Established in 2001

- Over 275 Campuses
- 120+ Public and 130+ Private
- 7+ State Systems
- Database of over 825M GSF

Developed a tool based on

- Common vocabulary
- Consistent analytical methodology
- Credibility through benchmarking
A vocabulary for measurement

The Return on Physical Assets – ROPA℠

**Annual Stewardship**

The annual investment needed to ensure buildings will properly perform and reach their useful life. **“Keep-Up Costs”**

**Asset Reinvestment**

The accumulated backlog of repair and modernization needs and the definition of resource capacity to correct them. **“Catch-Up Costs”**

**Operational Effectiveness**

The effectiveness of the facilities operating budget, staffing, supervision, and energy management.

**Service**

The measure of service process, the maintenance quality of space and systems, and the customers opinion of service delivery.

**Asset Value Change**

**Operations Success**

**Capital**

**Operations**
## Facilities peer group

The Return on Physical Assets – ROPA℠

<table>
<thead>
<tr>
<th>Institution</th>
<th>Big 10/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgia Institute of Technology</td>
<td></td>
</tr>
<tr>
<td>Indiana University</td>
<td>Big 10</td>
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<tr>
<td>Indiana University Purdue University - Indianapolis</td>
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<tr>
<td>Massachusetts Institute of Technology</td>
<td></td>
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<tr>
<td>New York University</td>
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<td>Northwestern University</td>
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<td>Princeton University</td>
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<tr>
<td>Purdue University</td>
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<tr>
<td>The Johns Hopkins University</td>
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<td><strong>The Ohio State University</strong></td>
<td><strong>Big 10</strong></td>
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<tr>
<td><strong>The Pennsylvania State University</strong></td>
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<tr>
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<tr>
<td><strong>University of Michigan – Ann Arbor</strong></td>
<td><strong>Big 10</strong></td>
</tr>
<tr>
<td>University of Missouri - Columbia</td>
<td>Big 12</td>
</tr>
</tbody>
</table>

### Comparative Considerations

Size, technical complexity, region, geographic location, and setting are all factors included in the selection of peer institutions.

*Schools in bold are part of U Minn’s internal peer group*
Major Observations
State supported campus, FY11 analysis

I. Shifts in physical profile
   • Over the last decade, the campus has grown in total square footage, but the number of buildings has dropped slightly
   • U Minn has similar amount of space under the age of 25 as peers but with an older mix, shifting out of the younger age category
   • Total users on campus are slightly more than peers, but within range of campus type

II. Fundamental shifts in investments
   • The implementation of the HEAPR funds brought recurring investments closer to stewardship targets
   • With equal contributions from HEAPR and one-time capital (Fowell Interior renovation), U Minn has hit target levels for the first time in the last 5 years
   • Backlog demonstrates strong project selection, coming in below FY10 estimate

III. Expectations continue to grow for frequent users of the work order system
   • Users are more familiar with the procedures that their expectations continue to grow for facilities services
   • Clear communication is become more of an important factor to users
   • Small changes in feedback and communication can make a large impact

IV. Operational savings through reductions in daily service
   • U Minn has created significant savings through reduction in people, expenses, and energy costs since FY02
   • Despite savings in consumption, increases in utilities rates created more operational spending than savings
U Minn with fewer, larger buildings

Average size of campus facilities has been increasing over the past ten years

Space changes over time
FY02-FY11

Since FY2002:
Decreased by 13 buildings
GSF increase by 8%, 1.1M GSF
UMinn has 38% of space under the age of 25

Peers have 39% of space under the age of 25
Shift in space distribution
Similar amount of space under 25 years old as peers; different mix

Note: All charts are for state-supported space only
Density Factor

Slightly higher than peers, but within range of university class

UMinn Density Factor: 311

Density Impacts:
- Wear and tear on facilities
- Custodial staffing
- Campus appearance

Note: All charts are for state-supported space only
Operations Review
Facilities Operating Budget vs. Peers

Budget drops below peer average

Facilities Operating Budget Total

Peer Averages
© Sightlines 2001-2012

University of Minnesota - Twin Cities

Note: All charts are for state-supported space only
Operating Budget Savings
Facilities operating budget created $29.3M in savings

U Minn’s Projected and Total Facilities Operating Spending
FY02-FY11

$1.87/GSF in savings
Total $29.3M

Note: All charts are for state-supported space only
Overview of Operating Savings Attained

$29M in budget savings in FY11

- Operating Savings: $39M
- Energy Savings: $2M
- Unfunded Rate & PM: ($12M)
- Net Budget Savings: $29M
Substantial cost avoidance in operating budget
Materials and equipment largest reduction in operating daily service

FY11 Operational Savings
Components of savings based on projections

- People: 74%
- Expenses: 21%
- Utilities: 5%

People and Expenses savings in FY11 based on projections: $39M
Reduction from inflation increase and actual expenditures

<table>
<thead>
<tr>
<th>FY</th>
<th>People</th>
<th>Expenses</th>
<th>Utilities</th>
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<tbody>
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<td>FY02</td>
<td>$5</td>
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</tr>
<tr>
<td>FY11</td>
<td>$5</td>
<td>$4</td>
<td>$0</td>
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</tbody>
</table>
### Operation Overview

Inspection score at or above peer and database averages

#### Maintenance

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<thead>
<tr>
<th></th>
<th>FY2011</th>
<th>Peers</th>
<th>Database</th>
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<tbody>
<tr>
<td>Staffing (GSF/FTE):</td>
<td>70,460</td>
<td>91,237</td>
<td>89,715</td>
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<tr>
<td>Supervision (FTE/Super):</td>
<td>8.2</td>
<td>9.1</td>
<td>11.7</td>
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<tr>
<td>Materials ($/GSF):</td>
<td>0.17</td>
<td>0.20</td>
<td>0.23</td>
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<tr>
<td>General Repair (1-5):</td>
<td>4.1</td>
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</table>

#### Custodial

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<th>Peers</th>
<th>Database</th>
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<td>Staffing (GSF/FTE):</td>
<td>31,952</td>
<td>38,331</td>
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<tr>
<td>Supervision (FTE/Super):</td>
<td>14.8</td>
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<td>17.7</td>
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<tr>
<td>Materials ($/GSF):</td>
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<tr>
<td>Cleanliness (1-5):</td>
<td>4.5</td>
<td>4.3</td>
<td>4.2</td>
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</table>

#### Grounds

<table>
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<th>FY2011</th>
<th>Peers</th>
<th>Database</th>
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</thead>
<tbody>
<tr>
<td>Staffing (Acres/FTE):</td>
<td>20.2</td>
<td>19.4</td>
<td>22.9</td>
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<tr>
<td>Supervision (FTE/Super):</td>
<td>6.6</td>
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<tr>
<td>Materials ($/Acre):</td>
<td>166</td>
<td>343</td>
<td>598</td>
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<td>Grounds (1-5):</td>
<td>4.0</td>
<td>4.0</td>
<td>4.0</td>
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</tbody>
</table>
Substantial cost avoidance in operating budget
Materials and equipment largest reduction in operating daily service

FY11 Operational Savings
Components of savings based on projections

- People: 74%
- Expenses: 21%
- Utilities: 5%

Energy savings in FY11: $2.2M
Savings from FY02 consumption with current energy costs

Energy Consumption

- Electric BTU/GSF
- Fossil BTU/GSF
- Average 195,266
Excess savings going towards increasing rates and PM

Where are the savings going?

Spending allocation towards Unfunded Rate & PM: $12M
From operating budget savings

**FY11 Spending allocation**
Rates vs. PM

- **81%**
- **19%**

Approximately $9.8M went towards utility rates

Energy Total Unit Cost

- Total Utility Unit Cost
- Average: $8.47

$/MMBTU

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost</th>
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<tbody>
<tr>
<td>2002</td>
<td></td>
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<td>2008</td>
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<td>2009</td>
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<tr>
<td>2010</td>
<td></td>
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<tr>
<td>2011</td>
<td></td>
</tr>
</tbody>
</table>
Campus Inspection

Overall campus appearance in line with peers

Campus Inspection Scores

- Cleanliness
- General Repair/Impression
- Mechanical Spaces
- Exterior
- Grounds

FY08-FY10 average scores
Service process and survey
Growing expectations from frequent users of the work order system

I understand the procedure for submitting work requests.
I utilize the proper procedure for submitting work requests.
The work request process meets my needs.

Requesting work from facilities

Note: All charts are for state-supported space only
Respondent Demographics
249 individuals started and 203 completed the survey

My Position Most Closely Matches

- Acad Dept Head
- Manager
- Admin Support
- Other

Number of years at the University of Minnesota

- FY05 Responses: 174
- FY06 Responses: 230
- FY07 Responses: 265
- FY08 Responses: 267
- FY09 Responses: 240
- FY10 Responses: 175
- FY11 Responses: 203

Note: Information from partially completed surveys is included in the report
Requesting facilities service

The Call Center is by far the most frequent and seen as the most effective way of requesting service.

My most frequent means of requesting service is 66% Phone, 18% Email, 15% In Person, and 0% Other.

The most effective means of requesting service is 69% Phone, 12% Web, 4% Campus Mail, and 1% Other.
General Satisfaction

On average, it takes 1.65 efforts to contact FM before a request is completed.

On average, how many efforts/contacts does it take for FM staff to satisfy your request?

**FY10**
- 65%: 1 effort
- 27%: 2 efforts
- 6%: 3 efforts
- 1%: More than 4 efforts

**FY11**
- 53%: 1 effort
- 35%: 2 efforts
- 8%: 3 efforts
- 1%: More than 4 efforts
- 3%: 4 efforts
For me, the most important component of the work requests process is that:

FY10
- General Satisfaction: 36%
- Notification of work request status: 29%
- Clear communication of work request schedule: 15%
- Work requests are performed in a timely manner: 10%
- Work requests are performed competitently: 6%
- Work requests are performed courteously/professionally: 4%

FY11
- General Satisfaction: 29%
- Notification of work request status: 25%
- Clear communication of work request schedule: 17%
- Work requests are performed in a timely manner: 16%
- Work requests are performed competitently: 6%
General Satisfaction

69% of respondents' expectations were met or exceeded compared to 82% in FY10.

My General Satisfaction with Facilities:

FY10:
- 24% far exceeds expectations
- 17% exceeds expectations
- 1% meets expectations
- 4% below expectations
- 1% far below expectations

FY11:
- 51% far exceeds expectations
- 16% exceeds expectations
- 8% meets expectations
- 2% below expectations
- 24% far below expectations

Legend:
- Blue: far below expectations
- Red: below expectations
- Green: meets expectations
- Purple: exceeds expectations
- Light blue: far exceeds expectations
Survey Results – By District

My general satisfaction with Facilities Management:

- East Bank District: 80 Responses
  - Is far below expectations
  - Is below expectations
  - Meets expectations
  - Exceeds expectations
  - Far exceeds expectations

- Health Sciences District: 33 Responses
  - Is far below expectations
  - Is below expectations
  - Meets expectations
  - Exceeds expectations
  - Far exceeds expectations

- St. Paul West: 64 Responses
  - Is far below expectations
  - Is below expectations
  - Meets expectations
  - Exceeds expectations
  - Far exceeds expectations
Survey results overview

Strengths and areas for improvement

**Strengths**

- More users reported to understand and utilize the proper procedures for submitting work requests than in FY10
- The call center is the most effective and commonly used method to request work orders
- Compared to FY10, feedback has increased and is progression towards historical levels

**Areas for Improvement**

- General satisfaction went down since FY10; feedback is a small change that can have a big impact on the satisfaction score
- Custodial service scores dropped since the last survey. Could be the immediate impact from the new team cleaning model. Updating the survey next year will show the progression and true satisfaction level after staff and customers are settled with the new system
- Communication and scheduling seems to be an area of improvement in all departments
Capital Spending
Total spending on a rise
U Minn and peers making fundamental shifts with increased project investments

Total Capital Projects
(FY02-FY11)

Note: All charts are for state-supported space only

Recurring | One-Time
---|---
HEAPR Debt
University Funds Grants/Gifts
PM Self-Support

Annual Stewardship  Asset Reinvestment
Peer Avg. (FY02-FY11)  UMinn Avg. (FY02-FY11)
Total spending on a rise
U Minn and peers making fundamental shifts with increased project investments

Total Capital Projects
(FY06-FY11)

Recurring | One-Time
---|---
HEAPR | Debt
University Funds | Grants/Gifts
PM | Self-Support

Annual Stewardship | Asset Reinvestment
---|---
Peer Avg. (FY06-FY11) | Peer Avg. (FY02-FY11)
UMinn Avg. (FY06-FY11) | U Minn Avg. (FY02-FY11)

Note: All charts are for state-supported space only.
Investing into the core assets on campus

Strong mix of spending even with fluctuating total spending

$123.3M was spent from total capital funding sources in FY11

Note: All charts are for state-supported space only
Deferred maintenance needs one of the highest among peers
Despite recent drops in total backlog, total need is above $120/GSF

Total backlog approximately $1.9B in FY11

Note: All charts are for state-supported space only
UMinn – Composite FY2011 Stewardship Targets

- **3% Replacement Value**: $243.8M
- **Life Cycle Need (Equilibrium)**: $134.9M
- **Functional Obsolescence (Target)**: $47.2M

$ in Millions

Defining a stewardship target
One-time investment over time

HEAPR and Fowell Interior renovation equal contributors to large project spending

U Minn – Composite Target Range

$ in Millions

- Increasing Net Asset Value
- Sustaining Net Asset Value
- Decreasing Net Asset Value

<table>
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<tr>
<th>Year</th>
<th>Life Cycle Need</th>
<th>Target Need</th>
<th>Spending Range</th>
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<td></td>
<td>$0.00 - $50.00</td>
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<tr>
<td>2003</td>
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<td>2004</td>
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<td>2010</td>
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<td>$400.00 - $450.00</td>
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<tr>
<td>2011</td>
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<td>$450.00 - $500.00</td>
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</table>

Recurring Capital vs. One-Time Capital

<table>
<thead>
<tr>
<th>Source</th>
<th>Type</th>
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<tbody>
<tr>
<td>HEAPR</td>
<td>Debt</td>
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<tr>
<td>University Funds</td>
<td>Grants/Gifts</td>
</tr>
<tr>
<td>PM</td>
<td>Self-Support</td>
</tr>
</tbody>
</table>
Fundamental shift in recurring investments

On average, HEAPR fund makes up 50% of recurring funds

$61.2M was spent from recurring sources in FY11

Note: All charts are for state-supported space only
Concluding Comments
Summary comments
State supported campus, FY11 analysis

Facilities Environment
• Campus space has grown with decreasing number of buildings
• Campus has aged and does not have the younger space that peers do
• The amount of space under the age of 25 has been decreasing since FY07
• U Minn has more users on campus than peers, with density close to the database average

Operations Success
• Compared to annual inflation trends, U Minn was able to save $29.3M in FY11 through reductions in facilities operating budget
• Daily service savings were mainly in staffing and reduction of funds going towards equipment, expenses, and materials
• Although energy costs have gone up since FY02, consumption has dropped by 6% creating $2.2M cost avoidance

Service focus
• Service process is still strong and above the peer and database averages
• New survey results show a drop in customer satisfaction; possibly an immediate response to the new team clean model, higher expectations from users, and physical changes on campus

Capital Investments
• Strength of recurring capital varies, dependent on HEAPR allocation
• One-time capital helps U Minn reach investment target for the first time in 5 years
• There has been a long-term focus on addressing envelope and building systems needs over programmatic upgrades
• Total needs decreased in FY11, however revisiting and scrubbing the project list can indicate the type of needs and reduce overall backlog number
Goals for 2012/13

• Improve understanding of the facilities backlog
  – Validation of the current backlog of needs
  – Understand the relative urgency of projects
  – Document the mix between Repair and Modernization issues

• Annual project spending mix:
  – As the 10 to 25 age category grows, there is likely to be increased pressure for greater space & program investments that will create pressure to shift the project mix away from envelope and mechanical issues.
  – Development of a multi year annual capital investment plan tied to the annual capital budget process will improve alignment between project needs and available resources.

• Operations
  – What needs to be done to assure that the savings gained in the last five years sticks?
  – Based upon the history, greater opportunities in energy cost reductions rather than Daily Services seem likely.
  – Can further savings attained be reallocated to fund PM & Stewardship?
Discussion