March 15, 2015

FY2014 ROPA+ Presentation

The University of Maine System

Jim Kadamus and Caroline Johnson

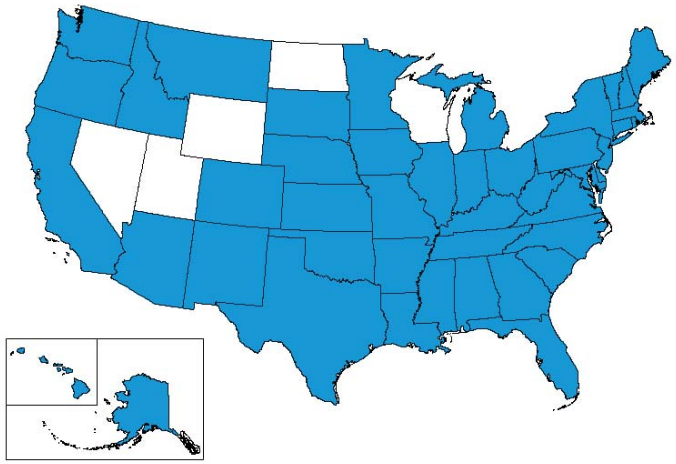
sightlines

Who Partners with Sightlines?

Robust membership includes colleges, universities, consortia, and state systems

Sightlines works with

- All Mass Public Universities and CCs
- All Connecticut Public Universities and CCs
- All Maine and New Hampshire Public Universities
- Penn State and PASSHE Systems
- 35 State Land-Grant Universities



Sightlines Profile:

- 1.3B square feet in our database
- We track $6.5B in operating costs and $9B in capital expenditures annually
- 450 colleges, universities, and K-12 institutions are Sightlines clients
- 93% Annual member retention rate in FY13
- 100 new members since 2013

Sightlines advises state systems in:

- Alaska
- California
- Connecticut
- Hawaii
- Maine
- Massachusetts
- Minnesota
- Mississippi
- Missouri
- New Hampshire
- New Jersey
- New York
- Oregon
- Pennsylvania
- Texas
- West Virginia

A vocabulary for measurement

The Return on Physical Assets – ROPA℠

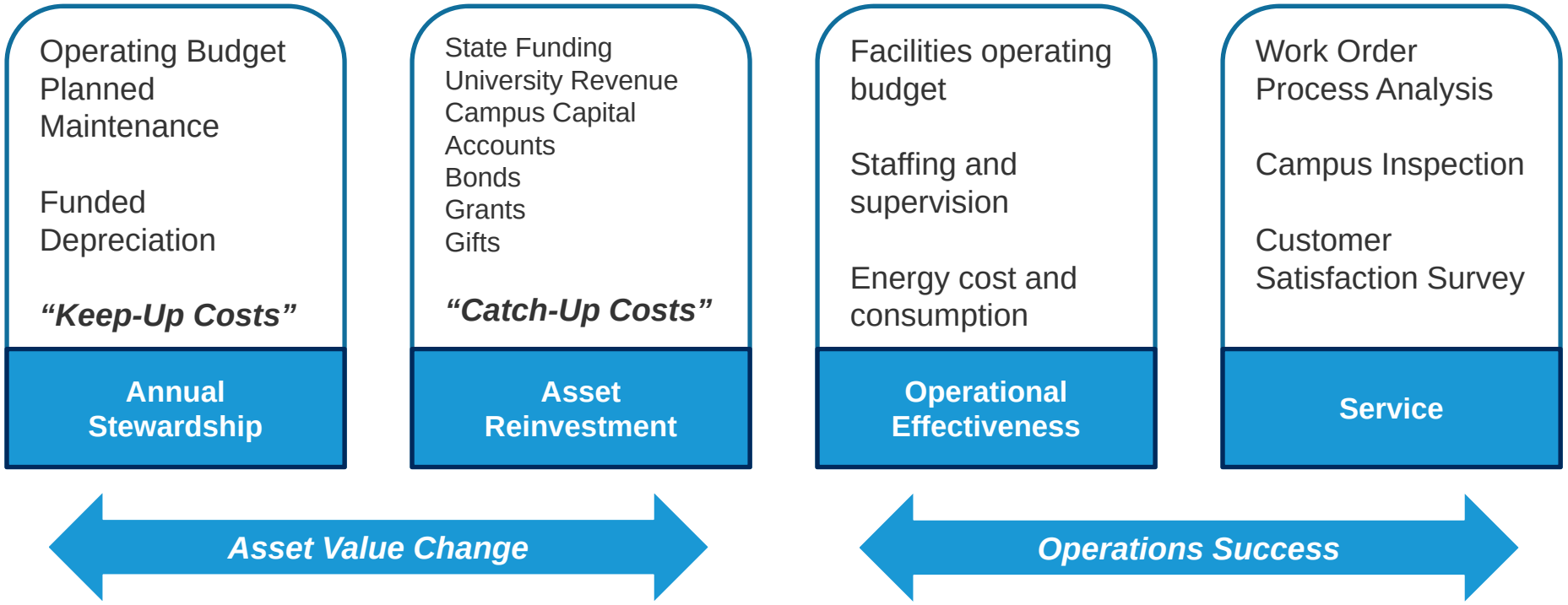
Annual Stewardship	Asset Reinvestment	Operational Effectiveness	Service
The annual investment needed to ensure buildings will properly perform and reach their useful life ***"Keep-Up Costs"***	The accumulated backlog of repair / modernization needs and the definition of resource capacity to correct them ***"Catch-Up Costs"***	The effectiveness of the facilities operating budget, staffing, supervision, and energy management	The measure of service process, the maintenance quality of space and systems, and the customers opinion of service delivery

Asset Value Change

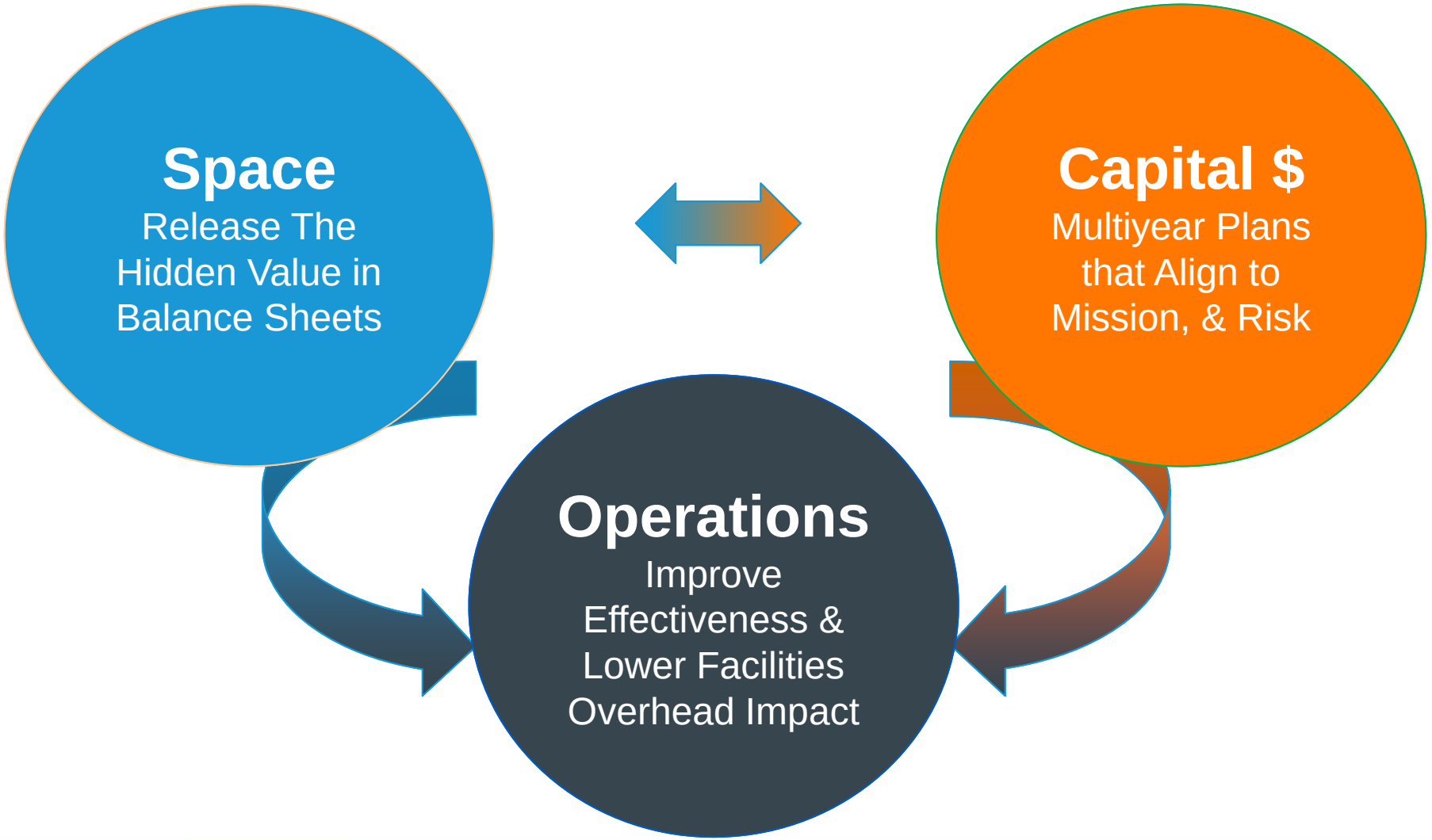
Operations Success

A vocabulary for measurement

The Return on Physical Assets – ROPA℠



Changing the Conversation

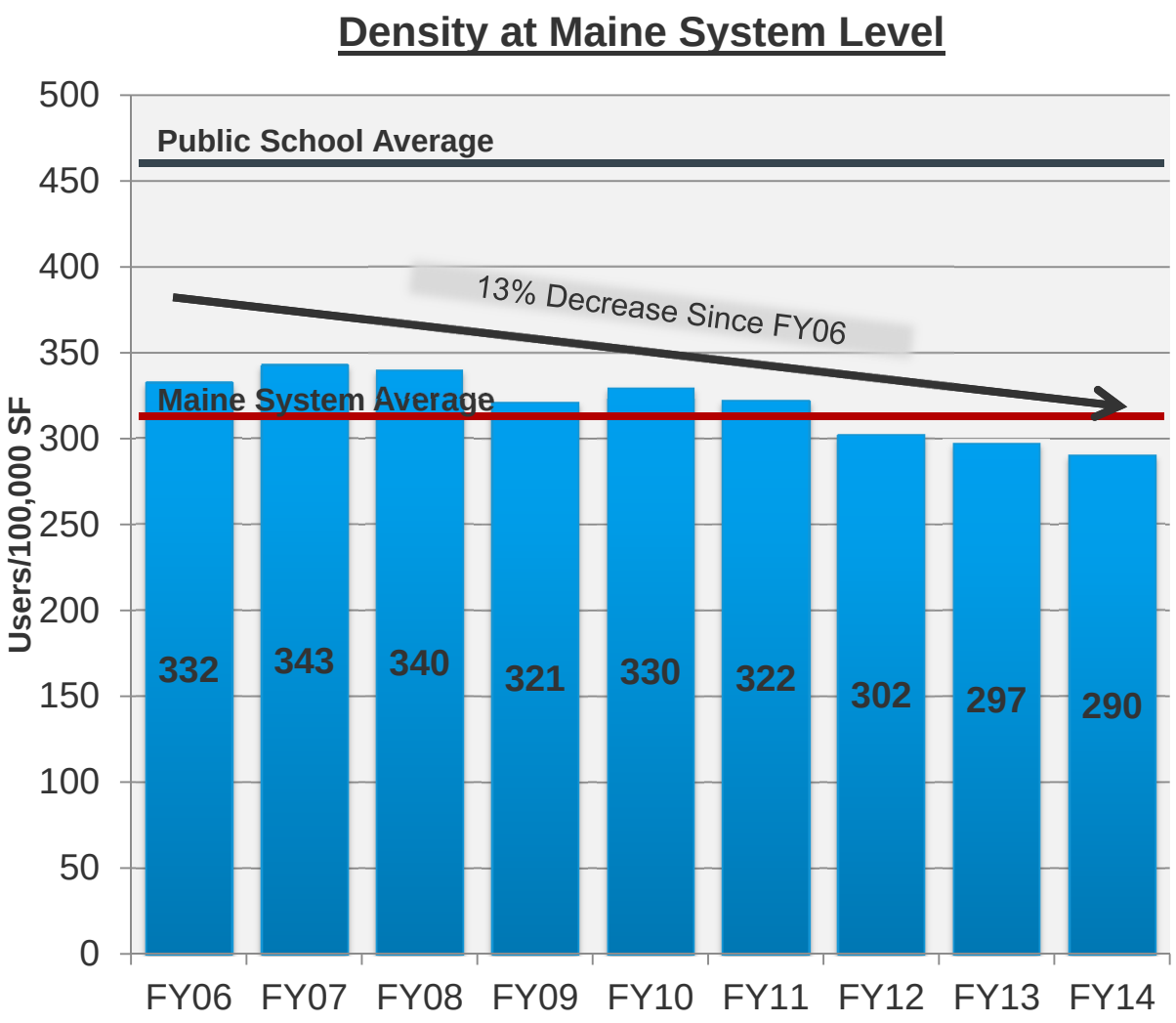


UMaine System Peer Comparison

Putting UMS in context with peers

State System Comparisons
Connecticut State University System
Massachusetts State Universities
Mississippi Institutions of Higher Learning
Oregon University System
Pennsylvania State System of Higher Education
University of Alaska System
University of Missouri System
University System of New Hampshire

Maine System Density Has Gone Down Over Time



Measures number of users / 100,000 GSF

A measure of the amount of use campus buildings receive on a daily basis

Users include student, faculty, staff FTE

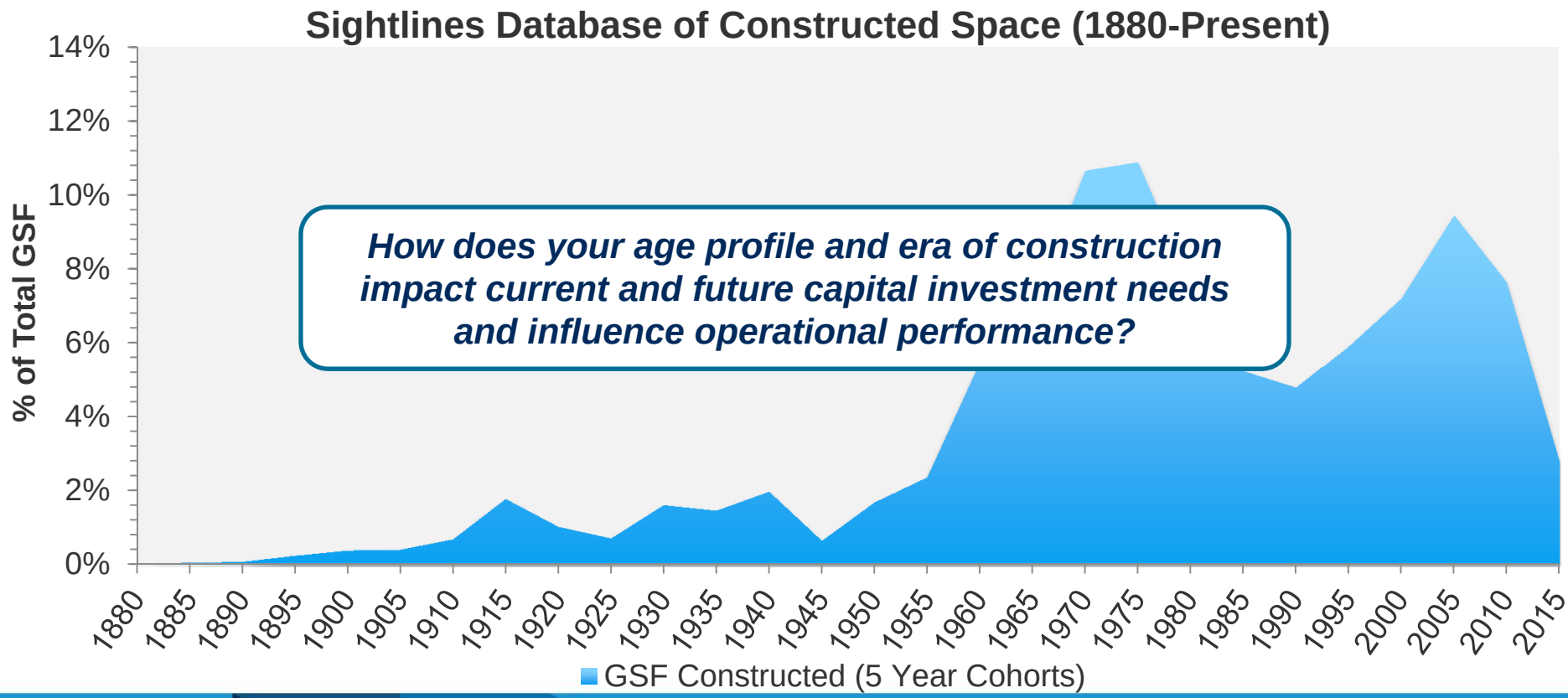
Construction Waves Hitting Major Life Cycles

First wave of buildings are now 50 years old; second wave nearly 20 years old

Pre-War
- Built before 1951
- Durable construction
- Older but typically lasts longer

Post-War
- Built between 1951 and 1990
- Lower-quality construction
- Already needing more repairs and renovations

Complex
- Built in 1991 and newer
- Technically complex spaces
- Higher-quality, more expensive to maintain & repair



How does your age profile and era of construction impact current and future capital investment needs and influence operational performance?

Construction Waves Hitting Major Life Cycles

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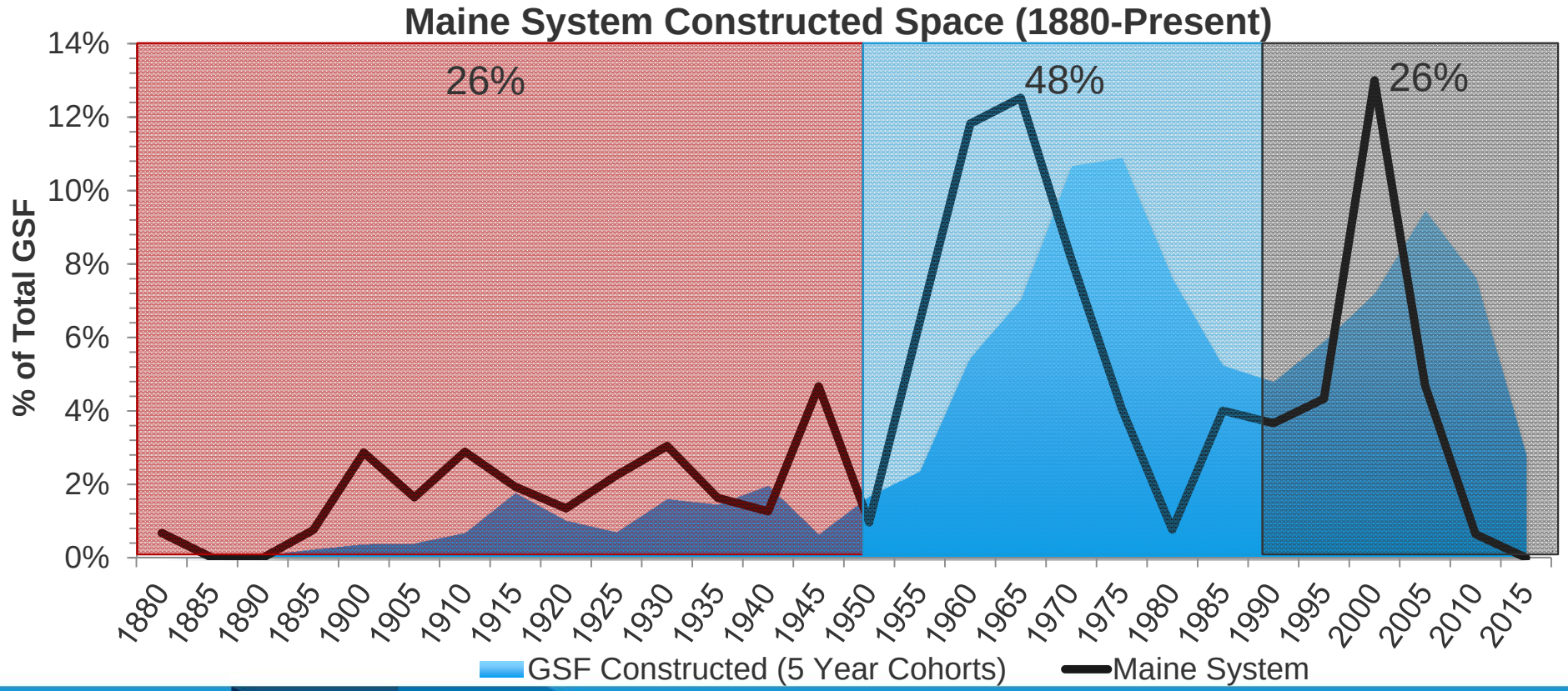
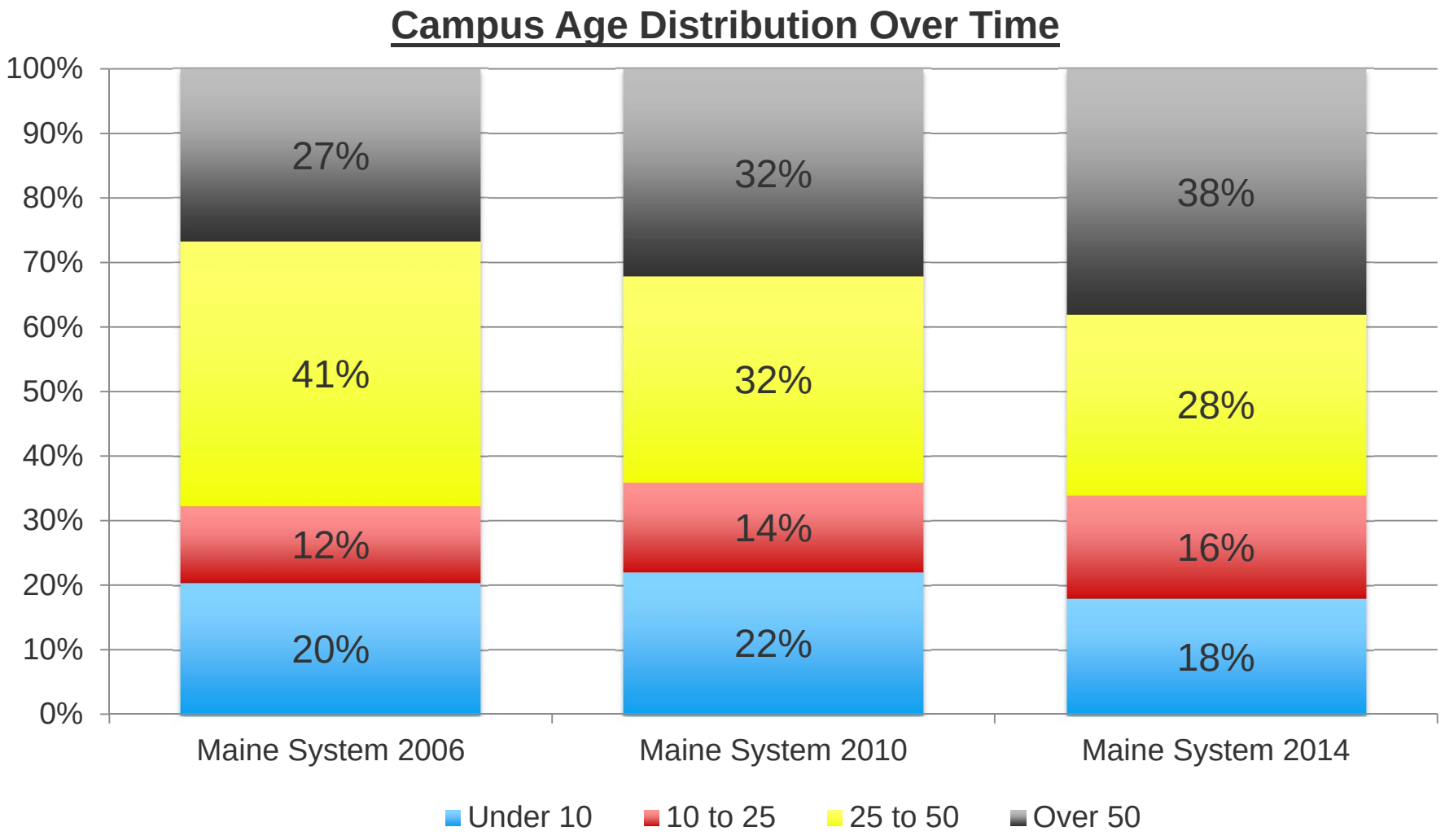


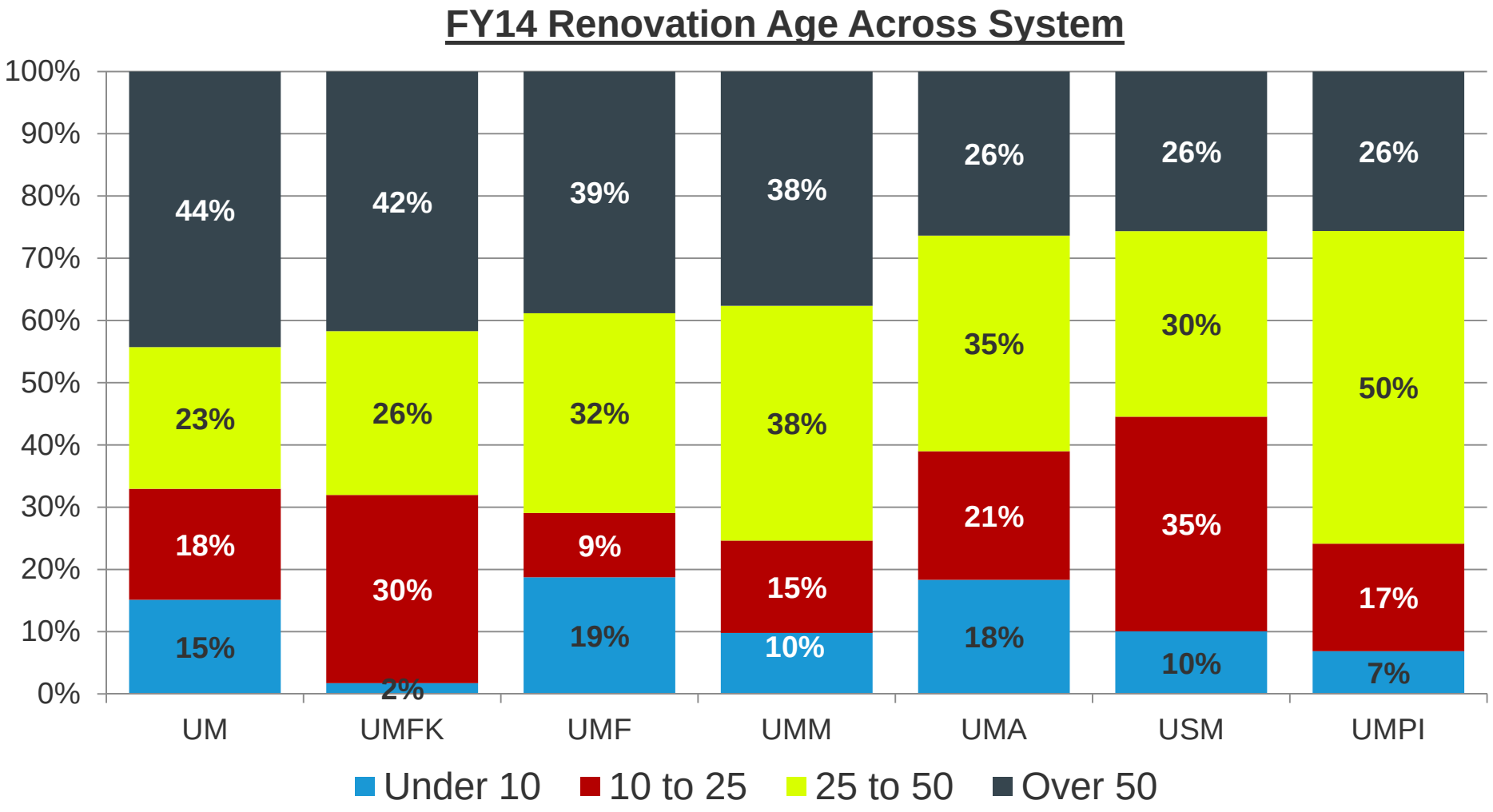
Maine System age profile, 64% of space over 25

Space over 50 years old (highest risk) grown from 27% in FY06 to 38% in FY14



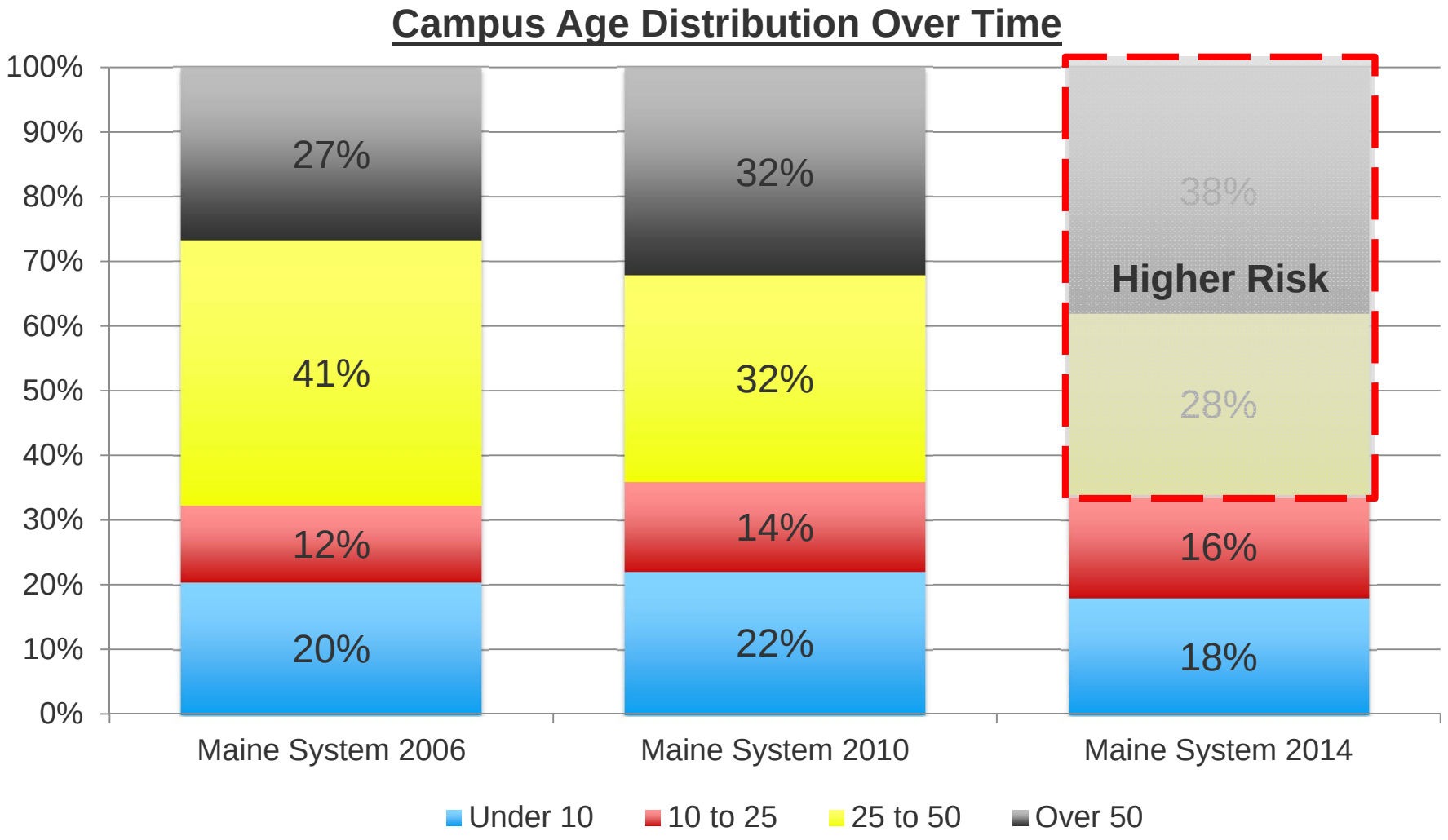
Renovation age distribution across System

Focusing resources on existing space halts growth of buildings over 50 years old



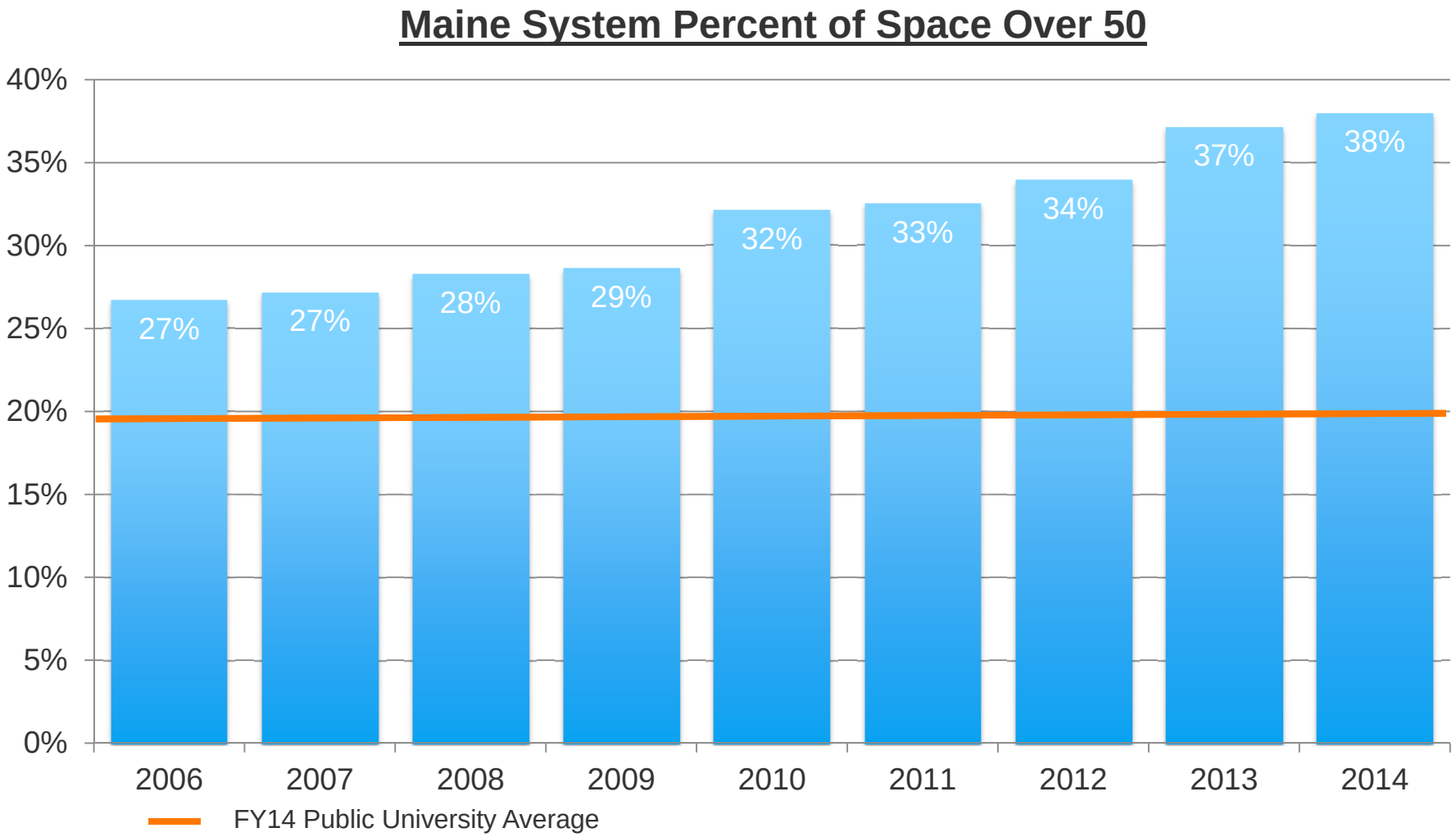
Maine System age profile, 64% of space over 25

Space over 50 years old (highest risk) grown from 27% in FY06 to 36% in FY14



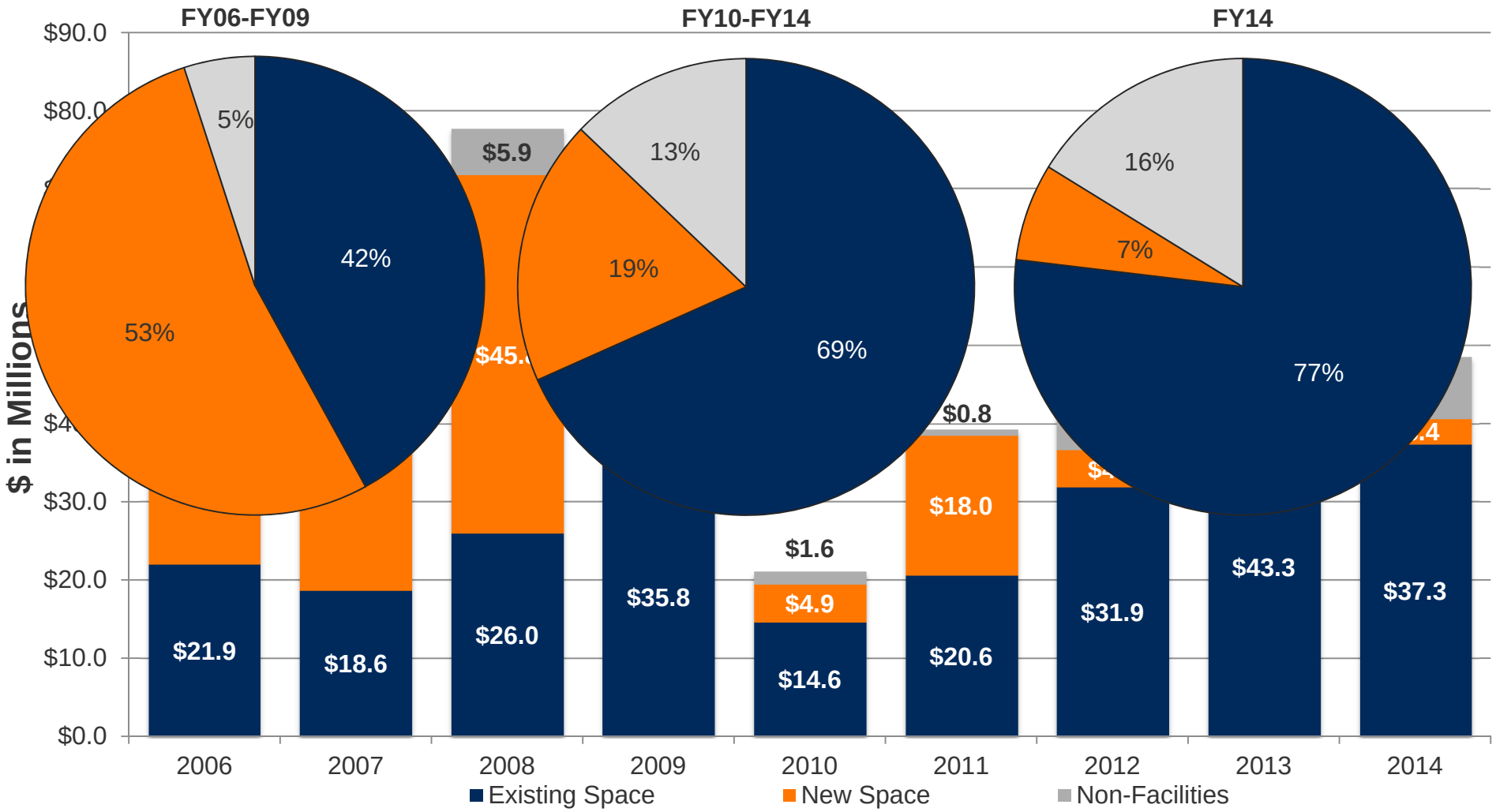
Renos and removal of buildings slows aging process

Public institutions average 18% of space over 50 in FY14



Maine System Investment Profile

51% of total investment has gone towards existing space since FY06

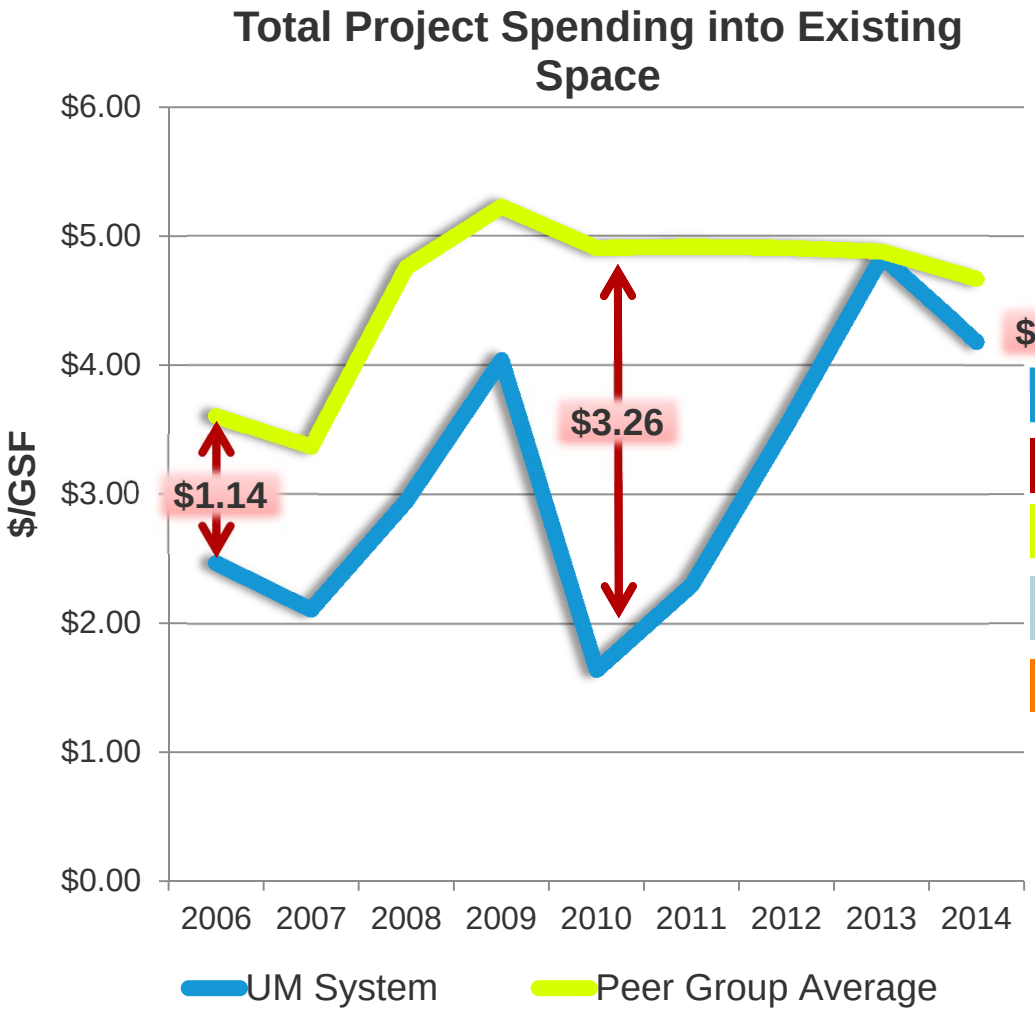


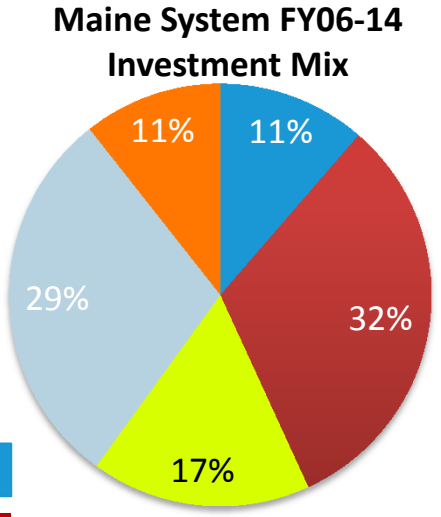
Maine System Annual Average $49.2M

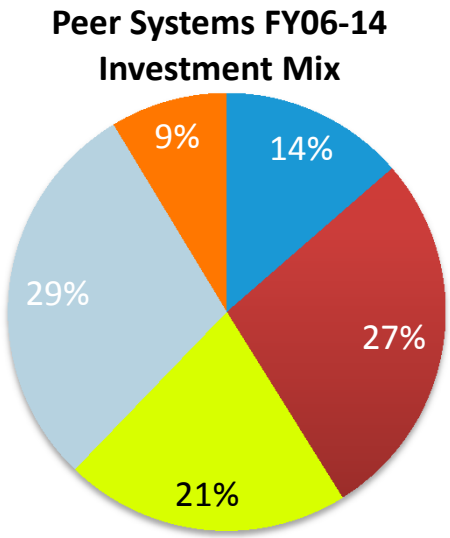
Examples of Non-Facilities work include: Study/Design fees, IT work, and demolition costs. These are necessary capital costs for Facilities Operations but do not add value/enhance existing buildings.

Peers investing $.49/GSF more than UMaine System

Spending profile similar to peer investment mix



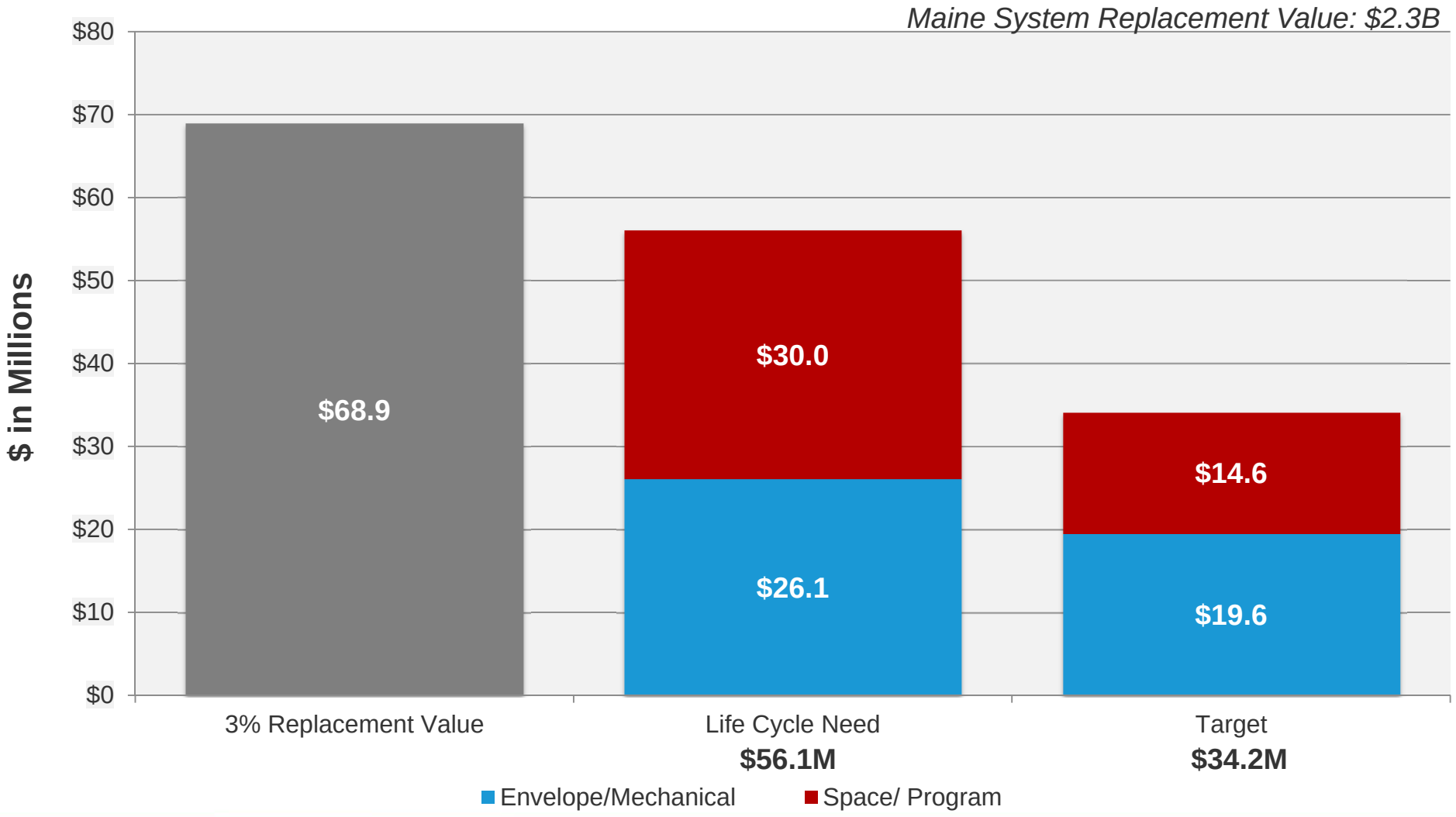




Building Envelope
Building Systems
Infrastructure
Space Renewal
Safety/Code

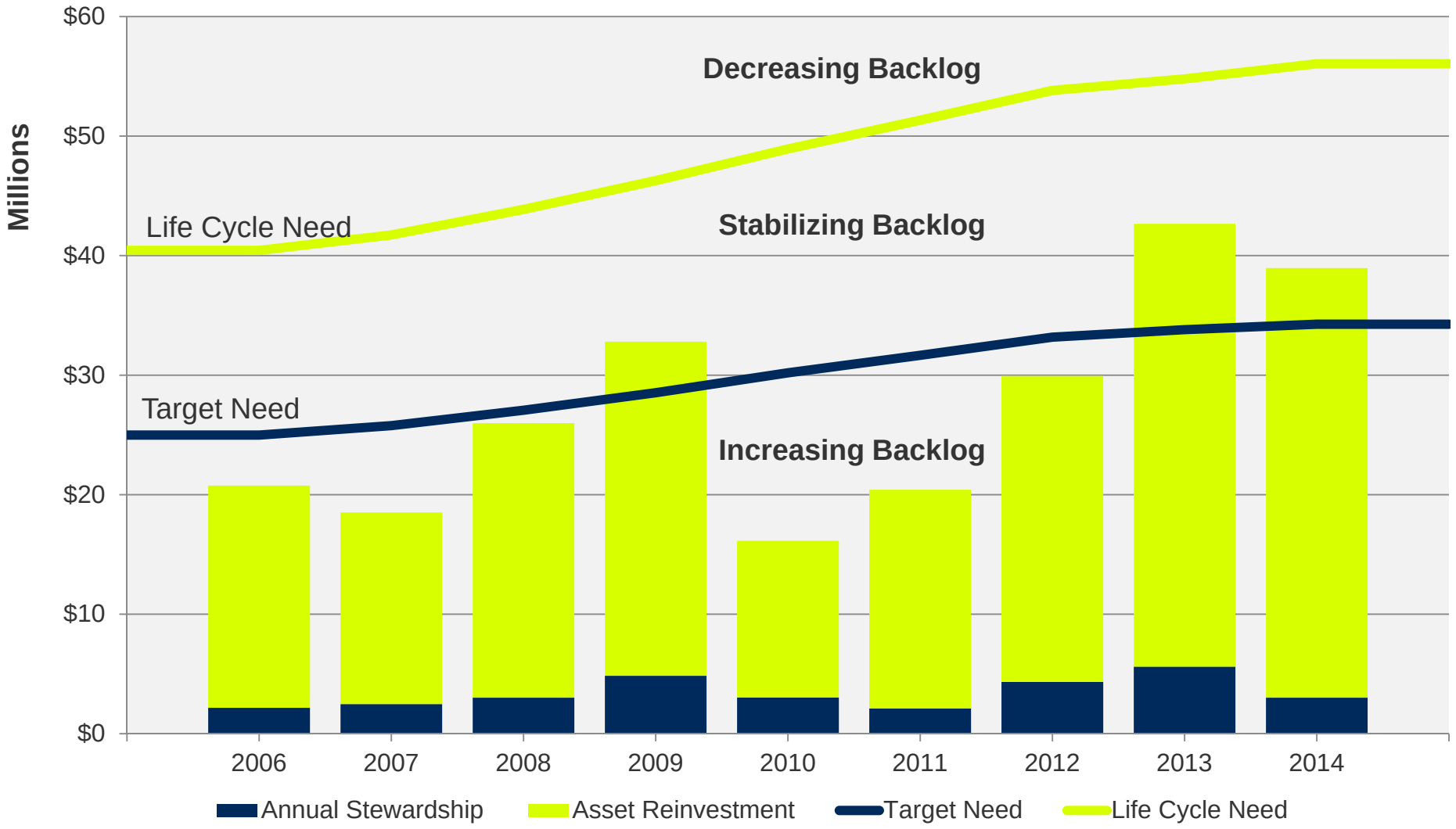
Defining Stewardship Investment Targets

$34.2M of Stewardship funds needed in FY14 to keep-up all system campuses



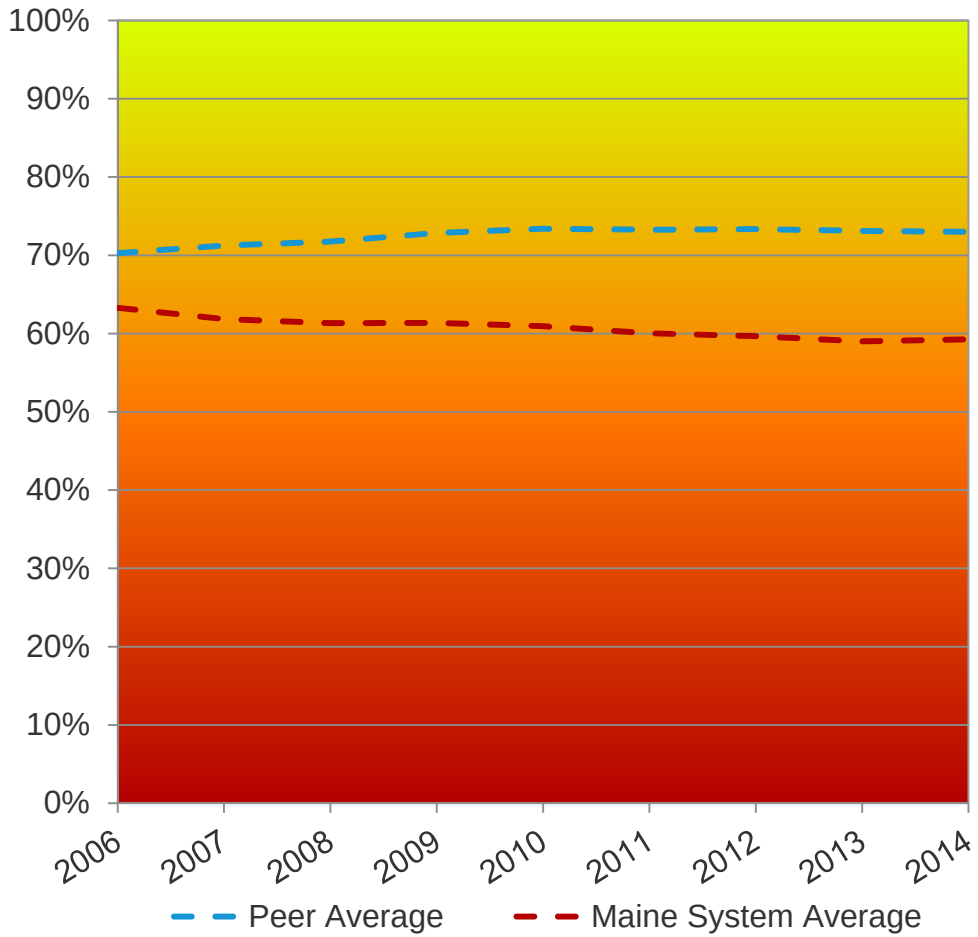
System exceeds target in FY14 for two consecutive years

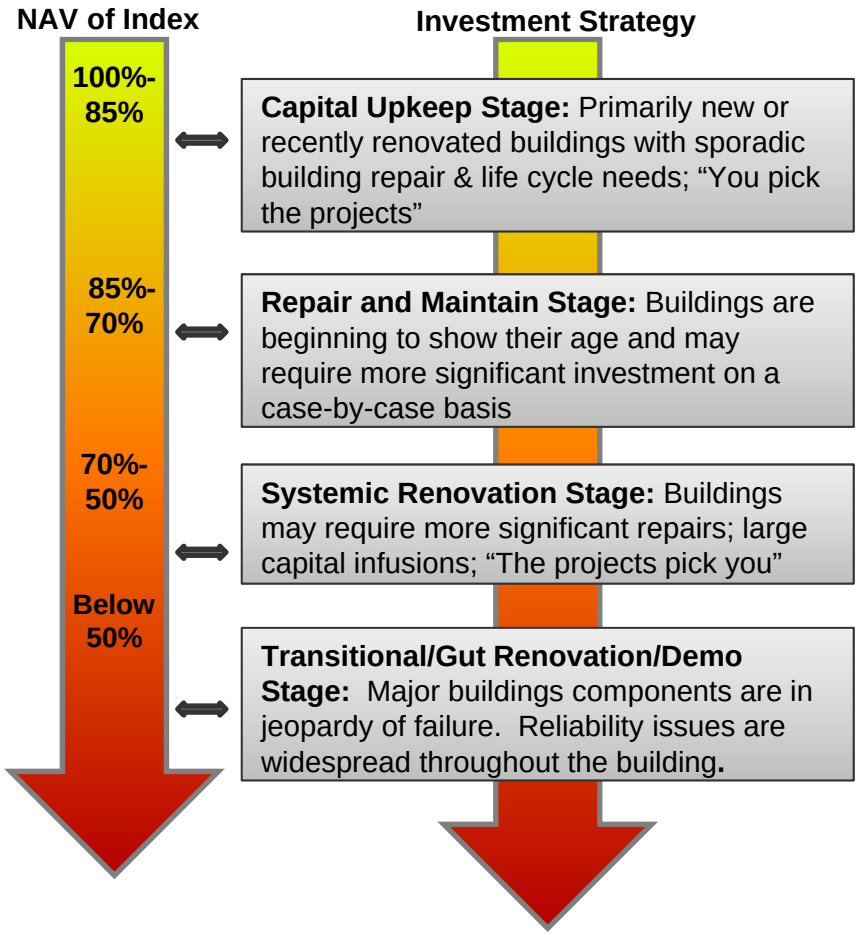
One-Time funds aid in the U Maine System meeting target



NAV of U Maine System Stabilizes in FY2014

Strategic investments and removal of high need/low utilized buildings increase institutional NAVs

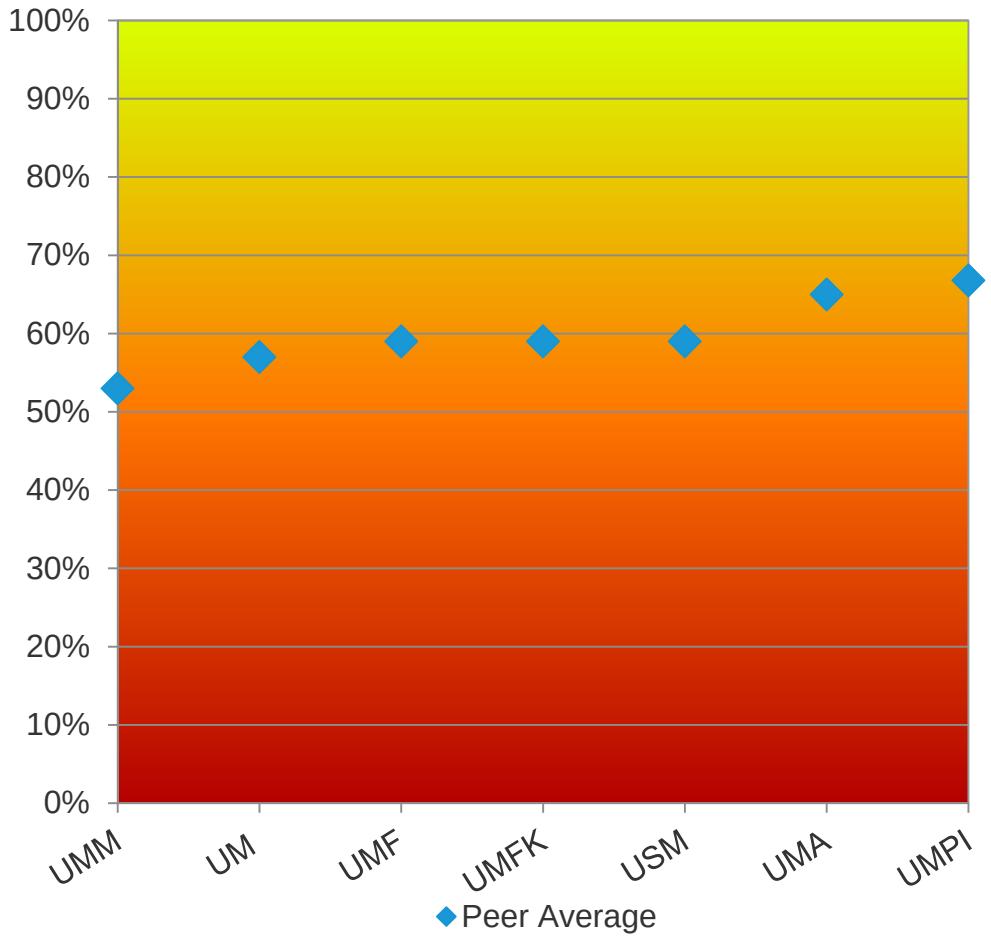




Net Asset Value = $\frac{\text{Replacement Value – Deferred Maintenance}}{\text{Replacement Value}}$

Institutional NAVs have increased in FY14

Strategic investments and removal of high need/low utilized buildings increase institutional NAVs



NAV of Index

Investment Strategy

100%-85% ⟷ **Capital Upkeep Stage:** Primarily new or recently renovated buildings with sporadic building repair & life cycle needs; "You pick the projects"

85%-70% ⟷ **Repair and Maintain Stage:** Buildings are beginning to show their age and may require more significant investment on a case-by-case basis

70%-50% ⟷ **Systemic Renovation Stage:** Buildings may require more significant repairs; large capital infusions; "The projects pick you"

Below 50% ⟷ **Transitional/Gut Renovation/Demo Stage:** Major buildings components are in jeopardy of failure. Reliability issues are widespread throughout the building.

Net Asset Value = $\frac{\text{Replacement Value – Deferred Maintenance}}{\text{Replacement Value}}$

ROPA+ Prediction Overview

Regionalized costs based on comprehensive database of building systems

6 Subsystems

Roof

Envelope

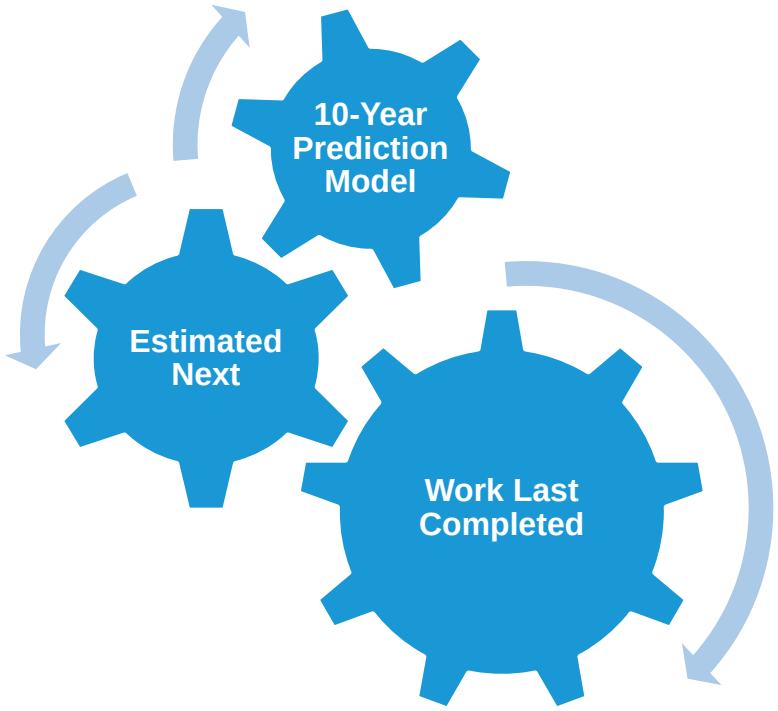
HVAC Systems

Electrical

Plumbing

Interiors

96% of Building Costs

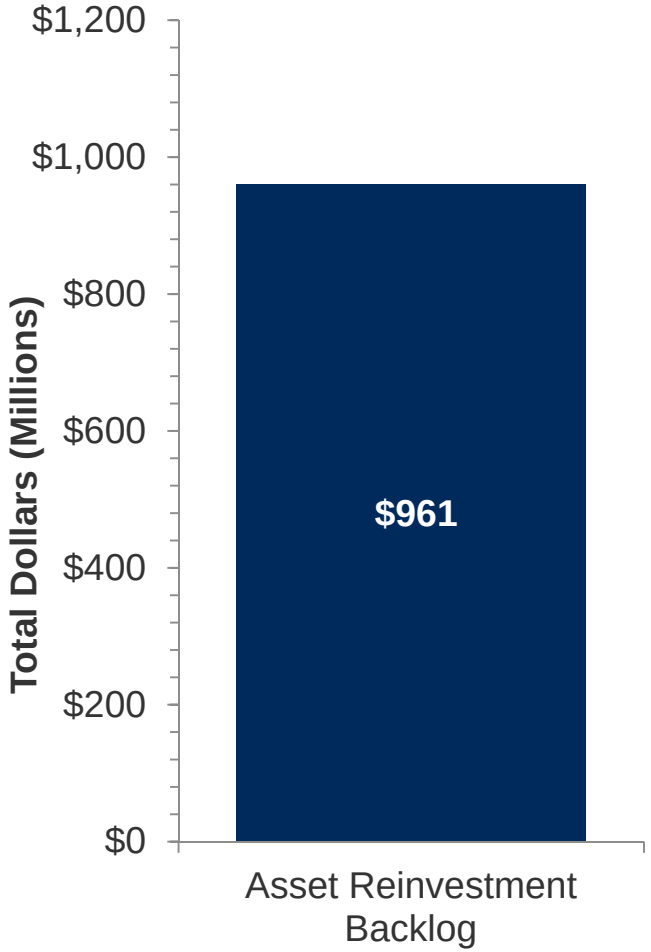


Scope of Analysis:

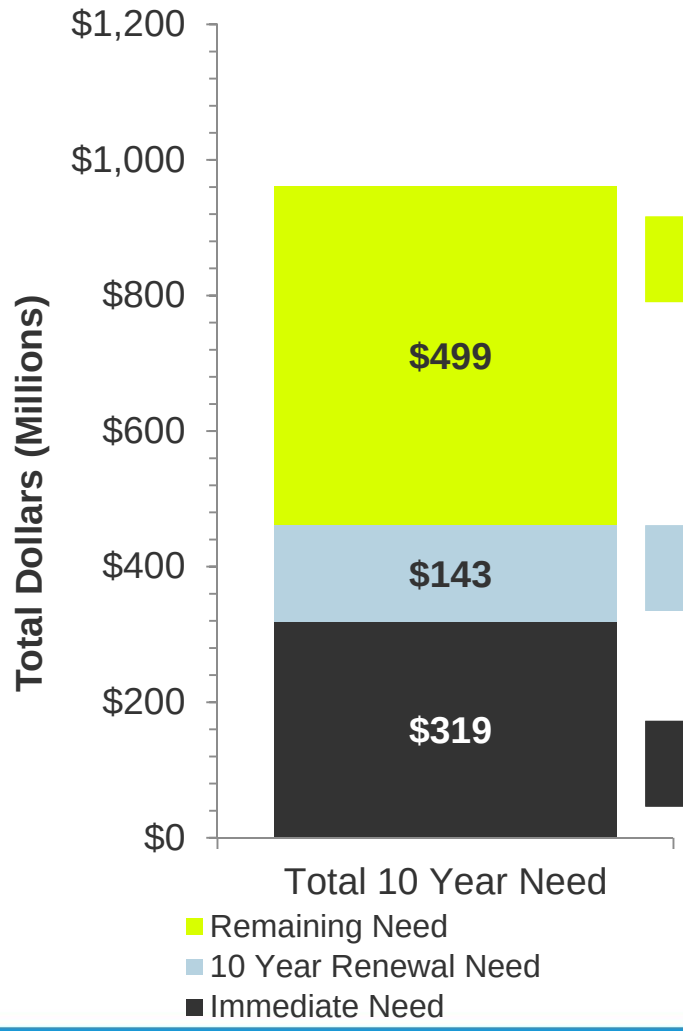
- 9 Million GSF across 7 institutions
- ***Data qualified with facilities leadership***

UMaine Campuses: 10 Year Needs

Discovery
(Asset Reinvestment)



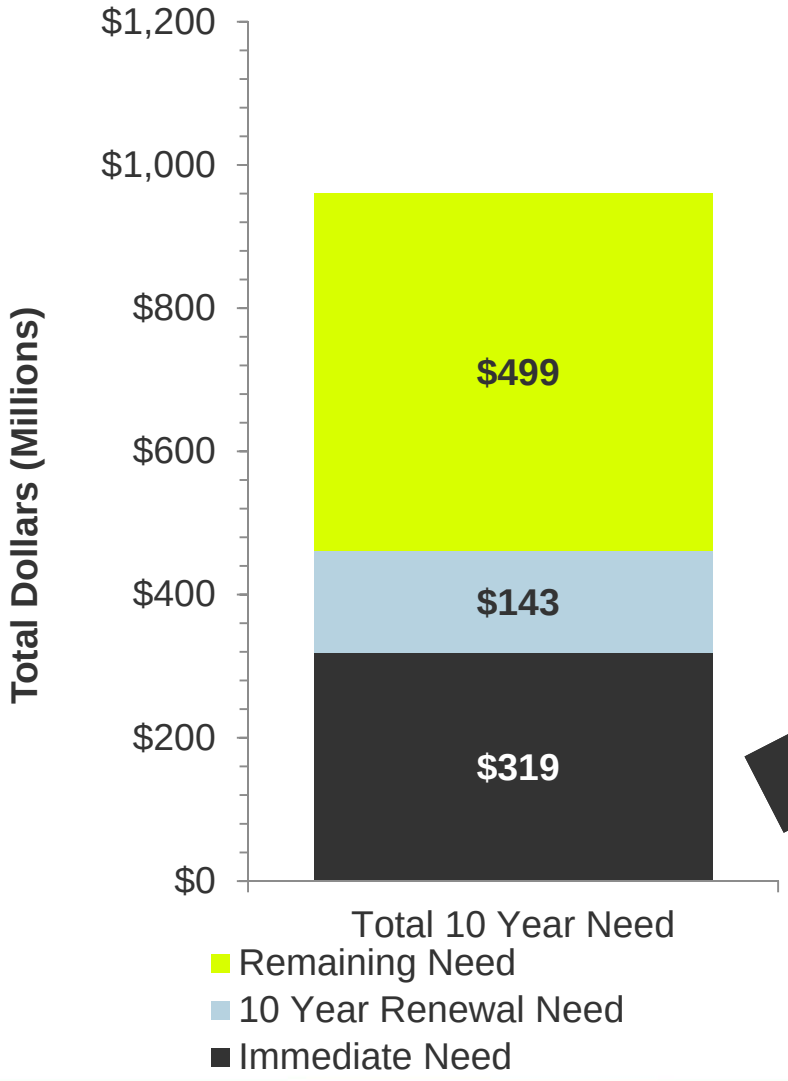
Prediction
(Capital Risk)

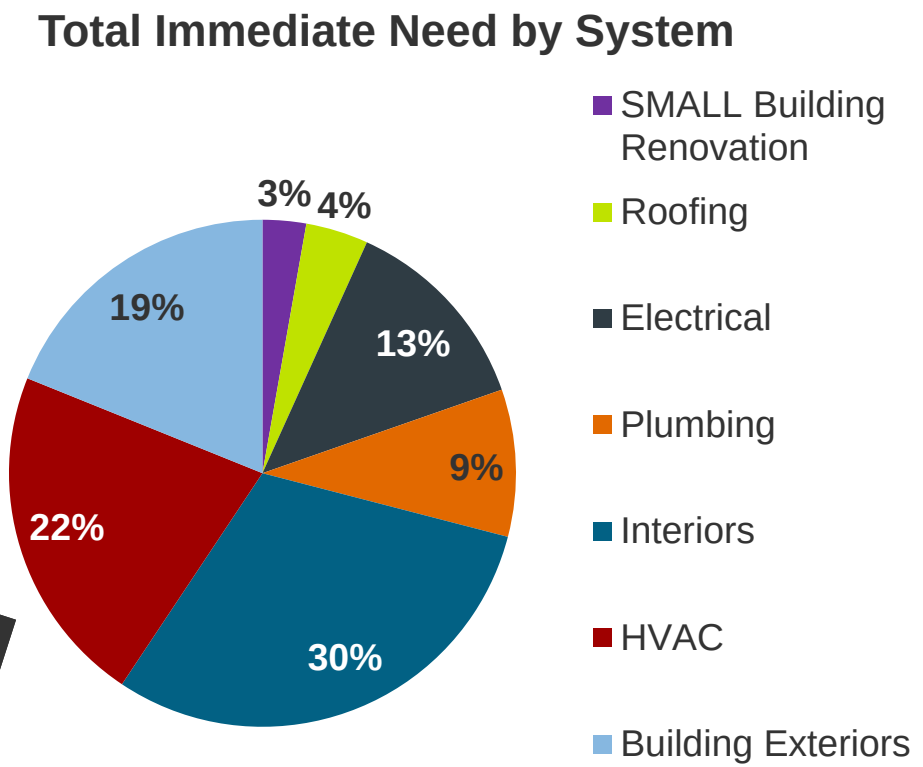


- ✓ Remaining need is $499M
- ✓ Sightlines recommends a 10 year capital strategy to address the total need.
- ✓ Total 10 year renewal need is $143M.
- ✓ This represents the life cycle needs coming due between 2016-2023.
- ✓ Deferred maintenance need today *(Highest Risk)*

MEP Projects Comprises the Majority of Immediate Needs

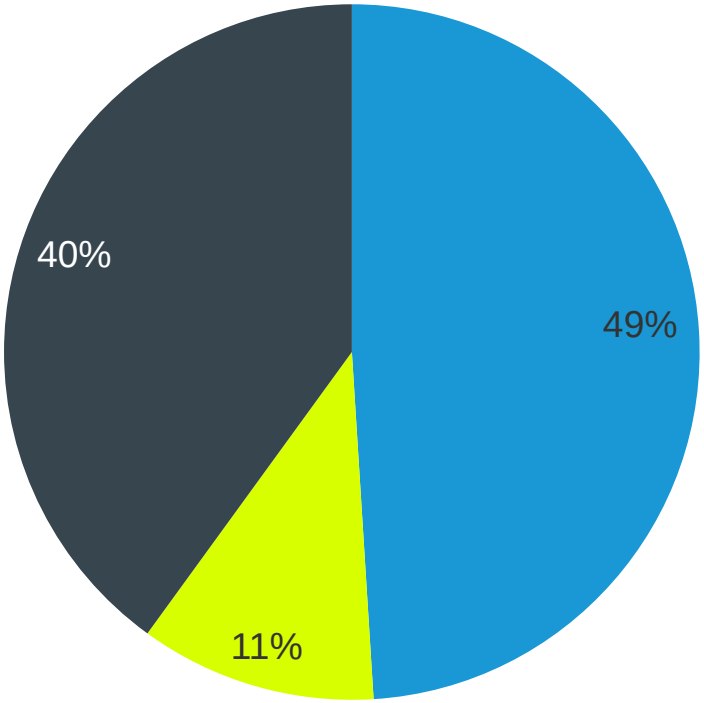
$319M in Immediate Need



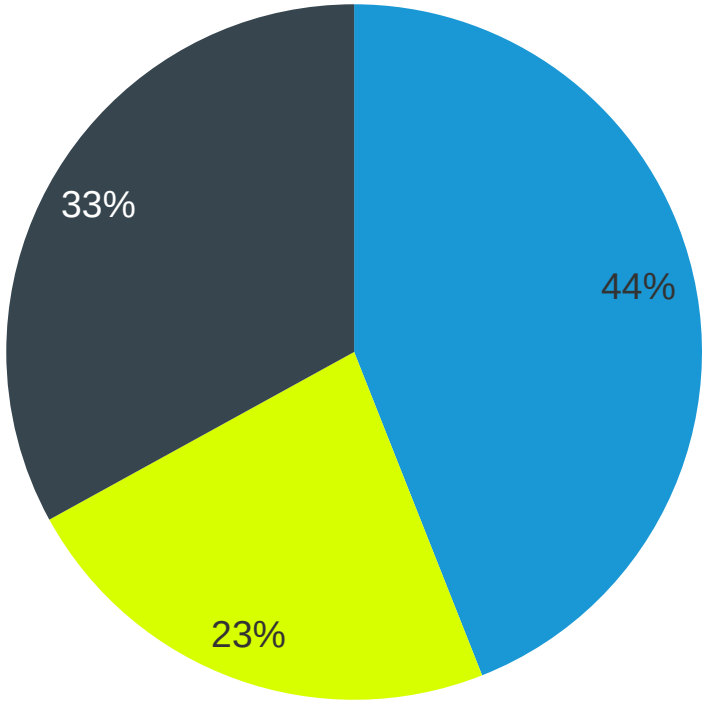


Historical Investment Profile Differs From Immediate Needs

2006-2014 Historical Project Investment



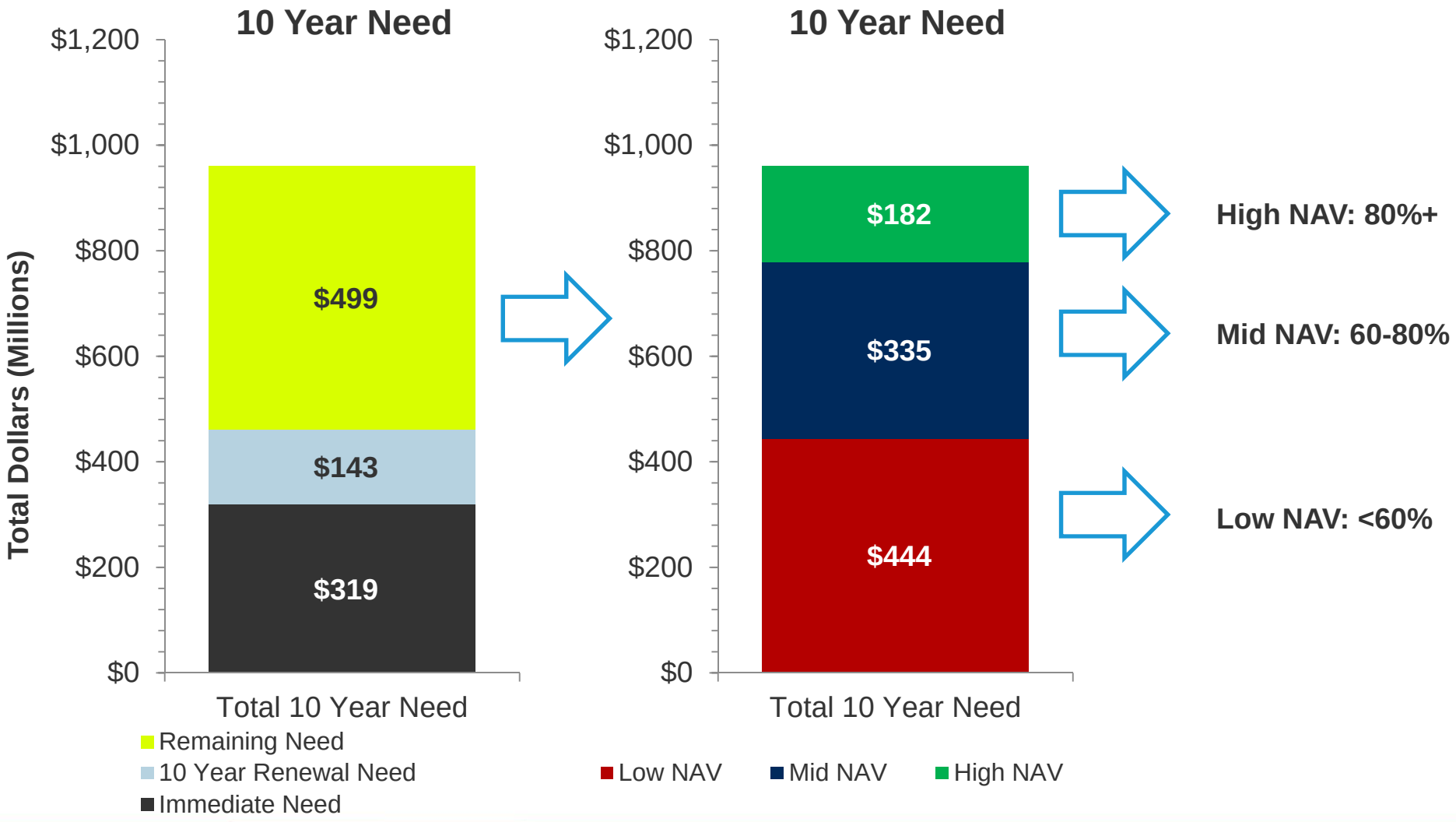
Distribution of Immediate Need by System



Mechanical Envelope Interiors

ROPA+ Prediction 10-Year Modeled Need

Total Modeled Need by NAV Level

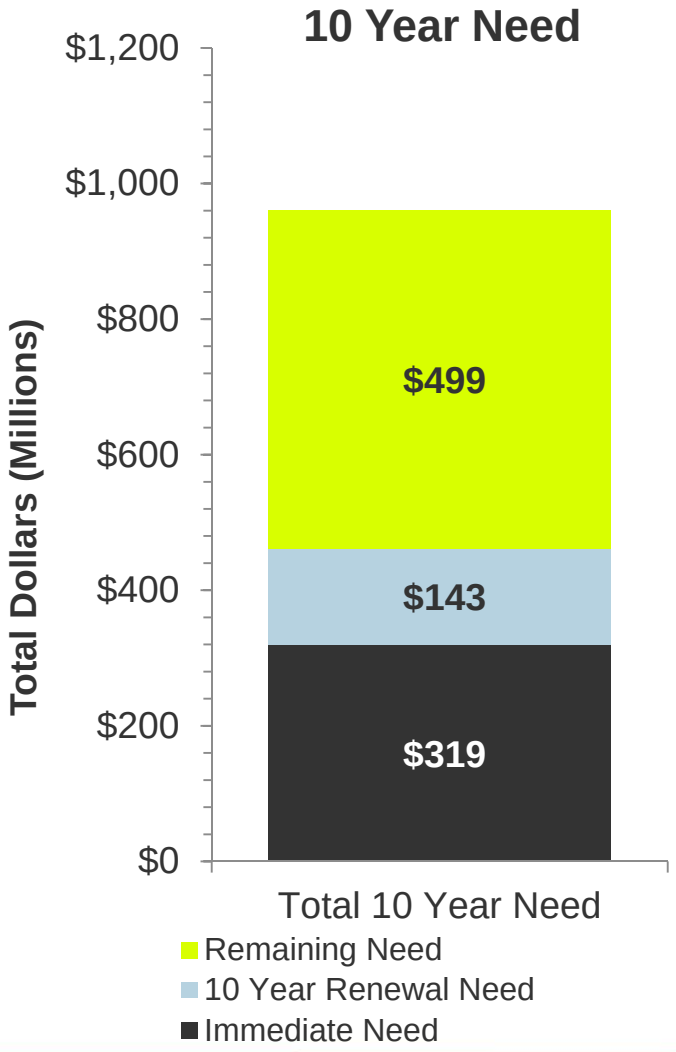


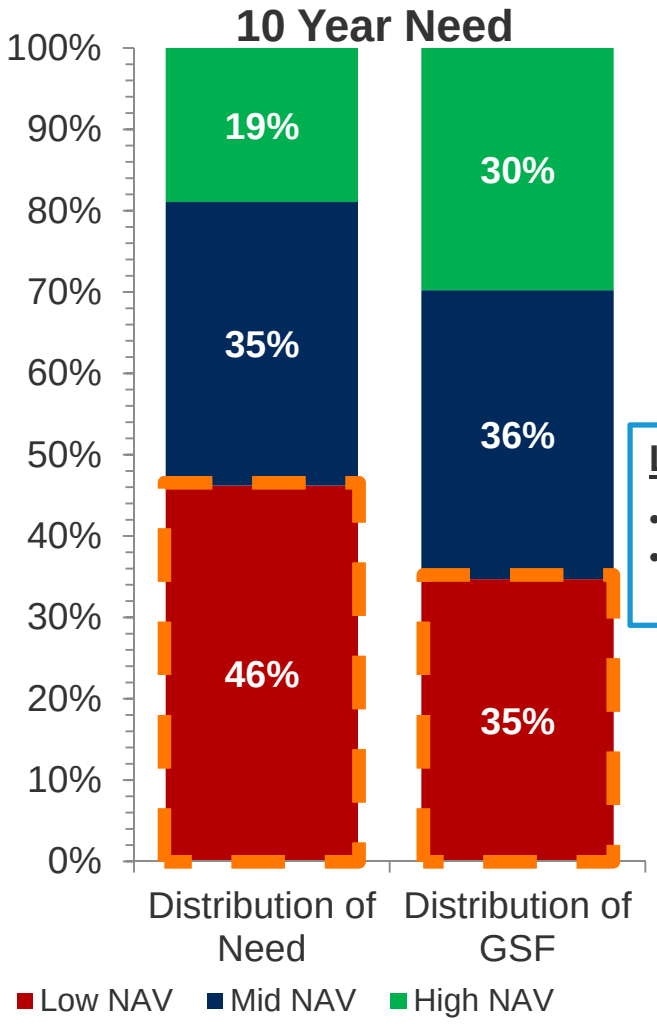
Net Asset Value (NAV):

(Current Replacement Value – Immediate Need)
Current Replacement Value

Net Asset Value: Distribution of Need vs. GSF

Localized Low NAV Buildings Drive 46% of Total Need





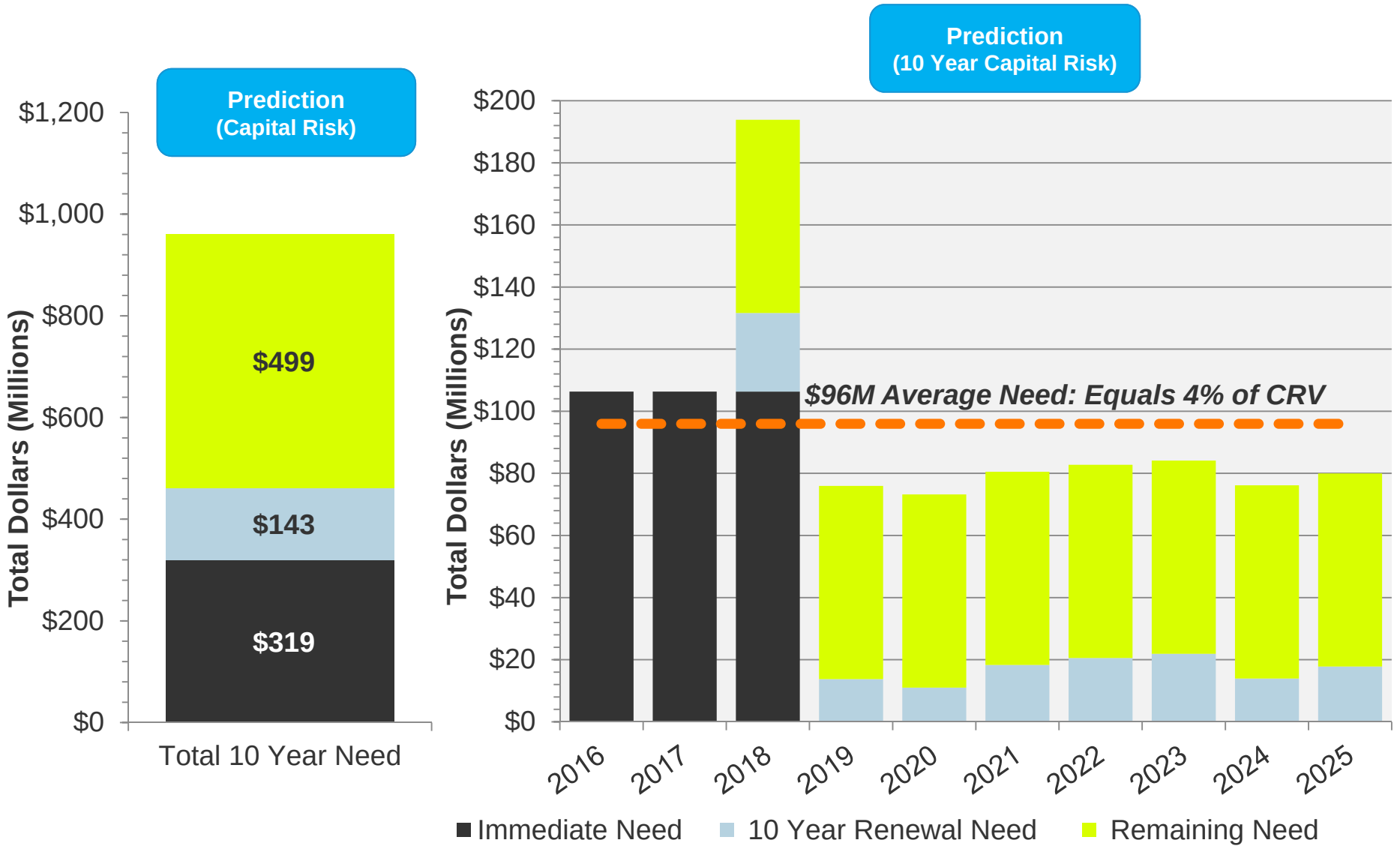
Low NAV Statistics:

- 153 Buildings Total
- 70 Buildings built during the Post-War Phase

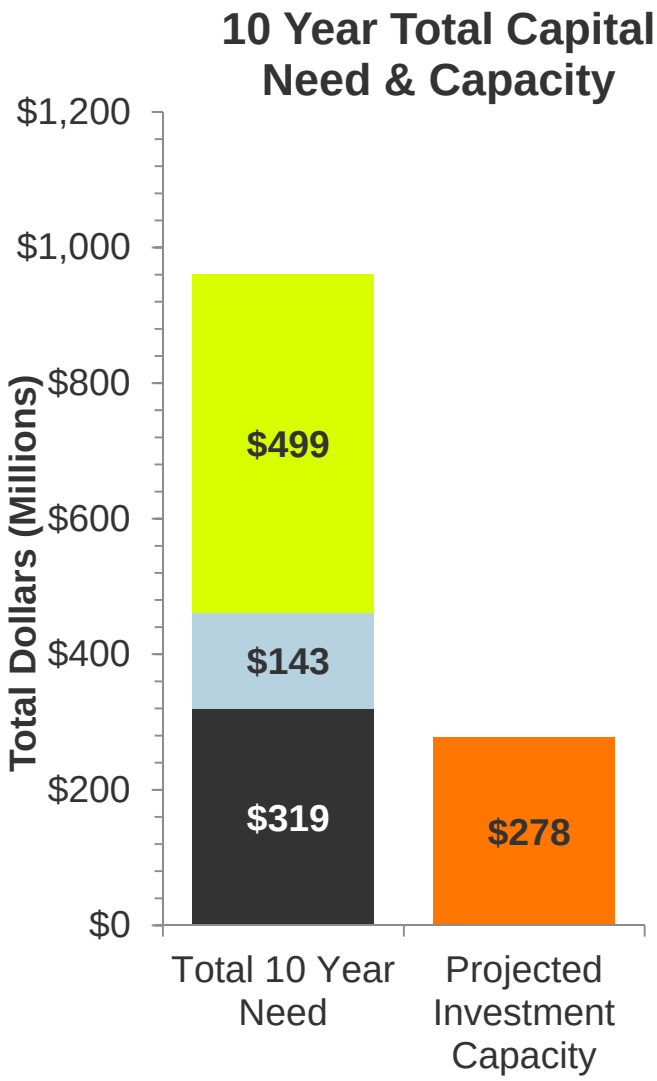
Net Asset Value (NAV):

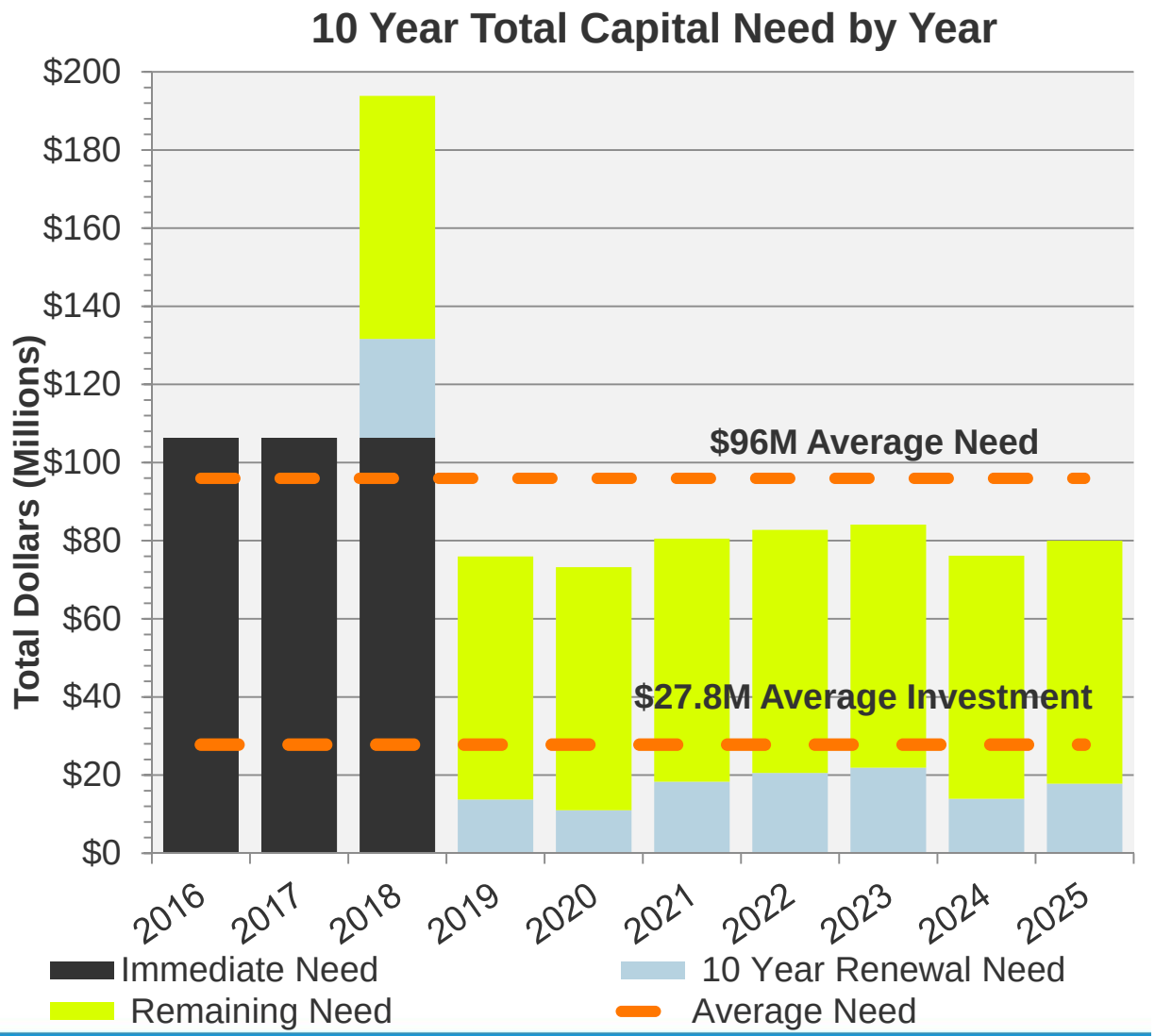
(Current Replacement Value – Immediate Need)
Current Replacement Value

UMaine Campuses: 10 Year Needs



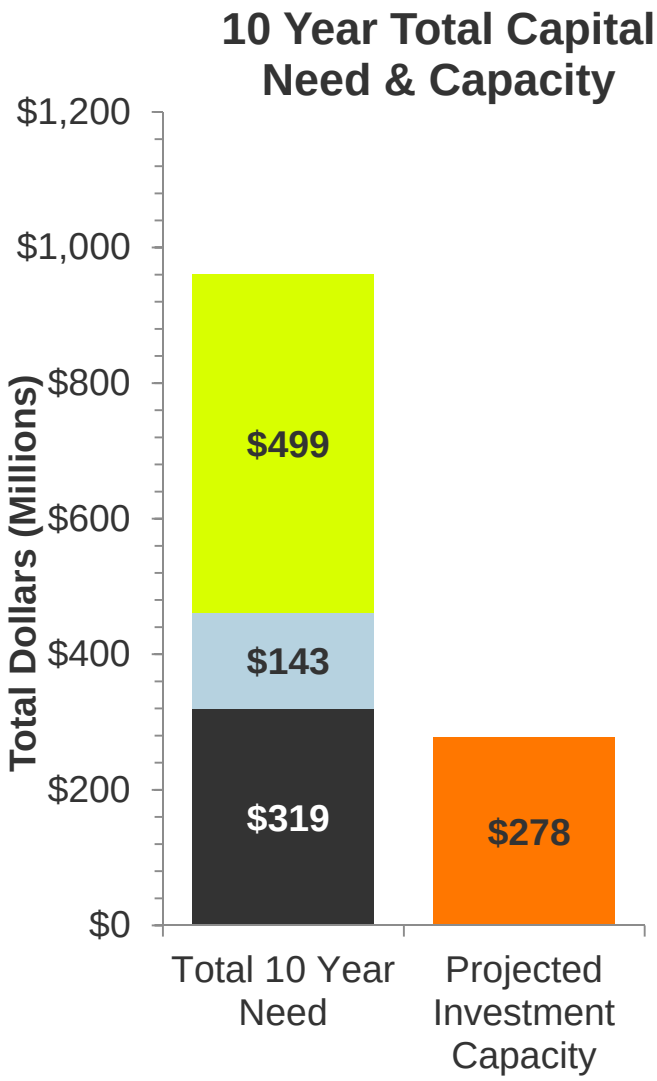
Needs vs. Potential Investment Capacity

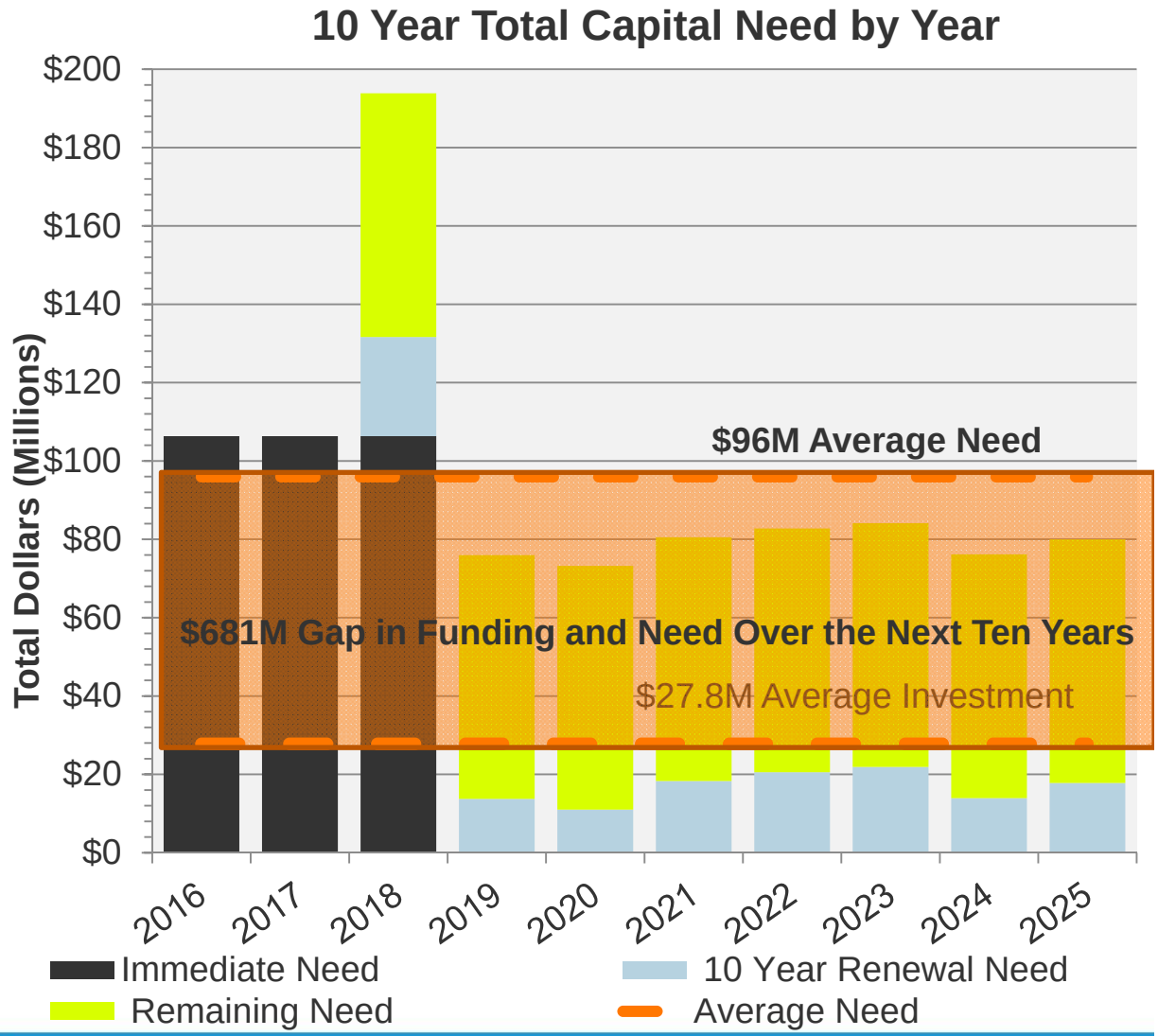




Projected capital is the average of historical spending

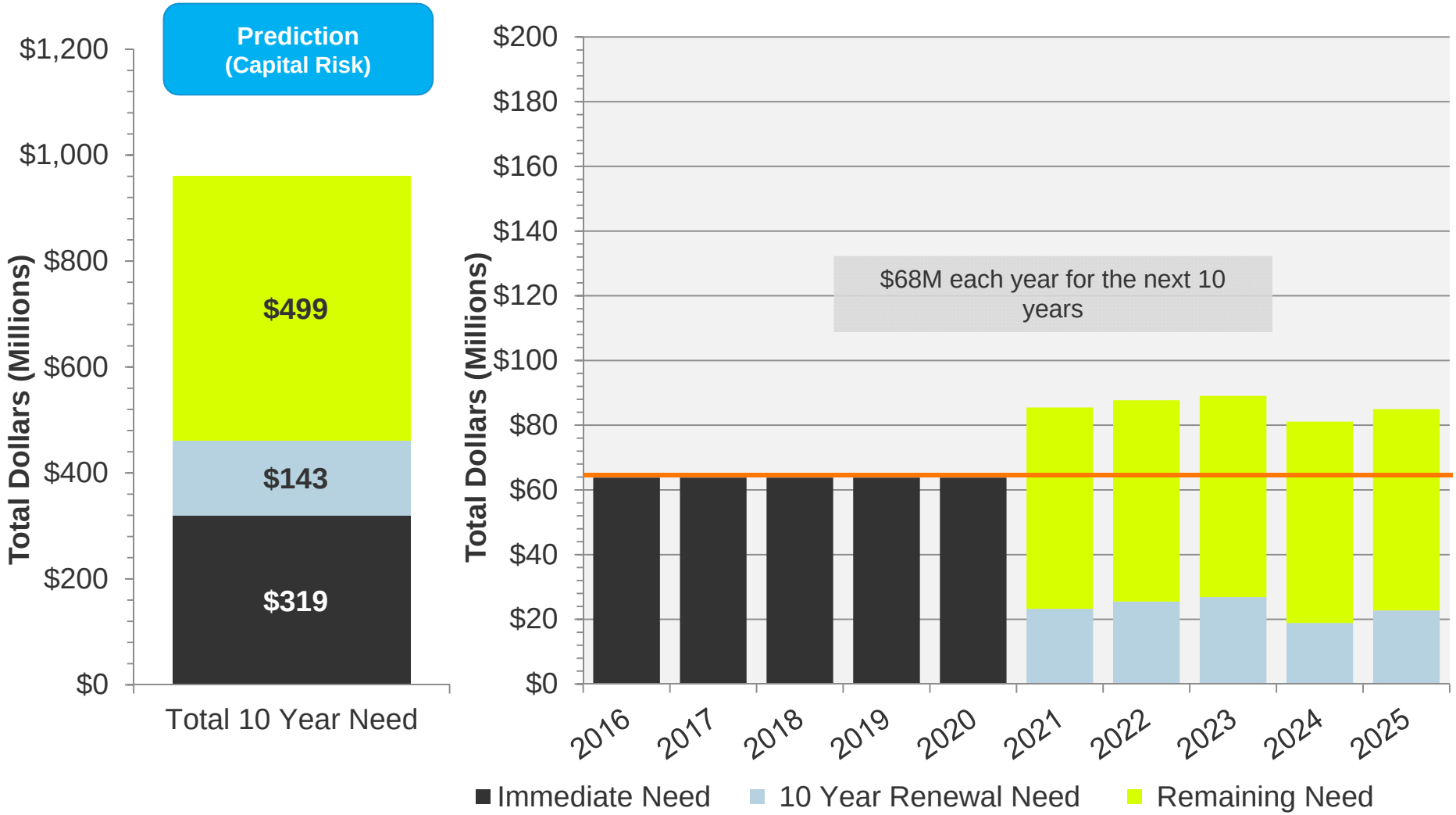
Needs vs. Potential Investment Capacity





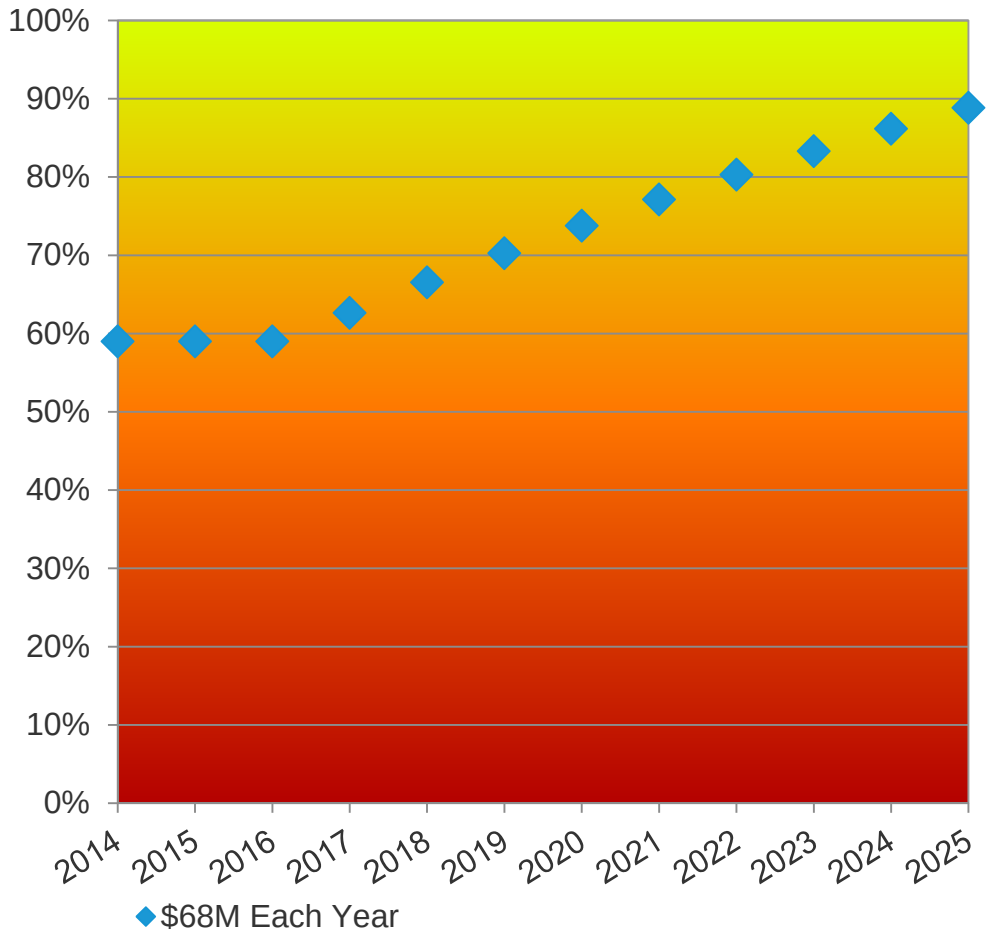
Projected capital is the average of historical spending

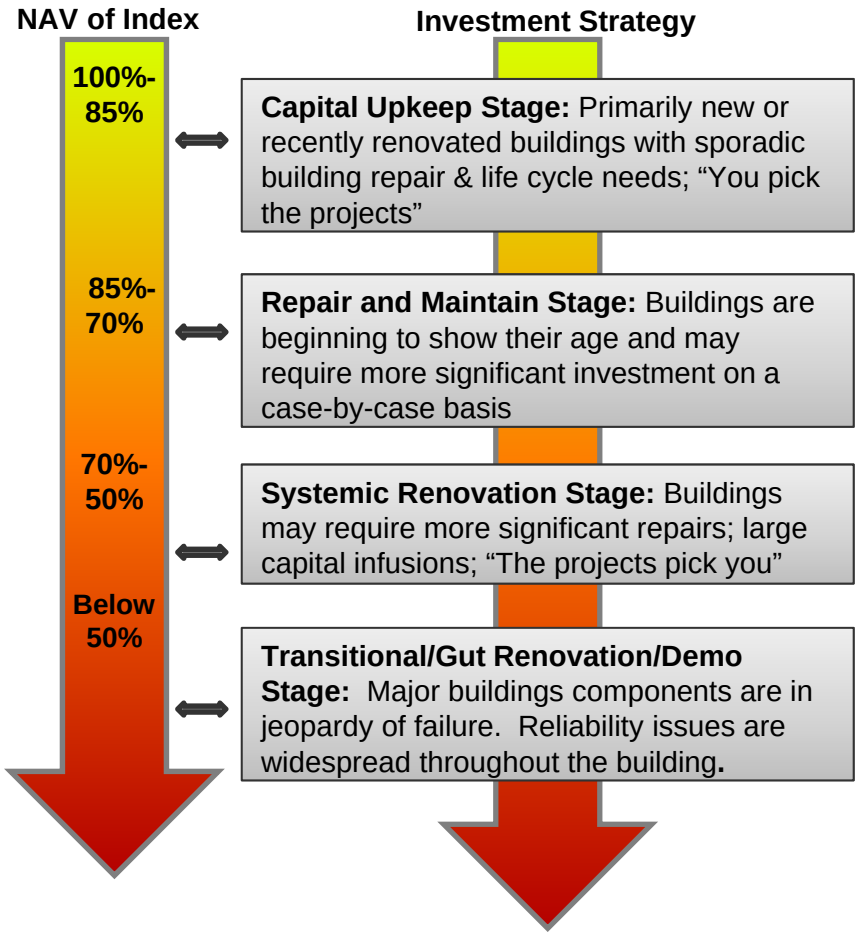
Funding Immediate Need Over 5 Years



This assumes no additional need is added over the ten year period and static GSF. The dollar amounts shown are today's dollars.

Project NAV for UMS with $68M annual investment



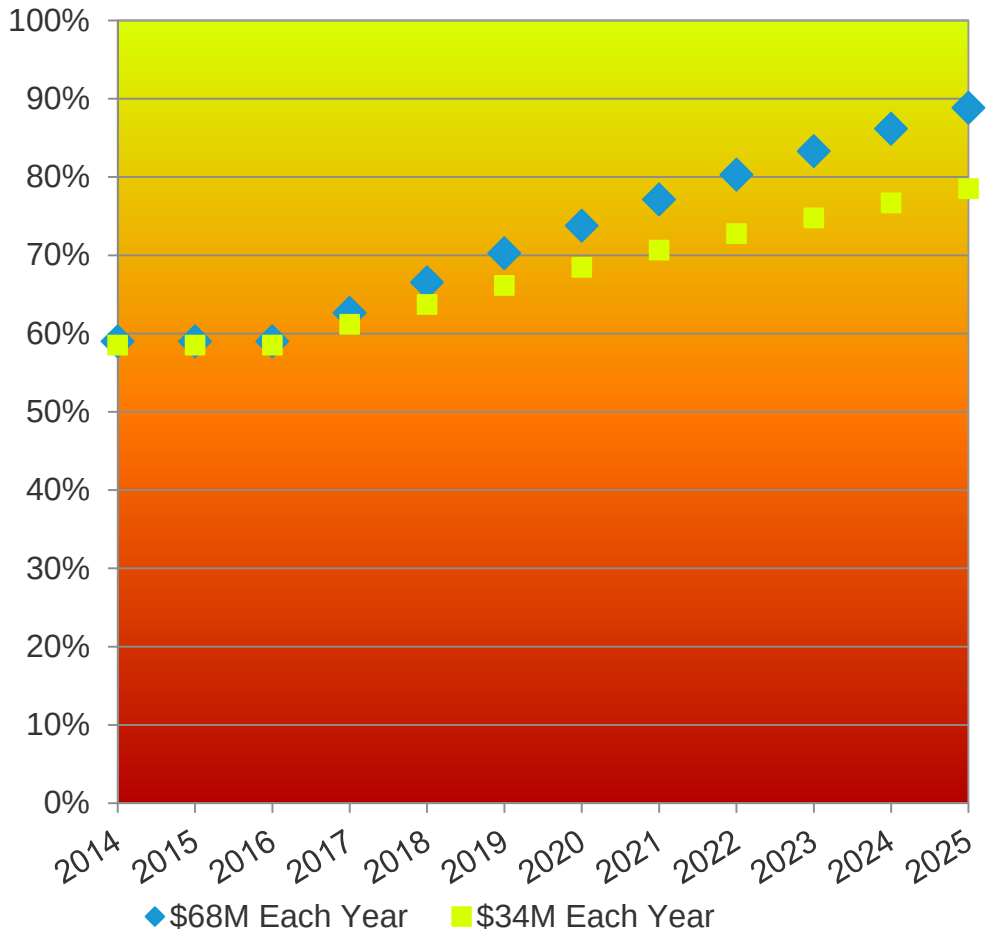


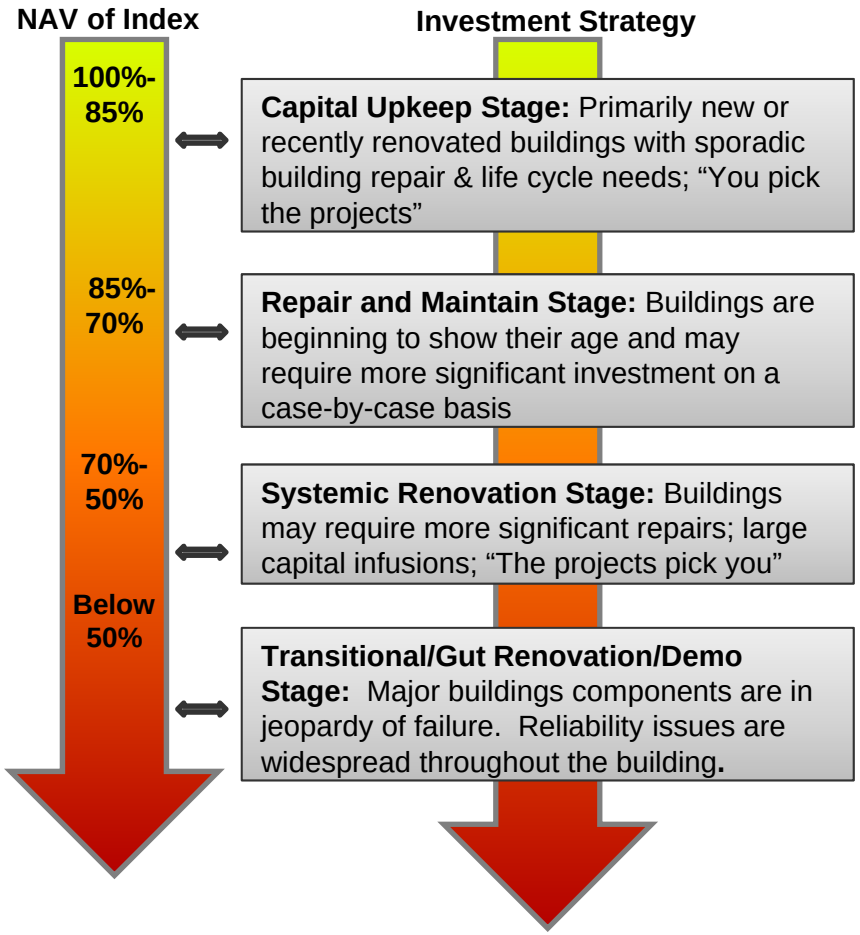
Net Asset Value = $\frac{\text{Replacement Value – Deferred Maintenance}}{\text{Replacement Value}}$

This assumes no additional need is added over the ten year period and static GSF. The dollar amounts shown are today's dollars.

FY2014 NAV of U Maine System Institutions

Campuses are aging faster than increase in capital spending





Net Asset Value = $\frac{\text{Replacement Value – Deferred Maintenance}}{\text{Replacement Value}}$

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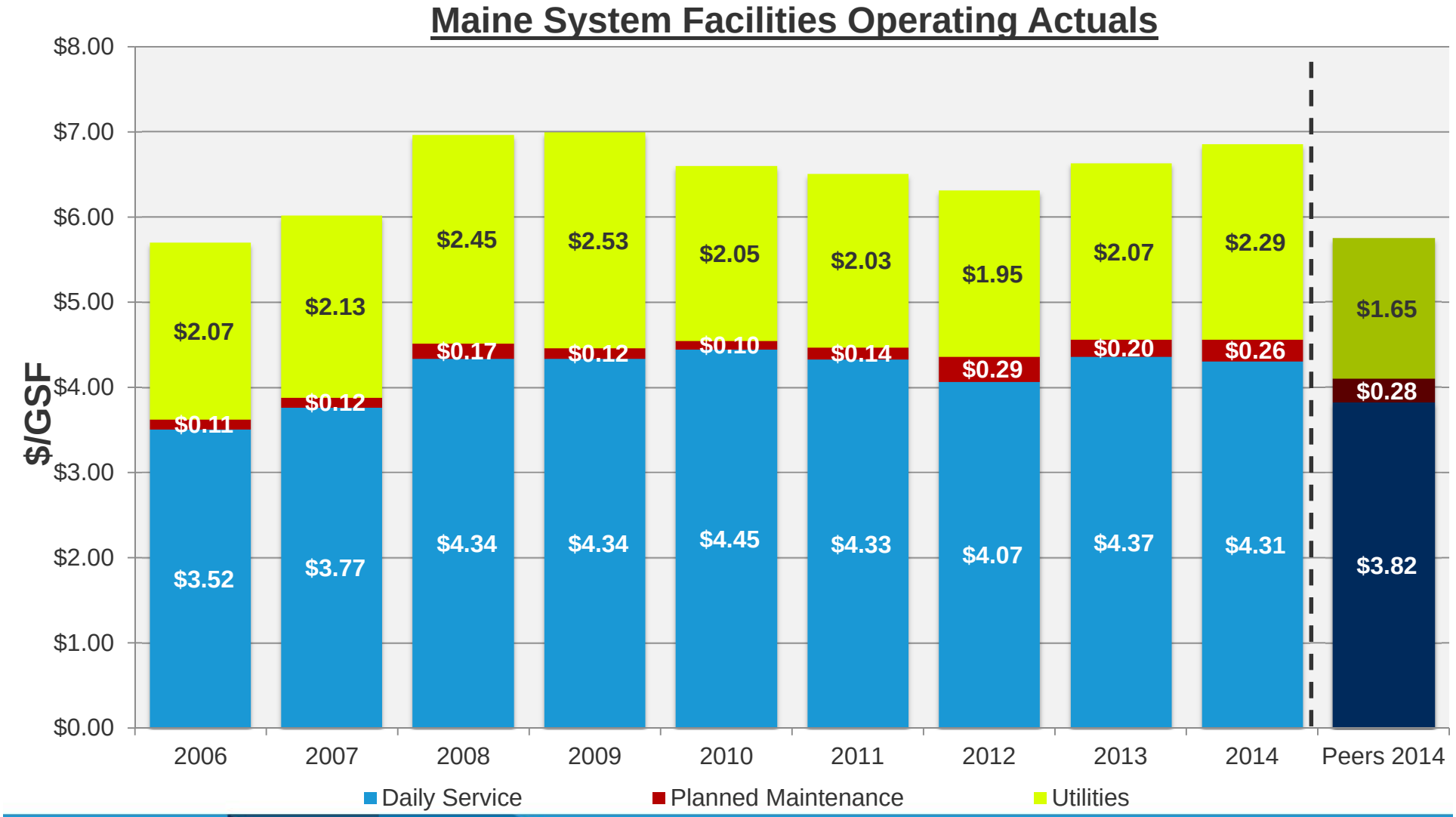
Facilities Operating Expenditures

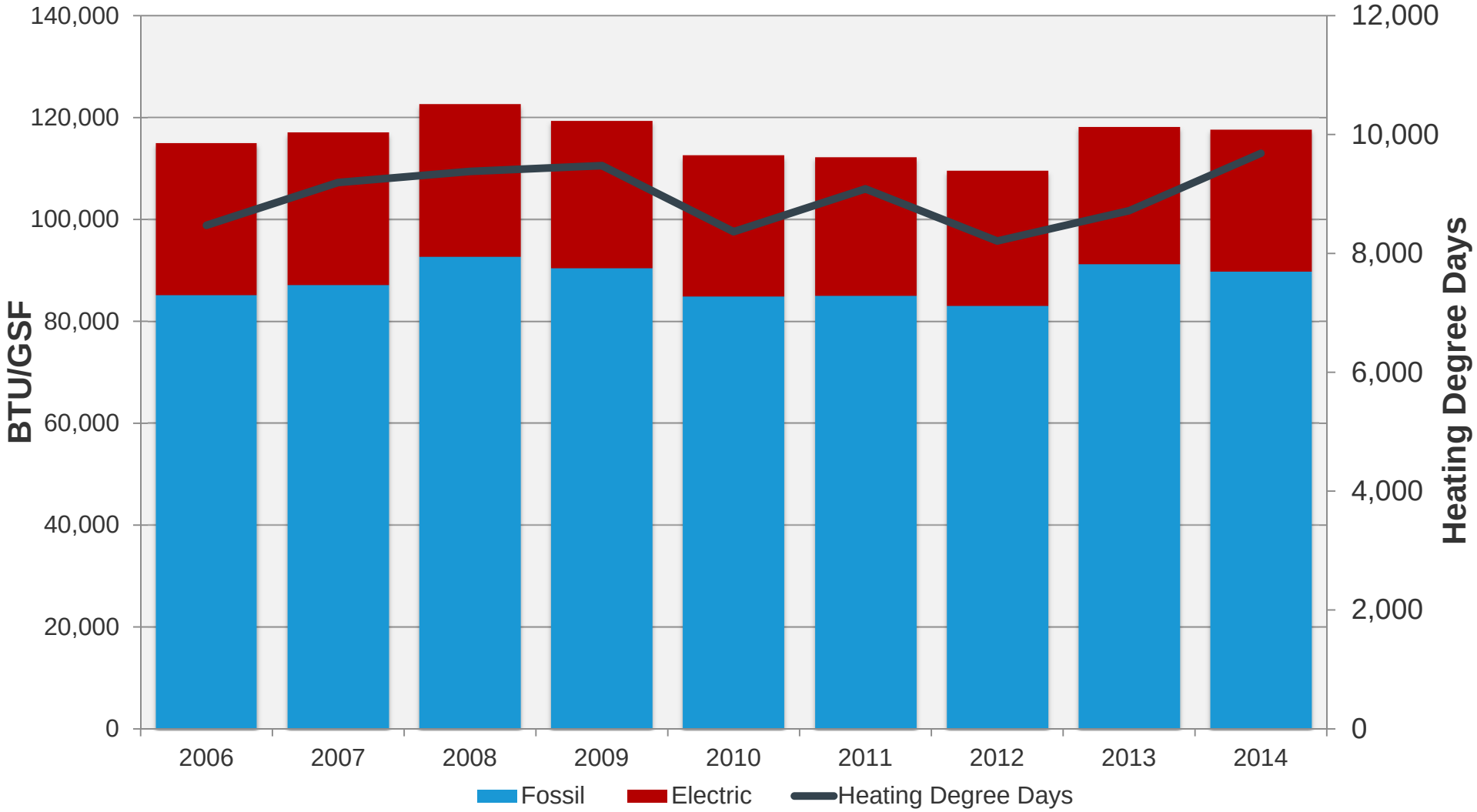
Similar Daily Service costs from FY13 to FY14; increased focus on Planned Maintenance



**2012 Daily Service values are low due to unfilled vacancies during this year. Utility cost increase due to higher consumption.*

Energy Consumption Over Time

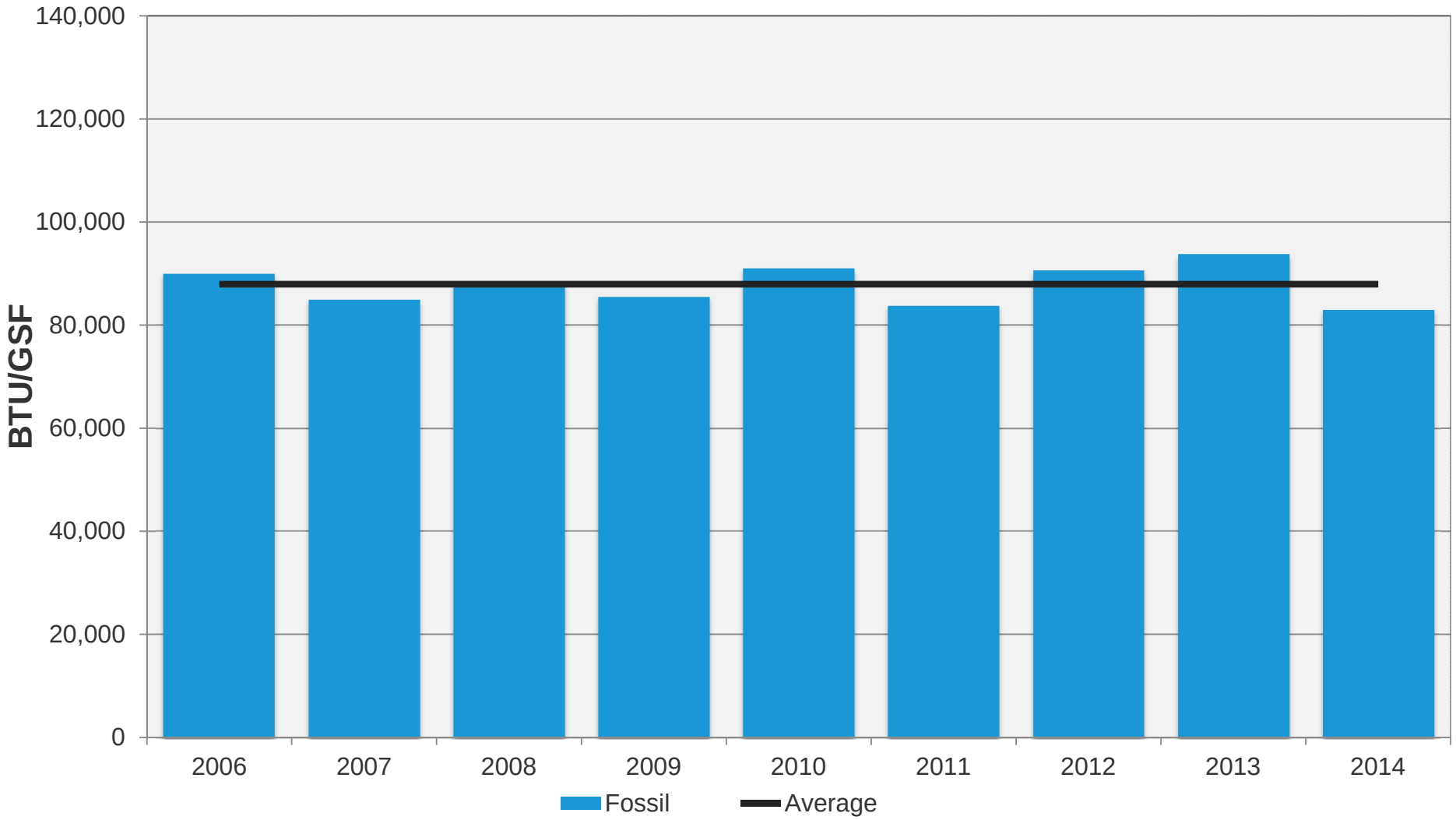
Increased fossil consumption in FY13 result of harsh winter, FY14 stabilizes



Degree days noted are based on the Orono, Maine location

Energy Consumption Normalized for Heating Degree Days

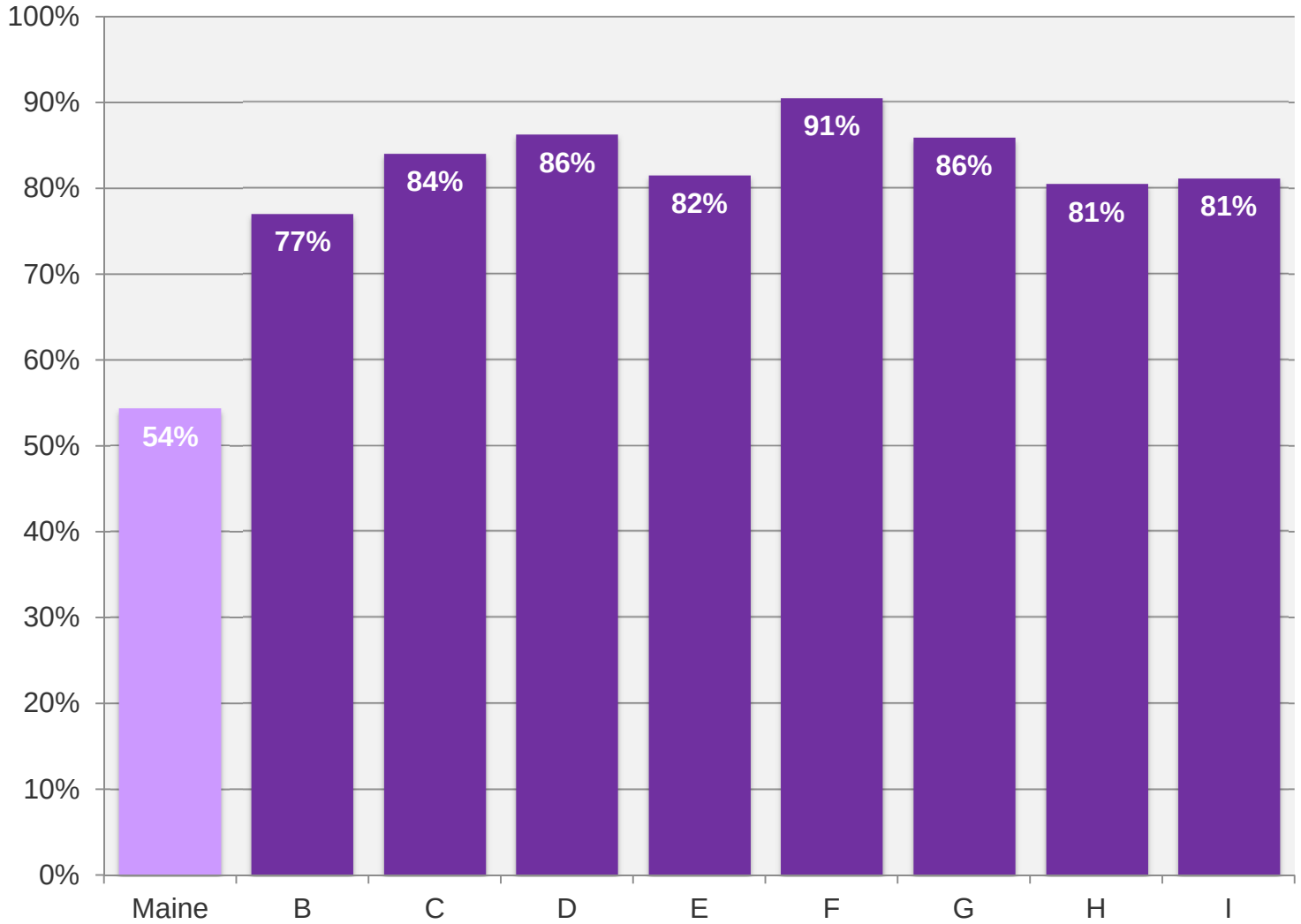
Normalized for weather UMS able to halt increasing consumption trend



Degree days noted are based on the Orono, Maine location

Lowest Service Process Index Among Peer Systems

Currently implementing IWMS; UMaine System processes will improve once complete



- Performance Measurement
- Scheduling Process
- Centralization of Request
- Work Request Capabilities
- Organizational Structure

Concluding Comments

- The University of Maine System halted the rapid growth of buildings over 50 years old and declining NAV by strategically removing buildings from the inventory as well as focused capital improvements in high need buildings.

- Utilize the ROPA+ Prediction model to develop a multi-year capital program to address critical deferred maintenance and life cycles needs as they come due.

- If UMS can create a capital program for existing space of $40M-$60M/year progress can be made on both the backlog of deferred maintenance, life cycle needs and result in lower operating costs. The system has met the investment target of nearly $40M for the last two years.

- IWMS will be an important tool to track operational and preventative maintenance resources. UMS should dedicate staff who are trained and able to run the program, to ensure consistency and analyze the reports.

Questions and Comments