

1-1-2015

# NU Stewardship Spending - A Strategic Approach to Capital Planning 2015

University of Nebraska

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University of Nebraska, "NU Stewardship Spending - A Strategic Approach to Capital Planning 2015" (2015). *Business/Finance/Operations*. Paper 72.

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*Lincoln*



*Omaha*



*Kearney*



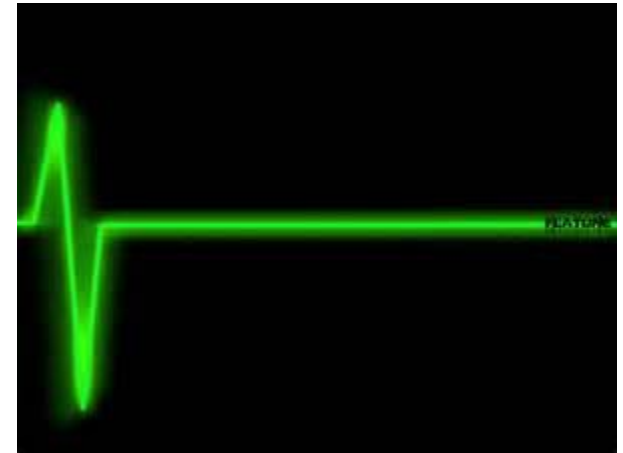
*Medical Center*

# University of Nebraska

## *Stewardship Spending*

### *A Strategic Approach to Capital Planning*

- Access to capital is limited:
  - Borrowing, bottom line
- “Top line” is flat:
  - State funding challenges
  - Tuition/affordability goals
  - Pressure to defer renewals
- LB 605 tolls in 2017/2021



**January 2016 Legislative Ask**

- **Sasaki Associates**

- **NU Work Group**

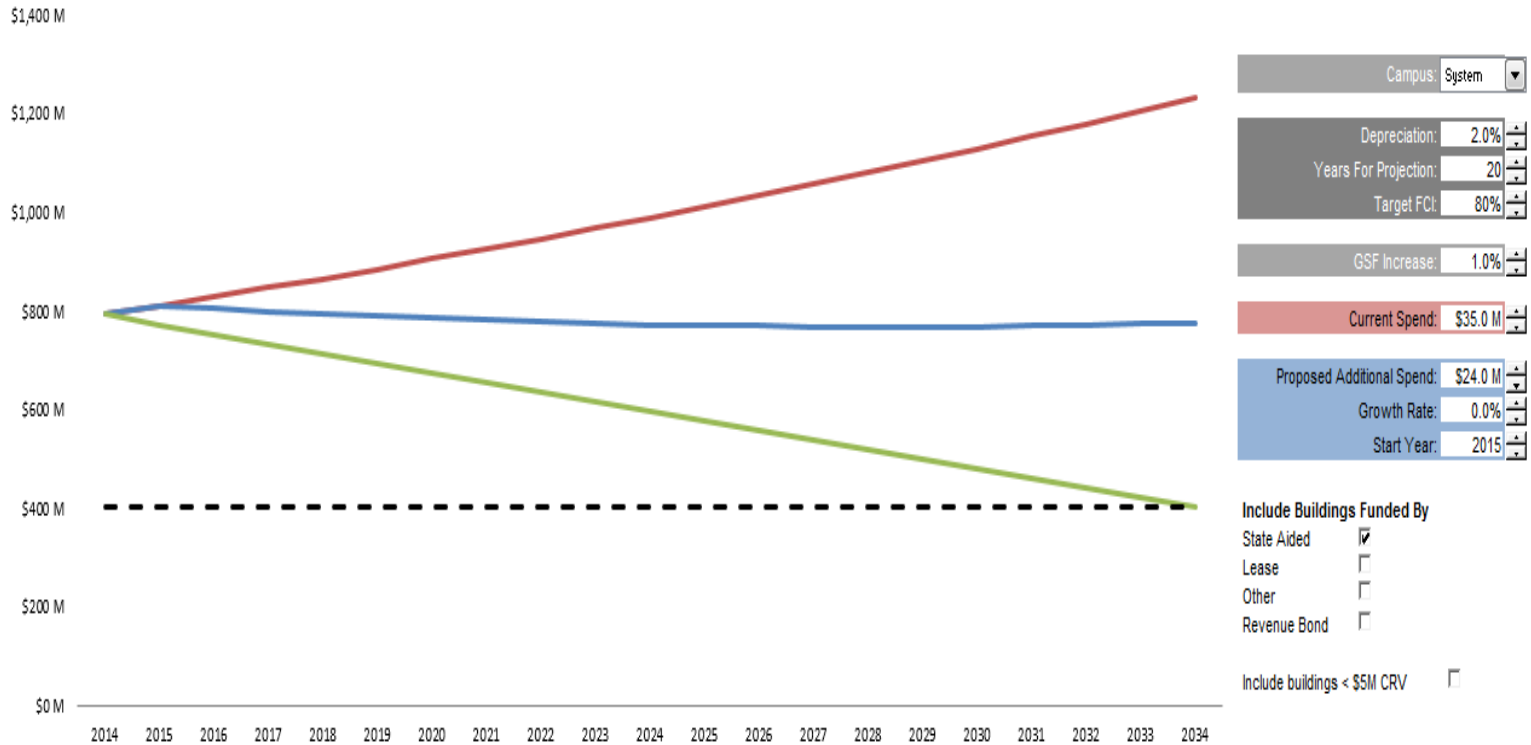
- **UNK:** Charlie Bicak, Lee McQueen
- **UNL:** Bill Nunez, Jennifer Dam Shewchuk, Mark Miller, Jim Jackson
- **UNMC:** Paula Turpen, Ron Schaefer, Melinda Pearson
- **UNO:** Bill Conley, John Amend





- Renewal and Deferred Maintenance (RDM) Model
- Visualizer
- Prioritizer

### University of Nebraska Capital Renewal Model



Current Level of Investment - No Change	2015	What If Scenario	2015	Catch Up In 20 Years	2015
Current Investment	\$35.0 M	Investment in 2015	\$59.0 M	Target Increase 2015	\$37.6 M
Additional Investment Required For Keep Up	\$18.1 M	Additional Investment Required to Keep Up	\$0.0 M	Target Increase 2034	\$46.5 M
Additional Investment Required to Catch Up by 2034	\$19.5 M	Contribution Towards Catch Up	\$5.9 M		
Total Shortfall in 2015	\$37.6 M	Reach Target In	Never		
Cumulative Shortfall 2014 - 2015	\$55.32 M	Investment as % of Replacement Value	2.22%	Investment as % of Replacement Value	2.73%
Investment as % of Replacement Value	1.32%				

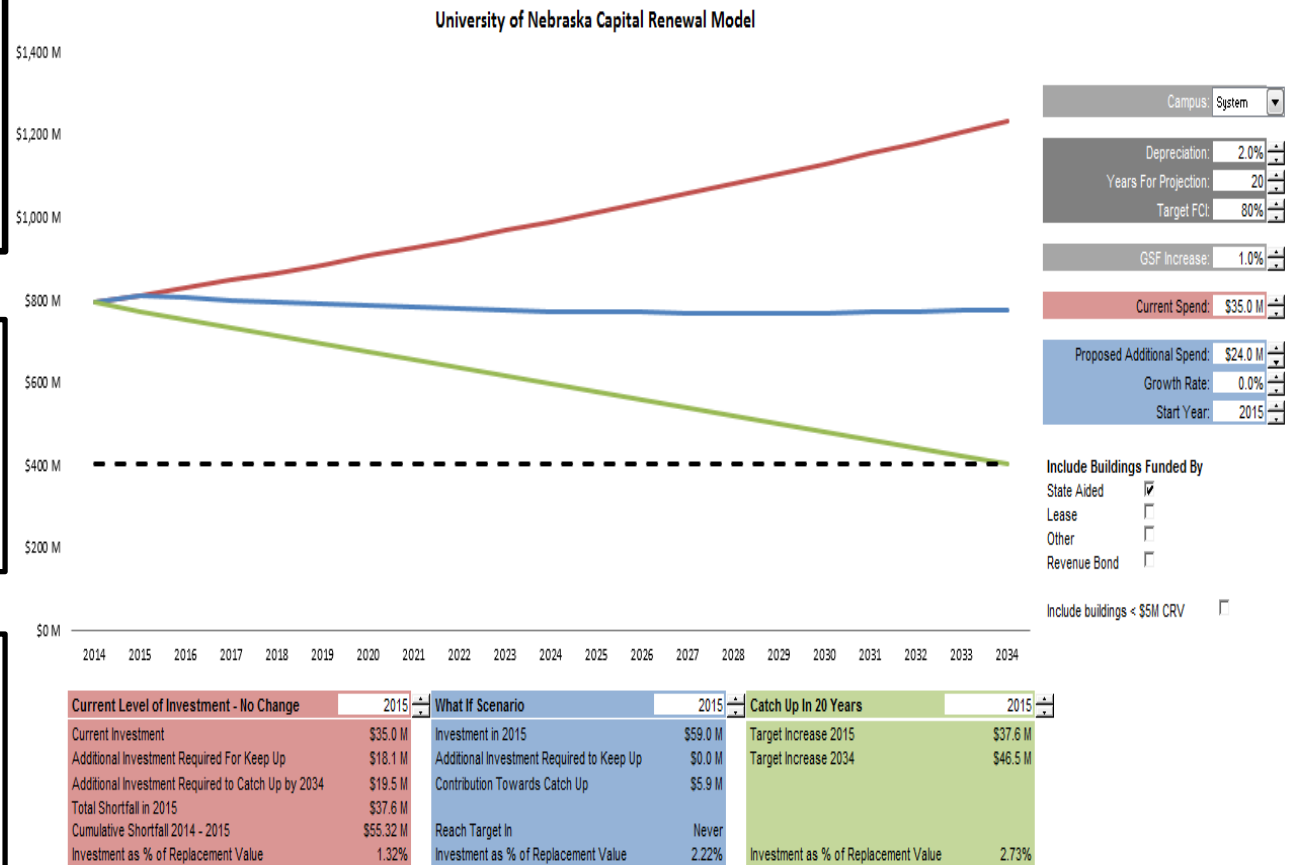
# RDM

- Accurate measure of renewal liability
- Model to test what-if capital investment strategies based on
  - Building condition
  - Renewal spend
  - Replacement value

The starting point = total liability with the dashed line matching the Target FCI (moves with change in target).

The current spend anticipates a minimum base budget annual spend per year

Keep-up and catch-up numbers reflect funding needed to match the Target FCI







RDM

Replacement Value: cost to replace current use

Liability: cost to bring building to acceptable  
condition

Renewal spend: base budget expenditures

- Current Replacement Value (CRV): cost to replace **current use** of a building with an equivalent quantity of new (or like-new) space
- Cost/Space: classrooms, labs, office space, etc. have different replacement costs
- Square foot Cost: project cost/space type = cost/space type and soft cost multiplier (20%) to derive total project cost by space type
- Cost/GSF: costs were prorated by space type to derive an average replacement cost for each building
- CRV: The average replacement cost per GSF was multiplied by the total gross square feet to derive the full CRV

# Current Replacement Values

Campus	GSF	Replacement Values	
		\$	\$/GSF
UNK	1.0M	\$385.6M	\$375.8
UNL	5.4M	\$2,051.6	\$392.9
UNMC	2.0M	\$787.0M	\$399.8
UNO	1.8M	\$678.6M	\$386.8
System	10.0M	\$3,902.9M	\$391.4

**Table shows the costs based on the CRV to bring a building to ‘like new’ 100% FCI (total) or an ‘acceptable’ (adjusted) level of 80% FCI**

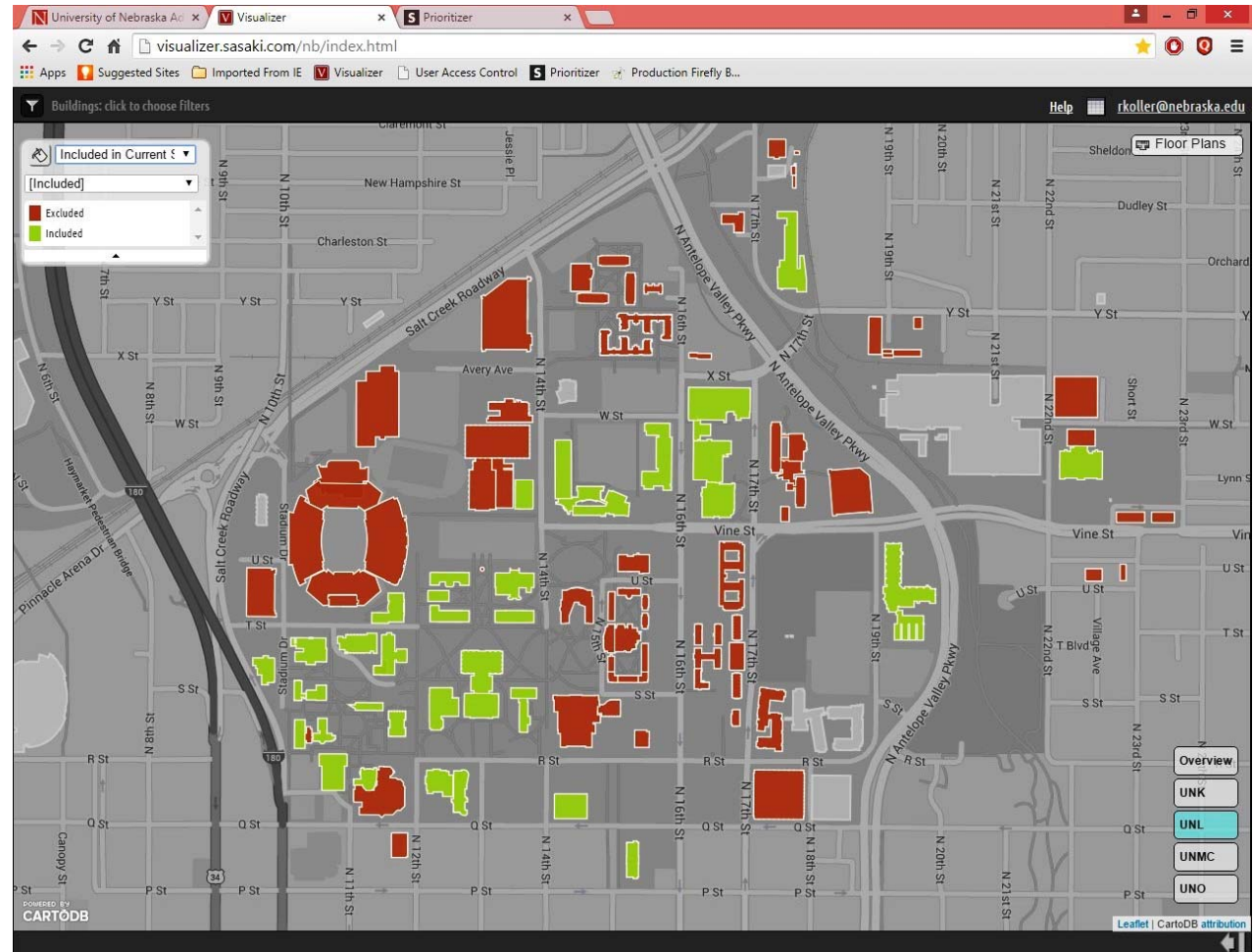
Campus	GSF	Total Liability <sup>1</sup>		Adjusted Liability <sup>2</sup>	
		\$	\$/GSF	\$	\$/GSF
UNK	1.0M	\$119.3M	\$116.3	\$52.3M	\$50.9
UNL	5.2M	\$692.4M	\$132.6	\$317.1M	\$60.7
UNMC	2.0M	\$149.8M	\$76.1	\$47.0M	\$23.9
UNO	1.8M	\$149.8M	\$85.4	\$39.9M	\$22.7
System	10.0M	\$1,111.3M	\$111.4	\$456.2M	\$45.7

(1) Represents the aggregate dollar liability to renew each building to a FCI score of 100%.  
 (2) Represents the aggregate dollar liability to renew each building to a FCI score of 80%.

What if

Campus:	System	▼
Depreciation:	2.0%	▲▼
Years For Projection:	20	▲▼
Target FCI:	80%	▲▼
GSF Increase:	0.0%	▲▼
Current Spend:	\$12.0 M	▲▼
Proposed Additional Spend:	\$6.0 M	▲▼
Growth Rate:	1.0%	▲▼
Start Year:	2017	▲▼

## THE VISUALIZER



- 116 buildings across four campuses:

Campus	# of Buildings	Gross Square Feet	Assignable Square Feet
UNK	14	1.0M	0.6M
UNL	68	5.2M	3.1M
UNMC	20	2.0M	1.1M
UNO	14	1.8M	1.0M
System	116	10.0M	5.7M

- Selection criteria:
  - State-aided funding source
  - Greater than \$5 million replacement value
  - Excludes utility/mechanical plants



Building  
Audit

Facility Condition Index: Structure, secondary structure, service systems, safety standards, energy use, efficiency, functional analysis.

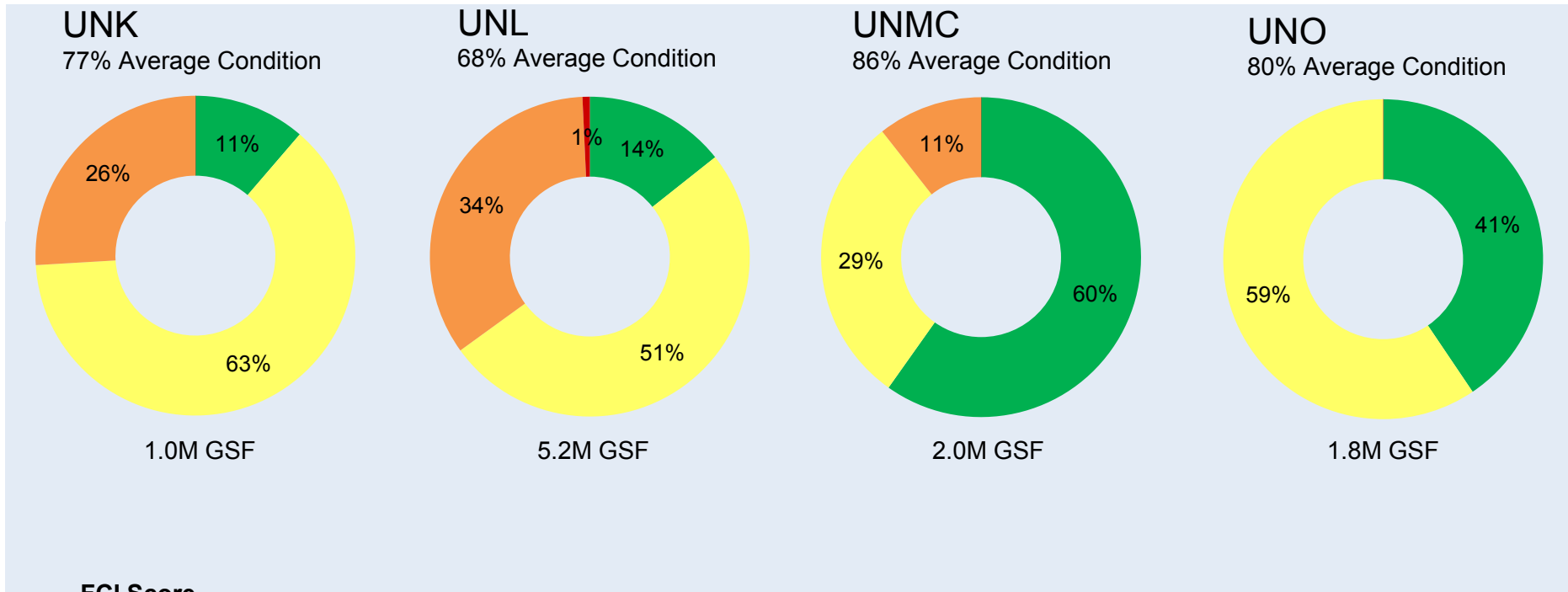
Suitability: classrooms, dry lab, wet lab



- HDR conducted intensive evaluations of each building for Facility Condition and Suitability for use.
  
- Condition includes the state of repair on each floor of the building, and produces ratings in two broad categories:
  - Architectural (e.g., interior finishes, life safety, accessibility, entrances, exterior envelope, substructures, superstructures)
  - MEP (e.g., plumbing, HVAC, fire protection, electrical, conveying systems)
  
- Suitability (e.g., floor to floor heights, column spacing, structure) generated ratings for use as classroom, dry lab and wet lab

- The FCI is a broad description of building's state of repair; a building in perfect condition would receive a score of 100%, while a facility in desperate need of major renovation might score below 50%
- Scores in each individual category are weighted and averaged to derive a composite FCI for each building
- All scores and sub-scores are accessible within the Visualizer

# NU FCI Breakdown



- UNMC and UNO campuses are in relatively good condition
  - A significant number of the evaluated state-aided buildings are above the 80% FCI target
  - Only a handful of facilities require major renovations
- UNK and UNL require significant investment

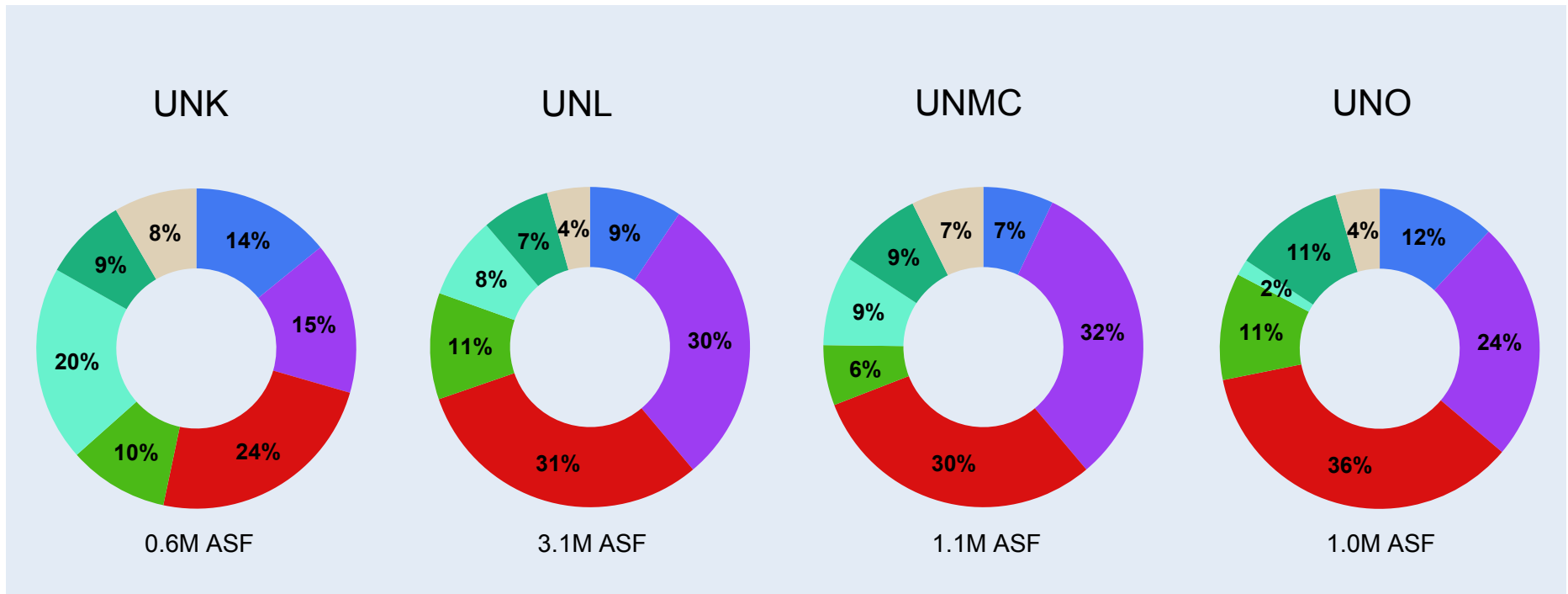


Space  
Utilization

Inventory of Space: classrooms, lab, office, social

Usage of the various components:  
classrooms, labs, office space.

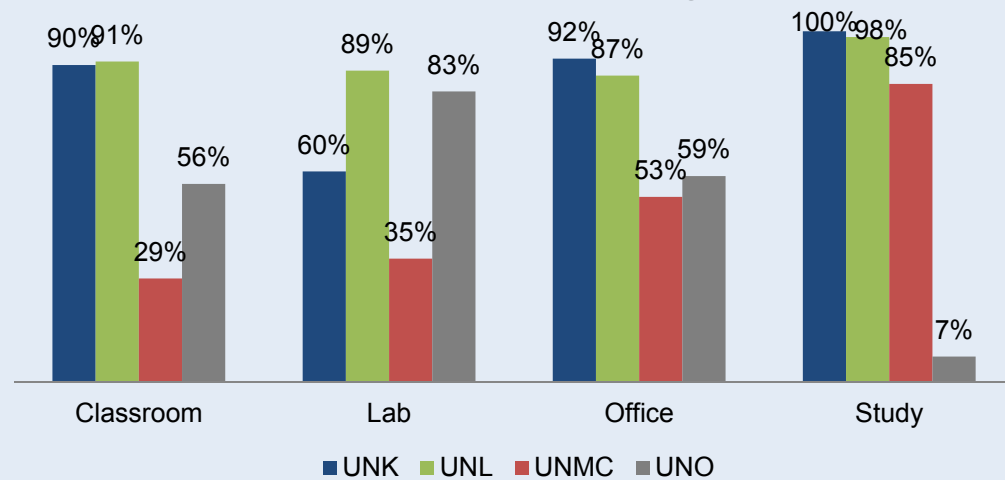
## Space Breakdown by Assignable Square Footage (“ASF”)



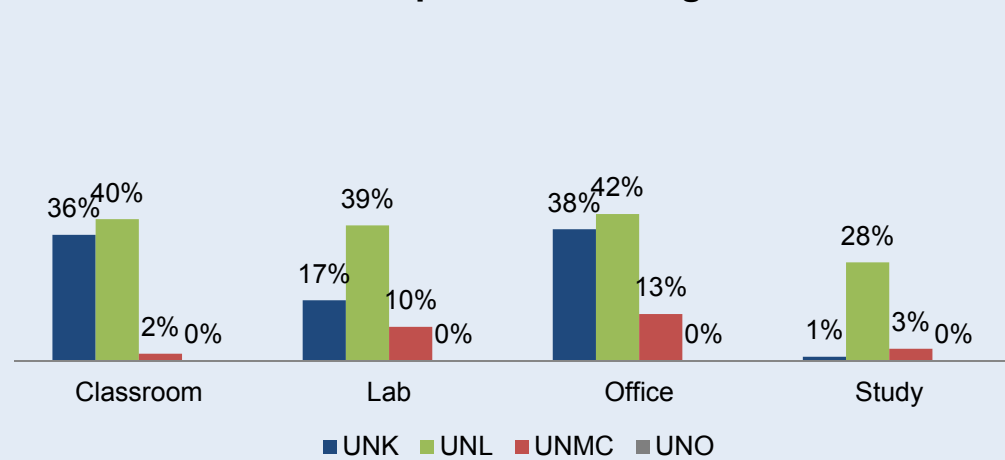
- Classrooms
- Library / Study
- Support
- Labs
- Special Use
- Office and Conference
- General Use

# Utilization – NU Academic Space

**Percent of Academic Space in Buildings Below 80% FCI**



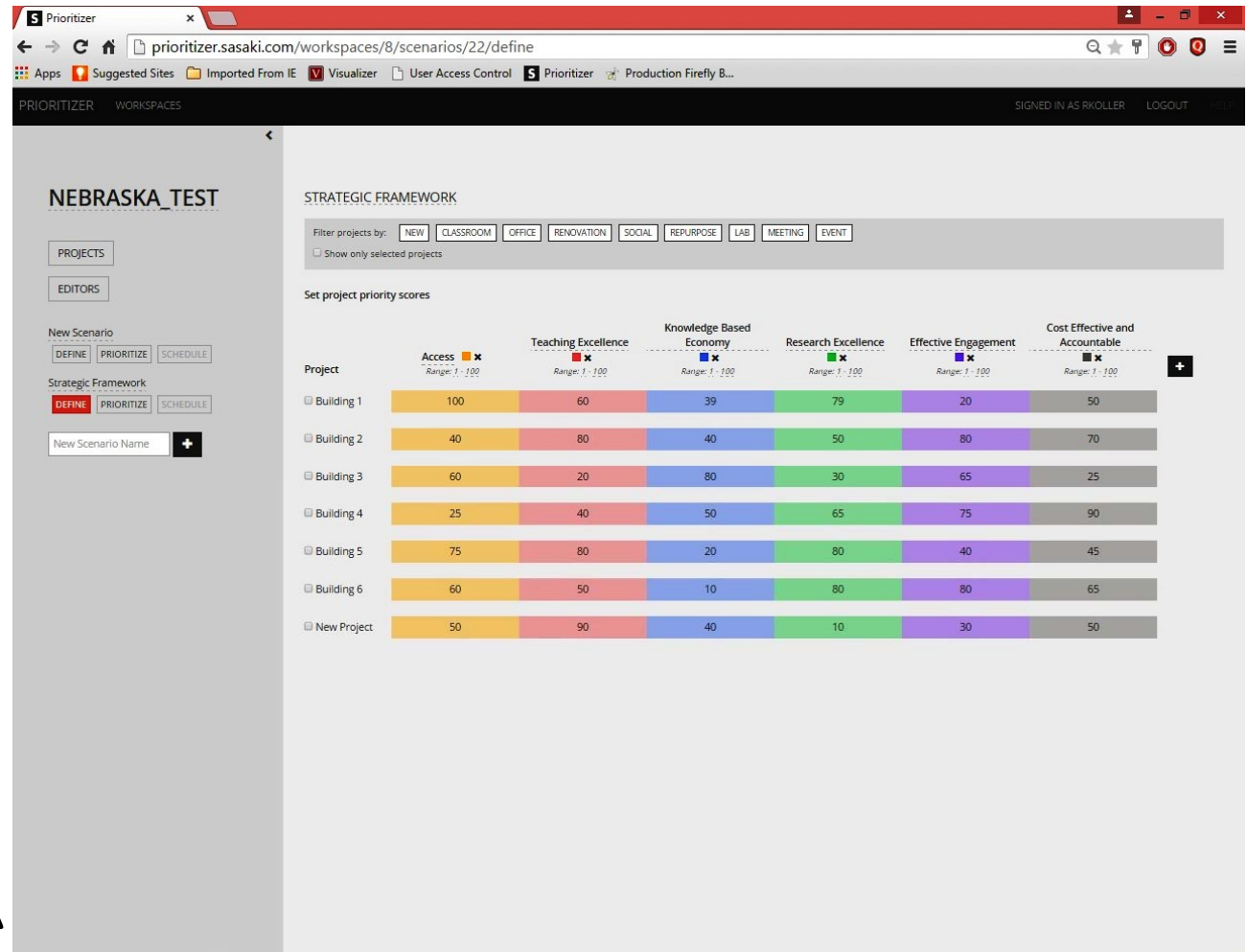
**Percent of Academic Space in Buildings Below 60% FCI**



- Utilization of space is not only dependent upon appropriate location, technology and current pedagogies, but current space condition
- If 80% FCI is an appropriate threshold, the amount of academic related space below 80% FCI highlights the need for system-wide RDM spend
- Further study of classrooms, labs and offices in buildings below 60% FCI is needed to determine if those buildings require renewal or replacement



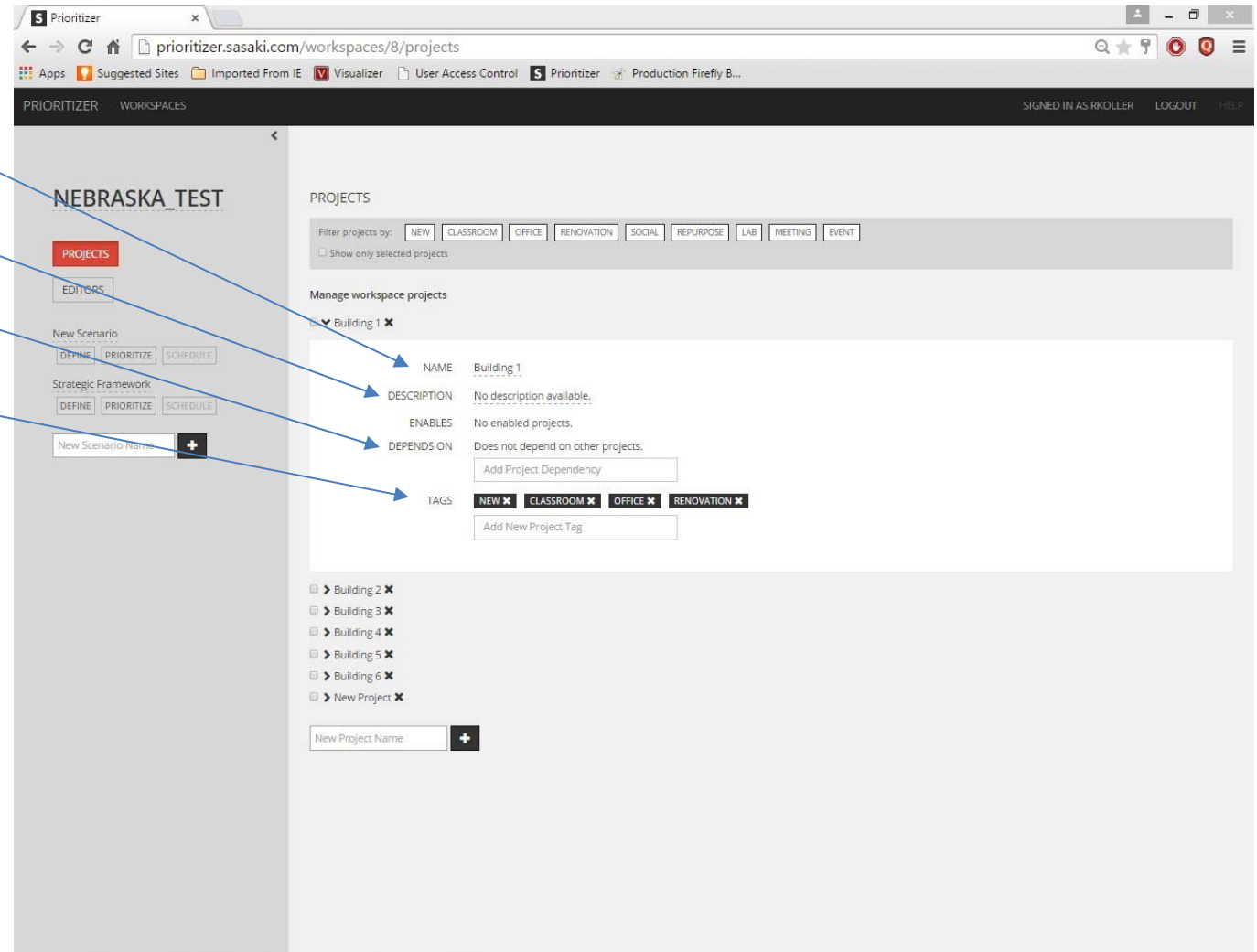
# THE PRIORITIZER





Projects are entered with a name, paragraph description, dependencies, tag and estimate.

And then ranked based on the Strategic Framework



Following ranking:

Projects can be weighted based on priorities:

Access

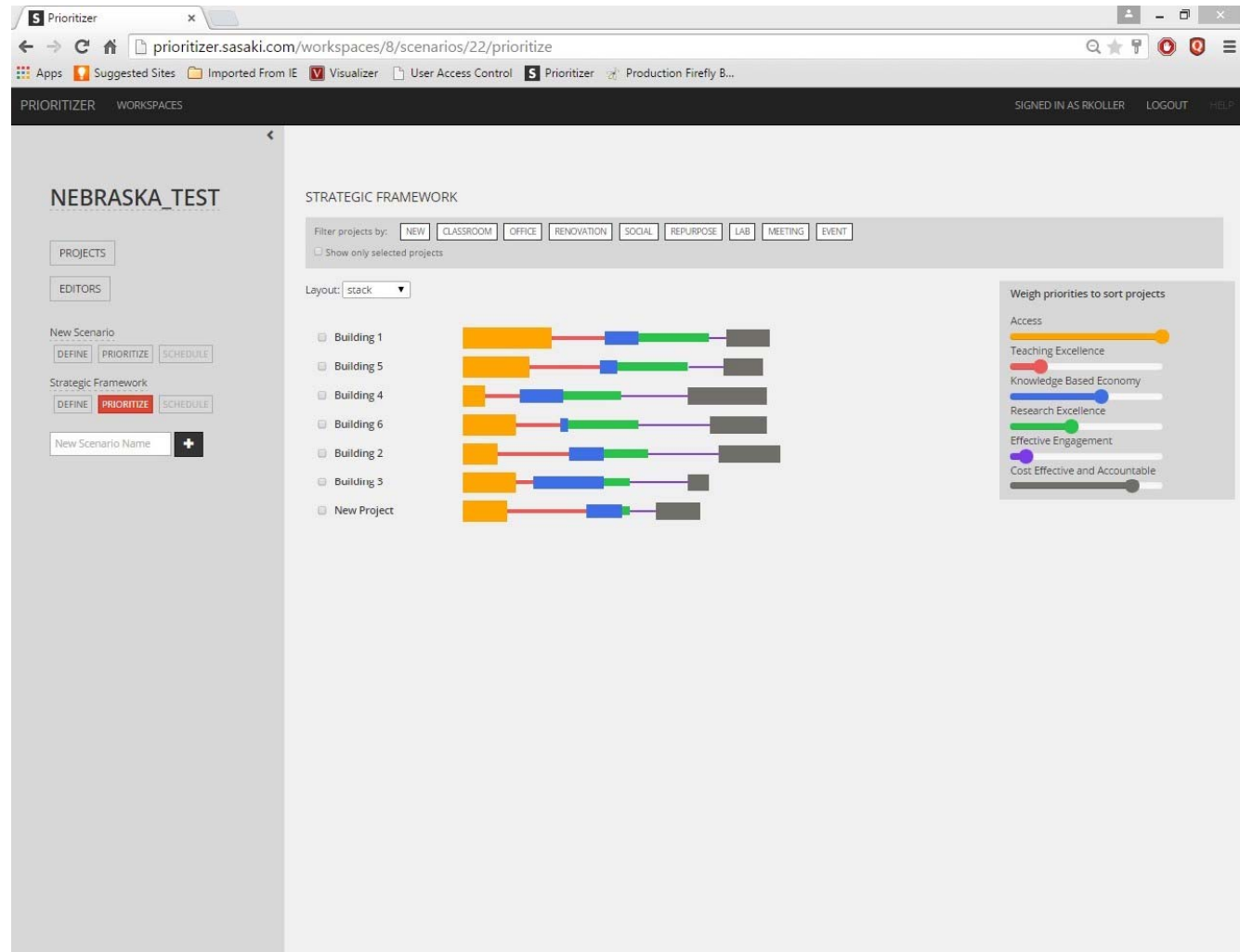
Teaching Excellence

Research Excellence

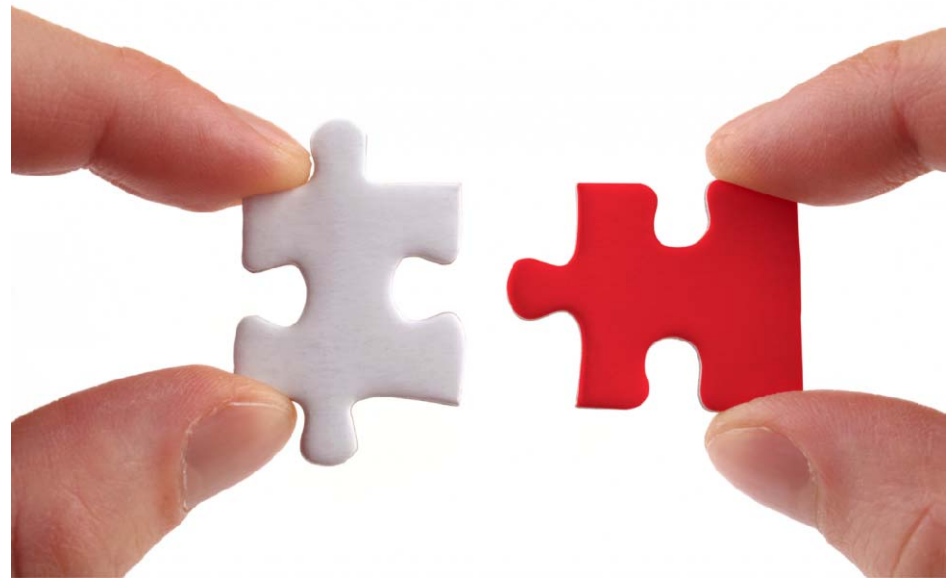
Effective

Engagement

Cost Effectiveness

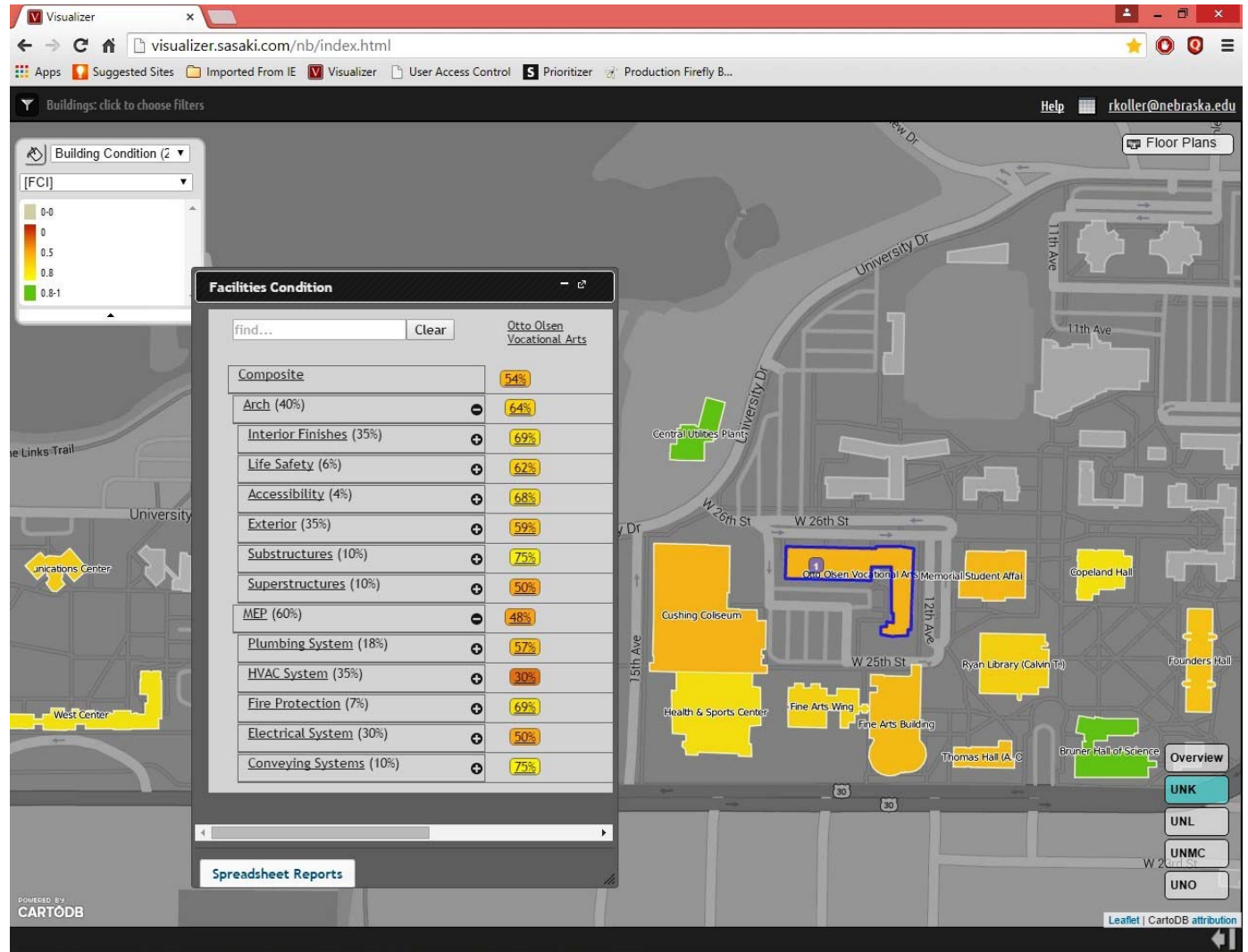


# **INTEGRATION VISUALIZER**



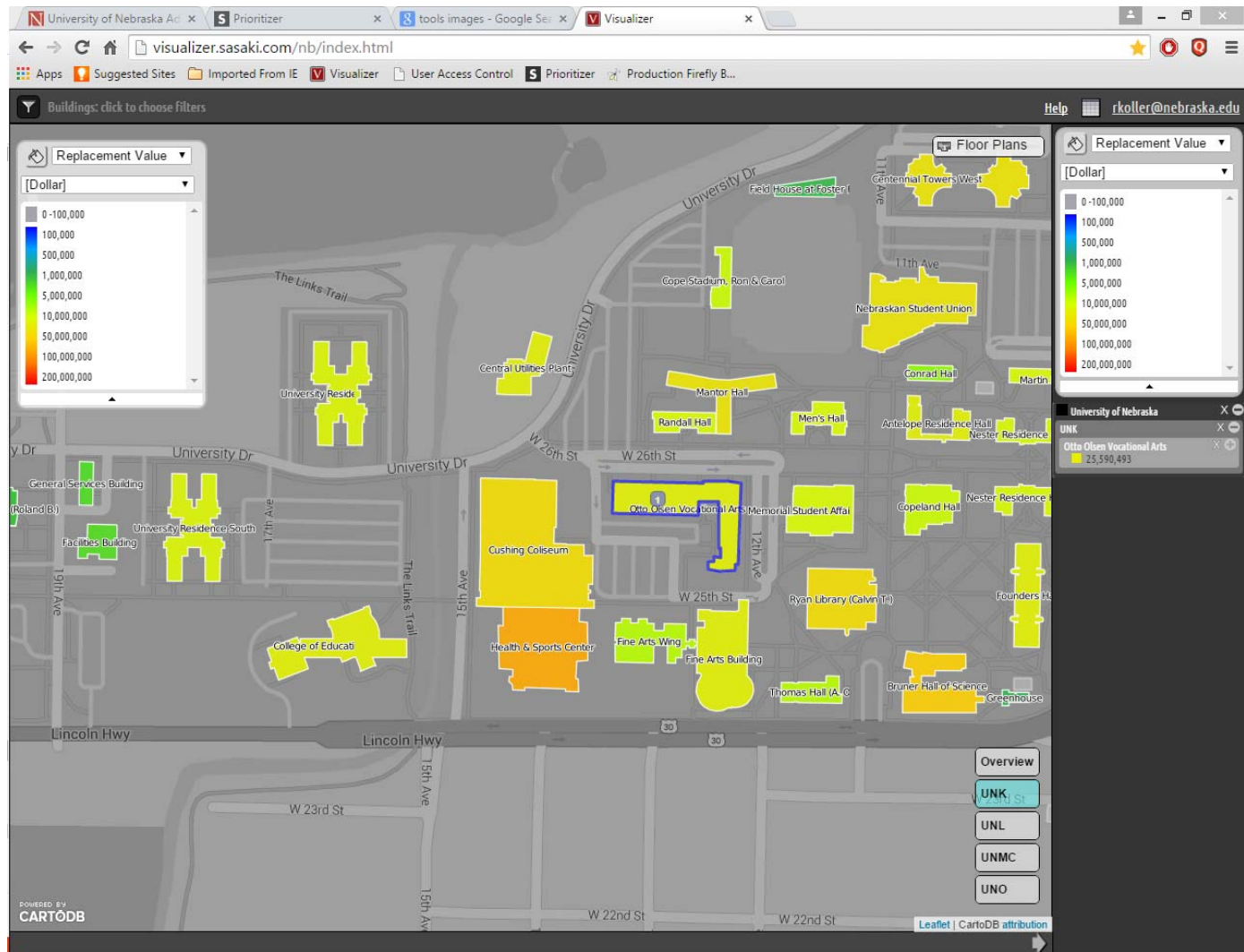
## Otto Olsen

Composite Score:  
54%



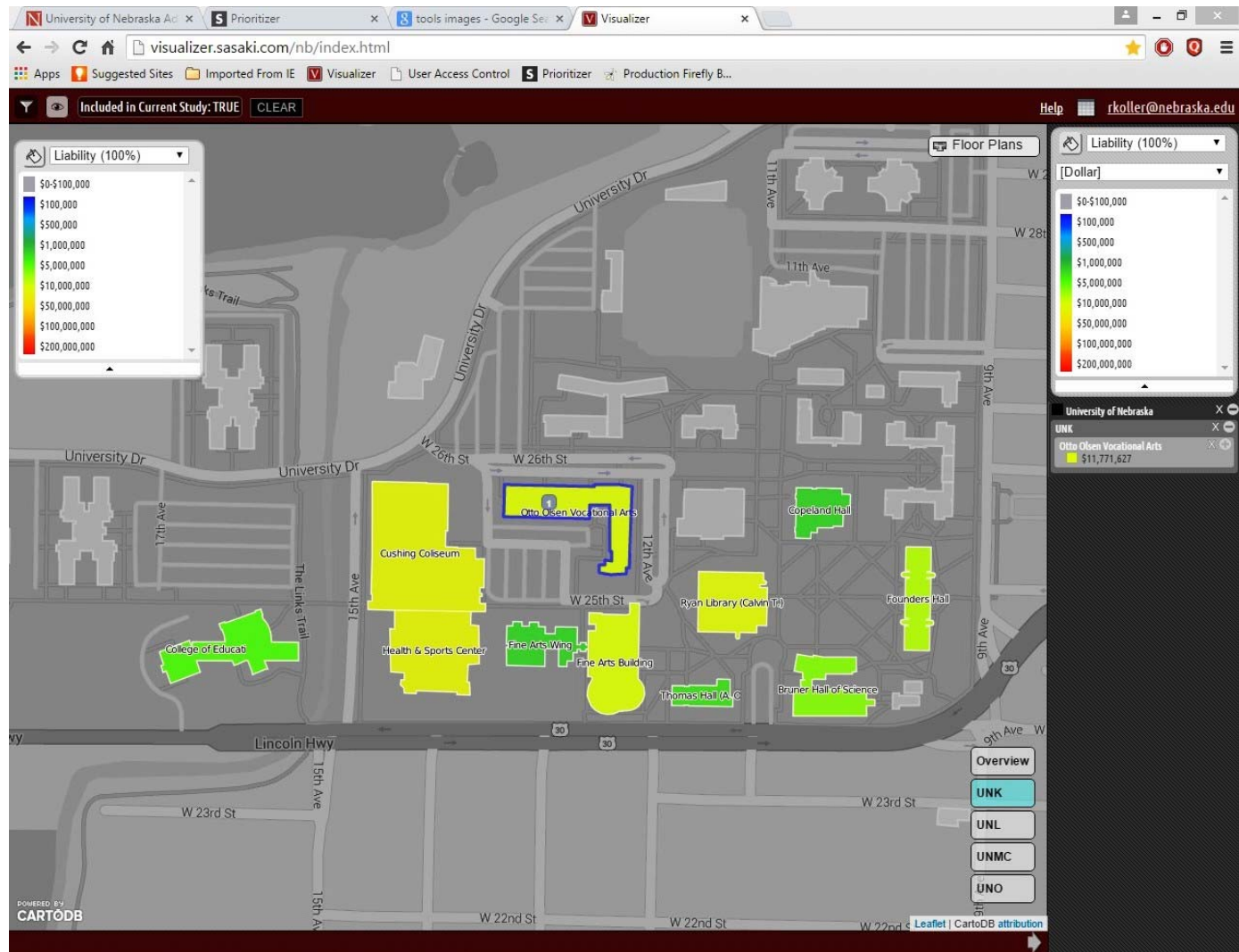
## Otto Olsen

Replacement  
Value:  
\$25.5M



## Otto Olsen

Liability:  
\$11.8M



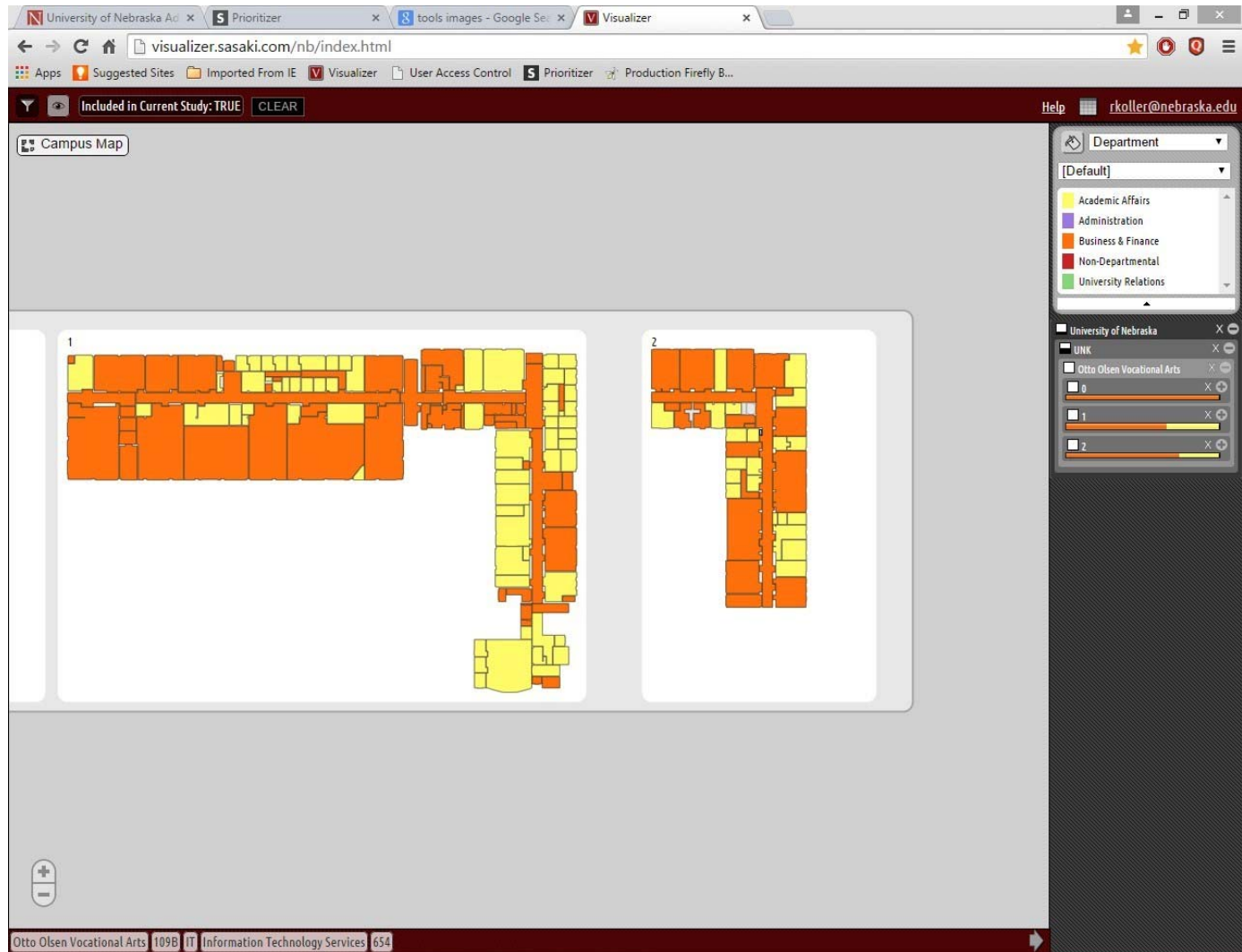


## Otto Olsen

Business &  
Technology

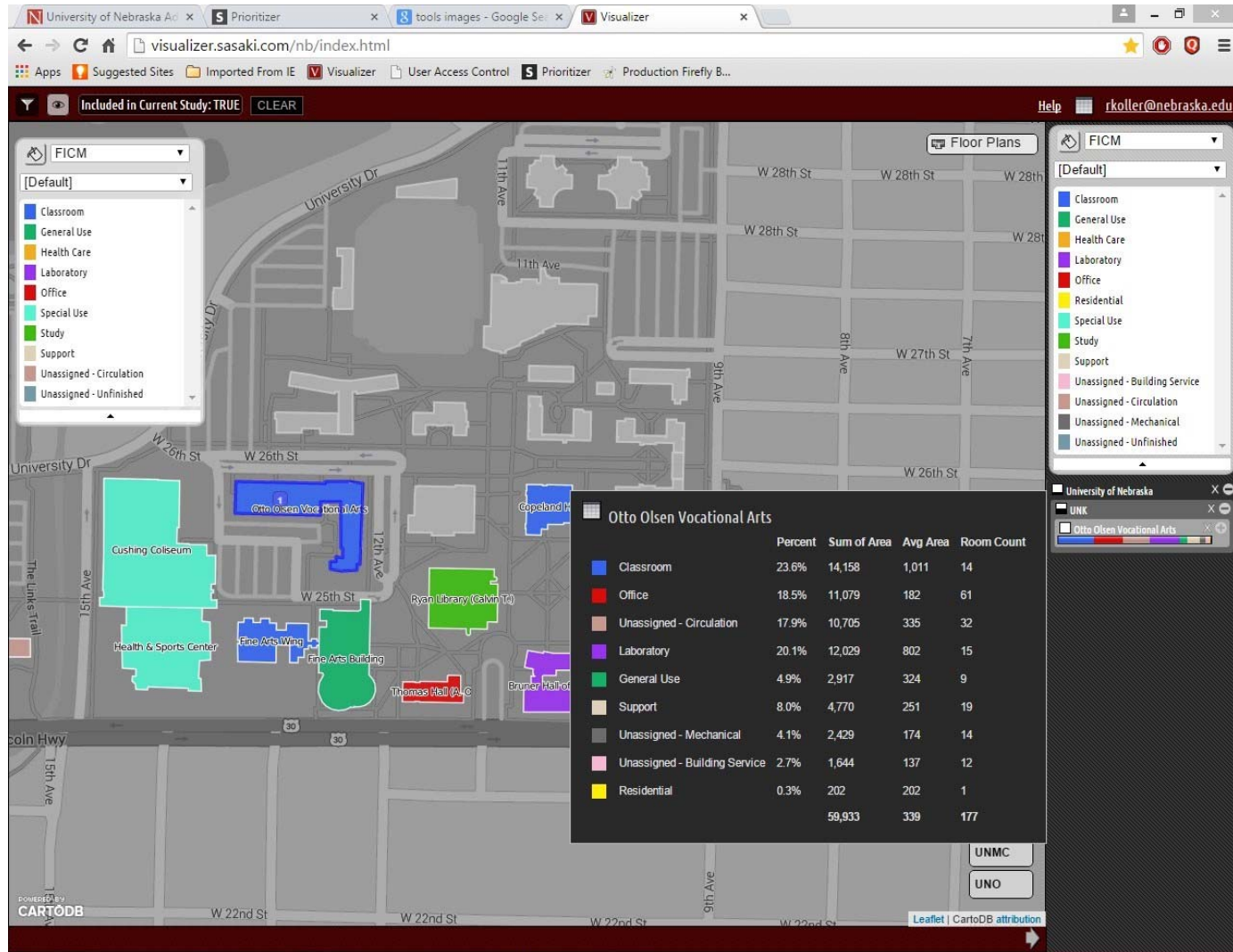
Information  
Technology

Daycare



## Otto Olsen

Classroom: 24%  
Office: 18.5%  
Circulation: 18%  
Lab: 20%

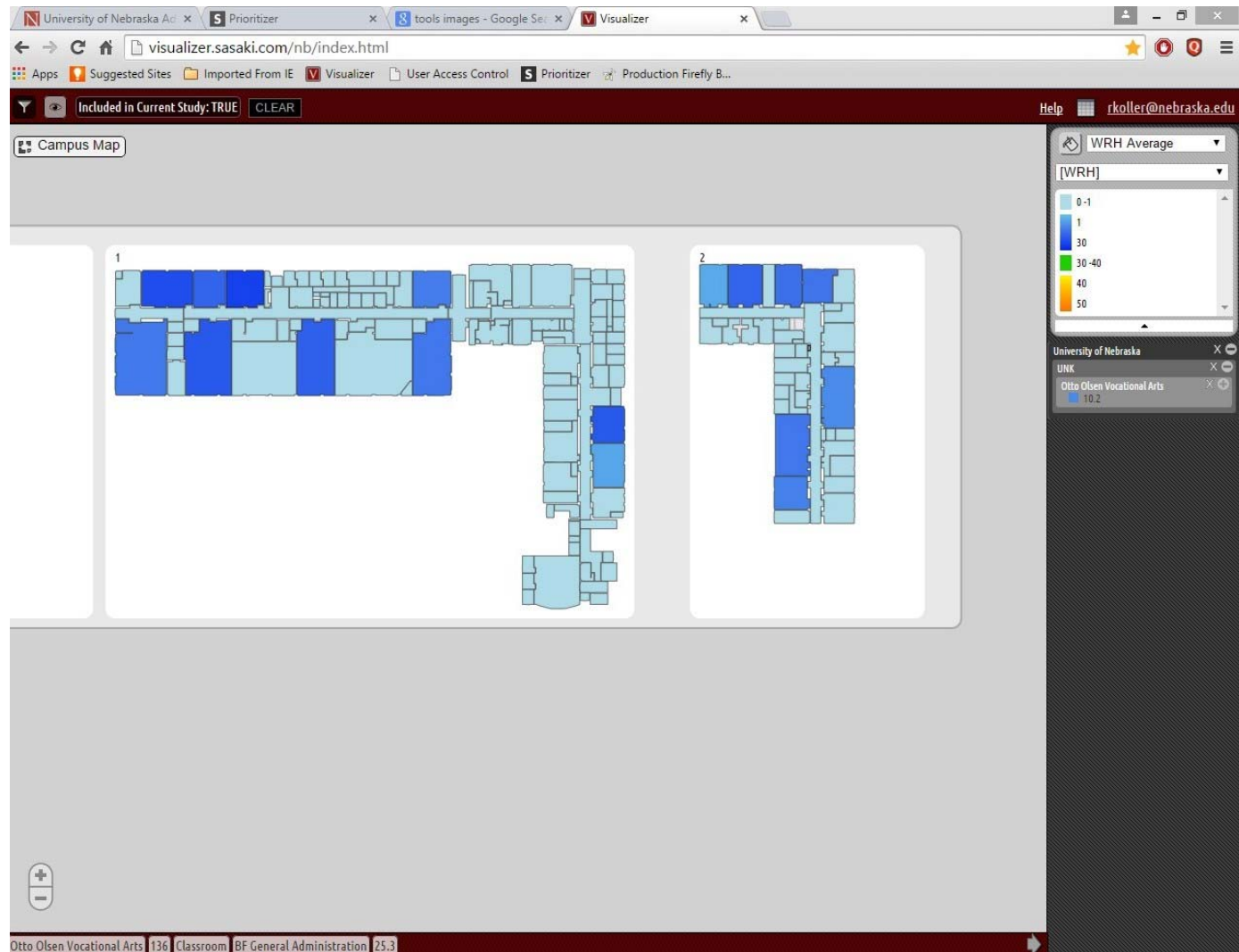




## Otto Olsen

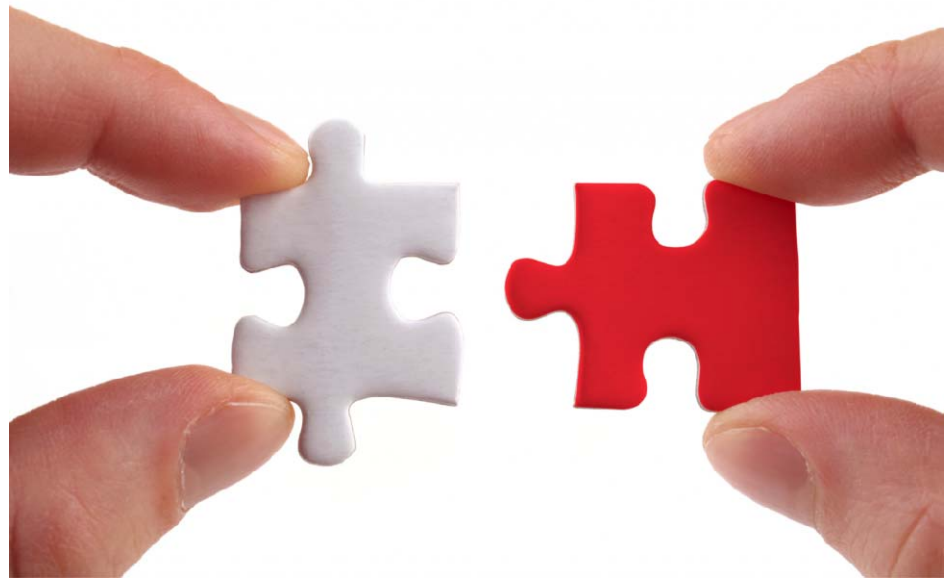
Fall 2014:  
10.2 average  
hours spent in  
classrooms per  
week

30-40 WRH is  
considered  
optimum



- Building in poor condition
  - Cost to bring back to original almost 50%
- Houses Business & Technology, Information Technology & Daycare
- Built for Vocational Arts, primary current use is classroom
- Condition of space equates to average Fall 2014 weekly room hours of 10+

# **INTEGRATION PRIORITIZER**



The screenshot shows the Prioritizer web application interface. The browser address bar displays `prioritizer.sasaki.com/workspaces/24/projects`. The page title is "NEBRASKA\_UNK". On the left sidebar, there are navigation options for "PROJECTS" and "EDITORS", along with "UNK Priorities" and "Strategic Framework" sections. The main content area is titled "PROJECTS" and includes a filter section with buttons for "NEW", "RENOVATION", "NEW CONSTRUCTION", and "DEMOLITION". Below the filter, there are two project entries:

- Early Childhood Education Center**
  - NAME:** Early Childhood Education Center
  - DESCRIPTION:** EARLY CHILDHOOD EDUCATION CENTER >>> Budget: \$6,000,000 >>> Project Description: The project is to develop a new facility to accommodate an expanded version of the existing UNK Early Childhood Education Center program. The program will move from the current location at the Otto Olsen building on the UNK campus to the new site and building. The new building will provide 17,400 gross square feet needed for the program. The building interior will include state-of-the-art, age-appropriate environments, all accessible on a single level. The classroom areas will provide direct access to adjacent outdoor spaces. There will be 12,500 square feet minimum of developed outdoor play environments that will contribute to additional learning opportunities for the children outside of the classrooms. The site will also include parking spaces for Center staff and spaces for dropping-off and picking-up children. The Center will serve children six weeks to six years of age, with approximately 36 children under the age of two years, and up to 60 children between two and six years of age. The total capacity is 96 children.
  - ENABLES:** No enabled projects.
  - DEPENDS ON:** Does not depend on other projects.
  - TAGS:** NEW CONSTRUCTION, NEW
- College of Business and Technology**
  - NAME:** College of Business and Technology
  - DESCRIPTION:** College of Business and Technology >> Budget: \$15,000,000 >>> Project Description: The project proposes to relocate College of Business and Technology programs out of Otto Olsen into renovated or newly constructed space. The proposed project will accommodate department programs in Industrial Technology (Aviation Systems Management, Construction Management, Industrial Distribution, Information Networking and Telecommunications), Family Studies, and Interior Design. The building proposed would provide space for classrooms, labs and study areas. Additionally, the project proposes renovation of West Center space vacated by the College of Nursing as it relocates to the new Health Sciences Education building. The developed spaces will be based on the concept of establishing collaborative areas for both students and faculty, the types needed to advance internal and external UNK partnerships, and provide superior functionality as compared to current Otto Olsen space. The new facility is proposed at about 46,000 gsf, while about 8,000 gsf is proposed for renovation.
  - ENABLES:** No enabled projects.
  - DEPENDS ON:** Does not depend on other projects.
  - TAGS:** DEMOLITION, NEW, RENOVATION

The screenshot shows a web browser window with the URL `prioritizer.sasaki.com/workspaces/24/scenarios/32/define`. The application interface includes a sidebar for 'NEBRASKA\_UNK' with navigation options like 'PROJECTS', 'EDITORS', and 'UNK Priorities'. The main content area is titled 'STRATEGIC FRAMEWORK' and features a filter for project types (NEW, RENOVATION, NEW CONSTRUCTION, DEMOLITION) and a table of project priority scores.

**STRATEGIC FRAMEWORK**

Filter projects by: **NEW** RENOVATION NEW CONSTRUCTION DEMOLITION

Show only selected projects

Set project priority scores

Project	Access Range: 4 - 20	Teaching Excellence Range: 4 - 20	Knowledge Based Economy Range: 4 - 20	Research Excellence Range: 4 - 20	Effective Engagement Range: 4 - 20	Cost Effective and Accountable Range: 4 - 20
<input checked="" type="checkbox"/> Early Childhood Education Center	19	18	20	10	15	15
<input checked="" type="checkbox"/> College of Business and Technology	19	20	20	18	20	18

The screenshot displays the 'Prioritizer' web application interface. The browser address bar shows the URL: `prioritizer.sasaki.com/workspaces/24/scenarios/32/prioritize`. The page title is 'PRIORITIZER WORKSPACES' and the user is signed in as 'AS RKOLLER'.

**NEBRASKA\_UNK**

PROJECTS  
EDITORS

UNK Priorities  
DEFINE PRIORITIZE SCHEDULE

Strategic Framework  
DEFINE PRIORITIZE SCHEDULE

New Scenario Name +

**STRATEGIC FRAMEWORK**

Filter projects by: **NEW** RENOVATION NEW CONSTRUCTION DEMOLITION

Show only selected projects

Layout: stack

College of Business an...  
 College of Natural and...  
 Martin Hall Renovation  
 Fine Arts Renovation/...  
 Early Childhood Educa...

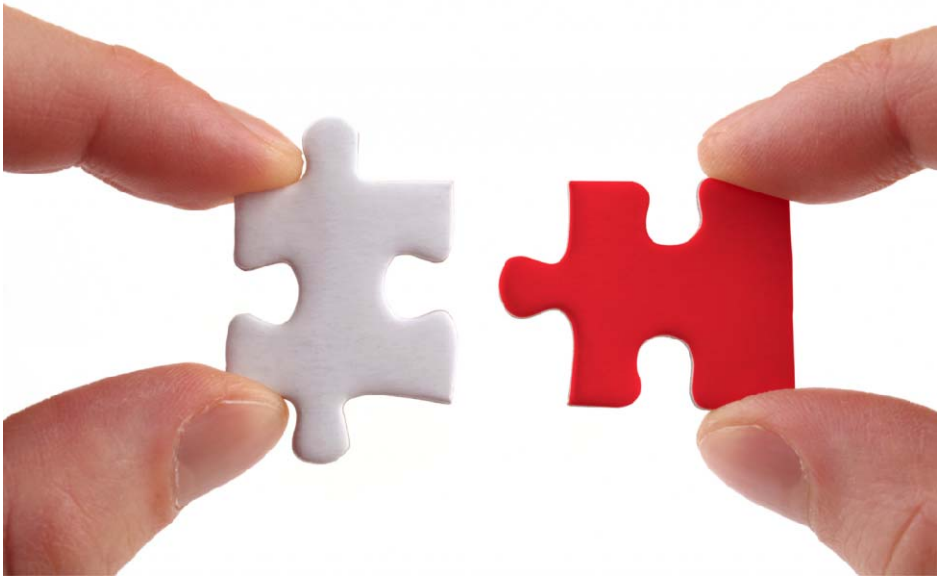
**Weigh priorities to sort projects**

- Access
- Teaching Excellence
- Knowledge Based Economy
- Research Excellence
- Effective Engagement
- Cost Effective and Accountable

The main content area displays a list of projects with horizontal bar charts representing their prioritization scores across various criteria. The 'College of Business an...' and 'Early Childhood Educa...' projects are selected. The 'Weigh priorities to sort projects' panel on the right allows users to adjust the weight of each criterion using sliders.

- Replacement projects fit well with BOR Strategic Framework
  - Projects allow for relocation of Business & Technology as well as Daycare
  - Removes antiquated building from assets

**INTEGRATION  
RDM**

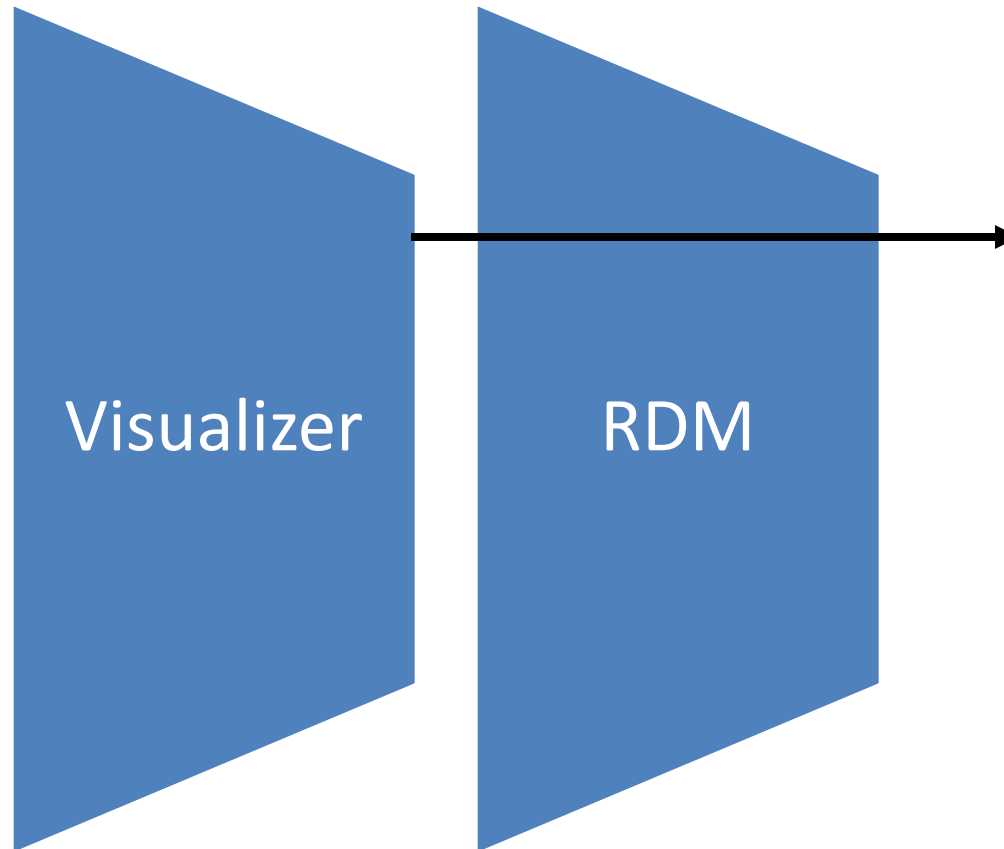


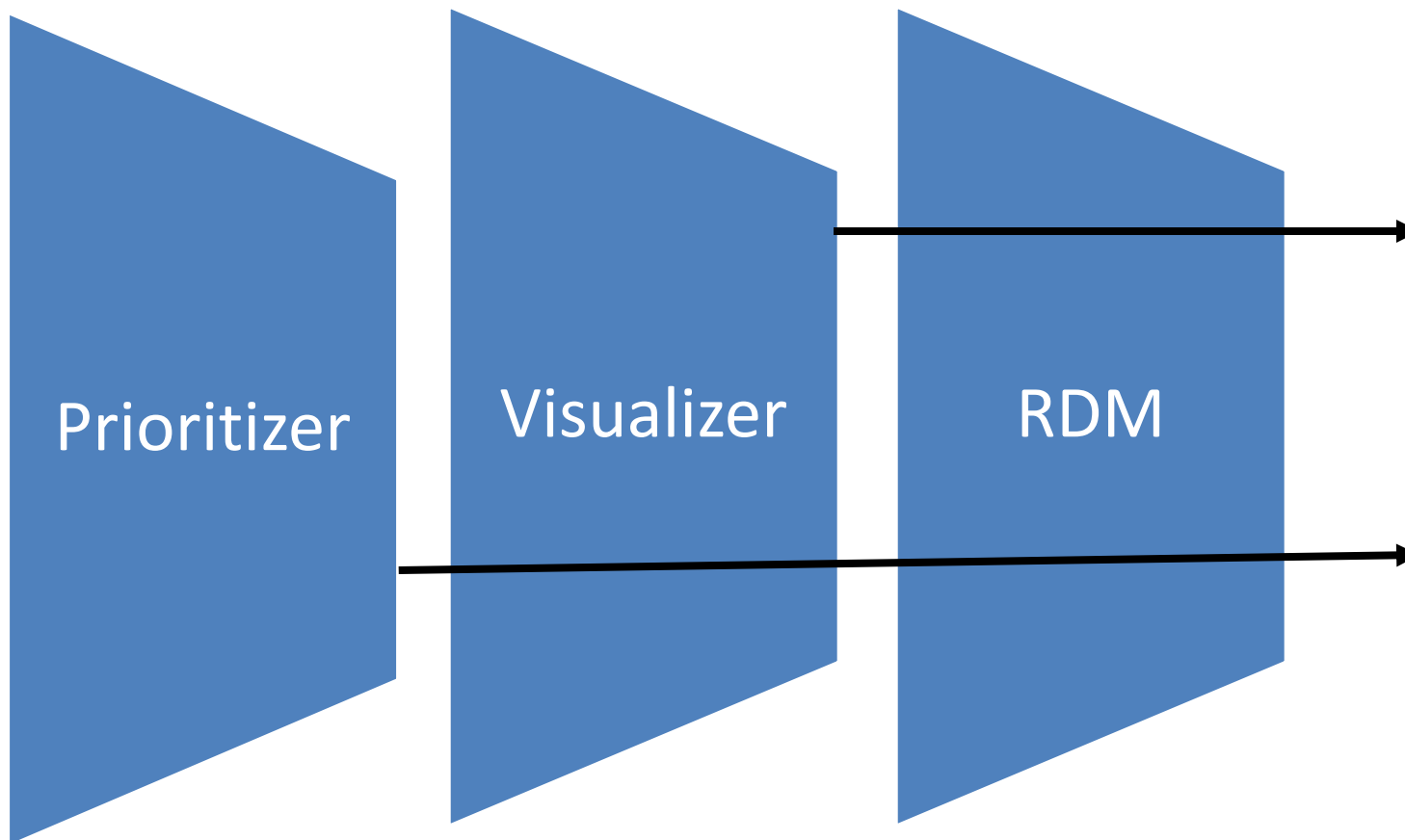


- LB 605 tolls in 2017/2021
  - Assuming \$11M available in 2017
  - Potential to fund \$80M+ in projects
- Allows university to consider
  - Proposed projects and impact on renewal
  - Additional funding needed for priority projects
  - Commitment to annual capital investment similar to LB 1100 2% depreciation
  - Campus condition and impact of addition or reduction in square footage



RDM





# A Powerful Informed Ask

