

Administrative Excellence



WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON

Classroom Space Utilization
Campus Forum June 20, 2012

Project Team Members

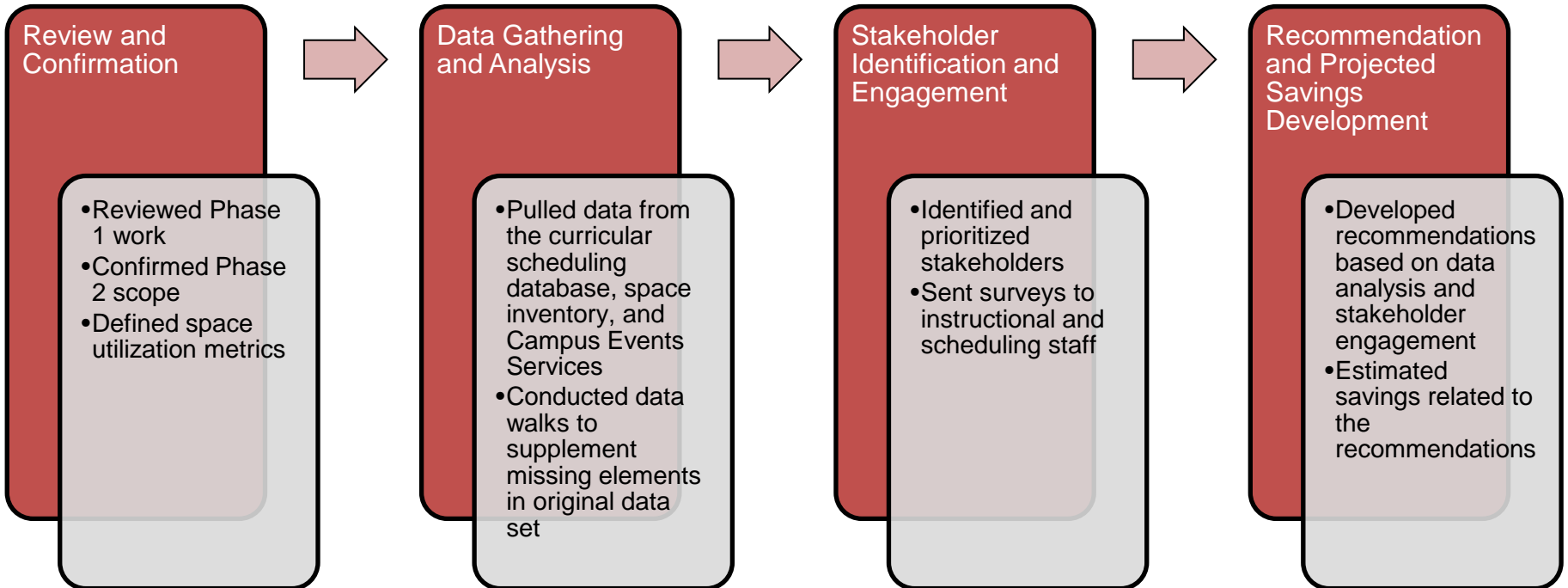
The following team members were instrumental in developing the business case.

Name	Organization
Phillip Braithwaite	Madison Budget Office
Rebecca Brauer	Student Representative
Chris Bruhn	College of Letters and Science
Alice Gustafson ¹	Administrative Process Redesign
Nancy Kujak-Ford	Wisconsin Union
Ed McGlenn	Office of the Registrar
Scott Owczarek	Office of the Registrar
Angela Pakes Ahlman	Capital Planning and Development
Doug Rose	Space Management Office
Ken Shapiro	Faculty Representative
Peter Rubow	Huron Consulting Group

Note: (1) Team Lead

Process

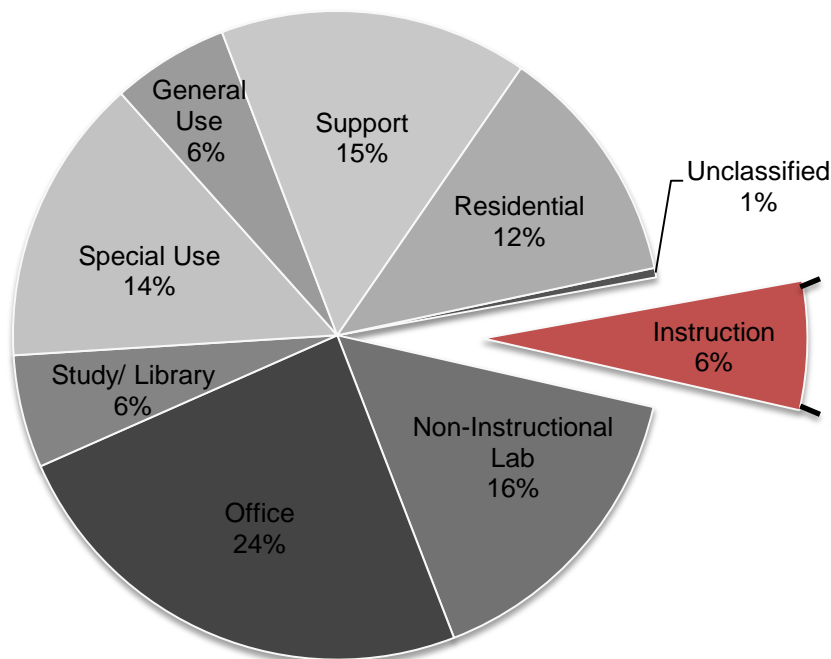
The team conducted its work using the following process.



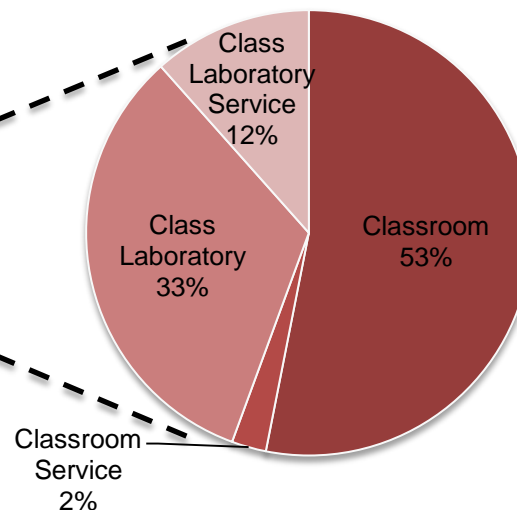
Description of Space

Instructional space is defined as any space that is used in the scheduled instruction of students. This space is mainly comprised of classrooms and instructional laboratories.

Total UW Space



Instructional Space

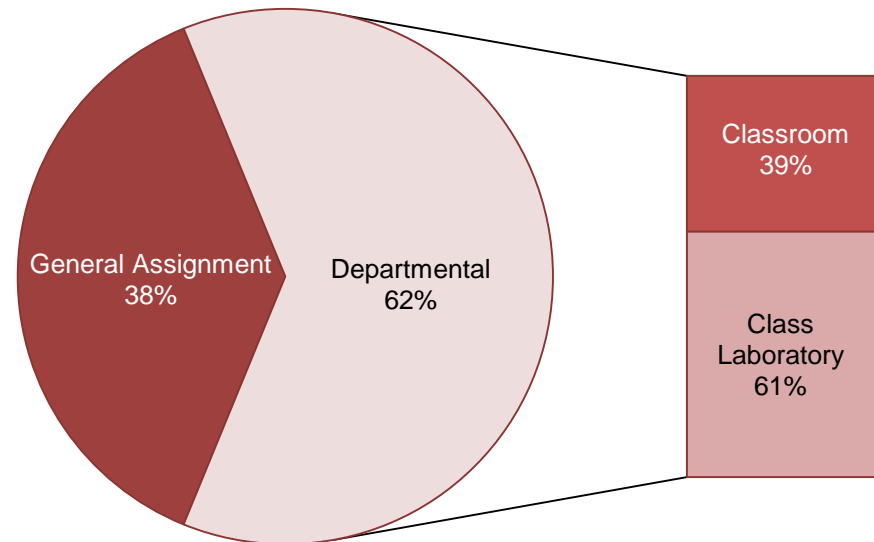


Instructional space accounts for approximately 6% of the University's total square footage. This amounts to approximately 975,000 square feet.

Description of Space

The distinction between general assignment and departmentally assigned instructional space is important to understand when assessing root causes of underutilization and devising solutions.

Instructional Space – How Assigned?

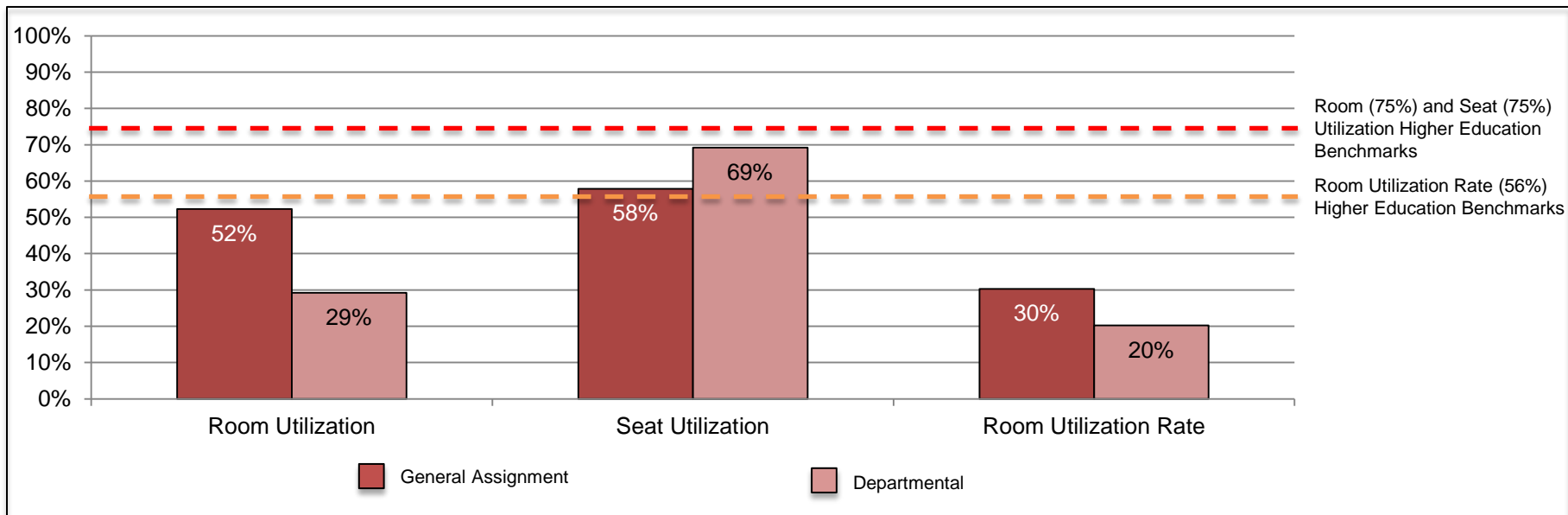


62% of all instructional space is assigned by departments. The main driver of this disparity is class laboratories which are exclusively assigned by departments.

Data Findings

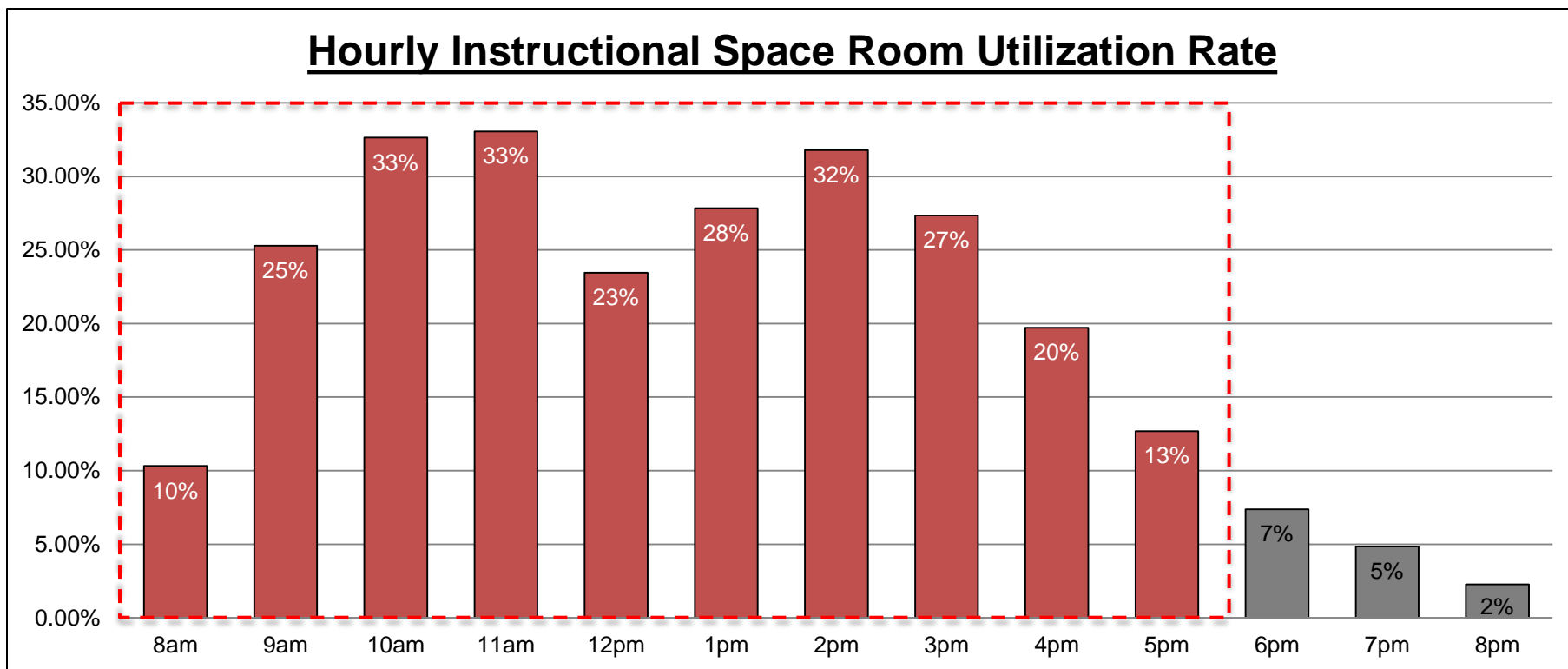
Our data found that instructional space at the University is underutilized when compared to higher education benchmarks.

- Curricular data showed that university room utilization averaged 39%, seat utilization averaged 63%, and room utilization rate averaged 24%
 - Targeted additional data collection in departmental rooms showed that non-curricular usage accounts for an additional 26% in room utilization
- Reasons for underutilization are unclear



Data Findings (cont.)

Our data found that instructional space utilization at the University varies greatly depending on the time of the day.



Utilization is highest during normal instructional hours (7:45am – 5:25pm) and tails off during the evening.

Observations

Instructional space, which is comprised of classrooms and class labs, accounts for approximately 6% of the University's total square footage.

- While the charter goal was largely focused on cost reduction through the return of off campus leases, establishing **dual goals of both quality improvement and cost reduction** was an important first step for the team
- Being cognizant of the **impact that instructional space has on both the student experience and faculty instruction** was important to developing our solutions
- The **University does not maintain enterprise data sets** or think about instructional space with an enterprise view, making data gathering a difficult and lengthy exercise
 - Lack of complete data sets made decision making difficult
- **Engaging the campus community** was, and will be, important to making informed decisions on instructional space and gaining initiative buy-in
 - The team distributed surveys to both instructional and scheduling staff to begin understanding how they request and schedule instructional space
 - The team received input from Education Innovation and the Director of Education and Research for the Office of Sustainability

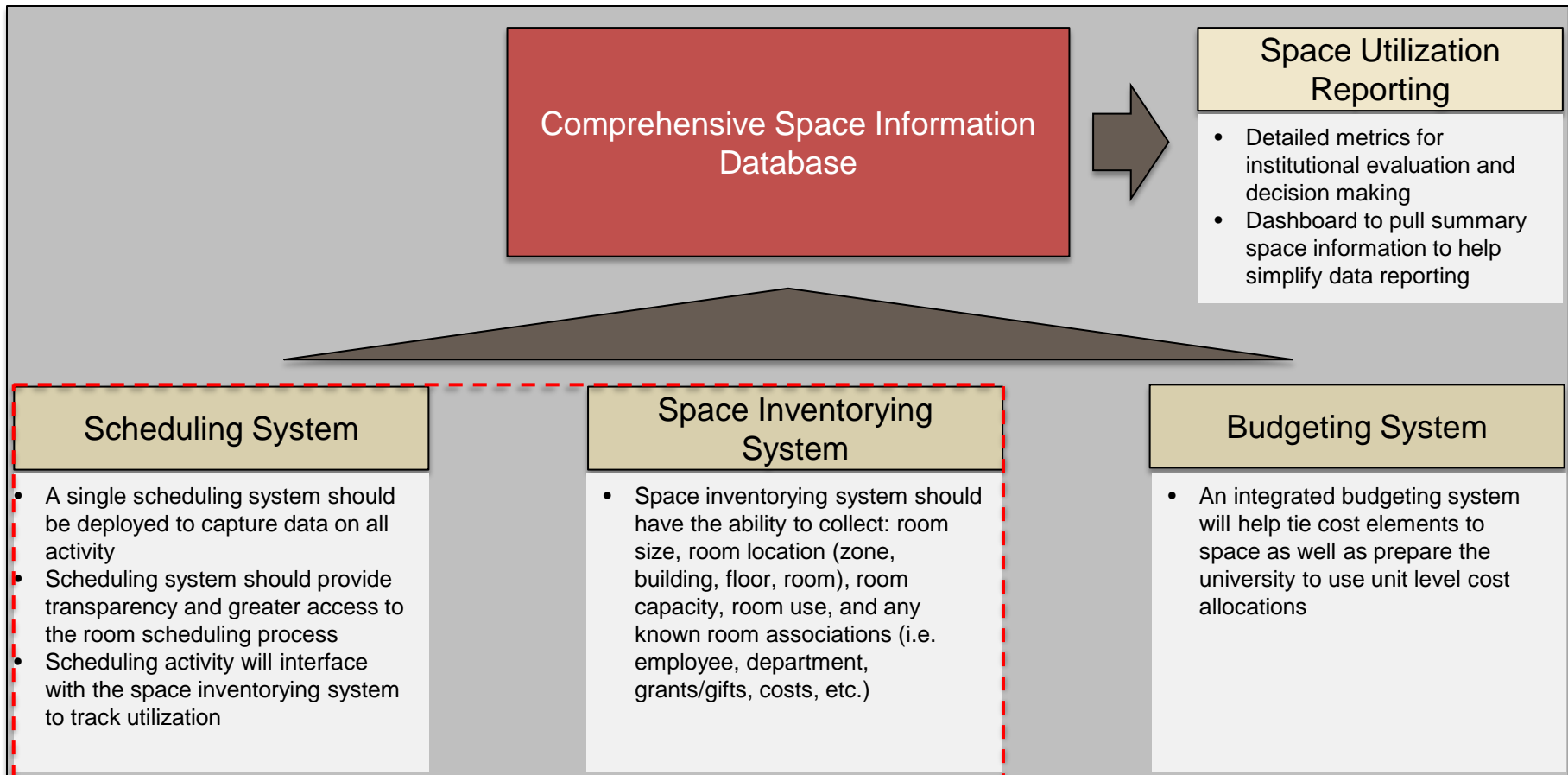
Recommendations

The team recommends the following actions be taken to promote increased efficiency, quality improvement, and cost savings.

- Establish one comprehensive set of instructional space data
- Adopt enterprise inventory and scheduling systems
- Create a master academic schedule that reconsiders and redesigns the scheduling of instructional space
- Address the process of scheduling general assignment and departmentally controlled instructional rooms
- Institute a standard review process for repurposing underutilized instructional space
- Institute a standard process to review current instructional space data before new construction is authorized
- Consider setting aside appropriations to create a central funding pool to pay for instructional space upgrades and/or repurposing

Technology

Before implementing many of the subsequent steps, the University must first gather comprehensive space information through the use of enterprise scheduling and inventorying systems.



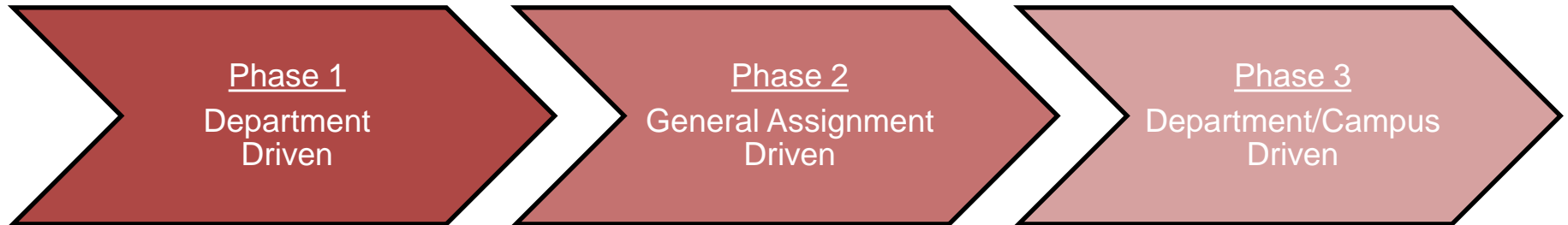
Scheduling

Optimal scheduling is essential to both driving utilization and maximizing the student and faculty experience.

In order to optimize scheduling:

- Reconsider and redesign instructional space scheduling through the creation of a master academic schedule
- Rethink the control of instructional space and how it is scheduled as follows:

Proposed Scheduling Process

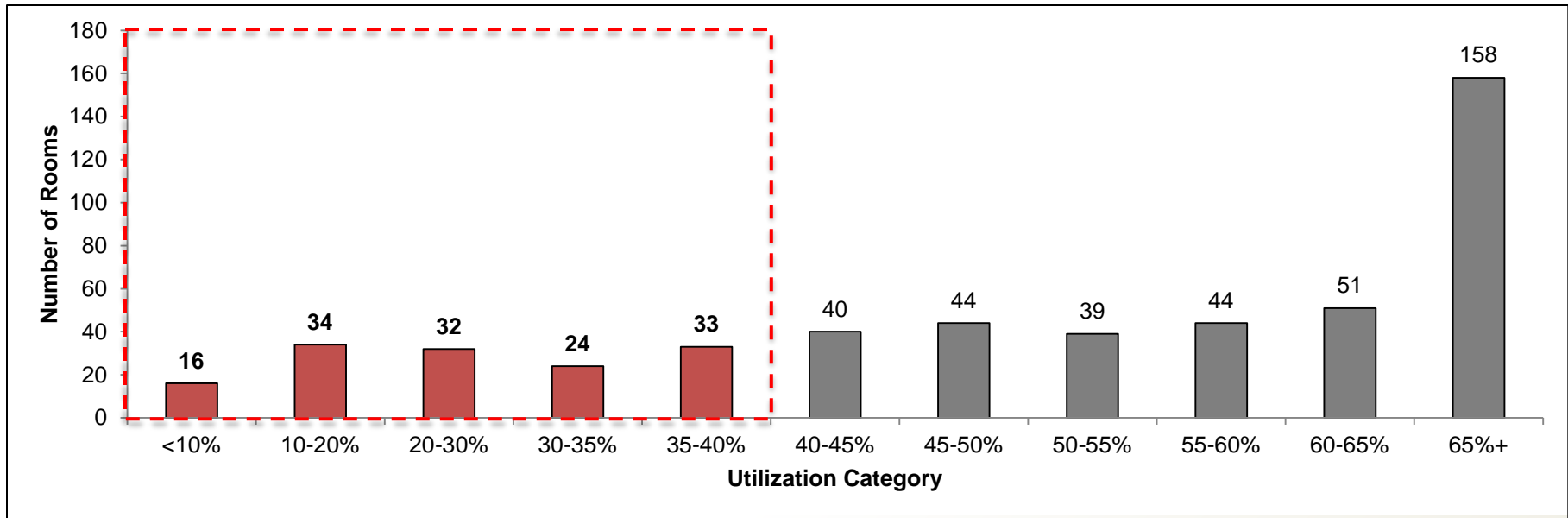


Process

Designing processes for space review that understand and accommodate the complexities that surround the use of space is essential to driving positive utilization practices at the University.

To review space usage, create the following processes:

- New construction/new assignment instructional space data review process
- Underutilized space review – beginning with classrooms that have a room utilization of <40%



Funding

To support the repurposing of instructional space, the University will need to set aside appropriations to create a central funding pool for reinvestment opportunities.

In order to support a central funding pool:

- Evaluate current instructional space modernization program criteria and funding levels to ensure they complement institutional space needs and educational priorities
- Create a competitive review process for obtaining funding that explicitly requires criteria that would promote increased room utilization rates, improved time-to-degree, or deferred building expansion
- Consider supplementing current funds with additional funding where needed

Fund	Value
Instructional Laboratory Modernization (ILM) Program	\$1,700,000
Engineering Technology	\$1,500,000
Classroom Renovation/Instructional Technology Improvements Program (ITIP) ¹	\$1,000,000
Classroom Modernization Program	\$650,000
Space & Remodeling Policies Committee (SRPC)	\$280,000
Total	\$5,130,000

Note: (1) Funded through biennial capital budget request

Financial Impact

While the team found it difficult to accurately estimate the financial ramifications of underutilized space, it does appear there may be some cost savings in decommissioning underutilized rooms or repurposing the space to bring some off-campus leased space back to campus.

Estimated savings result from:

- No longer paying for off-campus leasing
 - The University would need to account for remodeling expense
- No longer paying to clean, maintain or heat/cool decommissioned space

Estimated savings is about \$6 million over five years

The real gain is in quality of the classroom experience for students and instructors, and the ability to provide data for decision-making about the use and design of classrooms for the future.

Next Steps

In order to continue the momentum of this team, we recommend that five teams are formed to move forward with implementation.

Team	Tasks	Start Date
1	Define data set and gather data to populate the enterprise inventory and scheduling systems with instructional space information	Summer 2012
2	Gather requirements; perform due diligence; and make a recommendation for an enterprise scheduling system	Summer 2012
3	Gather requirements for a master academic schedule and create a draft for leadership approval	Summer 2012
4	Engage in a pilot program(s) for allocating and scheduling instructional space and create an enterprise recommendation for this process	Summer 2012
5	Engage in a tiered review of underutilized space in order to create a standard review process. Initial review will focus on classrooms with a room utilization of less than 30%, but will subsequently move to a review of space utilized less than 40%	Summer 2012

Appendix

Vocabulary

Before the team was able to begin discussing underutilized space, it needed to identify and establish a shared vocabulary.

Term	Description
Room Utilization	Definition: Percentage of hours a room is in use Calculation: (Number of Hours in Use) / (Total Room Hours of Instruction)
Seat Utilization	Definition: Percentage of seats occupied when a room is in use Calculation: (Number of Seats in Use) / (Number of Seats Available)
Room Utilization Rate	Definition: Percentage of total seats in use Calculation: (Room Utilization) x (Seat Utilization)
Total Room Hours of Instruction	Definition: The total number of hours each week that classrooms or class laboratories are used for regularly scheduled classes (the University has set this at 45 hours/week)
Instructional Space	Definition: Total space that is used for instruction (comprised of classroom and class laboratory space)
Classroom	Definition: General purpose classrooms, lecture halls, recitation rooms, seminar rooms, and other rooms used primarily for scheduled non-laboratory instruction
Class Laboratory	Definition: Rooms used primarily for formally or regularly scheduled classes that require special purpose equipment or a specific room configuration for student participation, experimentation, observation, or practice in an academic discipline
General Assignment	Definition: Rooms managed by the Registrar's Office
Departmental Assignment	Definition: Rooms managed by departments

Potential Financial Impact

While the team found it difficult to accurately estimate the financial ramifications of underutilized space, the following scenarios have been developed to set baseline financial expectations.

The following scenarios are dependent on a tiered review of underutilized space. In this review the University will:

- Review all classrooms with a room utilization of 30% or less in year one
- Expand the review to all classrooms with a room utilization of 40% or less in years two, three, four, and five
- Either decommission underutilized instructional space or use it to bring back off-campus leases

Scenario 1 - Repurpose Underutilized Space for Leases and Decommission Remaining Space

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Up-Front Costs (\$)	\$6,013,600	\$0	\$0	\$0	\$0	\$6,013,600
Recurring Annual Savings (\$)	\$972,631	\$1,498,341	\$1,498,341	\$1,498,341	\$1,498,341	\$6,965,995
Net Savings/Costs (\$)	-\$5,040,970	\$1,498,341	\$1,498,341	\$1,498,341	\$1,498,341	\$952,395

Scenario 2 - Decommission All Underutilized Space

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Up-Front Costs (\$)	\$0	\$0	\$0	\$0	\$0	\$0
Recurring Annual Savings (\$)	\$634,015	\$1,159,727	\$1,159,727	\$1,159,727	\$1,159,727	\$5,272,924
Net Savings/Costs (\$)	\$634,015	\$1,159,727	\$1,159,727	\$1,159,727	\$1,159,727	\$5,272,924

Incentives

Incentivizing the adoption of new scheduling processes and policies will be an important mechanism to engage campus.

New Space Request Utilization Hurdles

- Units or individuals that request additional space must first demonstrate that they are utilizing their current space well

Underutilization Penalties

- Financial or non-financial penalties applied to units that don't meet utilization targets

Four Basic Types of Incentives¹

Upgrades for Standards Adherence

- Upgrades for standards adherence type incentive focuses on giving units or individuals better space for meeting set standards

Unit Level Cost Allocations

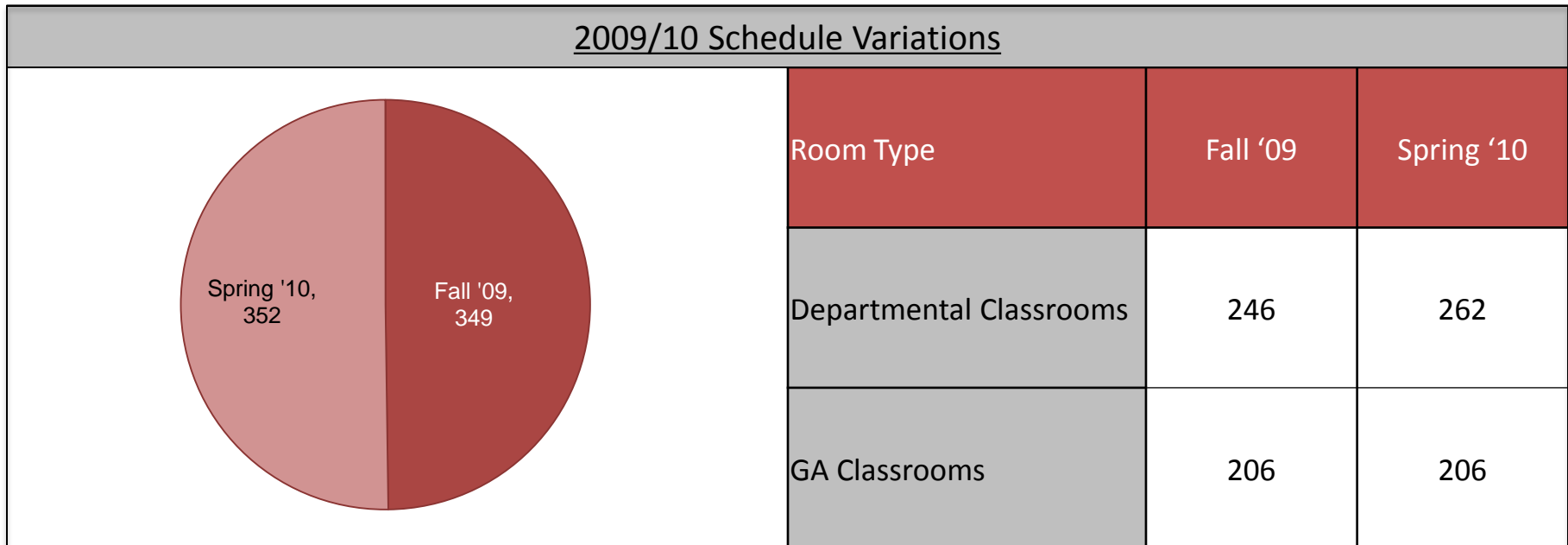
- Distribute some of the actual costs of using space at the university to the units as a part of the budgeting or review process

While no incentive structure was selected, the team generally felt that providing upgrades for standards adherence would be the most effective way to incentivize new process and policy adoption.

1) Educational Advisory Board, *Maximizing Space Utilization: Measuring, Allocating, and Incentivizing Efficient Use of Facilities* (The Advisory Board Company, 2010)

Schedule Variations

The team found that classroom start and stop times proliferate across campus making efficient scheduling difficult.



The University currently only recognizes 21 start and stop times as standard.