



SPACE MANAGEMENT
at
RICE UNIVERSITY

ANNUAL REPORT

FY16

Executive Summary

In June of 2012, the provost convened the Space Task Force, composed of a cross-section of the university administration and faculty, to examine utilization of Rice's space resource. The provost's charge, incorporated in this report, set out specific criteria for the Task Force.

Over the course of the next year, the Space Task Force reviewed contemporary practices for managing space at Rice; benchmarked peer institutions for space management principles, standards, and best practices; engaged the university community throughout the process for input, comment, and to build awareness of improving utilization of university space; and considered strategies for improving the overall utilization of space at the university.

This effort culminated in the issue of the Space Task Force Report in October 2013. The Space Task Force Report established several initiatives to be implemented which are outlined later in this report along with their progress. Also included in this annual report:

- A review the various roles and responsibilities of senior positions at the university for the management of the university's space resources.
- A summary of the space management principles defined by the Space Task Force

Being the first annual report on the management of Rice's space inventory, in addition to the previously mentioned content, the report is organized around three basic space categories, office/administrative, instructional, and research. The report concludes with a summary of the space management goals for FY17.

Space Management at Rice University

In order to effectively and efficiently manage space at Rice, the Space Task Force developed guiding principles for space management and also outlined specific roles and responsibilities for various administrative and academic leadership positions.

Principles

Ownership and Governance –

- The Provost administers all space owned or leased by the University.
- Day-to-day management of space is delegated to the Deans and Vice Presidents by the Provost.
- A University Space Committee has been established to serve the Provost in an advisory capacity regarding overall space policy, standards, practices, and general space issues at Rice. The committee is chaired by the Vice President for Administration.
- Space assignments are not permanent
- Space is assigned to activities and not individuals, and may be reassigned as activities change.
- Space that is vacant or deemed underutilized is subject to reassignment or repurposing.

Long-Term Planning – All space decisions should be made within the context of the strategic, financial, and campus master plans, and include a periodic review of the highest and best use of space.

Priorities – allocation of space at Rice will be according to the following priorities:

- Meeting a strategic need or programmatic goal.
- Collaborative, shared, or multi-use spaces.
- Improving efficiency or productivity.
- Establishing/maintaining an inventory of “swing space” to meet emerging needs.
- Limiting the use of rental or leased space.
- Practices that support the Facilities and Administrative (F&A) rate negotiations with the federal government.

Transparency – The process of allocating space at Rice will utilize published:

- Principles, policies and procedures.
- Space standards for different types of space.
- Metrics of space utilization

Data – Space allocation decisions will be informed by:

- Comprehensive, accurate current and historical data, including space attributes, occupancy, and utilization information.
- Full operating costs and cost recovery data which will be measured and provided to the faculty.

Metrics – Space utilization metrics have been established and are considered as factors in space allocation.

Space Allocation Review – Deans and Vice Presidents are to review space allocations on a regular basis with some proportion of the total space reviewed annually. Any appeal of reallocation of space is to the Dean or Vice President first, and then to the Provost for final determination.

Roles and Responsibilities

Specific roles and responsibilities for each administrative and academic position engaged in space management have been delineated.

Board of Trustees –

- Acts through the Building and Grounds and Finance Committees of the Board for stewardship and long-term vision of the campus.
- Approves capital investments exceeding one-million dollars and authorizes debt financing.
- Delegates all responsibility for space management to the Administration.

Provost –

- Owns and administers all space.
- Approves space management principles, policies, and standards.
- Annually reviews space allocations on campus.
- Annually reviews and certifies emeritus offices and multiple office assignments.
- Periodically reviews space allocation to institutes, core research facilities and the Shared Equipment Authority.

University Space Committee –

- Established as a standing University committee that advises the Provost.
- Meets at least three times annually to: review space standards, practices, policies, and case studies; examine long-range space planning issues; and review space utilization reports.

Vice Provost for Research –

- Jointly manages space allocated to centers, institutes, Shared Equipment Authority, vivarium, and other centrally managed research operations.

Deans and Vice Presidents –

- Provide day-to-day management of assigned space. Authorized to solve space needs as they arise within their respective schools/divisions.
- Annually review space allocations.
- Jointly manage space allocated to centers, institutes, and the Shared Equipment Authority in collaboration with the Vice Provost for Research.

- Prepare, maintain, and share with the Provost, space-planning reports.

Department Chairs –

- Provide day-to-day management of department/unit space as delegated by the Dean.

Vice President for Administration –

- Chairs the University Space Committee.
- Administers the annual capital budget process.
- Oversees the Facilities Engineering and Planning Department.

Vice President for Finance –

- Reviews and confirms funding for: annual capital budget process; funding for new faculty offers; facility capital investments; equipment purchases.
- Develops financing and debt plans for capital projects, in collaboration with the Vice President for Investments and the General Counsel.
- Develops and negotiates the F&A rate.

Vice President for Investments and Treasurer –

- Coordinates and manages real estate investments.
- Coordinates debt-financing plans.

Registrar –

- Management and scheduling of all instructional spaces.

Facilities Engineering and Planning –

- Custodian of the Campus Master Plan.
- Operation, maintenance, and planning of University physical assets including land.
- Maintains design guidelines and space standards.
- Maintains space database, including facility condition and use.
- Executes process of new construction and renovations.
- Manages annual capital budget process.
- Staffs the space planning and allocation process.

2016 Space Management Initiatives

This and subsequent reports on space at Rice will be organized around three basic types of space: Office/Administrative, Instructional, and Research space. Office/Administrative space includes anywhere faculty, staff and students are located to conduct the business of the University. Instructional space includes classrooms, and teaching laboratories. Research space includes all space that is dedicated to conducting research at Rice.

Office/Administrative Space

In the summer of 2014 a survey of office space at Rice was completed. The purpose of the survey was to verify the data in the space database at that time, obtain an accurate accounting of occupants in each office, confirm multiple office assignments to individuals, and assess the general condition of office space in each building on campus. Over the course of three months, over 3,300 spaces were surveyed, 3,144 of which were confirmed as offices.

The survey revealed two categories of office space allocation that needed further review. The first involved assignment of multiple offices to a single individual. Forty-six individuals had been assigned 2 offices and two individuals had been assigned 3 offices. Assignment of multiple offices to individuals represents up to roughly 9,000 assignable square feet of administrative office space that can be put to other, more effective use. At the recommendation of the University Space Committee, the Provost implemented an annual review and approval process for Deans and Vice Presidents to justify assignment of multiple offices to individuals in their respective schools/divisions. In FY 15, the first year of implementation, nine offices have been reassigned, recapturing over 1,700 assignable square feet.

Assignment of office space to Emeriti faculty is the second area of space allocation identified for review. The survey found 35 offices across campus assigned to Emeriti representing over 5,000 assignable square feet. Again at the recommendation of the University Space Committee the Provost implemented an annual review and approval process to provide the Dean's and Vice Presidents a mechanism to manage assignment of office space to Emeriti faculty. In FY15, thirteen offices were identified for reassignment or sharing by two Emeriti faculty. In addition to this process, the University Space Committee has developed language to be included in Emeriti retirement agreements outlining the criteria for assignment of office space to Emeriti.

Another program designed to improve the utilization of administrative space at Rice is the Office Space Renovation Funding Program. The goal of this program is to more effectively use the University's existing administrative space through renovation or reconfiguration. Principles of the program are twofold. First, administrative space should be in alignment with the Office and Administrative Space Standards. Secondly, University Administrators, Deans, Department Chairs, and anyone delegated authority to assign space should strive to solve their own space problems before escalation to the Provost. The competitive criteria for proposal evaluation are:

- Proposal effectively implements the Office and Administrative Space Standards.
- There is measurable gain in the number of people per assignable square foot in the area considered for renovation.
- There are space utilization benefits to other adjacent areas and/or departments.
- Reduces deferred maintenance.

The process involves funds allocated through the Annual Capital Budget Process. Requests are evaluated based on the number and quality of project criteria that are met. Funding is then awarded to the top ranked projects within the annual amount allocated.

In FY16, four projects were identified at a total cost of just under \$400,000. The projects impacted over 5,000 assignable square feet of existing administrative space and resulted in the creation of new, more efficient work stations and offices with improved access to natural lighting, new finishes and furnishings. To illustrate the value of this program, a comparison of the cost to renovate existing inefficient administrative space versus building new office space is necessary. The new office building currently under construction next to Allen Center has a total square foot cost of approximately \$400. By removing the cost of sitework, structure, MEP systems, and other infrastructure and support items, the relative cost for an equivalent amount office space is conservatively estimated at \$150/SF, or \$750,000.

Instructional Space

To support its teaching mission, Rice has 103 classrooms and computer labs of varying sizes and capabilities that are scheduled by the Office of the Registrar (OTR) each semester. These classrooms are scattered throughout campus in 31 different buildings. The smallest classroom seats 7, the largest 300.

All of the classrooms have some degree of technology to support instruction. The classroom technology ranges from simple projection systems to which an instructor's laptop can be connected, on up to more robust installations including multi-platform computer driven audio visual systems complete with distance learning capability and lecture capture equipment.

There are a variety of classroom types. Flat floor classrooms are most common at 49. Sloped floor lecture rooms number 21. Numbering 22 are seminar, or conference rooms. Many of these seminar rooms are scheduled by the OTR in the mornings for instruction needs with scheduling authority turned over to individual departments for their use in the afternoons. The classroom inventory also includes 6 computer labs and 5 SCAL@R, or active learning classrooms.

Each fall and spring, Rice academic departments offer over 2,500 sections to the almost 3,900 undergraduate students. The current classroom inventory has the capacity to support these sections. Over the past few years, several scheduling principles have been instituted to distribute the scheduling burden on the classroom inventory. Examples are:

- Standard Time Blocks – a course with an irregular meeting pattern overlaps many other courses, which reduces the number of options for students and makes it difficult to assign classrooms efficiently. Thus, departments must assign courses to Standard Time Blocks, as defined by the OTR in the Schedule Rules and Definitions. This applies to courses taught Monday through Friday, 8:00 AM to 5:00 PM. The Provost must approve exceptions.
- Anchor Courses – a best practice for space allocation first assigns space for very large courses, followed by assignment for all other courses. Most of the largest courses Rice offers are service courses in CHEM, MATH, PHYS, BIOS, and STAT. These courses should be anchored with unchanged day/time meeting patterns from year-to-year. Fixing the schedules of these Anchor Courses provides a stable base around which all other Rice courses and classroom assignments can be built.
- Prime Time Course Offerings – No more than 2/3 of a department’s course offerings may be scheduled during prime time to prevent exhausting the classroom supply during these periods. Prime Time is defined as 10:00 AM to 11:50 AM and 1:00 PM to 1:50 PM on Mon/Wed/Fri; and 9:25 AM to 12:05 PM and 1:00 PM to 2:15 PM on Tue/Thu.
- Instructional Use of Departmentally Scheduled Rooms – Rooms used for teaching fall into two categories – those that are scheduled by the OTR for classes and those that are departmentally scheduled for classes, meetings, events and other group uses. All departmentally scheduled lecture halls, or other rooms that could be used for instruction, should be made available to the OTR to schedule for use in the mornings (up to 12:00 PM). The standard scheduling practice would be to give priority to the department’s own classes in rooms adjacent to their department. The Classroom Quality Management Team would assume responsibility for maintaining the technology in OTR-scheduled instructional spaces.

The OTR will regularly assess opportunities to increase utilization of instructional spaces, including teaching laboratories. To inform stakeholders about the opportunities to increase utilization of instructional spaces, the OTR produces an annual utilization report. The report specifically addresses classrooms with the lowest weekly hours scheduled and attempts to determine the causes. The OTR Annual Report can be found at:

https://registrar.rice.edu/facstaff/classrooms/annual_report/

Research Space

The Space Task Force identified three specific metrics for use in evaluating the utilization of research space. These metrics are intended to be used in concert to identify research space that may not be used to its fullest capacity and subject to repurposing or reassignment.

- Total Research Expenditure Dollars per Assignable Square Foot – This is defined by subtracting the total “sub-contracts” from the Principle Investigator’s (PI) total research expenditures. This figure is found on the PI Credit Report that is produced each year by the Research Accounting Office. After subtracting out the sub-contracts, the number is then divided by the total square feet of research space allocated to the PI in the Space Database.
- Actual Indirect Cost Recovery per Assignable Square Foot – This metric is defined by dividing the PI’s Indirect Cost Recovery dollars (taken from the “F&A” portion of the PI Credit Report) by the total square feet of research space allocated to the PI in the Space Database.
- Assignable Square Feet per Person – Defined by dividing the total assignable square feet allocated to the PI in the Space Database by the total FTEs using the space

**Space Task Force
Metrics Definitions**

Total Research Expenditures (\$/assignable square feet):

Defined by subtracting the “Total Sub-Contracts” from the “PI Total” in the PI Credit Report and dividing by the total assignable square feet allocated to the PI in the FAMIS space database

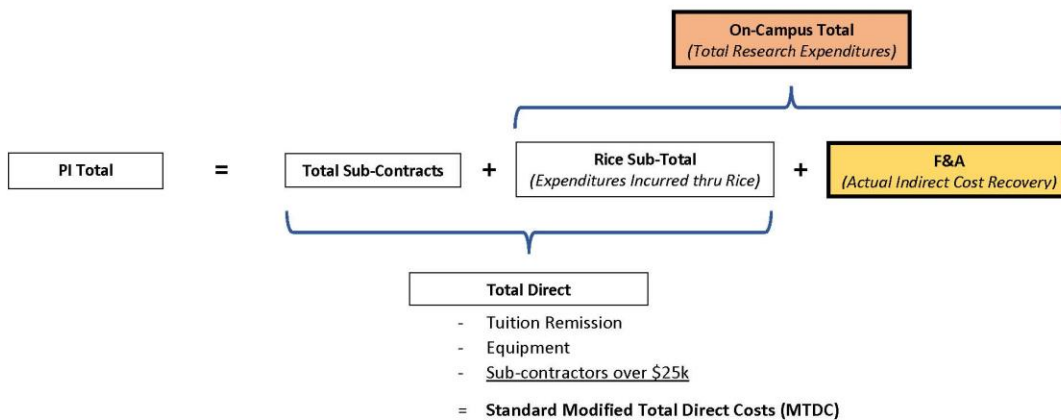
Actual Indirect Cost Recovery (\$/assignable square feet):

Defined by dividing the PI’s “F&A” in the PI Credit Report by the total assignable square feet allocated to the PI in the FAMIS space database

Assignable Square Feet/Person (participating full time in research):

Defined by dividing the total assignable square feet allocated to the PI in the FAMIS space database by the total FTEs using the space

PI Credit Report Terminology



Each metric is presented as an average of the past three fiscal years and are tabulated at least annually. The data are then provided to Deans and Department Chairs in the form of Tableau visualizations to assist them in evaluating utilization of research space within their respective schools and departments. Below is an example of the Research Space Utilization visualization.



The example above compares how individual faculty members within a specific department relate to one another for each of the three metrics averaged over three years. This visual helps Department Chairs and Deans see at a glance which laboratories appear to be underutilized and provides a data-based starting point for further understanding why.

This visualization tool has been previewed by senior administration, several Deans, and Department Chairs. Further development is underway to insure the appropriate data from the PI Credit Report is being collected for this use. The completed tool will be ready this summer.

2017 Goals

Management of institutional space is an ongoing effort. To insure proper utilization and allocation of space resources, the tools and processes used in space management need to be continually evaluated for relevance. For the coming year, there are several goals for improving the management of the space resources at Rice.

Changing Office Space Landscape

Driven by a variety of events such as the imminent August 2018 expiration of Rice's lease of 25,000 square feet of space in the Memorial Hermann Medical Plaza building, planned development of the Greenbriar property, and ongoing pressure for office space on campus, a new office building is under construction. During the planning and programming of the new office building, it became clear that new ways of thinking about how office space is planned, used, and allocated can be put into practice. To assist the project team with understanding how to approach this complex task, the University hired PDR, a local design firm with almost 40 years of experience in the design and delivery of innovative workplace solutions. The model for the new office building is to provide a variety of types of work spaces in a flexible and comfortable environment to accommodate different ways of working.

In collaboration with the Controller's Department, Development and Alumni Relations, Human Resources, and the Office of Information Technology, an innovative building program has emerged. The goals of this program are to facilitate enhanced employee engagement, increase collaboration within and between departments, provide flexibility in accommodating different ways of working, create a place where people want to be, and do so while making most effective use of the building's useable square footage. Ultimately, this project will serve as a model for how we think about and manage office space at Rice moving forward.

Continued Development of Space Utilization

A key aspect of effective space management is having complete and accurate data. This past year a new space application has been developed to facilitate the collection of space data from each academic and administrative department across campus. Each department will be responsible for entering and maintaining the attributes of the space that has been allocated to them. Below is an example of the information that is collected from each department.

Room Detail: Update Allocation			
Building:	BROCKMAN HALL FOR PHYSICS	Room ASF:	876.84
Floor:	02	Floor Plan:	View Floorplan
Room:	260	Last Modified:	08-FEB-16 by FBN2
Room Type:	250 - RESEARCH/NONCLASS LABORATORY	Update Room Type:	<input type="text" value="250 - RESEARCH/NONCLASS LABORATORY"/>
Room Description:	WET LABORATORY	Update Room Description:	<input type="text" value="WET LABORATORY"/>
Room Use:	HALAS RESEARCH GROUP	Update Room Use:	<input type="text" value="HALAS RESEARCH GROUP"/>
Effective From:	<input type="text" value="05/28/2016"/>		
Additional Notes:	<div style="border: 1px solid gray; height: 40px;"></div>		
<input type="button" value="Save"/>			

Department	Description	Percent	PI/Contacts Allocation	Actions
<input type="text" value="720000"/>	ELECTRICAL AND COMPUTER ENGINEERING	<input type="text" value="100"/>	HALAS, NANCY J No Contacts	Edit Employee/PI Edit Contacts for HALAS, NANCY J
<input type="text"/>		<input type="text"/>		<input type="button" value="+"/>

Function	Description	Percent	
<input type="text" value="IDR"/>	Instruction/Departmental Research	<input type="text" value="10"/>	<input type="button" value="+"/> <input type="button" value="-"/>
<input type="text" value="OR"/>	Organized Research	<input type="text" value="84"/>	<input type="button" value="+"/> <input type="button" value="-"/>
<input type="text" value="OIA"/>	Other Institutional Activities	<input type="text" value="5"/>	<input type="button" value="+"/> <input type="button" value="-"/>
<input type="text" value="OSA"/>	Other Sponsored Activities	<input type="text" value="1"/>	<input type="button" value="+"/> <input type="button" value="-"/>
<input type="text"/>		<input type="text"/>	<input type="button" value="+"/>

This Allocation Has Not Been Modified Yet.

Request Status is
Submit and Approve | Reject

[Cancel This Proposed Change](#)

Export HTML Report	
Notes	Entered By
No Results	

This data is then used to assess how well Rice is using its space resource. The data can also be made available to other departments on campus to integrate with space related metrics they may be monitoring.

Since initial roll out of the Space App in April, some enhancements have already been suggested for incorporation. One of these enhancements will facilitate notification of the appropriate individuals regarding emergent situations in their laboratory space. The Space App will continue to evolve to accommodate improvements in how we collect and use space data at Rice.

Space metrics will also continue to evolve as different ways of analyzing space and how it's used emerge. As mentioned before, specific metrics for evaluating utilization of research space have been established. Moving forward, appropriate metrics for analyzing office/administrative space utilization will be developed. Office space represents almost one-quarter of Rice's space inventory. Proper management of that segment of the inventory can lead to significant cost avoidance in not having to build more new office space.

Multiple office assignments and assignment of offices to emeriti faculty will continue to be reviewed on an annual basis. The process will be improved to allow Deans and Vice Presidents to submit their justifications electronically via the Space Management webpage. This should streamline the process and facilitate quicker turnaround time on responding to their requests.

Rice has also contracted with Sightlines, a facilities asset advising firm that has data from over 380 higher education campuses throughout the United States and Canada. Sightlines provides benchmarked data comparing how Rice manages its facilities assets with a rich set of data from selected peer institutions and tailors the results to provide an apples-to-apples comparison.

The coming year will also see the integration of Sightlines data into the way space is managed at Rice.

Accountability in Research Space Utilization

As the university strives to improve how its space resource is utilized, research space will be a primary focus. As outlined earlier in this report, research space utilization will be evaluated using three specific metrics that consider appropriate research funding and square feet allocated to individual Principle Investigators. This information will be available to Deans and Department Chairs in a consistent and reliable format to allow identification of underutilized research space resources within departments. Ultimately, these metrics are intended to inform ongoing strategic planning efforts of departments, schools, and the university.

Further Development of Visualization Tools

Reliability of data and the tools used to present the data are critical to the process for evaluating how space at Rice is being utilized. The PI Credit Report data will be collected annually working with the Research Accounting Office. The Space Database in FAMIS will be updated and verified regularly throughout the year. The visualization tools used to communicate how space is being utilized will be regularly evaluated to insure the information being conveyed is accurate, concise, and easy to interpret.

Working with the University Space Committee, improvements to the visualization tools will be ongoing. For example, to help illustrate future productivity (not currently captured in the metrics being used), it has been suggested that it may be worthwhile to include recently applied for grants in the analysis of research productivity.