exceptions or mitigating conditions if so justified by the institutions.
- **The Board of Governors should revise its utilization factors and space formulas to better model actual space needs.** The Board of Governors space formulas and methodologies should be adjusted to better align with standard practices and methodologies. The Board of Governors should change the classroom space factor to more accurately reflect the need for classroom flexibility. For the other E&G space categories, the Board of Governors should consider forming a systemwide study group to evaluate alternate space needs metrics that seek the right balance between complexity and accuracy and that better reflect the needs of each diverse university.
  - Classrooms – The current SUS space factor is 9 ASF/Student FTE. SmithGroup recommends a proposed space factor of 22 ASF/(60% SSO x 40 WRH) applied to actual student contact hours as measured from the individual course files for each institution, with approximately 12 ASF/Student FTE.
  - Teaching Laboratories — The study group consider a change to a ASF/Student FTE space factor that more accurately allocates space based on the type of teaching laboratory.
  - Research Laboratories — The current SUS space methodology is based on ASF/FTE. The study group should consider a change to a ASF/Expenditure and/or ASF/PI , which more accurately captures the components that drive research laboratory needs.
  - Offices — The current SUS space methodology is based on ASF/FTE. The study group should consider a change to a ASF/Employee (Faculty and Staff) FTE, which more accurately captures the components that drive office needs.
  - Study — The study group should consider a change to a ASF/Student FTE that more accurately reflect the changing role of the library and need for informal collaboration spaces.
- **The Board of Governors should encourage the optimization of existing space.** The Board of Governors should help institutions focus on optimizing existing space by facilitating the sharing of best practices and encouraging campus-level space studies. In interviews, two institutions reported that they had engaged third party consultants to prepare campus-level space studies.

- **The Board of Governors should consider other factors beyond space needs.** To evaluate efficiency and effectiveness, the evaluation of space needs and practices should be expanded to consider other factors such as utilization rates, efficiency measures, and space management practices. Therefore, the universities should collect, monitor, and report data on the age, condition, and suitability of facilities and on the utilization of instructional and research spaces. Such efforts would require funding of additional resources to collect and report this additional data.

CHAPTER 6

SPACE UTILIZATION

CHAPTER 6: SPACE UTILIZATION

Universities are utilizing their classrooms well across the system. Six universities met or exceeded the recommended utilization target.

However, most campuses have a low square footage per student station metric, indicating that many of the classrooms are very traditional and highly inflexible, pointing to a corresponding need for renewal and configuration. The Preeminent and Emerging Preeminent universities had the least flexible space. Newer campuses such as Florida Gulf Coast University and Florida Polytechnic University have higher square footage per student station metrics, indicating more flexible and contemporary learning environments.

While the amount of classroom space may be adequate, the configuration of that space may not be supportive of institutional strategic goals such as smaller class sizes. There may be a mismatch between the classroom inventory and section sizes desired to achieve performance metrics.

Teaching laboratory utilization was mostly in line with expected targets with some exceptions which merit further study. However, strong demand in STEM and healthcare fields could place undue pressure on teaching laboratories in the sciences going forward into the future. Since teaching laboratories are not interchangeable (language laboratories cannot be used for chemistry laboratories, for example), the focus on STEM instruction could create demand which outstrips supply for STEM laboratories.

Office sizes and utilization seemed mostly in line with expected targets. Larger research (Preeminent) universities tend to have more space per faculty and staff full-time equivalents since faculty research offices have traditionally been larger to provide meeting space with graduate students. However, universities with older, legacy buildings suffer from having an office inventory built to out-of-date size standards. Therefore, adequate space may exist but not in the proper configuration. This becomes especially problematic when a university's strategic plan seeks to reduce class size and increase research space by hiring hundreds of faculty.

Study space appears adequate. Productivity of research space varied considerably, and few universities reported tracking any utilization metrics. The modified space guidelines indicate a need for additional research laboratory space.

Universities are increasingly focused on space management practices, but opportunities remain to improve space utilization, in terms of technology, policies, and procedures. Two universities – Florida Gulf Coast University and New College of Florida – reported not using software applications to track space inventories. Many reported having some level of policies and procedures, but they did not seem to focus resources on identifying and implementing projects to improve utilization. Such efforts would require allocation of additional university resources.

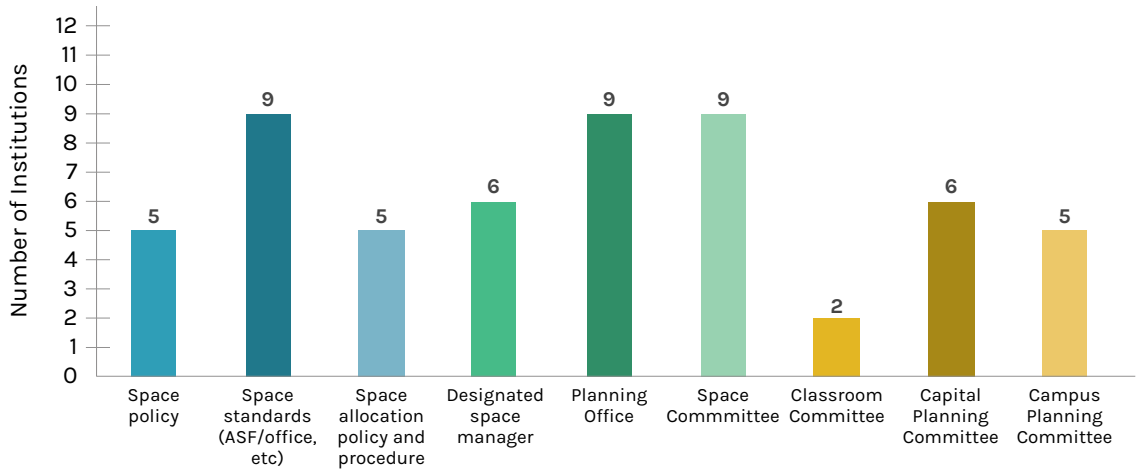
SECTION 6.1: INSTITUTIONS' SPACE MANAGEMENT PRACTICES

Space management is required to ensure proper stewardship of space assets and provide accountability that they are being managed for efficient and effective utilization. The act of managing space requires not only an accurate knowledge of existing space as documented in the space inventory process, but also an analysis of how it is being utilized. Only by understanding how a space is being used can opportunities for improvement be achieved. The latter requires both data and resources to accomplish. Standards and best practices can help inform and shape capital improvements at the earliest stages of planning, when they will have the most impact with lowest cost.

From SmithGroup surveys and interviews, the SUS universities are becoming increasingly focused on space management policies and procedures. Two universities were actively engaged with consultants to develop space policies; many others were pursuing improvements such as developing research space allocation procedures and productivity metrics.

Surveys conducted by SmithGroup of Ivy League and "Ivy Plus" institutions, as well as other studies of space management practices, indicate that there is not a single ideal model of space management organization or practices. Rather, there are many components to effective space management which contribute to optimizing space on university campuses. The survey of the 12 institutions indicate that many universities report having various elements of a space management structure, as illustrated in the graph below.

SPACE MANAGEMENT PRACTICES USED AT SUS INSTITUTIONS



Some institutions reported having policies or practices that viewed space as a common resource that was controlled and allocated by university leadership. There are instances where control of space is decentralized to deans and department chairs and central oversight is only triggered by a request to transfer space assignment between units.

The majority of universities reported having space standards, but when interviewed, indicated that they followed the space planning standards listed in the SREF manual. As noted in Chapter 5, SREF space guidelines no longer apply to universities.

Based upon the interviews, many institutions appear to use their space committees and planning office to respond reactively to requests for space. They may not be engaged in proactively identifying opportunities for optimizing the use of existing space.

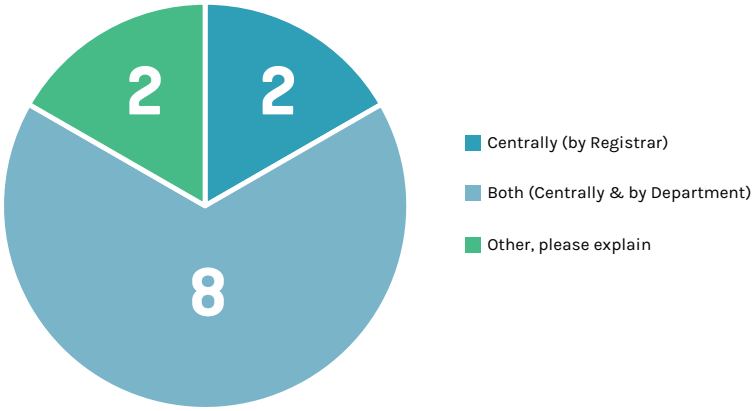
All 12 institutions were surveyed regarding elements of space management processes. Under half reported having a space policy or a space allocation policy and procedure. Three quarters had a space planning office or space committee.

Universities are increasingly focused on management of space assets. However, the resources dedicated to space management vary with each institution. Larger universities tend to have more resources available, but traditional, well-established silos may prohibit substantial progress. While there is no silver bullet for space management, practices do vary widely throughout the system.

A wide variety of software applications were reported to be in use for Computer Aided Facilities Management (CAFM). Ten institutions reported using software; two institutions (Florida Gulf Coast University and New College of Florida) indicated that they do not use a CAFM system.

Classrooms are only partially scheduled by the registrar; individual departments are often involved, although they may allow registrar scheduling on a secondary or as-needed basis.

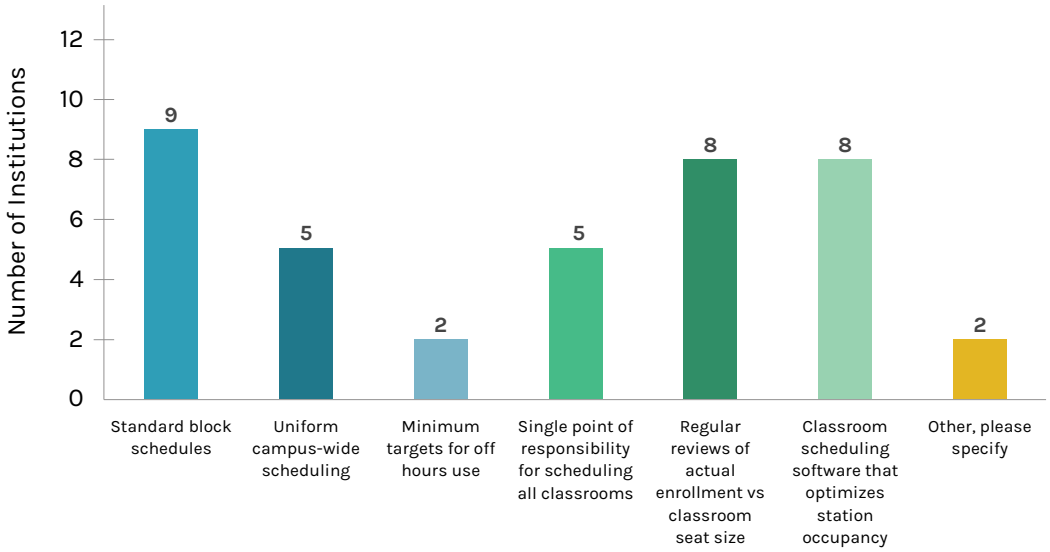
HOW INSTITUTIONS SCHEDULE CLASSROOMS



Regarding classrooms, of the 12 institutions, only two institutions (16.7%) indicated that the registrar centrally scheduled all classrooms.

Classrooms scheduling practices included use of standard blocks (9 of 12 institutions reported using), classroom scheduling software and regular reviews of actual enrollment vs classroom seat sizing (8 of 12). However only five institutions reported uniform campuswide scheduling policies.

CLASSROOM SCHEDULING PRACTICE USED AT INSTITUTIONS



Most all other space is controlled in a decentralized fashion that delegates space decisions to deans and unit heads. Space committees are primarily involved in requests for new space or adjudicating space transfers between units. For institutions with a formal process, a space request is submitted, and if approved, goes to a space committee or space office for further study. The space management function then works with the facilities management organization and university leadership to evaluate the request; criteria may include compliance with the strategic plan, master plan or other governance documents.

Since space is a critical, strategic resource, it is imperative that university leadership are engaged in space discussions. The "higher" the decision maker is in the institution, the greater weight space decisions have.

Most institutions follow the SREF for room-level space planning standards. The SUS also prescribes space factors to calculate campus space needs in various space categories.

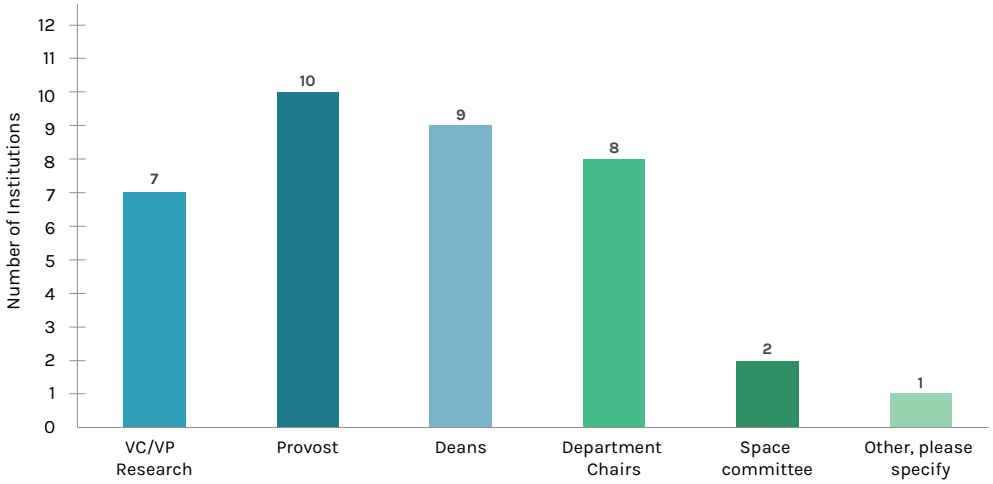
As stated above, most universities have a space or capital planning committee. For example, at Florida International University the process includes the dean, the provost, Vice President for Finance and Administration, and appropriate senior level management. Space requests are evaluated based on mission and need. Capital plans are prioritized by senior leadership according to need and political appeal.

Institutions were also surveyed to ask how interdisciplinary and common spaces are allocated to each academic discipline. Institutions provided the following responses:

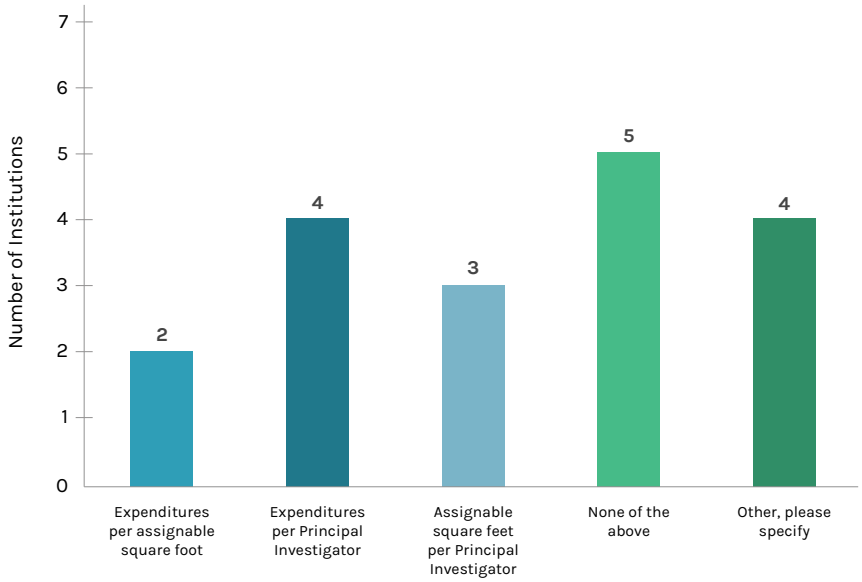
UNIV	RESPONSE
FAMU	*Allocation of increased square footage depends on a demonstrated campuswide need. Allocation of space does not imply permanence, but rather a commitment based upon continued program justification and changing program priorities. Space vacated by a physical move, renovation, or new construction is allocated back to the campus. Likewise, space vacated due to a reduction in program size, reduction in workforce, or program elimination is also allocated back to the campus.*
FAU	*While many spaces at FAU do follow traditional disciplinary boundaries, a significant proportion of academic spaces are already interdisciplinary. Generally these allocations occurred through cross-college or cross-department negotiations between deans/ academic leaders, all under the leadership of the Office of the Provost.*
FGCU	*The Provost controls academic space allocation and maintains the existing space boundaries of academic units. The need for new space is coordinated with the University President with input from the President's Cabinet.*
FIU	*These types of allocations are infrequent and done on a case-by-case basis in a collaborative manner following a common ground of planned achievements such as those under the university strategic plan.*
FPoly	*Academic leaders (chairs, department heads) meet to discuss need and space availability and suitability. Recommendations are given to the Provost who works with the President on final allocation of interdisciplinary and common spaces for academic disciplines.*
FSU	*At the college-level.*
NCF	*Per the Academic Administrative Council recommendations.*
UCF	*As new space comes online, the process of backfilling vacated spaces has been for divisions to fill out a hiring plan survey, which identifies the number of individuals arriving, their space needs and expected start dates. The survey responses are then vetted to ensure the faculty lines have been funded and the positions are filled. Then the Space Administration office prioritizes requests according to the hierarchy outlined in our university Space Use and Allocation policy, using input from a coordinating position (Lead for Research Space) shared with the Office of Research. All assignments are reviewed and approved by the Provost and Vice President for Academic Affairs.*
UF	*Allocation is based upon the demand between discipline.*
UNF	*These spaces would be developed as part of the building program for a new project.*
USF	*Common spaces are allocated to various academic disciplines according to verifiable necessities for successful student learning. Any requests must go through a Space Impact Request process that is analyzed and vetted by several stakeholders for appropriate use. It is the responsibility of the discipline to ensure that the space allocated is used as approved and utilized to its greatest extent.*
UWF	*The process involves personnel closest to the identified need, then through the Academic Affairs hierarchy with closer involvement of the disciplines affected. Much of allocation is based upon the availability and constraints of the building as occupied. Allocation is also based on the needs of the program in its current and expected academic status.*

Assignment of research space is typically made at a high level. Ten institutions reported that the provost was involved and nine reported that deans were involved.

WHO IS RESPONSIBLE FOR RESEARCH SPACE ASSIGNMENTS AT INSTITUTIONS



METRICS USED BY INSTITUTIONS TO EVALUATE PRODUCTIVITY OF RESEARCH LAB SPACE



Evaluation of the productivity of research laboratory space was not consistent. Five institutions indicated that they did not use any of the metrics listed; four institutions identified "other" metrics. Few measured expenditures per square foot and only a third considered expenditures per PI. However, three of the five primary research universities reported measuring research productivity and a fourth was engaged with a third party consultant to review space management practices.

Utilization of other space categories would come under the purview of the university space committee or the planning office, as applicable.

SECTION 6.1 CONCLUSIONS/RECOMMENDATIONS

Because of the strong association between space management and utilization, the conclusions and recommendations for these two sections have been combined and are located at the end of this chapter.

SECTION 6.2: INSTITUTIONS' UTILIZATION OF CURRENT SPACE

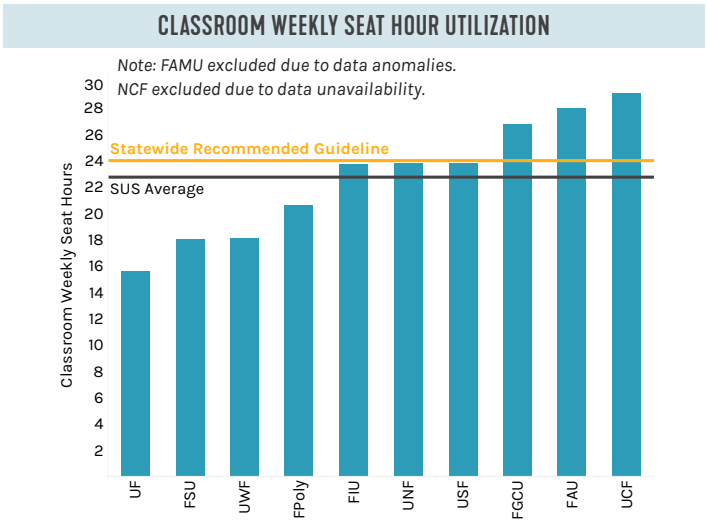
CLASSROOMS

Course files were obtained directly from all institutions and linked with the facility files. (SmithGroup identified several data anomalies (110 classrooms without coursework, coursework in non-classroom spaces). This data was sent to the universities for reviewing and correcting of the data anomalies. Comments received by scheduled deadlines were incorporated.) SmithGroup analyzed the classrooms utilization during the Fall 2018 period. New College of Florida was excluded due to data unavailability. Due to data anomalies, Florida Agricultural and Mechanical University was not included in the systemwide average for this metric.

Institution	WRH	SSO	WSH
FAMU	NA	NA	NA
FAU	42	64%	28.0
FGCU	40	66%	26.8
FIU	39	66%	23.7
FPoly	34	61%	20.6
FSU	28	62%	18.0
NCF	NA	NA	NA
UCF	37	68%	28.1
UF	28	55%	15.6
UNF	37	71%	23.8
USF	35	67%	23.8
UWF	30	63%	18.1
Weighted Avg	**35.0**	**64%**	**22.8**

Met (at 99%) or Exceeded Target of 24.0 WSH Exceeded 20.0 WSH Underperforming

Classroom utilization was very strong for most universities. The SUS target is 40 hours at 60% SSO, equivalent to a WSH metric of 24.0. (Equivalent in other state systems to 36 WRH at 67% SSO.) Six institutions (FAU, FGCU, FIU, UCF, UNF, USF) met (at 99%) or exceeded the target of 24.0 WSH. Florida Polytechnic University came close and exceeded 20.0 WRH, which is typically observed at other universities in other states. Three institutions (FSU, UF, UWF) underperformed using these metrics. The systemwide average was 22.8 WSH.



There was also high use of all classrooms observed through the system, as recorded in the following heat map chart. Displayed in the chart are the counts of classrooms in use paired with its percent in use of total available classrooms. Classrooms were well scheduled 9am-4pm, with Tuesday/Thursday more popular.

SCHEDULED CLASSROOM USE BY DAY AND TIME | FALL 2018

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM	391 | 28%	457 | 33%	413 | 30%	405 | 29%	370 | 27%
9:00 AM	876 | 64%	1,117 | 81%	930 | 67%	1,102 | 80%	725 | 53%
10:00 AM	1,020 | 74%	1,193 | 87%	1,082 | 79%	1,177 | 85%	822 | 60%
11:00 AM	1,048 | 76%	1,165 | 85%	1,101 | 80%	1,155 | 84%	817 | 59%
12:00 PM	1,042 | 76%	1,169 | 85%	1,107 | 80%	1,189 | 86%	779 | 57%
1:00 PM	1,048 | 76%	1,172 | 85%	1,098 | 80%	1,171 | 85%	735 | 53%
2:00 PM	994 | 72%	1,144 | 83%	1,035 | 75%	1,113 | 81%	604 | 44%
3:00 PM	980 | 71%	1,122 | 81%	1,024 | 74%	1,111 | 81%	429 | 31%
4:00 PM	816 | 59%	951 | 69%	831 | 60%	874 | 63%	210 | 15%
5:00 PM	670 | 49%	738 | 54%	676 | 49%	682 | 49%	48 | 3%
6:00 PM	728 | 53%	783 | 57%	724 | 53%	674 | 49%	31 | 2%
7:00 PM	609 | 44%	657 | 48%	618 | 45%	563 | 41%	25 | 2%

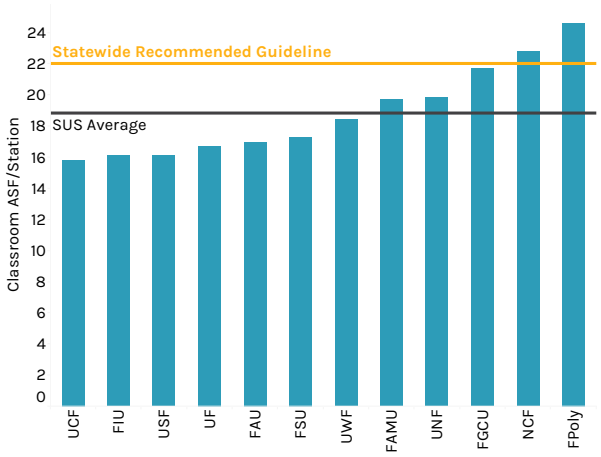
Percent of Rooms in Use

Data Source: Board of Governors.

In evaluating classroom sizes, there are two relevant metrics. The first metric is ASF/SS. The amount of space for each classroom seat is an indicator of flexibility. A low number such as 12–15 ASF/SS indicates that the seats are likely fixed in place and not movable. The higher the number, the greater the flexibility to accommodate differing pedagogies and a variety of furniture configurations. An active learning environment typically requires between 25–35 ASF/SS.

Institution	ASF/Station
FAMU	19.7
FAU	17.0
FGCU	21.7
FIU	16.1
FPoly	24.6
FSU	17.3
NCF	22.8
UCF	15.8
UF	16.7
UNF	19.8
USF	16.1
UWF	18.4
Weighted Average	**18.8**

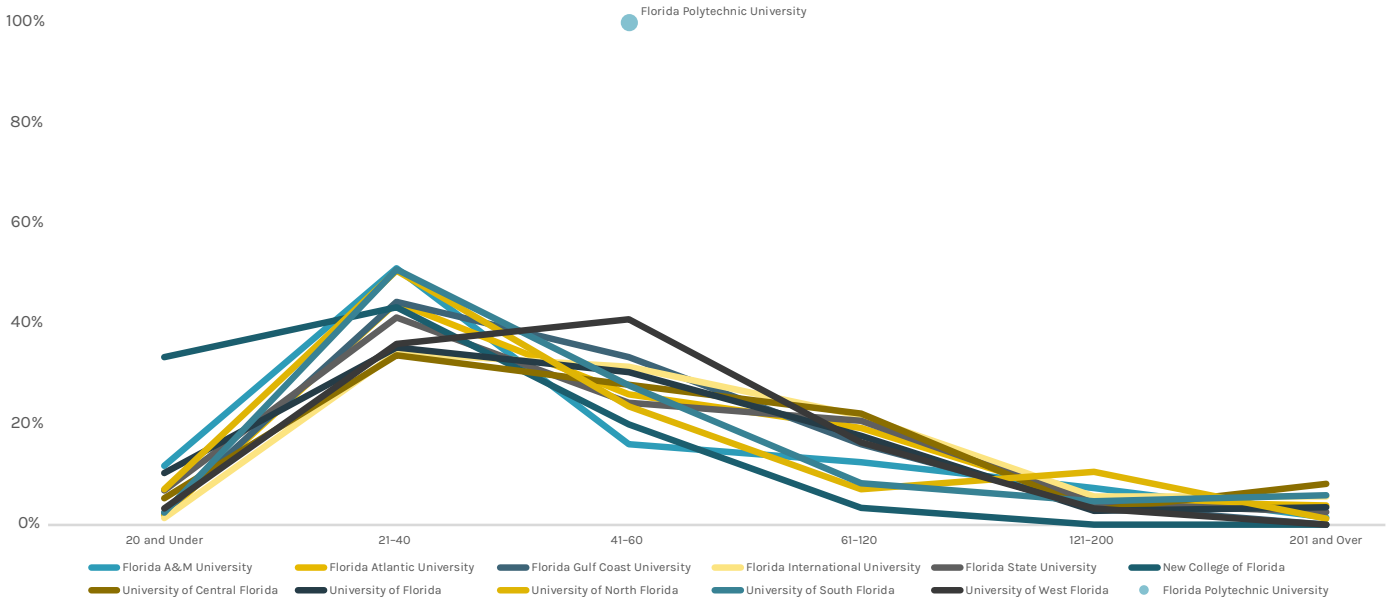
CLASSROOM ASF PER STUDENT STATION



The overall systemwide average is 18.9 ASF/SS indicates that the classroom inventory is highly traditional, likely with a predominance of forward-facing tablet armchairs that are not easily reconfigured. The Preeminent and Emerging Preeminent universities had the lowest space per seat. The newest university, Florida Polytechnic University, enjoyed a high average of 24.6 ASF/SS. Results are summarized above.

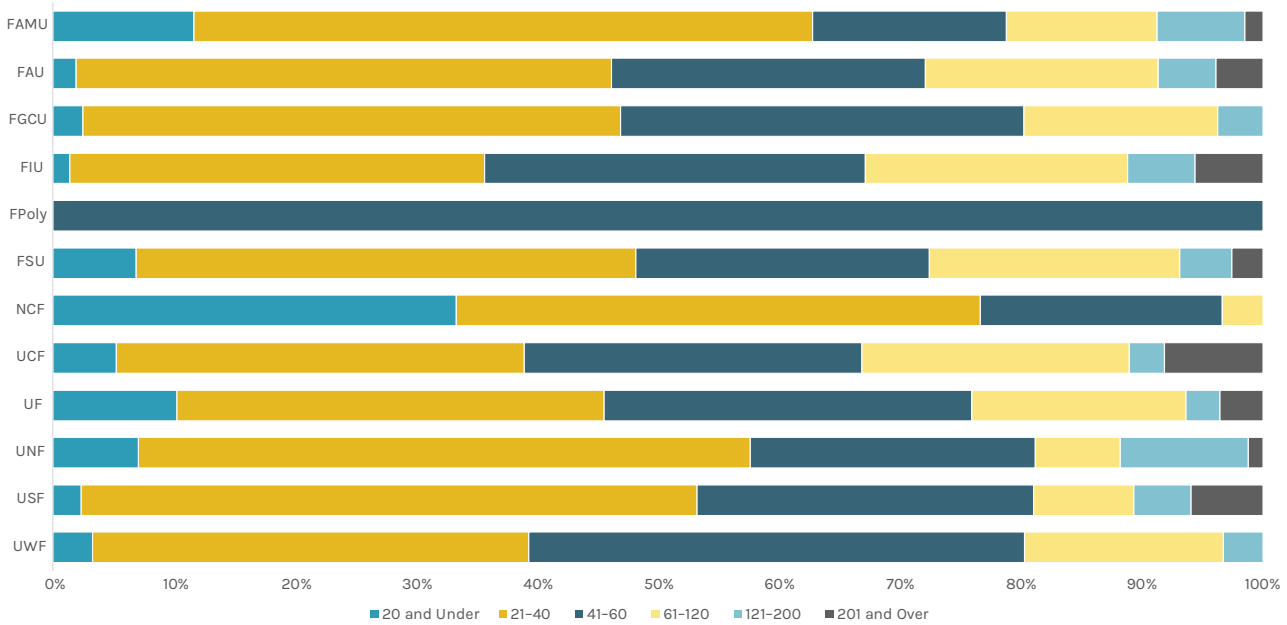
A second consideration in evaluating classroom size is the fit of classroom seat capacity to section size. Driven by key national performance measures surrounding student success, as well as rankings and recruitment strategies, some institutions are focusing on decreasing the size of class sections and improving faculty-to-student ratios. One institution was strategically planning to reduce class size for rankings. New College of Florida has the greatest percentage of small classrooms, reflecting its characteristic pedagogy. The distribution of the classroom inventory is noted in the following line graph.

PERCENT OF ROOMS BY ROOM GROUPING



As indicated in the chart, classrooms with 20 and under seat counts are typically a small percentage of the overall classroom inventory. The following chart shows the classroom size profile for each institution in a more pronounced fashion.

PERCENT OF CLASSROOMS BY CLASSROOM SIZE



Large classrooms, defined here as 120 seats or above, are relatively small in number but large in footprint. For most institutions, these large classrooms account for 20 to 30% of all classroom space on the campus. Therefore, a quarter to third of the space is locked up in classrooms that may not be supporting the strategic goals of the university. This is an example of the configuration and quality of the space being strategically more important than the quantity of space.

TEACHING LABORATORIES (VOCATIONAL AND ACADEMIC)

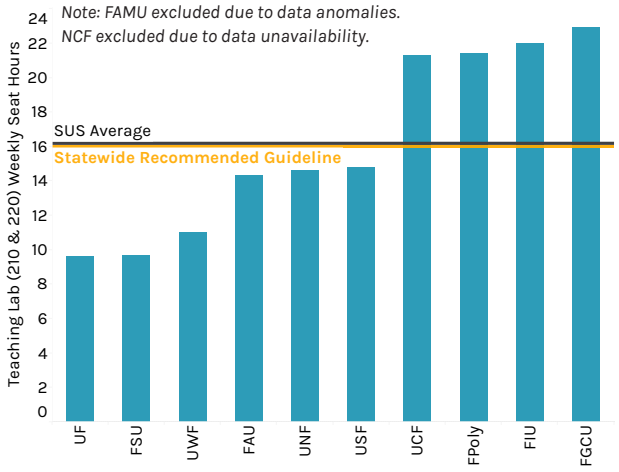
Course files were obtained directly from all institutions and linked with the facility files. (SmithGroup identified several data anomalies (110 classrooms without coursework, coursework in non-classroom spaces). This data was sent to the universities for reviewing and correcting of the data anomalies. Comments received by scheduled deadlines were incorporated.) SmithGroup analyzed the teaching laboratories utilization during the Fall 2018 period. New College of Florida was excluded due to data unavailability as related to their unique curriculum. Due to data anomalies, Florida Agricultural and Mechanical University was not included in the systemwide average for this metric.

Institution	WRH	SSO	WSH
FAMU	NA	NA	**NA**
FAU	22	68%	**14.3**
FGCU	27	82%	**22.9**
FIU	28	91%	**22.0**
FPoly	28	70%	**21.4**
FSU	15	64%	**9.7**
NCF	NA	NA	**NA**
UCF	19	79%	**21.3**
UF	14	55%	**9.6**
UNF	21	74%	**14.6**
USF	25	85%	**14.8**
UWF	17	70%	**11.0**
Weighted Avg	**21.6**	**74%**	**16.2**

Met or Exceeded Target of 16.0 WSH Exceeded 13.0 WSH Underperforming

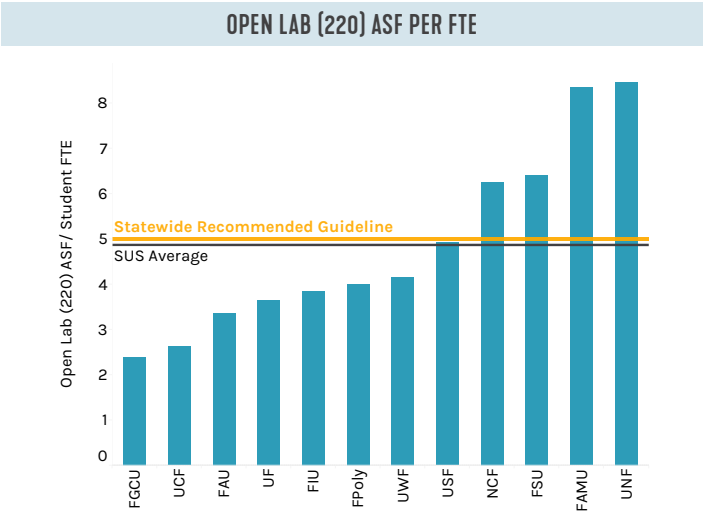
Teaching Laboratory utilization was strong for most universities. The SUS target of 20 hours at 80% occupancy is equivalent to a WSH of 16.0 (also the same as CEFPI). Five institutions (FAU, FGCU, FIU, FPoly, UCF) exceeded this target. Two institutions (UNF, USF) reached between 75% and 90% of this target. Three others underperformed below 75% of the target (FSU, UF, UWF). The systemwide average was 16.2 WSH. It should be noted that some variability may be due to the specialty of academic disciplines and level of students. Some state systems, such as California and Tennessee, have different utilization targets for upper and lower division laboratories for this reason.

TEACHING LAB (210) AVERAGE WEEKLY SEAT HOUR



OPEN LABORATORIES

Open laboratories by definition are used for unscheduled activities, so utilization metrics are not applicable. Additionally, the Board of Governors combines the space needs for open laboratories with the teaching laboratory space category.



OFFICE SPACE

An analysis of office ASF per Employee FTE (ASF/Employee FTE) at the individual institutions revealed a range of 64.6–295.2 ASF/Employee FTE. The low value is Florida Polytechnic University, where faculty are assigned small cubicles. The high value is from New College of Florida which uses a tutorial method that requires students to meet with faculty.

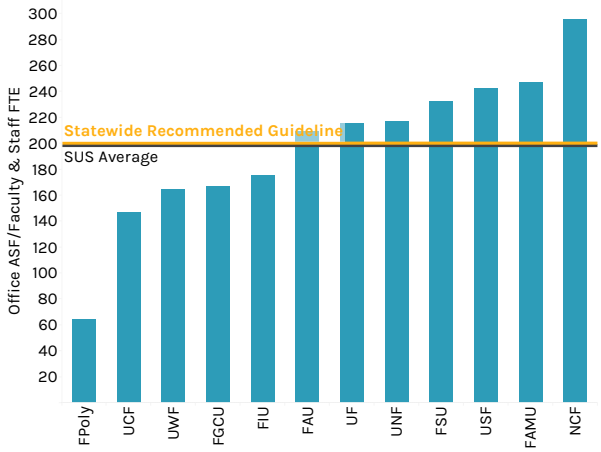
An analysis of average office size resulted in the values shown in the following table. For this analysis, any space coded as 310 office between 80 and 350 square feet was considered to be an office.

Institution	Total Faculty and Staff FTE Main Campus	ASF/F&S FTE Main Campus	Average ASF Main Campus
FAMU	1,391	247.3	139
FAU	2,095	209.7	139
FGCU	1,294	166.4	123
FIU	3,651	174.9	122
FPoly	244	64.6	94
FSU	4,868	232.0	145
NCF	279	295.2	160
UCF	4,548	146.6	132
UF	6,308	215.6	155
UNF	1,487	216.9	129
USF	3,860	242.3	132
UWF	1,502	164.8	142
Weighted Avg	**2,627**	**198.0**	**134**

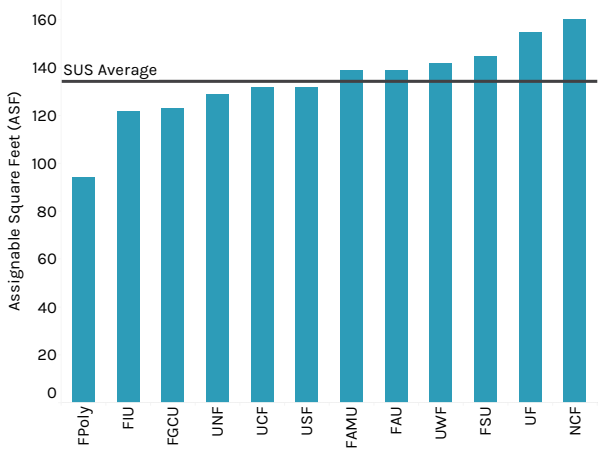
One of the greatest challenges to efficient use of office space is older space which was constructed without any standards in place. For example, three offices at 160 ASF equal the amount of space needed for four offices of 120 ASF. However, the dimensions of the existing offices and layout of windows may not lend itself to reconfiguration; moreover, the cost associated with reconfiguration is likely cost prohibitive. A better option would be to remove walls and create an open office workplace with huddle rooms for occasional meetings. Administrative support units are an ideal candidate for this approach.

Most all universities reported that campus space standards were based on the SREF guidelines. These standards are given in a range of space per occupant. For example, a director's office is listed as 150–200 ASF; a single faculty office is 110–130 ASF. All but three institutions have an average office size which is greater than the maximum allowable size of a faculty office by SREF standards.

OFFICE ASF PER FACULTY & STAFF FTE



AVERAGE SIZE OF OFFICE



New College of Florida has the largest average office size due to the nature of their curriculum which require faculty to give personalized tutorials to two to five students in their offices.

STUDY

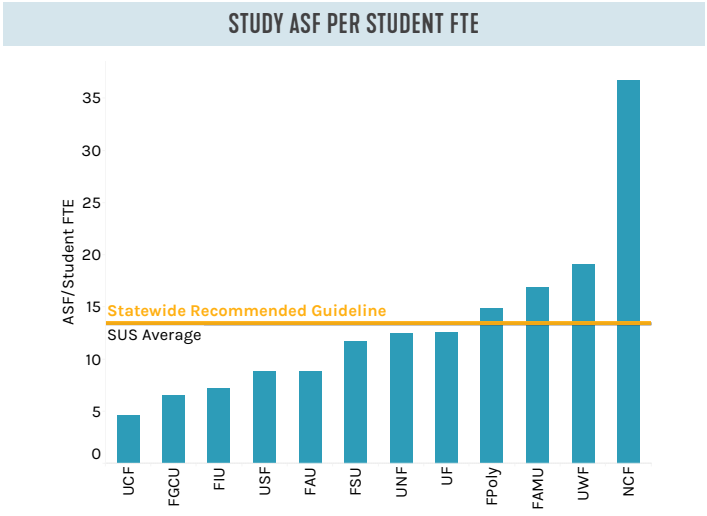
The current trend in space planning is to incorporate a variety of study spaces into each learning community, to provide students space to interact with faculty after class, study between classes, and meet with teammates to work on group projects or presentations. Therefore, study space should be added proximate to instructional space for academic building renovations or new construction. Study space can also be created by removing stacks from traditional libraries, moving to shared, off-site books storage and converting the vacated floor space to use for student study.

The weighted average of all 12 SUS institutions is 9.8 ASF/FTE; the unweighted average is approximately 13.4 ASF/FTE.

A recent benchmarking study of over 40 public universities conducted by SmithGroup shows an average of 11.17 ASF/FTE for study space (FICM 400 series). Comparing averages computed using similar methodology indicates that the average for SUS universities is close to a wide variety of other institutions (11.2 versus 12.2). This is in line with the Board of Governors space factor of 13.5 ASF/FTE.

Institution	Existing ASF	ASF/FTE
FAMU	131,729	16.9
FAU	137,183	8.9
FGCU	68,157	6.5
FIU	169,575	7.2
FPoly	18,496	14.8
FSU	328,696	11.7
NCF	37,992	36.7
UCF	157,352	4.6
UF	405,951	12.6
UNF	135,729	12.5
USF	212,417	8.8
UWF	114,330	19.2
Average	**159,801**	**13.4**

Met or Exceeded BoG Space Factor of 13.5 ASF/FTE Exceeded 11.0 ASF/FTE Under BoG Space Factor

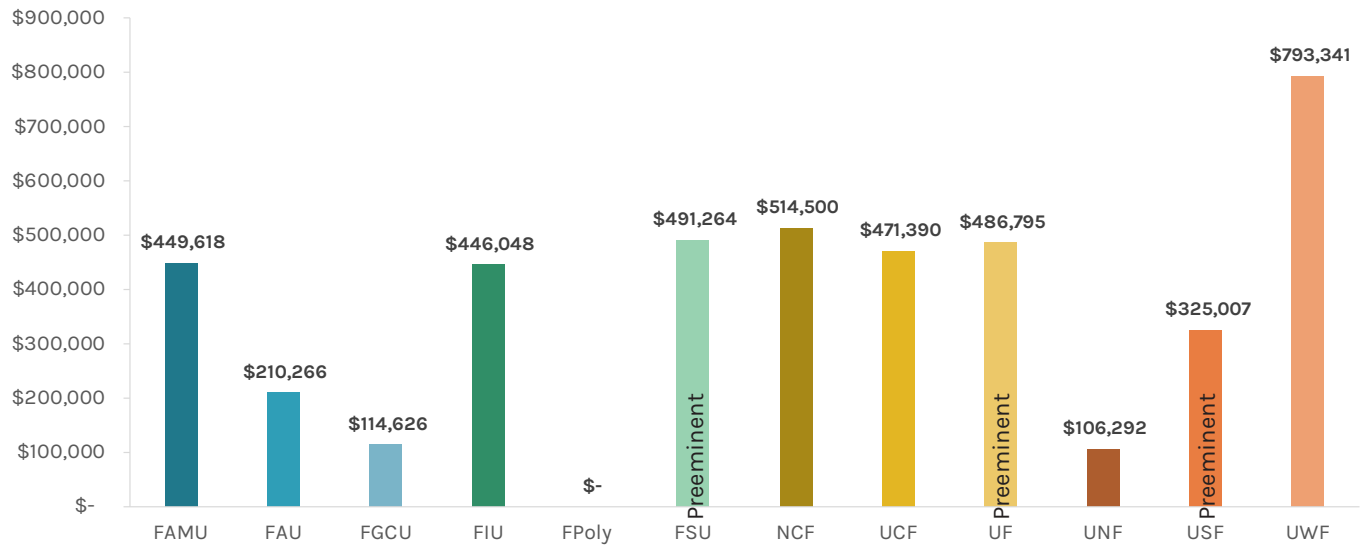


RESEARCH LABORATORIES

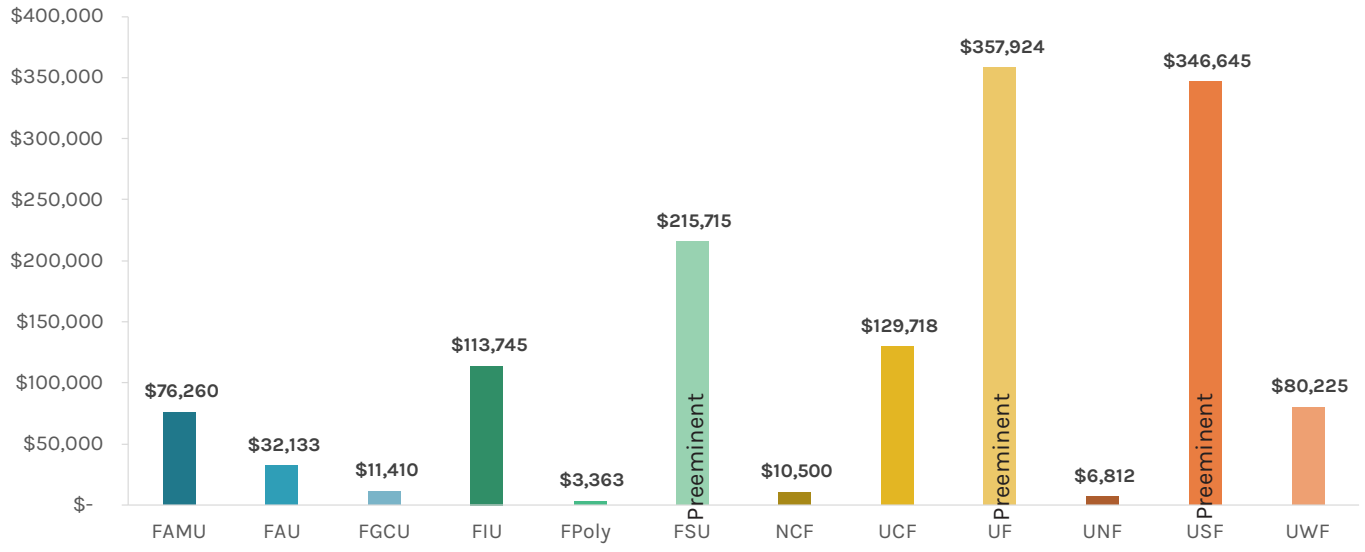
The analysis shows a large range of research laboratory productivity performance among the 12 institutions. There is a marked difference between the Preeminent universities and the others.

Research expenditures were analyzed according to overall faculty numbers obtained in the staffing files from the institutions, and the PI counts which each institution reported to the National Center for Education Statistics/National Science Foundation, expenditures reported by National Science Foundation, and ASF from each institution's facility file for research laboratory and support space (FICM 250/255). Research productivity is charted below.

EXPENDITURE 3 YEAR AVERAGE PER PRINCIPAL INVESTIGATOR (2017–NSF)

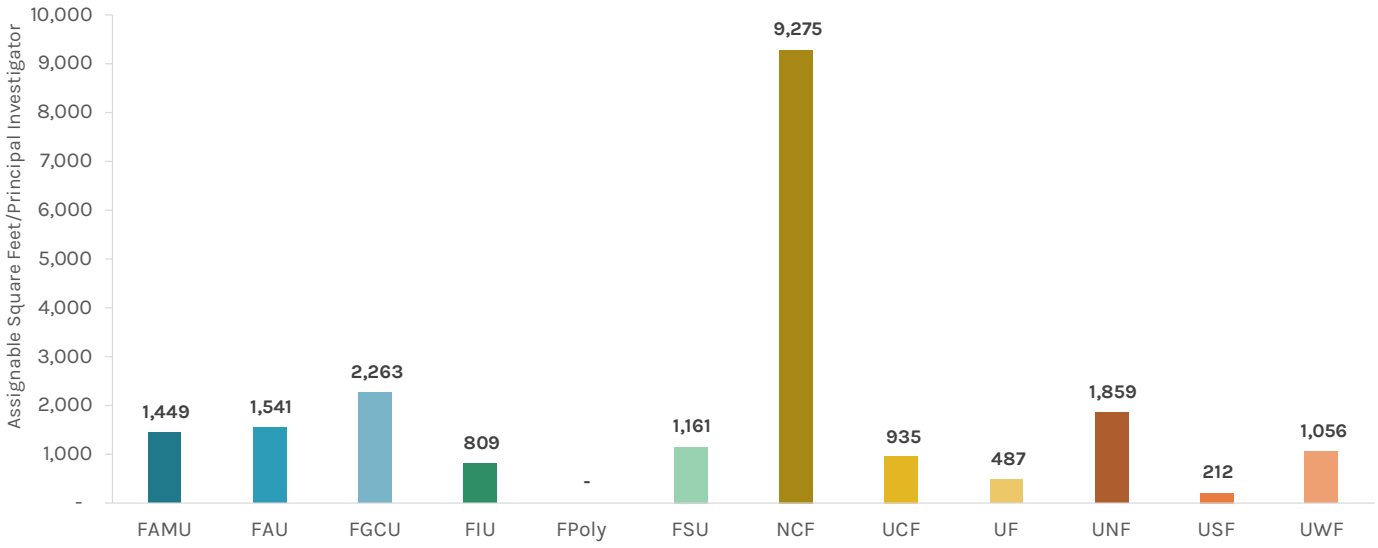


EXPENDITURE PER FACULTY FTE



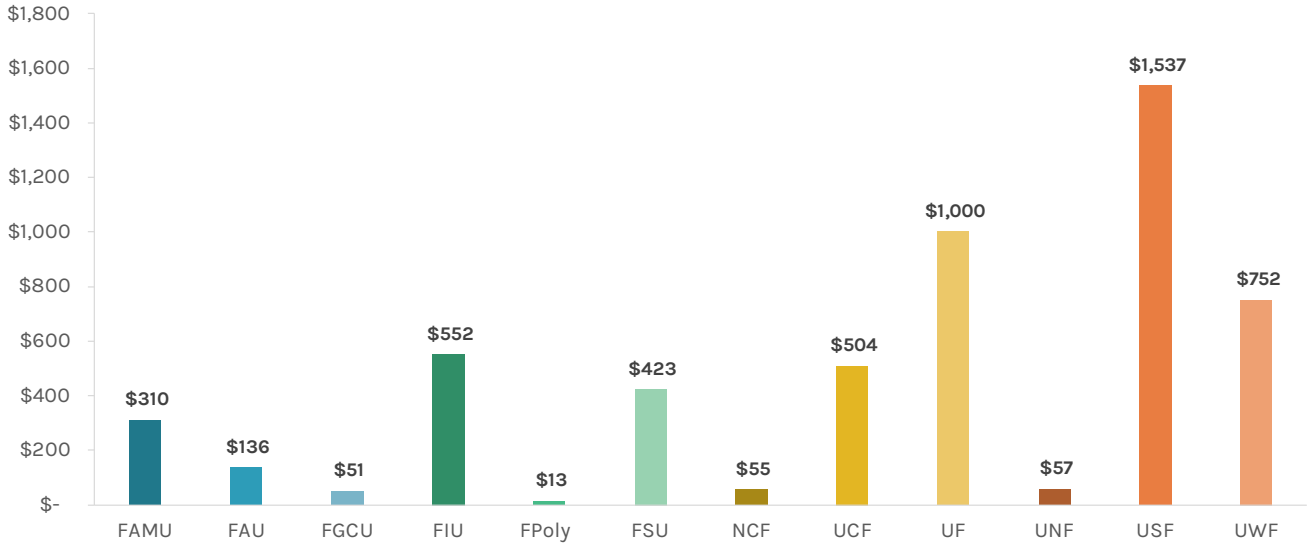
Expenditures per faculty and per PI were both charted and showed mostly consistent results. Not all faculty are PIs, however, and differences were observed with University of South Florida and University of West Florida. University of West Florida reports 45 PIs but 493 faculty FTE were identified; clearly the expenditures per PI is the higher metric. Conversely, University of South Florida reports 4,550 faculty FTE and 1,618 PIs. New College of Florida only reported 2 Investigators out of a faculty FTE of 101. Florida Polytechnic University reported no PIs.

ASF PER PRINCIPAL INVESTIGATOR



The range of space per PI primarily ranged from 1,000 to 2,000 ASF.

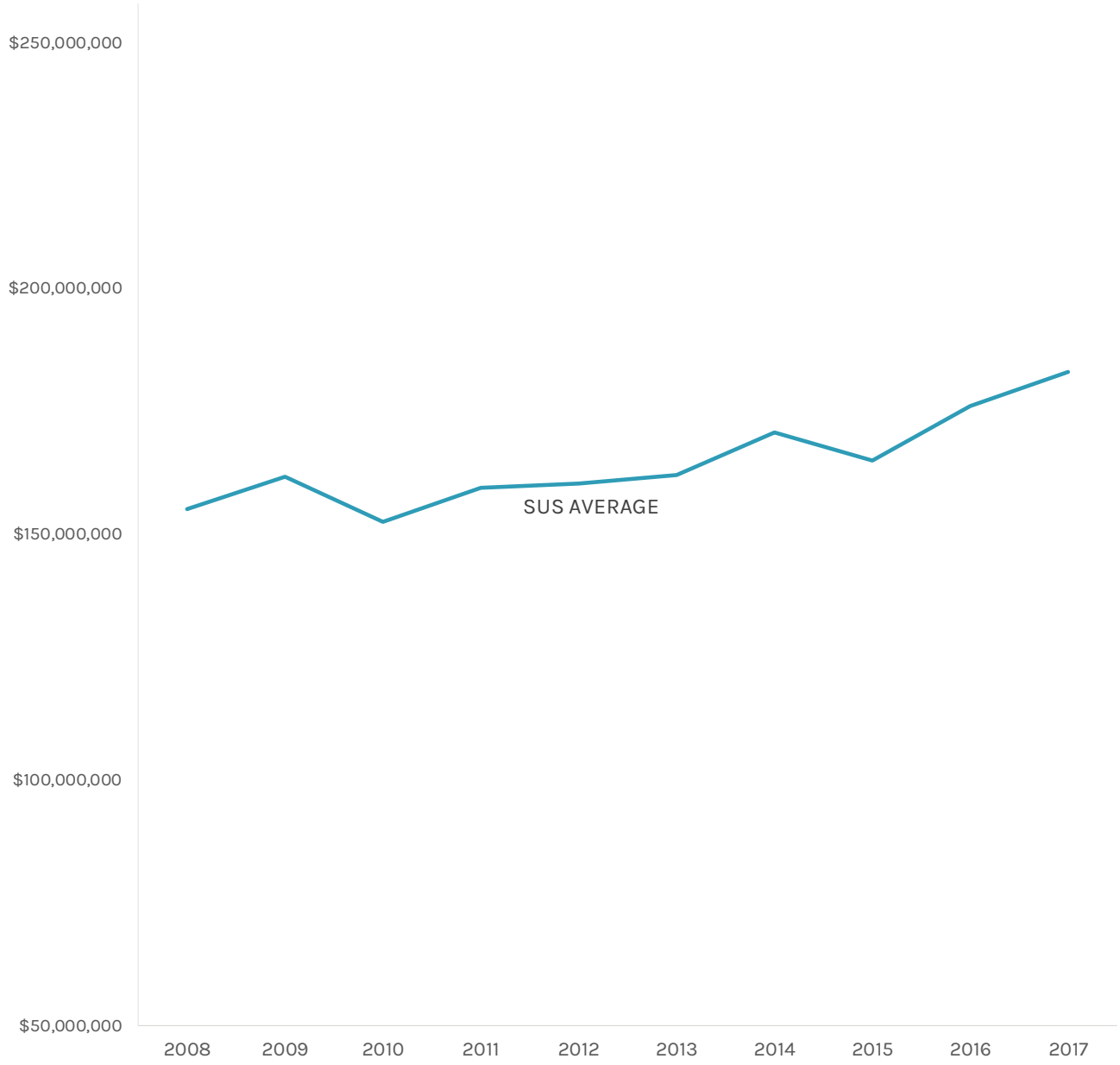
RESEARCH DOLLARS PER RESEARCH ASF



The range of expenditure dollars produced per ASF of space varied considerably from under $50,000 to $900,000/ASF. There was not a correlation observed between how much space a researcher had and how many dollars were expended. For example, Florida International University researchers were in the lower tier for space per PI, yet in the upper tier of expenditures per space. This could be the result of efficiency, or it could result from a large portion of research being focused in the community or being computational instead of experimental; both alternate scenarios do not require much laboratory space.

3-Year Statewide Average (2015, 2016, 2017) **$2,097,428,667**

10-YEAR RESEARCH EXPENDITURES TREND



Research Expenditure Source: National Science Foundation, https://ncsesdata.nsf.gov/profiles.

SECTION 6.1 AND 6.2 CONCLUSIONS

- **Universities are increasingly focused on space management practices, but opportunities remain to improve space utilization.** Utilization target rates for classrooms and teaching laboratories published by SUS are in line with national practices and standards for other state systems. The majority of universities schedule their classrooms at or above rates expected for state universities (nine of 12) and schedule their teaching laboratories at or above rates expected for state universities (eight of 12).

SECTION 6.1 AND 6.2 RECOMMENDATIONS

SmithGroup identifies opportunities for improvement and recommends the following process changes to strengthen current capital outlay process:

- **The Board of Governors should calculate utilization metrics for instructional space.** The Board of Governors should use available data or require that the individual institutions report utilization metrics. This will require additional resources.
- **The Board of Governors should require minimum utilization rates in addition to space needs when prioritizing capital outlay projects.** The evaluation of space needs and practices should be expanded to consider other factors such as adopted space management practices, space utilization rates, and other efficiency measures. In particular, research space is expensive to build, own, and operate. Therefore the Board of Governors should evaluate the functionality and utilization of existing research space as a condition for capital funding new research space. This will require additional resources.
- **The Board of Governors should explore and disseminate best practices regarding space management.** The Board of Governors should facilitate statewide meetings with all 12 institutions focused on sharing best practices for space optimization. This may require some additional resources.
- **All universities should employ space management software applications to maintain the space inventory records and resources to analyze utilization.** The Board of Governors should require all universities to employ space management software applications to maintain their space inventory. This will require additional resources for some institutions.
- **Universities should more widely adopt effective space management practices for classrooms and class laboratories.** Universities should investigate the adoption of more effective classroom and class laboratory space management practices. They should:
  - Adopt space policies and procedures to value space as an asset to be allocated according to strategic priorities and used efficiently and effectively
  - Invest in space management software to manage space and resources to analyze utilization
  - Monitor utilization performance, including research productivity
  - Centrally scheduling classrooms and teaching laboratories by the registrar (with possible first right of refusal by departments for classroom space) to optimize use of instructional space
  - Schedule standardized time blocks to maximize efficiency
  - Coordinate hybrid courses to share a single classroom in complementary manner
  - Require departments to schedule outside of "prime time". Virginia Polytechnic Institute and State University (Virginia Tech) requires that 60% of each departments coursework be scheduled outside of the prime time use
  - Provide incentives for off-hour class times, such as additional stipends for faculty or tuition discounts for students

- **Universities should more widely adopt effective space management practices for offices.** Since offices represent the single largest category of space on the campuses, universities should investigate the adoption of more effective office space management practices. Universities should offer incentives for faculty and staff to work remotely or share offices and adopt policies which require part-time staff share offices.
- **Universities should more widely adopt effective space management practices for research laboratories.** Universities should investigate the adoption of more effective research laboratory space management practices. Universities should develop policies, procedures, and productivity metrics regarding research lab space assignment and use.

CHAPTER 7

UNIVERSITY SNAPSHOTS

TERMS & DEFINITIONS

Assignable Square Feet (ASF): The usable space within a building excluding public corridors, mechanical/structural/electrical areas, public restroom, and structural areas. Parking garages are excluded from the ASF as well.

Weekly Seat Hours (WSH): The average number of hours per week a seat or station is used over a term or semester.

Discounted: Discounted FTE is defined as the FTE received from the Board of Governors, discounting Delivery Methods "AD" (Full Distance) and "PD" (Partially Distance) students at 20%, while not discounting the FTE for other Delivery Methods. Discounted FTE is used to calculate certain space categories in the Board of Governors "Form-B" calculation.

Non-Discounted: Non-Discounted Student FTE is defined as the FTE received from the Board of Governors without any discounts given for the Delivery Method. Non-Discounted FTE is used to calculate certain space categories in the Board of Governors "Form-B" calculation.

Total Institution: Main Campus plus all additional campuses.

OTHER COMMON ACRONYMS

Principal Investigator (PI)

Full-time Equivalent (FTE)

State University System (SUS)

Board of Governors (BoG)

Education & General (E&G)

FLORIDA OPPAGA UNIVERSITY RESEARCH STUDY: DATA CLARIFICATIONS

as of December 3, 2019

RELIABILITY OF ANALYSIS

SmithGroup analyzed campus data provided by the Board of Governors for staffing, courses, and facilities, unless otherwise noted. These data sets were compiled and aligned by SmithGroup for the purposes of this analysis. The data provides a "snapshot in time" of these elements at the 12 universities.

This is a quantitative analysis for all Education & General (E&G) space only. All existing space is counted regardless of its quality. Unless otherwise noted, all findings are in assignable square feet (ASF), defined as the area measured within the interior walls of a room that can be assigned to a program. This differs from gross square feet (GSF) as it does not include circulation, mechanical, or building service spaces.

The space needs analysis and findings associated with this research study should be viewed as tools and information for data informed decision-making and planning but not as entitlements for individual universities. Reliability of the findings of any analysis depends on several factors including the quality of the data, the appropriateness of the standards used, and the validity of the reported student FTE enrollment, employee FTE counts, and research expenditures and staffing. Data used in this study was updated and refined to as high a level of accuracy and currency as appropriate for a statewide research study. SmithGroup, therefore, believes that the findings and recommendations of this study may be considered reliable and may be used with confidence by OPPAGA and the State Florida Legislature for high level planning.

FTE CALCULATIONS

SmithGroup received raw data used to calculate Student FTE from the Board of Governors staff on October 28, 2019. This file contained Student Credit Hours along with Campus, Reported Time Frames, and Delivery Method. To replicate the Board of Governors space model, SmithGroup received the 3 Reported Time Frames of 201805, 201808, and 201901. The Board of Governors currently uses annualized FTE (i.e., the sum of summer, fall and spring semester FTE numbers), but the prevailing best practice is to use Fall FTE as the basis for modeling space needs. As discussed further below, the recommended model only uses the Fall 2018 term (Reported Time Frame 201808).

Each record in this file was assigned a divisor to convert credit hours into FTE. This divisor was set to 12 for graduate level courses and 15 for undergraduate level courses, consistent with current Board of Governors methodology.

The primary calculation that SmithGroup used to arrive at Student FTE was to take the Reported Time Frame data and aggregate the graduate and undergraduate courses together, further segmenting the data by Delivery Method.

The Board of Governors uses two terminologies to define FTE—"Discounted" and "Non-Discounted". SmithGroup calculations for these are as follows:

- **Non-Discounted FTE:** This FTE is calculated by dividing the credit hours by the divisor (12 for graduate and 15 for undergraduate) then summing all for total FTE. This calculation does not consider the Delivery Method.
- **Discounted FTE:** This FTE is calculated by dividing the credit hours by the divisor (12 for graduate and 15 for undergraduate). For all "AD" (Full distance Learning Course) and "PD" (Primarily Distance Learning Course) courses, the resultant FTE is discounted to 20% of the original value. This process discounts the online student credit hours to 20% of the original value. Again, SmithGroup understands this to be consistent with Board of Governors methodology for computing FTE for modeling space needs, as described in further detail below.

A SiteID was used to segment credit hours by campus. This SiteID was not set consistently in the Board of Governors data, leading to some questions about the campus location of the credit hours. SmithGroup followed the rule that all online students that did not have a distinct Site ID (campus location) were assigned to the main campus.

BOARD OF GOVERNORS SPACE NEEDS

The Board of Governors uses the following rules for determining Space Needs in their Form-B Calculation, as provided by Board of Governors staff:

The following formula is applicable to the following space categories: Classroom, Teaching Lab, Auditorium, and Gymnasium:

(Traditional FTE x Space Factor) + (0.20 (Online FTE) x Space Factor) = Space Need

The following formula is applicable to the following space categories: Study, Research Lab, Instructional Media, Office, and Campus Support Services :

Sum of the Traditional and Online FTE x Factor = Space Need

SmithGroup used these rules to apply the proper FTE to the space needs calculations for the appropriate space types in the scope of the study (classrooms, teaching laboratories, research laboratories, office and study space) to replicate the Board of Governors space model. These formulas produced the space needs as per Board of Governors methodology using 3-term, annualized FTE counts.

ALTERNATE SPACE MODEL

To create an initial estimate of the actual space needs, SmithGroup prepared an alternate space model that is more accurate but also more complex than the Board of Governor space model. The alternate space model uses different space factors, different metrics, and different data sources. The scope of the study focused on five E&G space types, for which the following metrics were used:

- **Classrooms:** The alternate space model applies a space factor calculation to student contact hours derived from each course file supplied by the Board of Governors for the main campuses for the Reported Time Frame 201808. The space factor was calculated using utilization targets of 40 WRH at 60% Station Occupancy with 22 ASF/Student Station at the course level. The outcomes of the classroom space needs calculations result in approximately 12 ASF/Discounted (Student) FTE.
- **Teaching Laboratories: The alternate space model** applies a space factor calculation to student contact hours derived from each individual course file supplied by the Board of Governors for the main campuses for the Reported Time Frame 201808. The space factor was calculated per CEFPI guidelines using 20 WRH at 80% station occupancy. The ASF/Student Station was assigned at the course level by discipline, and they ranged from 35 ASF/SS for a computer laboratory to over 100 ASF/SS for engineering laboratories.
- **Open Laboratories:** The alternate space model adds a guidelines of 5 ASF/Student FTE to the teaching laboratory space need calculation.
- **Research Laboratories:** The alternate space model uses Principal Investigator count reported to the National Science Foundation, multiplied by a space allowance of 1,200 ASF/Principal Investigator. Note: some institutions expressed concern with this approach due to accuracy and consistency issues with the National Science Foundation data source.
- **Offices:** The alternate space model uses 200 ASF/Faculty and Staff FTE, based on staffing records supplied by the Board of Governors.
- **Study:** The alternate space model uses 13.5 ASF/Discounted (Student) FTE for the Reported Time Frame 201808 for each main campus. The alternate space model calculation uses Discounted (Student) FTE, while the Board of Governors uses Non-Discounted FTE.

The Discounted (Student) FTE calculation, when used, follows the same basic criteria as the Board of Governors model for calculating a discounted number, but it is limited to the Reported Time Frame 201808.

The alternate space model focuses on the main campus of each institution.

ASF CALCULATIONS

The SmithGroup space model uses ASF to calculate several factors. The ASF data was provided by the Board of Governors for various Reported Time Frames. SmithGroup used the Reported Time Frame of 201808 for the analysis. This was filtered to eliminate all Non-E&G space in accordance with the scope of the study. Once this was done, SmithGroup assigned categories to spaces based on Use Codes provided by the Board of Governors. Notable exclusions are (690, 695 – Academic support) as well as Use Codes noted by the Board of Governors as "Residential", "Other Assignable", and "Non-Assignable".

FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY

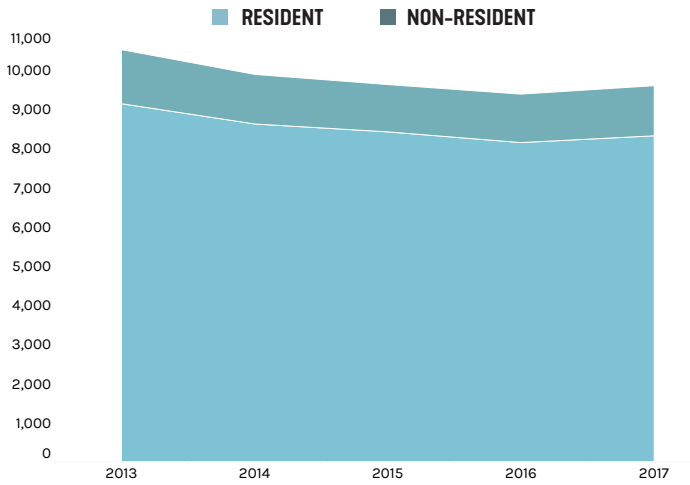
BACKGROUND DATA

Founded	1887
Carnegie Classification	R2 Doctoral University: High Research Activity
SUS Classification	Regional and Statewide
Overall FTE	9,590
Undergraduate FTE	7,644
Graduate FTE	1,947
Number & Types of Degrees Offered	54 bachelor's degrees, 29 master's degrees, 3 professional degrees, 12 doctoral programs
Main Campus	Tallahassee
Other Sites	College of Law (Orlando) College of Pharmacy and Pharmaceutical Sciences (Crestview, Tampa, Jacksonville, Miami)
Student-to-Faculty Ratio	16:1

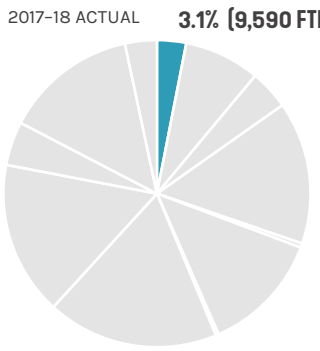
UNIQUE CHARACTERISTICS

- 5th largest historically black university in the nation
- Land-grant university (1 of 2 in Florida)
- 14 Schools and Colleges
- Programs with Most Completions: Health Services/Allied Health/Health Sciences, Criminal Justice/Safety Studies; Registered Nursing/Registered Nurse
- Primarily residential
- Undergraduate Gender: 65% Female
- One of three oldest universities in the system

5-YEAR HISTORIC FTE ENROLLMENT (TOTAL/RESIDENT/NON-RESIDENT)



PERCENT OF STATE UNIVERSITY SYSTEM FTE ENROLLMENT

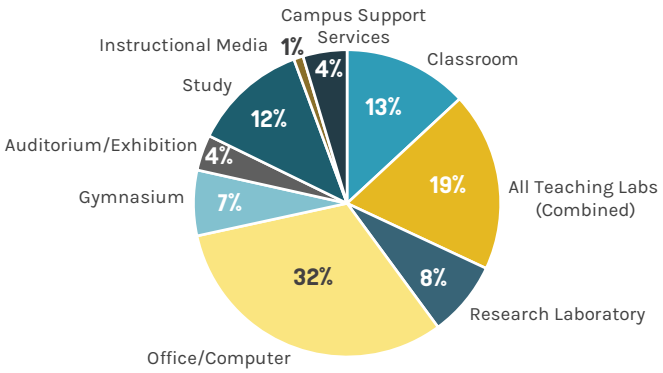


Background Data Source: 2019 Accountability Plan.

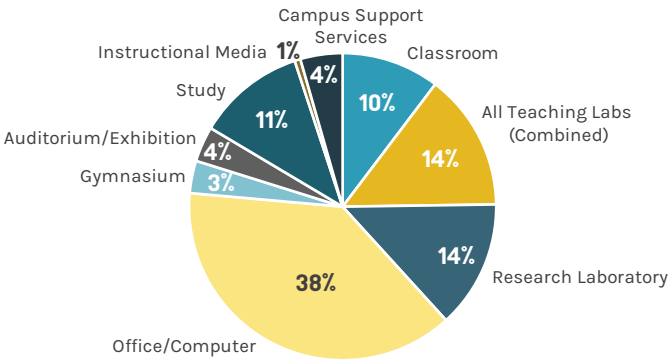
EXISTING E&G SPACE PROFILE

Main Campus (included in study)	1,085,919 ASF	Total Institution (included in study)	1,413,635 ASF

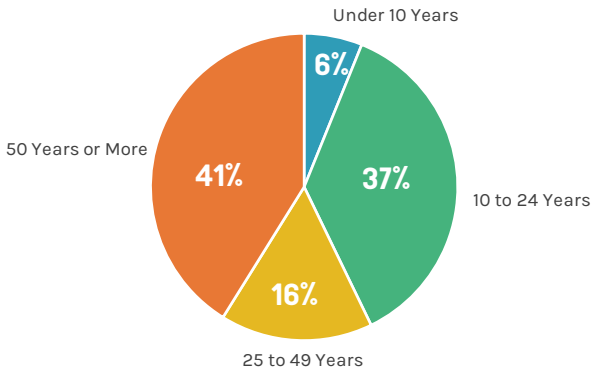
MAIN CAMPUS – ASF BY SPACE TYPE



STATE UNIVERSITY SYSTEM – TOTAL ASF BY SPACE TYPE



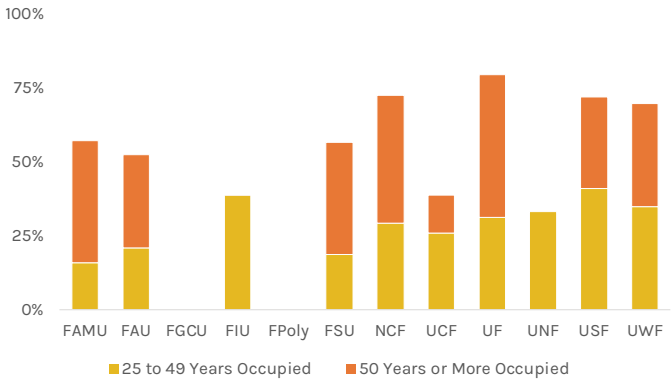
AGE OF BUILDINGS BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



Analysis Note for Age of Buildings chart:

- Main Campus only
- Age = 2019 minus year-occupied

BUILDINGS 25 YEARS OR OLDER BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



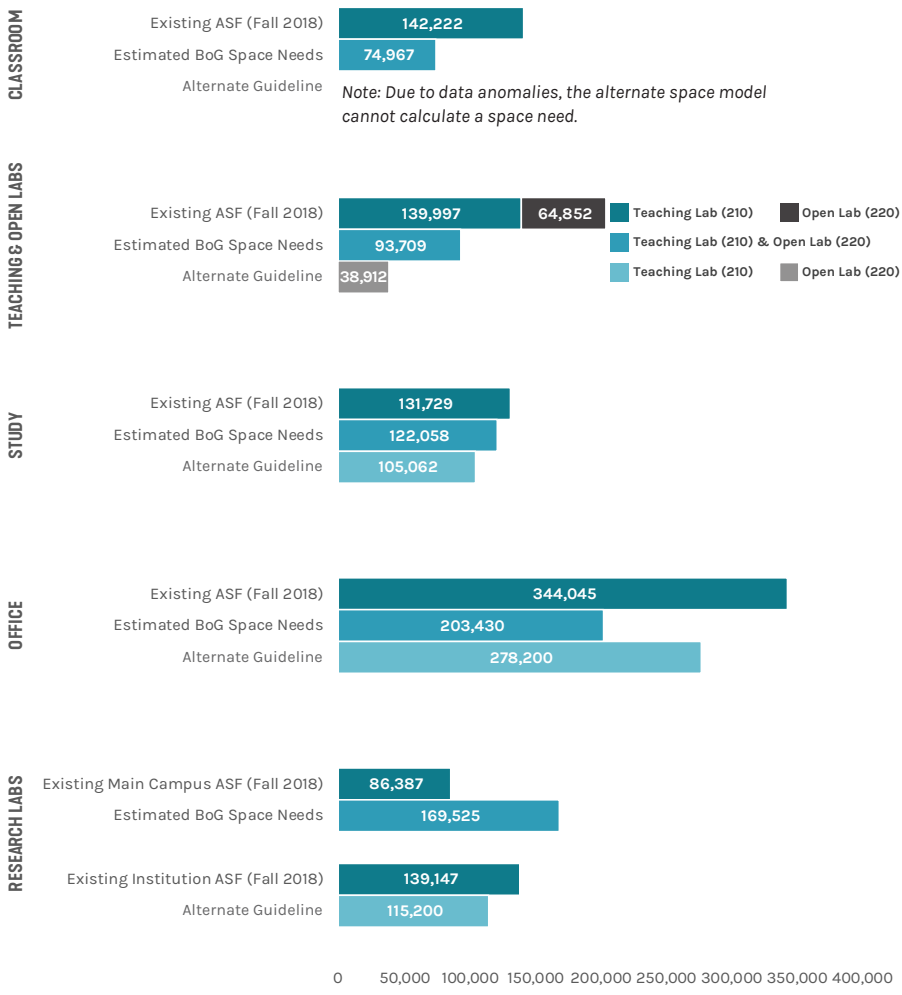
SUMMARY NOTE:

A significant portion of Florida Agricultural and Mechanical University space inventory is 25 years or older (57%) while 41% is 50 years old or older.

Data Source: Board of Governors.

E&G SPACE NEEDS

MAIN CAMPUS – EXISTING ASF VS. BOARD OF GOVERNORS SPACE NEEDS FORMULAS CALCULATIONS VS. ALTERNATE SPACE NEEDS FORMULAS CALCULATION



ASF/FTE – MAIN CAMPUS E&G SPACE BY FALL 2018 DISCOUNTED STUDENT FTE

Florida Agricultural and Mechanical University	139.5
State University System	85.8

MAIN CAMPUS FTEs & PIs

Fall 2018 Discounted FTE	7,782
Fall 2018 Non-Discounted FTE	8,336
Three-Term Discounted FTE	8,330
Three-Term Non-Discounted FTE	9,041
Faculty FTE	640
Faculty and Staff FTE	1,391

SUMMARY NOTE:

Florida Agricultural and Mechanical University is one of the oldest institutions in the state with older facilities which were not designed to today's planning standards. The greater need is not related to the quantity of space but rather age and quality.

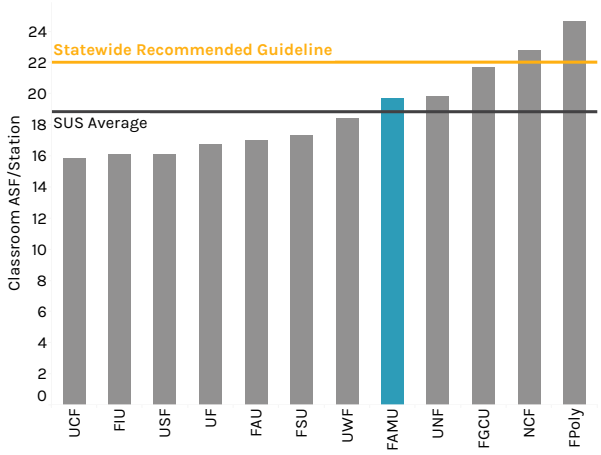
Data Source: Existing ASF 3-Term FTE Calculation Fall 2018 Discounted FTE.

CLASSROOMS

SCHEDULED CLASSROOM USE BY DAY AND TIME | FALL 2018

Note: Due to data anomalies, this analysis was not conducted for FAMU.

ASF PER STUDENT STATION



Note: Due to data anomalies, this analysis was not conducted for FAMU.

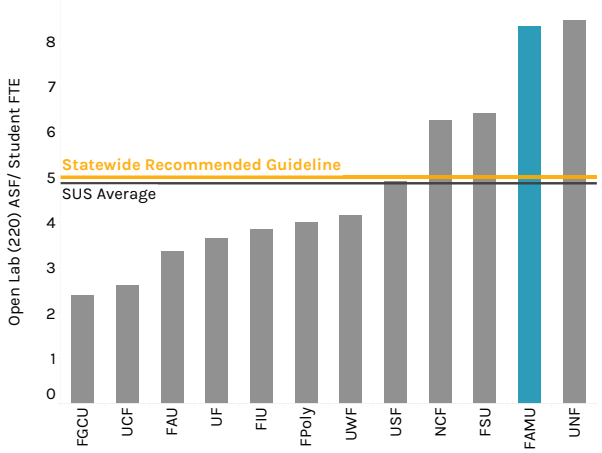
SUMMARY NOTE:

The analysis shows that while the average space per classroom seat is above the system average, it is below the recommended target meaning that the inventory is primarily traditional and inflexible for new learning modalities.

TEACHING LABS

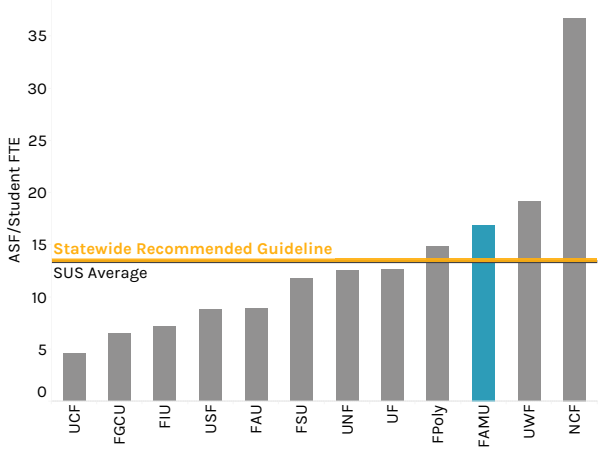
Note: Due to data anomalies, this analysis was not conducted for FAMU.

OPEN LAB (220) ASF PER STUDENT FTE



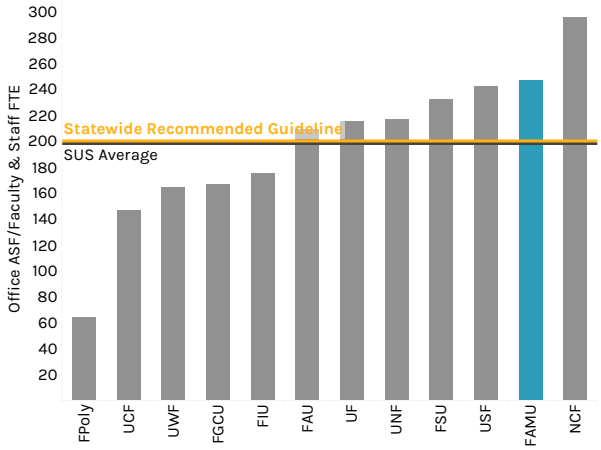
STUDY

ASF PER STUDENT FTE

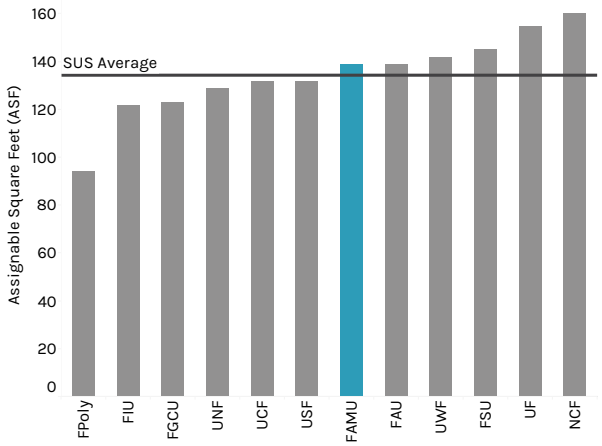


OFFICES

ASF PER FACULTY & STAFF FTE

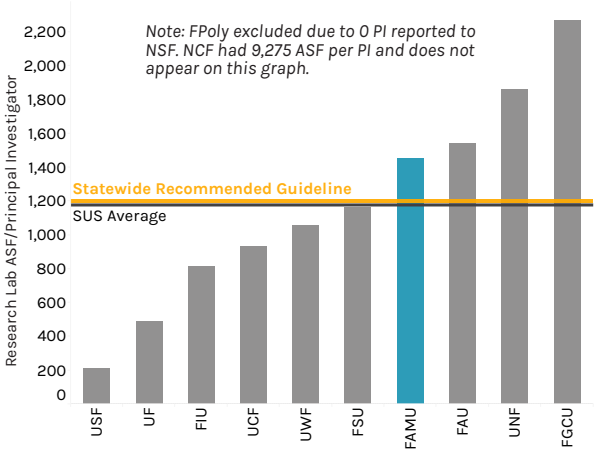


AVERAGE SIZE OF OFFICE

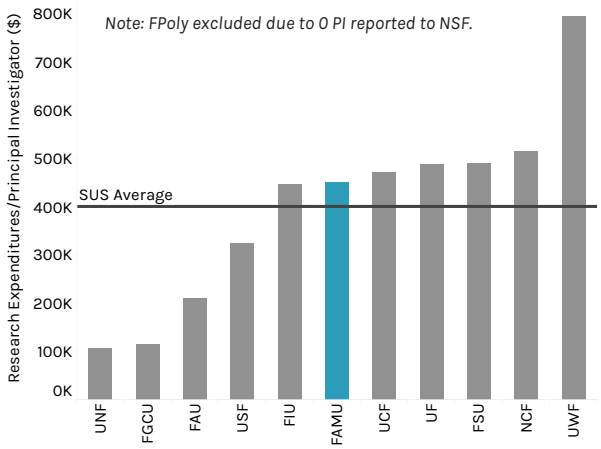


RESEARCH LABS

ASF PER PRINCIPAL INVESTIGATOR

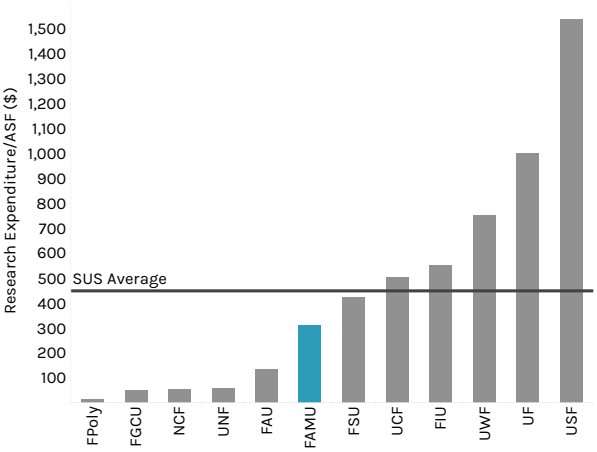


EXPENDITURES PER PRINCIPAL INVESTIGATOR



RESEARCH EXPENDITURES

EXPENDITURES PER ASF

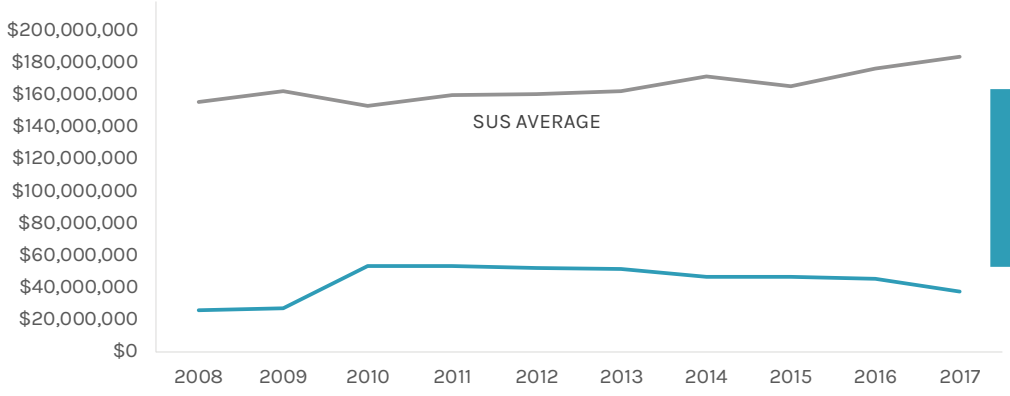


SUMMARY NOTE:

Florida Agricultural and Mechanical University seems to have a sufficient quantity of space but age and quality of space may merit attention. Florida Agricultural and Mechanical University has a Carnegie "R2" classification (second highest). PIs produce average expenditures with slightly above average space.

3-Year Average (2015, 2016, 2017) $43,163,333.33

10-YEAR RESEARCH EXPENDITURES TREND



Principal Investigators Reported to NSF 2017

96

Research Expenditure Source: National Science Foundation, https://ncsesdata.nsf.gov/profiles.

FLORIDA ATLANTIC UNIVERSITY

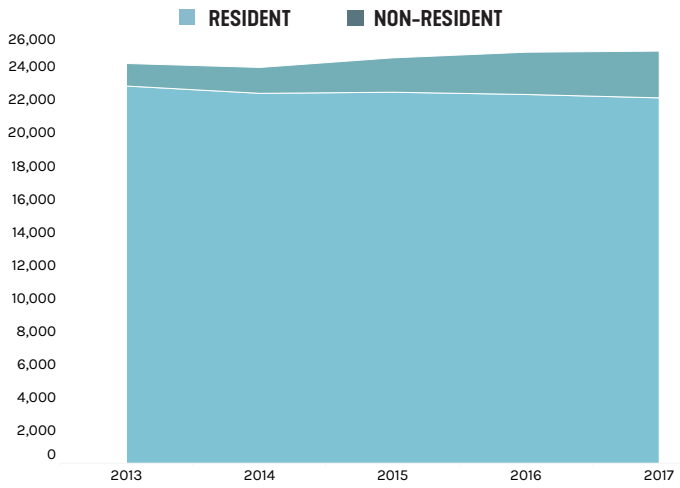
BACKGROUND DATA

Founded	1961
Carnegie Classification	R2 Doctoral University: High Research Activity
SUS Classification	Regional and Statewide
Overall FTE	24,920
Undergraduate FTE	21,439
Graduate FTE	3,481
Number & Types of Degrees Offered	Over 170 degree programs: bachelor's, master's, combined, doctoral, specialist, professional
Main Campus	Boca Raton
Other Sites	Dania Beach, Davie, Fort Lauderdale, Jupiter, Fort Pierce
Student-to-Faculty Ratio	21:1

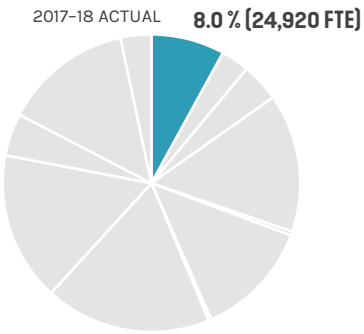
UNIQUE CHARACTERISTICS

- Programs with Most Completions: Psychology, Criminal Justice/Safety Studies, Business Administration and Management
- Primarily nonresidential
- 10 colleges
- **Research Institutes:** Brain Institute, Harbor Branch Oceanographic Institute, Institute for Human Health and Disease Intervention, Institute for Sensing and Embedded Network Systems Engineering
- **Partnerships:** The Max Planck Florida Institute for Neuroscience and The Scripps Research Institute are located on the Jupiter campus and offer high school, undergraduate, and graduate students transformational experiences not found anywhere else in the world.
- **Entrepreneurial Innovation:** FAU Wave, Small Business Development Center at FAU
- **Research Park:** FAU Tech Runway (owned by FAU) is located within 70-acre Research Park (which is owned by Florida Atlantic Research and Development Authority—an independent entity that works collaboratively with FAU).

5-YEAR HISTORIC FTE ENROLLMENT (TOTAL/RESIDENT/NON-RESIDENT)



PERCENT OF STATE UNIVERSITY SYSTEM FTE ENROLLMENT

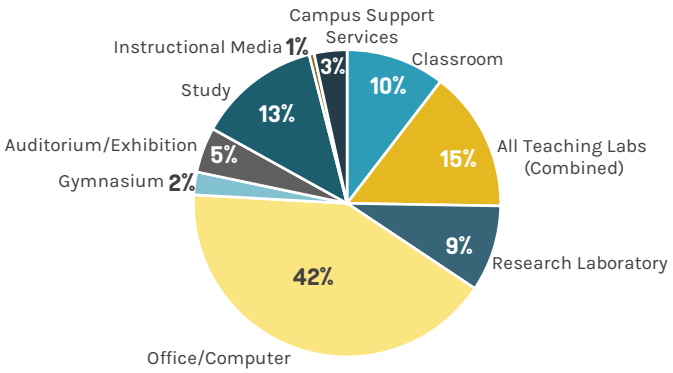


Background Data Source: 2019 Accountability Plan.

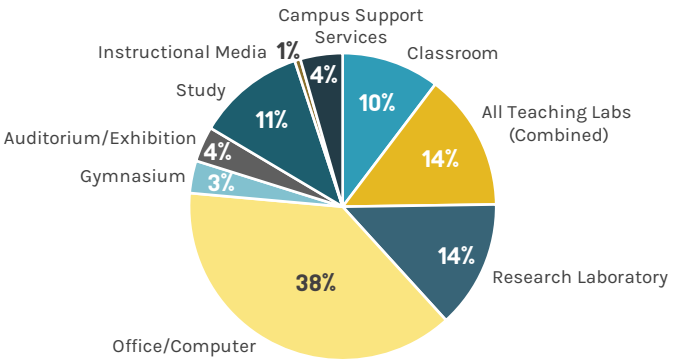
EXISTING E&G SPACE PROFILE

Main Campus (included in study)	1,057,914 ASF	Total Institution (included in study)	1,619,978 ASF

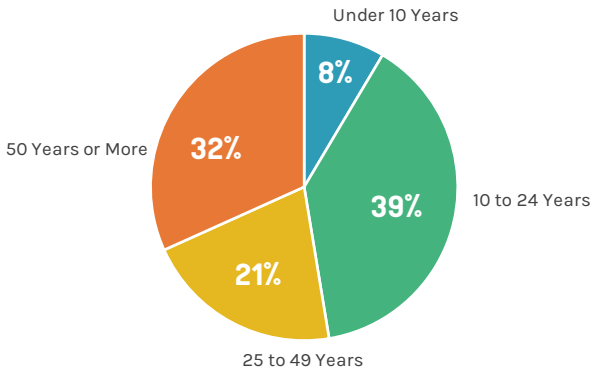
MAIN CAMPUS – ASF BY SPACE TYPE



STATE UNIVERSITY SYSTEM – TOTAL ASF BY SPACE TYPE



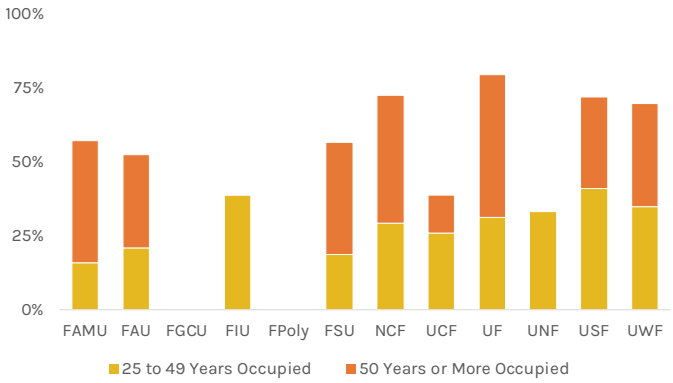
AGE OF BUILDINGS BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



Analysis Note for Age of Buildings chart:

- Main Campus only
- Age = 2019 minus year-occupied

BUILDINGS 25 YEARS OR OLDER BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



SUMMARY NOTE:

Over one half of the facility inventory is 24 years old; one third is over 50 years old. Therefore there are qualitative issues with existing space, especially with a large reported repair backlog. There is a larger share of office space in the facility inventory than the SUS average.

Data Source: Board of Governors.

E&G SPACE NEEDS

MAIN CAMPUS – EXISTING ASF VS. BOARD OF GOVERNORS SPACE NEEDS FORMULAS CALCULATIONS VS. ALTERNATE SPACE NEEDS FORMULAS CALCULATION

ASF/FTE – MAIN CAMPUS E&G SPACE BY FALL 2018 DISCOUNTED STUDENT FTE

Florida Atlantic University	68.4
State University System	85.8

MAIN CAMPUS FTEs & PIs

Fall 2018 Discounted FTE	15,473
Fall 2018 Non-Discounted FTE	18,963
Three-Term Discounted FTE	17,492
Three-Term Non-Discounted FTE	22,358
Faculty FTE	795
Faculty and Staff FTE	2,095

SUMMARY NOTE:

The analysis indicates a strong need for classrooms and study space. The age of facilities might also create qualitative needs. Office space need is likely distorted by older buildings. It should be noted that this analysis does not include any needs on the Jupiter campus as reported by the Institution.

Data Source: Existing ASF 3-Term FTE Calculation Fall 2018 Discounted FTE.

CLASSROOMS

SCHEDULED CLASSROOM USE BY DAY AND TIME | FALL 2018

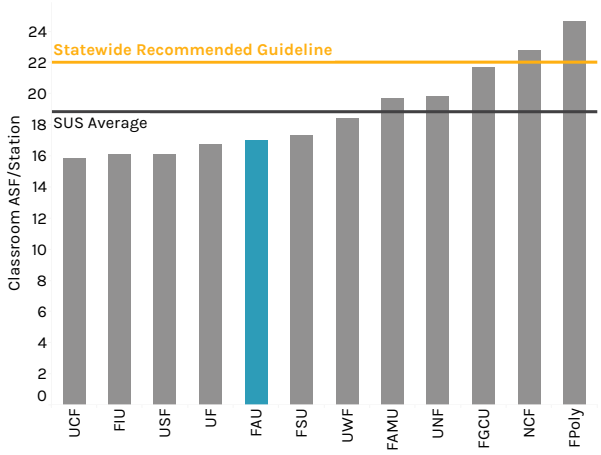
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM	21 | 20%	45 | 43%	39 | 38%	43 | 41%	34 | 33%
9:00 AM	38 | 37%	96 | 92%	84 | 81%	90 | 87%	85 | 82%
10:00 AM	44 | 42%	98 | 94%	95 | 91%	93 | 89%	94 | 90%
11:00 AM	60 | 58%	99 | 95%	94 | 90%	94 | 90%	90 | 87%
12:00 PM	58 | 56%	98 | 94%	92 | 88%	95 | 91%	91 | 88%
1:00 PM	54 | 52%	95 | 91%	89 | 86%	94 | 90%	81 | 78%
2:00 PM	47 | 45%	96 | 92%	66 | 63%	97 | 93%	64 | 62%
3:00 PM	38 | 37%	94 | 90%	64 | 62%	94 | 90%	59 | 57%
4:00 PM	69 | 66%	82 | 79%	60 | 58%	77 | 74%	16 | 15%
5:00 PM	55 | 53%	80 | 77%	47 | 45%	79 | 76%	5 | 5%
6:00 PM	63 | 61%	82 | 79%	67 | 64%	73 | 70%	2 | 2%
7:00 PM	48 | 46%	61 | 59%	49 | 47%	59 | 57%	2 | 2%

0% 100%

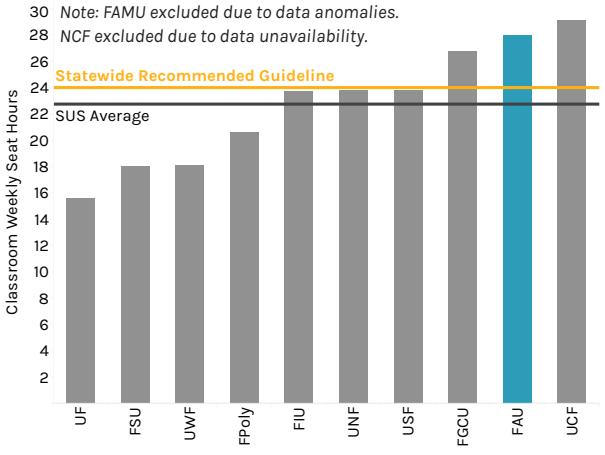
Percent of Rooms in Use

Data Source: Board of Governors.

ASF PER STUDENT STATION



WEEKLY SEAT HOUR UTILIZATION

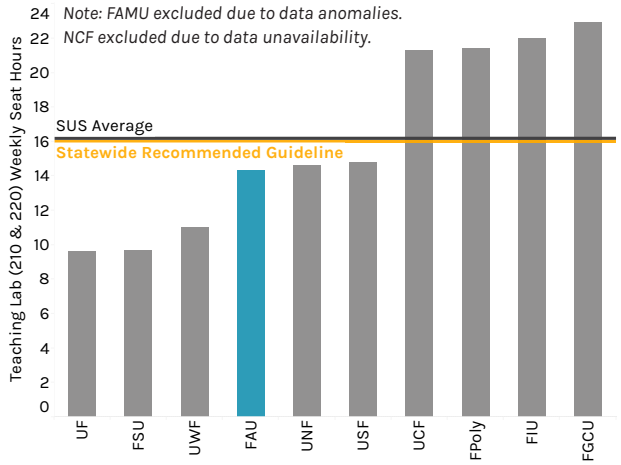


SUMMARY NOTE:

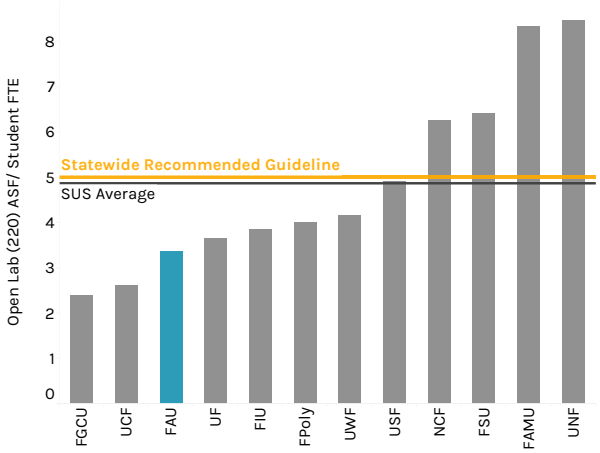
There is strong use of classrooms in the inventory Tuesday through Friday. The ASF/Student Station indicates that classrooms are highly traditional and inflexible for modern learning modalities. The utilization of space exceeds expectations, further validating the need for more and improved classroom space.

TEACHING LABS

TEACHING LAB (210) AVERAGE WEEKLY SEAT HOUR

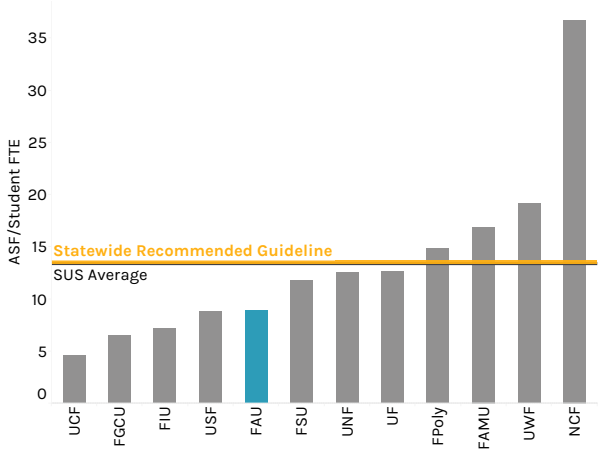


OPEN LAB (220) ASF PER STUDENT FTE



STUDY

ASF PER STUDENT FTE

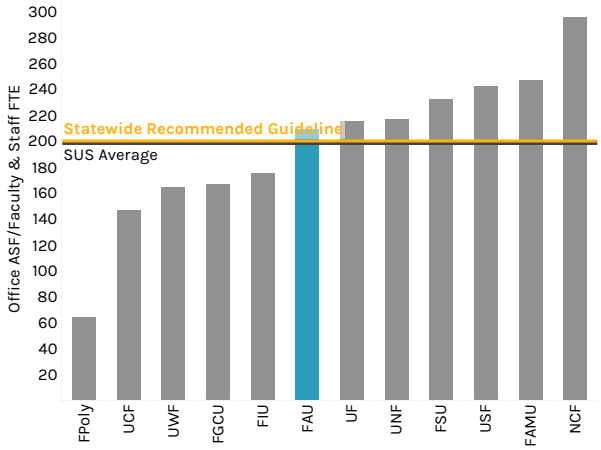


SUMMARY NOTE:

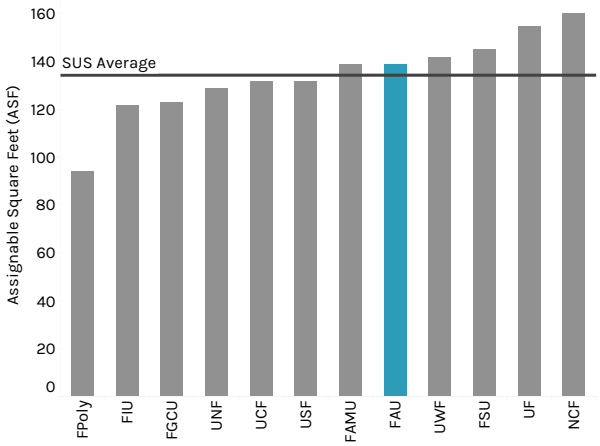
This analysis indicates that teaching laboratories could be used slightly more overall. There is also a need for open lab and study space.

OFFICES

ASF PER FACULTY & STAFF FTE

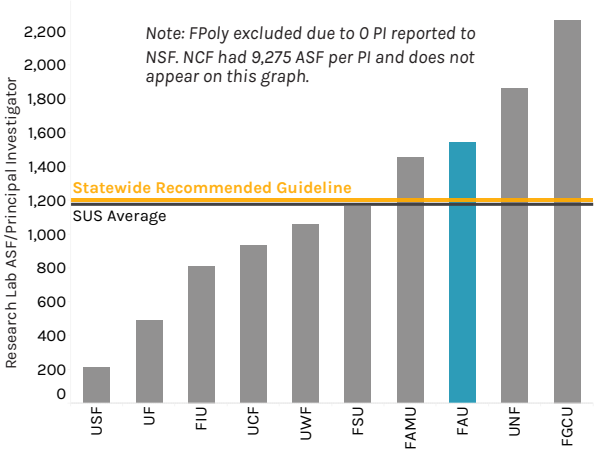


AVERAGE SIZE OF OFFICE

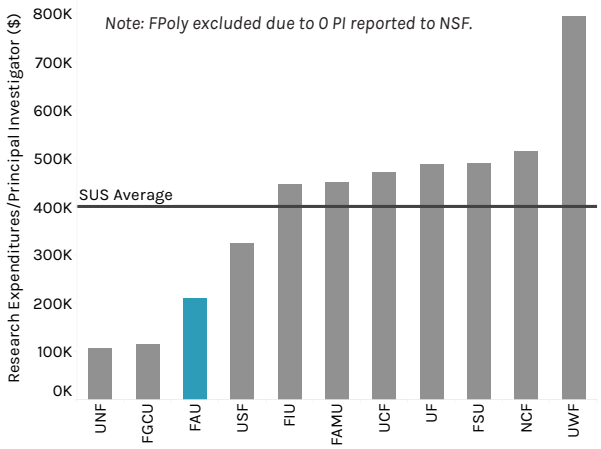


RESEARCH LABS

ASF PER PRINCIPAL INVESTIGATOR

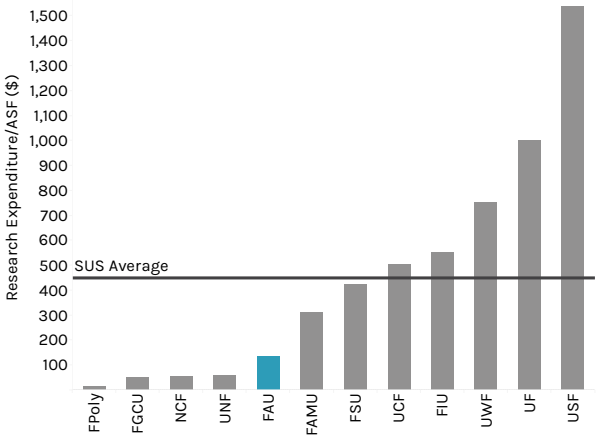


EXPENDITURES PER PRINCIPAL INVESTIGATOR



RESEARCH EXPENDITURES

EXPENDITURES PER ASF

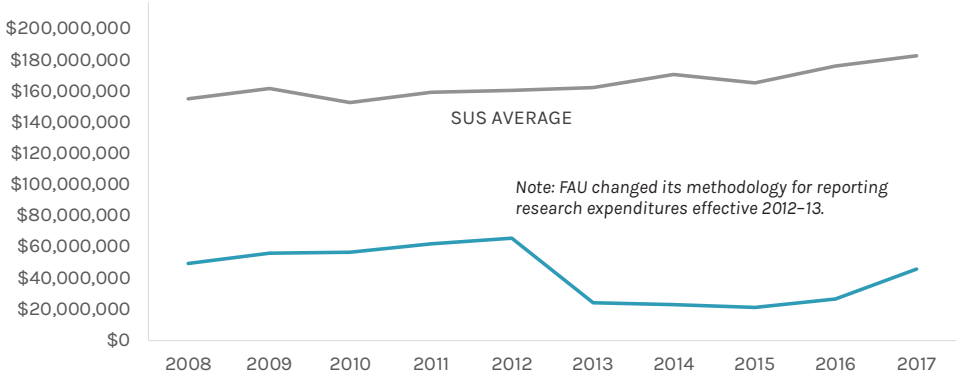


SUMMARY NOTE:

Carnegie classifies Florida Atlantic University as an "R2" research institution. PI produce low expenditures with above average space.

3-Year Average (2015, 2016, 2017) $31,329,666.67

10-YEAR RESEARCH EXPENDITURES TREND



Principal Investigators Reported to NSF 2017

149

Research Expenditure Source: National Science Foundation, https://ncsesdata.nsf.gov/profiles.

FLORIDA GULF COAST UNIVERSITY

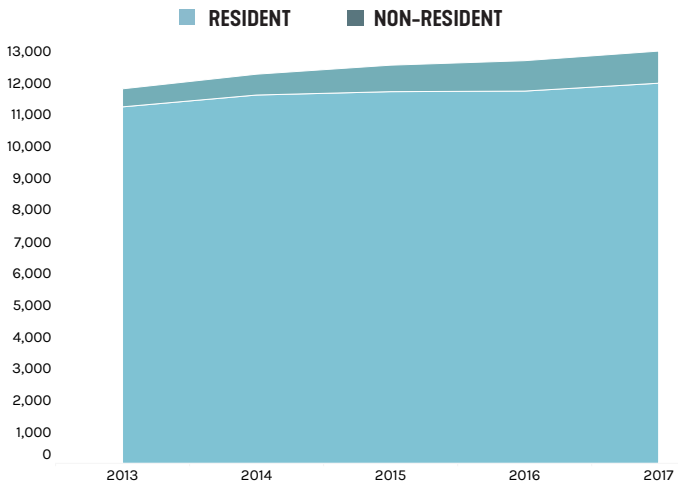
BACKGROUND DATA

Founded	1991
Carnegie Classification	Master's Colleges & Universities
SUS Classification	Regional and Statewide
Overall FTE	12,996
Undergraduate FTE	12,119
Graduate FTE	877
Number & Types of Degrees Offered	58 undergraduate programs; 25 master's programs; 12 certificate programs; 6 doctoral programs; 6 colleges, 4 schools
Main Campus	Fort Myers
Other Sites	Emergent Technologies Institute, Buckingham Complex (Lee County), Kapnick Center (Naples), Vester Marine & Environmental Science Research Field Station (Bonita Springs)
Student-to-Faculty Ratio	22:1

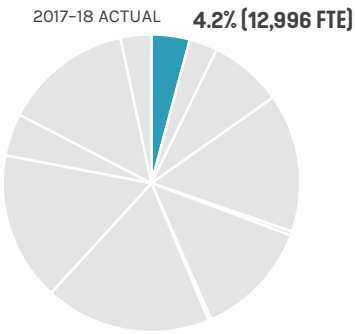
UNIQUE CHARACTERISTICS

- Programs with Most Completions: Speech Communication and Rhetoric, Business Administration and Management, Resort Management
- Primarily residential
- Over 12 research institutes
- Comprehensive Institution with some research doctoral programs

5-YEAR HISTORIC FTE ENROLLMENT (TOTAL/RESIDENT/NON-RESIDENT)



PERCENT OF STATE UNIVERSITY SYSTEM FTE ENROLLMENT

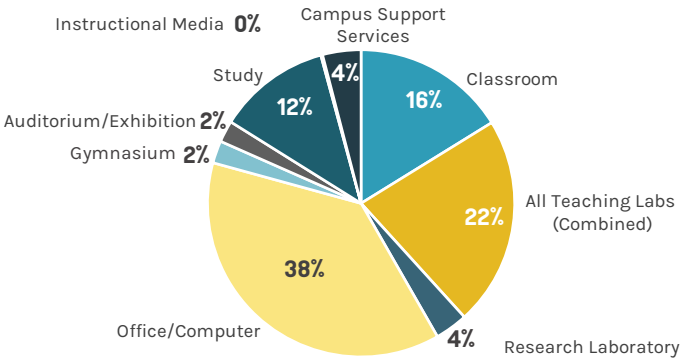


Background Data Source: 2019 Accountability Plan.

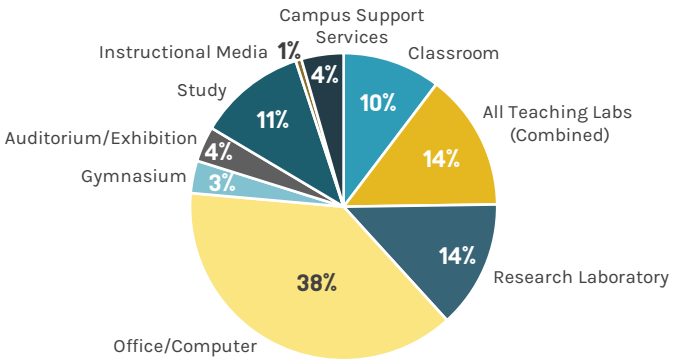
EXISTING E&G SPACE PROFILE

Main Campus (included in study)	573,614 ASF	Total Institution (included in study)	833,535 ASF

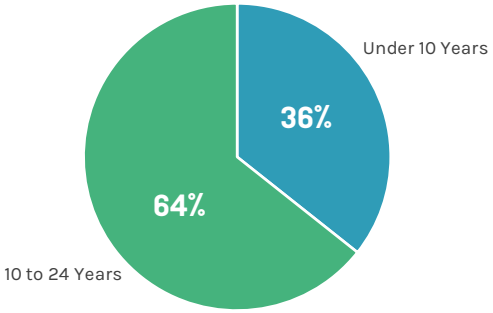
MAIN CAMPUS – ASF BY SPACE TYPE



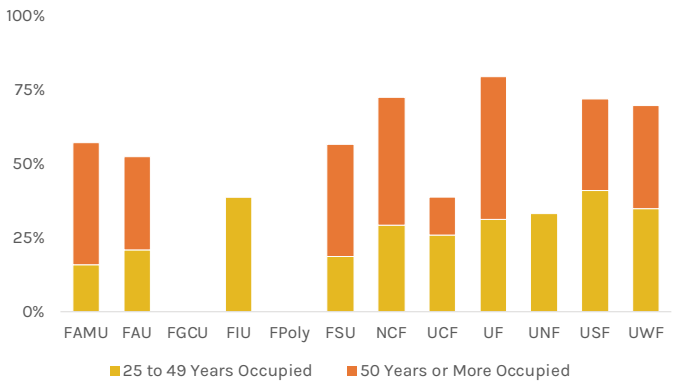
STATE UNIVERSITY SYSTEM – TOTAL ASF BY SPACE TYPE



AGE OF BUILDINGS BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



BUILDINGS 25 YEARS OR OLDER BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



Analysis Note for Age of Buildings chart:

- Main Campus only
- Age = 2019 minus year-occupied

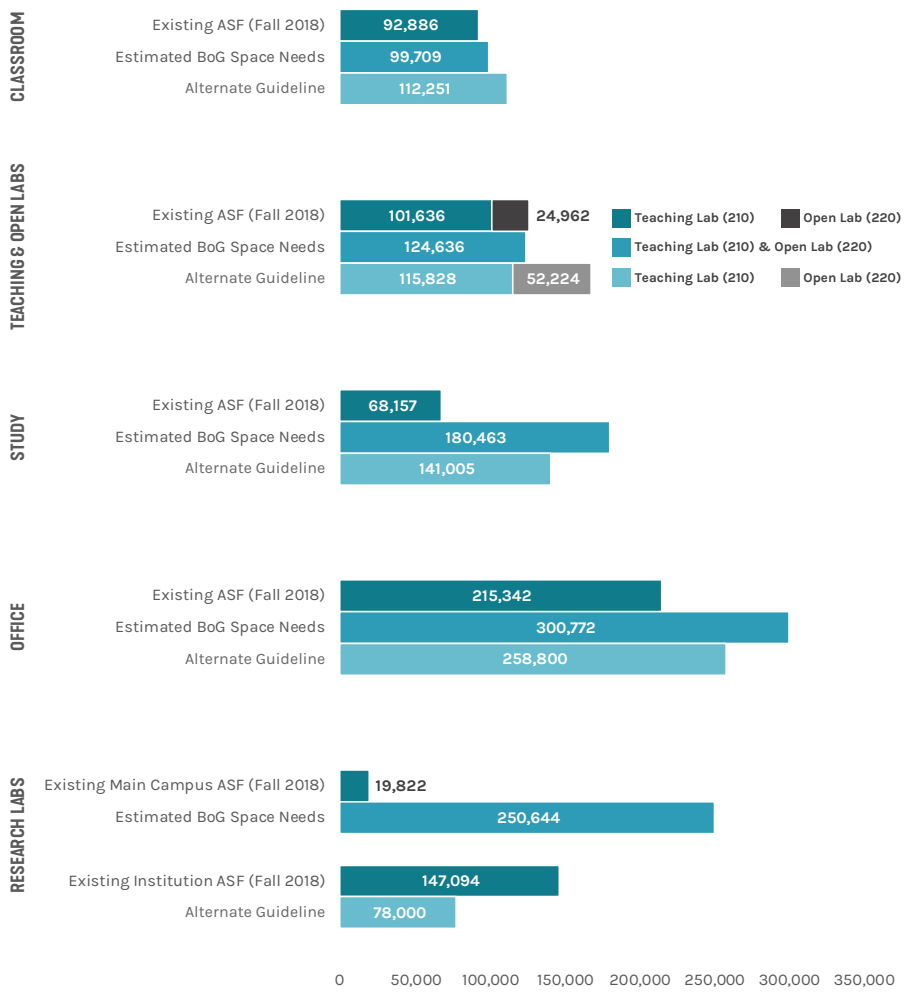
SUMMARY NOTE:

Florida Gulf Coast University is among the two youngest institutions in the state as measured by age of facilities. There is very little research space on campus, consistent with its mission and institution type.

Data Source: Board of Governors.

E&G SPACE NEEDS

MAIN CAMPUS – EXISTING ASF VS. BOARD OF GOVERNORS SPACE NEEDS FORMULAS CALCULATIONS VS. ALTERNATE SPACE NEEDS FORMULAS CALCULATION



ASF/FTE – MAIN CAMPUS E&G SPACE BY FALL 2018 DISCOUNTED STUDENT FTE

Florida Golf Coast University	54.9
State University System	85.8

MAIN CAMPUS FTEs & PIs

Fall 2018 Discounted FTE	10,445
Fall 2018 Non-Discounted FTE	12,282
Three-Term Discounted FTE	11,079
Three-Term Non-Discounted FTE	13,368
Faculty FTE	653
Faculty and Staff FTE	1,294

SUMMARY NOTE:

The analysis indicates that Florida Gulf Coast University has space needs in all space categories analyzed with the possible exception of research.

Data Source: Existing ASF 3-Term FTE Calculation Fall 2018 Discounted FTE.

CLASSROOMS

SCHEDULED CLASSROOM USE BY DAY AND TIME | FALL 2018

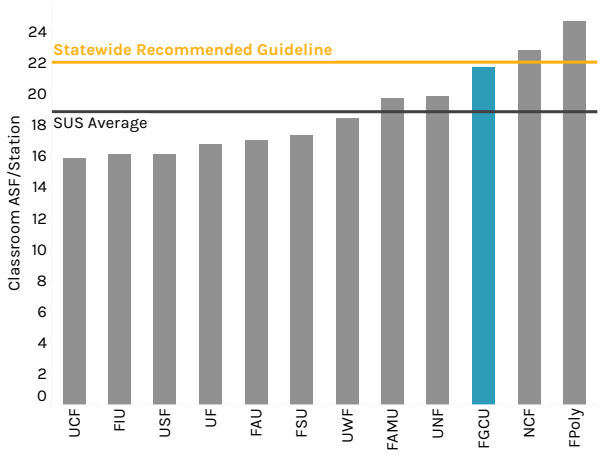
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM	29 | 36%	25 | 31%	30 | 37%	26 | 32%	31 | 38%
9:00 AM	51 | 63%	72 | 89%	51 | 63%	72 | 89%	58 | 72%
10:00 AM	70 | 86%	77 | 95%	69 | 85%	77 | 95%	71 | 88%
11:00 AM	70 | 86%	69 | 85%	67 | 83%	71 | 88%	64 | 79%
12:00 PM	56 | 69%	75 | 93%	57 | 70%	76 | 94%	50 | 62%
1:00 PM	71 | 88%	76 | 94%	72 | 89%	77 | 95%	60 | 74%
2:00 PM	70 | 86%	73 | 90%	72 | 89%	72 | 89%	47 | 58%
3:00 PM	63 | 78%	71 | 88%	66 | 81%	72 | 89%	43 | 53%
4:00 PM	59 | 73%	73 | 90%	59 | 73%	74 | 91%	37 | 46%
5:00 PM	59 | 73%	71 | 88%	58 | 72%	64 | 79%	8 | 10%
6:00 PM	57 | 70%	56 | 69%	57 | 70%	50 | 62%	6 | 7%
7:00 PM	56 | 69%	61 | 75%	56 | 69%	54 | 67%	5 | 6%

0% 100%

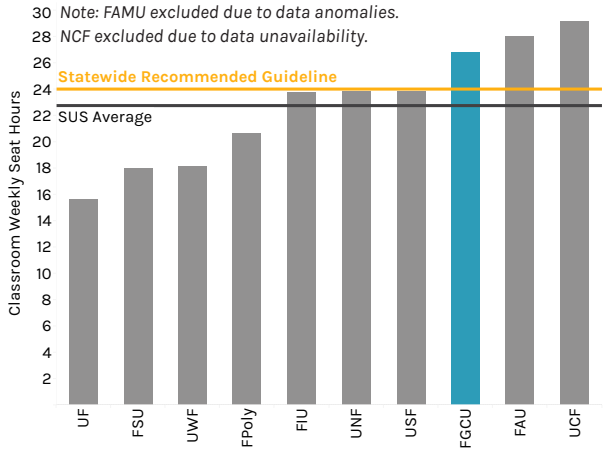
Percent of Rooms in Use

Data Source: Board of Governors.

ASF PER STUDENT STATION



WEEKLY SEAT HOUR UTILIZATION

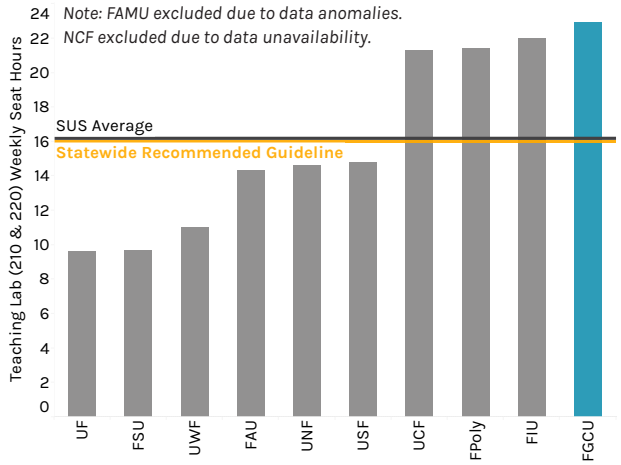


SUMMARY NOTE:

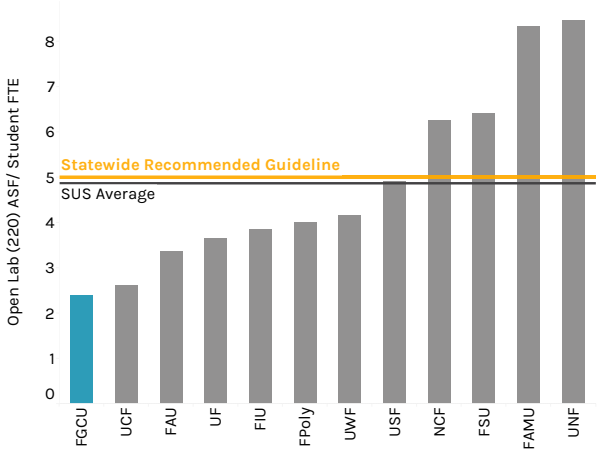
With a very young facility inventory, Florida Gulf Coast University has among the most flexible classrooms as measure by ASF/Seat. Florida Gulf Coast University is also outperforming most peers in terms of classroom utilization and this reinforces the finding of need for more instructional space.

TEACHING LABS

TEACHING LAB (210) AVERAGE WEEKLY SEAT HOUR

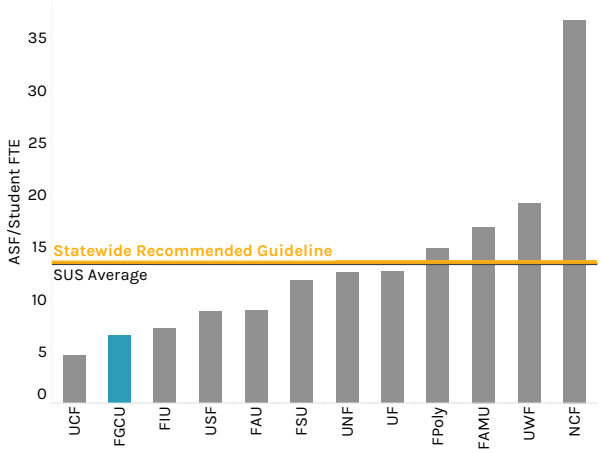


OPEN LAB (220) ASF PER STUDENT FTE



STUDY

ASF PER STUDENT FTE

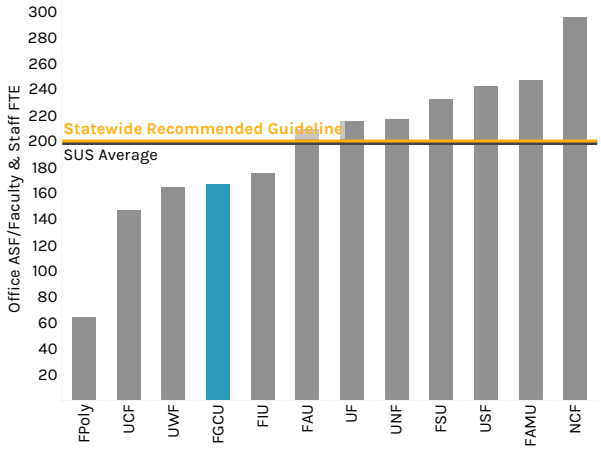


SUMMARY NOTE:

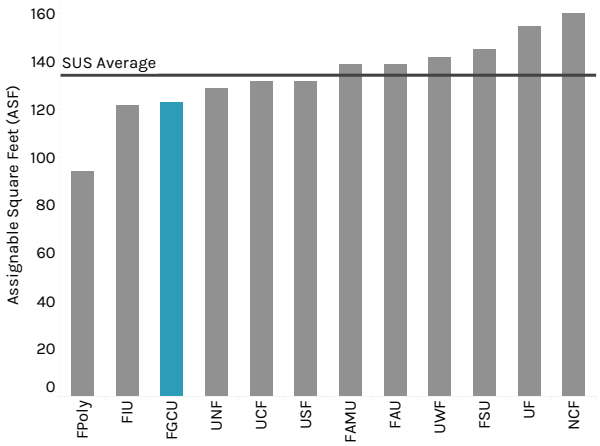
Teaching laboratories are used the most of any SUS institution and this supports a finding of need. Needs for open laboratories and study space are also observed.

OFFICES

ASF PER FACULTY & STAFF FTE

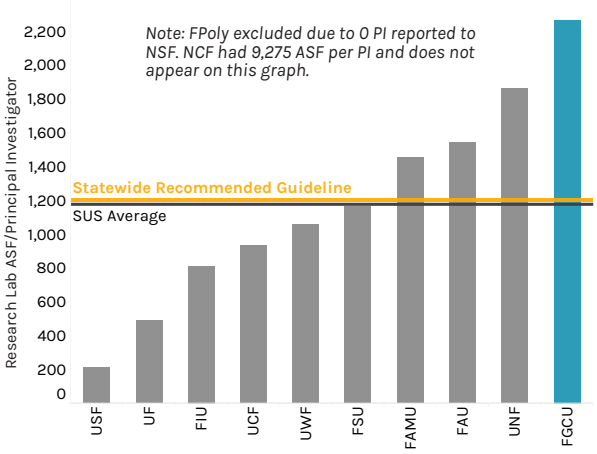


AVERAGE SIZE OF OFFICE

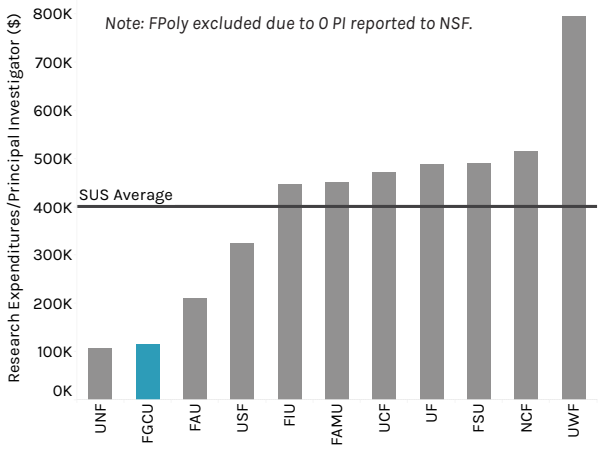


RESEARCH LABS

ASF PER PRINCIPAL INVESTIGATOR

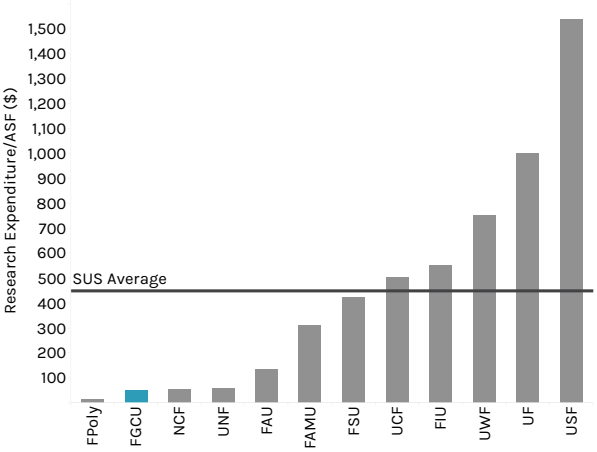


EXPENDITURES PER PRINCIPAL INVESTIGATOR



RESEARCH EXPENDITURES

EXPENDITURES PER ASF

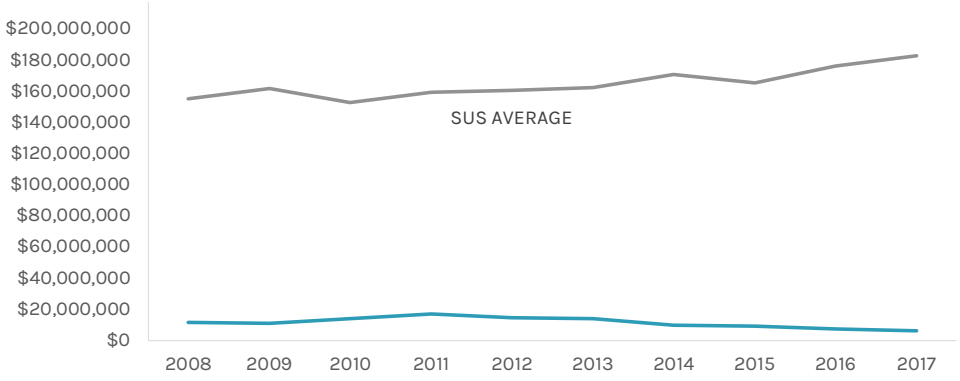


SUMMARY NOTE:

Florida Gulf Coast University is not a research intensive campus.

3-Year Average (2015, 2016, 2017) $7,450,666.67

10-YEAR RESEARCH EXPENDITURES TREND



Principal Investigators Reported to NSF 2017

65

Research Expenditure Source: National Science Foundation, https://ncsesdata.nsf.gov/profiles.

FLORIDA INTERNATIONAL UNIVERSITY

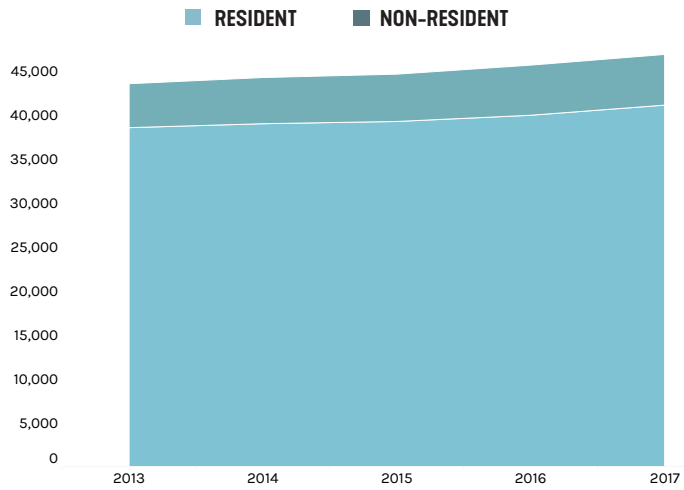
BACKGROUND DATA

Founded	1965
Carnegie Classification	R1 Doctoral Universities: Very High Research Activity (highest)
SUS Classification	Emerging Preeminent State Research University
Overall FTE	46,935
Undergraduate FTE	38,534
Graduate FTE	8,401
Number & Types of Degrees Offered	267 degree programs: bachelor's, master's, doctoral, and professional
Main Campus	Miami
Other Sites	Biscayne Bay, Miramar, Miami Beach, Washington, DC, Tianjin (China)
Student-to-Faculty Ratio	26:1

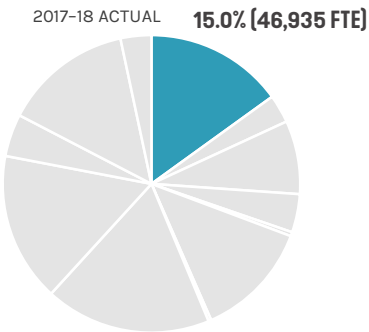
UNIQUE CHARACTERISTICS

- Programs with Most Completions: Psychology, Biology/ Biological Sciences, Hospitality Administration/ Management
- Primarily nonresidential
- 70 Invention Disclosures, 61 U.S. Patent Applications Filed
- 2,086 traditional faculty; has included 6 Nobel Laureates
- 23 colleges and schools
- Hispanic-Serving Institution (1 of 2 in Florida)
- Ranked 24 in nation in Social Mobility Ranking (extent to which a college or university educates more economically disadvantaged students (with family incomes below the national median) at lower tuition and graduates them into good paying jobs)
- Urban Research University
- 85% minority; Number 1 Hispanic Serving Institution (HSI) in U.S.
- Focusing on student success

5-YEAR HISTORIC FTE ENROLLMENT (TOTAL/RESIDENT/NON-RESIDENT)



PERCENT OF STATE UNIVERSITY SYSTEM FTE ENROLLMENT

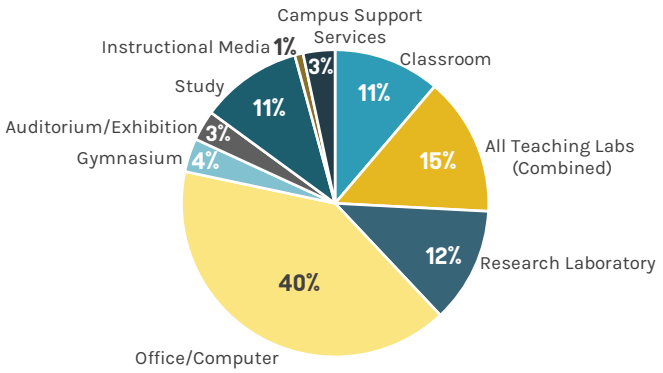


Background Data Source: 2019 Accountability Plan.

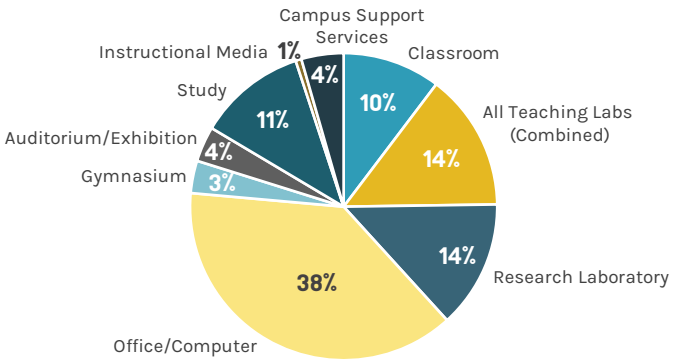
EXISTING E&G SPACE PROFILE

Main Campus (included in study)	1,583,174 ASF	Total Institution (included in study)	2,327,776 ASF

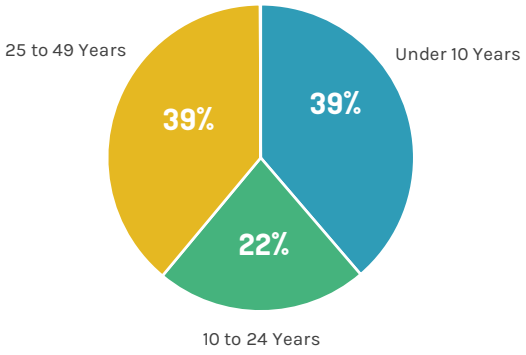
MAIN CAMPUS – ASF BY SPACE TYPE



STATE UNIVERSITY SYSTEM – TOTAL ASF BY SPACE TYPE



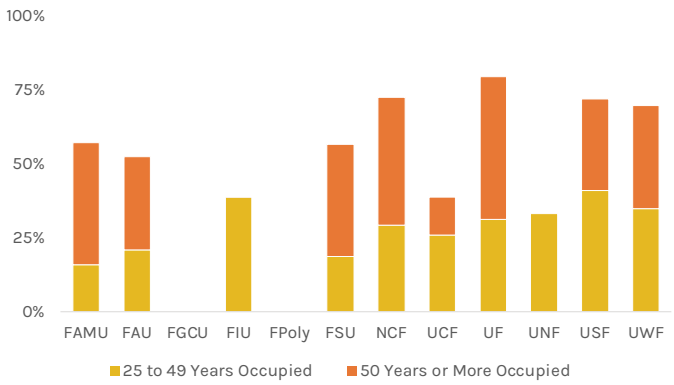
AGE OF BUILDINGS BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



Analysis Note for Age of Buildings chart:

- Main Campus only
- Age = 2019 minus year-occupied

BUILDINGS 25 YEARS OR OLDER BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



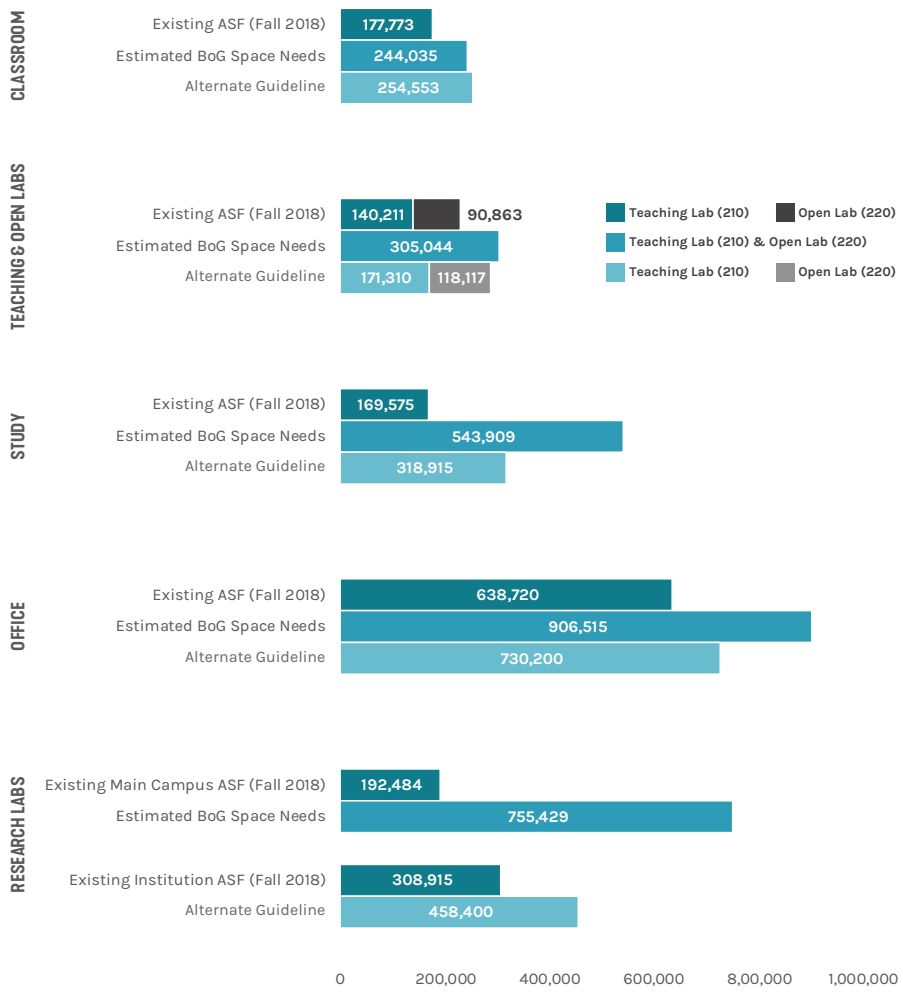
SUMMARY NOTE:

Florida International University facilities are younger overall than many in the system. The primary issue is quantity of space over quality.

Data Source: Board of Governors.

E&G SPACE NEEDS

MAIN CAMPUS – EXISTING ASF VS. BOARD OF GOVERNORS SPACE NEEDS FORMULAS CALCULATIONS VS. ALTERNATE SPACE NEEDS FORMULAS CALCULATION



ASF/FTE – MAIN CAMPUS E&G SPACE BY FALL 2018 DISCOUNTED STUDENT FTE

Florida International University	67.0
State University System	85.8

MAIN CAMPUS FTEs & PIs

Fall 2018 Discounted FTE	23,623
Fall 2018 Non-Discounted FTE	32,897
Three-Term Discounted FTE	27,115
Three-Term Non-Discounted FTE	40,290
Faculty FTE	1,375
Faculty and Staff FTE	3,651

SUMMARY NOTE:
The analysis indicates very significant needs in all space categories.

Data Source: Existing ASF 3-Term FTE Calculation Fall 2018 Discounted FTE.

CLASSROOMS

SCHEDULED CLASSROOM USE BY DAY AND TIME | FALL 2018

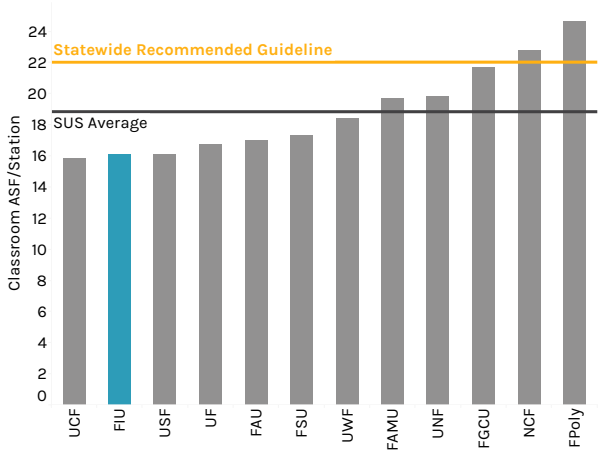
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM	37 | 26%	52 | 36%	36 | 25%	50 | 35%	29 | 20%
9:00 AM	81 | 57%	127 | 89%	80 | 56%	124 | 87%	57 | 40%
10:00 AM	116 | 81%	126 | 88%	120 | 84%	125 | 87%	82 | 57%
11:00 AM	114 | 80%	125 | 87%	118 | 83%	124 | 87%	84 | 59%
12:00 PM	105 | 73%	131 | 92%	116 | 81%	134 | 94%	65 | 45%
1:00 PM	95 | 66%	118 | 83%	97 | 68%	124 | 87%	62 | 43%
2:00 PM	99 | 69%	125 | 87%	106 | 74%	121 | 85%	45 | 31%
3:00 PM	101 | 71%	128 | 90%	109 | 76%	117 | 82%	41 | 29%
4:00 PM	63 | 44%	76 | 53%	66 | 46%	35 | 24%	20 | 14%
5:00 PM	101 | 71%	119 | 83%	101 | 71%	111 | 78%	5 | 3%
6:00 PM	111 | 78%	129 | 90%	110 | 77%	128 | 90%	4 | 3%
7:00 PM	98 | 69%	114 | 80%	104 | 73%	111 | 78%	4 | 3%

0% 100%

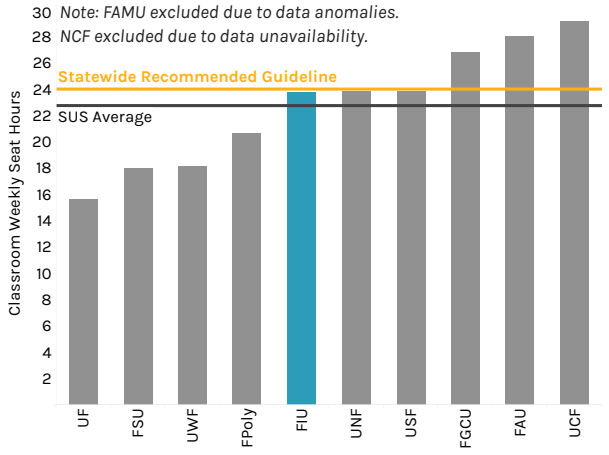
Percent of Rooms in Use

Data Source: Board of Governors.

ASF PER STUDENT STATION



WEEKLY SEAT HOUR UTILIZATION

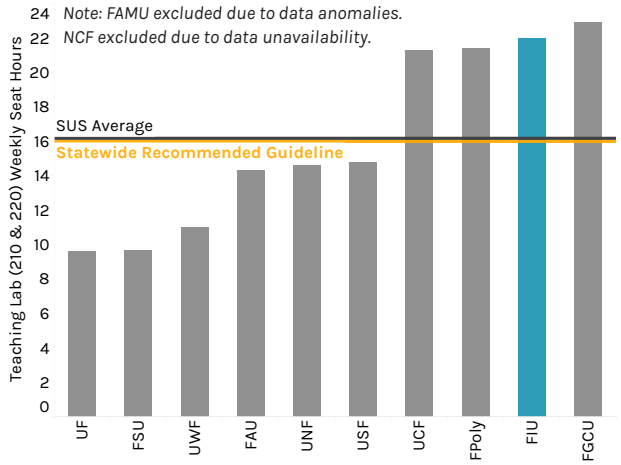


SUMMARY NOTE:

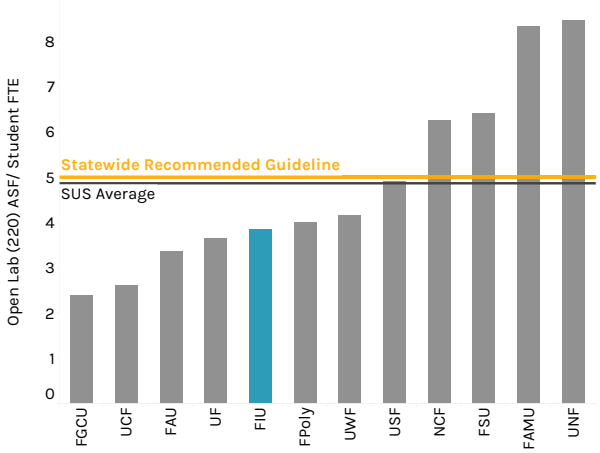
Excellent classroom utilization was observed with strong use from 9AM to 8PM Monday through Thursday. The average space per seat is second lowest in the SUS, indicating that classrooms are highly traditional and inflexible for modern learning modalities.

TEACHING LABS

TEACHING LAB (210) AVERAGE WEEKLY SEAT HOUR

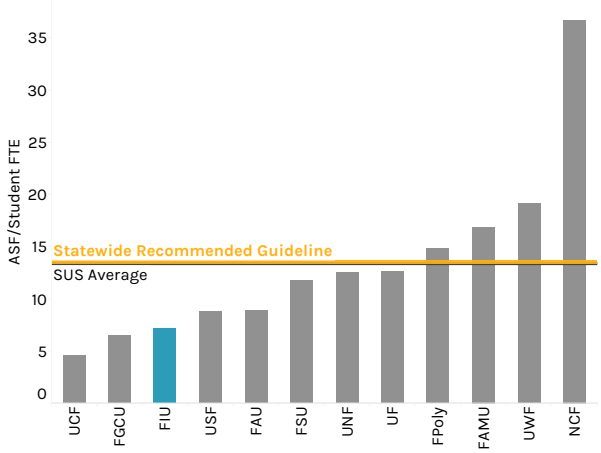


OPEN LAB (220) ASF PER STUDENT FTE



STUDY

ASF PER STUDENT FTE

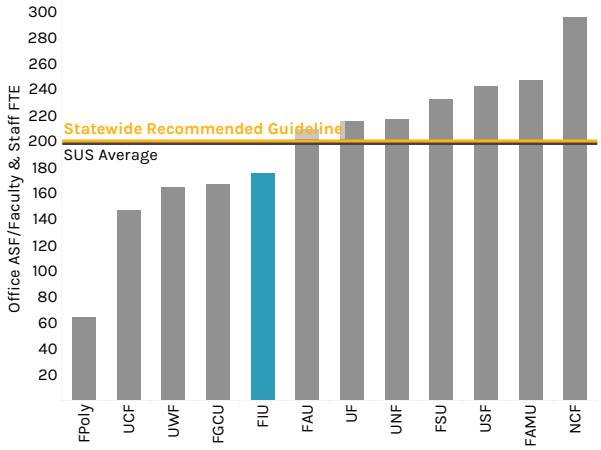


SUMMARY NOTE:

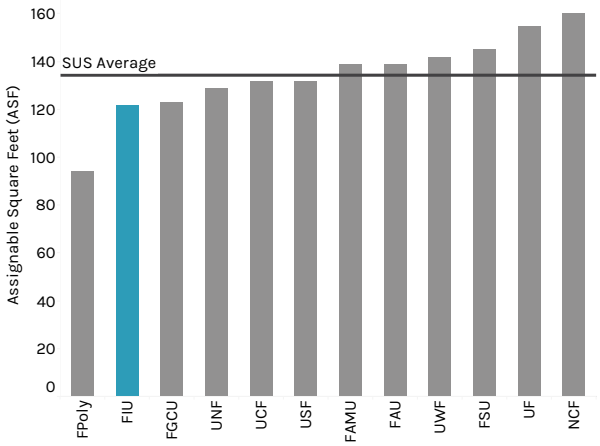
Teaching laboratories are very highly used. Space is needed for open laboratories, study, and offices.

OFFICES

ASF PER FACULTY & STAFF FTE

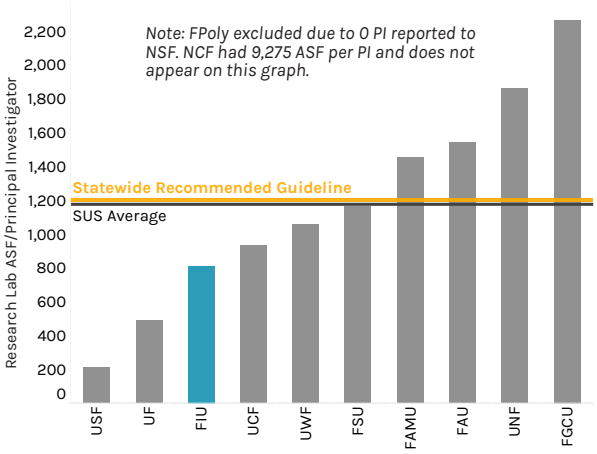


AVERAGE SIZE OF OFFICE

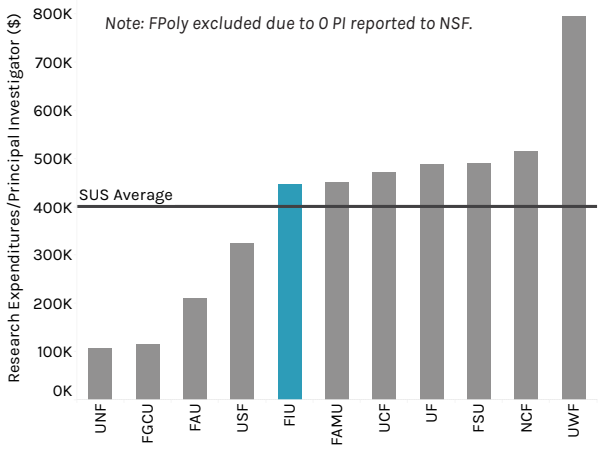


RESEARCH LABS

ASF PER PRINCIPAL INVESTIGATOR

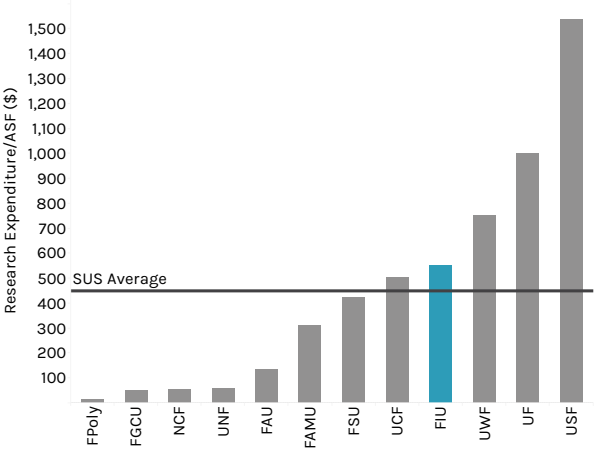


EXPENDITURES PER PRINCIPAL INVESTIGATOR



RESEARCH EXPENDITURES

EXPENDITURES PER ASF

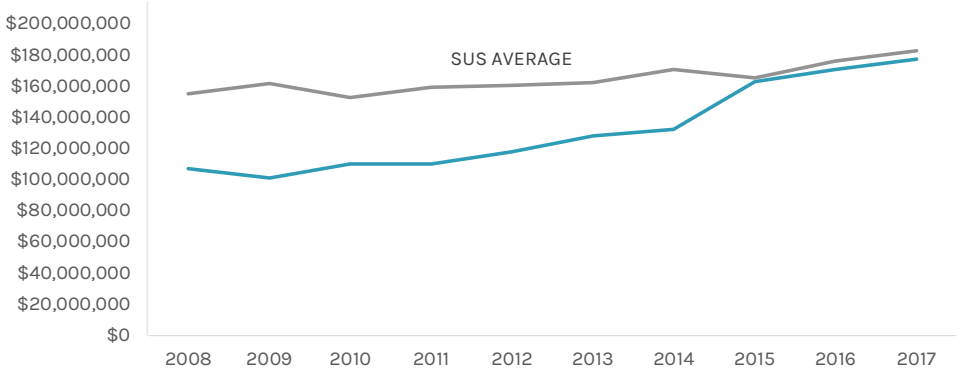


SUMMARY NOTE:

Florida International University research activity is moderate and increasing, with more expenditures per PI and per ASF than the SUS average.

3-Year Average (2015, 2016, 2017) $170,390,333.33

10-YEAR RESEARCH EXPENDITURES TREND



Principal Investigators Reported to NSF 2017

382

Research Expenditure Source: National Science Foundation, https://ncsesdata.nsf.gov/profiles.

FLORIDA POLYTECHNIC UNIVERSITY

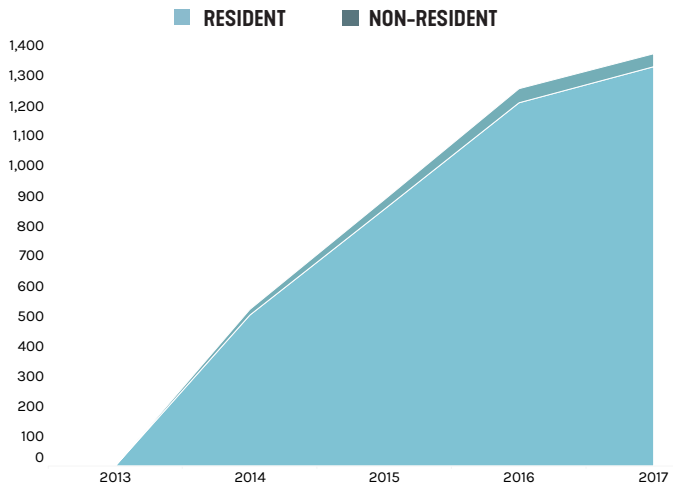
BACKGROUND DATA

Founded	2012
Carnegie Classification	Baccalaureate College
SUS Classification	Regional and Statewide
Overall FTE	1,372
Undergraduate FTE	1,361
Graduate FTE	11
Number & Types of Degrees Offered	9 undergraduate degree programs, 2 graduate programs
Main Campus	Lakeland
Other Sites	None
Student-to-Faculty Ratio	17:1

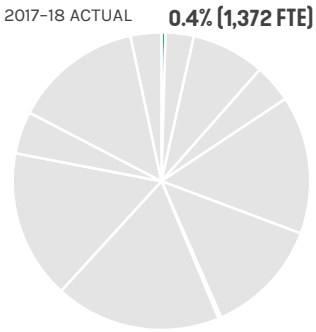
UNIQUE CHARACTERISTICS

- SUS's newest university
- Programs with Most Completions: Computer Software and Media Applications, Mechanical Engineering, Electrical and Electronics Engineering
- Primarily nonresidential
- Undergraduate Gender: 87% Male
- Dynamic, research-based and hands-on science, technology, engineering, and math (STEM) education
- 87 local and national industry partners
- Research Institutes: Advanced Mobility Institute; Florida Industrial and Phosphate Research Institute; Health Systems Engineering

5-YEAR HISTORIC FTE ENROLLMENT (TOTAL/RESIDENT/NON-RESIDENT)



PERCENT OF STATE UNIVERSITY SYSTEM FTE ENROLLMENT

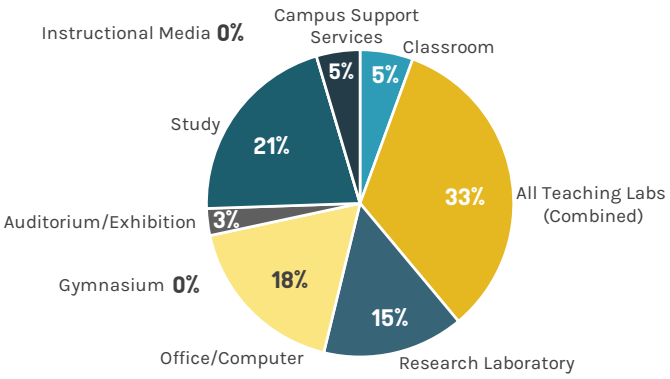


Background Data Source: 2019 Accountability Plan.

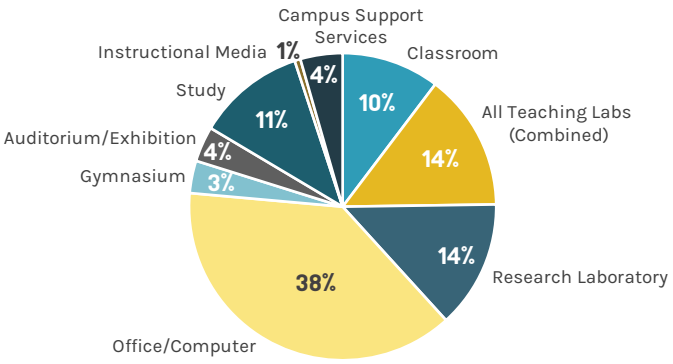
EXISTING E&G SPACE PROFILE

Main Campus (included in study)	88,305 ASF	Total Institution (included in study)	104,484 ASF

MAIN CAMPUS – ASF BY SPACE TYPE

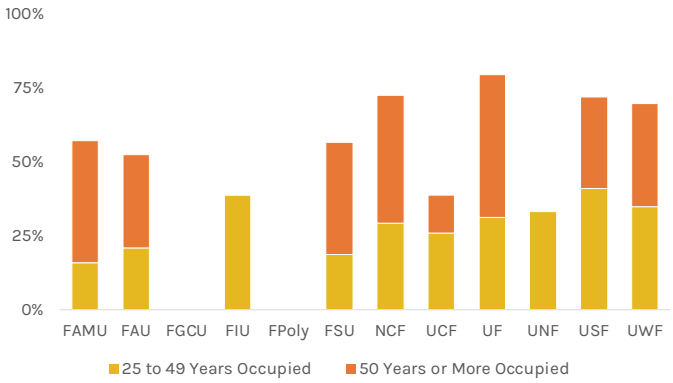


STATE UNIVERSITY SYSTEM – TOTAL ASF BY SPACE TYPE



AGE OF BUILDINGS BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)

BUILDINGS 25 YEARS OR OLDER BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



Analysis Note for Age of Buildings chart:

- Main Campus only
- Age = 2019 minus year-occupied

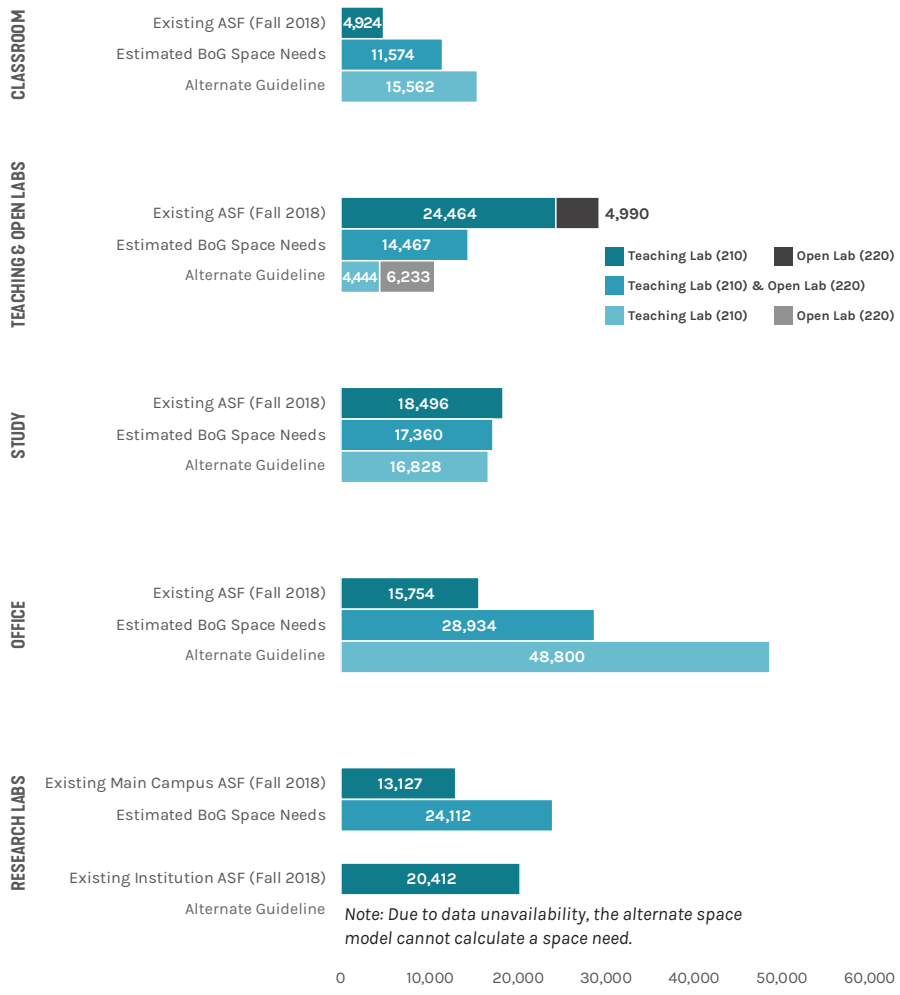
SUMMARY NOTE:

Facilities at Florida Polytechnic University are the youngest in the state. The space profile is very different from other institutions, especially for office, teaching laboratories, and study.

Data Source: Board of Governors.

E&G SPACE NEEDS

MAIN CAMPUS – EXISTING ASF VS. BOARD OF GOVERNORS SPACE NEEDS FORMULAS CALCULATIONS VS. ALTERNATE SPACE NEEDS FORMULAS CALCULATION



ASF/FTE – MAIN CAMPUS E&G SPACE BY FALL 2018 DISCOUNTED STUDENT FTE

Florida Polytechnic University	70.8
State University System	85.8

MAIN CAMPUS FTEs & PIs

Fall 2018 Discounted FTE	1,247
Fall 2018 Non-Discounted FTE	1,247
Three-Term Discounted FTE	1,286
Three-Term Non-Discounted FTE	1,286
Faculty FTE	80
Faculty and Staff FTE	244

SUMMARY NOTE:

There is a clear need for classroom and office space but there is capacity for growth. Research needs could not be assessed due to data uncertainty regarding Principal Investigator count.

Data Source: Existing ASF 3-Term FTE Calculation Fall 2018 Discounted FTE.

CLASSROOMS

SCHEDULED CLASSROOM USE BY DAY AND TIME | FALL 2018

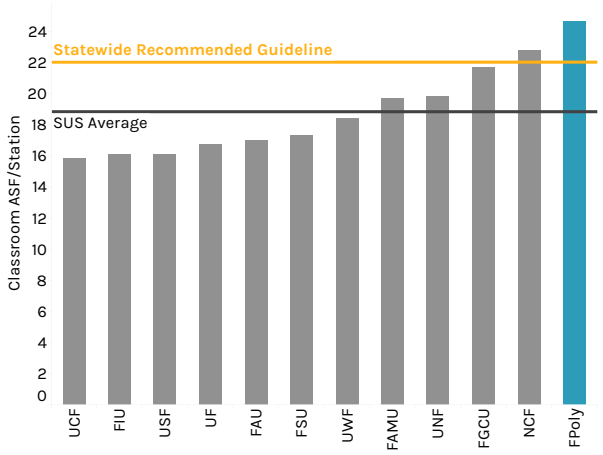
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM	3 | 75%	2 | 50%	3 | 75%	2 | 50%	1 | 25%
9:00 AM	4 | 100%	4 | 100%	4 | 100%	4 | 100%	3 | 75%
10:00 AM	2 | 50%	4 | 100%	2 | 50%	4 | 100%	2 | 50%
11:00 AM	4 | 100%	3 | 75%	4 | 100%	3 | 75%	4 | 100%
12:00 PM	3 | 75%	3 | 75%	3 | 75%	3 | 75%	2 | 50%
1:00 PM	3 | 75%	2 | 50%	4 | 100%	2 | 50%	2 | 50%
2:00 PM	3 | 75%	4 | 100%	2 | 50%	4 | 100%	1 | 25%
3:00 PM	4 | 100%	4 | 100%	3 | 75%	4 | 100%	0 | 0%
4:00 PM	3 | 75%	4 | 100%	3 | 75%	4 | 100%	0 | 0%
5:00 PM	2 | 50%	1 | 25%	2 | 50%	1 | 25%	0 | 0%
6:00 PM	0 | 0%	1 | 25%	0 | 0%	1 | 25%	0 | 0%
7:00 PM	1 | 25%	0 | 0%	0 | 0%	0 | 0%	0 | 0%

0% 100%

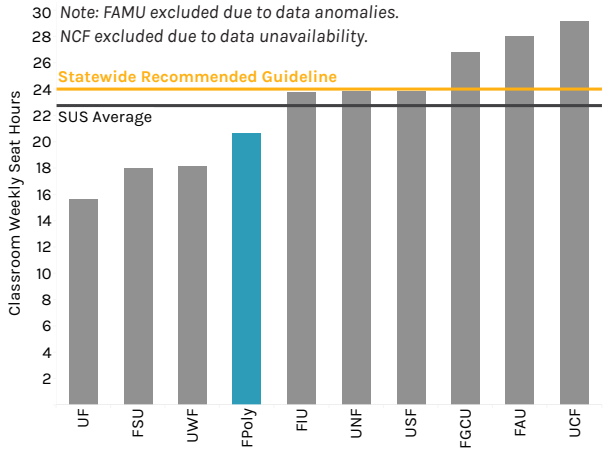
Percent of Rooms in Use

Data Source: Board of Governors.

ASF PER STUDENT STATION



WEEKLY SEAT HOUR UTILIZATION

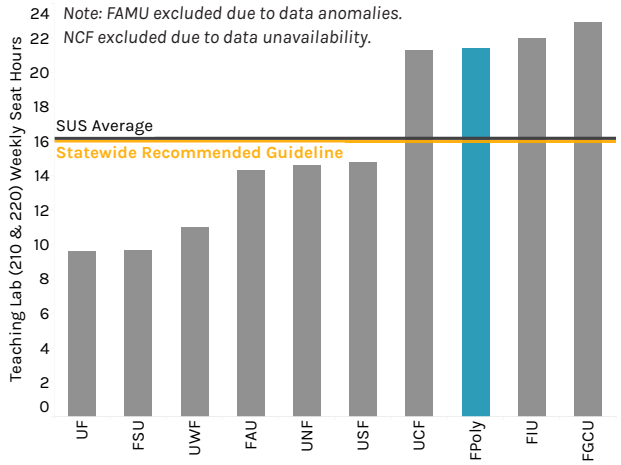


SUMMARY NOTE:

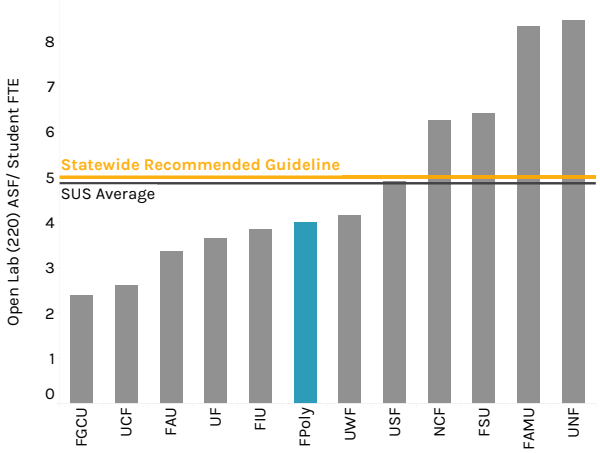
Florida Polytechnic University has the most space per student seat, a reflection of its modern construction. Classrooms are well used, though there is some room for improvement (likely enrollment growth).

TEACHING LABS

TEACHING LAB (210) AVERAGE WEEKLY SEAT HOUR

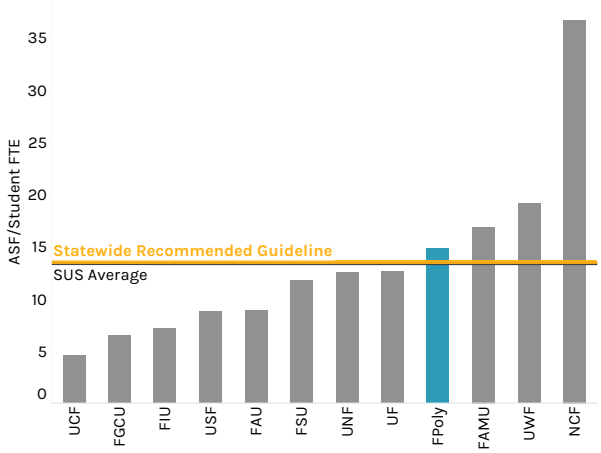


OPEN LAB (220) ASF PER STUDENT FTE



STUDY

ASF PER STUDENT FTE

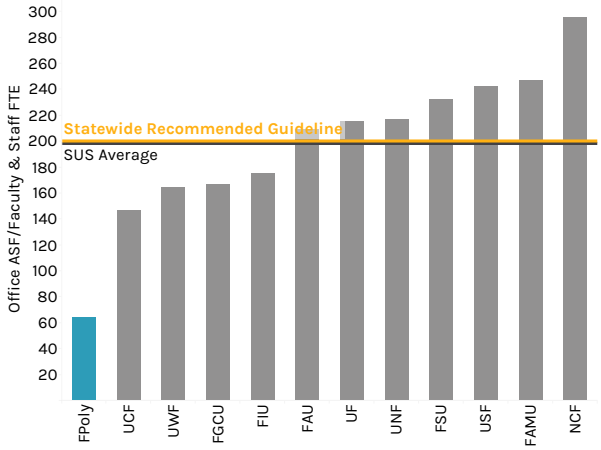


SUMMARY NOTE:

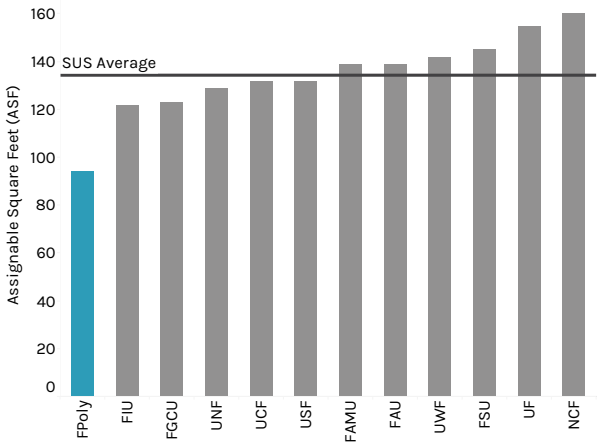
High utilization of teaching laboratories were observed. Offices were very undersized compared with peers.

OFFICES

ASF PER FACULTY & STAFF FTE

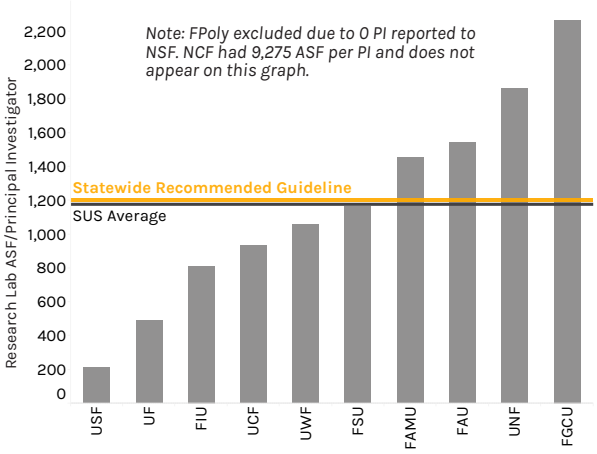


AVERAGE SIZE OF OFFICE

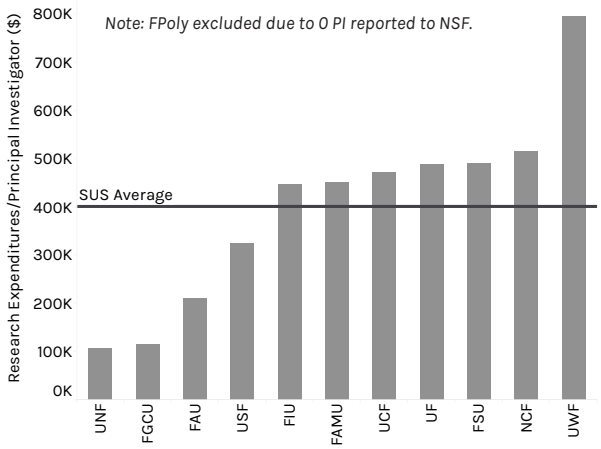


RESEARCH LABS

ASF PER PRINCIPAL INVESTIGATOR

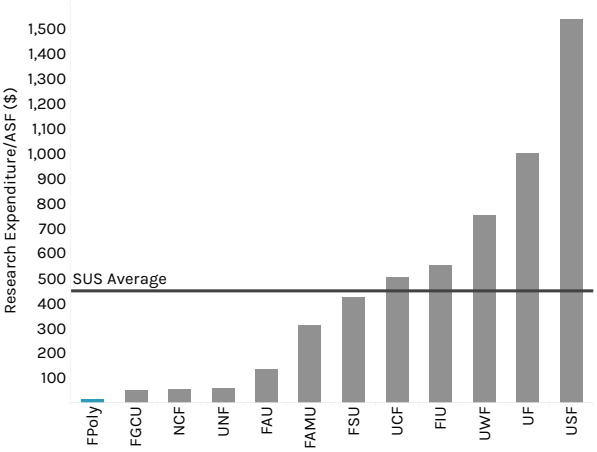


EXPENDITURES PER PRINCIPAL INVESTIGATOR



RESEARCH EXPENDITURES

EXPENDITURES PER ASF

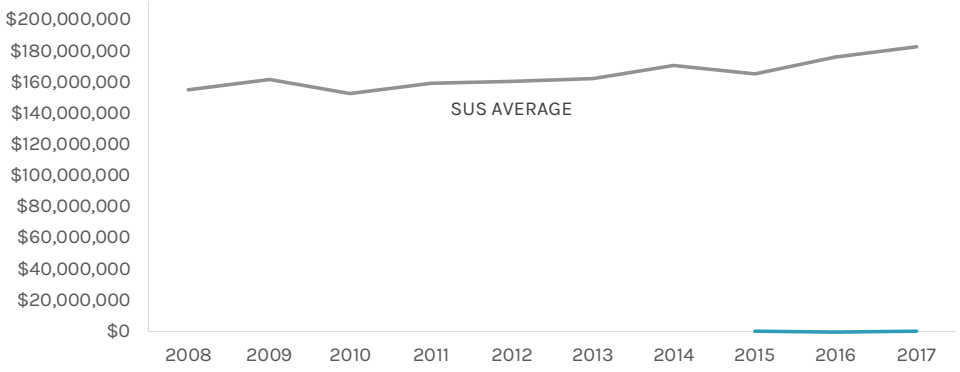


SUMMARY NOTE:

Florida Polytechnic University reported no PIs to the National Science Foundation, and thus are excluded from the research lab analysis. The university reported to SmithGroup that 61 faculty are engaged in research. The university does not provide dedicated research space to faculty, rather research space is shared as needed and is reassigned as projects change.

3-Year Average (2015, 2016, 2017) $269,000.00

10-YEAR RESEARCH EXPENDITURES TREND



Principal Investigators Reported to NSF 2017

NA

Research Expenditure Source: National Science Foundation, https://ncsesdata.nsf.gov/profiles.

FLORIDA STATE UNIVERSITY

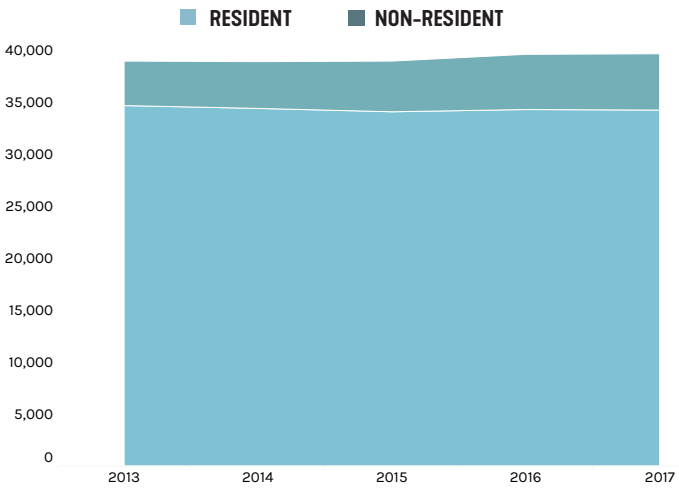
BACKGROUND DATA

Founded	1851
Carnegie Classification	R1 Doctoral University: Very High Research Activity (Highest)
SUS Classification	Preeminent State Research University
Overall FTE	39,649
Undergraduate FTE	32,408
Graduate FTE	7,242
Number & Types of Degrees Offered	106 baccalaureate programs, 113 master's, 14 advanced master's/ specialist, 70 doctorate, 3 professional degrees.
Main Campus	Tallahassee
Other Sites	Panama City, Sarasota, New York; Republic of Panama College of Medicine (Daytona Beach, Fort Pierce, Orlando, Pensacola, Sarasota)
Student-to-Faculty Ratio	22:1

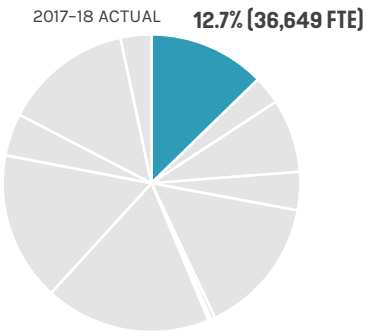
UNIQUE CHARACTERISTICS

- Oldest continuous site of higher education in Florida
- Sea-grant university (1 of 2 in Florida)
- Programs with Most Completions: Psychology, Finance, Criminal Justice/Safety Studies
- Primarily nonresidential
- 6 Nobel Laureate faculty
- 93% retention rate for freshmen; 72% graduation rate within four years
- Students from every Florida county and 131 countries
- 16 independent colleges
- 58 Research Centers and Institutes
- Strategic Plan targets smaller class sizes and both increasing faculty and research.

5-YEAR HISTORIC FTE ENROLLMENT (TOTAL/RESIDENT/NON-RESIDENT)



PERCENT OF STATE UNIVERSITY SYSTEM FTE ENROLLMENT

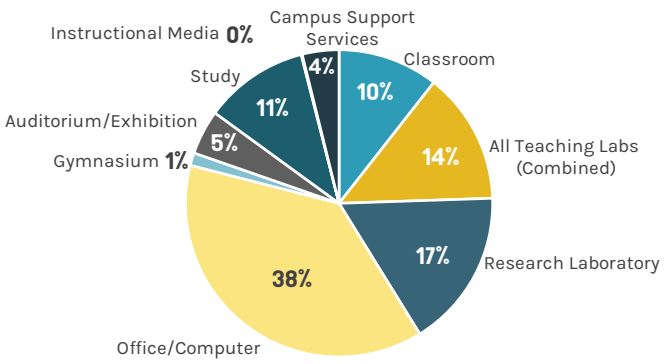


Background Data Source: 2019 Accountability Plan.

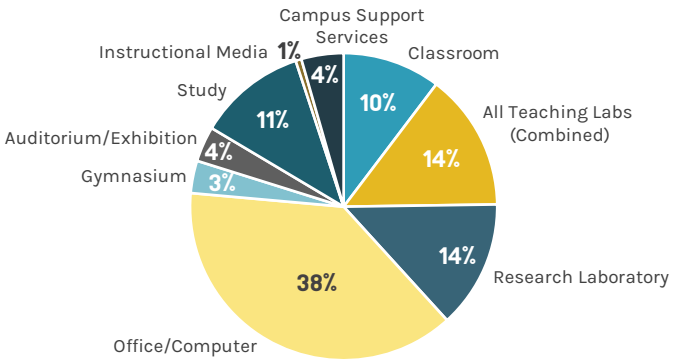
EXISTING E&G SPACE PROFILE

Main Campus (included in study)	2,960,210 ASF	Total Institution (included in study)	4,026,967 ASF

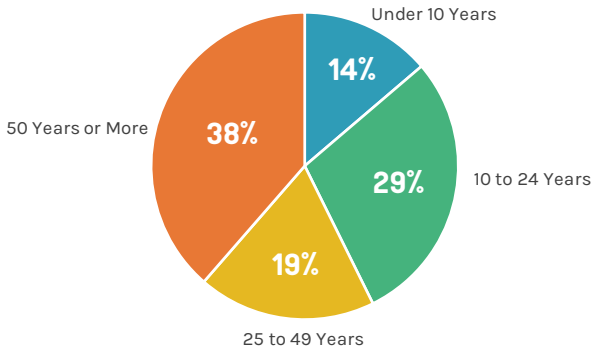
MAIN CAMPUS – ASF BY SPACE TYPE



STATE UNIVERSITY SYSTEM – TOTAL ASF BY SPACE TYPE



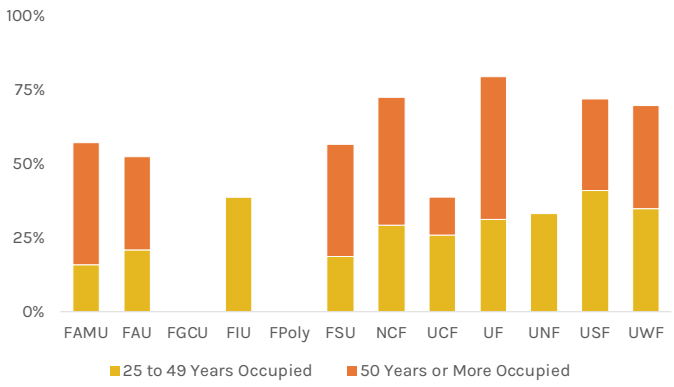
AGE OF BUILDINGS BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



Analysis Note for Age of Buildings chart:

- Main Campus only
- Age = 2019 minus year-occupied

BUILDINGS 25 YEARS OR OLDER BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



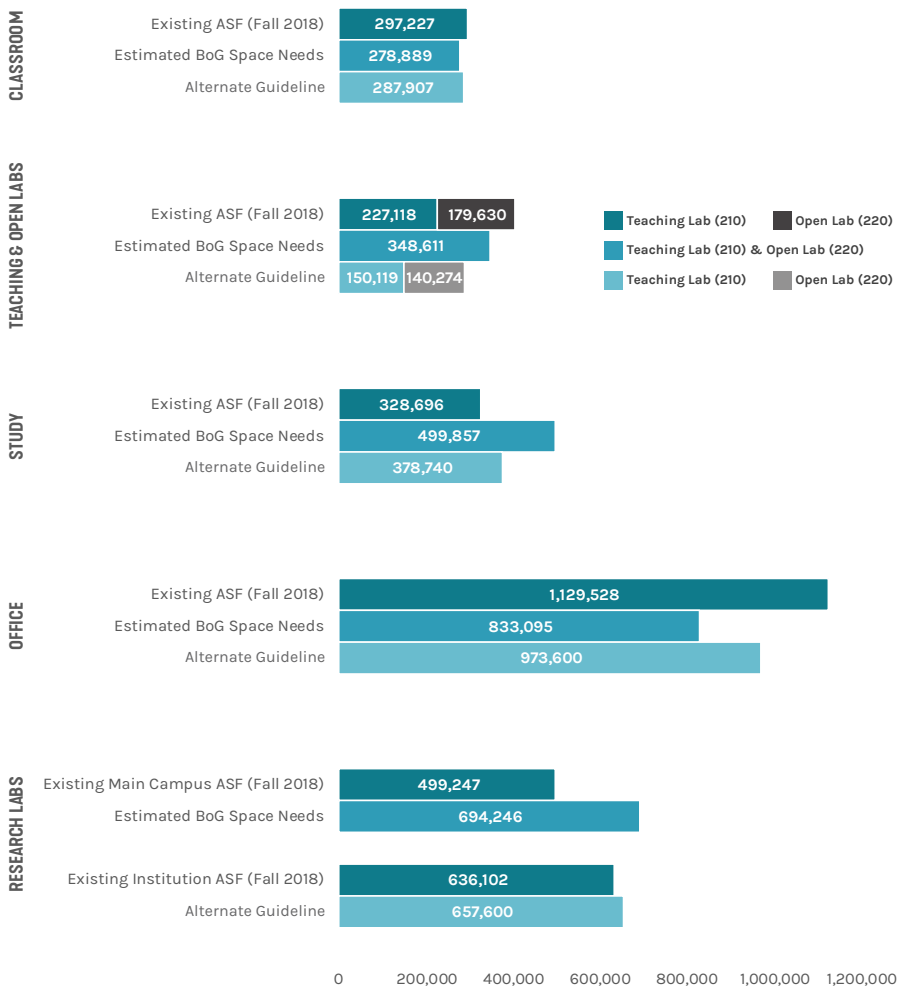
SUMMARY NOTE:

The space profile indicates a slightly higher percentage of space for research, consistent with R1 status, role, and mission. Over one third of the existing facilities are 50 years or older and over one half are older than 24 years. Therefore there are issues of both space quantity and quality.

Data Source: Board of Governors.

E&G SPACE NEEDS

MAIN CAMPUS – EXISTING ASF VS. BOARD OF GOVERNORS SPACE NEEDS FORMULAS CALCULATIONS VS. ALTERNATE SPACE NEEDS FORMULAS CALCULATION



ASF/FTE – MAIN CAMPUS E&G SPACE BY FALL 2018 DISCOUNTED STUDENT FTE

Florida State University	105.5
State University System	85.8

MAIN CAMPUS FTEs & PIs

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Fall 2018 Non-Discounted FTE	32,509
Three-Term Discounted FTE	30,988
Three-Term Non-Discounted FTE	37,026
Faculty FTE	1,242
Faculty and Staff FTE	4,868

SUMMARY NOTE:

There are some space capacity issues especially with study and research space. The age of the existing facilities distorts the needs as related to classrooms and office space, since those facilities have issues with regard to configuration and flexibility.

Data Source: Existing ASF 3-Term FTE Calculation Fall 2018 Discounted FTE.

CLASSROOMS

SCHEDULED CLASSROOM USE BY DAY AND TIME | FALL 2018

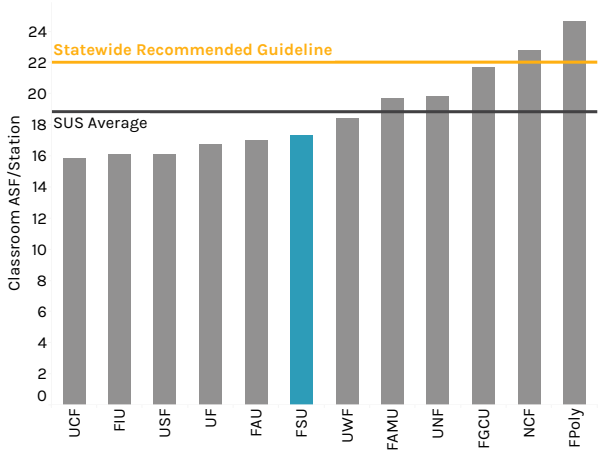
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM	79 | 29%	85 | 31%	75 | 27%	88 | 32%	54 | 20%
9:00 AM	178 | 64%	218 | 79%	174 | 63%	217 | 79%	130 | 47%
10:00 AM	199 | 72%	226 | 82%	197 | 71%	224 | 81%	145 | 53%
11:00 AM	182 | 66%	216 | 78%	191 | 69%	215 | 78%	139 | 50%
12:00 PM	205 | 74%	226 | 82%	216 | 78%	227 | 82%	157 | 57%
1:00 PM	192 | 70%	218 | 79%	202 | 73%	217 | 79%	138 | 50%
2:00 PM	188 | 68%	218 | 79%	200 | 72%	201 | 73%	125 | 45%
3:00 PM	194 | 70%	233 | 84%	196 | 71%	219 | 79%	83 | 30%
4:00 PM	156 | 57%	192 | 70%	155 | 56%	173 | 63%	25 | 9%
5:00 PM	123 | 45%	113 | 41%	116 | 42%	100 | 36%	5 | 2%
6:00 PM	125 | 45%	113 | 41%	114 | 41%	97 | 35%	5 | 2%
7:00 PM	61 | 22%	44 | 16%	48 | 17%	33 | 12%	1 | 0%

0% 100%

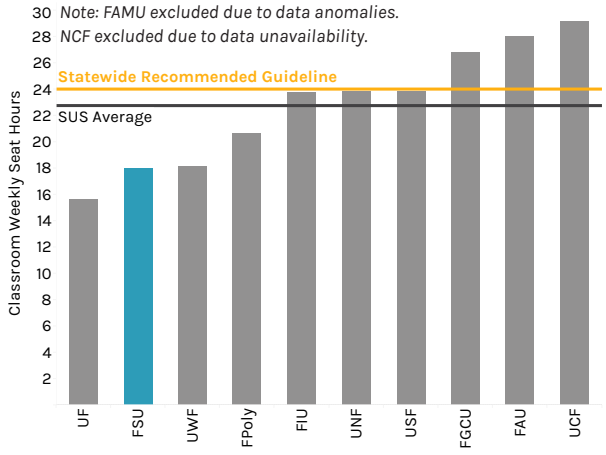
Percent of Rooms in Use

Data Source: Board of Governors.

ASF PER STUDENT STATION



WEEKLY SEAT HOUR UTILIZATION

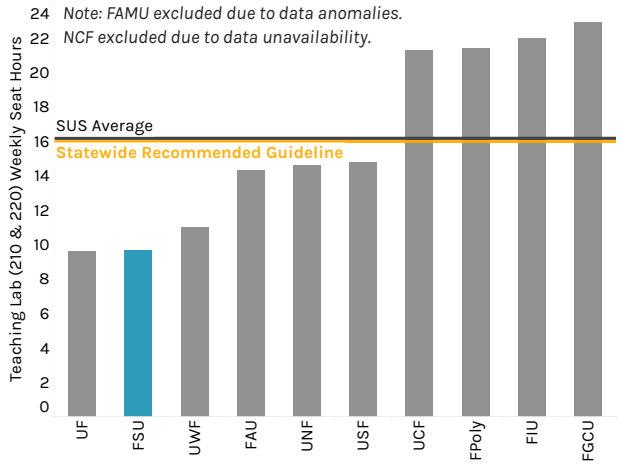


SUMMARY NOTE:

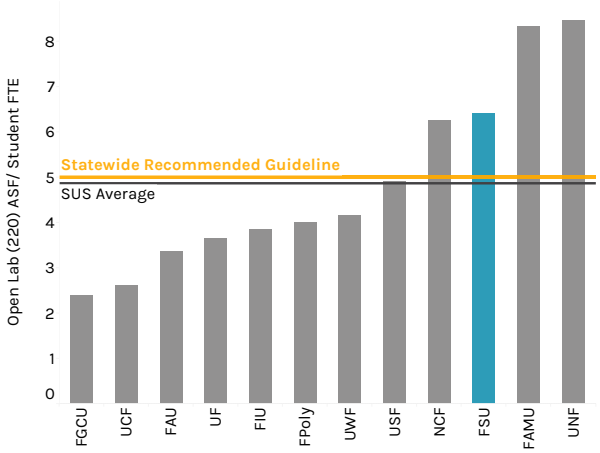
The utilization of classrooms needs improvement but the quality, size, and configuration could be an impediment to more effective use. Classroom ASF/Seat is low, indicating highly traditional and inflexible space not well suited for modern learning modalities.

TEACHING LABS

TEACHING LAB (210) AVERAGE WEEKLY SEAT HOUR

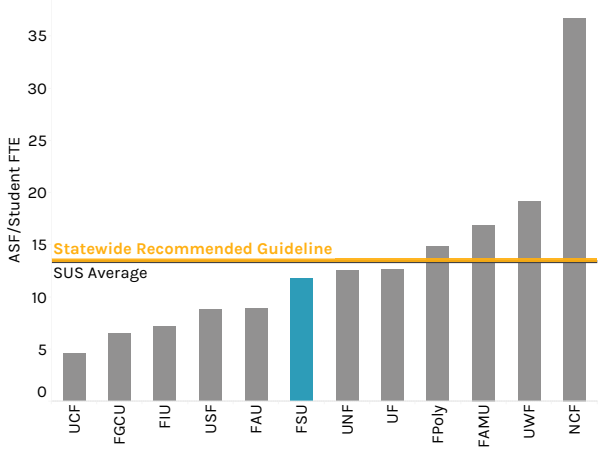


OPEN LAB (220) ASF PER STUDENT FTE



STUDY

ASF PER STUDENT FTE

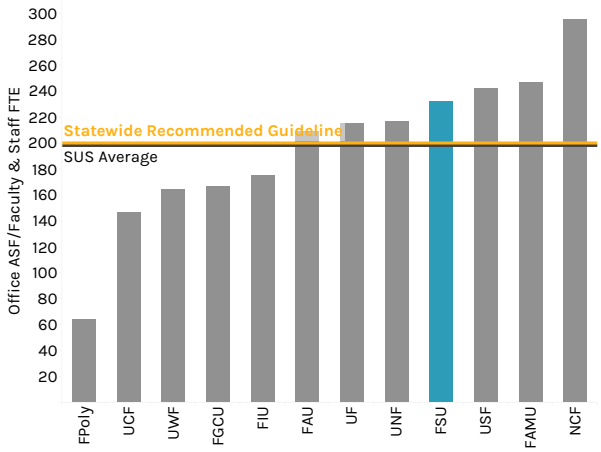


SUMMARY NOTE:

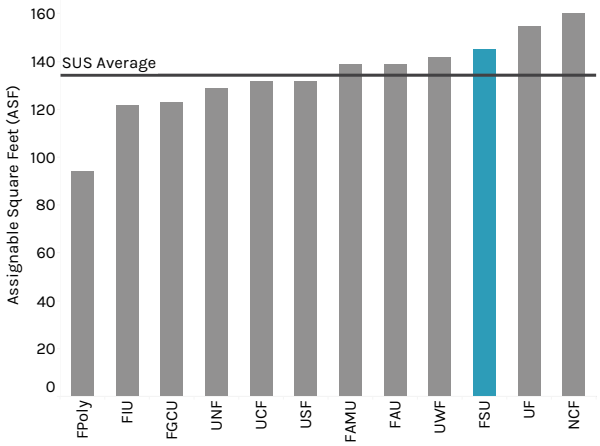
The data indicates a need for improving utilization of teaching laboratories. Offices are larger than the SUS average, though this is likely due to the age of buildings and the research mission of the university.

OFFICES

ASF PER FACULTY & STAFF FTE

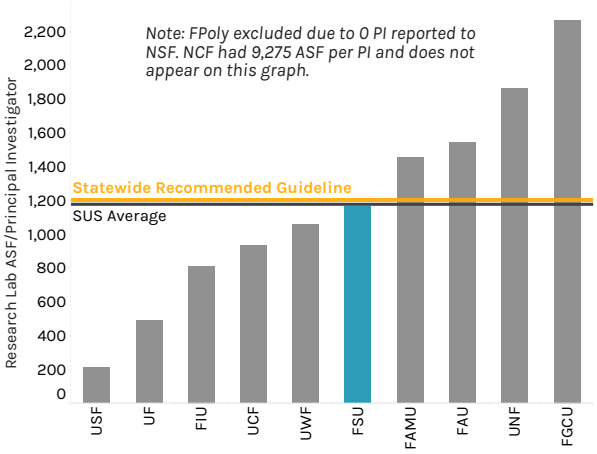


AVERAGE SIZE OF OFFICE

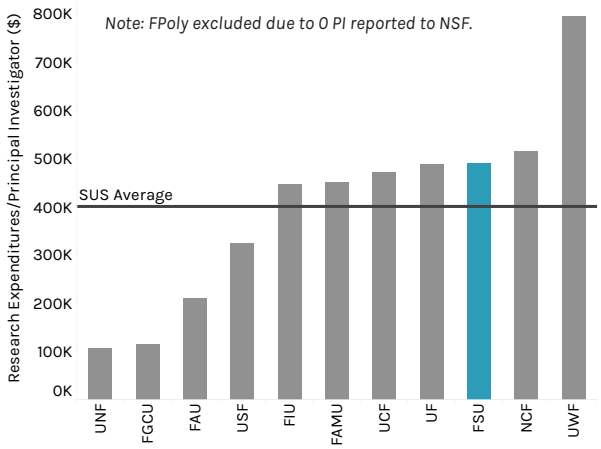


RESEARCH LABS

ASF PER PRINCIPAL INVESTIGATOR

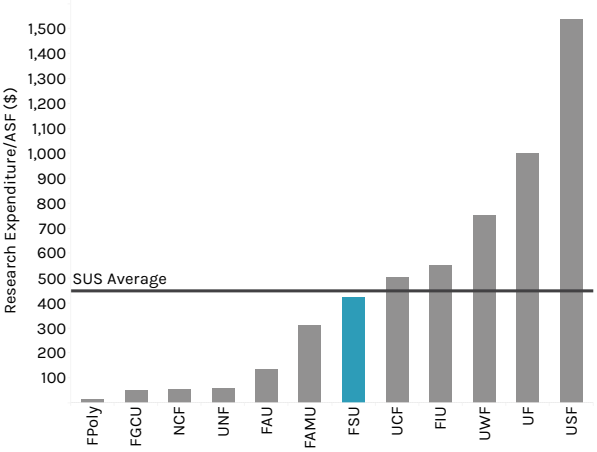


EXPENDITURES PER PRINCIPAL INVESTIGATOR



RESEARCH EXPENDITURES

EXPENDITURES PER ASF

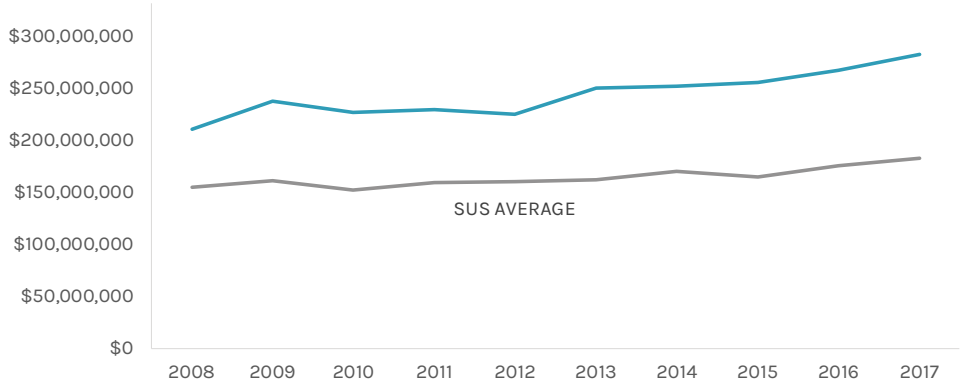


SUMMARY NOTE:

Florida State University has moderate research activity that is increasing. Productivity is generally good.

3-Year Average (2015, 2016, 2017) $269,212,666.67

10-YEAR RESEARCH EXPENDITURES TREND



Principal Investigators Reported to NSF 2017

548

Research Expenditure Source: National Science Foundation, https://ncsesdata.nsf.gov/profiles.

NEW COLLEGE OF FLORIDA

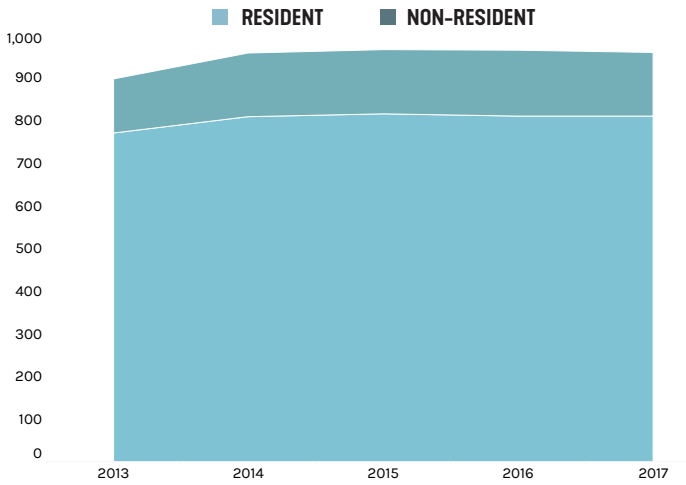
BACKGROUND DATA

Founded	1960
Carnegie Classification	Baccalaureate College: Arts & Sciences Focus
SUS Classification	Regional and Statewide
Overall FTE	958
Undergraduate FTE	937
Graduate FTE	21
Number & Types of Degrees Offered	Bachelor of Arts, Master's in Science in Data Science
Main Campus	Sarasota
Other Sites	None
Student-to-Faculty Ratio	8:1

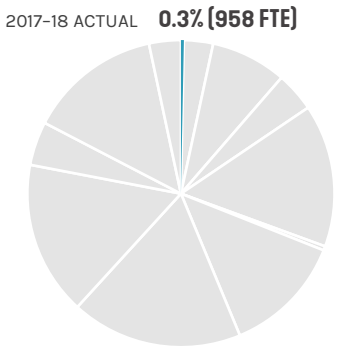
UNIQUE CHARACTERISTICS

- "Honors College for the State of Florida": Liberal Arts College
- New College joined the State University System in 1975 as part of the University of South Florida
- New College achieves independence in 2001 as the 11th member of the State University System
- Programs with Most Completions: Liberal Arts and Sciences, Biological and Physical Sciences, Environmental Studies
- Highly residential
- Undergraduate Gender: 62% Female
- Average class size: 14 students
- Full-time faculty with doctorate or terminal degree in field: 99 percent

5-YEAR HISTORIC FTE ENROLLMENT (TOTAL/RESIDENT/NON-RESIDENT)



PERCENT OF STATE UNIVERSITY SYSTEM FTE ENROLLMENT

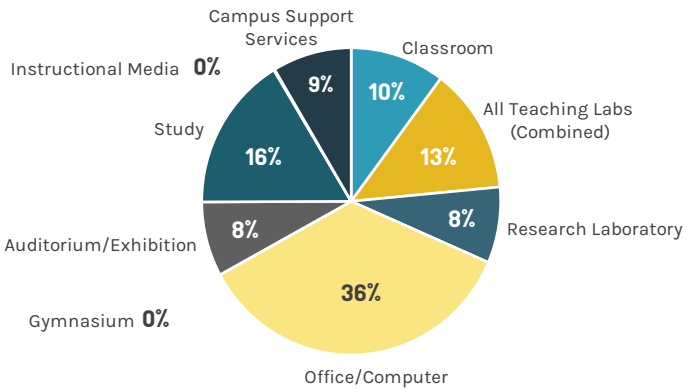


Background Data Source: 2019 Accountability Plan.

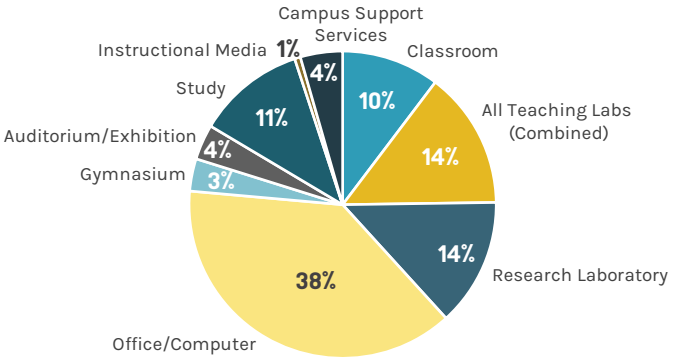
EXISTING E&G SPACE PROFILE

Main Campus (included in study)	231,681 ASF	Total Institution (included in study)	231,681 ASF

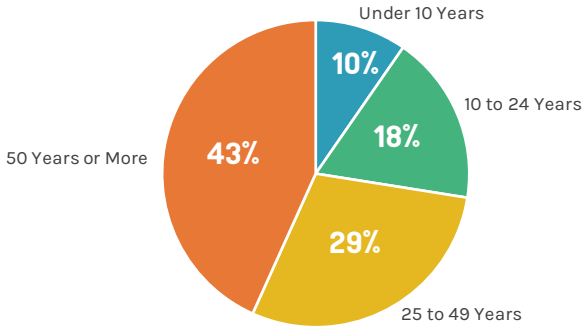
MAIN CAMPUS – ASF BY SPACE TYPE



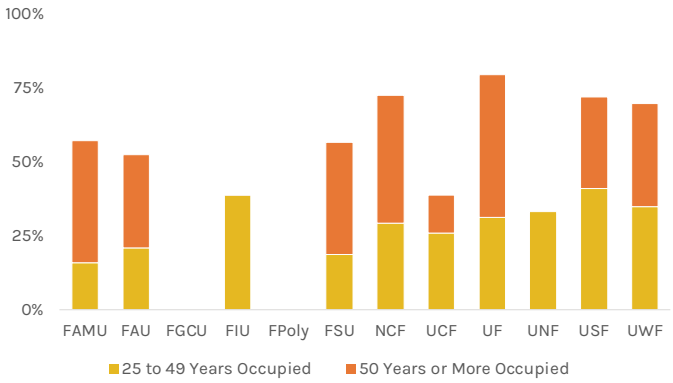
STATE UNIVERSITY SYSTEM – TOTAL ASF BY SPACE TYPE



AGE OF BUILDINGS BY GSF



BUILDINGS 25 YEARS OR OLDER BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



Analysis Note for Age of Buildings chart:

- Main Campus only
- Age = 2019 minus year-occupied

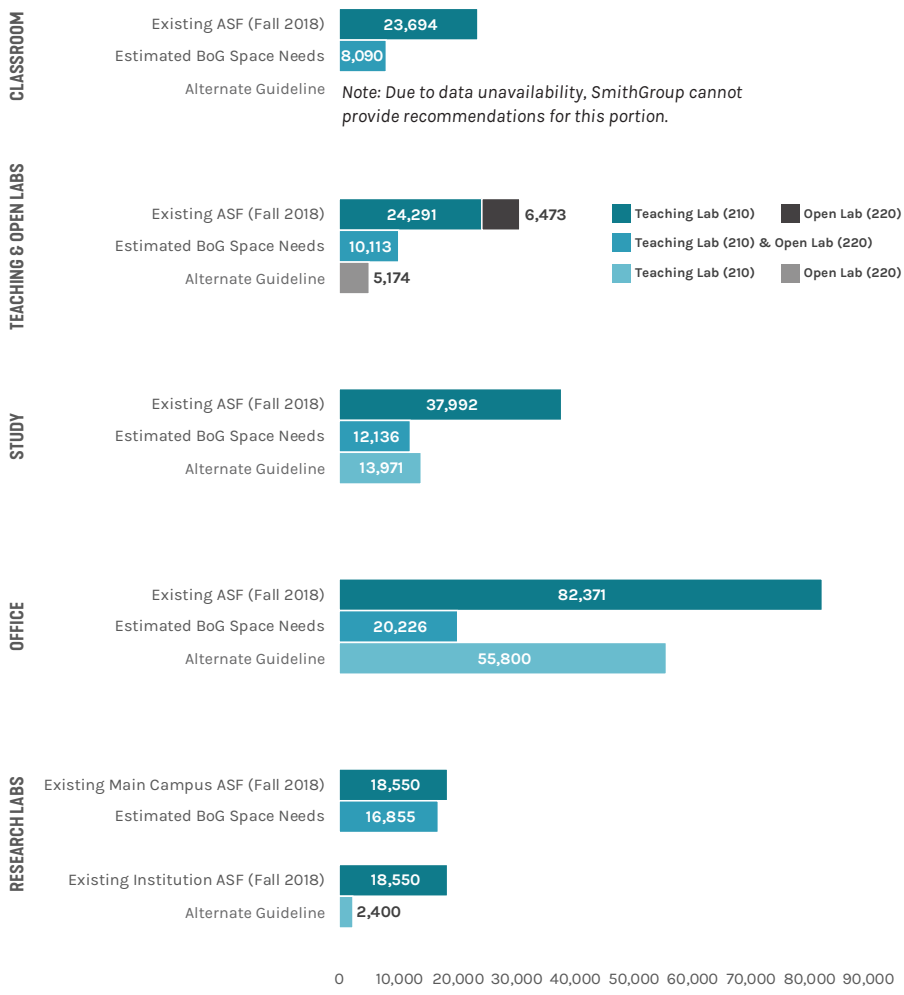
SUMMARY NOTE:

New College of Florida has among the oldest facilities in the state system and the second most amount of space 50 years old or older. Their primary issue is the quality of space and facility condition.

Data Source: Board of Governors and New College of Florida.

E&G SPACE NEEDS

MAIN CAMPUS – EXISTING ASF VS. BOARD OF GOVERNORS SPACE NEEDS FORMULAS CALCULATIONS VS. ALTERNATE SPACE NEEDS FORMULAS CALCULATION



ASF/FTE – MAIN CAMPUS E&G SPACE BY FALL 2018 DISCOUNTED STUDENT FTE

New College of Florida	223.9
State University System	85.8

MAIN CAMPUS FTEs & PIs

Fall 2018 Discounted FTE	1,035
Fall 2018 Non-Discounted FTE	1,035
Three-Term Discounted FTE	899
Three-Term Non-Discounted FTE	899
Faculty FTE	98
Faculty and Staff FTE	279

SUMMARY NOTE:

New College of Florida has a unique curriculum which accounts for the quantity of space on campus. Its size and mission make it very difficult to develop a space model that works well for New College of Florida and other SUS institutions. However, the primary issues is the age and condition of existing space.

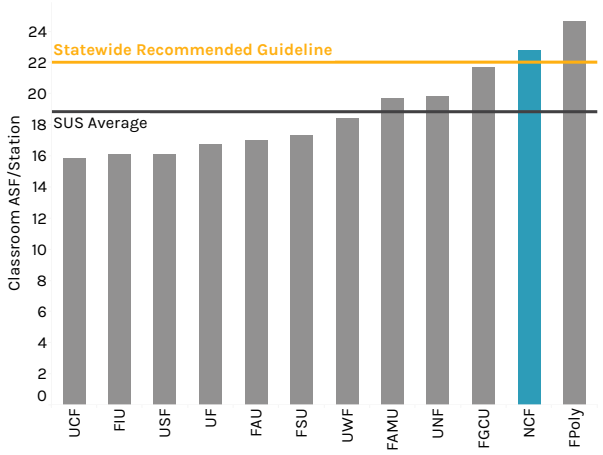
Data Source: Existing ASF 3-Term FTE Calculation Fall 2018 Discounted FTE.

CLASSROOMS

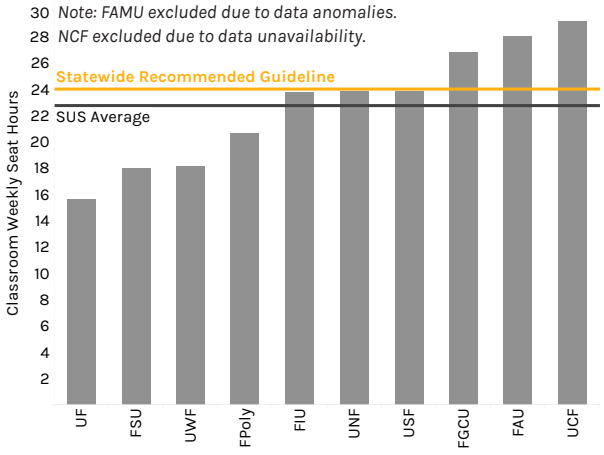
SCHEDULED CLASSROOM USE BY DAY AND TIME | FALL 2018[1]

1 Note: All New College of Florida courses and tutorials are reported to the Board of Governors in the category of Directed Independent Study (DIS). This results from Board of Governors Regulation 8.010 (10) which exempts New College of Florida from Common Course Numbering and Common Prerequisites because of New College's unique curriculum and special mission to create innovative, highly personalized educational experiences. Course meeting times for classes, teaching laboratories, and tutorials at New College of Florida are not reported to the Board of Governors. Data is not available for calculations in the following three charts: Scheduled Classroom Use by Day and Time, Weekly Seat Hour Utilization, and Teaching Lab (210) Average Weekly Seat Hour.

ASF PER STUDENT STATION

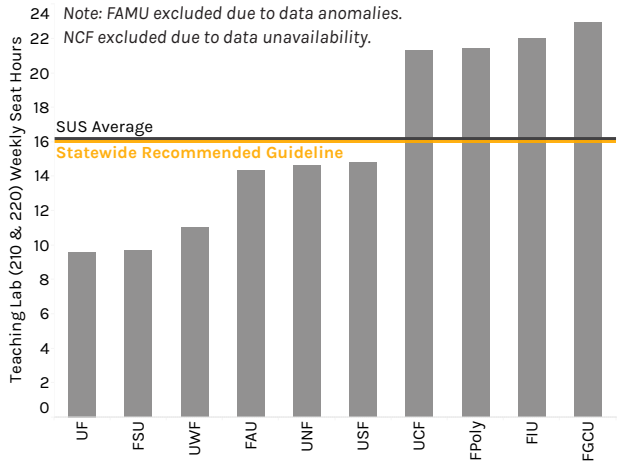


WEEKLY SEAT HOUR UTILIZATION[1]

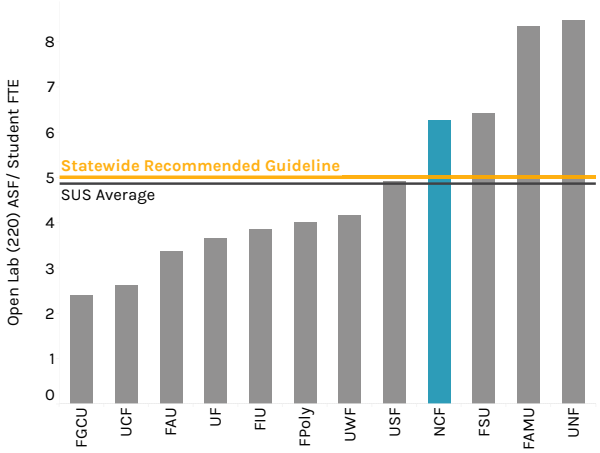


TEACHING LABS

TEACHING LAB (210) AVERAGE WEEKLY SEAT HOUR[1]

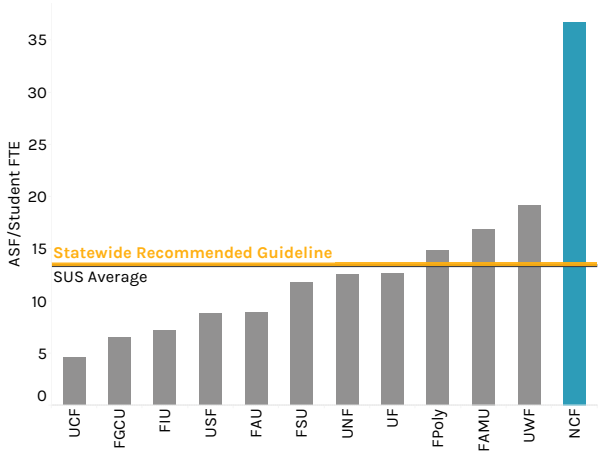


OPEN LAB (220) ASF PER STUDENT FTE



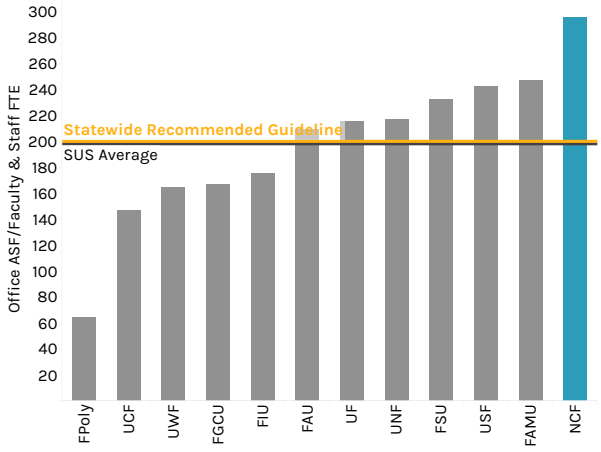
STUDY

ASF PER STUDENT FTE

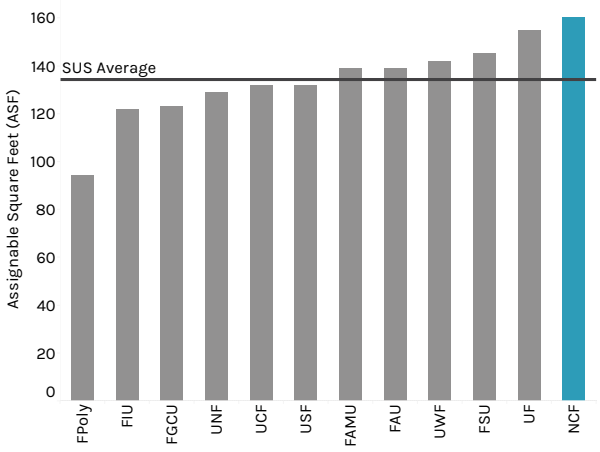


OFFICES

ASF PER FACULTY & STAFF FTE[2]



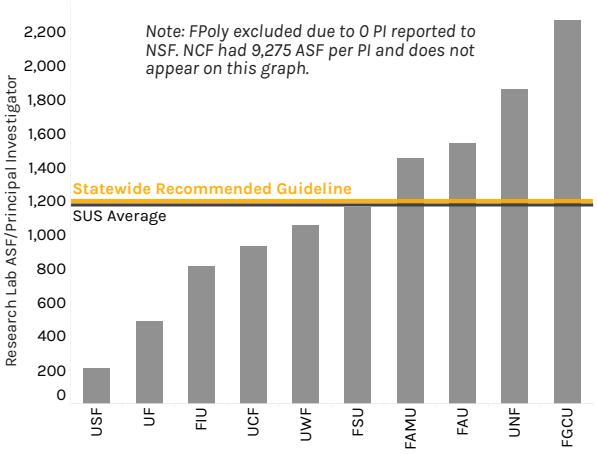
AVERAGE SIZE OF OFFICE[2]



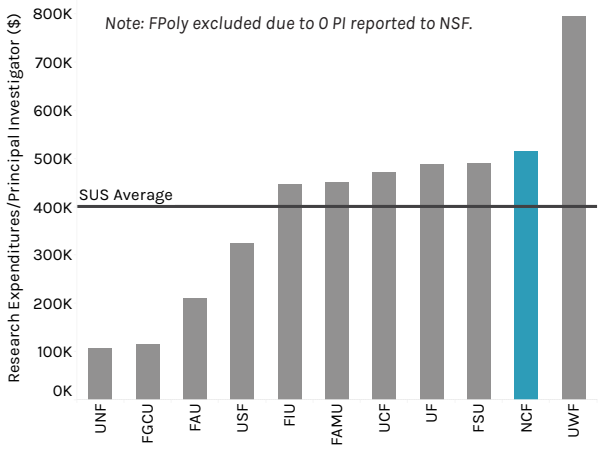
2 Note: Historic buildings dating from the 1920's that were built as residences have been repurposed to offices and classrooms without altering the floor plans of the original rooms. Faculty offices constructed since 2000 were designed to serve both as offices and meeting rooms for tutorials with 1–4 students. 20% of all credit hours were tutorials during Spring 2019.

RESEARCH LABS

ASF PER PRINCIPAL INVESTIGATOR

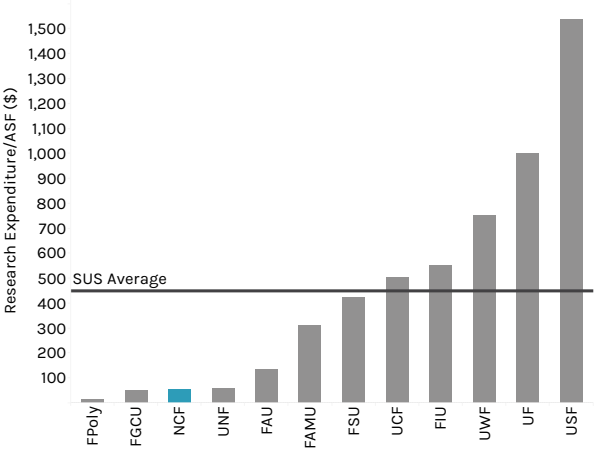


EXPENDITURES PER PRINCIPAL INVESTIGATOR



RESEARCH EXPENDITURES

EXPENDITURES PER ASF

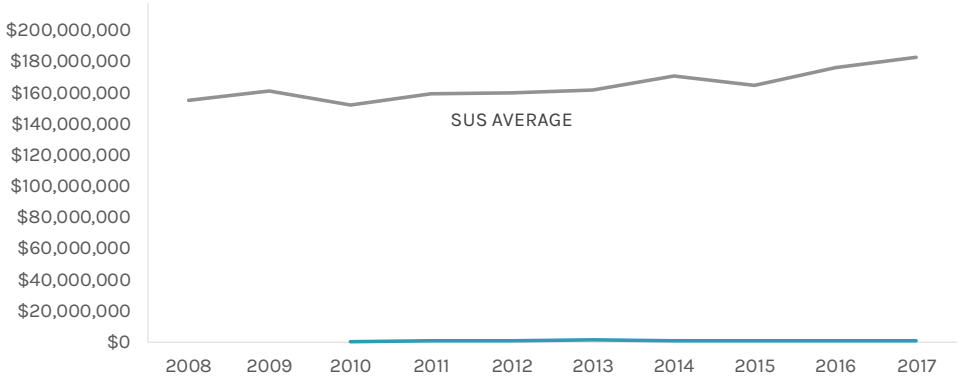


SUMMARY NOTE:

Research is not a focus for New College of Florida due to size and mission.

3-Year Average (2015, 2016, 2017) $1,029,000.00

10-YEAR RESEARCH EXPENDITURES TREND



Principal Investigators Reported to NSF 2017

2

Research Expenditure Source: National Science Foundation, https://ncsesdata.nsf.gov/profiles.

UNIVERSITY OF CENTRAL FLORIDA

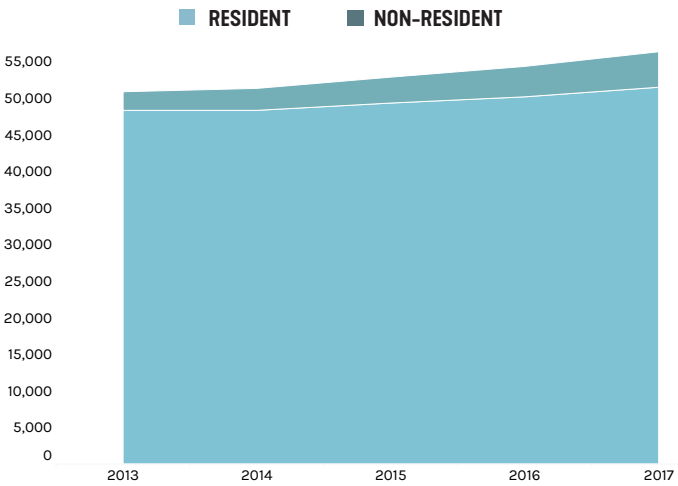
BACKGROUND DATA

Founded	1963
Carnegie Classification	R1 Doctoral University: Very High Research Activity
SUS Classification	Emerging Preeminent State Research University
Overall FTE	56,334
Undergraduate FTE	50,180
Graduate FTE	6,154
Number & Types of Degrees Offered	99 bachelor's, 89 master's, 34 doctoral and three specialist degree programs
Main Campus	Orlando
Other Sites	UCF Connect (Altamonte Springs, Cocoa, Daytona Beach, Leesburg, Ocala, Palm Bay, Sanford/Lake Mary, South Lake)
Student-to-Faculty Ratio	30:1

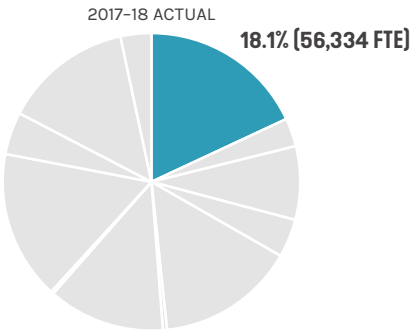
UNIQUE CHARACTERISTICS

- Programs with Most Completions: Psychology, Health Services/Allied Health/Health Sciences, Registered Nursing/Registered Nurse
- Primarily nonresidential
- Hispanic-Serving Institution (1 of 2 in Florida)
- 47.5% of Students are Minorities
- 12 colleges
- Confers more degrees than all SUS institutions: more than 17,000 degrees a year
- 12 Research Institutes
- Leader of NASA Florida Space Grant Consortium

5-YEAR HISTORIC FTE ENROLLMENT (TOTAL/RESIDENT/NON-RESIDENT)



PERCENT OF STATE UNIVERSITY SYSTEM FTE ENROLLMENT

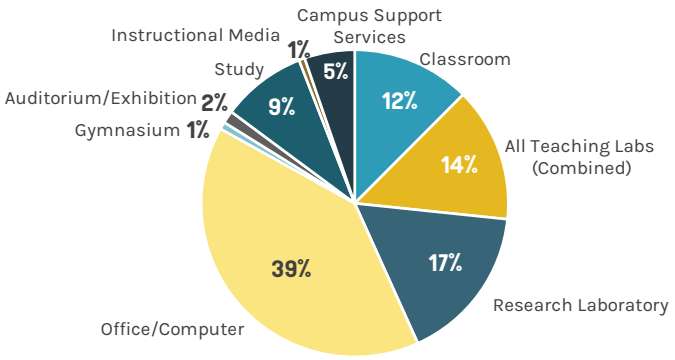


Background Data Source: 2019 Accountability Plan.

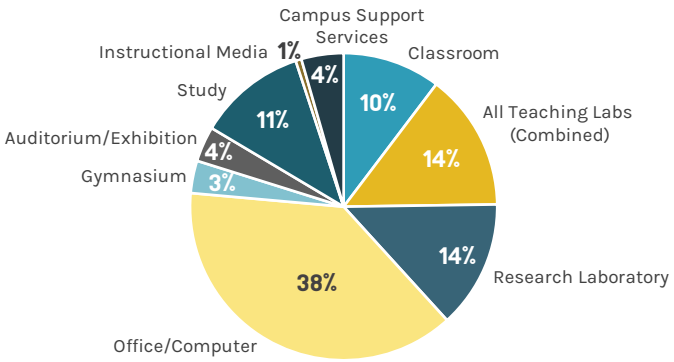
EXISTING E&G SPACE PROFILE

Main Campus (included in study)	1,713,105 ASF	Total Institution (included in study)	2,350,502 ASF

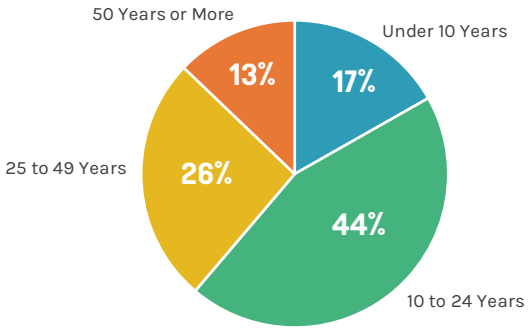
MAIN CAMPUS – ASF BY SPACE TYPE



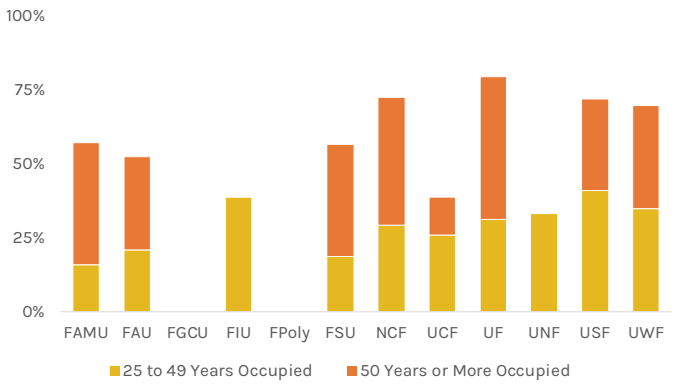
STATE UNIVERSITY SYSTEM – TOTAL ASF BY SPACE TYPE



AGE OF BUILDINGS BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



BUILDINGS 25 YEARS OR OLDER BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



Analysis Note for Age of Buildings chart:

- Main Campus only
- Age = 2019 minus year-occupied

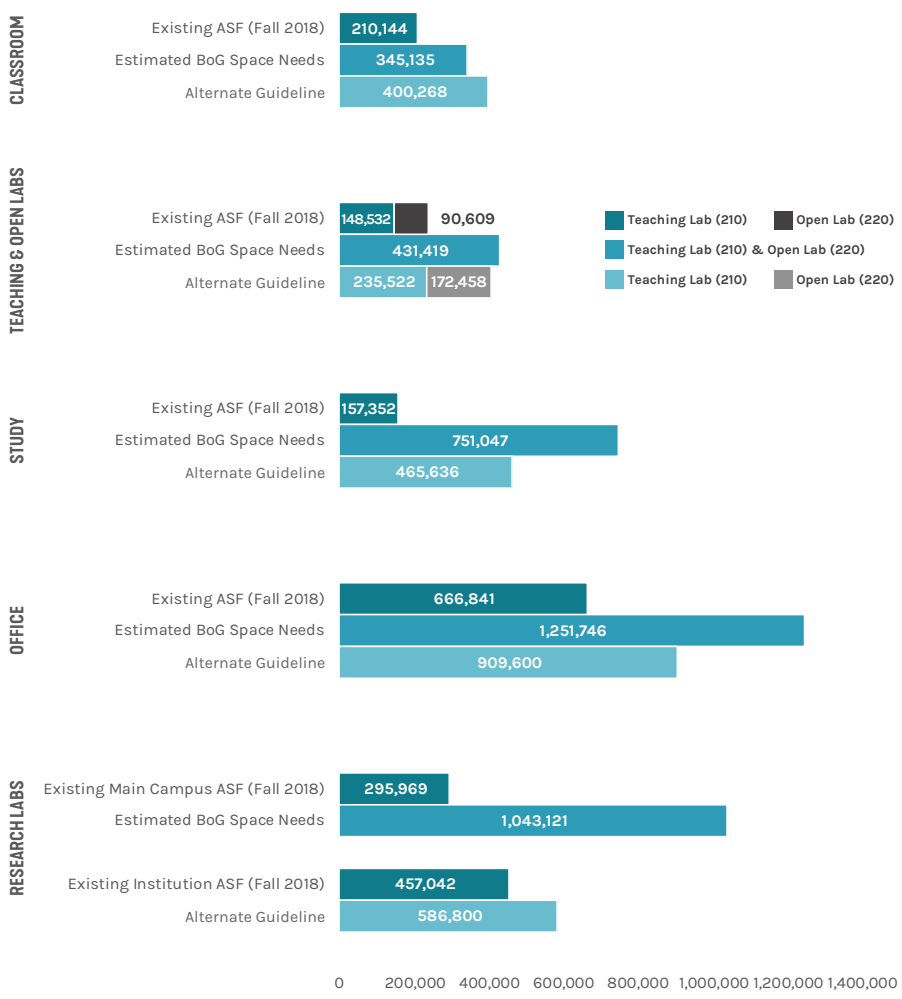
SUMMARY NOTE:

The main campus space profile indicates a higher percentage of research space related to its R1 Research status. University of Central Florida has only a very moderate age of buildings compared with other SUS institutions. The primary issue is likely one of quantity of space instead of quality of space. However the classroom analysis indicates the smallest amount of space per student space in the system.

Data Source: Board of Governors.

E&G SPACE NEEDS

MAIN CAMPUS – EXISTING ASF VS. BOARD OF GOVERNORS SPACE NEEDS FORMULAS CALCULATIONS VS. ALTERNATE SPACE NEEDS FORMULAS CALCULATION



ASF/FTE – MAIN CAMPUS E&G SPACE BY FALL 2018 DISCOUNTED STUDENT FTE

University of Central Florida	49.7
State University System	85.8

MAIN CAMPUS FTEs & PIs

Fall 2018 Discounted FTE	34,492
Fall 2018 Non-Discounted FTE	47,833
Three-Term Discounted FTE	38,348
Three-Term Non-Discounted FTE	55,633
Faculty FTE	1,747
Faculty and Staff FTE	4,548

SUMMARY NOTE:

There is a significant deficit of space in the categories studied and this will increase with enrollment and research growth. Classroom needs are both in terms of quantity and likely also in size and configuration.

Data Source: Existing ASF 3-Term FTE Calculation Fall 2018 Discounted FTE.

CLASSROOMS

SCHEDULED CLASSROOM USE BY DAY AND TIME | FALL 2018

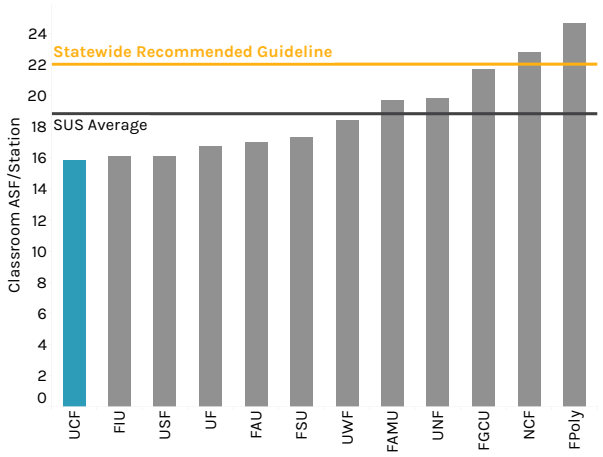
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM	48 | 28%	29 | 17%	45 | 26%	28 | 16%	41 | 24%
9:00 AM	119 | 69%	132 | 77%	119 | 69%	136 | 79%	81 | 47%
10:00 AM	152 | 88%	158 | 92%	153 | 89%	157 | 91%	100 | 58%
11:00 AM	152 | 88%	148 | 86%	153 | 89%	150 | 87%	98 | 57%
12:00 PM	148 | 86%	141 | 82%	144 | 84%	145 | 84%	92 | 53%
1:00 PM	153 | 89%	158 | 92%	151 | 88%	155 | 90%	94 | 55%
2:00 PM	136 | 79%	153 | 89%	136 | 79%	147 | 85%	82 | 48%
3:00 PM	133 | 77%	152 | 88%	127 | 74%	142 | 83%	58 | 34%
4:00 PM	122 | 71%	151 | 88%	119 | 69%	139 | 81%	34 | 20%
5:00 PM	64 | 37%	82 | 48%	69 | 40%	78 | 45%	2 | 1%
6:00 PM	128 | 74%	137 | 80%	125 | 73%	105 | 61%	1 | 1%
7:00 PM	115 | 67%	122 | 71%	124 | 72%	101 | 59%	1 | 1%

0% 100%

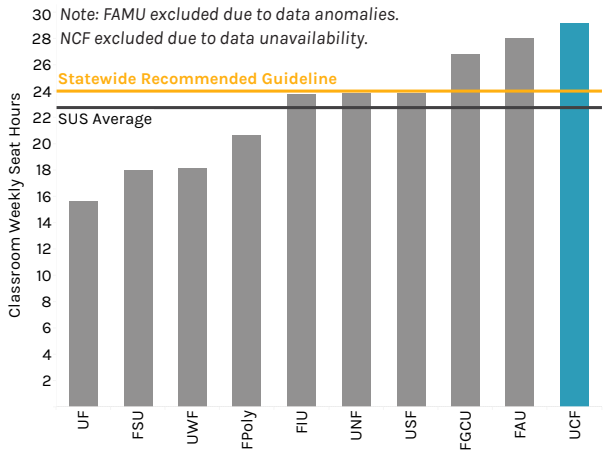
Percent of Rooms in Use

Data Source: Board of Governors.

ASF PER STUDENT STATION



WEEKLY SEAT HOUR UTILIZATION

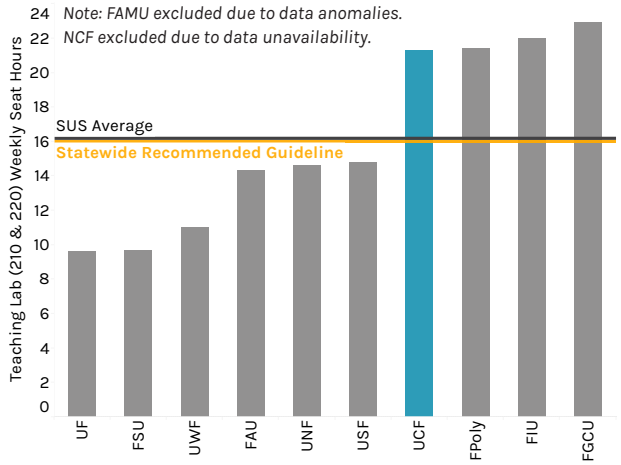


SUMMARY NOTE:

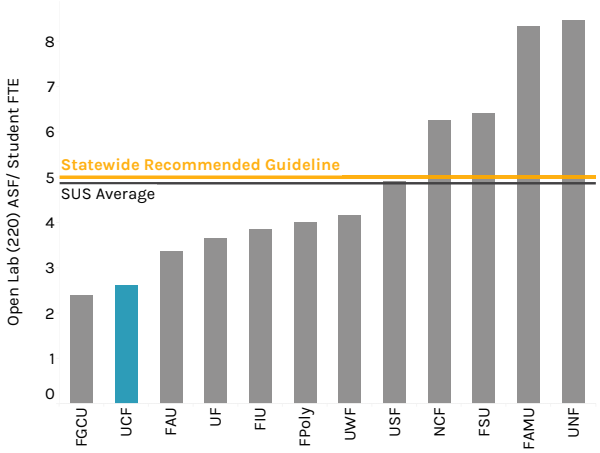
University of Central Florida has the highest classroom utilization in the system, while having the least amount of space per student station. This indicates that classrooms are highly traditional and very inflexible for modern learning modalities.

TEACHING LABS

TEACHING LAB (210) AVERAGE WEEKLY SEAT HOUR

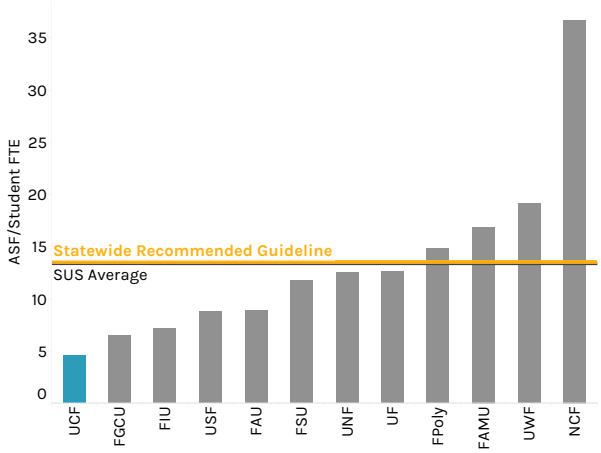


OPEN LAB (220) ASF PER STUDENT FTE



STUDY

ASF PER STUDENT FTE

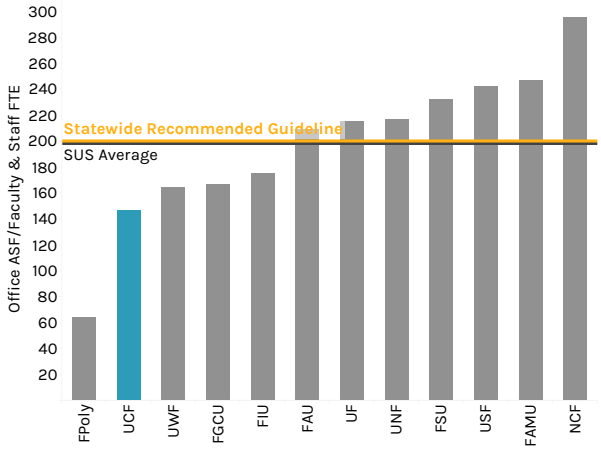


SUMMARY NOTE:

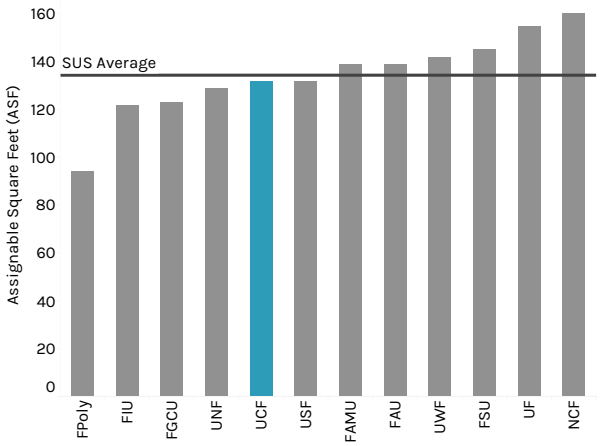
Like classrooms, utilization of teaching laboratories are very high. Needs were also observed with open laboratories, study, and office space.

OFFICES

ASF PER FACULTY & STAFF FTE

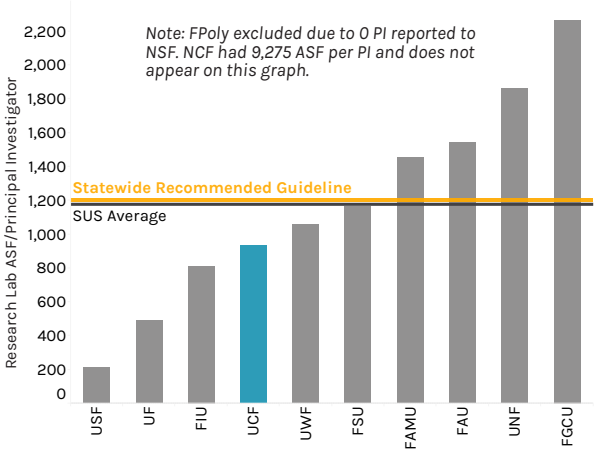


AVERAGE SIZE OF OFFICE

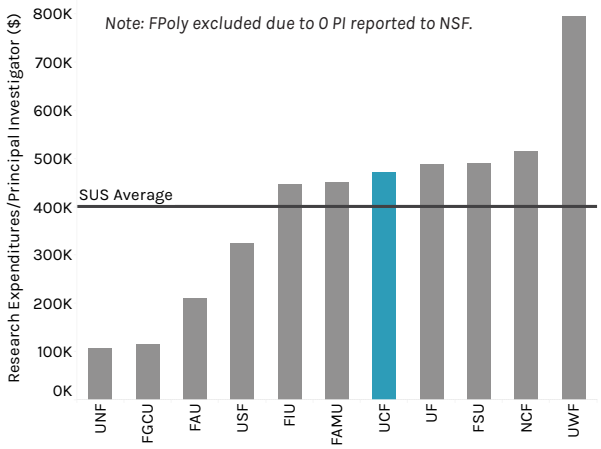


RESEARCH LABS

ASF PER PRINCIPAL INVESTIGATOR

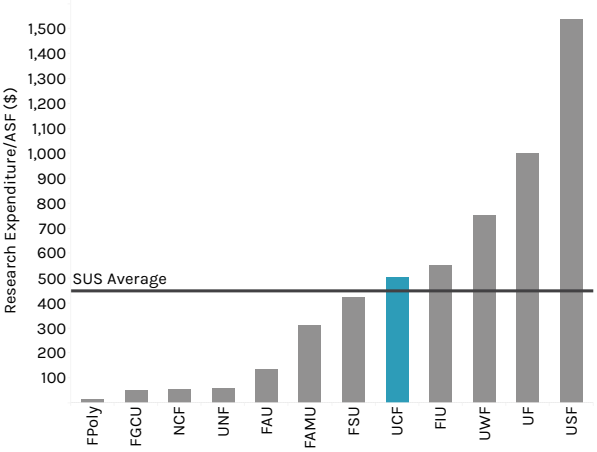


EXPENDITURES PER PRINCIPAL INVESTIGATOR



RESEARCH EXPENDITURES

EXPENDITURES PER ASF

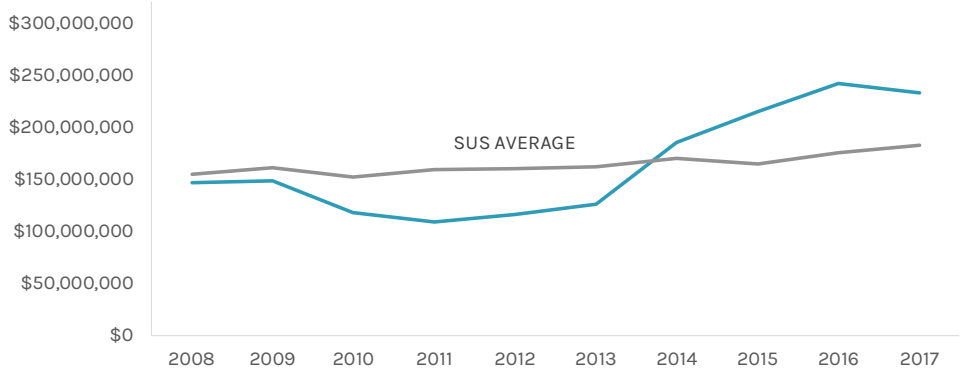


SUMMARY NOTE:

As a Carnegie R1 Research institution, research activity has been high. PIs are producing above average expenditures with below average amounts of space. Significant growth in expenditures was seen 2013–2016 though this appears to have leveled off in 2017.

3-Year Average (2015, 2016, 2017) $230,509,666.67

10-YEAR RESEARCH EXPENDITURES TREND



Principal Investigators Reported to NSF 2017

489

Research Expenditure Source: National Science Foundation, https://ncsesdata.nsf.gov/profiles.

UNIVERSITY OF FLORIDA

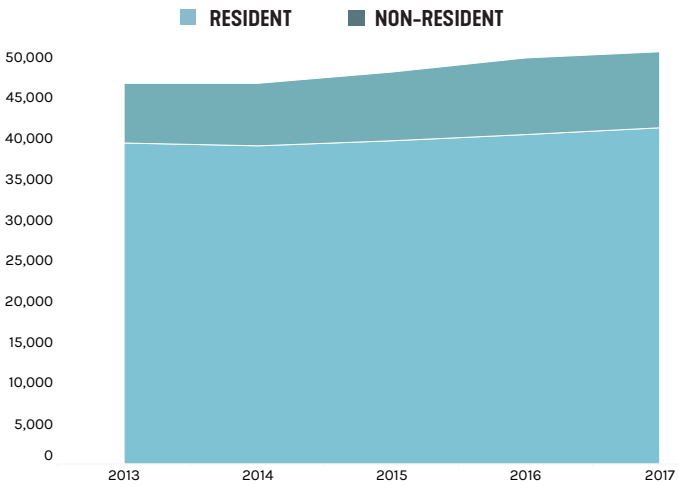
BACKGROUND DATA

Founded	1863
Carnegie Classification	R1 Doctoral University: Very High Research Activity
SUS Classification	Preeminent State Research University
Overall FTE	50,632
Undergraduate FTE	36,292
Graduate FTE	14,339
Number & Types of Degrees Offered	Over a 100 undergraduate degree programs, 100 minors, over 200 graduate degrees
Main Campus	Gainesville
Other Sites	UF Health Shands Hospital
Student-to-Faculty Ratio	18:1

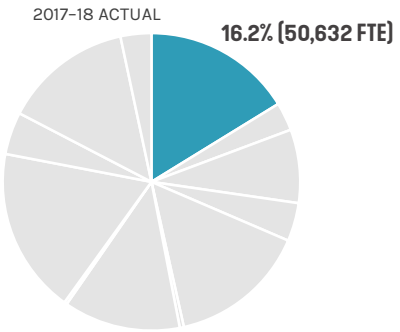
UNIQUE CHARACTERISTICS

- Land-grant university (1 of 2 in Florida), sea-grant state university (1 of 2 in Florida)
- Member of Association of American Universities (AAU) since 1985
- Programs with Most Completions: Biology/Biological Sciences, Mechanical Engineering, Finance
- Primarily residential
- Ranked No. 1 among AAU institutions for the number of Master's degrees awarded to Hispanic students and No. 2 in Bachelor's degrees awarded to Hispanic students in 2014
- Faculty: 2 Pulitzer Prize winners; 43 faculty elections to the National Academy of Sciences Engineering, the Institute of Medicine, or the American Academy of Arts and Sciences
- 16 Colleges
- 149 research centers, 41 research institutes

5-YEAR HISTORIC FTE ENROLLMENT (TOTAL/RESIDENT/NON-RESIDENT)



PERCENT OF STATE UNIVERSITY SYSTEM FTE ENROLLMENT

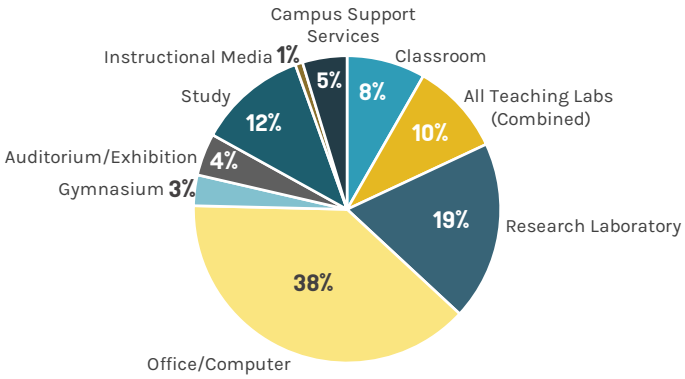


Background Data Source: 2019 Accountability Plan.

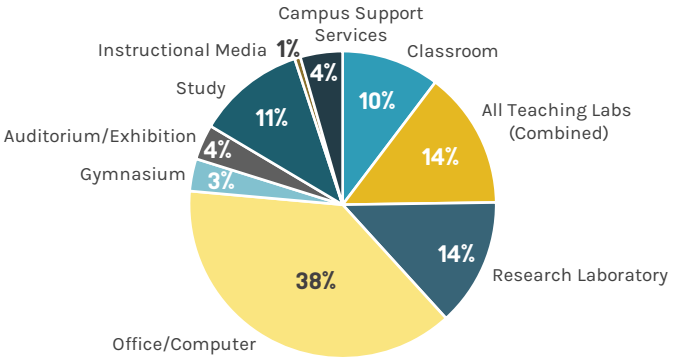
EXISTING E&G SPACE PROFILE

Main Campus (included in study)	3,535,861 ASF	Total Institution (included in study)	3,984,565 ASF

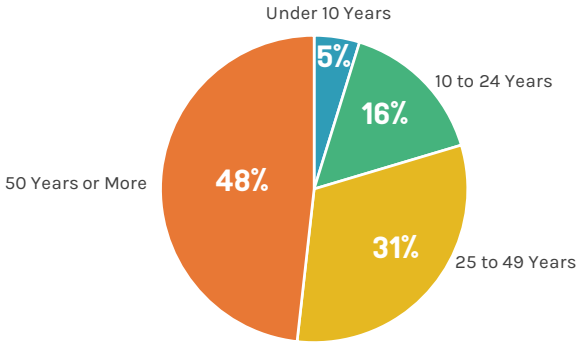
MAIN CAMPUS – ASF BY SPACE TYPE



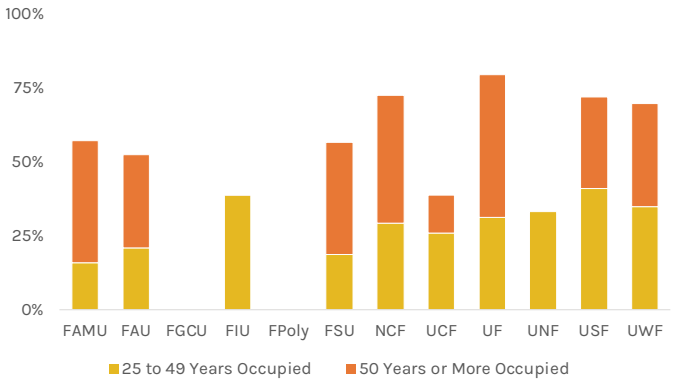
STATE UNIVERSITY SYSTEM – TOTAL ASF BY SPACE TYPE



AGE OF BUILDINGS BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



BUILDINGS 25 YEARS OR OLDER BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



Analysis Note for Age of Buildings chart:

- Main Campus only
- Age = 2019 minus year-occupied

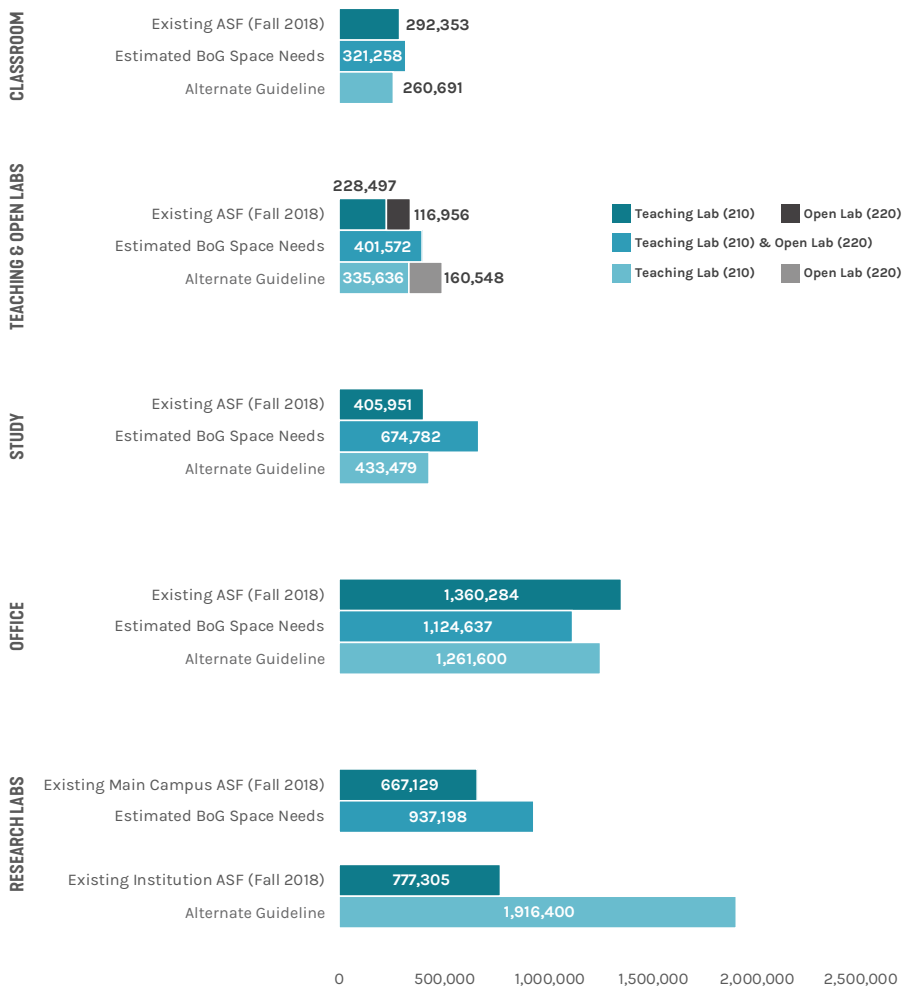
SUMMARY NOTE:

University of Florida is burdened with the largest proportion of old facilities in the system, with almost half being 50 years old or older. Such age likely distorts the space needs for classrooms and offices. A primary issue is the location, quality, condition, and suitability of existing space.

Data Source: Board of Governors.

E&G SPACE NEEDS

MAIN CAMPUS – EXISTING ASF VS. BOARD OF GOVERNORS SPACE NEEDS FORMULAS CALCULATIONS VS. ALTERNATE SPACE NEEDS FORMULAS CALCULATION



ASF/FTE – MAIN CAMPUS E&G SPACE BY FALL 2018 DISCOUNTED STUDENT FTE

University of Florida	110.1
State University System	85.8

MAIN CAMPUS FTEs & PIs

Fall 2018 Discounted FTE	32,110
Fall 2018 Non-Discounted FTE	43,834
Three-Term Discounted FTE	35,695
Three-Term Non-Discounted FTE	49,984
Faculty FTE	2,172
Faculty and Staff FTE	6,308

SUMMARY NOTE:

As with most institutions, assessing the University of Florida space needs is complicated. R1 research universities typically have more space per student and space per faculty than others. The classroom space analysis indicates that the amount of space is not the primary issue. The ASF/classroom seat is among the lowest in the system, however, indicating poor quality. There is a need for teaching laboratories, open laboratories, and research laboratories. The need for office space may be understated due to the age of buildings and the research mission.

Data Source: Existing ASF 3-Term FTE Calculation Fall 2018 Discounted FTE.

CLASSROOMS

SCHEDULED CLASSROOM USE BY DAY AND TIME | FALL 2018

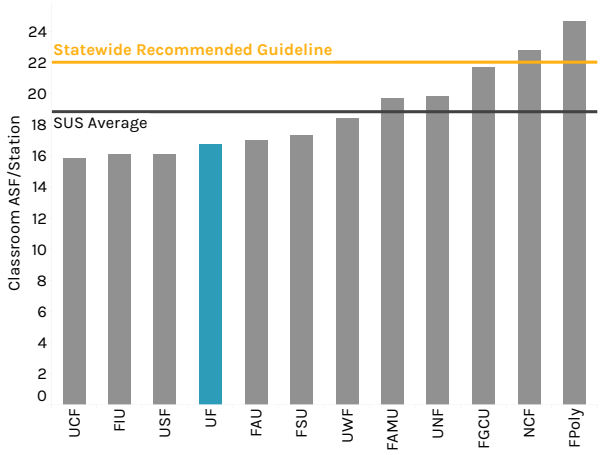
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM	121 | 43%	146 | 52%	134 | 47%	95 | 34%	114 | 40%
9:00 AM	204 | 72%	208 | 73%	221 | 78%	203 | 72%	176 | 62%
10:00 AM	217 | 77%	229 | 81%	227 | 80%	225 | 80%	188 | 66%
11:00 AM	225 | 80%	230 | 81%	235 | 83%	222 | 78%	193 | 68%
12:00 PM	223 | 79%	217 | 77%	236 | 83%	229 | 81%	185 | 65%
1:00 PM	226 | 80%	230 | 81%	231 | 82%	226 | 80%	176 | 62%
2:00 PM	202 | 71%	206 | 73%	203 | 72%	196 | 69%	141 | 50%
3:00 PM	179 | 63%	178 | 63%	194 | 69%	196 | 69%	96 | 34%
4:00 PM	130 | 46%	164 | 58%	159 | 56%	167 | 59%	36 | 13%
5:00 PM	95 | 34%	104 | 37%	122 | 43%	97 | 34%	13 | 5%
6:00 PM	49 | 17%	53 | 19%	66 | 23%	44 | 16%	2 | 1%
7:00 PM	50 | 18%	56 | 20%	69 | 24%	48 | 17%	2 | 1%

0% 100%

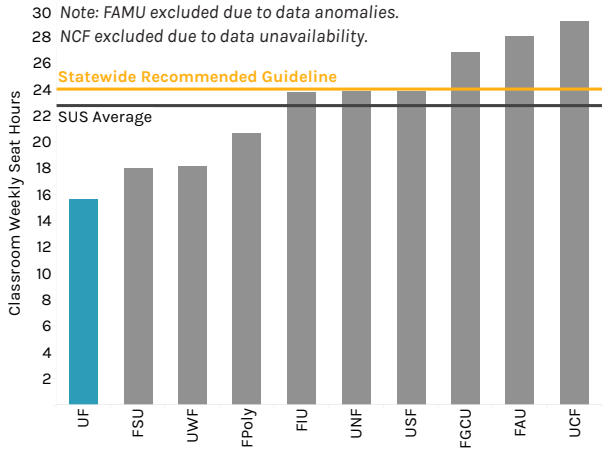
Percent of Rooms in Use

Data Source: Board of Governors.

ASF PER STUDENT STATION



WEEKLY SEAT HOUR UTILIZATION

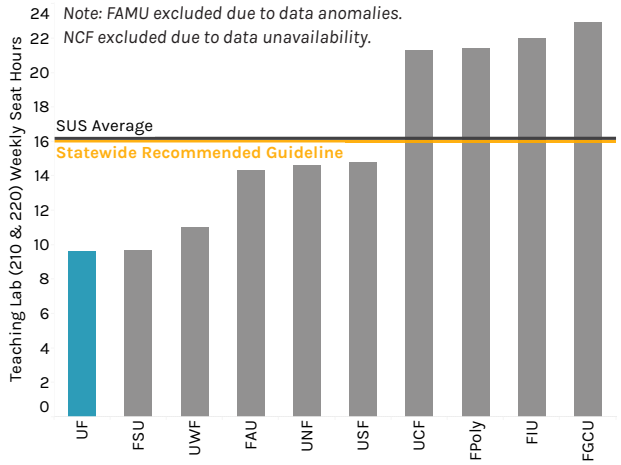


SUMMARY NOTE:

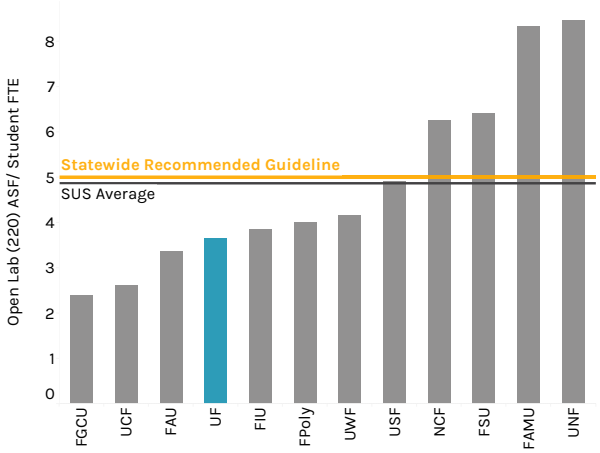
Highest use of classrooms was between 9AM and 4PM. Utilization measure by WSH is low. However, the ASF/Student Station is among the lowest in the system indicating highly traditional classrooms and very inflexible space for modern learning modalities.

TEACHING LABS

TEACHING LAB (210) AVERAGE WEEKLY SEAT HOUR

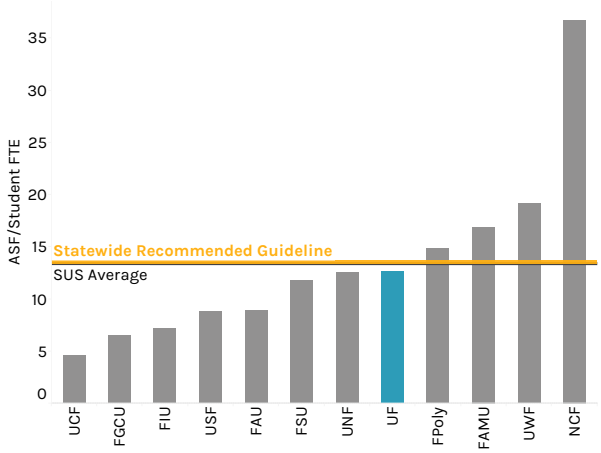


OPEN LAB (220) ASF PER STUDENT FTE



STUDY

ASF PER STUDENT FTE

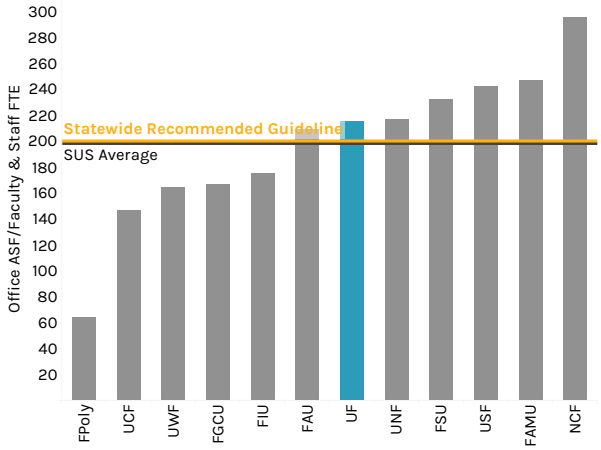


SUMMARY NOTE:

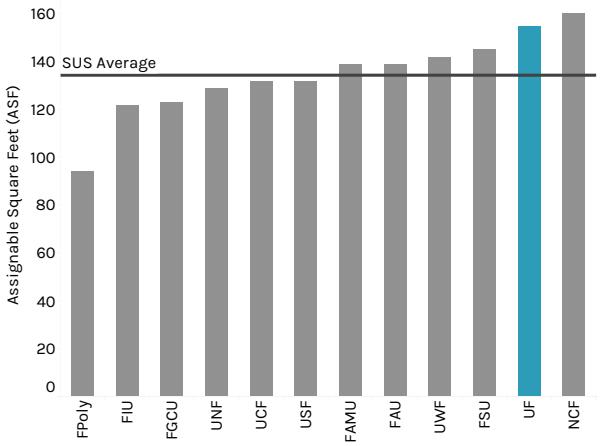
Teaching lab utilization was low. (One possible explanation is miscoding of space.) There is a need for open lab and study space. Office needs do not reflect research mission or need for graduate student space.

OFFICES

ASF PER FACULTY & STAFF FTE

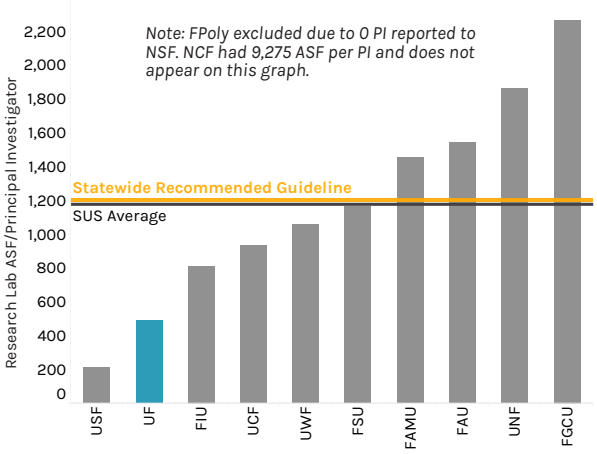


AVERAGE SIZE OF OFFICE

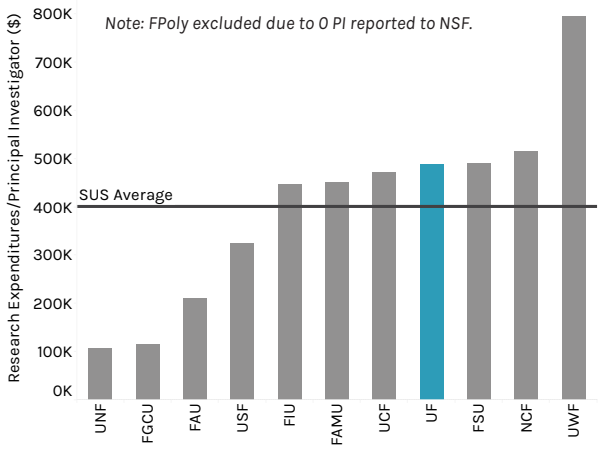


RESEARCH LABS

ASF PER PRINCIPAL INVESTIGATOR

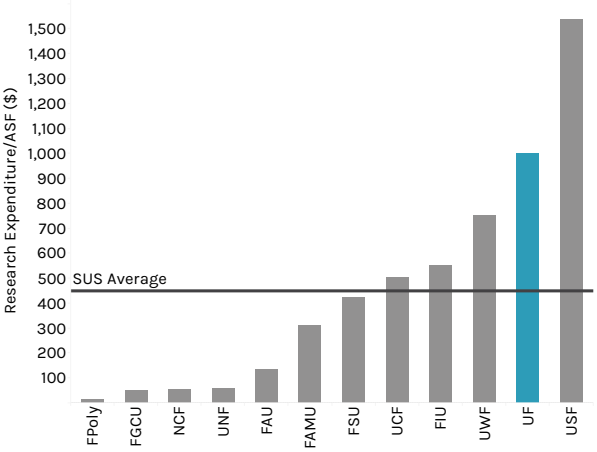


EXPENDITURES PER PRINCIPAL INVESTIGATOR



RESEARCH EXPENDITURES

EXPENDITURES PER ASF

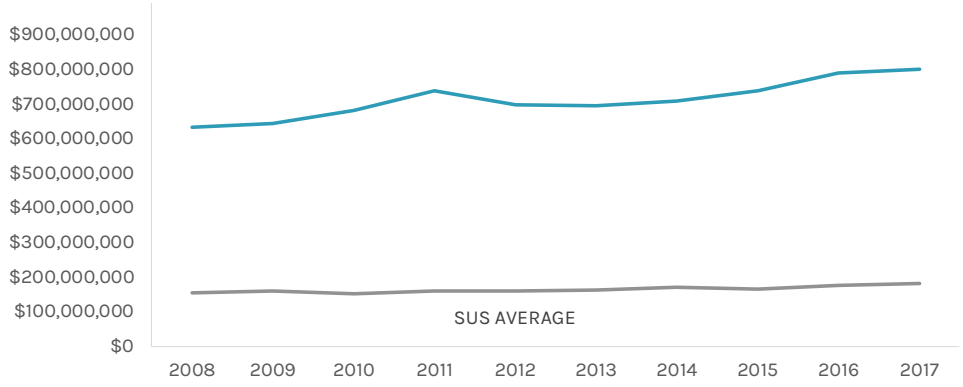


SUMMARY NOTE:

University of Florida is a Preeminent R1 research university with high productivity as measured by space and PI. The PIs have low amounts of space indicating that they are doing a lot with very little. Since research activity is trending upward, greater pressure will be felt on research space.

3-Year Average (2015, 2016, 2017) $777,411,333.33

10-YEAR RESEARCH EXPENDITURES TREND



Principal Investigators Reported to NSF 2017

1,597

Research Expenditure Source: National Science Foundation, https://ncsesdata.nsf.gov/profiles.

UNIVERSITY OF NORTH FLORIDA

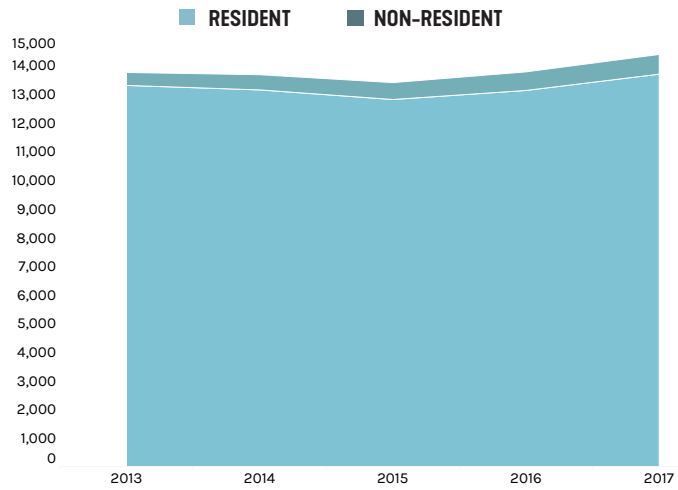
BACKGROUND DATA

Founded	1972
Carnegie Classification	Doctoral/Professional University
SUS Classification	Regional and Statewide
Overall FTE	14,383
Undergraduate FTE	12,840
Graduate FTE	1,543
Number & Types of Degrees Offered	Over 50 undergraduate degree programs and about 30 graduate degree programs
Main Campus	Jacksonville
Other Sites	None
Student-to-Faculty Ratio	19:1

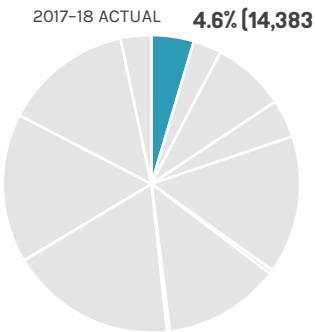
UNIQUE CHARACTERISTICS

- Programs with Most Completions: Registered Nursing/ Registered Nurse, Research and Experimental Psychology, Communication
- Primarily residential
- Full time faculty: 570; 452 of which have a PhD or an appropriate terminal degree
- 6 Colleges
- 20 research centers and institutes

5-YEAR HISTORIC FTE ENROLLMENT (TOTAL/RESIDENT/NON-RESIDENT)



PERCENT OF STATE UNIVERSITY SYSTEM FTE ENROLLMENT

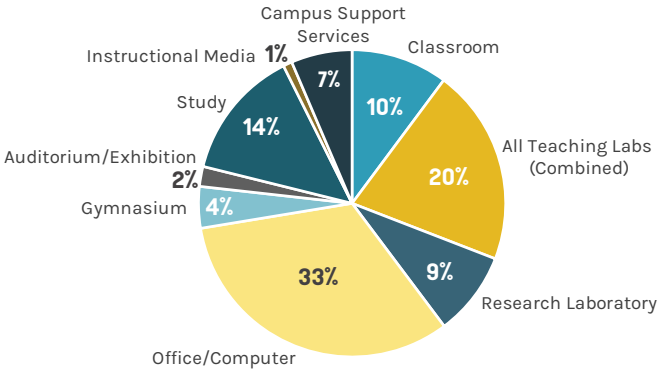


Background Data Source: 2019 Accountability Plan.

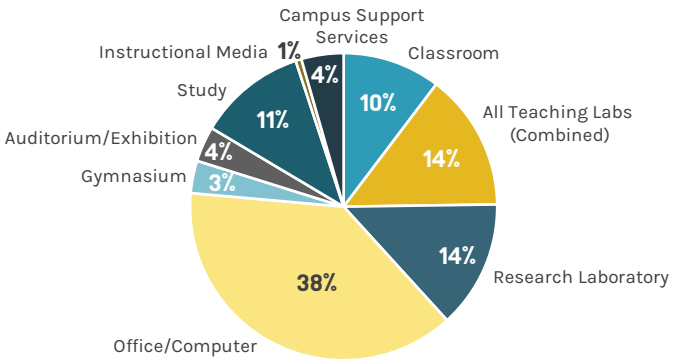
EXISTING E&G SPACE PROFILE

Main Campus (included in study)	976,411 ASF	Total Institution (included in study)	1,006,997 ASF

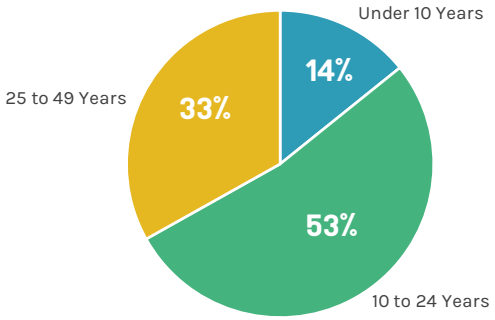
MAIN CAMPUS – ASF BY SPACE TYPE



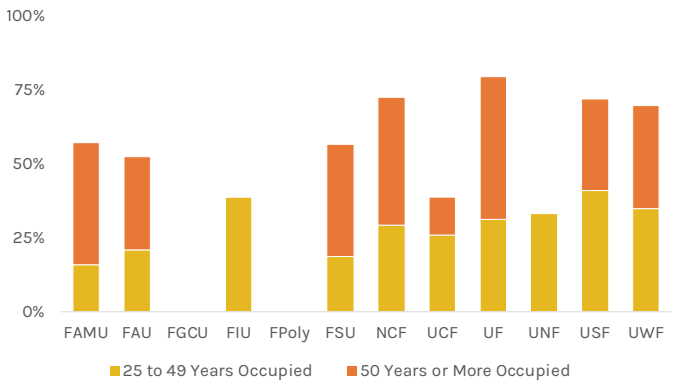
STATE UNIVERSITY SYSTEM – TOTAL ASF BY SPACE TYPE



AGE OF BUILDINGS BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



BUILDINGS 25 YEARS OR OLDER BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



Analysis Note for Age of Buildings chart:

- Main Campus only
- Age = 2019 minus year-occupied

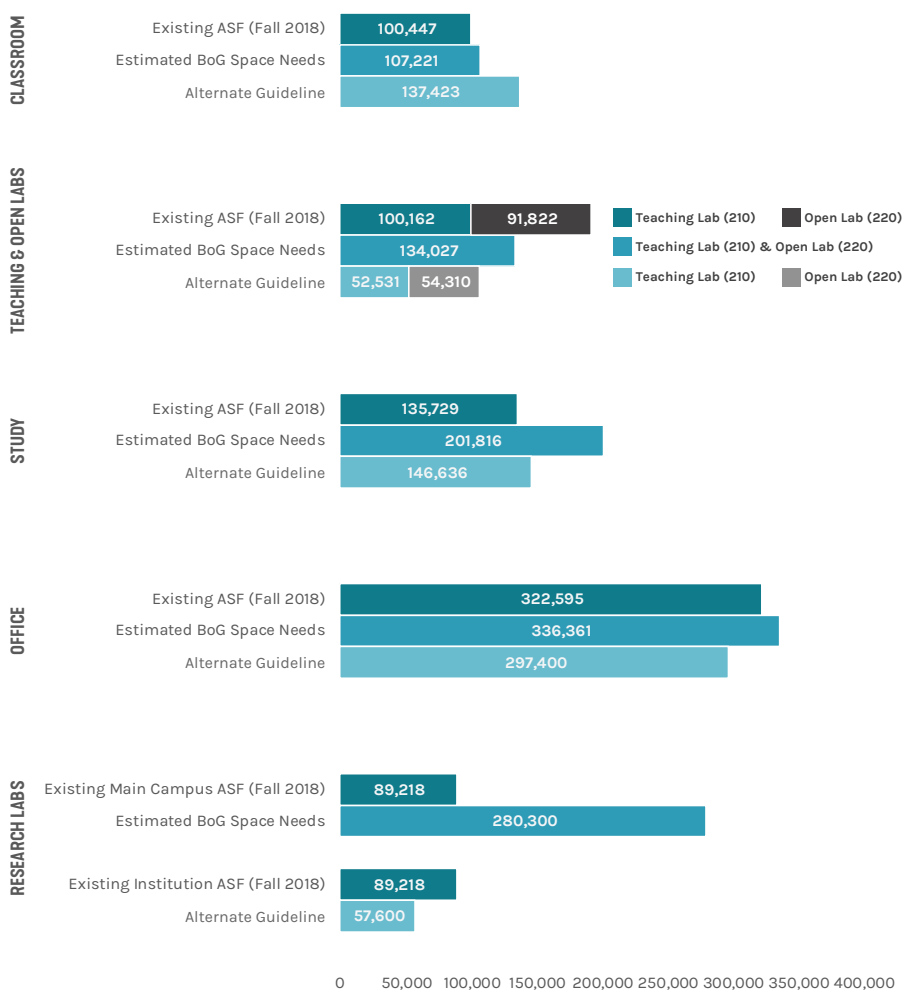
SUMMARY NOTE:

University of North Florida is one of the younger campuses in the system (founded 1972) as measured by building age. They have a higher proportion of teaching laboratories and research laboratories.

Data Source: Board of Governors.

E&G SPACE NEEDS

MAIN CAMPUS – EXISTING ASF VS. BOARD OF GOVERNORS SPACE NEEDS FORMULAS CALCULATIONS VS. ALTERNATE SPACE NEEDS FORMULAS CALCULATION



ASF/FTE – MAIN CAMPUS E&G SPACE BY FALL 2018 DISCOUNTED STUDENT FTE

University of North Florida	89.9
State University System	85.8

MAIN CAMPUS FTEs & PIs

Fall 2018 Discounted FTE	10,862
Fall 2018 Non-Discounted FTE	13,089
Three-Term Discounted FTE	11,913
Three-Term Non-Discounted FTE	14,949
Faculty FTE	749
Faculty and Staff FTE	1,487

SUMMARY NOTE:

There is an issue with both the quality and suitability of classroom space on campus. The campus reports that pedagogy is changing and requiring smaller and more flexible classrooms, which is mismatched with the inventory. There were no capacity issues observed for teaching laboratories, offices, and research laboratories.

Data Source: Existing ASF 3-Term FTE Calculation Fall 2018 Discounted FTE.

CLASSROOMS

SCHEDULED CLASSROOM USE BY DAY AND TIME | FALL 2018

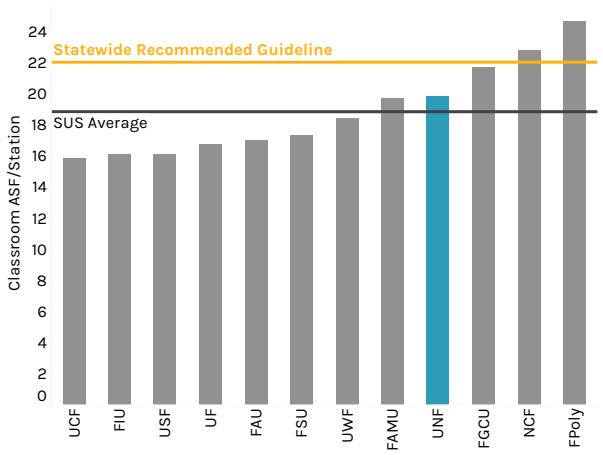
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM	6 | 7%	16 | 19%	4 | 5%	15 | 18%	5 | 6%
9:00 AM	26 | 31%	65 | 76%	23 | 27%	65 | 76%	21 | 25%
10:00 AM	52 | 61%	82 | 96%	50 | 59%	82 | 96%	29 | 34%
11:00 AM	51 | 60%	77 | 91%	51 | 60%	77 | 91%	29 | 34%
12:00 PM	62 | 73%	77 | 91%	62 | 73%	78 | 92%	34 | 40%
1:00 PM	75 | 88%	83 | 98%	76 | 89%	83 | 98%	30 | 35%
2:00 PM	63 | 74%	81 | 95%	66 | 78%	82 | 96%	23 | 27%
3:00 PM	77 | 91%	73 | 86%	76 | 89%	75 | 88%	4 | 5%
4:00 PM	80 | 94%	74 | 87%	78 | 92%	77 | 91%	2 | 2%
5:00 PM	59 | 69%	56 | 66%	57 | 67%	58 | 68%	1 | 1%
6:00 PM	59 | 69%	71 | 84%	55 | 65%	61 | 72%	2 | 2%
7:00 PM	57 | 67%	72 | 85%	54 | 64%	62 | 73%	2 | 2%

0% 100%

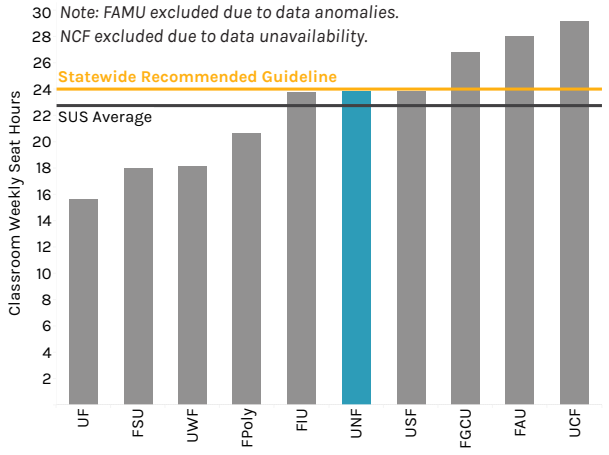
Percent of Rooms in Use

Data Source: Board of Governors.

ASF PER STUDENT STATION



WEEKLY SEAT HOUR UTILIZATION

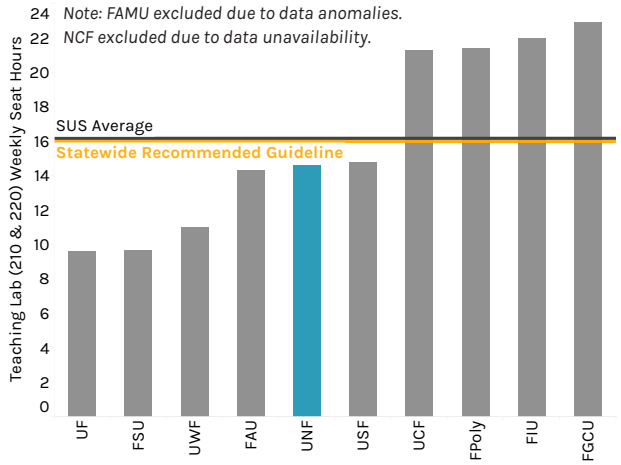


SUMMARY NOTE:

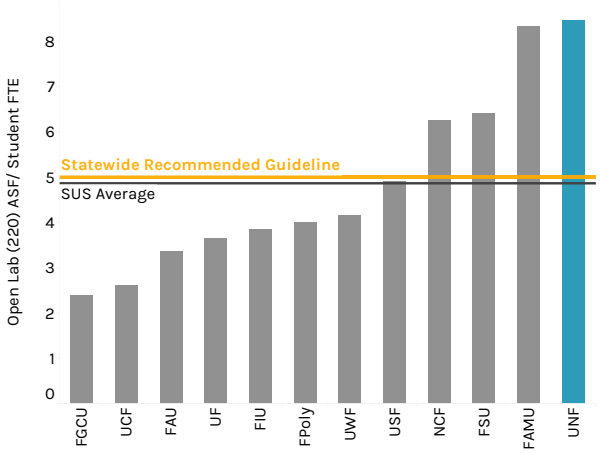
Excellent utilization of classrooms was observed, with rooms well used until 8PM.

TEACHING LABS

TEACHING LAB (210) AVERAGE WEEKLY SEAT HOUR

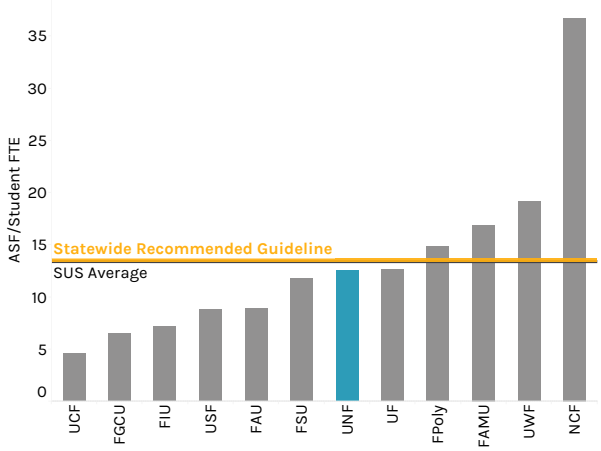


OPEN LAB (220) ASF PER STUDENT FTE



STUDY

ASF PER STUDENT FTE

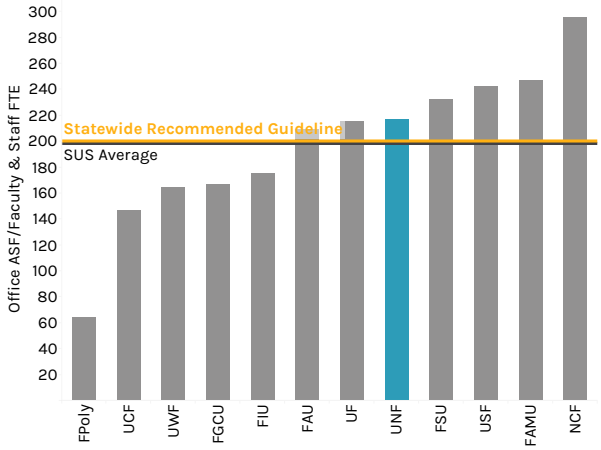


SUMMARY NOTE:

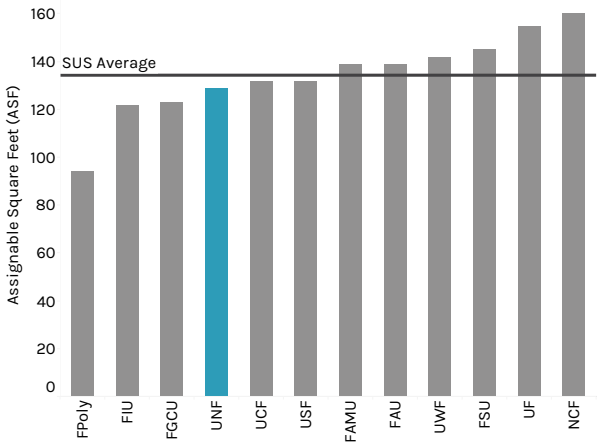
Reasonable utilization of teaching laboratories was observed. There was sufficient study space and office space seen.

OFFICES

ASF PER FACULTY & STAFF FTE

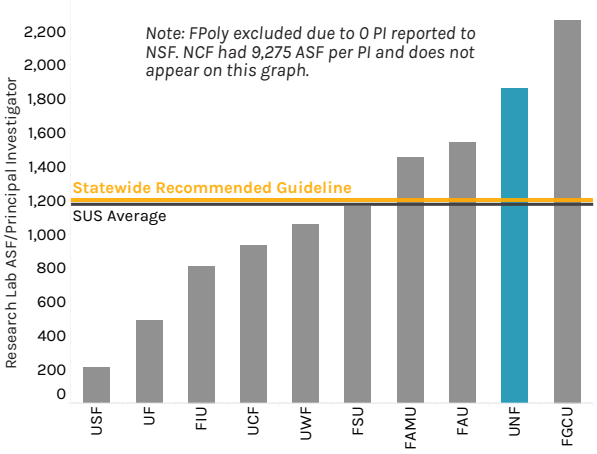


AVERAGE SIZE OF OFFICE

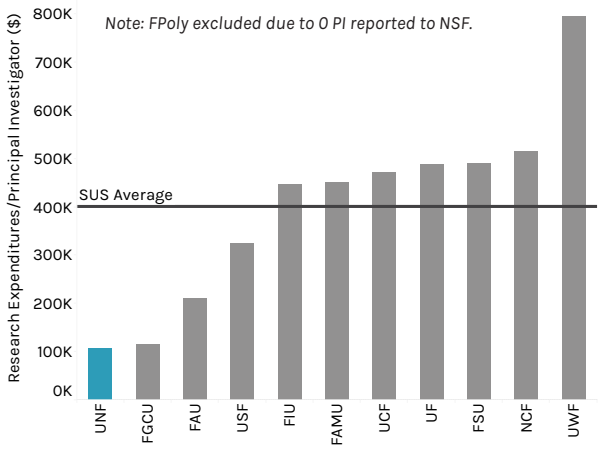


RESEARCH LABS

ASF PER PRINCIPAL INVESTIGATOR

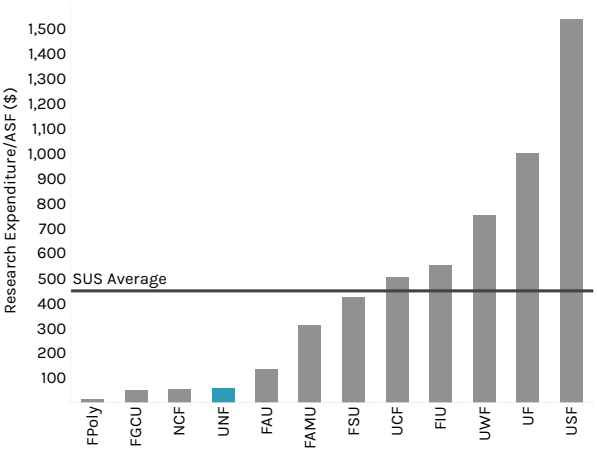


EXPENDITURES PER PRINCIPAL INVESTIGATOR



RESEARCH EXPENDITURES

EXPENDITURES PER ASF

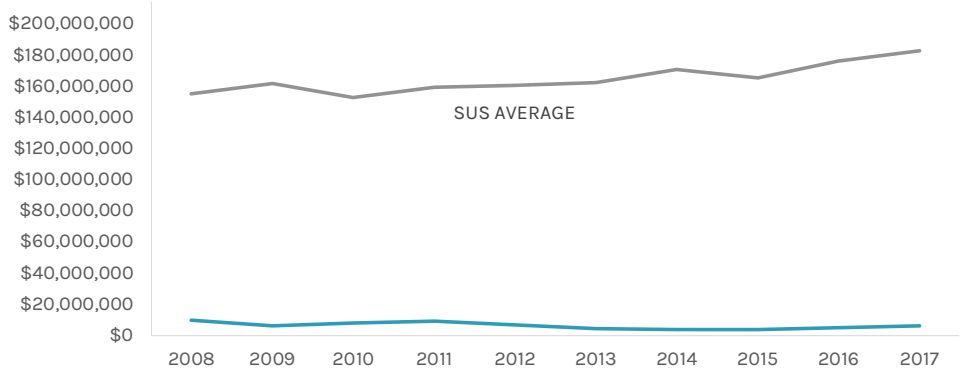


SUMMARY NOTE:

University of North Florida is not a research intensive institution as measured by expenditures, with PIs producing few expenditures with significant space assets.

3-Year Average (2015, 2016, 2017) $5,102,000.00

10-YEAR RESEARCH EXPENDITURES TREND



Principal Investigators Reported to NSF 2017

48

Research Expenditure Source: National Science Foundation, https://ncsesdata.nsf.gov/profiles.

UNIVERSITY OF SOUTH FLORIDA

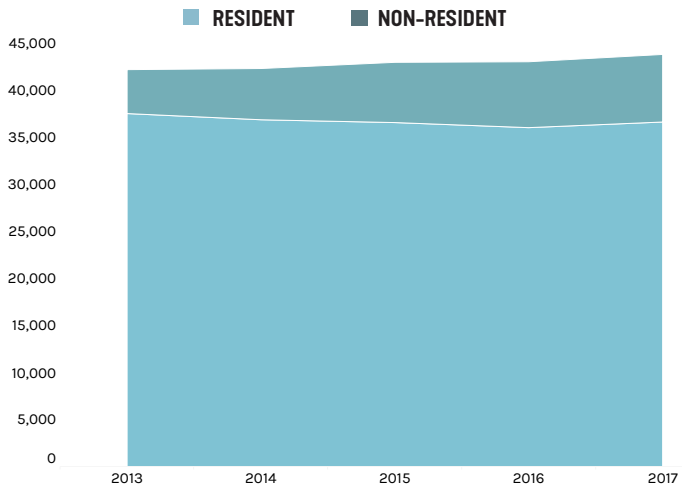
BACKGROUND DATA

Founded	1956
Carnegie Classification	R1 Doctoral University: Very High Research Activity
SUS Classification	Preeminent State Research University
Overall FTE	43,756
Undergraduate FTE	34,837
Graduate FTE	8,919
Number & Types of Degrees Offered	180 undergraduate majors and degree programs at the graduate,specialist, and doctoral levels, including the doctor of medicine
Main Campus	Tampa
Other Sites	St. Petersburg, Sarasota-Manatee
Student-to-Faculty Ratio	22:1

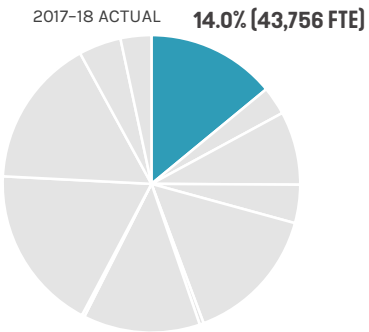
UNIQUE CHARACTERISTICS

- Programs with Most Completions: Health Services/Allied Health/Health Sciences, Biomedical Sciences, Registered Nursing/Registered Nurse
- Primarily nonresidential
- 14 colleges
- USF ranks 42nd in the nation among all public and private universities for total research expenditures, placing USF in the top 7% among the 644 universities ranked by the National Science Foundation (2018).
- The USF System ranks 1st in Florida, 5th in the nation among public universities and 12th worldwide for granted U.S. patents among all universities according to the Intellectual Property Owners Association/NAI (2017), and has ranked in the Top 10 among public universities for U.S. patents granted for 2010–2017
- This analysis is for the main campus

5-YEAR HISTORIC FTE ENROLLMENT (TOTAL/RESIDENT/NON-RESIDENT)



PERCENT OF STATE UNIVERSITY SYSTEM FTE ENROLLMENT

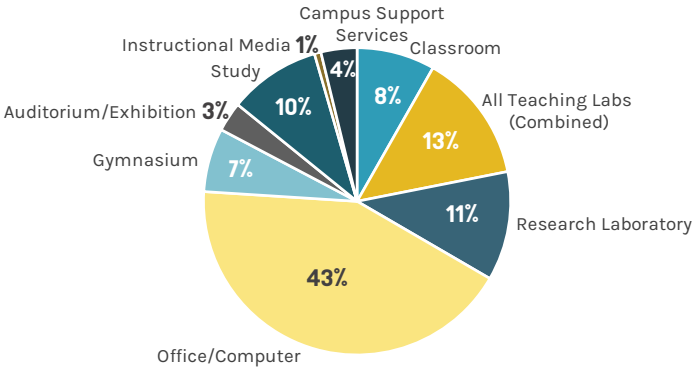


Background Data Source: 2019 Accountability Plan.

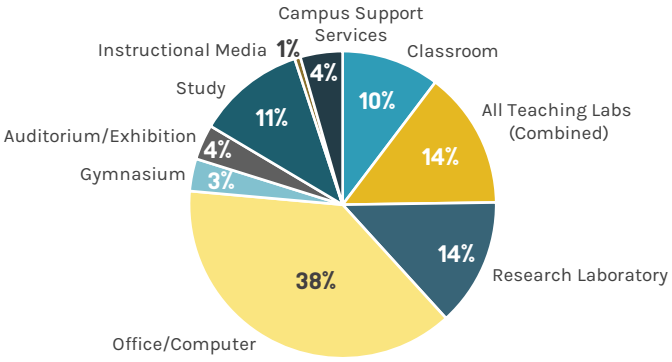
EXISTING E&G SPACE PROFILE

Main Campus (included in study)	2,190,995 ASF	Total Institution (included in study)	2,672,072 ASF

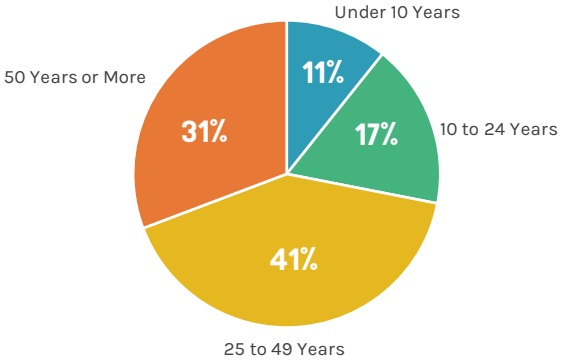
MAIN CAMPUS – ASF BY SPACE TYPE



STATE UNIVERSITY SYSTEM – TOTAL ASF BY SPACE TYPE



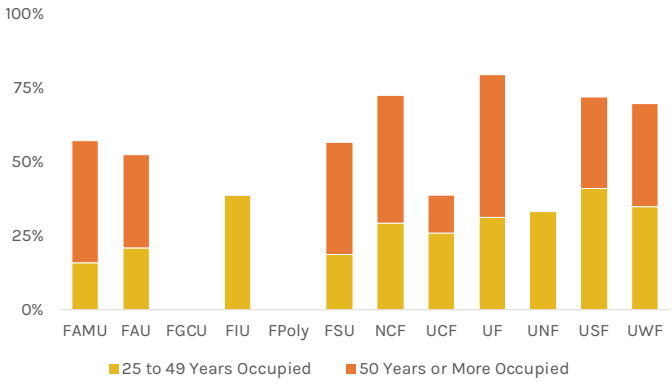
AGE OF BUILDINGS BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



Analysis Note for Age of Buildings chart:

- Main Campus only
- Age = 2019 minus year-occupied

BUILDINGS 25 YEARS OR OLDER BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



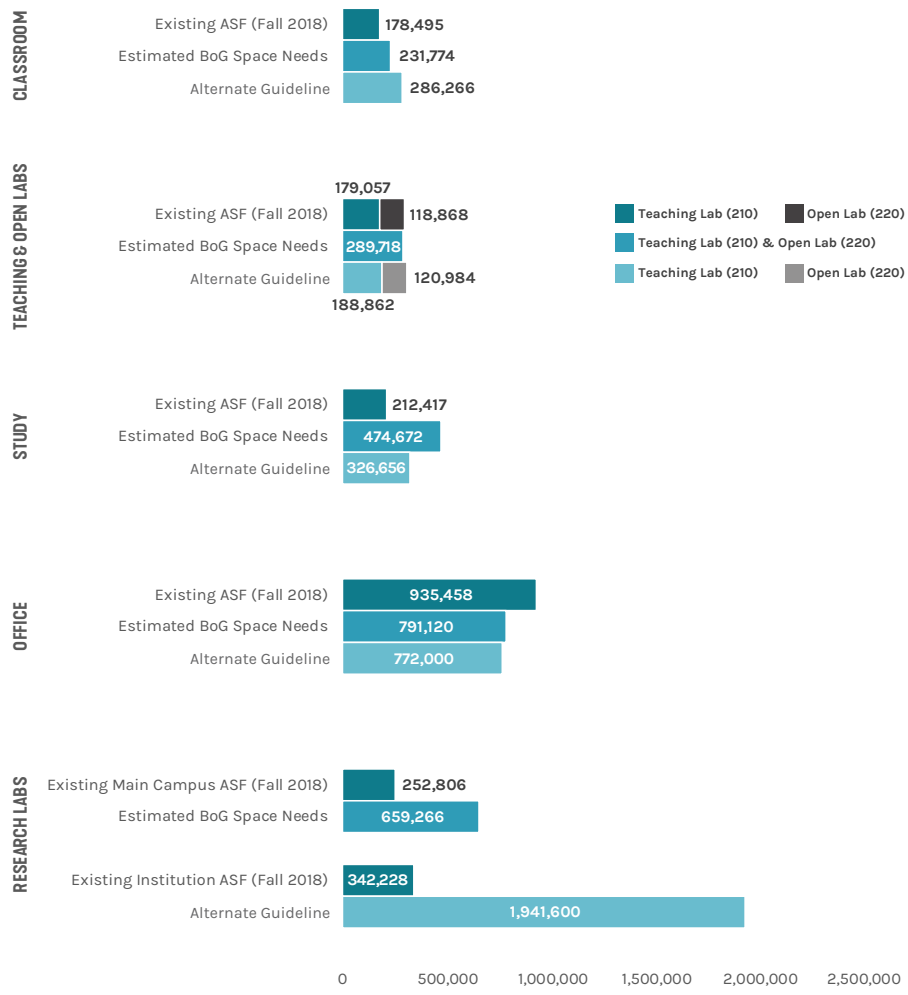
SUMMARY NOTE:

Due to its status as an R1 research institution, it has a higher proportion of research and office space than the SUS average. University of South Florida is among the institutions with the oldest buildings, creating serious issues with repair backlog, quality, condition, and suitability issues.

Data Source: Board of Governors.

E&G SPACE NEEDS

MAIN CAMPUS – EXISTING ASF VS. BOARD OF GOVERNORS SPACE NEEDS FORMULAS CALCULATIONS VS. ALTERNATE SPACE NEEDS FORMULAS CALCULATION



ASF/FTE – MAIN CAMPUS E&G SPACE BY FALL 2018 DISCOUNTED STUDENT FTE

University of South Florida	90.5
State University System	85.8

MAIN CAMPUS FTEs & PIs

Fall 2018 Discounted FTE	24,197
Fall 2018 Non-Discounted FTE	31,118
Three-Term Discounted FTE	25,753
Three-Term Non-Discounted FTE	35,161
Faculty FTE	1,172
Faculty and Staff FTE	3,860

SUMMARY NOTE:

The analysis indicates a significant need in terms of quantity and quality of space. Office needs are likely underestimated due to age of buildings and research mission. Research space is also needed.

Data Source: Existing ASF 3-Term FTE Calculation Fall 2018 Discounted FTE.

CLASSROOMS

SCHEDULED CLASSROOM USE BY DAY AND TIME | FALL 2018

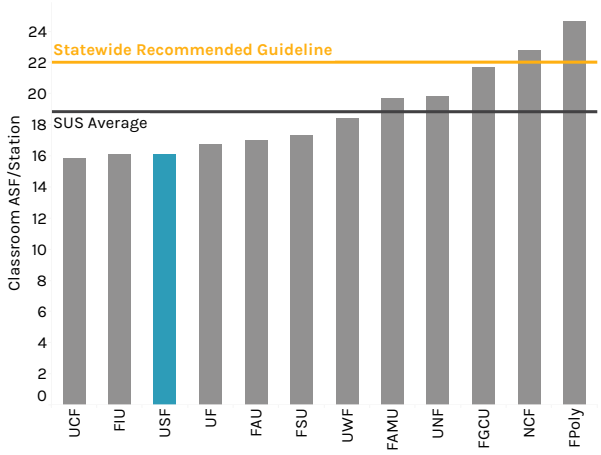
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM	41 | 24%	42 | 25%	41 | 24%	43 | 25%	55 | 33%
9:00 AM	134 | 79%	141 | 83%	134 | 79%	140 | 83%	85 | 50%
10:00 AM	132 | 78%	136 | 80%	133 | 79%	135 | 80%	81 | 48%
11:00 AM	148 | 88%	144 | 85%	146 | 86%	145 | 86%	89 | 53%
12:00 PM	160 | 95%	155 | 92%	158 | 93%	155 | 92%	88 | 52%
1:00 PM	130 | 77%	139 | 82%	130 | 77%	136 | 80%	79 | 47%
2:00 PM	132 | 78%	134 | 79%	132 | 78%	134 | 79%	65 | 38%
3:00 PM	145 | 86%	146 | 86%	146 | 86%	146 | 86%	39 | 23%
4:00 PM	102 | 60%	99 | 59%	103 | 61%	97 | 57%	37 | 22%
5:00 PM	79 | 47%	75 | 44%	75 | 44%	63 | 37%	8 | 5%
6:00 PM	110 | 65%	113 | 67%	103 | 61%	90 | 53%	8 | 5%
7:00 PM	98 | 58%	99 | 59%	89 | 53%	72 | 43%	7 | 4%

0% 100%

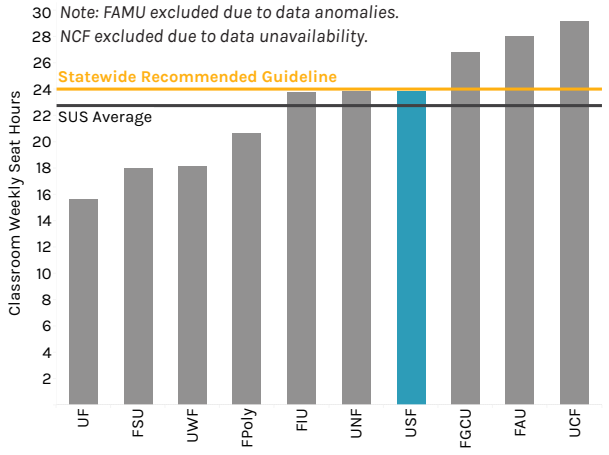
Percent of Rooms in Use

Data Source: Board of Governors.

ASF PER STUDENT STATION



WEEKLY SEAT HOUR UTILIZATION

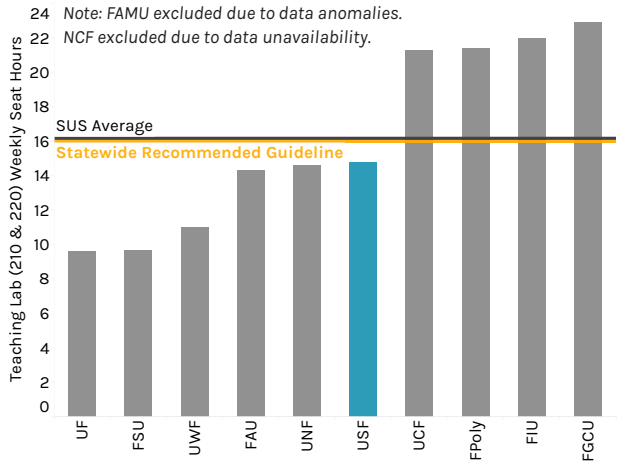


SUMMARY NOTE:

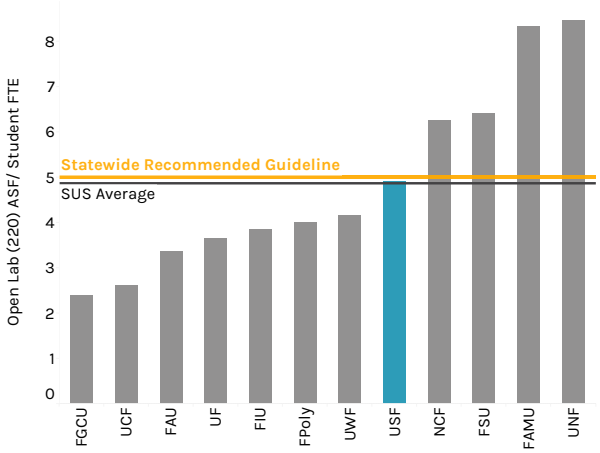
Classrooms are well used from 9AM to 4–5PM, with good use from 6–8PM. Overall utilization measured by WSH is fourth in the SUS. However, ASF/seat is among the lowest in the SUS indicating highly traditional classrooms which are very inflexible to accommodate modern learning modalities.

TEACHING LABS

TEACHING LAB (210) AVERAGE WEEKLY SEAT HOUR

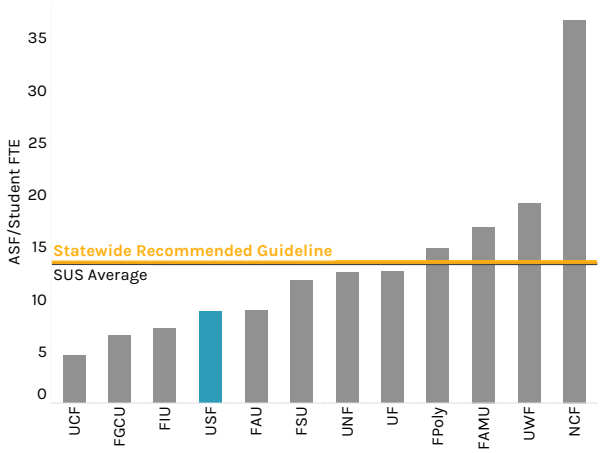


OPEN LAB (220) ASF PER STUDENT FTE



STUDY

ASF PER STUDENT FTE

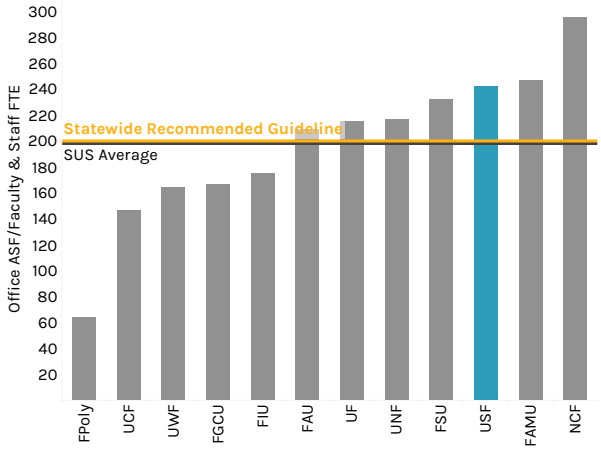


SUMMARY NOTE:

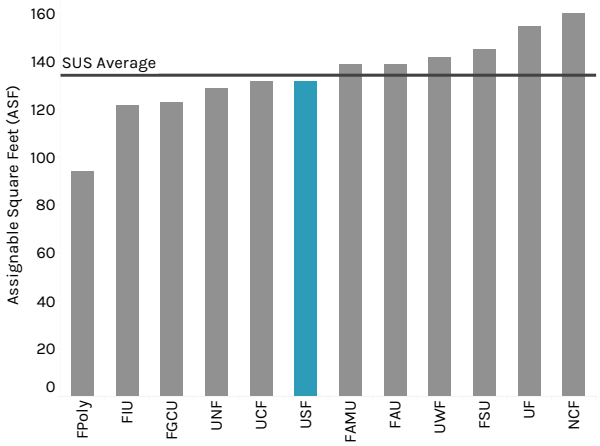
Teaching lab utilization (WSH) was generally reasonable. Office space per FTE was generally high.

OFFICES

ASF PER FACULTY & STAFF FTE

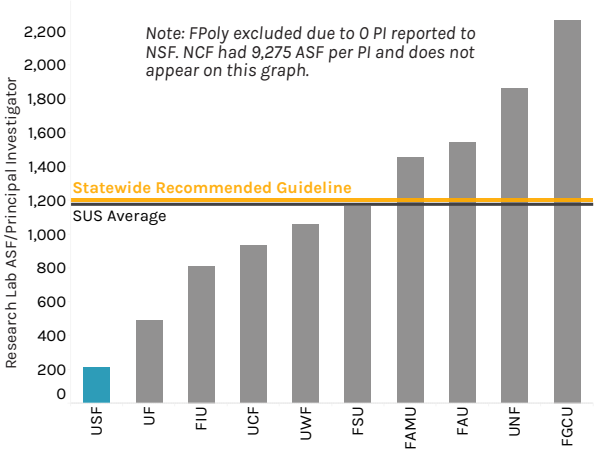


AVERAGE SIZE OF OFFICE

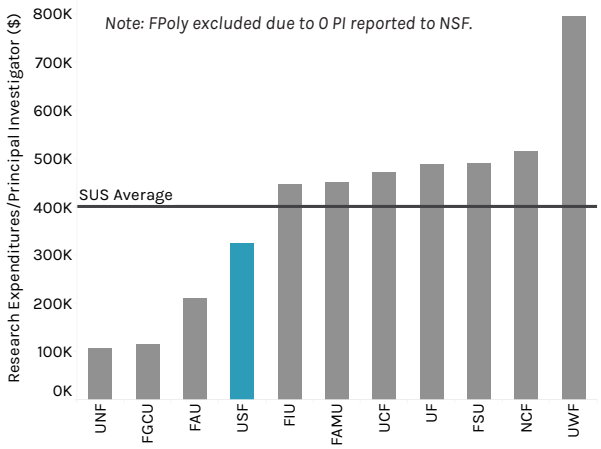


RESEARCH LABS

ASF PER PRINCIPAL INVESTIGATOR

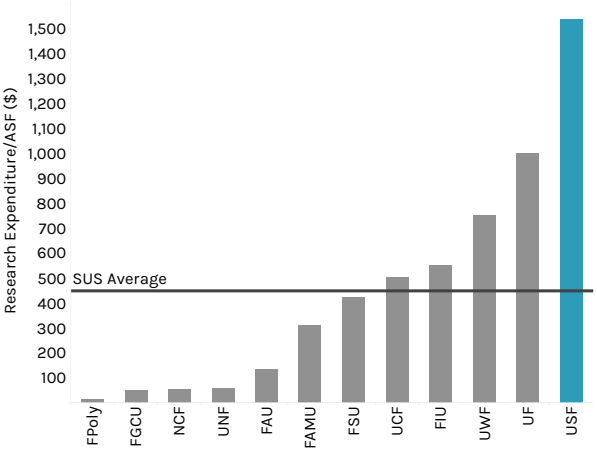


EXPENDITURES PER PRINCIPAL INVESTIGATOR



RESEARCH EXPENDITURES

EXPENDITURES PER ASF

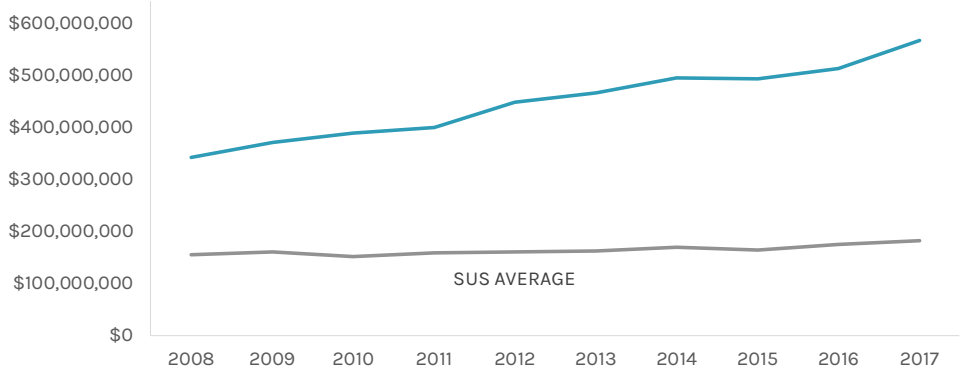


SUMMARY NOTE:

USF had the most expenditures per PI of any institution, yet the least amount of space per PI. (This may be due in part to strong marine research in the field.)

3-Year Average (2015, 2016, 2017) $525,860,666.67

10-YEAR RESEARCH EXPENDITURES TREND



Principal Investigators Reported to NSF 2017

1,618

Research Expenditure Source: National Science Foundation, https://ncsesdata.nsf.gov/profiles.

UNIVERSITY OF WEST FLORIDA

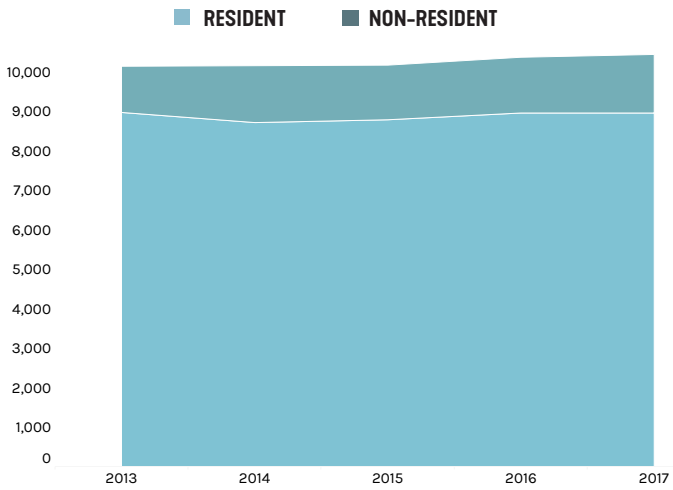
BACKGROUND DATA

Founded	1963
Carnegie Classification	Master's Colleges & Universities
SUS Classification	Regional and Statewide
Overall FTE	10,446
Undergraduate FTE	8,507
Graduate FTE	1,939
Number & Types of Degrees Offered	More than 55 undergraduate programs, 32 master's programs
Main Campus	Pensacola
Other Sites	Fort Walton Beach
Student-to-Faculty Ratio	21:1

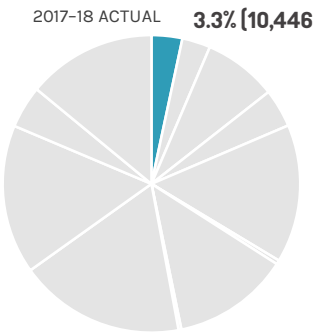
UNIQUE CHARACTERISTICS

- Programs with Most Completions: Registered Nursing/ Registered Nurse, Health and Physical Education/Fitness, Psychology
- Primarily nonresidential
- 5 colleges
- 16 research centers and institutes
- Offers 11 programs at NW State College

5-YEAR HISTORIC FTE ENROLLMENT (TOTAL/RESIDENT/NON-RESIDENT)



PERCENT OF STATE UNIVERSITY SYSTEM FTE ENROLLMENT

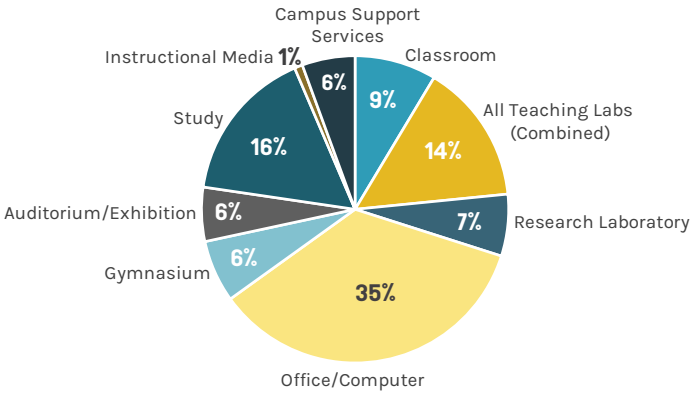


Background Data Source: 2019 Accountability Plan.

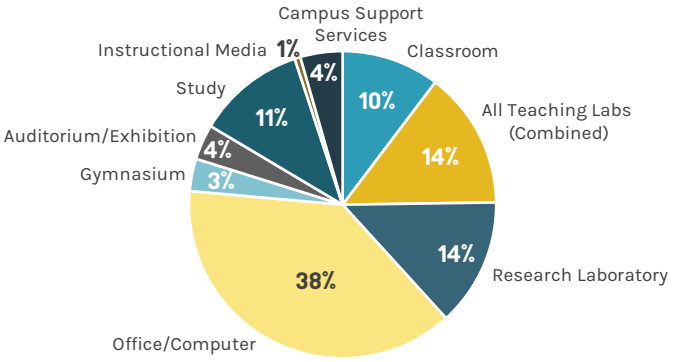
EXISTING E&G SPACE PROFILE

Main Campus (included in study)	702,434 ASF	Total Institution (included in study)	864,357 ASF

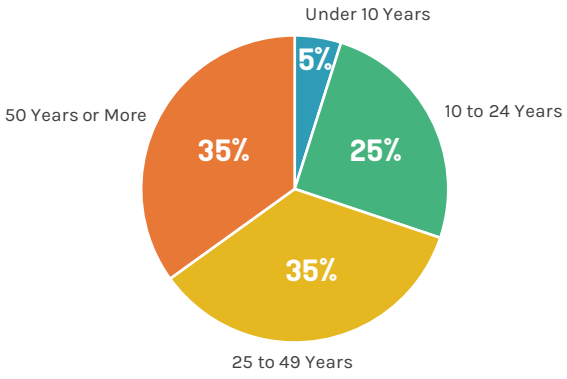
MAIN CAMPUS – ASF BY SPACE TYPE



STATE UNIVERSITY SYSTEM – TOTAL ASF BY SPACE TYPE



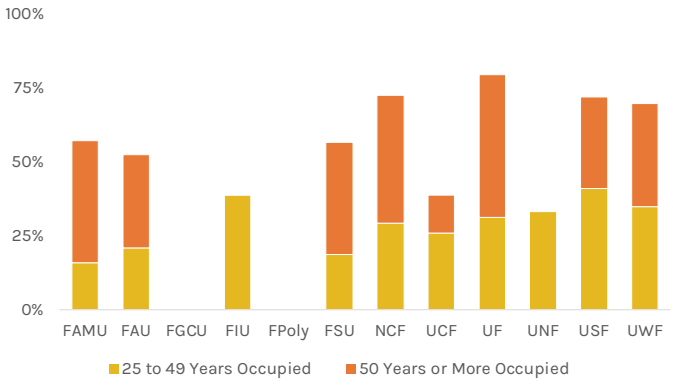
AGE OF BUILDINGS BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



Analysis Note for Age of Buildings chart:

- Main Campus only
- Age = 2019 minus year-occupied

BUILDINGS 25 YEARS OR OLDER BY GSF – MAIN CAMPUS (ACCORDING TO DATE OF OCCUPANCY)



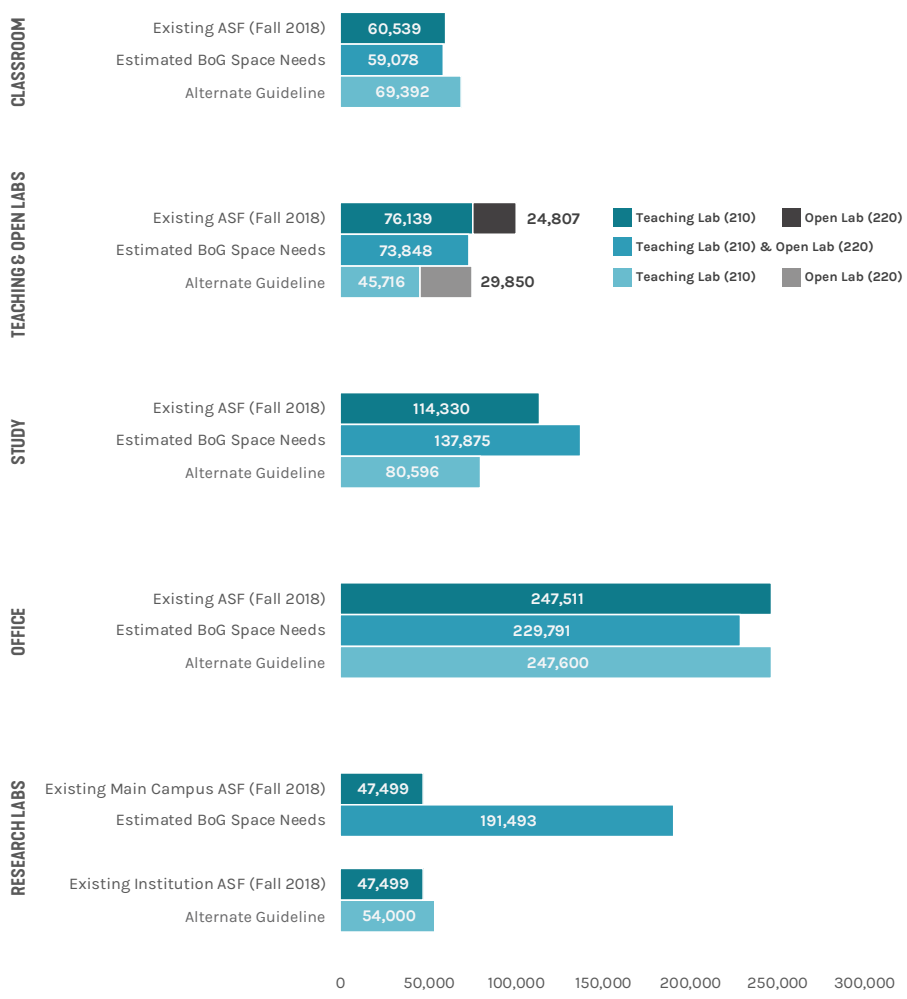
SUMMARY NOTE:

University of West Florida is among the institutions with the oldest buildings with a third 50 years old or older and 70% older than 24 years. This indicates issues of repair backlog and facility quality, condition, and suitability.

Data Source: Board of Governors.

E&G SPACE NEEDS

MAIN CAMPUS – EXISTING ASF VS. BOARD OF GOVERNORS SPACE NEEDS FORMULAS CALCULATIONS VS. ALTERNATE SPACE NEEDS FORMULAS CALCULATION



ASF/FTE – MAIN CAMPUS E&G SPACE BY FALL 2018 DISCOUNTED STUDENT FTE

University of West Florida	117.7
State University System	85.8

MAIN CAMPUS FTEs & PIs

Fall 2018 Discounted FTE	5,970
Fall 2018 Non-Discounted FTE	8,647
Three-Term Discounted FTE	6,564
Three-Term Non-Discounted FTE	10,213
Faculty FTE	493
Faculty and Staff FTE	1,502

SUMMARY NOTE:

Primary issues are maintenance of older facilities with some space needs. Popular nursing and mechanical engineering programs are pressure points; advising and tutoring programs create pressure points on office space.

Data Source: Existing ASF 3-Term FTE Calculation Fall 2018 Discounted FTE.

CLASSROOMS

SCHEDULED CLASSROOM USE BY DAY AND TIME | FALL 2018

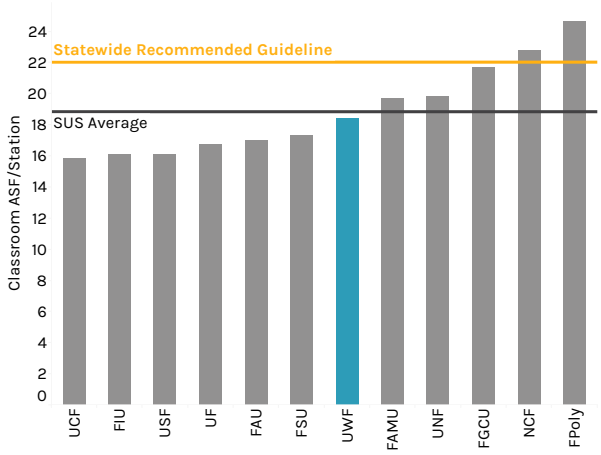
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM	6 | 10%	15 | 25%	6 | 10%	15 | 25%	6 | 10%
9:00 AM	41 | 67%	54 | 89%	40 | 66%	51 | 84%	29 | 48%
10:00 AM	36 | 59%	57 | 93%	36 | 59%	55 | 90%	30 | 49%
11:00 AM	42 | 69%	54 | 89%	42 | 69%	54 | 89%	27 | 44%
12:00 PM	22 | 36%	46 | 75%	23 | 38%	47 | 77%	15 | 25%
1:00 PM	49 | 80%	53 | 87%	46 | 75%	57 | 93%	13 | 21%
2:00 PM	54 | 89%	54 | 89%	52 | 85%	59 | 97%	11 | 18%
3:00 PM	46 | 75%	43 | 70%	43 | 70%	46 | 75%	6 | 10%
4:00 PM	32 | 52%	36 | 59%	29 | 48%	31 | 51%	3 | 5%
5:00 PM	33 | 54%	37 | 61%	29 | 48%	31 | 51%	1 | 2%
6:00 PM	26 | 43%	28 | 46%	27 | 44%	25 | 41%	1 | 2%
7:00 PM	25 | 41%	28 | 46%	25 | 41%	23 | 38%	1 | 2%

0% 100%

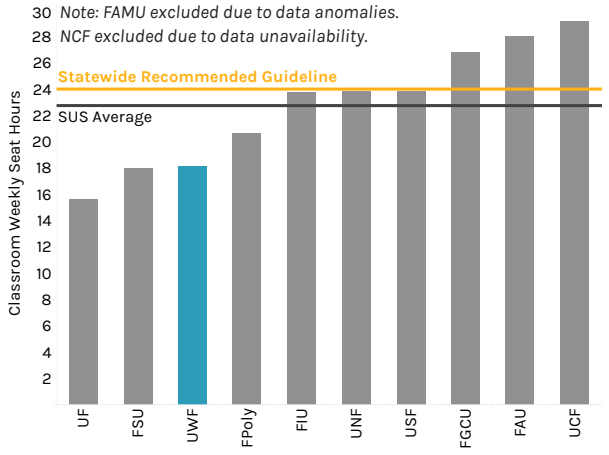
Percent of Rooms in Use

Data Source: Board of Governors.

ASF PER STUDENT STATION



WEEKLY SEAT HOUR UTILIZATION

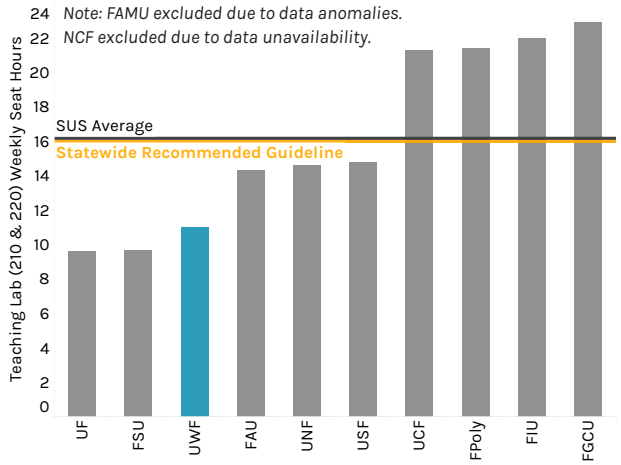


SUMMARY NOTE:

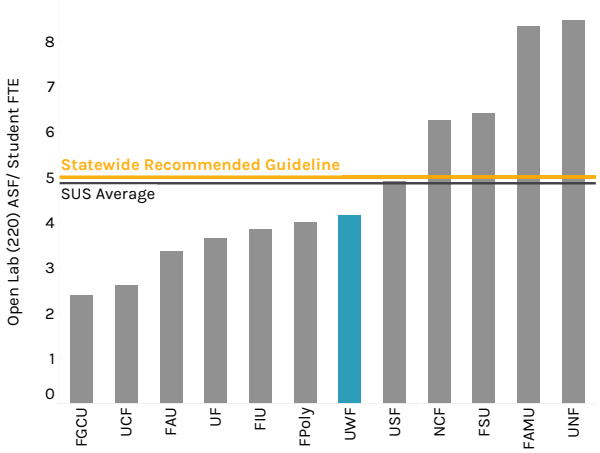
The analysis indicates opportunities for increased classroom utilization and/or enrollment growth.

TEACHING LABS

TEACHING LAB (210) AVERAGE WEEKLY SEAT HOUR

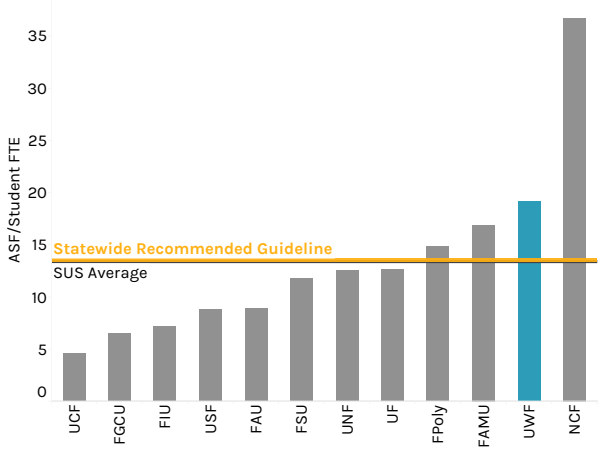


OPEN LAB (220) ASF PER STUDENT FTE



STUDY

ASF PER STUDENT FTE

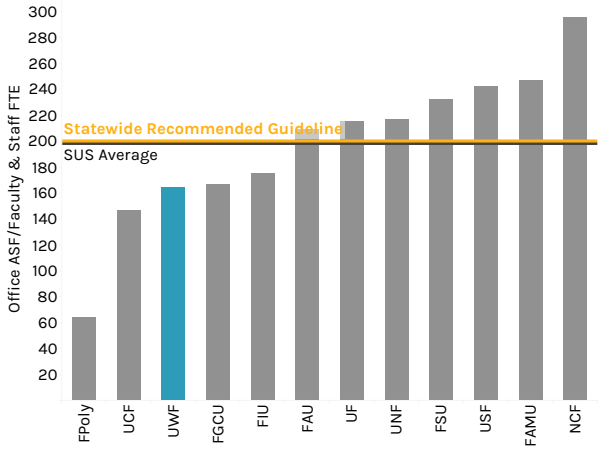


SUMMARY NOTE:

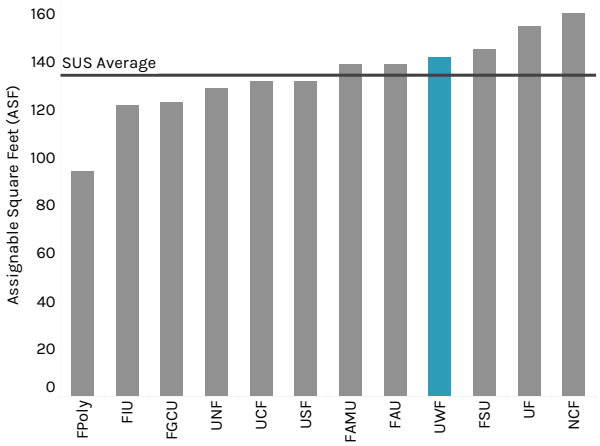
Teaching laboratories, open laboratories, and study all indicate capacity for additional enrollment growth.

OFFICES

ASF PER FACULTY & STAFF FTE

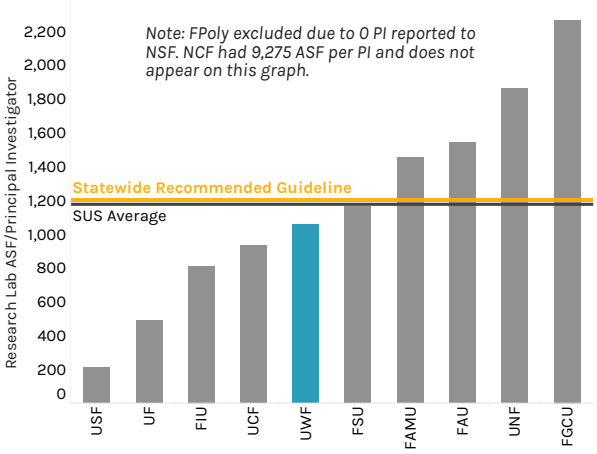


AVERAGE SIZE OF OFFICE

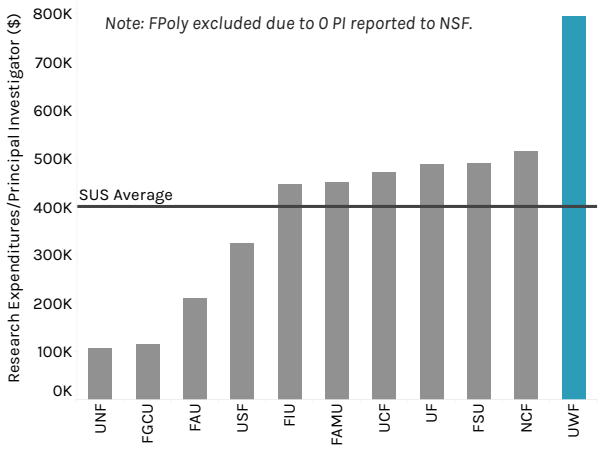


RESEARCH LABS

ASF PER PRINCIPAL INVESTIGATOR

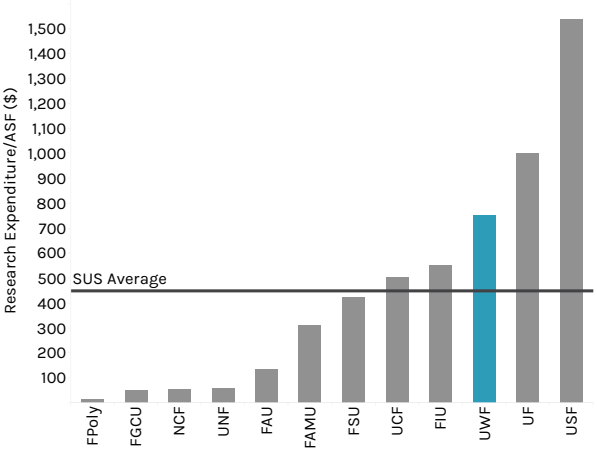


EXPENDITURES PER PRINCIPAL INVESTIGATOR



RESEARCH EXPENDITURES

EXPENDITURES PER ASF

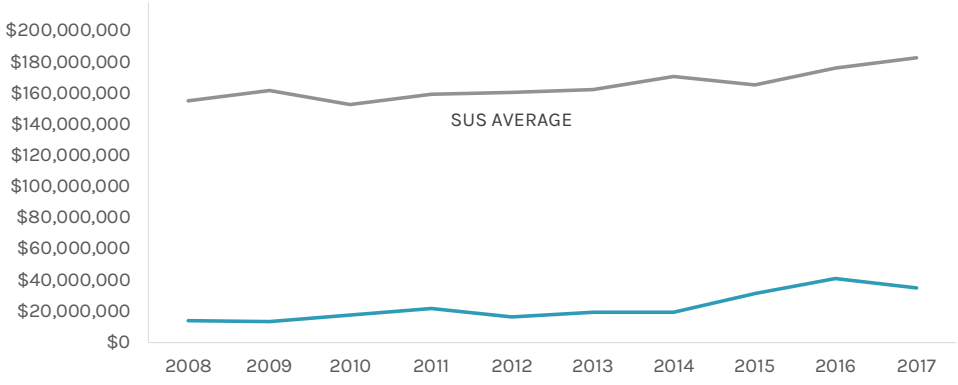


SUMMARY NOTE:

University of West Florida is not a research intensive institution. Expenditures per ASF of laboratory space is high likely due to underwater research out in the field.

3-Year Average (2015, 2016, 2017) $35,700,333.33

10-YEAR RESEARCH EXPENDITURES TREND



Principal Investigators Reported to NSF 2017

45

Research Expenditure Source: National Science Foundation, https://ncsesdata.nsf.gov/profiles.

APPENDICES A–E

CASE STUDIES

APPENDICES A–E: CASE STUDIES

Appendices A through E systematically trace the origins, justification, supporting analyses, and ultimate recommendation for funding for five recent projects. SmithGroup, in coordination with the Board of Governors staff, selected five funded projects based on their geographic location in the state, size of the institution, and alignment with SUS's Strategic Plan guidelines. Each project, according to the university's leadership, represented the institution's highest and most urgent demand at the time of the submission. The selected five case study projects also represent a diversity of project type (classroom, teaching laboratories, research laboratories, student support space), university mission, and legislative funding efficiency.

A. Florida State University, Earth, Ocean & Atmospheric Science Building (under construction)

B. Florida International University, Student Academic Support Center (completed 2014–2015)

C. University of South Florida St Petersburg, Business School Phase 1 (completed FY 2015–2016)

D. Florida Gulf Coast University, Innovation Hub Research (completed FY 2014–2015)

E. Florida Agricultural and Mechanical University, Pharmacy Building Phase II (completed FY 2015–2016)

In summary, the capital outlay process for each case study project aligned with each institution's goals and mission, as well as State goals. In each case, the university leadership reviewed the projects at various stages ensuring compliance with stated objectives. The Board of Governors appropriately reviewed and prioritized these projects for the Legislature.

APPENDIX A

FLORIDA STATE UNIVERSITY

EARTH, OCEAN & ATMOSPHERIC SCIENCE BUILDING

APPENDIX A:
FLORIDA STATE UNIVERSITY | EARTH, OCEAN & ATMOSPHERIC SCIENCE BUILDING

INTRODUCTION

Date of Interview: October 1, 2019

Interview participants: President; Provost; VP for Financial Affairs; Sr. Assoc. VP for Facilities; Director of Facilities Planning and Space Management; Director of Design and Construction

BACKGROUND

UNIVERSITY MISSION

Florida State University (FSU) preserves, expands, and disseminates knowledge in the sciences, technology, arts, humanities, and professions, while embracing a philosophy of learning strongly rooted in the traditions of the liberal arts.

UNIVERSITY STRATEGIC GOALS

- Deepening distinctive commitment to continuous innovation
- Amplifying excellence across our academic and research programs
- Realizing the full potential of diversity and inclusion

PROJECT BACKGROUND

The Department of Earth, Ocean & Atmospheric Science (EOAS) was formed in 2010 through a merger of the former Departments of Geological Sciences, Oceanography, and Meteorology to enhance teaching and research across the geosciences. The former departments were each housed in separate buildings (Carraway, Rogers, and Love, respectively) built during the 1950's and 1960's, and, except for Geological Sciences, the buildings were shared with other departments. The teaching and research activities of the former departments now joined as EOAS are closely associated with the Geophysical

Fluid Dynamics Institute (GFDI) housed in the Keen Building, the Center for Ocean & Atmospheric Prediction Studies (COAPS) housed in the Johnson Building at Innovation Park, and the Florida State University Coastal & Marine Laboratory (FSUCML), located on the Gulf Shore, near St. Teresa, Florida.

None of the on-campus buildings noted above were large enough or had the appropriate laboratories or classrooms necessary for the range of EOAS research and teaching activities. As such, an EOAS Building was proposed to house the research and educational activities of the former departments and their principal collaborators in a modern facility that would serve as a catalyst to achieve the primary goals of the merger—the enhancement of teaching and research within and across the many disciplines necessary to study environmental problems.[1]

PROJECT TIMELINE

- 2010: Formation of the Department of Earth, Ocean & Atmospheric Science; EOAS Building Committee first meeting
- 2012: PECO appropriation of $3,850,000
- 2013: Building program approved; A/E selection approved
- 2014: PECO appropriation of $20,000,000; construction manager selected
- 2015: PECO appropriation of $5,000,000; construction manager contract for preconstruction executed
- 2016: PECO appropriation $12,000,000; construction began
- 2017: PECO appropriation of $16,040,737
- 2018: PECO/GR appropriation of $12,959,263
- 2019: Substantial Completion

BUILDING OCCUPANTS

- **Units or departments housed in the facility:** Department of Earth, Ocean & Atmospheric Science (EOAS)
- **Reason or goals for bringing these units or space types together:**
  - Facilitate collaboration. The departments had been housed in separate places, which was a challenge to the departments' desire to foster interdisciplinarity
  - The former buildings that the department were in (Carraway, Rogers, and Love) were old and obsolete
  - Create innovative teaching spaces
  - Create research centered spaces
  - Capitalize on economies
- **Types of activities in the building:** Instruction; Research; Office space

PHYSICAL BUILDING

- **Types of spaces:** Classrooms; Research Laboratories; Faculty Offices
- **Construction Phasing:** Constructed in a single phase. The planned Phase Two was eliminated and Phase One was modified due to limited budget.

1 The Facilities Department Facilities Planning and Space Management Section, FSU Facility Program for Earth Ocean & Atmospheric Science (EOAS), 2013 <https://www.facilities.fsu.edu/FDC/Advertisements/EOAS-program.pdf>.

PRIORITIZATION PROCESS

LOCAL NEEDS ASSESSMENT AND CAPITAL IMPROVEMENT PLAN

- **Methods and data used to assess needs:**
  - The space needs were based on the consolidation and integration of three existing programs, while anticipating growth that was the expected result of the enhanced interdisciplinary collaboration.
  - The program accommodated anticipated growth at 1%/year for ten years
  - The number and size of classrooms were based on a utilization study
  - The number of offices was based on current personnel, while the size of offices were standardized offices (140, 120, 90, and 60 SF)
  - The number of teaching laboratories and amount of research space were unchanged. Connected to EOAS Institute space and includes coastal marine laboratory space
- **Participants involved in the process:**
  - Faculty, Facility Planning

EDUCATIONAL PLANT SURVEY

When the planning of the EOAS Building project began in late 2010, Florida State University was deficient in several space categories. The 2012 Educational Plant Survey (EPS) noted areas of the greatest space need in the Laboratory (both Teaching and Research), Study, and Office categories. Accordingly, programming for the EOAS Building project focused on addressing these unmet needs. The project was originally programmed in two phases, though the second phase was subsequently deleted from further consideration. The EOAS Building changed ranking between #5 and #2 from the 2011 EPS to the 2016 EPS.

The table below illustrates the overall space needs in these four categories; the amount included in the original facility program; and the amount of actual space that was constructed. The distribution of space in the EOAS Building project fulfills a portion, but not all, of the unmet need as presented in the 2012 EPS.

Space Category	2012 EPS Unmet Need (SF)	Original EOAS Building Program (SF)	Amount Constructed (SF)
Laboratory			
Teaching Laboratory	425,209	15,250	10,468
Research Laboratory	828,054	27,670	22,642
Study	581,764	1,500	1,620
Office	1,172,363	35,000	25,390

CONSISTENCY WITH MISSION AND STRATEGY

- **Institution's Mission:** The merger of the three departments and the subsequent new building to house them supported the portion of the university's mission to "preserve, expand, and disseminate knowledge in the sciences."
- **Institution's Strategic Goals:** The project fully supports the goal to "Amplify excellence across our academic and research programs". Academic and research goals prompted the consolidation of the three departments, and the new facility made the interdisciplinary collaboration much easier.
- **State-Level Goals:** The EOAS Building project meets the Board of Governors statewide strategic goals, particularly in creating more opportunities in strategic disciplines and/or in the STEM fields. The facility bolstered geoscience education by pooling resources and allowing for a more productive education and research environment.

CONCLUSIONS REGARDING THE PROCESS

Level of project need

The 2012 EPS indicated a significant campuswide need for the teaching laboratories, research laboratories, and faculty offices programmed in the EOAS Building. This institution faces the challenge of coping with functionally deficient facilities (buildings that are obsolete compared to modern instruction and research methods) that hinder it from achieving excellence in education and research. Instead of prioritizing renovation projects to address this issue in each existing building, the EOAS Building streamlined its space needs with new construction resulting in an optimal interdisciplinary and collaborative facility.

Processes and decision criteria used to determine this project from the local needs assessment to the legislative budget request

The origin of this building was the academic and research goal of better integrating three related but disconnected departments to establish new synergy and collaboration.

Factors used to rank this project high on the institution's Capital Improvement Plan

The president, provost, and other university leadership were directly involved in the formation of the capital outlay request. SmithGroup was told that before the EOAS Building was submitted to the Board of Governors, the university president walked every inch of the existing buildings to make sure he fully understood the capital outlay request. This statement is reflective of the institutional leadership's desire to put forward the highest need for the university. The institution had many competing needs for new facilities, including the need for a new business school. However, institutional leadership determined the EOAS Building as the highest university need at the time.

Potential improvements regarding the alignment of goals, space needs, processes and decision criteria illustrated by this project

This case study is exemplary of how the capital outlay process should work. The foundation of the building was in the university's priorities for its own academic programs and research initiatives. The university's needs in these STEM fields (Geological Sciences, Oceanography, and Meteorology) mirrored the state-level goals for STEM instruction. The program was tightly created, especially since a second phase has been canceled due to lack funding. The highest levels of the university leadership were personally invested the project, which extended to the local legislative delegation. Support for the facility project was established early at the Board of Governors since the academic merger was a precursor to the actual facility request, which allowed for time to build consensus.

APPENDIX B

FLORIDA INTERNATIONAL UNIVERSITY

STUDENT ACADEMIC SUCCESS CENTER

APPENDIX B:
FLORIDA INTERNATIONAL UNIVERSITY | STUDENT ACADEMIC SUCCESS CENTER

INTRODUCTION

Date of Interview: October 17, 2019

Interview participants: Chief Financial Officer and Senior Vice President, Finance & Administration; Senior Vice President, Academic and Student Affairs; Vice President Enrollment Services; Associate Vice President, Business and Finance; Director Space Management; Associate Provost Academic Career Success. Provost & Executive Vice President of Academic Affairs, Associate Vice President of Facilities Management, and Director of Facilities Planning

BACKGROUND

UNIVERSITY MISSION

Florida International University (FIU) is an urban, multi-campus, public research university serving its students and the diverse population of South Florida. We are committed to high-quality teaching, state-of-the-art research and creative activity, and collaborative engagement with our local and global communities.

UNIVERSITY STRATEGIC GOALS

- Amplify Learner Success & Institutional Affinity
- Accelerate Preeminence & Research and Innovation Impact
- Assure Responsible Stewardship

PROJECT BACKGROUND

The Student Academic Success Center is a multipurpose student support complex that facilitates and promotes student interaction, campus engagement, and academic success on the Madique Campus.[2] During the PECO process, this project was named the Student Academic Success Center (also SASC). The 80,000 GSF SASC centralized and expanded essential student support services including admissions, advising, financial aid, tutoring, study rooms and counseling.

The project was a response to the university's goals of increasing enrollment by 25%, research expenditures by 36%, and improving its undergraduate retention rates. Although these goals are common to all universities, FIU had the unique challenge of educating many first generation citizens and first generation college attendees. The challenge was overcoming cultural and linguistic barriers of the diverse backgrounds that students brought to FIU.

The university studied the reasons so many students dropped out between their first and second years of college. Using this data, FIU determined the reason was not monetary, but lack of support in understanding the complexities of the college experience, academic demands, and the host of changes that come along with entering college. First generation college students lacking a support structure are more often candidates for dropout. Given the diverse multicultural background of FIU's student population, FIU knew their students needed support grappling with these issues. The SASC was designed inside and out to provide that support.

PROJECT TIMELINE

- 2006: Board of Trustees approved the construction of the SASC
- 2007: Campus Master Plan 2000–2010 amended to change north side of stadium to "Mixed Use"; FIU Board of Trustees approved Amendment# 1 to CIP; SASC project listed as #5 priority request in year-1 of CIP; EPS amended to include SASC as project #5
- 2008: PECO funds $2,5000,000 appropriated; SASC listed as #2 priority request in year-1 of CIP; Building program approved (outline program for stadium site)
- 2009: PECO funds $1,686,722 appropriated; Architect/engineer contract executed; SASC listed as #6 priority request in year-1 of CIP
- 2009: Architect/engineer begins to evaluate alternative sites
- 2010: SASC listed as #6 priority request in year-1 of CIP; Campus Master Plan 2005–2015 approved by Board of Trustees; PECO funds $21,000,000 appropriated
- 2011: Construction Manager selected; SASC listed as #2 priority request in year-1 of CIP; Program committee chair changed to the Vice Provost
- 2012: Notice-to-proceed issued to Construction Manager for preconstruction services; Legislature does not fund CIP request; SASC listed as #2 priority request in year-1 of CIP
- 2014: PECO funds $7,000,000 appropriated; Construction began
- 2016: Construction completed

2 Florida International University, 'FIU Student Academic Success Center – Facility Program', 2013.

BUILDING OCCUPANTS

- **Units or departments housed in the facility:** The center is a student service center and not attached to any academic department.
- **Reason or goals for bringing these units or space types together:** The mission statement for this project is to support the anticipated growth in student enrollment and ensure that the retention and graduation rates increase. Providing all the needed services (language assistance, financial and academic advisement) in one center would facilitate the culture of service FIU is seeking to implement. Adding conference space also had the benefit of increasing the utilization and consequently the return on investment, especially after the economic downturn that led to the decrease of space allocated for this project.
- **Types of activities in the building:** Academic support; Welcome center; Financial and academic advising; Classroom instruction; Support center; Career services; Study abroad; Conference and exhibition. The SASC adjoins the existing Graham Student Center to tap into the synergy of the student union with its opportunities for social engagement.

PHYSICAL BUILDING

- **Types of spaces:** The flow of the building addresses new student needs starting with information on all aspects of college life, from admissions to financial aid to support after admissions. The building path flows from public to private space where trained counselors help students with everything from stress relief to just providing encouragement. Tutorial help, academic skill building, and test-taking skills are coupled with active classrooms on the second and third floors.
  - OneStop (financial aid, registrar and admissions)
  - Student Financial Services
  - Student Access and Success
  - Study Abroad
  - International Student and Scholar Services
  - Career and Talent Development (formerly Career Services)
  - Connect4Success
  - Academic and Career Success
  - Center for Student Engagement
  - National Student Exchange
  - Transfer and Transition Services
- **Construction Phasing:** No phasing. Construction began in 2014 and was completed in 2016

PRIORITIZATION PROCESS

LOCAL NEEDS ASSESSMENT AND CAPITAL IMPROVEMENT PLAN

During programming the facility, the State of Florida experienced an economic downturn, resulting in less than the expected PECO funding for the facility. In response, FIU reassessed the project's program and reconsidered the necessary staff and service elements to best meet the project's goals within the allotted budget funding. Ultimately, FIU reduced the presence of some units, deleted other units completely, and added other program elements. Additional funding sources tied to some of these additional program elements, as well as traditional and non-traditional funding sources, allowed the facility to move forward with the required funding in place.

EDUCATIONAL PLANT SURVEY

The 2006–2010 EPS did not identify the SASC project, although it did identify a need for academic support space. The 2007 EPS amendment first listed the SASC project, ranked as the university's #5 priority. Although the SASC project had not been identified in the 2006 EPS, enrollment growth projections and additional space requirements indicated the need for such a facility.

CONSISTENCY WITH MISSION AND STRATEGY

Florida International University receives a significant number of first-generation students, many of whom are either international or 2nd generation American citizens. Aside from the identification of this needed space in the CIP, EPS, and Master Plan, a SASC is needed particularly for communities who need additional help in navigating the university system.

- **Institution's Mission:** The SASC recognizes that FIU is an urban campus with a diverse student body representing South Florida and supports its mission to provide high-quality teaching.
- **Institution's Strategic Goals:** Worlds Ahead Strategic Plan establishes the goal to "Achieve enhanced student learning and academic excellence," supported by strategies to "Expand minority pre-college programs to ensure readiness for FIU" and "Develop and expand student-support services, programs, and activities that enhance student achievement." The SASC directly supports these goals.
- **State-Level Goals:** The SUS Strategic Plan (dated 2005) recognizes the need to maintain appropriate levels of access given the state's rapid population growth, especially in the fastest-growing urban areas in the state. The SASC addresses this concern within the state's largest metropolitan area.

CONCLUSIONS REGARDING THE PROCESS

Level of project need

The university conducted a self-study to determine why its students were not succeeding at expected levels and determined that a consolidation and expansion of student success programs would address the urgent need. The SASC achieved FIU's goals for student support and retention. FIU leaders told SmithGroup that algebra success rate increased from 30% to 70%. 2nd year retention rate increased from 77% in 2014 to 88% in 2018, and the four-year graduation rate increased from 27% in 2011 to 39% in 2018.[3]

Processes and decision criteria used to determine this project from the local needs assessment to the legislative budget request

While the university determined that the SASC program was necessary, it considered many approaches on how to increase the project's effectiveness with considerations of program mix and project location. The master planning process was key to this internal deliberation.

Factors used to rank this project high on the institution's Capital Improvement Plan

The SASC project enjoyed significant support from the community and had a salient purpose specific to FIU. Per SmithGroup's interview with Board of Governors staff and FIU leadership, support from the South Florida legislative delegation was essential in prioritizing the project.

Potential improvements regarding the alignment of goals, space needs, processes and decision criteria illustrated by this project

This case study illustrates how effective the university- and state-level capital outlay processes can be. The university performed in-depth research about why its students were not succeeding. It determined that the consolidation and broadening of student academic support services were necessary, and the academic support project became a university priority. The case study is a good example of when the university deliberated and determined its own student retention priority, and then generated legislative support behind it.

The case study underscores the importance that campus master plans consider the program and location of new projects within the context of the entire campus. The location of the SASC project changed from the north side of the football stadium to a site adjacent to the student center, as the university determined how to maximize the effectiveness of the student success programming. The SASC project was strategically located within a larger gateway of coordinated student services. This finding demonstrates the power of the campus master plan in the capital planning process. This finding supports the recommendation that the Board of Governors staff should be involved in the preparation of campus master plans so that they can understand the full intentions of proposed capital projects and so that they can properly evaluate them during the state project prioritization process.

The South Florida legislative delegation was unified behind the SASC project, which promoted prioritization at the Board of Governors level and ultimately funding. Despite the strong legislative support, it took six years to receive enough funding for construction.

3 FIU Accountability Plan.

APPENDIX C

UNIVERSITY OF SOUTH FLORIDA ST PETERSBURG

COLLEGE OF BUSINESS

APPENDIX C:
UNIVERSITY OF SOUTH FLORIDA ST. PETERSBURG | BUSINESS SCHOOL BUILDING PHASE 1

INTRODUCTION

Date of Interview: October 15, 2019

Interview participants: Vice President, Business & Finance and Chief Financial Officer; Vice President Administrative Services; Assistant Vice President, Physical Plant Admin; Associate Vice President, Resource Management & Analysis; Regional Chancellor; Assoc. Prof. Marketing, USFSP; Director of Facilities, USFSP; Regional Vice Chancellor, External Affairs; Associate Regional Vice Chancellor, Admin/Finance; Dean, Kate Tiedemann College of Business, USFSP; Facilities Project Manager; Space Utilization Planner; Assistant Director, Planning

BACKGROUND

UNIVERSITY MISSION

The University of South Florida (USF) System, which includes USF Tampa, USF St. Petersburg, and USF Sarasota-Manatee, catalyzes and coordinates initiatives at and among its interdependent institutions to prepare students for successful 21st century careers; advances research, scholarship, and creative endeavors to improve the quality of life; and engage its communities for mutual benefit.

UNIVERSITY STRATEGIC GOALS

- Well-educated and highly skilled global citizens through our continuing commitment to student success
- High-impact research and innovation to change lives, improve health, and foster sustainable development and positive societal change
- A highly effective, major economic engine, creating new partnerships to build a strong and sustainable future for Florida in the global economy

- Sound financial management to establish a strong and sustainable economic base in support of USF's continued academic advancement

PROJECT BACKGROUND

This project, called the Business School Building Phase 1 during the PECO process, is now called Lynn Pippenger Hall. The faculty and students of the Kate Tiedemann College of Business were spread across eight buildings, contributing to a lack identity and focus for the college. The university sought to co-locate into a single building. Additionally, the university was paying rent for the main teaching venue. For the USF St. Petersburg campus to expand its brand and stature and attract new students, a new facility was needed.

The City of St. Petersburg central business district (CBD) and the campus boundaries overlap. The campus is within the St. Pete Innovation District so there is mutual programming and business students are active in the District. The concept of St. Pete Innovation District is to join the energy and imagination of business students with business professionals and experts. The intent of innovation districts is to promote startup businesses and ideas. With the USF St. Petersburg Business School Building Phase 1, the university is on the leading edge of this new urban renewal and rejuvenation of the CBD.

PROJECT TIMELINE

- 2012: Architect/Engineer selected
- 2013: PECO Appropriations of $5,000,000
- 2014: PECO Appropriations of $10,000,000
- 2015: PECO Appropriations of $12,300,000
- 2015: Construction began
- 2016: USF Board of Trustees votes to rename the facility in honor of an alumna, Lynn Pippenger, based on her $5 million gift to the USFSP Kate Tiedemann College of Business; Construction ended

BUILDING OCCUPANTS

- **Units or departments housed in the facility:** Kate Tiedemann College of Business
- **Reason or goals for bringing these units or space types together:** The colleges classrooms and faculty offices were spread across eight buildings, inhibiting collaboration among students and faculty
- **Types of activities in the building;** Research, instruction, office and support. Public service and outreach

PHYSICAL BUILDING

- **Types of spaces:** Learning environments: auditorium, tiered classrooms, collaborative learning laboratories, computer laboratories, break out rooms; Administrative suite; Four Centers and laboratories; Business community commons and service center: Support
- **Construction Phasing:** Not phased. Construction began in January 2015, ended in August 2016

PRIORITIZATION PROCESS

- **Methods and data used to assess needs:** A space utilization study in 2015 assessed that the college needed minimal research space overall except for a small group of faculty that participated in market focus groups. The study posed the question of the need for larger spaces as expressed by leadership
- **Participants involved in the process:** Steering and Vision Committees had significant representation from the college

EDUCATIONAL PLANT SURVEY

The 2011 EPS assessed that the USF St Petersburg enrollment would witness a very modest increase, with the highest unmet needs going to laboratories (151,680 NASF), office and computer spaces (91,519 NASF), and academic study spaces (21,260 NASF). The Business School Building Phase 1 project fulfilled those largest needs offering 22,700 NASF of teaching laboratories, 6,200 NASF of study areas, and 3,473 NASF of office and computer spaces. Naturally, other needs were addressed within the building's planned 95,250 GSF. The Business School Building Phase 1 was the only resulting recommendation from the 2011 EPS for the USF St Petersburg campus. Other USF campuses were anticipating higher increases in enrollment and needed the space to support that increase. The USF St. Petersburg space need was not the greater space need within the system.

CONSISTENCY WITH MISSION AND STRATEGY

The consensus-building aspect of this project was not linear – documents such as the USF Strategic Plan and the Educational Plant Survey do not necessarily provide a clear foundation for the Business School Building Phase 1.

- **Institution's Mission**: USF's mission is based on coordinating initiatives at and among its institutions to prepare students for successful 21st century careers, and engages its communities for mutual benefit. To achieve this effort of bridging careers and education, USF cites in its mission statement "creating new partnerships and sound financial management" as a goal. The USF St Petersburg Business School Building fulfills the university's mission statement by promoting innovation in its intradepartmental operations and providing the opportunity for students to tailor their education through experiential learning in the business community.
- **Institution's Strategic Goals:** This project was aligned with the USF 2013–2018 Strategic Plan (in force at the time of program development). In particular it directly supports goals such as Goal 1 ("Provide the highest quality, comprehensive, interdisciplinary educational programs and student research opportunities to foster critical thinking and intellectual inquiry through a variety of pedagogical and delivery methods"), Goal 2 ("Promote community-engaged scholarship and creative activities to benefit all members of society"), and Goal 3 ("Establish mutually beneficial partnerships (internal and external) that enhance student access to academic programs, research, and employment opportunities").
- **State-Level Goals:** This project is aligned with the SUS's Strategic Plan, most notably under Community and Business Engagement goals. Under the SUS goals of Scholarship, Research, Innovation, the college's integration with the St. Pete Innovation District provides students the needed real-world experience to advance in early job placement and potentially new discoveries.

CONCLUSIONS REGARDING THE PROCESS

Level of project need

Per USF's project completion executive summary, the college was spread over eight buildings on campus. As Kate Tiedemann College of Business functions vacated space in these eight buildings, it returned both academic and administrative space to the College of Arts & Sciences and the College of Education, along with essential academic support services.

Processes and decision criteria used to determine this project from the local needs assessment to the legislative budget request

A university-wide strategic goal already positioned favorably towards capital projects that spark innovation. Support from the business community and its willingness to work with the university students culminated in moral and financial support, which could be perceived as a need and as a driver. The funding coming from multiple sources presented the project as more feasible.

Factors used to rank this project high on the institution's Capital Improvement Plan

This project was selected when USF was considered three separate campuses within the USF system. The Business School Building Phase 1 was the priority of the St. Petersburg campus, but it was not necessarily the highest priority of the USF System. PECO funds were the primary source of funding, but USF St. Petersburg provided additional and supplemental funds from Auxiliary Funds, E&G Carry Forward Funds,[4] Parking Services Auxiliary Funds, and the USF Foundation.

Potential improvements regarding the alignment of goals, space needs, processes and decision criteria illustrated by this project

The greatest driver for this project's prioritization and funding is the support it received from the local business community and municipality, and a sense of equity. It was not demonstrated to SmithGroup that this project was the highest priority need of either the USF System or the state.

This case study illustrates the importance of support by the local community when setting capital facility priorities by university and Board of Governors. The Business School Building Phase 1 was the top legislative priority of St. Petersburg Chamber of Commerce, and it supported the City of St. Petersburg's goals for its innovation district to provide students with experiential learning and the opportunity to advance in early job placement. The students add "life" to the District as well as fresh perspectives on ideas.

The project had committed champions within the Board of Governors and the Legislature. The non-state financial contribution that USF St. Petersburg provided supported prioritization and ultimately state funding. At the time, USF St. Petersburg hadn't received capital funding for a period of time, and the Board of Governors included it on the PECO prioritization list out of sense of equity.

The intended result of the project was to increase enrollment in the college and the university. The building's impact has yet to be assessed.

4 Note that all E&G Carry Forward Funds were appropriately allocated to Furniture and Equipment and not used for construction purposes.

APPENDIX D

FLORIDA GULF COAST UNIVERSITY

EMERGENT TECHNOLOGIES INSTITUTE

APPENDIX D:
FLORIDA GULF COAST UNIVERSITY | EMERGENT TECHNOLOGIES INSTITUTE

INTRODUCTION

Date of Interview: October 16, 2019

Interview participants: Sr. Associate Provost and Associate VP; VP Student Success & Enrollment Management; VP of Administrative Services and Finance; Director of Facilities Planning; Assistant Registrar and Scheduling; Director, Campus Reservations; Director Institutional Research and Analysis; ACE Fellow/Courtesy Faculty; Space Inventory Coordinator

BACKGROUND

UNIVERSITY MISSION

Florida Gulf Coast University (FGCU), a comprehensive institution of higher education, offers undergraduate and graduate degree programs of strategic importance to Southwest Florida and beyond. FGCU seeks academic excellence in the development of selected programs and centers of distinction in science, technology, engineering and mathematics (STEM) disciplines, health professions, business, and marine and environmental sciences.

UNIVERSITY STRATEGIC GOALS

- Student Success
- Academic Excellence
- Entrepreneurship
- Health Sciences
- Community Engagement and Outreach

PROJECT BACKGROUND

The Emergent Technologies Institute (ETI) is a 26,000 square foot research and development complex designed to support new educational initiatives, enhance regional workforce and economic development, and foster collaboration involving higher education, government, and industry. The ETI also is the first project in the Fort Myers ITEC, a 240-acre development planned as a magnet for technology and research companies.

During the PECO appropriation process, the ETI was named the Innovation Hub Research project (or I-Hub). The project was conceived as a hub for education, research, and demonstration in initial partnership with Lee County, a private land developer, and other business community members. The project's mission statement stipulated that more partnerships would be essential for it to fulfill its role as a collaborative research space with economic and societal ties to the FGCU community.[5] The project was initially estimated to cost over $12.5 M to benefit the state and particularly Southwest Florida as it diversifies the economic base of the region by focusing on research opportunities in fields associated with sustainable & renewable energy.[6] This collaboration between the university's research arm and the business community was cited as a goal in FGCU's Strategic Plan.

Diverse funding sources also played a role in facilitating the completion of this project. Developers donated a 6.5 acre parcel to the university that was near the FGCU campus, so the facility could be constructed off-campus without land acquisition costs. Partnerships with engineering and energy firms also reduced the financial burden of building a state-of-the-art technology building. Lastly, a state-level program offered a matching fund to further accelerate the development.

PROJECT TIMELINE

- 2009: $1 million was donated by community partners to establish the "Backe Chair in Renewable Energy Endowed Fund" to attract a nationally renowned Eminent Scholar dedicated to the study of renewable energy
- 2011: Capital Improvement Plan funding request
- 2012: Received $4,866,193 PECO appropriation
- 2012: Capital Improvement Plan funding request
- 2013-2014: Legislative Conference Report recommended $7,500,000 PECO appropriation, but vetoed by the Governor
- 2014: Received $7,000,000 PECO appropriation
- 2014: Project Program Complete
- 2014: Project Design Complete
- 2014: Construction begins
- 2016: Facility Occupancy

BUILDING OCCUPANTS

- **Units or departments housed in the facility:** Department of Engineering, External research partners
- **Reason or goals for bringing these units or space types together:** To create a center for education, research, and demonstration; Emphasis on solar energy
- **Types of activities in the building:** Teaching laboratory, outdoor research and development, pilot-scale testing, technology demonstration, power islanding, parking for visitors

5 'FGCU Renewable Energy Institute Solar Park – Facilities Program', 2012.

6 'FGCU ETI – Facilities Update', 2014.

PHYSICAL BUILDING

- **Types of spaces:** The project is located in a 241-acre research park that is adjacent to and on the south side of Southwest Florida International Airport and FGCU's main campus and Gulf Coast Town Shopping Center.
  - 3 research laboratories (water, biotechnology, and renewable energy)
  - 2 high-bay research laboratories (water treatment pilot systems and transportation technology development)
  - 2 teaching laboratories (innovation spaces)
  - 1 machine shop
  - 2 acres of fenced outdoor space for large research projects
  - 2 large classrooms and event spaces (132–85 seat)
  - 3 classrooms (36 seat)
  - 1 computer laboratory (30 seat)
  - 10 offices
- **Construction Phasing:** No phasing. Construction began in 2014 and was completed in 2016

PRIORITIZATION PROCESS

LOCAL NEEDS ASSESSMENT AND CAPITAL IMPROVEMENT PLAN

- **Methods and data used to assess needs:**
  - A building committee was formed (ETI early program info) to review proposals
  - Proposals were submitted by architectural and engineering professional design services
  - The space needs of the project were developed in collaboration with FGCU faculty, Facilities Planning staff, and Physical Plant staff
- **Participants involved in the process:**
  - FGCU faculty, Facilities Planning staff, and Physical Plant staff
  - Space Committee under VP Administrative Services
  - External Partners
- **Reasons, data, and decisions that led to the prioritization of this project:**
  - The university's master plan focused on embedding sustainability and renewable energy on campus and their desire to create a showpiece/visitor center that reflect these values.
  - The community interest as reflected in the diverse funding sources, anticipated that the Innovation Hub Research/ Emergent Technologies Institute would stimulate business, provide experiential learning opportunities, and provide a return on investment for this collaboration environment. Additionally, Lee County's Strategic Plans included the construction of a "research triangle."
  - Lee County attracted many engineering and energy companies such as First Florida Business,[7] and the narrative was extended to the FGCU as the force that plans to "make Southwest Florida a leader in renewable energy."[8]
  - These external drivers along with Board of Governors prioritizing STEM and the multiple sources of funding played a significant role in this project becoming a priority.

7 Chris Umpierre, 'At FGCU, I-Hub Will Create Green Curriculum', 14 October 2009.
8 Beth Luberecki, 'Power Play', Gulfshore Business, 2010.

- **Capital Improvement Plan Comparison (Years 2012 through 2017):** In 2010, FGCU ranked the ETI at a priority number 4 in the 2010 CIP, and it moved up to number 1 in the 2013 CIP. In 2011, there was a shift in CIP towards prioritizing infrastructure projects, which could be interpreted either as a maintenance effort but also a step to ensure that the campus' move towards sustainability has the support it requires. This shift could have furthered empowered the ETI case for priority, since renewable energy was a prominent goal for the ETI and was heavily featured in the FGCU Master Plan.

EDUCATIONAL PLANT SURVEY

The FGCU identified the "entrepreneurial spirit" as a significant component of their mission and strategy to generate graduates "well prepared for productive lives as civically engaged and environmentally conscious citizens with successful careers, ready to pursue further education"[9] in their 2017 EPS, in accordance with their strategic plan.

The space needs for the ETI was aligned with FGCU's mission and overall space needs. The 2007 EPS indicated the Innovation Hub Research Center would provide the following campus space needs:

- Classrooms facilities and service areas—1,000 NASF
- Teaching laboratory facilities and service areas—1200 NASF
- Research laboratory facilities and service areas—293 NASF
- Office facilities and service areas—25,000 NASF
- Campus support facilities and service areas—3000 NASF
- Total—30,493 NASF

CONSISTENCY WITH MISSION AND STRATEGY

- **Institution's Mission:** The intention of the ETI directly supports the FGCU mission to seek "academic excellence in the development of selected programs and centers of distinction in science, technology, engineering and mathematics (STEM) disciplines."
- **Institution's Strategic Goals:** The FGCU Strategic Plan included eight goals, five of which the ETI easily fulfills (Goal 3: Strategic Growth, Goal 4: Provide an Enhanced Campus Climate, Goal 5: Environmental Sustainability and Innovation, Goal 6: Community Engagement, and Goal 7: Discovery and Application of Knowledge) specifically due to the teaching and research aspects of the ETI and its foundation on ties to the business community.[10]
- **State-Level Goals:**
  - The ETI directly supported many goals in the SUS Strategic Plan in force at the time of funding (adopted 2011): Increase the Number of Degrees Awarded in STEM and Other Areas of Strategic Emphasis; Increase Collaboration and External Support for Research Activity; and, Increase Levels of Community and Business Engagement.
  - Accountability Plans document that FGCU has overall showed improvement, meeting most of the performance metrics, specifically on Goal 6, showing a 4.6% increase in bachelor's degrees in programs of strategic interest[11] (which the College of Engineering and the ETI are a part of).
  - The ETI itself also addresses state-level environmental and energy concerns, particularly water conservation and solar energy. Although the environmental component was not an area of focus initially, it was present in the master plan, and the interview highlights that solar energy and water conservation became an integrated piece in the project.

9 Florida Gulf Coast University, 'FGCU Educational Plant Survey 2017', 2017.

10 Planning and Budget Council, 'FGCU Strategic Plan for 2010 – 2015 Planning and Budget Council', 2010.

11 State University System of Florida Board of Governors.

CONCLUSIONS REGARDING THE PROCESS

Level of project need

The project was consistent with the EPS.

Processes and decision criteria used to determine this project from the local needs assessment to the legislative budget request

The programming, funding, and execution of this project was a collaboration of FGCU leadership and staff (faculty, Facilities Planning staff, and Physical Plant staff, VP Administrative Services) and external partners.

Factors used to rank this project high on the institution's Capital Improvement Plan

The ETI was a priority for FGCU since it directly supported the university's goals for community outreach and engagement with the local business community. The financial support provided in donated lands and funded chairs also promoted its priority.

Potential improvements regarding the alignment of goals, space needs, processes and decision criteria illustrated by this project

In general, one objective of new facilities is to launch the institution in new directions to better serve the student and the state, and the ETI project achieved that goal for FGCU.

This case study illustrates the importance of community and legislative support in receiving high priority rankings and gaining funding. The university leadership, external community partners, and municipal leaders were all unified in support of the project, and thus the Board of Governors also ranked it high. The project was sufficiently funded within three years (the Legislature appropriating funding every one of those three years).

It also illustrates how well before formal deliberation by the Legislature occurs, that the perception of political support shapes project prioritization at the university and state levels. Although the university listed it as a priority, SmithGroup found that the project was not the highest need of the university.

In interviews, FGCU leadership indicated that this project was opportunistic—from the donation of land and funding from the community and state capital outlay request. The project program and its location were largely determined by parties external to the university, those that donated funding for the academic program and the land. The university perceived that it was the one identified need that would gain the most amount of Legislative support.

The risk associated with prioritizing projects that have external community funding and perceived Legislative support is that the university will prioritize projects that are not its highest priorities. SmithGroup was told that the ETI was not the university's highest priority capital need. Projects that often receive greater interest by external funding sources (philanthropists, business partners, developers) are those that are higher profile, such as new building construction. When the degree of outside funding drives the university's decisions, then projects that may be higher needs by the university such as deferred maintenance, infrastructure improvements, or less lucrative or popular academic programs are neglected.

This case study also illustrates the importance of integrating capital outlay requests with the campus master plan. The ETI project was constructed off-campus as the first and anchor tenant in ITEC, a new Southwest Florida business park. The ETI is 5 miles from the campus core, and FGCU representatives discussed the need to create a shuttle bus and the need to build a new road to better connect campus with the business park. Nationally, the current trend is that university's place new research facilities on campus and integrated with the academic core. Additionally, the intended focus of the research institute was solar energy, but it has changed to water research. Perhaps if the ETI program and location were integrated with the campus master plan, the program and location of the ETI could have been more strategic. This finding underscores the need for Board of Governors staff to be involved in the preparation of campus master plans,

Finally, although there were several funding sources and a multitude of community and Legislative stakeholders, FGCU leadership told SmithGroup that PECO appropriations were not adequate to the execution timeline the university and its external partners had envisioned for the business park. The slow state-level processes, especially adhering to SUS standards and the administrative paperwork, did not meet the expectations of the external stakeholders and detracted from their ability to be nimble.

APPENDIX E

FLORIDA A&M UNIVERSITY

PHARMACY BUILDING PHASE II

APPENDIX E:
FLORIDA A&M UNIVERSITY | PHARMACY BUILDING PHASE II

INTRODUCTION

Date of Interview: October 1, 2019

Interview participants: VP of Finance and Administration; VP of Academic Affairs; Interim AVP of Facilities, Planning, Construction and Safety; Director of Facilities, Planning and Construction (professional architect); Facilities Space Coordinator, Facilities Planning & Construction

BACKGROUND

UNIVERSITY MISSION

Florida Agricultural and Mechanical University (FAMU) is an 1890 land-grant institution dedicated to the advancement of knowledge, resolution of complex issues and the empowerment of citizens and communities. The University provides a student-centered environment consistent with its core values.

UNIVERSITY STRATEGIC GOALS

- Exceptional Student Experience – Student Success
- Excellent and Renowned Faculty – Faculty Excellence
- High Impact Research, commercialization, outreach and extension services – Research that makes a difference
- Transformative alumni, community and business engagement – building and expanding partnerships

PROJECT BACKGROUND

In its vision statement, the SUS 2012–2025 Strategic Plan cited strengthening the quality and reputation of scholarship, research, and innovation as one of its goals, specifically in targeting programs that are promising providers of knowledge, innovation, and commercialization to boost production in Florida's businesses and industries. The SUS System Strategic Plan also seeks to promote STEM research and access/graduation and access rates.

FAMU's College of Pharmacy and Pharmaceutical Sciences (COPPS) has shown significant development during the past few years that meet both of those criteria. For example, the first-time passing rate for the North American Pharmacist Licensure Examination has rebounded from a drop in 2016 (89% in 2015, 59% in 2016, 74% 2017[12] , 83% in 2019[13]), a result of a change in COPPS administration. COPPS has also secured more than $200 million in contracts and grants, including a $14.8 million renewal grant from the National Institute of Health to perform and enhance health disparities research. The College has also been awarded over 35 patents, which is ranked #1 among Historically Black Colleges and Universities.[14]

The original COPPS facility was constructed to house a college with an enrollment of 250 students and approximately 25 faculty members. As of 2006, COPPS enrollment exceeded 1,200 students. Enrollment is now more than 1,342 students, making COPPS the sixth largest pharmacy program in the nation. COPPS was ranked as number one in the southeast and number nine in the country in research funding from the National Institutes of Health. Current research funding was a record level of $20.8 million, and at more than $45.3 million over the next five years.[15]

PROJECT TIMELINE

- 2003: Pharmacy Building Phase I completed and occupied[16]
- 2003–2004: PECO allocation for Phase II of $1.071,000. Funding did not resume until 2008-2009
- 2007: The Accreditation Council for Pharmacy Education (ACPE) in its report from the site visit on November 7–9, 2007 found COPPS Partially Complaint with Accreditation Standard No. 28, Physical Facilities. ACPE gave COPPS until June 30, 2008 to have a prescribed plan to rectify the physical facility deficit or ACPE could remove accreditation[17]
- 2008: Pharmacy Building Phase II becomes a priority on the PECO list
- 2008-2009: PECO allocation of $2,000,000
- 2009–2010: Design and construction documents created and submitted for approval
- 2010-2011: PECO allocation of $23,000,000
- 2010: Site permit applications
- 2010: Construction begins with a projected completion date of 2012. CIP records show costs were allocated for construction to have started in 2008 and continued through 2016
- 2014-2015: PECO allocation of $10,000,000
- 2015-2016: PECO allocation of $1,480,000
- 2016: Construction complete, building transferred to occupants. Two floors of research space were shelled but not completed

12 'FAMU College of Pharmacy and Pharmaceutical Sciences Students Increase NAPLEX Pass Rate – FAMU College of Pharmacy' <https://pharmacy.famu.edu/2019/10/09/famu-college-of-pharmacy-and-pharmaceutical-sciences-students-increase-naplex-pass-rate/> [accessed 17 November 2019].

13 'FAMU College of Pharmacy and Pharmaceutical Sciences Students Increase NAPLEX Pass Rate – FAMU College of Pharmacy'.

14 'FAMU College of Pharmacy Celebrates Founder's Day and Opening Of New 54,000-Square-Foot Research Facility – FAMU College of Pharmacy' <https://pharmacy.famu.edu/2019/11/05/famu-college-of-pharmacy-celebrates-founders-day-and-opening-of-new-54000-square-foot-research-facility/#respond> [accessed 17 November 2019].

15 The Office of Facilities Planning and Construction Florida A&M University, 'Pharmacy Building Phase Ii – Facilities Program Update'.

16 The Office of Facilities Planning and Construction Florida A&M University.

17 Florida A&M University Las/PBS, 'CIP-3 Short-Term Project Explanation'.

BUILDING OCCUPANTS

- **Units or departments housed in the facility:** College of Pharmacy and Pharmaceutical Sciences (COPPS)
- **Reason or goals for bringing these units or space types together:** Pharmacy Building Phase I was designed primarily to house the COPPS professional program (PharmD) and resulted in significant expansion of office space for faculty, classroom space, and teaching laboratories. Phase II was intended to support the increase in hiring faculty and staff to expand COPPS' research activity.
- **Types of activities in the building:** Research, laboratory, instruction, office, administration, and support

PHYSICAL BUILDING

- **Types of spaces:** Per the CIP Project Explanation, the 54,000 square foot Pharmacy Building Phase II includes the following spaces:
  - Laboratories for medicinal chemistry, pharmacology, anatomy, drug information, pharmaceutics, microbiology, applied skills, toxicology, pharmacokinetics, biopharmaceutics and pathophysiology
  - Research laboratories—approximately 35
  - Science faculty offices—45; research faculty offices—20
  - Graduate student support offices/spaces
  - Specialized research laboratories for Nuclear magnetic resonance; Mass Spectrometer; Ultra-centrifuge; Confocal
  - Graduate student program classrooms
  - Hazardous chemical storage
  - Laboratory animal facility and other campus support spaces
- **Construction Phasing:** Incremental. Two floors of research space were shelled but not completed.

PRIORITIZATION PROCESS

LOCAL NEEDS ASSESSMENT

This project space needs were determined by utilizing the SUS criteria and recommendations by the American Association of Colleges of Pharmacy.[18] The standard No. 28 dictated the program for Phase II.

EDUCATIONAL PLANT SURVEY

The 2004 and 2010 EPSs conducted by FAMU highlighted the Pharmacy Building Phase II as a needed facility to supply space for instruction and laboratory for teaching. The 2001 EPS tied the renovation and new construction to FAMU's mission statement in retaining enrollment and promoting graduate research as well as increasing graduation rates. Increasing space for experiential learning and instruction falls in line with meeting these strategic goals.

The SmithGroup survey conducted with FAMU officials revealed that although the EPS formally plays a role in assessing space needs and generating space specifications, the following elements are also instrumental in this process:

- Space allocation policy and procedure
- Planning Office
- Space Committee
- Capital Planning Committee

18 'CIP-3B Project Explanation Board of Governors Strategic Plan Linkage', 2006, 2005.

CONSISTENCY WITH MISSION AND STRATEGY

Consistency with the institution's mission and strategic goals and the state-level goals

- **Institution's Mission:** COPPS supports the mission of "the advancement of knowledge, resolution of complex issues and the empowerment of citizens and communities."
- **Institution's Strategic Goals:** FAMU strategic plans from 2001 through 2019 have promoted increasing enrollment, retaining students, and producing graduates that have experienced a signature rigorous curriculum. The Pharmacy Building Phase II programs met all these FAMU strategic goals.
- **State-Level Goals:**
  - The SUS 2012–2025 Strategic Plan cited strengthening the quality and reputation of scholarship, research, and innovation as one of its goals, specifically in targeting programs that are promising providers of knowledge, innovation, and commercialization to boost production in Florida's businesses and industries. The SUS System Strategic Plan also seeks to promote STEM research and access/graduation and access rates. The Pharmacy Building Phase II programs met all these SUS strategic goals.
  - Regarding performance indicators set by the Board of Governors, and specifically to COPPS, the increase in first-time passing rates in the North American Pharmacist Licensure Examination and the increased number of patents demonstrates that COPPS is working towards the productivity goals in both teaching and learning and scholarship, research, innovation indicators[19] .
  - COPPS programs support economic development strategic goals. In support of the Enhanced Critical Research goal, Pharmacy Building Phase II helps position FAMU as an authority on the pharmaceutical research. The COPPS program prepares pharmacists that are comfortable with research and with navigating the field of medical professionals. Equipped with this skill set, COPPS graduates contribute to the improvement of the quality of healthcare and facilitating access to drugs, reducing mismatches, and unnecessary prescriptions.

CONCLUSIONS REGARDING THE PROCESS

Level of project need

The need for this project was demonstrable and immediate. The COPPS is the sixth largest pharmacy program in the nation, yet its accrediting body, the American Association of Colleges of Pharmacy, threatened to remove accreditation unless the deficient physical facilities were addressed.

Processes and decision criteria used to determine this project from the local needs assessment to the legislative budget request

The EPS process, the requirements of the accreditation body, and other groups like the Planning Office, the Space Committee, and the Capital Planning Committee shaped the program for this project. The university and Board of Governors prioritized the project based on the growth and prestige of the college, the demonstrated space need, and the deficiency of existing facilities.

Factors used to rank this project high on the institution's Capital Improvement Plan

Potential loss of accreditation due to facility deficiencies, prestige and importance of COPPS to FAMU and the pharmacy profession.

19 State University System of Florida, 'Accountability Plan – FAMU', 2019.

Potential improvements regarding the alignment of goals, space needs, processes and decision criteria illustrated by this project

Perhaps most striking in this case study is the contrast between how well this project meets the goals of the state and the university and the project timeline. Thirteen years passed between the initial PECO funding and final PECO funding sufficient for some construction. Only after accreditation was threatened, PECO funding resumed, spread over seven years.

FAMU relied solely on PECO funding for this project, so it did not rank well at the state-level for several years. Per interviews and communication with SmithGroup, it was reported that FAMU encouraged COPPS to diversify the funding sources to include private fundraising. According to university officials, because state funding was insufficient to complete the project as programmed, COPPS chose to proceed with construction of the building anyway. The results are that not all intended departments were co-located in the new building and two floors of space were shelled. FAMU estimates that an additional $10 million is necessary to complete the construction of the shelled space.

This case study illustrates several problems with the capital outlay process. The project prioritization process at the Board of Governors level did not adequately indicate the importance that the university should support each capital request with a diverse and substantial amount of non-state funding. The Board of Governors' new scoring criteria, prepared in response to SB 190, does explicitly include diverse funding sources within the ranking process. It is too early to determine if the new SB 190 prioritization process will adequately express to universities how important it is for universities to support capital requests to the state with their own private fundraising.

The process also does not provide sufficient flexibility in the prioritization process. Since many years passed between initial capital request and the provision of the final requested funds, the priorities of universities may change over this time. During the 13 years that it took for this project to be funded, FAMU listed other projects as the university's highest priority. The Board of Governors staff interpreted this shift that the Pharmacy Building Phase II was no longer a university priority, and as a result it was not considered as a state priority. The process should allow universities to adjust their priorities without being penalized when the state considers what the state's highest priorities are.

APPENDIX F

CLASSIFICATION OF INSTRUCTIONAL PROGRAMS COMPLETIONS DATA

APPENDIX F: CLASSIFICATION OF INSTRUCTIONAL PROGRAMS COMPLETIONS DATA

TOTAL DEGREE AND CERTIFICATE COMPLETIONS BY UNIVERSITY

	2013	2014	2015	2016	2017	Line
Florida Agricultural and Mechanical University (Unit ID: 133650)	2,261	2,288	2,159	2,327	2,182	
Florida Atlantic University (Unit ID: 133669)	6,964	6,888	7,408	7,479	7,649	
Florida Gulf Coast University (Unit ID: 433660)	2,591	2,587	2,746	3,037	3,097	
Florida International University (Unit ID: 133951)	11,415	11,823	12,250	12,774	13,346	
Florida Polytechnic University (Unit ID: 482936)	-	-	-	-	39	
Florida State University (Unit ID: 134097)	11,175	11,224	11,617	11,651	11,681	
New College of Florida (Unit ID: 262129)	198	144	177	170	171	
University of Central Florida (Unit ID: 132903)	15,346	15,768	15,773	15,982	16,173	
University of Florida (Unit ID: 134130)	15,065	15,202	14,397	14,405	14,754	
University of North Florida(Unit ID: 136172)	4,121	4,028	4,067	4,107	4,059	
University of South Florida-Main Campus(Unit ID: 137351)	10,776	11,427	11,695	11,754	12,339	
The University of West Florida (Unit ID: 138354)	2,735	2,799	2,833	3,246	3,863	
Total	82,647	84,178	85,122	86,932	89,353	

Increase of degree or certificate completions in 2017 compared to 2013

Decrease of degree or certificate completions in 2017 compared to 2013

No change of degree or certificate completions in 2017 compared to 2013

TOTAL DEGREE AND CERTIFICATE COMPLETIONS BY UNIVERSITY

Each year degree and certificate completion information is reported to the National Center for Education Statistics through the Integrated Postsecondary Education Data System (IPEDS) Survey. Each university's degree and certificate completion data from the 2013 survey through the 2017 survey have been summarized. Across the State University System there was 8% growth in degree and certificate completions in 2017 compared to 2013. The University of West Florida had the highest overall growth in degree and certificate completions at a 41% increase while New College of Florida experienced the largest drop in degree and certificate completions with a 14% decrease across the five years. Seven of the 12 institutions had overall positive growth across the five years, while four experienced a decline in degree completion. Florida Polytechnic University was founded in 2012, and thus has only one year of reported completions. The 39 completions from the university are included in the systemwide summary charts, but removed from the individual university reports.

TOTAL DEGREE AND CERTIFICATE COMPLETIONS BY PROGRAM — ALL 12 FLORIDA UNIVERSITIES

	2013	2014	2015	2016	2017	Line
Agriculture Agriculture Operations and Related Sciences	701	702	710	612	616	
Architecture and Related Services	613	640	576	652	589	
Area Ethnic Cultural Gender and Group Studies	227	179	183	195	177	
Biological and Biomedical Sciences	4353	4661	5134	5535	5515	
Business Management Marketing and Related Support Services	15992	15944	15409	15570	16022	
Communication Journalism and Related Programs	3288	3420	3545	3945	4063	
Computer and Information Sciences and Support Services	1393	1585	2233	2541	2935	
Education	6376	6620	5957	6119	5971	
Engineering	5547	5979	5709	6064	6256	
Engineering Technologies and Engineering-related Fields	339	358	335	348	415	
English Language and Literature/Letters	2090	2061	2101	1840	1694	
Family and Consumer Sciences/Human Sciences	600	571	538	489	537	
Foreign Languages Literatures and Linguistics	669	622	652	579	591	
Health Professions and Related Programs	9513	10280	11662	12378	13227	
History	959	956	854	775	756	
Homeland Security Law Enforcement Firefighting and Related Protective Service	2766	2780	2882	2852	2895	
Legal Professions and Studies	1560	1349	1383	1249	1336	
Liberal Arts and Sciences General Studies and Humanities	3711	3436	3255	3306	3852	
Library Science	321	255	216	188	81	
Mathematics and Statistics	629	660	711	706	775	
Multi/Interdisciplinary Studies	1283	1281	1285	1788	2184	
Natural Resources and Conservation	531	537	564	577	734	
Parks Recreation Leisure and Fitness Studies	1278	1268	1174	1153	1180	
Philosophy and Religious Studies	417	369	332	338	337	
Physical Sciences	1150	1118	1141	1246	1270	
Psychology	5145	5172	5364	5351	5258	
Public Administration and Social Service Professions	2049	2244	2303	2020	1799	
Social Sciences	6588	6618	6449	6117	5806	
Visual and Performing Arts	2559	2513	2465	2399	2482	
Total	**82,647**	**84,178**	**85,122**	**86,932**	**89,353**	

Increase of degree or certificate completions in 2017 compared to 2013

Decrease of degree or certificate completions in 2017 compared to 2013

No change of degree or certificate completions in 2017 compared to 2013

TOTAL DEGREE AND CERTIFICATE COMPLETIONS BY PROGRAM – ALL 12 FLORIDA UNIVERSITIES

Program degree and certificate completion was summarized across the 12 statewide institutions. While there was an overall positive growth of degree and certificate completions across the 12 institutions, of the 29 programs just over half had a decrease in number of completions across the five years. The largest decreases were Library Science (75%), Area Ethnic Cultural Gender and Group Studies (22%), History (21%), Philosophy and Religious Studies (19%), and English Language and Literature/Letters (19%). While fewer programs had a positive degree and certificate completion rate overall, the positive growth rate was much larger for these programs than the programs that had decreased rates. Of the 14 programs that had a positive increase in degree and certificate completions the highest increases were Computer and Information Sciences and Support Services (111%), Multi/Interdisciplinary Studies (70%), Health Professions and Related Programs (39%), Natural Resources and Conservation (38%), and Biological and Biomedical Sciences (27%). In addition, seven of the eleven institutions with data across the five years had growth in Computer and Information Sciences and Support Services, while six of the eleven institutions had a decline in History degree and certificate completions.

FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY (UNIT ID: 133650)

	2013	2014	2015	2016	2017	Line
Agriculture Agriculture Operations and Related Sciences	32	46	53	45	32	
Architecture and Related Services	76	74	34	74	29	
Area Ethnic Cultural Gender and Group Studies	4	3	4	3	4	
Biological and Biomedical Sciences	84	82	69	89	86	
Business Management Marketing and Related Support Services	224	245	251	202	200	
Communication Journalism and Related Programs	92	90	78	103	84	
Computer and Information Sciences and Support Services	35	49	46	40	40	
Education	76	98	44	48	27	
Engineering	41	32	31	53	47	
Engineering Technologies and Engineering, related Fields	43	31	19	25	16	
English Language and Literature/Letters	16	26	18	17	12	
Foreign Languages Literatures and Linguistics	7	3	632	675	618	
Health Professions and Related Programs	517	518	13	15	10	
History	5	14	179	127	102	
Homeland Security Law Enforcement Firefighting and Related Protective Service	179	194	152	115	106	
Legal Professions and Studies	224	176	67	54	48	
Liberal Arts and Sciences General Studies and Humanities	102	113	6	3	5	
Mathematics and Statistics	7	5	38	201	317	
Natural Resources and Conservation	14	2	5	11	12	
Parks Recreation Leisure and Fitness Studies	5	9	15	15	20	
Philosophy and Religious Studies	11	7	9	5	10	
Physical Sciences	18	21	15	14	6	
Psychology	113	117	91	104	103	
Public Administration and Social Service Professions	96	88	92	86	83	
Social Sciences	169	167	144	155	123	
Visual and Performing Arts	71	78	54	48	42	
Total	**2,261**	**2,288**	**2,159**	**2,327**	**2,182**	

Increase of degree or certificate completions in 2017 compared to 2013

Decrease of degree or certificate completions in 2017 compared to 2013

No change of degree or certificate completions in 2017 compared to 2013

FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY

Overall Florida Agricultural and Mechanical University had a decrease of about 4% for total degrees and certificates completed in 2017 compared to 2013.

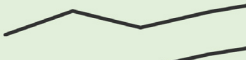
MOST INCREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT FAMU FROM 2013–2017:

- Foreign Languages Literatures and Linguistics (8729%)
- Mathematics and Statistics (4429%)
- History (1940%)
- Parks Recreation Leisure and Fitness Studies (300%)
- Engineering (15%)

MOST DECREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT FAMU FROM 2013–2017:

- Health Professions and Related Programs (98%)
- Liberal Arts and Sciences General Studies and Humanities (95%)
- Legal Professions and Studies (79%)
- Physical Sciences (67%)
- Education (65%)

FLORIDA ATLANTIC UNIVERSITY (UNIT ID: 133669)

	2013	2014	2015	2016	2017	
Architecture and Related Services	108	126	94	103	114	
Area Ethnic Cultural Gender and Group Studies	7	2	6	3	6	
Biological and Biomedical Sciences	360	440	466	454	455	
Business Management Marketing and Related Support Services	1691	1527	1640	1536	1601	
Communication Journalism and Related Programs	279	256	302	316	334	
Computer and Information Sciences and Support Services	123	133	124	146	170	
Education	715	688	603	527	448	
Engineering	271	324	284	313	336	
Engineering Technologies and Engineering, related Fields	4	8	7	3	0	
English Language and Literature/Letters	175	145	160	167	140	
Foreign Languages Literatures and Linguistics	55	51	63	60	64	
Health Professions and Related Programs	585	568	720	885	835	
History	69	57	66	63	48	
Homeland Security Law Enforcement Firefighting and Related Protective Service	364	389	427	448	415	
Liberal Arts and Sciences General Studies and Humanities	448	465	471	442	416	
Mathematics and Statistics	64	46	54	53	54	
Multi/Interdisciplinary Studies	8	6	49	268	465	
Natural Resources and Conservation	12	15	8	9	7	
Parks Recreation Leisure and Fitness Studies	162	159	214	224	239	
Philosophy and Religious Studies	19	18	13	13	15	
Physical Sciences	63	92	72	91	105	
Psychology	355	401	388	443	483	
Public Administration and Social Service Professions	312	336	430	263	284	
Social Sciences	519	473	544	472	431	
Visual and Performing Arts	196	163	203	177	184	
Total	**6,964**	**6,888**	**7,408**	**7,479**	**7,649**	

Increase of degree or certificate completions in 2017 compared to 2013

Decrease of degree or certificate completions in 2017 compared to 2013

No change of degree or certificate completions in 2017 compared to 2013

FLORIDA ATLANTIC UNIVERSITY

Overall Florida Atlantic University had an increase of about 10% for total degrees and certificates completed in 2017 compared to 2013.

MOST INCREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT FAU FROM 2013–2017:

- Multi/Interdisciplinary Studies (5713%)
- Physical Sciences (67%)
- Parks Recreation Leisure and Fitness Studies (48%)
- Health Professions and Related Programs (43%)
- Computer and Information Sciences and Support Services (38%)

MOST DECREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT FAU FROM 2013–2017:

- Engineering Technologies and Engineering, related Fields (100%)
- Natural Resources and Conservation (42%)
- Education (37%)
- History (30%)
- English Language and Literature/Letters (20%)

FLORIDA GULF COAST UNIVERSITY (UNIT ID: 433660)

	2013	2014	2015	2016	2017	Line
Biological and Biomedical Sciences	98	99	109	141	138	
Business Management Marketing and Related Support Services	591	582	576	683	716	
Communication Journalism and Related Programs	185	188	216	224	266	
Computer and Information Sciences and Support Services	12	11	30	4	0	
Education	334	272	247	268	266	
Engineering	67	82	78	144	133	
English Language and Literature/Letters	42	48	56	40	51	
Foreign Languages Literatures and Linguistics	4	2	2	0	0	
Health Professions and Related Programs	263	275	343	314	336	
History	46	28	30	30	35	
Homeland Security Law Enforcement Firefighting and Related Protective Service	160	167	182	204	180	
Legal Professions and Studies	72	65	72	65	79	
Liberal Arts and Sciences General Studies and Humanities	301	356	334	394	361	
Mathematics and Statistics	18	18	14	27	21	
Multi/Interdisciplinary Studies					13	
Natural Resources and Conservation	64	88	64	82	83	
Parks Recreation Leisure and Fitness Studies	27	24	29	36	30	
Philosophy and Religious Studies	8	6	7	8	8	
Physical Sciences	11	13	12	13	7	
Psychology	105	102	136	159	159	
Public Administration and Social Service Professions	75	62	80	75	80	
Social Sciences	74	66	86	87	90	
Visual and Performing Arts	34	33	43	39	45	
Total	**2,591**	**2,587**	**2,746**	**3,037**	**3,097**	

Increase of degree or certificate completions in 2017 compared to 2013

Decrease of degree or certificate completions in 2017 compared to 2013

No change of degree or certificate completions in 2017 compared to 2013

FLORIDA GULF COAST UNIVERSITY

Overall Florida Gulf Coast University had an increase of about 20% for total degrees and certificates completed in 2017 compared to 2013.

MOST INCREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT FGCU FROM 2013–2017:

- Engineering (99%)
- Psychology (51%)
- Communication Journalism and Related Programs (44%)
- Biological and Biomedical Sciences (41%)
- Visual and Performing Arts (32%)

MOST DECREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT FGCU FROM 2013–2017:

- Computer and Information Sciences and Support Services (100%)
- Foreign Languages Literatures and Linguistics (100%)
- Physical Sciences (36%)
- History (24%)
- Education (20%)

FLORIDA INTERNATIONAL UNIVERSITY (UNIT ID: 133951)

	2013	2014	2015	2016	2017	Line
Architecture and Related Services	105	143	122	139	127	
Area Ethnic Cultural Gender and Group Studies	80	67	60	70	53	
Biological and Biomedical Sciences	442	530	559	627	642	
Business Management Marketing and Related Support Services	3785	3708	3649	3587	3815	
Communication Journalism and Related Programs	313	397	531	704	798	
Computer and Information Sciences and Support Services	234	257	384	465	477	
Education	675	665	650	749	771	
Engineering	605	673	702	735	761	
Engineering Technologies and Engineering, related Fields	102	113	108	68	80	
English Language and Literature/Letters	194	217	210	219	204	
Foreign Languages Literatures and Linguistics	47	52	65	47	48	
Health Professions and Related Programs	945	1020	1142	1153	1298	
History	95	117	84	78	74	
Homeland Security Law Enforcement Firefighting and Related Protective Service	581	512	538	573	611	
Legal Professions and Studies	168	157	154	177	168	
Liberal Arts and Sciences General Studies and Humanities	307	274	246	194	203	
Mathematics and Statistics	23	23	36	42	39	
Multi/Interdisciplinary Studies	22	39	70	153	196	
Natural Resources and Conservation	60	53	60	66	69	
Parks Recreation Leisure and Fitness Studies	129	119	148	172	199	
Philosophy and Religious Studies	67	68	50	65	57	
Physical Sciences	159	157	148	187	227	
Psychology	894	1026	1180	1242	1248	
Public Administration and Social Service Professions	472	475	386	352	287	
Social Sciences	748	774	793	746	708	
Visual and Performing Arts	163	187	175	164	186	
Total	**11,415**	**11,823**	**12,250**	**12,774**	**13,346**	

Increase of degree or certificate completions in 2017 compared to 2013

Decrease of degree or certificate completions in 2017 compared to 2013

No change of degree or certificate completions in 2017 compared to 2013

FLORIDA INTERNATIONAL UNIVERSITY

Overall Florida International University had an increase of about 17% for total degrees and certificates completed in 2017 compared to 2013.

MOST INCREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT FIU FROM 2013–2017:

- Multi/Interdisciplinary Studies (791%)
- Communication Journalism and Related Programs (155%)
- Computer and Information Sciences and Support Services (104%)
- Mathematics and Statistics (70%)
- Parks Recreation Leisure and Fitness Studies (54%)

MOST DECREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT FIU FROM 2013–2017:

- Liberal Arts and Sciences General Studies and Humanities (34%)
- Area Ethnic Cultural Gender and Group Studies (34%)
- History (22%)
- Engineering Technologies and Engineering, related Fields (22%)
- Philosophy and Religious Studies (15%)

FLORIDA STATE UNIVERSITY (UNIT ID: 134097)

	2013	2014	2015	2016	2017	Line
Architecture and Related Services	58	36	50	33	38	
Area Ethnic Cultural Gender and Group Studies	47	32	44	29	34	
Biological and Biomedical Sciences	442	454	767	855	770	
Business Management Marketing and Related Support Services	1818	1848	1769	1920	2034	
Communication Journalism and Related Programs	362	376	380	368	373	
Computer and Information Sciences and Support Services	258	275	371	383	484	
Education	643	639	623	647	598	
Engineering	327	376	404	490	459	
English Language and Literature/Letters	513	469	502	464	440	
Family and Consumer Sciences/Human Sciences	408	367	380	317	394	
Foreign Languages Literatures and Linguistics	120	103	121	114	125	
Health Professions and Related Programs	599	549	567	538	836	
History	132	153	132	121	121	
Homeland Security Law Enforcement Firefighting and Related Protective Service	533	590	651	610	602	
Legal Professions and Studies	249	274	275	203	230	
Liberal Arts and Sciences General Studies and Humanities	191	264	258	272	307	
Library Science	204	168	129	131		
Mathematics and Statistics	129	140	188	176	170	
Multi/Interdisciplinary Studies	16	20	9	20	12	
Natural Resources and Conservation	51	66	77	73	150	
Parks Recreation Leisure and Fitness Studies	409	453	279	204	187	
Philosophy and Religious Studies	77	82	74	68	63	
Physical Sciences	271	210	259	246	251	
Psychology	574	573	614	644	641	
Public Administration and Social Service Professions	431	442	469	430	187	
Social Sciences	1646	1650	1599	1672	1585	
Visual and Performing Arts	667	615	626	623	590	
Total	**11,175**	**11,224**	**11,617**	**11,651**	**11,681**	

Increase of degree or certificate completions in 2017 compared to 2013

Decrease of degree or certificate completions in 2017 compared to 2013

No change of degree or certificate completions in 2017 compared to 2013

FLORIDA STATE UNIVERSITY

Overall Florida State University had an increase of about 5% for total degrees and certificates completed in 2017 compared to 2013.

MOST INCREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT FSU FROM 2013–2017:

- Natural Resource Conservation (194%)
- Computer and Information Sciences and Support Services (88%)
- Biological and Biomedical Sciences (74%)
- Liberal Arts and Sciences General Studies and Humanities (61%)
- Health Professions and Related Programs (40%)

MOST DECREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT FSU FROM 2013–2017:

- Library Science (100%)
- Public Administration and Social Service Professions (57%)
- Parks Recreation Leisure and Fitness Studies (54%)
- Architecture and Related Services (35%)
- Area Ethnic Cultural Gender and Group Studies (28%)

NEW COLLEGE OF FLORIDA (UNIT ID: 262129)

	2013	2014	2015	2016	2017	Line
Computer and Information Sciences and Support Services					7	
Foreign Languages Literatures and Linguistics				6	11	
Liberal Arts and Sciences General Studies and Humanities	198	144	177	92	80	
Multi/Interdisciplinary Studies				67	61	
Natural Resources and Conservation				5	12	
	198	**144**	**177**	**170**	**171**	

Increase of degree or certificate completions in 2017 compared to 2013

Decrease of degree or certificate completions in 2017 compared to 2013

No change of degree or certificate completions in 2017 compared to 2013

NEW COLLEGE OF FLORIDA

New College only had one program reported across the five years, Liberal Arts and Sciences General Studies and Humanities, and this program had a decline (60%) in degrees and certificates completed. Even with adding in four more programs, New College still had an overall decline of about 14% of degrees and certificates completed from 2013 until 2017. The five programs reported in the 2013–2017 IPEDS surveys:

- Natural Resources and Conservation (140% Increase 2016–2017)
- Foreign Languages Literatures and Linguistics (83% Increase 2016–2017)
- Multi/Interdisciplinary Studies (9% Decrease 2016–2017)
- Liberal Arts and Sciences General Studies and Humanities (60% Decrease 2013–2017)
- Computer and Information Sciences and Support Services (Only reported 2017)

UNIVERSITY OF CENTRAL FLORIDA (UNIT ID: 132903)

	2013	2014	2015	2016	2017	Line
Architecture and Related Services	41	23	35	27	52	
Area Ethnic Cultural Gender and Group Studies	2	6	4	0	2	
Biological and Biomedical Sciences	646	657	708	702	644	
Business Management Marketing and Related Support Services	3213	3244	2978	3045	2994	
Communication Journalism and Related Programs	584	614	554	632	589	
Computer and Information Sciences and Support Services	310	362	395	496	472	
Education	1476	1701	1515	1566	1617	
Engineering	1112	1140	1249	1291	1294	
Engineering Technologies and Engineering, related Fields	1	44	18	57	30	
English Language and Literature/Letters	298	295	327	315	335	
Foreign Languages Literatures and Linguistics	57	45	35	34	30	
Health Professions and Related Programs	2058	2248	2480	2592	2746	
History	179	161	165	131	141	
Homeland Security Law Enforcement Firefighting and Related Protective Service	628	592	560	542	578	
Legal Professions and Studies	327	241	300	244	278	
Liberal Arts and Sciences General Studies and Humanities	528	542	550	539	516	
Mathematics and Statistics	84	87	93	83	112	
Multi/Interdisciplinary Studies	708	687	713	723	654	
Parks Recreation Leisure and Fitness Studies	33	30	24	38	32	
Philosophy and Religious Studies	39	25	27	24	37	
Physical Sciences	96	92	103	106	103	
Psychology	1310	1196	1235	1215	1189	
Public Administration and Social Service Professions	374	489	460	395	411	
Social Sciences	660	641	617	550	601	
Visual and Performing Arts	582	606	628	635	716	
Total	**15,346**	**15,768**	**15,773**	**15,982**	**16,173**	

Increase of degree or certificate completions in 2017 compared to 2013

Decrease of degree or certificate completions in 2017 compared to 2013

No change of degree or certificate completions in 2017 compared to 2013

UNIVERSITY OF CENTRAL FLORIDA

Overall University of Central Florida had an increase of over 5% for total degrees and certificates completed in 2017 compared to 2013.

MOST INCREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT UCF FROM 2013–2017:

- Engineering Technologies and Engineering, related Fields (2900%)
- Computer and Information Sciences and Support Services (52%)
- Health Professions and Related Programs (33%)
- Mathematics and Statistics (33%)
- Architecture and Related Services (27%)

MOST DECREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT UCF FROM 2013–2017:

- Foreign Languages Literatures and Linguistics (47%)
- History (21%)
- Legal Professions and Studies (15%)
- Psychology (9%)
- Social Sciences (9%)

UNIVERSITY OF FLORIDA (UNIT ID: 134130)

	2013	2014	2015	2016	2017	Line
Agriculture Agriculture Operations and Related Sciences	669	656	657	567	584	
Architecture and Related Services	184	201	185	217	174	
Area Ethnic Cultural Gender and Group Studies	35	27	35	54	45	
Biological and Biomedical Sciences	1042	1089	1086	1107	1140	
Business Management Marketing and Related Support Services	1822	2013	1735	1896	1908	
Communication Journalism and Related Programs	760	796	827	787	766	
Computer and Information Sciences and Support Services	16	74	357	389	547	
Education	675	781	717	686	684	
Engineering	2230	2435	2001	2013	2117	
Engineering Technologies and Engineering-related Fields	117	103	83	92	130	
English Language and Literature/Letters	258	247	225	224	179	
Family and Consumer Sciences/Human Sciences	192	204	158	172	143	
Foreign Languages Literatures and Linguistics	284	255	261	182	184	
Health Professions and Related Programs	2082	2080	2068	2098	2264	
History	156	156	136	137	136	
Homeland Security Law Enforcement Firefighting and Related Protective Service	3	12	16	13	21	
Legal Professions and Studies	494	409	410	423	441	
Liberal Arts and Sciences General Studies and Humanities	840	446	393	380	325	
Mathematics and Statistics	151	177	147	154	159	
Multi/Interdisciplinary Studies	108	151	168	173	239	
Natural Resources and Conservation	183	176	177	195	217	
Parks Recreation Leisure and Fitness Studies	294	268	230	196	229	
Philosophy and Religious Studies	90	64	71	73	62	
Physical Sciences	289	302	272	297	300	
Psychology	546	525	557	555	467	
Social Sciences	1190	1234	1107	1026	983	
Visual and Performing Arts	355	321	318	299	310	
Total	**15,065**	**15,202**	**14,397**	**14,405**	**14,754**	

Increase of degree or certificate completions in 2017 compared to 2013

Decrease of degree or certificate completions in 2017 compared to 2013

No change of degree or certificate completions in 2017 compared to 2013

UNIVERSITY OF FLORIDA

Overall University of Florida had a decrease of 2% for total degrees and certificates completed in 2017 compared to 2013.

MOST INCREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT UF FROM 2013–2017:

- Computer and Information Sciences and Support Services (3319%)
- Homeland Security Law Enforcement Firefighting and Related Protective Service (600%)
- Multi/Interdisciplinary Studies (121%)
- Area Ethnic Cultural Gender and Group Studies (29%)
- Natural Resources and Conservation (19%)

MOST DECREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT UF FROM 2013–2017:

- Liberal Arts and Sciences General Studies and Humanities (61%)
- Foreign Languages Literatures and Linguistics (35%)
- Philosophy and Religious Studies (31%)
- English Language and Literature/Letters (31%)
- Family and Consumer Sciences/Human Sciences (26%)

UNIVERSITY OF NORTH FLORIDA (UNIT ID: 136172)

	2013	2014	2015	2016	2017	Line
Area Ethnic Cultural Gender and Group Studies	4	3	2	3	5	
Biological and Biomedical Sciences	108	129	150	157	151	
Business Management Marketing and Related Support Services	761	688	677	706	706	
Communication Journalism and Related Programs	308	270	281	248	219	
Computer and Information Sciences and Support Services	79	78	94	128	141	
Education	418	365	316	342	333	
Engineering	121	111	122	134	90	
Engineering Technologies and Engineering-related Fields	40	31	29	27	50	
English Language and Literature/Letters	131	120	118	99	97	
Foreign Languages Literatures and Linguistics	24	36	28	53	50	
Health Professions and Related Programs	664	748	751	781	849	
History	69	80	69	52	43	
Homeland Security Law Enforcement Firefighting and Related Protective Service	198	213	208	179	153	
Liberal Arts and Sciences General Studies and Humanities	318	261	261	230	234	
Mathematics and Statistics	26	31	27	32	43	
Multi/Interdisciplinary Studies	29	33	55	92	124	
Parks Recreation Leisure and Fitness Studies	61	55	72	85	60	
Philosophy and Religious Studies	24	24	14	24	21	
Physical Sciences	28	16	28	40	36	
Psychology	345	365	366	326	299	
Public Administration and Social Service Professions	25	24	49	51	46	
Social Sciences	214	210	223	188	173	
Visual and Performing Arts	126	137	127	130	136	
Total	**4,121**	**4,028**	**4,067**	**4,107**	**4,059**	

Increase of degree or certificate completions in 2017 compared to 2013

Decrease of degree or certificate completions in 2017 compared to 2013

No change of degree or certificate completions in 2017 compared to 2013

UNIVERSITY OF NORTH FLORIDA

Overall University of North Florida had a decrease of about 2% for total degrees and certificates completed in 2017 compared to 2013.

MOST INCREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT UNF FROM 2013–2017:

- Multi/Interdisciplinary Studies (328%)
- Foreign Languages Literatures and Linguistics (108%)
- Public Administration and Social Service Professions (84%)
- Computer and Information Sciences and Support Services (79%)
- Mathematics and Statistics (65%)

MOST DECREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT UNF FROM 2013–2017:

- History (38%)
- Communication Journalism and Related Programs (29%)
- Liberal Arts and Sciences General Studies and Humanities (26%)
- English Language and Literature/Letters (26%)
- Engineering (26%)

UNIVERSITY OF SOUTH FLORIDA (UNIT ID: 137351)

Program	2013	2014	2015	2016	2017
Architecture and Related Services	41	37	56	59	55
Area Ethnic Cultural Gender and Group Studies	48	39	28	33	28
Biological and Biomedical Sciences	1048	1091	1126	1288	1370
Business Management Marketing and Related Support Services	1642	1694	1747	1590	1625
Communication Journalism and Related Programs	251	304	245	428	488
Computer and Information Sciences and Support Services	202	218	288	360	451
Education	994	983	794	787	677
Engineering	722	746	771	838	933
Engineering Technologies and Engineering-related Fields			58	51	78
English Language and Literature/Letters	419	435	427	257	191
Foreign Languages Literatures and Linguistics	71	75	77	83	79
Health Professions and Related Programs	1521	1888	2525	2825	2887
History	155	135	105	102	99
Homeland Security Law Enforcement Firefighting and Related Protective Service	25	22	24	42	131
Liberal Arts and Sciences General Studies and Humanities	333	364	382	411	523
Library Science	117	87	87	57	81
Mathematics and Statistics	84	85	96	77	107
Multi/Interdisciplinary Studies	386	340	179	86	98
Natural Resources and Conservation	97	98	137	102	145
Parks Recreation Leisure and Fitness Studies	11	35	40	42	37
Philosophy and Religious Studies	71	65	57	49	56
Physical Sciences	171	182	188	205	196
Psychology	739	742	658	514	516
Public Administration and Social Service Professions	144	215	230	251	356
Social Sciences	1220	1274	1162	1014	929
Visual and Performing Arts	264	273	208	203	203
Total	**10,776**	**11,427**	**11,695**	**11,754**	**12,339**

Increase of degree or certificate completions in 2017 compared to 2013

Decrease of degree or certificate completions in 2017 compared to 2013

No change of degree or certificate completions in 2017 compared to 2013

UNIVERSITY OF SOUTH FLORIDA

Overall University of South Florida had an increase of about 15% for total degrees and certificates completed in 2017 compared to 2013.

MOST INCREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT USF FROM 2013–2017:

- Homeland Security Law Enforcement Firefighting and Related Protective Service (424%)
- Parks Recreation Leisure and Fitness Studies (236%)
- Public Administration and Social Service Professions (147%)
- Computer and Information Sciences and Support Services (123%)
- Communication Journalism and Related Programs (94%)

MOST DECREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT USF FROM 2013–2017:

- Multi/Interdisciplinary Studies (75%)
- English Language and Literature/Letters (54%)
- Area Ethnic Cultural Gender and Group Studies (42%)
- History (36%)
- Education (32%)

UNIVERSITY OF WEST FLORIDA (UNIT ID: 138354)

	2013	2014	2015	2016	2017	Line
Biological and Biomedical Sciences	83	90	94	115	119	
Business Management Marketing and Related Support Services	445	395	387	405	417	
Communication Journalism and Related Programs	154	129	131	135	146	
Computer and Information Sciences and Support Services	124	128	144	130	125	
Education	370	428	448	499	550	
Engineering	51	60	67	53	74	
Engineering Technologies and Engineering, related Fields	32	28	13	25	31	
English Language and Literature/Letters	44	59	58	38	45	
Health Professions and Related Programs	279	386	434	517	558	
History	53	55	54	46	49	
Homeland Security Law Enforcement Firefighting and Related Protective Service	95	89	97	114	102	
Legal Professions and Studies	26	27	20	22	34	
Liberal Arts and Sciences General Studies and Humanities	145	207	116	298	839	
Mathematics and Statistics	43	48	50	59	65	
Multi/Interdisciplinary Studies	6	5	4	5	5	
Natural Resources and Conservation	50	39	36	34	39	
Parks Recreation Leisure and Fitness Studies	147	116	123	141	147	
Philosophy and Religious Studies	11	10	10	9	8	
Physical Sciences	44	33	44	47	39	
Psychology	164	125	139	149	153	
Public Administration and Social Service Professions	120	113	107	117	65	
Social Sciences	148	129	174	207	183	
Visual and Performing Arts	101	100	83	81	70	
Total	**2,735**	**2,799**	**2,833**	**3,246**	**3,863**	

Increase of degree or certificate completions in 2017 compared to 2013

Decrease of degree or certificate completions in 2017 compared to 2013

No change of degree or certificate completions in 2017 compared to 2013

UNIVERSITY OF WEST FLORIDA

Overall University of West Florida had an increase of over 41% for total degrees and certificates completed in 2017 compared to 2013.

MOST INCREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT UWF FROM 2013–2017:

- Liberal Arts and Sciences General Studies and Humanities (479%)
- Mathematics and Statistics (51%)
- Education (49%)
- Engineering (45%)
- Biological and Biomedical Sciences (43%)

MOST DECREASING PROGRAMS ACCORDING TO DEGREE AND CERTIFICATE COMPLETIONS AT UWF FROM 2013–2017:

- Public Administration and Social Service Professions (46%)
- Visual and Performing Arts (31%)
- Philosophy and Religious Studies (27%)
- Natural Resources and Conservation (22%)
- Multi/Interdisciplinary Studies (17%)

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