USG Space Utilization Initiative

USG Facilities Officers Conference
25 October 2012

“Creating a more educated Georgia”
Agenda

1. Why focus on space utilization?
2. How we got here
3. What we’ve done and what we’ve learned
4. What’s next?
   • Phase II
   • Facilities Technology
5. Questions and Discussion
Why Focus on Utilization?

USG Capital Improvement Program Status, June 2011

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>GO Bond Project Capital</th>
<th>BOR GO Project Target FY08-14</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2008</td>
<td>$185</td>
<td></td>
</tr>
<tr>
<td>FY 2009</td>
<td>$204</td>
<td></td>
</tr>
<tr>
<td>FY 2010</td>
<td>$270</td>
<td></td>
</tr>
<tr>
<td>FY 2011</td>
<td>$105</td>
<td></td>
</tr>
<tr>
<td>FY 2012</td>
<td>$93</td>
<td></td>
</tr>
<tr>
<td>&quot;Pipeline&quot;</td>
<td>$303</td>
<td></td>
</tr>
<tr>
<td>&quot;Balance&quot;</td>
<td>$319</td>
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$ Millions (nominal)
Why Focus on Utilization?

“In this new environment, the major challenge is not building capacity: it is first to ensure the existing capacity is used as efficiently and effectively as possible. Accordingly we must ensure that we are utilizing our entire space well before new buildings are approved.”

Chancellor Henry "Hank" Huckaby
to Board of Regents
14 September 2011
Phase I Scope

Participatory Pilot Study

• 6 diverse institutions:
  ABAC, Clayton, Columbus, GPC, SSU, SPSU

• 2 expert consultants:
  Paulien & Associates, Sasaki Associates

• Working group:
  Pilot institutions, consultants, system office

• Primary tasks:
  o Assess existing pilot institution space utilization
  o Develop uniform approach to utilization data and assessment

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Why Focus on Utilization?

System Space Overview

58 m Total Assignable SF (owned and leased)

Six key room types = 60%

Classroom + Lab = 10.9 m

Office = 11.7 m

<table>
<thead>
<tr>
<th>Room Type</th>
<th>ASF</th>
<th>Lab</th>
<th>Office</th>
<th>Library</th>
<th>Special</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom</td>
<td>3.3 m</td>
<td>7.6 m</td>
<td>11.7 m</td>
<td>2.3 m</td>
<td>4.9 m</td>
<td>5.2 m</td>
</tr>
</tbody>
</table>
Why Focus on Utilization?

• Traditional normative space planning and needs assessment models are not effective

• New thinking needed to overcome constraints
  o Public sector/state government issues
  o Higher education issues

• We can no longer afford the “new construction first, all else later” approach to capital investment
Phase I – Key Observations

1. We need better data to accurately assess space utilization
   • Pilot institutions had difficulty providing valid data
     o Space – rooms and buildings
     o Space users - courses, events, and people
   • Most campuses will need significant validation
   • Pilot approach shaped solutions
   • Immediate priority – validating space data
Space Validation

System Facilities Data

• 28 building attributes
• 7 room attributes
  o Room Number
  o Room Description
  o Room Area
  o Room Use Code
  o Number of Stations
  o Program Class
  o CIP (Classification of Instructional Program)

Similar attributes with conflicting information may exist in other campus data systems!
Space Validation

• Most Critical Room Attributes
  o Room Number (Unique ID)
  o Room Use Code
  o Room size in ASF
  o Station Count (where applicable)
  o CIP Code (where applicable)

• Space Data Sources
  o Tabular Data
  o Floor Plans
  o Buildings (physical reality)
3 Distinct Steps

• Validate data
  o Confirm key building attributes and all room attributes
  o Identify and rectify inconsistencies between data systems

• Enter and edit validated data in institution source system
  o Banner
  o 3rd party application

• Submit Data for Fall 2012 to system office via new Facilities Inventory Data Collection (FIDC)
  o Midterm Collection (9-16 November 2012)
  o End of Term Collection (8-15 January 2013)
Room Use Coding Changes – Fall 2012

• Changes are incremental
• 2 codes with new descriptions
• 8 codes discontinued and mapped to 11 new codes
• Changes improve accuracy and relevance
• Changes support new overlay taxonomy

“Now that you have an overview of the system, we’re ready for a little more detail”
Room Use Coding Change Example

Scheduled Labs

210  Dx Learning Classroom
211  Specialized Classroom
212  Class Lab – lab only

New Scheduled Labs

211  Discipline Class Lab
212  Computer Classroom
213  Dx Learning Classroom

Open Labs

220  Special Class Lab
230  Individual Study Lab

New Open Labs

221  Discipline Open Lab
222  Testing/Services Lab
411  Open Computing Lab
412  Learning Support Lab
Phase I – Key Observations

2. Space utilization varies widely
   • Between institutions, campuses, even buildings on the same campus
   • Goals
     • Metrics for consistent, relevant comparison
     • Target values and ranges within metrics
FICM Room Use Code Taxonomy

100
- classrooms

200
- class labs
- open labs
- computer labs
- testing

300
- offices
- conference rooms

400
- library
- study

500
- armory
- media
- athletic
- clinic + demo
- plant + animal

600
- performance
- exhibition
- dining
- day care
- lounge
- meeting
- recreation
New Room Use Taxonomy

- classrooms
- teaching labs
- computer labs
- testing
- meeting
- offices
- conference rooms
- performance
- exhibition
- dining
- day care
- lounge
- meeting
- recreation
- sport + rec.
- special instr.
  - clinic + demo
  - plant + animal
- armory
- media
- athletic
- social / study
  - library
  - study
New Metrics

Classroom
Classroom Service

Discipline Class Lab
Discipline Class Lab Service

Discipline Open Lab
Special Instruction
Performance/Exhibit

Office
Office Service

Social/Study

Testing/Services Lab
Meeting
Dining
Merchandising
Other

NEW

% of classroom

Individual – Hours of use / station occupancy
% of class lab space

NEW

NEW

NEW

Total ASF
ASF/CrHr
ASF/CrHr
ASF/CrHr
ASF/CrHr
Classroom - ASF per student FTE

- University
- Community College
- Research Intensive Institution
Classroom Metric Example

Traditional Analysis:

• Analyze utilization in selected time periods
• Analyze hours and station occupancy separately
• Target: 25 hours per week, 65% seat occupancy

New Method:

• Analyze all utilization 24/7
• Aggressive “Working Target”:
  • 40 hours per week
  • 100% seat occupancy
• Capture weekly hours of use and station occupancy “fit” in a single number and graphic
Composite Classroom Utilization - Numeric Metric

Pilot Institutions

Traditional CEFPI Planning Guideline
• **BLUE** = Total seats available in 40 target hours
• **RUST** = Seats in Use at optimal distribution
CLASSROOMS – NEW METRIC

72 Rms  879 WRH scheduled

54 Rms  2,144 WRH scheduled
Dunwoody - 54 Rooms    .789

Alpharetta - 14 Rooms    .373
Office Metric Example

Traditional Analysis:
• Match each employee to a model amount of ASF
• Calculate current/future space needs per employee

New Method:
• Focus on number of office workstations in addition to space
• Support space and conference rooms measured separately

Office Metrics:

- Stations / (Faculty + Staff FTE)
- Average ASF per Station
- % of individual offices > 150 ASF

Office Support Metric:
- ASF as % of office space
OFFICE STATIONS / FTE

0.9
0.9
1.3
1.6
1.6
1.7
% INDIVIDUAL OFFICES > 150 ASF
Phase I – Key Observations

3. Greater efficiency is possible – most campuses can get more out of the space they have
   • Efficiency is often not easy or convenient
   • Leaders must instill culture of institutional space allocation with appropriate sharing and use of resources
   • Space management can enable better facility utilization and effectiveness
   • Technology can help improve data quality and analysis, and support management and operations.
Phase I – Key Observations

4. We need to focus on smart, innovative investment in existing facilities
   • Facilities quality is a real issue
     • Not all spaces are equal
     • Current system data don’t tell the whole story
   • Toured six campuses, 27 buildings, 1.1 m GSF
   • Condition and quality of space does not have a consistent effect on utilization
   • Many facilities require investment to enhance utilization, improve effectiveness, and decrease operating costs
Learning Environments – What Matters?

1. Pedagogical Appropriateness
2. Enough Rooms?
3. Size of rooms
4. Technology
5. Room Configuration
6. Light
7. Acoustics
8. Climate Control
Phase I – Key Observations

5. Initiative supports the Board of Regents, Chancellor, and system office
   • Strategic decision support
   • New approach to capital allocation

6. “System” initiative provides direct, immediate value to institutions
   • No System without Institutions
   • Working Group reported mutual benefits
Utilization – What’s Next?

Phase II

• Validate institutional space data
• Submit Fall 2012 space data via FIDC
• Assess Fall 2012 utilization for all USG institutions (December 2012 – May 2013)
  • Refine Phase I utilization metrics
  • Determine targets/ranges for metrics
  • Develop methodology for research and athletics
• Leverage utilization analysis to support System strategy and inform future capital allocations
• How will new approach support integrated planning?

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What does it all mean for Facilities Officers?

- Fewer new buildings
- Need for more external $$$
- Greater discipline in preplanning and programming
- Priority on renovation and repurposing
- New thinking on Master Planning and Capital Planning
- Better information and analysis to support reality-based decision making
- Technology to enhance facility data, analysis, and management
Facilities Technology

- Annual Revenue ($B)
  - IBM: $120
  - USG: $20

- Employees (000s)
  - IBM: 500
  - USG: 100

- Space Inventory (GSF, Millions)
  - IBM: 100
  - USG: 80

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Facilities Technology – System Priorities

• Objective: Integrated applications and data for facility management, planning, and analysis

• Current priorities:
  o System PPV and Operating Lease Management
  o Capital Project Management (E-Builder)
    ▪ FY13 - Business Needs and Feasibility Assessment
    ▪ FY14 - System/Campus Implementation
  o Campus Facility/Space Management
    ▪ FY13 - Preliminary Risk and Gap Assessment
    ▪ FY14 - Business Needs and Application Assessment
    ▪ FY15 - Begin Campus Implementation

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Facilities Technology – Campus Survey

• Last informal survey: May 2009
• What applications are you using for:
  o Facility Management
  o Space Management and Scheduling
  o Maintenance/Work Order Management
  o Capital Project Management
  o Energy Management
• One survey per institution
• Complete your survey during the conference and return it to an OREF staffer
Conclusion

• Utilization Study is critical priority of Chancellor.
• Utilization study outcomes will inform future system resource allocation and strategy
• You can’t effectively manage what you don’t understand.
• You can’t get optimal outcomes from what you can’t effectively manage.
• While utilization data and analysis benefit each institution, Phase II is a system product with a comprehensive focus.
• Good space data are critical for effective utilization analysis
• “System” and “institution” space data must be consistent.
• Technology can help us move to the next level
Discussion