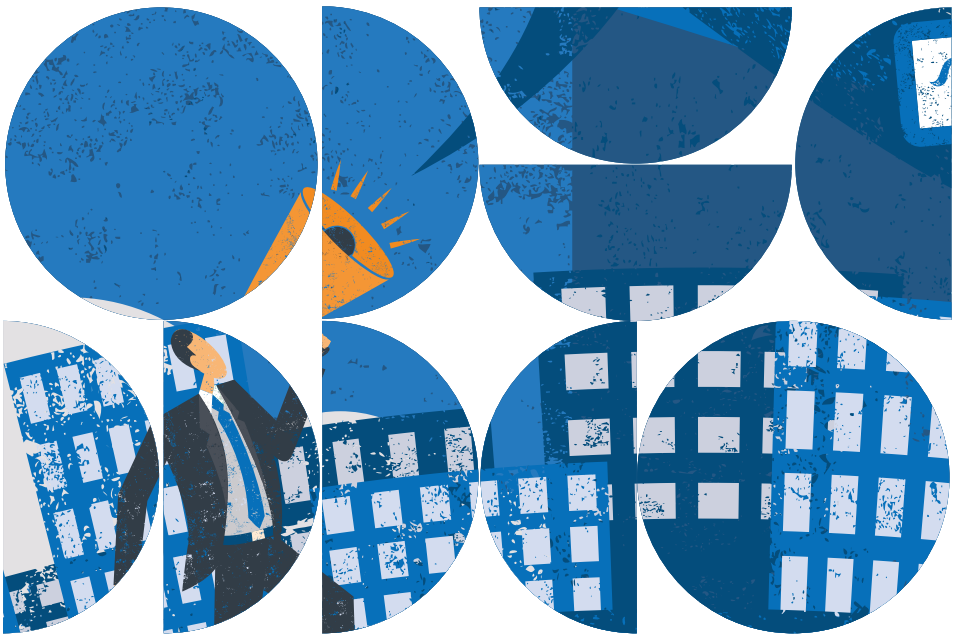
EAB

Enhancing Space Data Collection and Validation

Perfecting Facilities Data Collection and Improving Unit-Owned Data Validation

Facilities Forum



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Available Within Your Facilities Forum Membership

Resources to Support the Facilities Leader and Broader Leadership Team

On-Demand Webconferences

Register for upcoming sessions to hear our latest findings or access archives of past presentations. Many members convene campus leaders and task forces to attend and share ideas on practices and implementation.

Unlimited Access to Experts

Facilities Forum members may contact EAB researchers at any time to discuss our findings, request networking conversations, or review related resources and practices.

Dedicated Advisor

Facilities Forum members have access to a dedicated advisor, who works with the institution to ensure the entire team is regularly using the membership services and content.

National Meetings

Attend a national meeting to hear the best of our annual research. Attendance at these sessions is capped to ensure robust discussion and sharing of ideas, with multiple dates to accommodate member schedules.

Executive Summary

Data Collection and Validation Overview

As space becomes increasingly tight and revenue declines restrict new construction, most institutions are actively seeking to make better use of existing space. A critical first step in better utilization is an up-to-date inventory of all campus space. A current inventory equips Facilities leaders with reliable data to advocate for better space utilization and helps drive better decision making from Facilities, space committees, and other stakeholders.

However, simply gathering current space information can be a challenge. The two main ways institutions collect space data are outlined below. Institutions typically use a combination of both approaches, and each has its own drawbacks. Completing a campus survey is a time-consuming activity for Facilities, while delegating the responsibility to units can yield little to no updated information. This report details strategies to improve both approaches.

The first two sections of this report cover these two approaches in depth. The final section explores an emerging third approach: leveraging technologies that automate the collection of space data.

Approach #1

Facilities Assumes Responsibility for Data Collection and Validation

Facilities uses its own employees, student workers, or consultants to conduct boots-on-the-ground walkthroughs of campus space

Drawback: Survey process can be labor-intensive and time-consuming for Facilities

Approach #2

Facilities Delegates Responsibility for Data Collection and Validation to Units

Units receive a summary of their current space allocation and review it for accuracy before returning it to Facilities with any updates

Drawback: Units often fail to return accurate information, if they return anything at all

(Emerging) Approach #3

Automated Data Collection

Institutions install technologies such as CO_2 sensors, people trackers, or Wi-Fi sensors that automatically track space utilization information

Drawback: Most institutions have not purchased or implemented such technologies

Source: Facilities Forum interviews and analysis.

Approaches to Efficiently and Accurately Collect Space Data

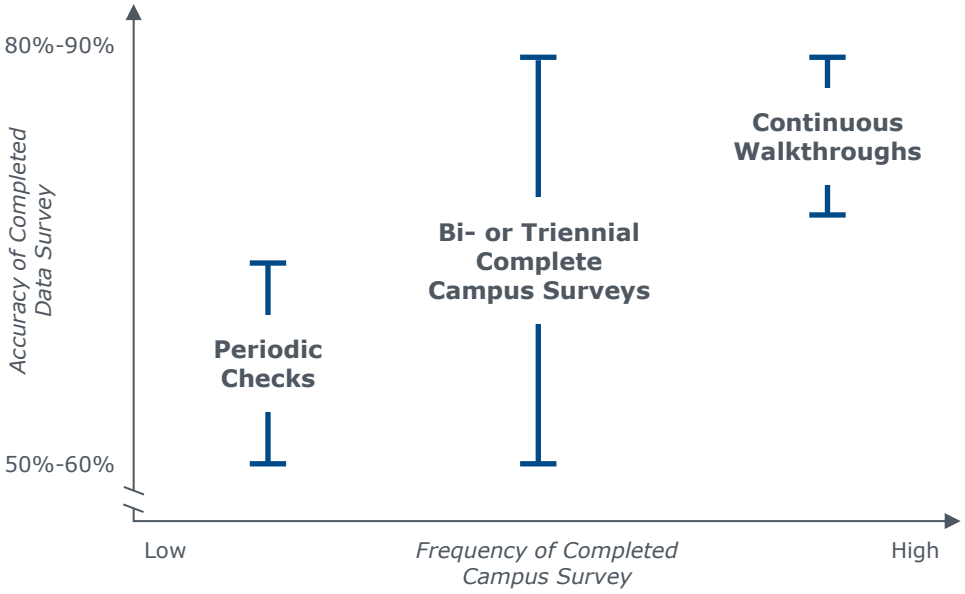
- Approach 1: Facilities Unit Owns Data Collection and Validation
- Approach 2: Facilities Delegates Data Collection, Validation to Units
- (Emerging) Approach 3: Automated Space Data Collection Technologies

Facilities Unit Owns Data Collection and Validation

Frequency of Data Collection

The first approach institutions use in collecting space data is to have Facilities own the collection and validation of data. While Facilities has the best grasp on the data collection process and the campus's physical inventory, this approach is very resource-intensive. The bulk of data collection and validation occurs in a formal campus walkthrough. The three main forms of walkthroughs are depicted below. The x-axis shows how frequently the survey occurs, and the y-axis shows how accurate a picture of campus space each option gives Facilities leaders. The chart illustrates that each approach has a range of accuracy.

Relationship Between Frequency and Accuracy of Data Collection



Some institutions complete **periodic checks** of campus space, usually triggered by a unit request for more space or a renovation. Periodic checks are designed to answer a specific question, not to provide a complete picture of space. As a result, accuracy is lowest with this approach.

The second option is **bi- or triennial complete campus surveys**. Many institutions complete a walkthrough of the entire campus every two to three years. This approach is particularly valuable when decision makers need a clear picture of current space for long-term planning or state regulatory and reporting requirements. However, there is a wide range in accuracy because it decreases significantly as the next survey approaches.

A third option that is increasingly common is **continuous walkthroughs**. With this method, Facilities continuously deploys staff to survey space. The duration of a complete walkthrough varies based on campus size and the amount of resources Facilities can dedicate. The Facilities Forum found that a single, full-time employee can survey approximately 85,000 square feet per week. The average is lower for institutions using student workers.

Source: Facilities Forum interviews and analysis.

Selecting the Right Data Collector

In addition to deciding how frequently to collect data, Facilities leaders must also decide who will complete the actual data collection. The table below captures the most common surveyors, mapped by expertise and cost.

Potential Surveyors of Campus Space

Assigned Surveyor	Expertise	Cost
External Consultants (e.g., Sightlines, Paulien & Associates)	High	High
Facilities Employees	High	Medium
Higher-Skill Student Workers	Medium	Low
Lower-Skill Student Workers	Low	Low
Custodians	Low	Low

Many institutions use **external consultants** to complete campus walkthroughs. While consultants bring significant expertise to the process, they are typically expensive. As a result, they are often brought in only to complete bi- or triennial full-campus walkthroughs.

Facilities employees also bring expertise to the surveying process. They are relatively less costly, though dedicating Facilities resources to a survey takes resources away from other activities.

Student workers are less common surveyors. They are clearly a cost-effective source of labor, but they require training and are limited in what they can collect. Increasingly, institutions are tapping higher-skill student workers, such as master's students in architecture, interior design, or related fields, to complete surveys. This is particularly promising for institutions moving to AutoCAD and ArcGIS space data collection and tracking interfaces, software programs used in many master's and PhD programs.

Lastly, a few institutions are beginning to train **custodians** to collect and validate basic data. The idea is that custodians will be walking through most of the campus regularly and can validate certain data as a small addition to their regular duties. Like student workers, they have limited expertise, so early movers are carefully scoping their data collection responsibilities (see list below).

Training Custodians to Validate Basic Space Data

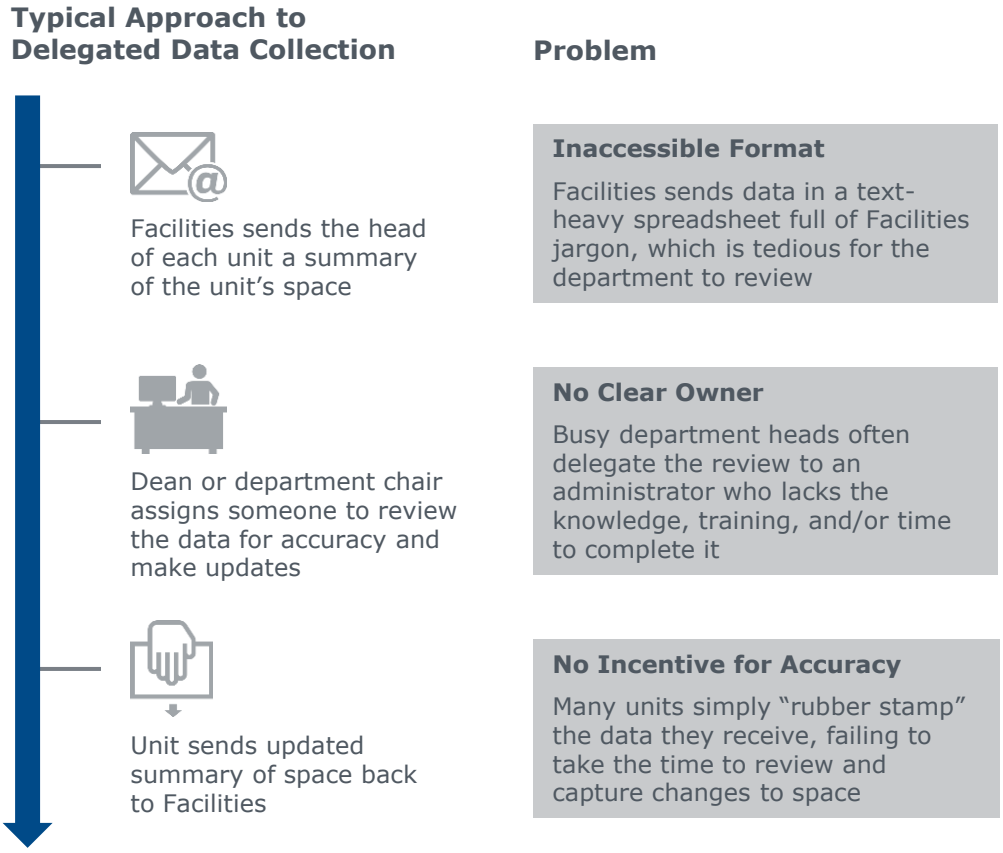
- Custodians can likely collect and validate basic metrics like room capacity, layout, number of workstations, general condition, and fixed vs. moveable equipment with minimal training
- Collecting metrics like room use code, occupant, departmental owner, and technology package may require more training
- The filter for what custodians validate should be what they can check without spending more than one additional minute per room

Source: Facilities Forum interviews and analysis.

Facilities Delegates Data Collection, Validation to Units

Status Quo of Delegated Data Collection and Validation

The second approach to collect and validate space data is delegating the responsibility to departments and units. In theory, the process is straightforward: Facilities sends a spreadsheet summarizing a unit's current space allocation to the department chair, then the chair assigns someone, typically a unit administrator, to update the spreadsheet and send it back to Facilities. In reality, institutions point to three major challenges in delegating this responsibility.



First, unit contacts find the text-heavy spreadsheets to be a cryptic, **inaccessible format** to review. Second, there is often **no clear owner** of the review process. Facilities does not always know where to send the spreadsheet. If they send it to a senior leader, he or she often pushes it down, and the task sometimes falls through the cracks. Lastly, nearly every institution reports that there is **no incentive for accuracy**. Units often rubber stamp the spreadsheet, sending it back completely unchanged—if they send anything back at all. Pages 10 to 13 of this report propose tactics to address these challenges.

Source: Facilities Forum interviews and analysis.

Providing More Accessible Data Format

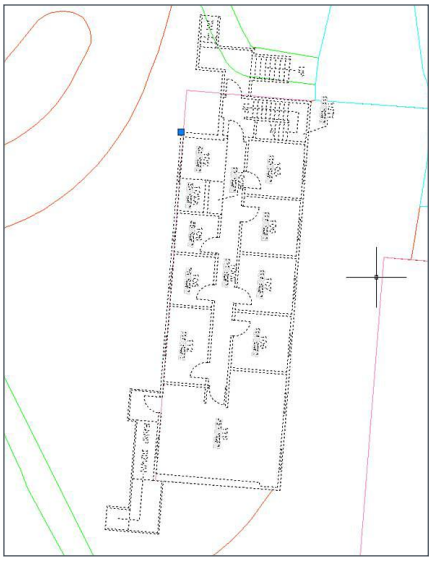
To make unit space allocations more accessible, the University of Washington (UW) piloted a new approach to space data validation by first providing departments with **printed CAD[1] floor plans**. Facilities employees took the printed floor plans to every department and reviewed them in person with department leaders, noting any changes with markers. Departments found the printed floor plans to be more accessible than the spreadsheets they previously reviewed.

While this change resulted in a significant increase in space data accuracy, the pilot project was labor-intensive. It required Facilities employees to go back to their computers and update the CAD floor plans to reflect handwritten edits.

Therefore, once UW's Facilities office documented all changes to the physical layout, they built a **GIS[2] interface** for departments to review space information digitally. It displays both the floor plan and associated space attributes, such as office assignment and condition. If any changes have occurred, the user can make them directly in the interface.

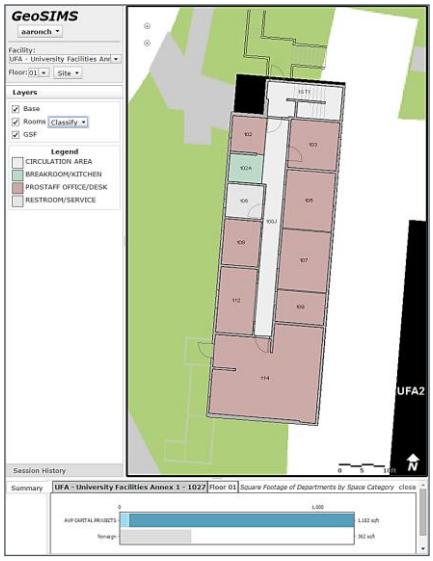
This new interface is a win-win for UW. The digital floor plan gives department leaders the same tactile, interactive feel as the printed floor plans, and logs all changes automatically.

Printed CAD Floor Plan



Faculty responded to CAD floor plans, but Facilities needed to manually translate hand-drawn modifications into useful data

GIS Interface



A GIS framework allows faculty to directly enter data into a floor plan from their office computer

1) Computer-aided design.
2) Geographic information system.

Source: Cheuvront A, "UW GIS Interior Space Mapping, CAD and GIS Integration," Campus FM Technology Associate, http://www.cfta.org/assets/webinars/June06_20_2013/uw%20gis%20interior%20space%20mapping.pdf; "University of Washington Improves Facilities Management with GIS," Esri Speaker Series Podcast, October 8, 2012, http://www.esri.com/esri-news/podcasts/podcast#user_cheuvront; Facilities Forum interviews and analysis.

Appoint Unit Liaison

The second problem with delegating space data validation to units is the lack of a consistent point of contact for Facilities to communicate with. Many institutions address this by appointing a single unit liaison. However, the current approach typically requires a department administrator to interface with Facilities as one task of a long list of responsibilities. Additionally, the liaison is typically a department administrator, a role that can have high turnover. One Facilities unit reported that before they could send out department allocation spreadsheets, they had to identify replacements for 40% of their contacts.

Washington State University (WSU) addresses these issues by appointing a pair of unit contacts, as outlined below.

Facility Liaison

- Administrator in dean's office
- Resource for leaders about Facilities processes and timelines
- Promptly and clearly communicates project priorities and time or budget constraints to Facilities office

Building Coordinator

- Full-time employee who reports up to departmental director or college dean; one per building
- Primary communication and coordination liaison for the building
- Communicates Facilities issues/ projects to building occupants
- Tracks instructional spaces and technology available in the building

- ✔ Establish a consistent point of contact within colleges
- ✔ Help Facilities update and validate space data

For WSU's Facility Liaison training guide, please see page 19. For WSU's Building Coordinator job description, please see page 26.

The first role is a **Facility Liaison**, a designated administrator in the dean's office. The liaison attends Facilities training sessions every other month and serves as the first point of contact for departmental space needs, explaining what Facilities can and cannot do. The second role is a **Building Coordinator**. This is a full-time position with one coordinator per building. One of the primary responsibilities for the role is tracking vacant instructional space.

The box above notes where these two roles work together. Both serve as a consistent point of contact for departments and colleges, and both help Facilities update and maintain the space inventory.

While larger institutions can likely fund both positions, smaller institutions may lack the resources to do so. If the institution has access only to part-time support from a unit administrator, the Facilities leader should carefully define the responsibilities and provide regular training sessions to ensure the liaison is fully equipped to serve in that capacity.

Source: Washington State University, Pullman, WA; Facilities Forum interviews and analysis.

Incentivize Accurate Data Entry

The last challenge to delegating data validation to units is the lack of incentives for accuracy. Fortunately, a number of universities have identified strategies to incentivize units to return current, up-to-date space inventories, as outlined below. The first incentive applies only to a few room types, but the latter two incentives can yield better data for all types of space.

For complete list of Iowa State University's custodial service levels by room code, please see page 28.

Incentive #1: Tie Data Accuracy to Cleanliness Standards

Iowa State University changed its custodial service levels to correspond to FICM[1] room use codes. The table below shows a handful of codes, highlighting the significant variation in cleaning frequency. Iowa State made this change for cost-saving purposes but discovered its value in unearthing space data inaccuracies. For example, a department may change a study room into a classroom. If Facilities is unaware of the change, the room is still cleaned just once a week. A departmental administrator calls Facilities to complain, then Facilities investigates the room and updates the room use code in their database. Once the database is updated, the room is cleaned more frequently.

Room Code	Service Frequency
CLASS	Serviced 3X weekly; 1 full/2 spot cleaning
SEM RM	Serviced 3X weekly; 1 full/2 spot cleaning
LOUNGE	Serviced 1X weekly
ASSEMB	No service
REC RM	No service
ACA OF	Serviced 1X every other week
ADM OF	Serviced 1X every other week

For complete version of Rowan University's space request form, please see page 32.

Incentive #2: Require Updated Space Inventory with Space Requests

Rowan University requires a complete, up-to-date space inventory from any unit or department requesting more space. Rowan hardwires this process by incorporating the requirement into their space request form, which reads:

> *"Prior to individuals submitting any requests for space, it should be vetted with their supervisors/unit heads to ensure that they are in agreement with moving forward. Your application will not be processed unless an inventory, including purpose and/or occupancy of all the space currently being used by your departments is complete/and or updated and provided to the office of Campus Planning."*

This prompt serves two purposes. First, it ensures Rowan's space committee has the requisite information to evaluate every space request. Second, it enables Facilities to update their central space database to reflect any changes to a unit or department's space inventory.

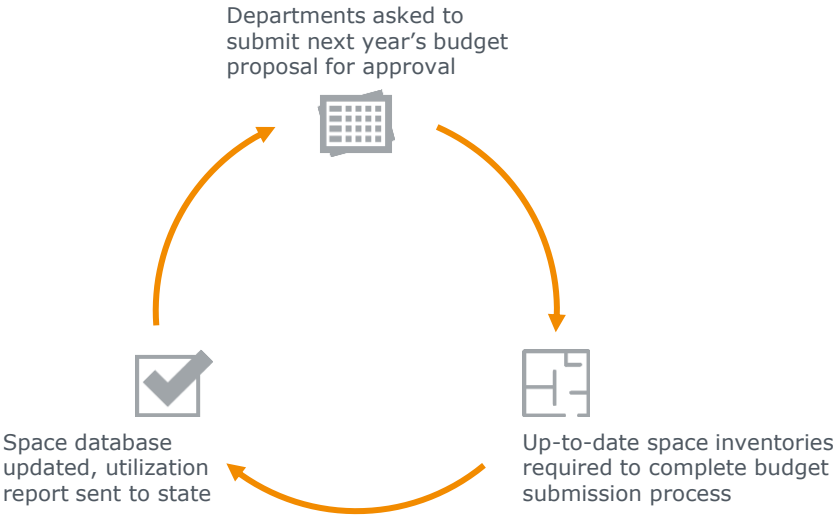
1) Facilities Inventory and Classification Manual.

Source: Iowa State University, Ames, IA; Rowan University, Glassboro, NJ; Facilities Forum interviews and analysis.

Incentive #3: Link Unit Budget Approval to Current Space Inventory

Gellis University[1] links its space inventory to the annual budgeting cycle. The process is outlined below. Departmental budgets are not finalized until they submit a current space inventory.

Annual Budgeting Process at Gellis University



This final strategy can be applied at all institutions, but it is particularly recommended for campuses that have a responsibility centered management (RCM) or hybrid-RCM budget model. Under these budget models, units are typically charged for space they occupy. It is imperative to have an accurate picture of a unit's current space inventory to ensure it is charged correctly.

1) Pseudonym.

Source: Facilities Forum interviews and analysis.

Automated Space Data Collection Technologies

Emerging Automated Data Collection Technologies

The third, emerging approach to collect space data is using automated data collection technology. Some automated technologies, such as tracking card swipes into buildings or using light sensors to detect room usage, are already present on most campuses. Their major limitation, however, is that they only offer a binary view of space—occupied or unoccupied—and cannot provide a clear picture of activity or occupancy rate.

In answer to these shortcomings, emerging technologies promise the automated collection of more detailed occupancy and utilization information. Pages 14 to 17 explore three emerging technologies in greater detail.

CO_2 Sensors

Can be used to estimate occupancy and may already be installed as part of HVAC[1] system

People Counters

Counts users and provides occupancy data

Wi-Fi Trackers

Tracks usage patterns and occupancy data in real time

CO_2 Sensors

The first technology some institutions are experimenting with is **CO_2 sensors**. Traditionally, campuses have used CO_2 sensors to better match airflow ventilation to occupancy, resulting in more sustainable energy use and utility savings. However, some institutions are starting to use CO_2 measurements to calculate actual occupancy rates.

De Montfort University's pilot program is outlined below. There are two major takeaways from their project. First, since CO_2 generation rates vary from person to person, calculating occupancy requires a complex algorithm, and researchers at De Montfort were only 85% accurate compared to actual occupancy. Second, there is a lag between when people enter a room and when enough CO_2 builds up to register and calculate occupancy. With people in and out of the room, as often happens on college campuses, the sensors may never generate an accurate reading.

De Montfort University's CO_2 Sensor Pilot Program

Researchers installed CO_2 sensors in a 39-person office space in Queen's Building

Researchers used an algorithm to estimate occupancy based on data from the CO_2 sensors

Researchers were able to estimate room occupancy with 84.59% accuracy

Source: Pakka V, et al., "Real-Time Building Occupancy Sensing for Supporting Demand Driven HVAC Operations," Proceedings of the 13th International Conference for Enhanced Building Operations, Montreal, Quebec (October 2013); Facilities Forum interviews and analysis.

1) Heating, ventilation, and air conditioning.

People Counters

The second technology, **people counters**, is adopted from the retail industry. These unobtrusive counters, also known as thermal occupancy sensors, track people and movement into and out of a given space using body heat.

How People Counters Work

1. Thermal sensors identify individual occupants in a space
2. People are counted as they cross specific lines (Fig. 1) or enter spaces in the sensor's field of view (Fig. 2)
3. Occupancy data collected by the sensors is used to calibrate the ventilation system to match real-time needs

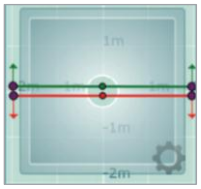


Figure 1

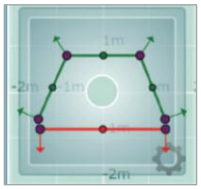


Figure 2

The University of Alberta is piloting people sensors to track utilization of one room in one building. In total, the pilot program equipment and installation cost C$8,215. Although Alberta is piloting the sensors only in a single room, the institution has seen significant custodial and utility savings. The Facilities unit estimates nearly C$2,000 in avoided custodial costs each term. Like CO_2 sensors, people counters allow Alberta to adjust airflow to reflect actual room occupancy. Combining the savings from custodial services and airflow adjustments, Alberta estimates the sensors will pay for themselves in 2.5 years.

Beyond the encouraging return on investment, Alberta anticipates an even greater space management impact as they roll the sensors out more broadly. Facilities will use the data to determine which classrooms are underutilized and can be taken offline. Individual colleges have also expressed interest in using the data to better match courses to rooms, particularly instructional labs.

Source: University of Alberta, Edmonton, AB; Facilities Forum interviews and analysis.

Wi-Fi Trackers

The final emerging technology for automated space data collection is Wi-Fi trackers, also adopted from the retail industry. GeoMetri is an early mover in this sector.

GeoMetri at Work

Registers locations of mobile devices as they search for Wi-Fi signals

Proximity of users to mobile devices allows GeoMetri to plot user locations on a GIS floor plan in real-time

Can track users as they move through retail space, collecting data on foot traffic patterns and products that attract shopper attention

To utilize this technology, institutions install Wi-Fi sensors in a given space. The sensors detect the pings that devices, such as cellphones, tablets, and laptops, constantly emit as they seek a Wi-Fi signal. GeoMetri then displays real-time user location in a GIS interface.

Wi-Fi sensors have clear implications for space management. Hartsfield-Jackson Atlanta International Airport, for example, installed GeoMetri sensors throughout its terminals in 2013 to track foot traffic patterns. The data helped the airport maximize the use of its available space by identifying low-use spaces that could be repurposed for higher usage. As a result, the airport will not need to expand beyond its current terminals for the next five years.

Within higher education, the University of Washington is an early adopter of this approach, using GeoMetri to build a mobile-based campus map that intuitively routes students around buildings and spaces closed for maintenance or security reasons. Looking towards the future, Wi-Fi technologies like GeoMetri could support space management efforts in higher education: measuring real-time classroom utilization, tracking how often private offices are occupied, and even tracking the utilization of formal and informal student study spaces.

Security Concerns Associated with Publicly Accessible Data

As these technologies become more common, there is some concern that publicly available web-based interfaces such as campus maps pose a security risk. Web-based interfaces like GeoMetri are hosted inside campus networks, and access requires credentialed user accounts. This limits the threat posed by this information during an active-shooter emergency. In fact, the real-time data collected by these sensors could be used to manage an institution's responses to many different types of emergencies, including those involving active shooters.

Source: King K, "A Retail-Centric Technology for Active Shooter Response," GISi, May 16, 2014,http://gisinc.com/talk/retail-centric-technology-active-shooter-response/; Facilities Forum interviews and analysis.

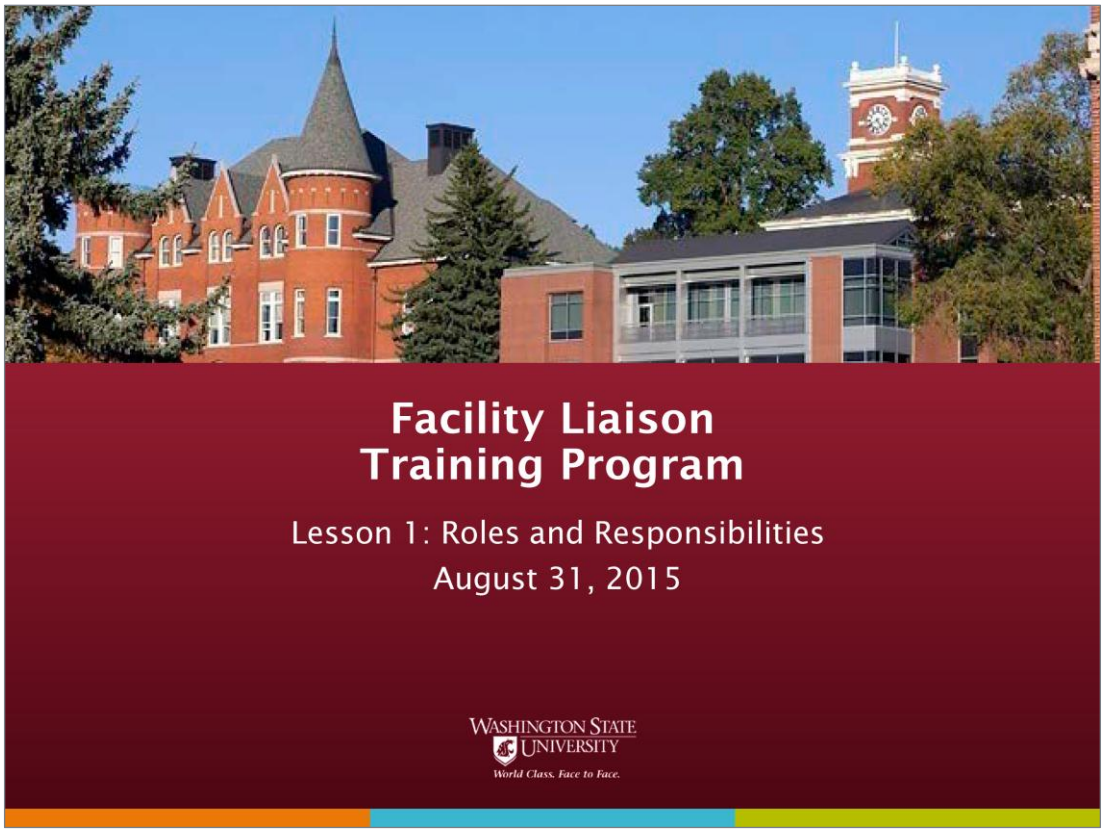
Privacy Concerns Associated with Tracking Personal Devices

Data collection through CO_2 sensors and people counters is implicitly anonymized. In contrast, Wi-Fi trackers receive identifiable information. Systems like GeoMetri automatically anonymize this data upon receipt, but many people remain concerned about the security of personal information. Institutions interested in pursuing this technology must be mindful of this issue.

Source: "Improve Your On-Campus Experience," GISi, http://gisinc.com/state-local-government/university-services/; Facilities Forum interviews and analysis.

Appendix

Washington State University's Facility Liaison Training Program



Source: Washington State University, Pullman, WA.

Facility Liaison Program
Background

Memorandum, "College Engagement in Capital Project Delivery," - Provost Dan Bernardo, Dec 16, 2014

- "It has become apparent that a more formalized approach to the execution of small capital projects within academic units is needed."
- "I will be asking each academic college to designate a facilities liaison to serve as the single point of contact for capital projects occurring within their college."
- Specific Tasks:
  - "Develop a set of operating procedures and policies to guide the execution of projects within academic units"
  - "Develop a progressive set of orientation topics for college (or any unit) facilities liaison person"

3

Facility Liaison Training Program
Curriculum

1. **Roles and Responsibilities**
2. **Understanding Requirements, Needs, and Projects**
3. **Developing the project Scope of Work**
4. **Understanding Estimates: What an estimate is/is not**
5. **The 3-Part Project Approval and Project Agreements**
6. **Understanding Contingencies and Schedule Float: What are they, what are they used for, what happens if not used?**
7. **Roles/responsibilities of Building Committees**
8. **Design Review Process and Material Reviews**
9. **Communication during all project phases: identification, design, construction, closeout**
10. **Understanding myFacilities (AiM-specific)**
11. **Project closeout: Inspections, beneficial occupancy, and warranties**
12. **Maintenance and Renewal: Understanding Maintenance, MCR, and MCI; Understanding billable and non-billable Maintenance**

4

Source: Washington State University, Pullman, WA.

Facility Liaison Program
Roles

- **Three roles/functions:**
  1. **Building Coordinator:**
     - Assists in communicating information to occupants regarding building issues, (e.g., repair and renovation, utility shutdowns, environmental and safety issues, scheduling)
     - Maintains a list of special equipment that may be adversely affected by utility emergencies.
  2. **Project Liaison:**
     - A role, not necessarily a permanent position
     - Associated with a single project, preferably associated with that person's work, expertise, or location
     - This person may also be a Building Coordinator
  3. **Facility Liaison:**
     - Long-term role/function for a Campus/Area/College/Unit
     - Must be someone "dubbed" and empowered by the Campus/Area/ College/Unit leadership.
     - Aligns departmental/academic planning with physical planning

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Roles: The Project Liaison
Responsibilities

1. Associated with a single project; preferably familiar with the program's work, expertise, or location.
2. Serves as the primary point of contact for representing and communicating requirements developed by the Area/College/Unit, including fund sources.
3. Ensures project design will meet user requirements and the expectations of the Area/College/Unit.
4. Speaks authoritatively on behalf of Area/College/Unit for the project team.
5. Briefs Area/College/Unit leadership on progress, schedule, cost, change orders, etc.
6. Understands and communicates constraints and limitations on budget and timing. Appreciates the implications on project contingency and schedule.
7. Expediently answers or seeks answers during design and construction.
8. Provides trust, transparency, and flexibility to ensure successful project delivery.
9. Familiar with use of MyFacilities and other tools

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Source: Washington State University, Pullman, WA.

Roles: The Facility Liaison (1 of 3)
Responsibilities

1. Must be someone "dubbed" and empowered with budget and decision authority by the Campus/Area/College/Unit leadership.
2. Acts as "gate keeper" for Campus/Area/College/Unit capital priorities.
3. Serves as the conduit for capital planning decisions by the Campus/Area/College/Unit.
4. Facilitates diverse opinions within Area/College/Unit into one direction for Facilities Services and the project team.
5. Understands and advocates for Area/College/Unit, but also appreciate institutional interests, Academic Strategic Plans, and the Campus Master Plan.
6. Coordinates routine Area/College/Unit discussions to prioritize requirements and ensure they support Strategic and Master Plans.
7. Manages the Campus/Area/College/Unit strategic portfolio and recommends priorities to the Dean.

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Roles: The Facility Liaison (2 of 3)
Communications

1. Communicates Campus/Area/College/Unit priorities to Facilities Services, especially as they affect space and renovation needs.
2. Communicates critical information early enough for projects to be designed, constructed, or cancelled:
   a. Hiring plans and implications on space
   b. Research grants and implications on renovation needs
   c. Constraints and limitations on timing, schedule, and budget
   d. Program changes that have implications on renovation needs
   e. Administrative changes that have implications on renovation needs
3. Understands how and when to access facilities-related committees:
   a. Architectural Review Committee
   b. Graphic Identity (University Communications)
   c. General Use Classroom (GUC) Committee
   d. Historic Preservation Committee
   e. Naming Committee
   f. Space Committee

8

Source: Washington State University, Pullman, WA.

Roles: The Facility Liaison (3 of 3)
Awareness

1. Awareness of funding/university budgeting processes:
   a. What are the different fund sources, and what are they used for?
   b. When is the Call for Projects, and what Campus/Area/College/Unit information is needed?
   c. How do I get in the queue for funding?
   d. What happens if I miss the queue?
2. Awareness of Facilities Services processes and foundational work:
   a. Current Facilities Services assessments on building conditions:
      - Requirements
      - Opportunities for improving utilities or overall facility condition
   b. University Strategic Plans and Campus Master Plan implications
   c. General awareness of design/construction laws and policies that may affect the project (City of Pullman Regulatory oversight, RCW, ADA, NFPA, etc.)
   d. WSU delegations of authority from Board of Regents and President.

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Roles: Facilities Services Project Team (1 of 2)
Roles and Responsibilities

What can you expect from Facilities Services?

1. When given a Needs/Requirements statement, provide project delivery options and cost/time implications.
2. Once project delivery option selected, develop scope and more detailed costs and schedule.
3. Provide a holistic review of the facility capacity, condition and requirements:
   a. Evaluation of the facility's capacity to support new requirements, and recommendations on alternative solutions.
   b. Recommendations to maximize opportunities for renewal and utility improvements.
   c. Recommendations to minimize long-term costs and client disruption (single project vs. multiple projects).
   d. Ensure "partnered" projects are funded by the appropriate means (department funds, MCR, etc.). Availability of Minor Capital Renewal (MCR) funding depends on campus priorities within a biennium. Facilities Services determines if a requirement can be sourced in the current biennium.

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Source: Washington State University, Pullman, WA.

Roles: Facilities Services Project Team (2 of 2)
Roles and Responsibilities

What can you expect from Facilities Services?

4. Guide the Project Liaison through the process.
5. Timely and accurate communication during all project phases.
6. Provide trust, transparency, and flexibility to ensure successful project delivery.
7. Assist the Project Liaison's participation in Design Review and Material Reviews.
8. Assist the Project Liaison's participation in project closeout process (inspections, training, etc.).

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Facility Liaison Training Program
Curriculum…In Review

1. **Roles and Responsibilities**
2. **Understanding Requirements, Needs, and Projects**
3. **Developing the project Scope of Work**
4. **Understanding Estimates: What an estimate is/is not**
5. **The 3-Part Project Approval and Project Agreements**
6. **Understanding Contingencies and Schedule Float: What are they, what are they used for, what happens if not used?**
7. **Roles/responsibilities of Building Committees**
8. **Design Review Process and Material Reviews**
9. **Communication during all project phases: identification, design, construction, closeout**
10. **Understanding myFacilities (AiM-specific)**
11. **Project closeout: Inspections, beneficial occupancy, and warranties**
12. **Maintenance and Renewal: Understanding Maintenance, MCR, and MCI; Understanding billable and non-billable Maintenance**

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Source: Washington State University, Pullman, WA.

Facility Liaison Training Program
Upcoming Schedule; Fall 2015 Semester

Date	Time	Location
September 23, 2015	2 p.m.	Lighty 405
October 27, 2015	1 p.m.	Lighty 405
November 24, 2015	1 p.m.	Lighty 405
December 15, 2015	3 p.m.	Lighty 405

- ***On-line training program to be posted following Fall 2015 semester training.***
- ***Future in-person training sessions to be offered annually.***

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Remarks / Feedback

WASHINGTON STATE UNIVERSITY
World Class. Face to Face.

Source: Washington State University, Pullman, WA.

Washington State University's Building Coordinator Job Description

Business Policies and Procedures Manual

Building Coordinators at WSU Pullman

POLICY	Each building at WSU Pullman is to have a designated coordinator who serves as a primary communication and coordination point for the building. See 80.78.1-2 for specific building coordinator responsibilities. The building coordinator is selected in accordance with the procedures and criteria on 80.78.2.
PROGRAM RESPONSIBILITIES	Facilities Services has primary responsibility for administering the building coordinator program. Other building service providers that cooperate and assist with program administration include Environmental Health and Safety, Public Safety, Emergency Management, Information Services, Housing Maintenance, and Dining Services. Responsibilities for program administration include, but are not limited to: • Providing initial and periodic training to building coordinators. • Conducting periodic communication forums with building coordinators regarding current issues of interest. • Maintaining a building coordinator website providing: a current list of building coordinators, a list of building services and links to service providers, links to project and service requests, and other resource information. • Keeping each building coordinator informed of work to be performed in the building.
RESPONSIBILITIES OF BUILDING COORDINATORS	Each building coordinator is responsible for the following building-related functions:
General	• Participating in ongoing building coordinator training
Building Liaison	• Assisting in communicating information to occupants regarding building issues, e.g., repair and renovation projects, utility service shutdowns, environmental and safety issues, scheduling. • Maintaining a list of emergency contact information related to special equipment that may be adversely affected by utility emergencies.

Source: Washington State University, Pullman, WA.

Building Coordinators at WSU Pullman

Building Liaison (cont.)	• Maintaining information regarding instructional resources available in the building, e.g., classrooms, teaching laboratories, instructional technology, and instructional equipment. • Promoting energy management and conservation among building occupants.
Safety	• Assisting with general building emergency preparedness planning. Planning topics may include lockdown, evacuation, reporting, and responding. • Assisting with coordination of safety education, training, and drills for building occupants. • Serving as a liaison with neighboring or related buildings regarding emergency preparedness issues.
SELECTION	Selection of building coordinators is conducted in accordance with the following guidelines.
Single Unit	If a single department or college occupies the building, the administrative head makes the appointment.
Multiple Units	If more than one department or college occupies the building: • The largest unit, based upon assigned square footage, appoints the building coordinator, or • The unit with the highest level administrative office housed in the building appoints the building coordinator, or • By agreement.
Considerations	Those selecting building coordinators selection are to consider the following: • A candidate's work location in proximity to the building. • A candidate's familiarity with the building, occupants, special equipment, laboratories, research areas, and unique features. • A candidate's familiarity with hazardous operations or hazardous materials that may be used in the building. • A candidate's familiarity with various service providers supporting the building and the providers' respective points of contact.

Source: Washington State University, Pullman, WA.

Iowa State University's Custodial Service Levels

Classroom Facilities

CL SER	No Service
CLASS	Serviced 3X weekly – 1 full / 2 spot cleaning
CUSTDN	
SEM RM	Serviced 3X weekly – 1 full / 2 spot cleaning

General Use Facilities

AS SER	No Service
ASSEMBY	No Service
DAY SR	Serviced 1X weekly
DAYCARE	Serviced 2X weekly – 1 full / 1 spot cleaning
EXH SR	No Service
EXHIB	No Service
FOOD	Services to these areas defined by FPM Custodial Services
FOOD SR	No Service
LOUNGE	Serviced 1X weekly. Lounges in restroom areas will be serviced daily. (Kitchenettes in these areas will be serviced weekly with trash emptied daily)
LOUNGE SR	No Service
MEET	Serviced 1X weekly
MEET S	Serviced 1X weekly. (Kitchenettes in these areas will be serviced weekly with trash emptied daily)
MERCH	Serviced 1X weekly to vending machine areas in academic buildings
MERCH S	No Service
REC RM	No Service
REC SR	No Service

Source: "Iowa State University's Custodial Service Levels," Iowa State University, http://www.fpm.iastate.edu/custodial/standards.asp.

Health Care Facilities

DIAG LAB	Serviced 1X monthly
DIAG SP	No Service
NURSE	Serviced 1X every other week
P BATH	No Service
PT BED	No Service
SUPPLY	No Service
SURG	No Service
TREAT	Full service daily unless blood is present
WAIT	Serviced 2X weekly – 1 full / 1 spot cleaning

Laboratory Facilities

MUSIC	Serviced 1X monthly
OP SR	No Service
OPEN L	Serviced 3X weekly – 1 full / 2 spot cleaning
RES L	Service frequency and service level determined by lab function, generally 1X monthly
RES LS	No Service
T L SR	No Service
T LAB	Serviced 3X weekly – 1 full / 2 spot cleaning

Nonassignable Areas

BRG/TUN	No Service
CORR	Serviced 2X weekly – 1 full / 1 spot cleaning
ELEV	Serviced 1X weekly
MACH R	No Service
REST R	Full Service Daily
STAIR	Serviced 2X weekly – 1 full / 1 spot cleaning
UTIL PL	No Service

Source: "Iowa State University's Custodial Service Levels," Iowa State University, http://www.fpm.iastate.edu/custodial/standards.asp.

Office Facilities

ACA OF	Serviced 1X every other week
ADM OF	Serviced 1X every other week
CLR OF	Serviced 1X every other week
CONF	Serviced 1X weekly
CONF SR	Serviced 1X weekly (Kitchenettes in these areas will be serviced weekly with trash emptied daily)
GA OF	Serviced 1X every other week
OF OTH	Serviced 1X every other week
OF SER	Serviced 1X every other week (Interview rooms, private restrooms and internal corridors within office suites; kitchenettes in these areas will be serviced weekly with trash emptied daily)
OF STU	Serviced 1X every other week if space is used as office only
SEM SR	Serviced 1X weekly (Kitchenettes in these areas will be serviced weekly with trash emptied daily)

Special Use Facilities

AN SER	No Service
ANIMAL	No Service
ARM SR	No Service
ARMORY	Service according to room type usage
ATH PH	Full service to gymnasiums in Forker, Beyer only.
ATH SP	No Service
ATH SR	Serviced 2x weekly (locker and shower room) – Coaches office serviced 1X every other week
CLIN S	Serviced 1X weekly
CLINIC	Serviced 1X weekly
FIELD	No Service
GRH SR	No Service
GRHSE	No Service (If they have restrooms, they will be serviced 2X weekly – 1 full / 1 spot cleaning)
MED SR	No Service
MEDIA	No Service

Source: "Iowa State University's Custodial Service Levels," Iowa State University, http://www.fpm.iastate.edu/custodial/standards.asp.

Study Facilities

LIB ST	Service 1X weekly
OPEN S	Service 1X weekly
PROCESS	No Service
STUDY	Service 1X weekly
STUDY S	No Service

Supporting Facilities

C COMP	No Service
C SERV	No Service
C STOR	No Service
C STOR S	No Service
C SUPP	No Service
COM SR	No Service
DISPEN	No Service
DORM	No Service
HAZ WST STG	No Service
HAZARD	No Service
HAZARD SR	No Service
INCIN	No Service
PRD LS	No Service
PROD L	No Service
RECEIV	No Service
SHOP	No Service
SHOP S	No Service
SUP LB	No Service
SUP LS	No Service
VEH SR	No Service
VEH ST	No Service

Unclassified Facilities

ALTER	No Service
INACT	No Service
UNFIN	No Service
UNUSE	No Service

Source: "Iowa State University's Custodial Service Levels," Iowa State University, http://www.fpm.iastate.edu/custodial/standards.asp.

Rowan University's Space Allocation Guidelines and Request Form

Rowan University
Space Allocation Guidelines

While it is recognized that the assignment and utilization of space (i.e., office, classroom, storage, performance) falls within the responsibility of the administration of the University, it is also recognized that the key stakeholders at the University should be consulted and have input into the ultimate decision on space utilization. No department, unit or division "owns" space. However, space is a University resource and the assignment and utilization of space, as determined by the administration, is based on programmatic need and on what is in the best interests of the University, particularly as it pertains to the academic mission.

Space Planning and Management Process

Key to the University's space planning and management process is the creation and maintenance of an accurate space inventory, audit/surveys, utilization/need assessment and departmental space assignments database. The number, type, and condition of University spaces help inform Capital and Facilities planning and prioritization for the allocation of University resources

Requests for University Space

Space will be assigned, reassigned and reconfigured based on short- and long-term plans of the University, objective criteria, justifiable needs and an established process. Evaluation criteria include, but are not limited to:

- Established area and use space standards
- Needs assessment
- University priorities
- Flexibility
- Changing needs in curricula
- Alternative solutions
- Shared use
- Need for consolidation of resources

Other factors that could inform decisions and guided by this policy, include:

1. *Changes to the assignment, reassignment and reconfiguration of space.*
   Space assignments, reassignments and reconfiguration of space may change in order to achieve optimal utilization and respond to the current and emerging needs of the University.

2. *Assignment and reassignment of occupied space.*
   In most instances, the ability to assign and reassign occupied space is delegated to each of the Deans and Vice Presidents for their respective departments and programs to address the space needs of their respective units.

3. *Vacated, unassigned, new and reconfigured space.*
   Determination of the need for and authorization of the assignment and use of unoccupied, vacated, new and reconfigured University space will be made and authorized by the Executive Space Planning Committee

Source: Rowan University, Glassboro, NJ.

Process for making requests to add/modify space

Members of the University community should make their initial inquiries regarding space utilization to the Office of Campus Planning, which resides within the Division of Facilities and Operations. Its staff manages and maintains an accurate space inventory of university facilities and other data necessary for the planning, assessment, evaluation and allocation of University space. The office assesses and evaluates requests for space assignments, reassignments, changes and reconfiguration and is responsible for implementing an established process for the same. It ultimately presents its assessments and evaluations, as needed, to the Executive Space Planning Committee for their final determination and review and approval.

Executive Space Planning Committee

Official requests for/about space must be made through department/division heads to the Office of Campus Planning, which will prepare a report for the Executive Space Planning Committee. Its members include: Vice President of Facilities and Operations (who will serve as convener), The President's Chief of Staff, Provost, Vice President for Student Affairs, University Senate President, Registrar and Director of Conferences & University Scheduling. The Executive Space Planning committee may request the counsel of other staff to appropriately vet requests that are being made.

Space Request Form attached

Instructions:

Fill out the form and attach any additional information as necessary. When filling out the form use the tab key or mouse cursor to move to the next field. If you require assistance with the following form, please contact the Office of Space Management at spaceplanning@rowan.edu or 856-256-4647.

Source: Rowan University, Glassboro, NJ.

SPACE REQUEST FORM

The Executive Space Allocation Committee oversees the assignment and utilization of space owned or leased by Rowan University. The purpose of this form is to provide information necessary for evaluation of space requests.

For Internal Use Only	**Application No**: _____
Received by: _____	Date: _____
Reviewed by:_____	Date: _____
Director: _____	Date: _____

INSTRUCTIONS:

Please Note:

- *Prior to individuals submitting any requests for space, it should be vetted with their supervisors/unit heads to ensure that they are in agreement with moving forward.*
- *Your application will not be processed unless an inventory, including purpose and/or occupancy of all the space currently being used by your department is complete/and or updated and provided to the office of Campus Planning.*
- *Any rooms that will be vacated to accommodate this request will become a part of the inventory of available space and secured by Division of Facilities and Operations until it is reoccupied.*
- *Complete the form and attach any additional information as necessary. If you have any questions, require assistance or need clarification, please contact the Office of Campus Planning at spaceplanning@rowan.edu or 856-256-4647.*

CONTACT INFORMATION

Name:

Department:

Email:

Phone:

OCCUPANT/USE INFORMATION

Use:		Name:		Title/Nature of work:	
New Hire	Yes: ☐	Full Time	Yes: ☐	Part Time	Yes: ☐
Temporary	Yes: ☐	Permanent	Yes: ☐		

Source: Rowan University, Glassboro, NJ.

Space will be used for: (please check)

Instruction ☐ Research/Grant ☐ Administration ☐ Storage ☐

Public ☐ Service ☐ Auxiliary ☐ Support ☐

REQUESTED DURATION

Temporary (Less than 2 years) Yes: ☐ No: ☐

Permanent (More than 2 years) Yes: ☐ No: ☐

ARE YOU REQUESTING A PARTICULAR SPACE? Not Applicable: ☐ Yes: ☐

If Yes: Building Name/Number: Room number:

From: Building/Name/No. Room #

To: Building/Name/No. Room #

(A) Briefly describe why space is needed.

(B) Describe any adjacency/proximity needs?

(C) How often will space be used?

(D) Address the implications to your program/service if your request space is not approved.

(E) What attempts have been made to locate space within your current space allocation? *(e.g., Has underutilized space been assessed to solve this need or have shared space possibilities been explored?)*

(F) Do you anticipate the number of people in your unit increasing within the next two years? Yes: ☐ No: ☐

(G) If yes, please indicate reasons for anticipated growth and whether or not funding has been identified for those positions:

(H) Are you seeking funding to support this request? Yes: ☐ No: ☐ Unsure: ☐

(I) If yes, What Kind?

(J) Is this space request based on research grant that has been funded or is anticipating funding? Yes: No:

Anticipated Funding:	**$**	**Date Anticipated:**
Funded:	**$**	**Date Received:**
Grant:	**$**	**Date Received:**

(K) If this space request is approved, will existing space be vacated? Yes: ☐ No: ☐
If yes, please list building/room #'s:

(L) If this space request is approved, does the requesting unit have sufficient funding in place to cover the move and/or renovation costs? Yes: ☐ No: ☐
If yes, please identify funding source:

Source: Rowan University, Glassboro, NJ.

DEPARTMENTAL APPROVALS

REQUESTER (Print Name): Signature: Date:

TITLE:

SUPERVISOR (Print Name): Signature: Date:

TITLE:

DEAN/VICE PRESIDENT: Signature: Date:

PROVOST: Date:

Action Taken By Executive Space Planning Committee

No Action **Approved** **Not approved**

Print Name:

Signature:

Title:

Date:

Source: Rowan University, Glassboro, NJ.

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EAB

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