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Setting a Facilities Baseline

University of Maine System

December 17, 2024

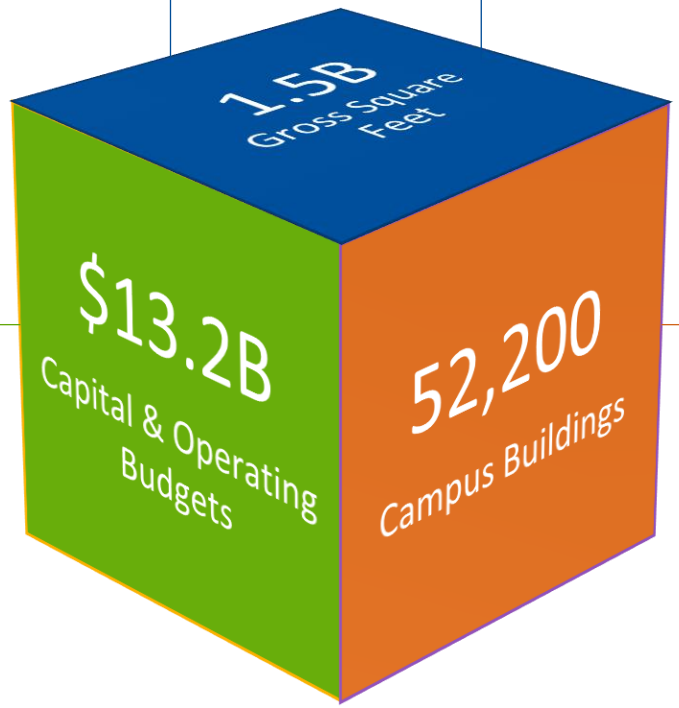
Victoria Vasile and Emma Viles

Gordian and Sightlines

Owners of the largest verified facilities database in higher education

450+
Unique Campuses in 42 states and 5 Canadian Provinces

1.5B
Gross Square Feet of campus space



$13.2B
In capital and operational budgets currently being tracked

52,200
Campus Buildings across North America

Sightlines members serve **over 20%** of US College Enrollment

Introduction

- **Intent of Gordian's Participation:**
  - Create a common vocabulary around Facilities issues
  - Establish a baseline for UMaine System Facilities risks and opportunities
  - Identify steps to develop a strategic action plan

- **Today's goal:**
  - Develop understanding of the factors contributing to "deferred maintenance" as it pertains to renewal on the Maine System campuses

Vocabulary for 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 accumulation 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

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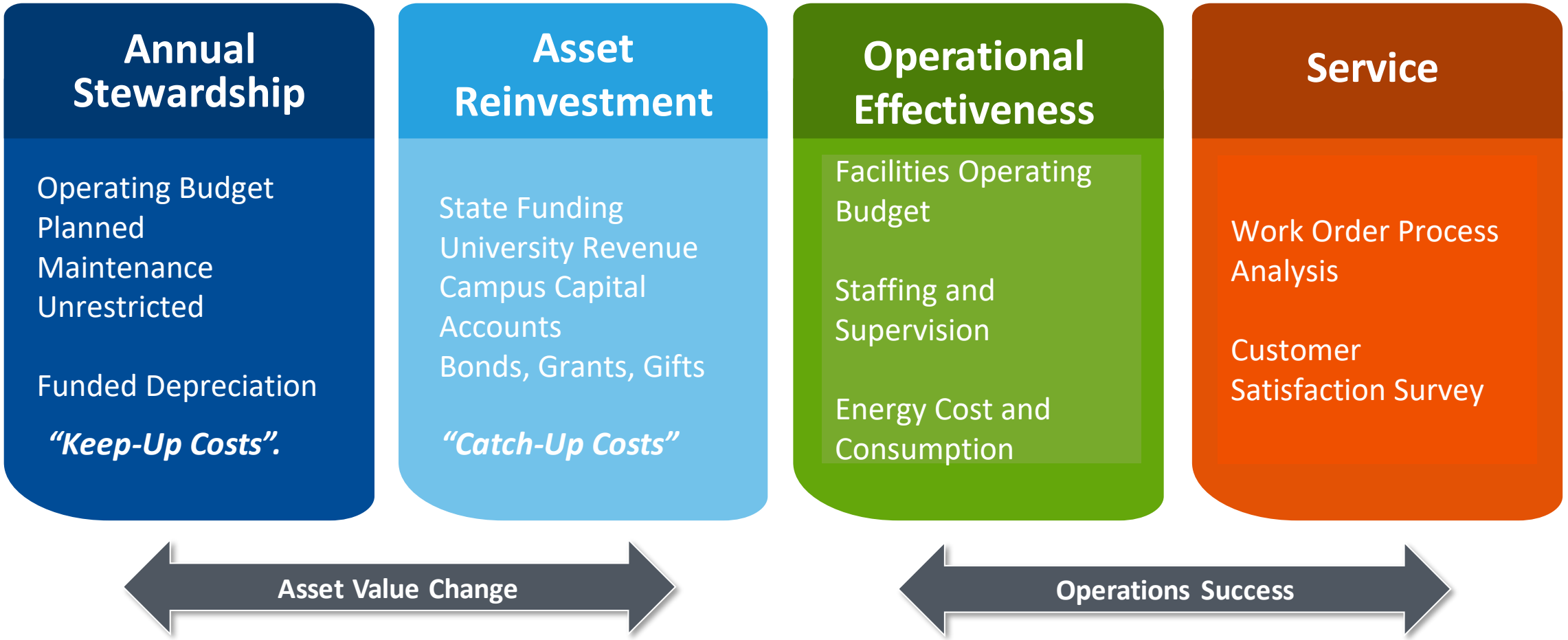
Vocabulary for the Return on Physical Assets (ROPA)



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UMaine System: Core Observations

- Building use is shifting as teaching modality remains weighted toward online teaching.
- Record capital investments impact age profile and Net Asset Value for campuses.
- Focus remains on ways to efficiently divest in high need, low utilized buildings.
- Concentrate future investments on functional portfolios where the greatest impact will be achieved.

Throughout the presentation UMS will be compared to the Gordian Public Higher Ed. Database Average for FY24. This subset of the database includes institutions like the University of Massachusetts, University of New Hampshire, University of Iowa, University of New Mexico and University of Washington.

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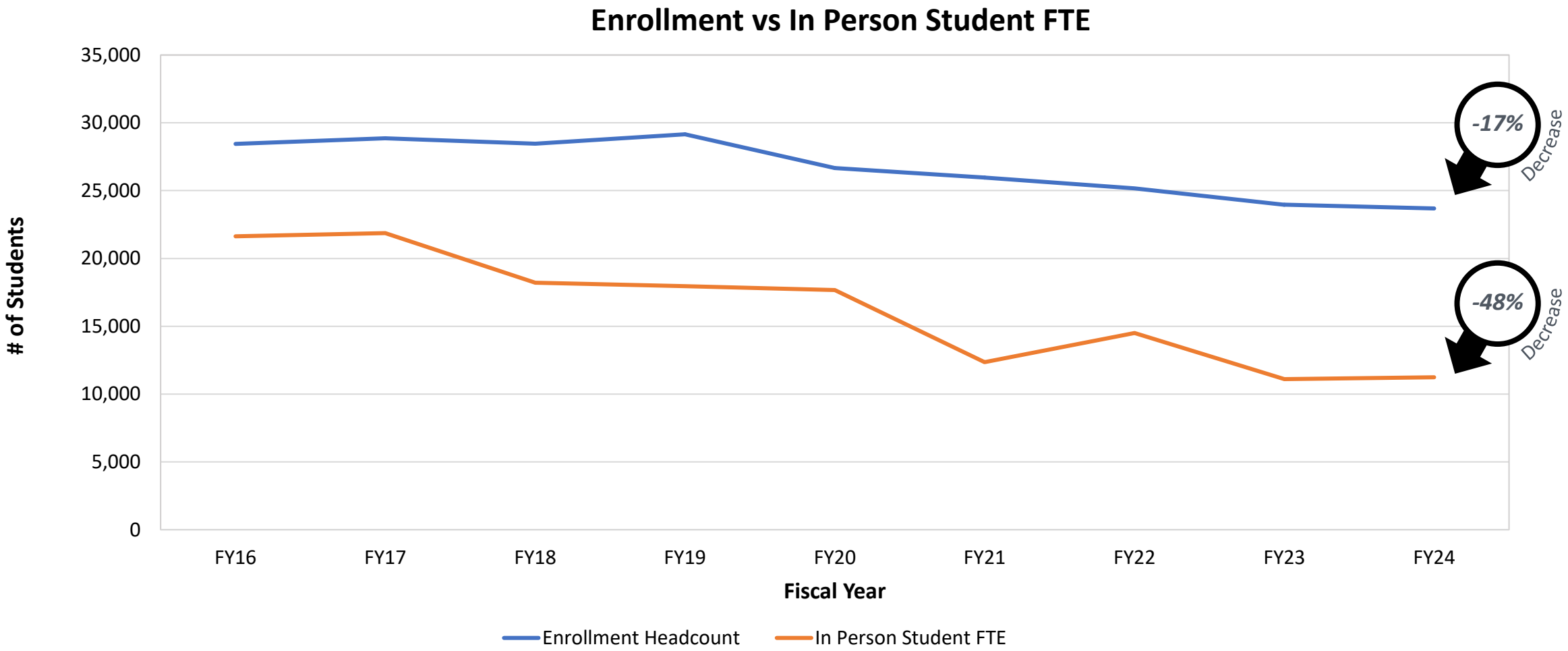
Building Use Shifts as In Person Student FTEs Decrease



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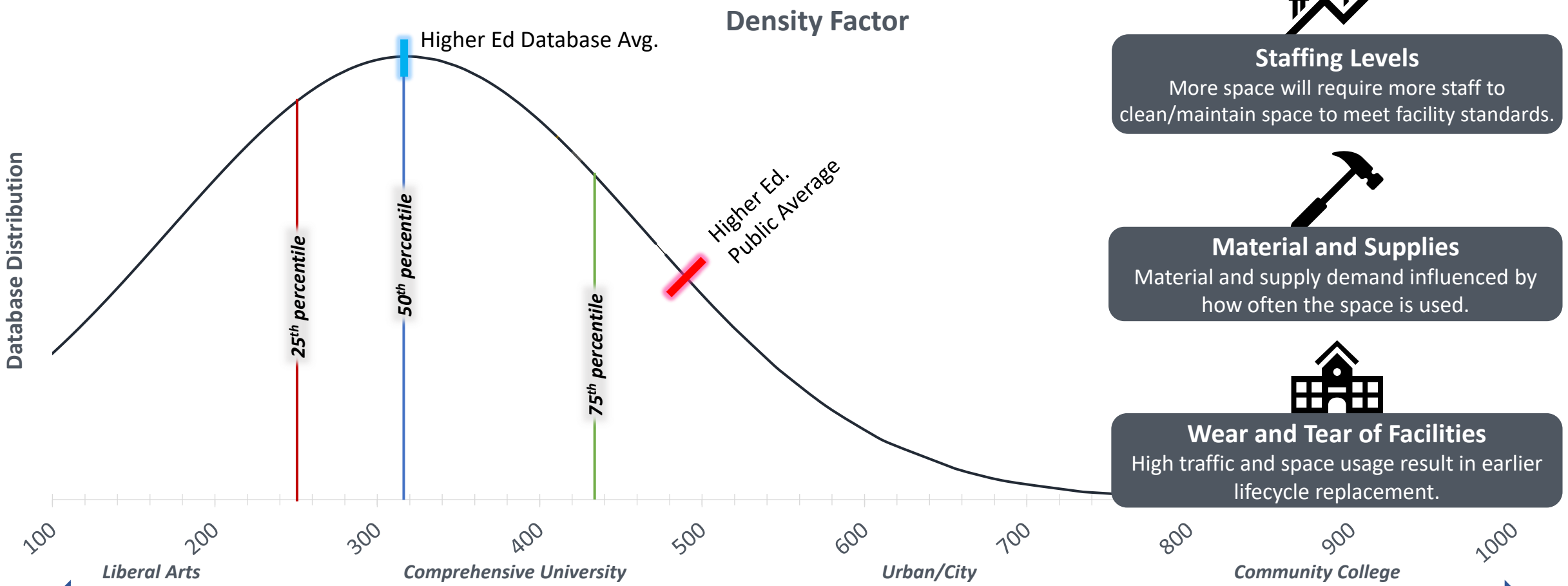
Density Measures Campus Population per 100k GSF

Public institutions tend to be higher in density



Density Affects:

Staffing Levels
More space will require more staff to clean/maintain space to meet facility standards.

Material and Supplies
Material and supply demand influenced by how often the space is used.

Wear and Tear of Facilities
High traffic and space usage result in earlier lifecycle replacement.

Density: Measures number of users per 100,000 GSF : Users include all student, faculty and staff FTEs. Measures campus building usage on a daily basis

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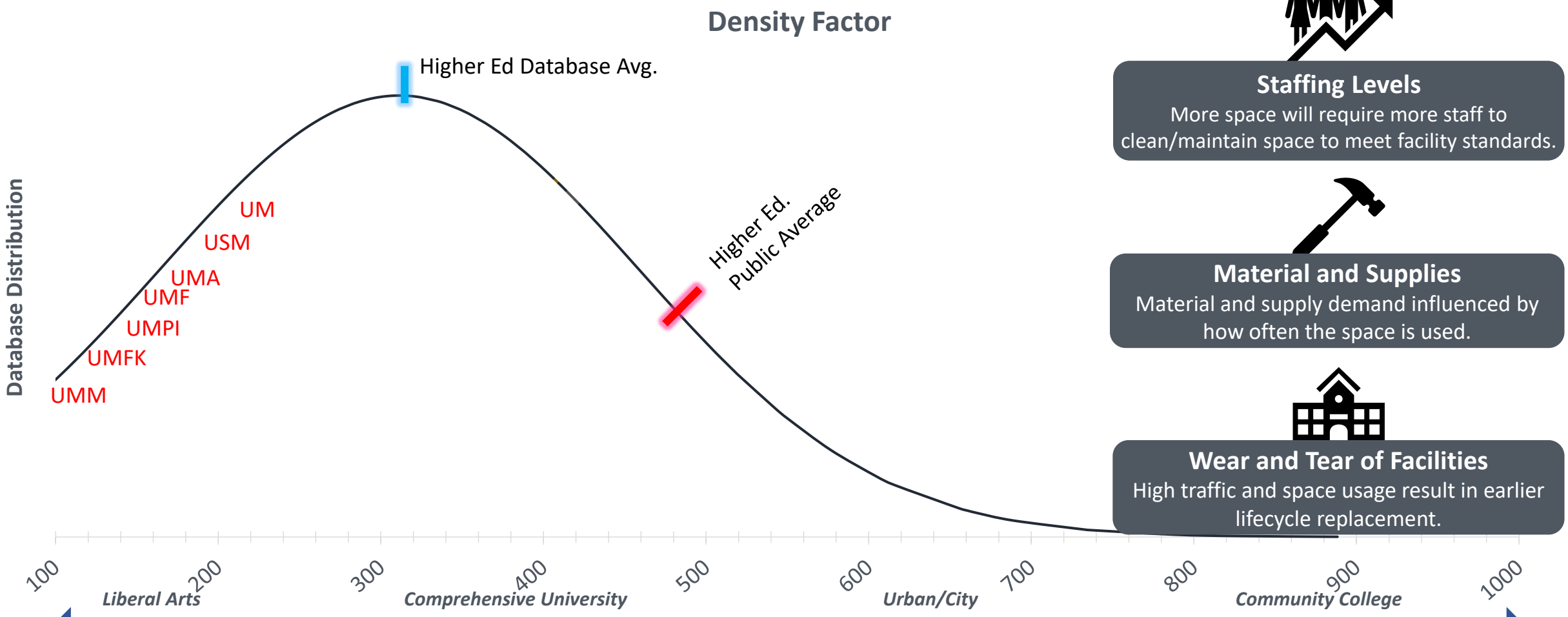
Density Across the System

Every building increases the capital and operational resources that are needed



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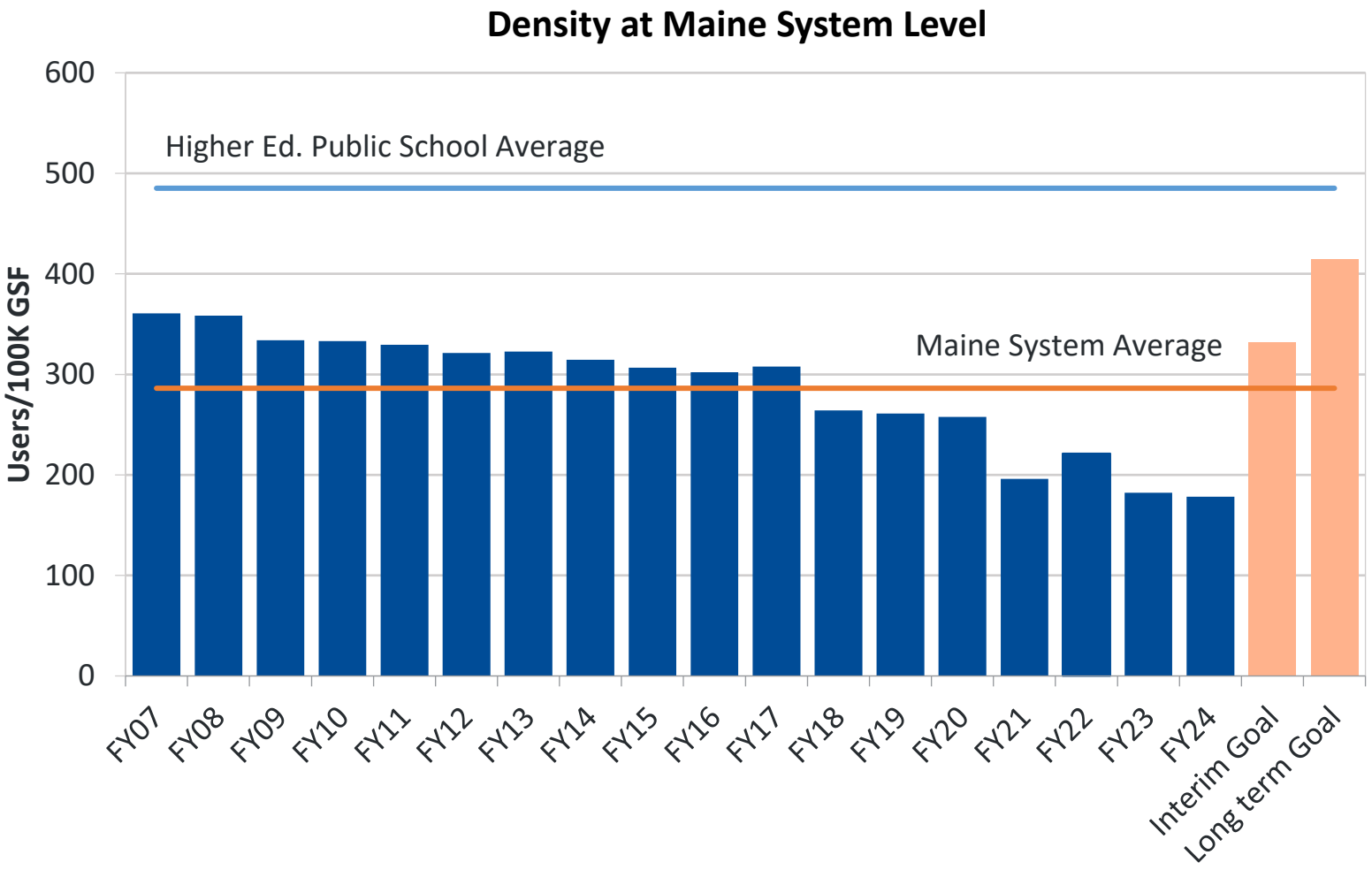
Density Across the Maine System Decreases

Due to more online FTEs, density has decrease since COVID-19 pandemic



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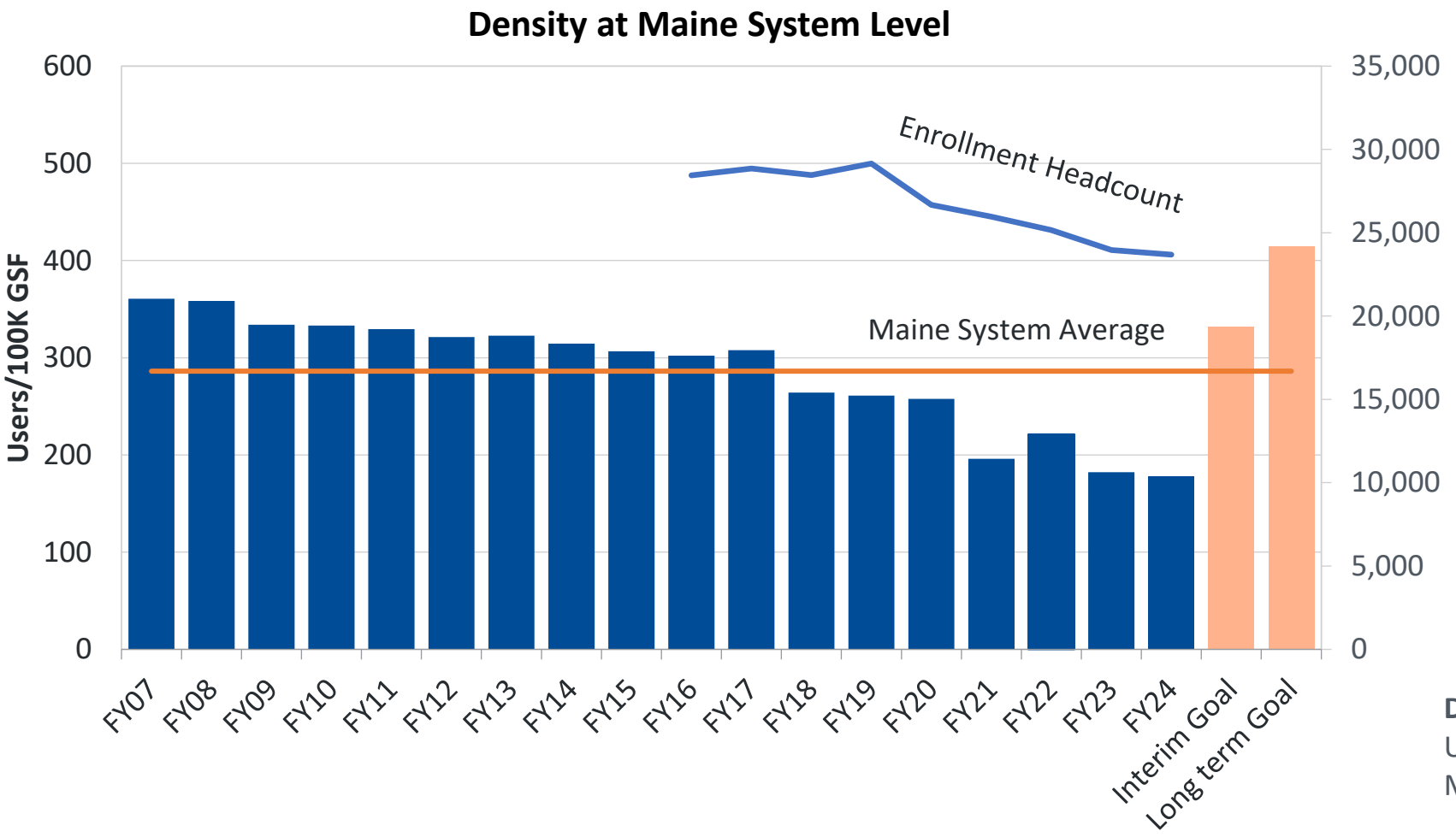

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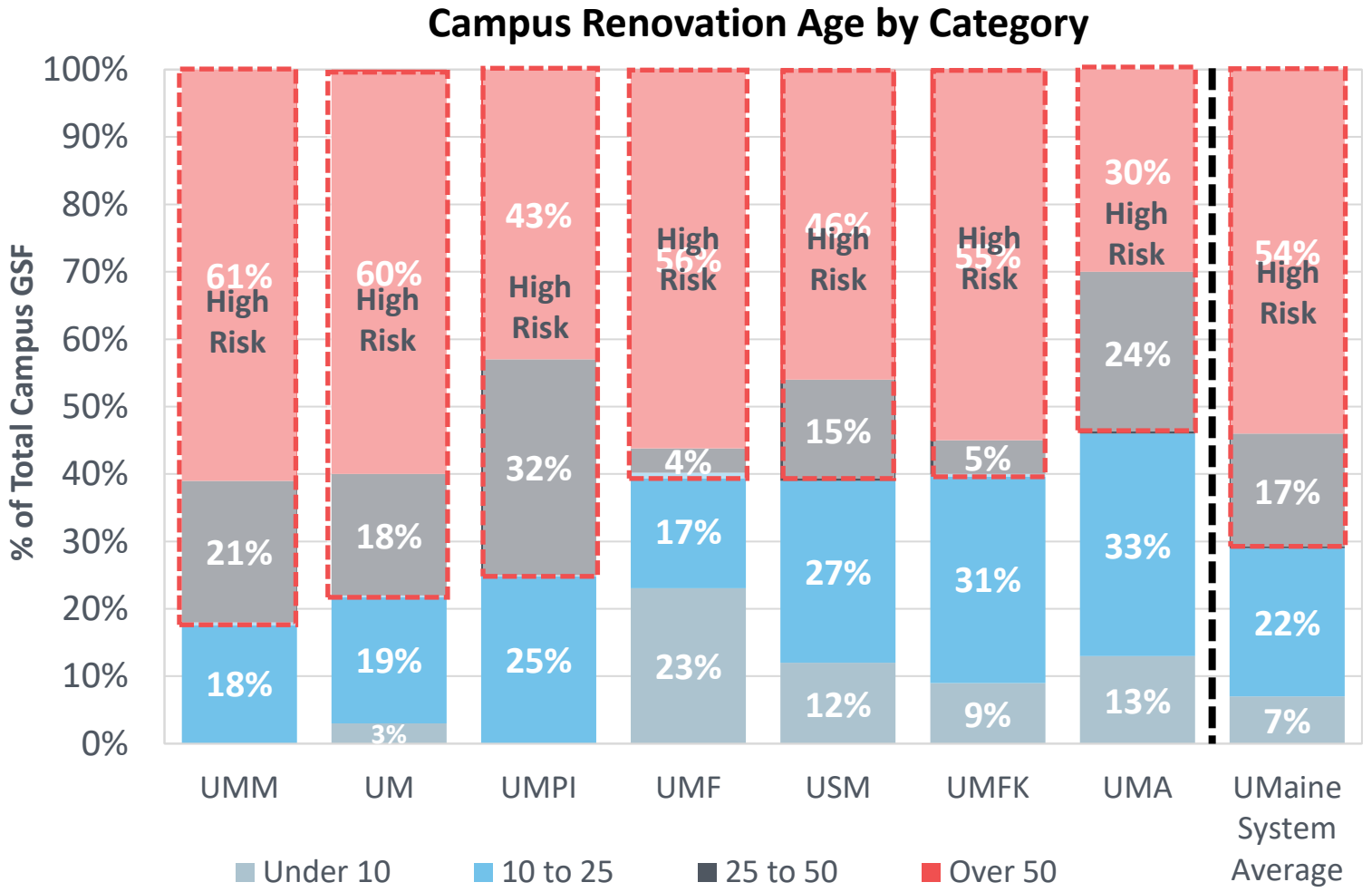
Creating Additional Context With Age Profile

As buildings age into higher risk categories, the capital and operational risks they carry increase



Capital Risk:

Highest Risk:
Life cycles of major components past due – end of building life cycle approaching.

Higher Risk:
Life Cycles coming due in core building components.

Medium Risk:
Lower cost space renewal updates needed.

Low Risk:
"Honeymoon" period – little need for capital reinvestment.

Operational Demands:

React as Needed:
Issues in components past the end of their lifecycles will demand reactive maintenance.

Balance PM and Reactive Maintenance:

Younger components still require PM.

Aging components require reactive maintenance.

Focus on PM:
Significant need for PM in young systems.

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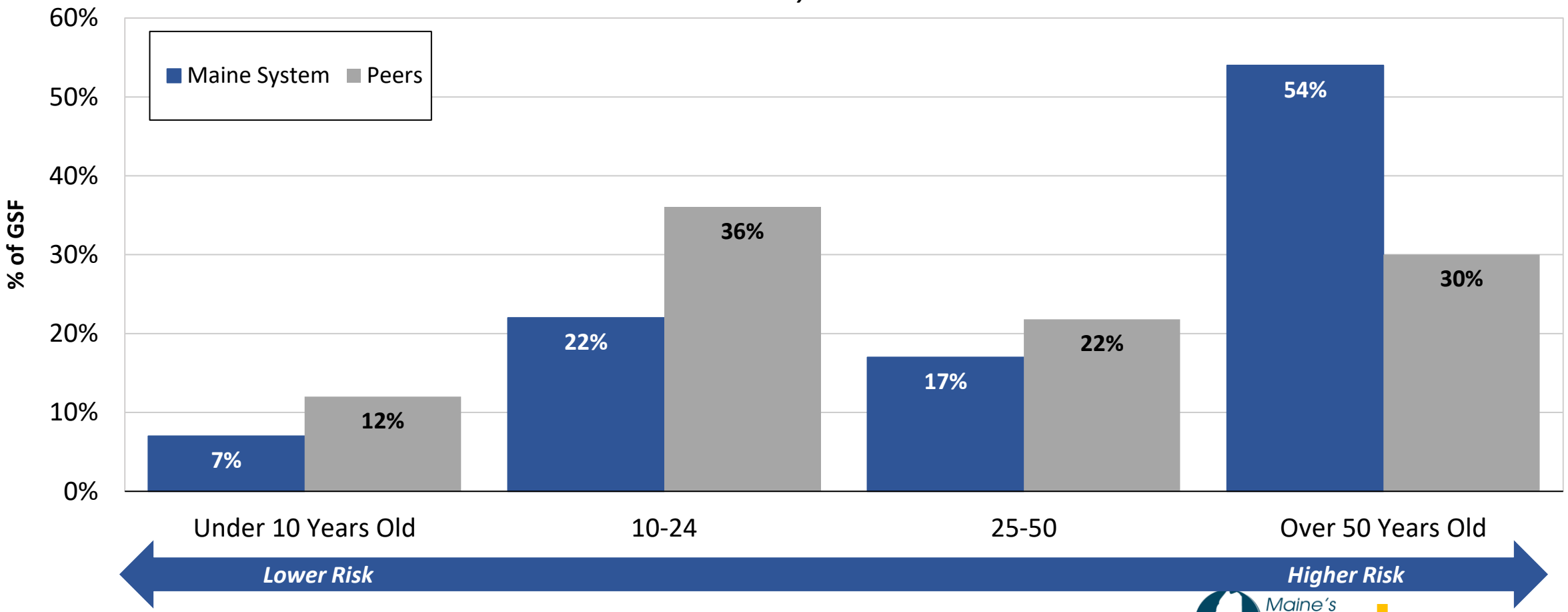
UMaine Systems' Current Age Profile is Higher Risk Than Peers'

Despite recent work, significant exposure exists in buildings over 50 years old

FY24 Renovation Age Distribution

UMaine System vs. Peers



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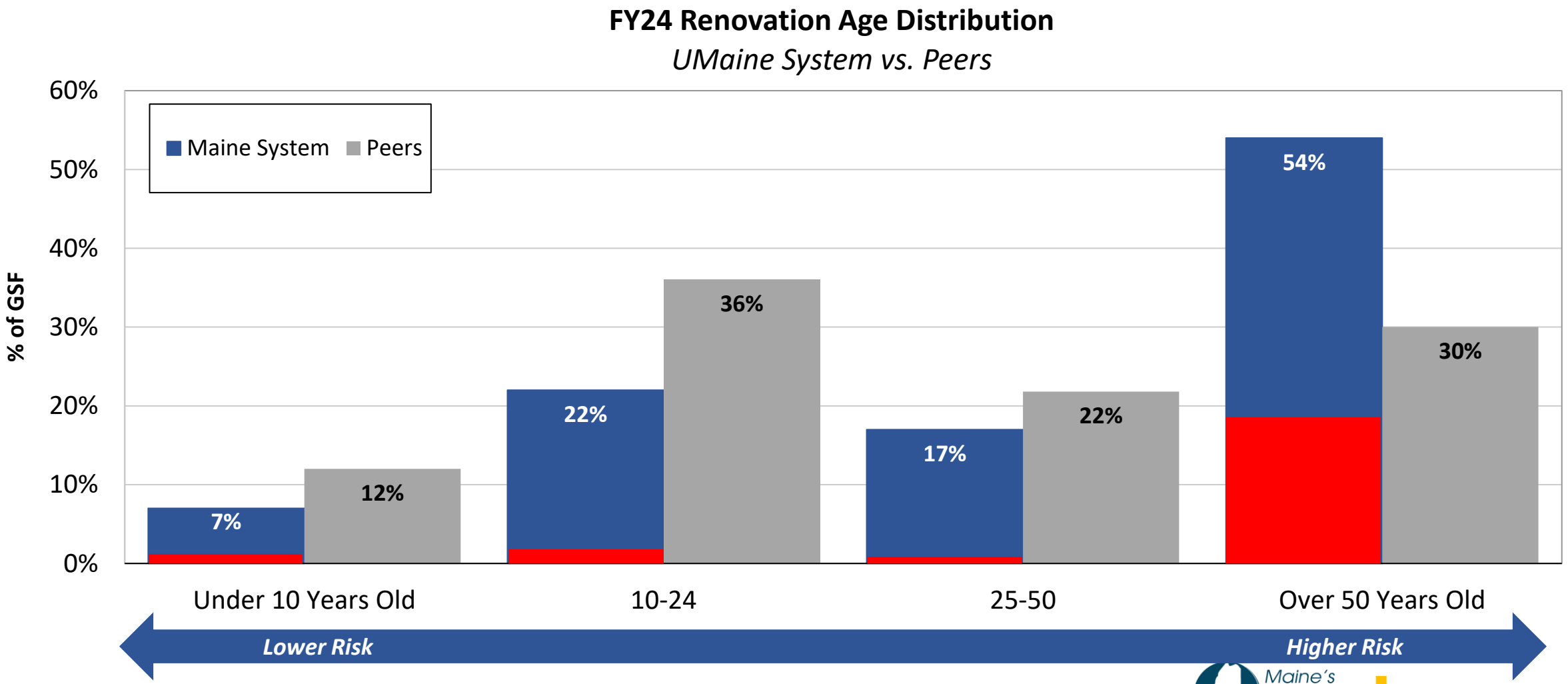
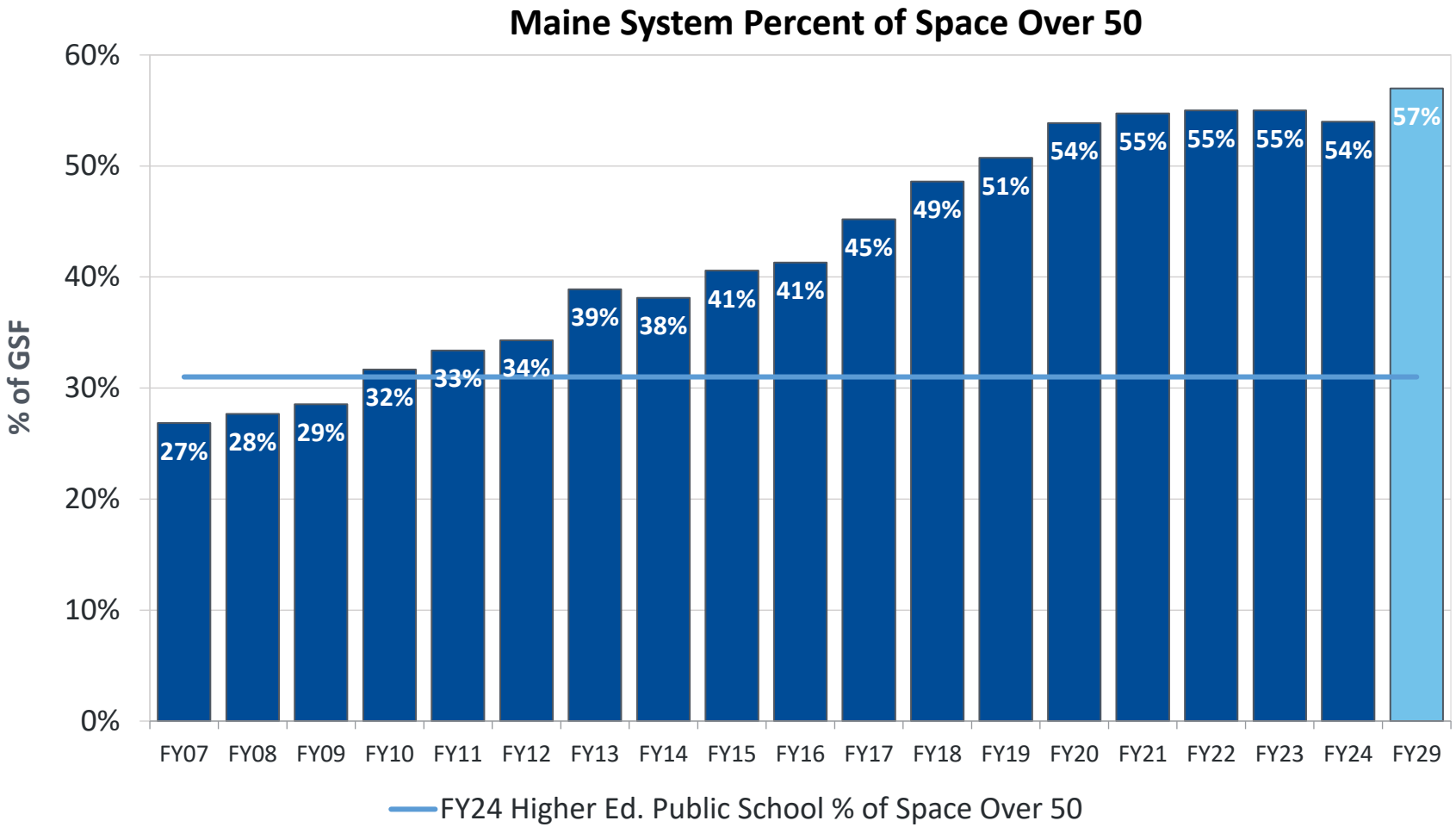
Residence Hall Portfolio is Highest Risk on Campus

69% of residence halls are currently over 50 years old



Investment and New Construction Lowers Aging of Facilities

Space Will Continue to Age Without Divestment or Renovations



Capital Risk:	Operational Demands:
Highest Risk: Life cycles of major components past due – end of building life cycle approaching.	**React as Needed:** Issues in components past the end of their lifecycles will demand reactive maintenance.
Higher Risk: Life Cycles coming due in core building components.	**Balance PM and Reactive Maintenance:** Younger components still require PM.
Medium Risk: Lower cost space renewal updates needed.	**Aging components require reactive maintenance.**
Low Risk: "Honeymoon" period – little need for capital reinvestment.	**Focus on PM:** Significant need for PM in young systems.

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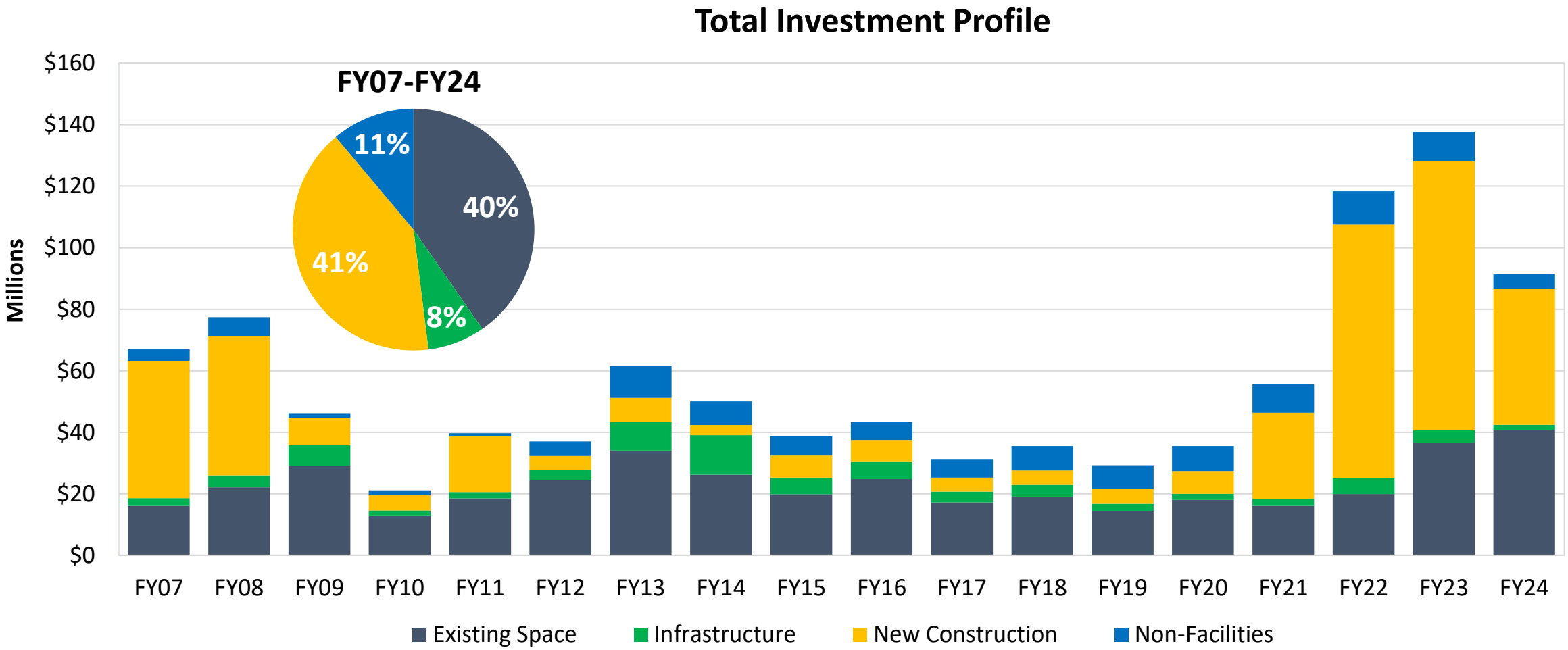
Asset Reinvestment

UMS' Investments Split Between Existing & New Space in FY24

Funding into existing space increased to its highest level since 2007 in FY24



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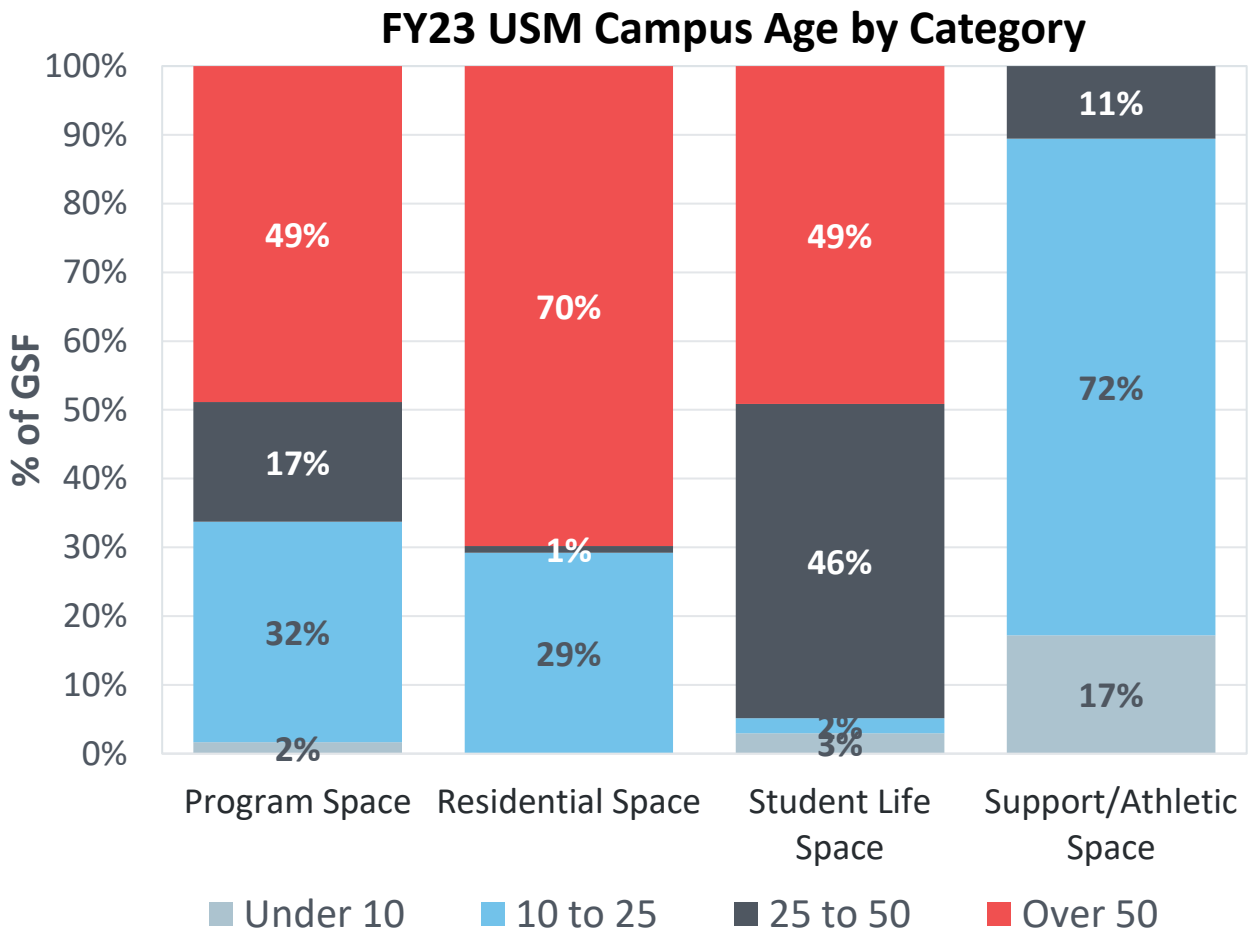
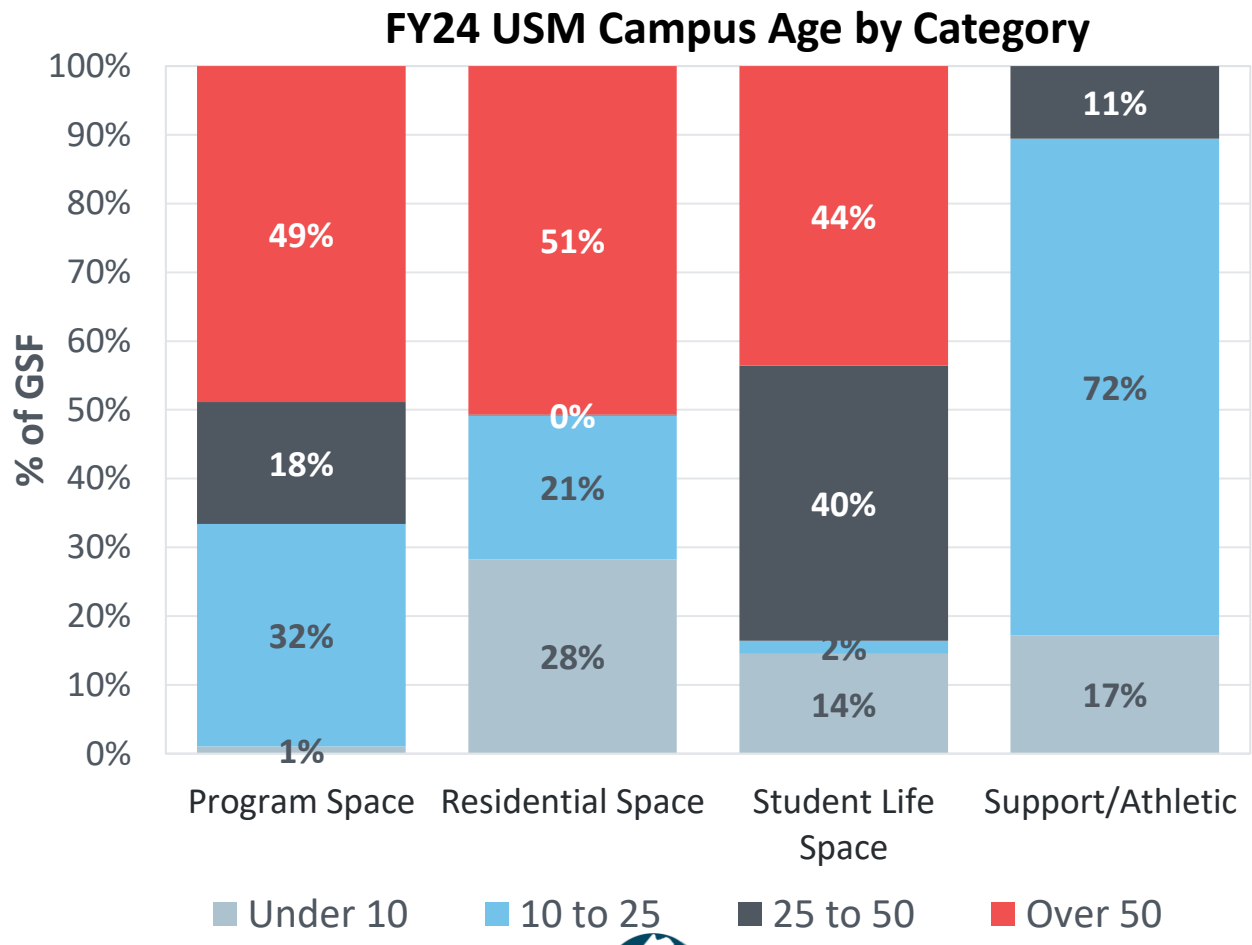
Case Study: New Construction at USM Shifts Age Profile

Residential and Student Life portfolios risk redistributed with Portland Commons and McGoldrick Center for Career and Student Success





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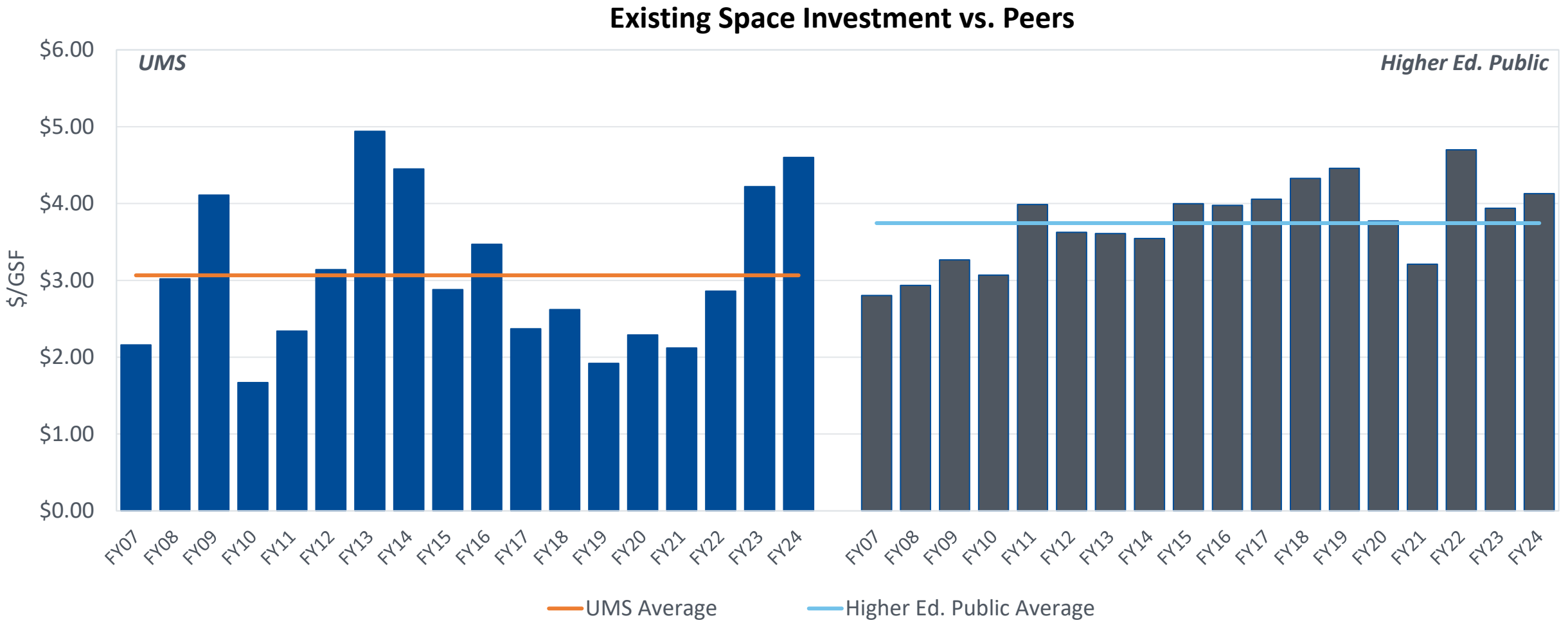
Banner Year for Existing Space Investment at UMS

UMaine System exceeded the public peers spending by $.47/GSF in FY24



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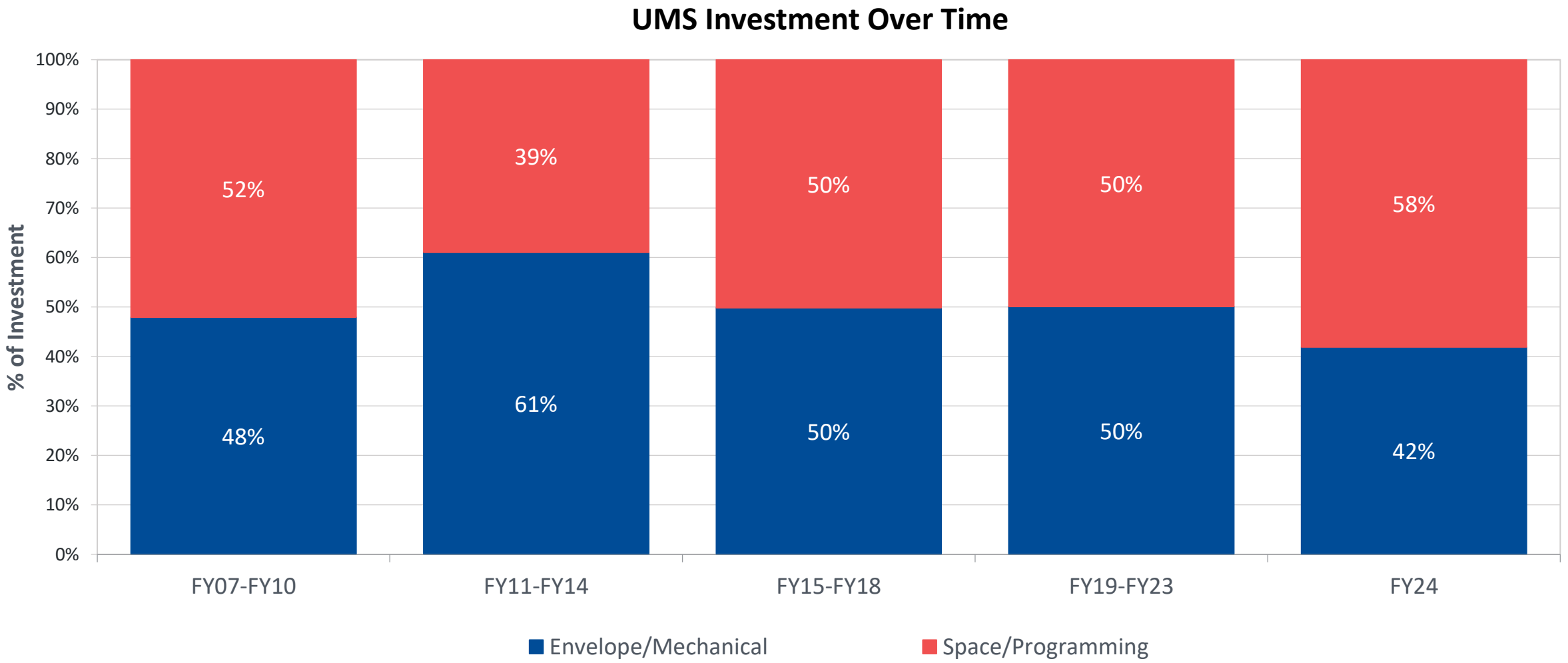
Investment Shifts Towards Space/Program in FY24



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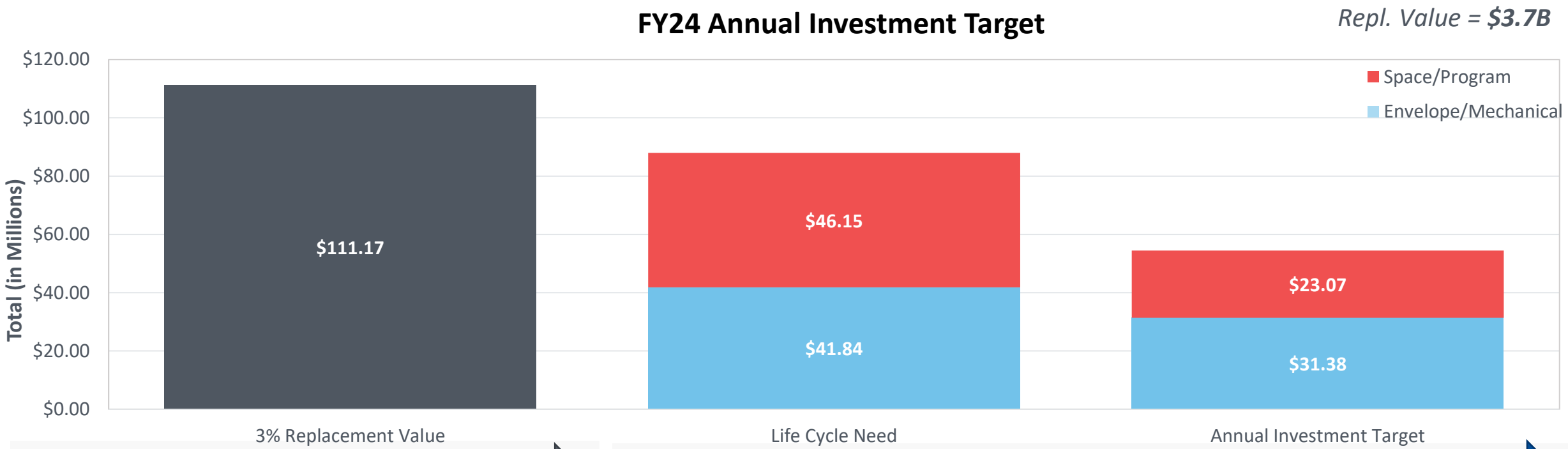
Defining an Annual Investment Target



Standard Depreciation Model

NACUBO standard takes 3% of the replacement value of every building on campus to estimate the amount needed to keep up with building lifecycles on an annual basis.

Gordian Budgeted Model

The **Life Cycle Target** shows the amount of dollars necessary to replace all building components at the completion of their useful life.

The **Annual Investment Target** discounts the lifecycle target to represent the annual minimum investment required to halt the increase of backlog.

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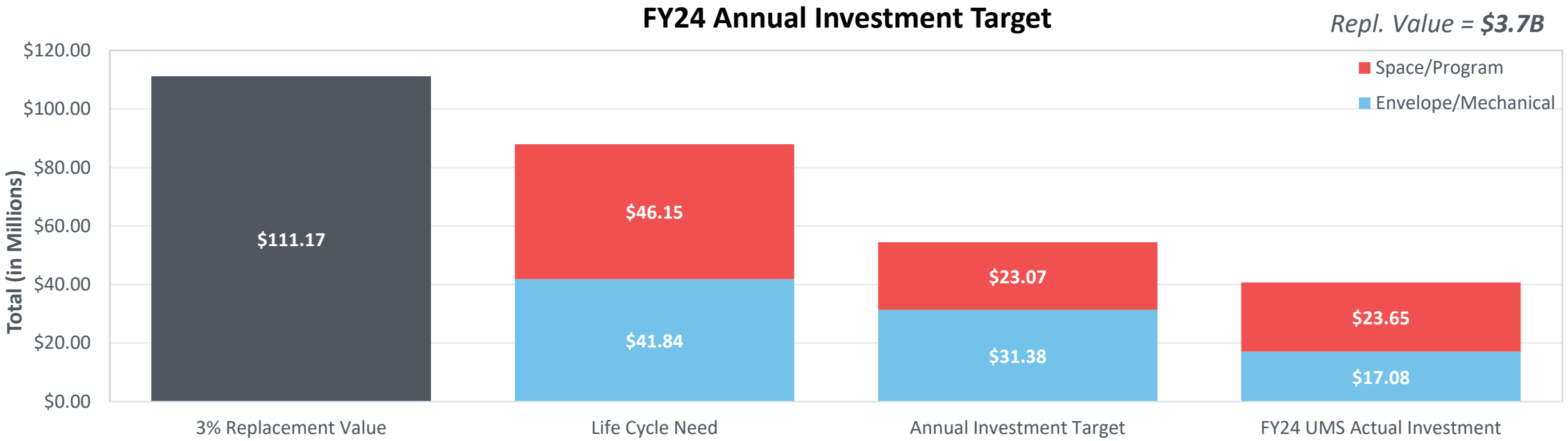
Performance Against Annual Investment Target



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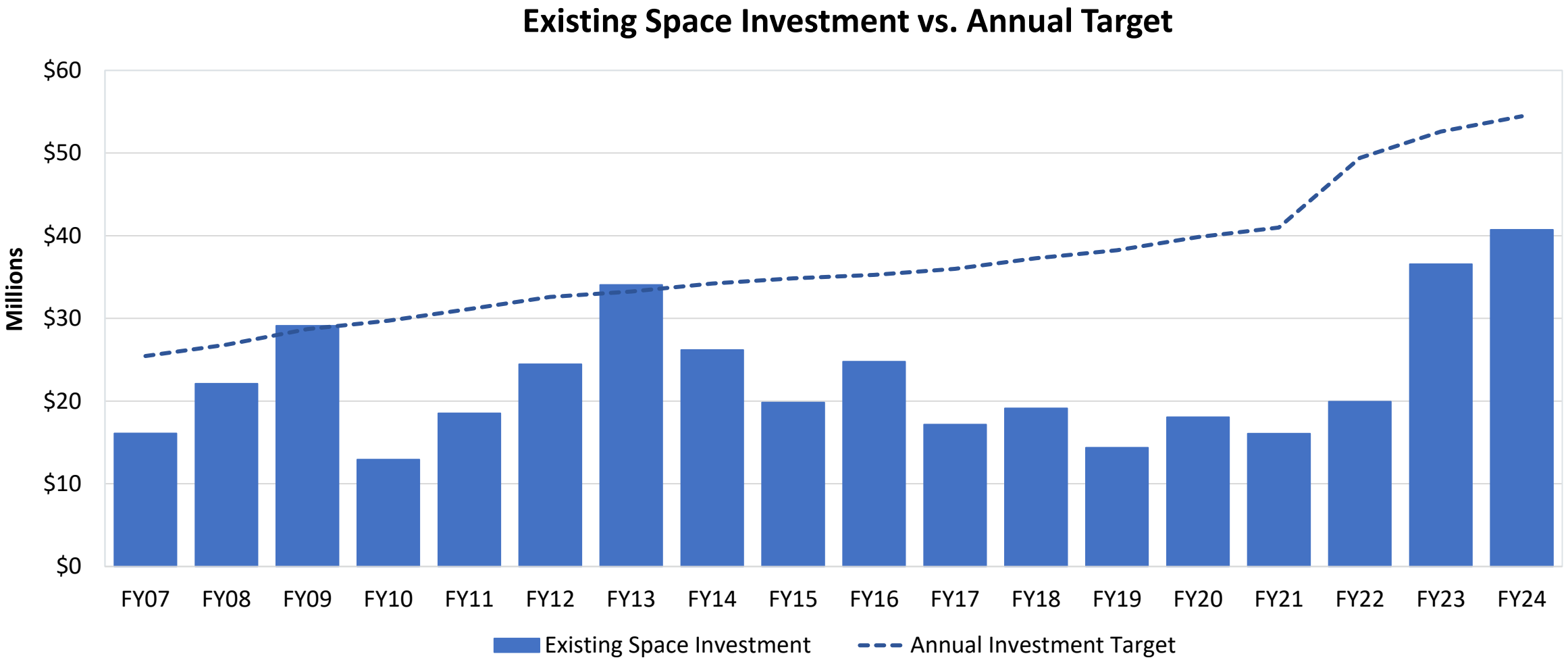
UMS Continues to Close the Gap to Target

UMS existing space spending reached 74% to target in FY24



**The FY24 inflation target is reduced by 2%, informed by the RSMeans cost database analysis, indicating a market stabilization from the volatility seen in FY22 and FY23.*

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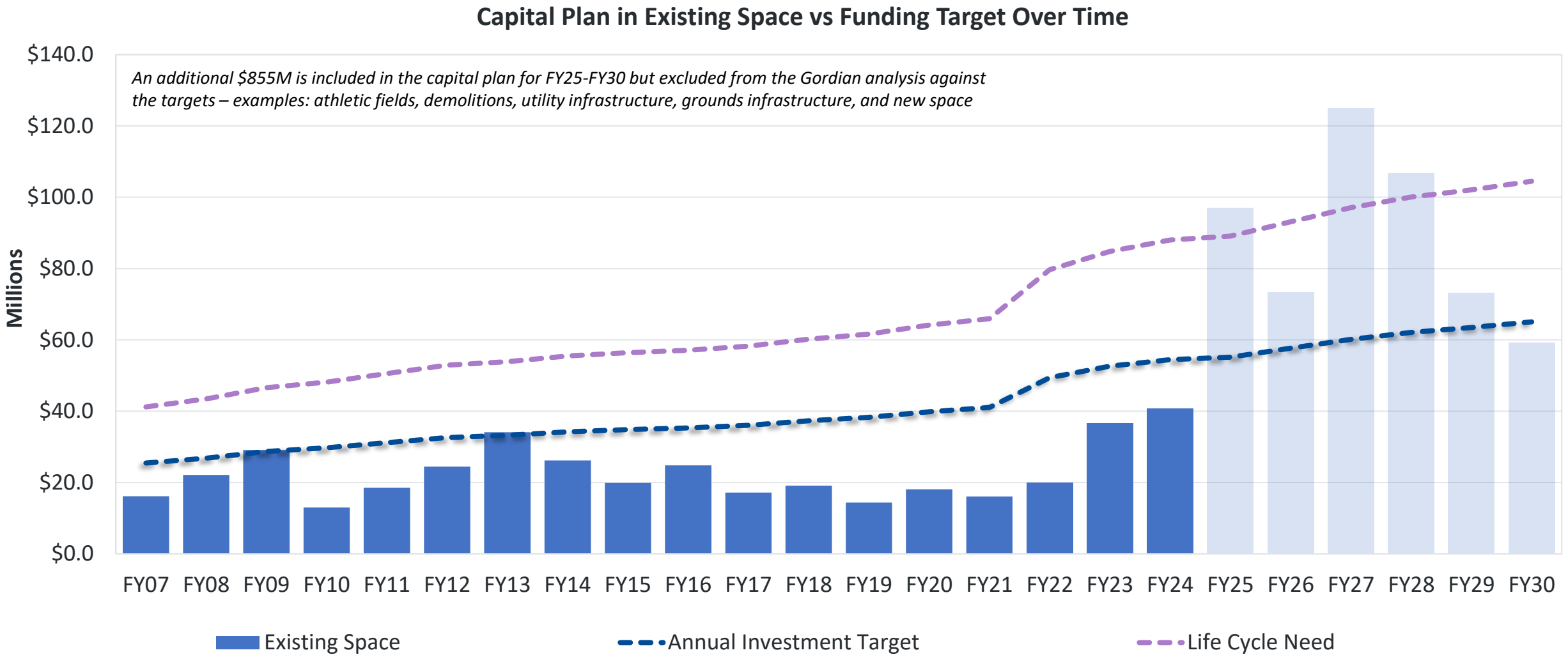
UMS FY25-30 Capital Plan Performance Against Gordian's Annual Targets



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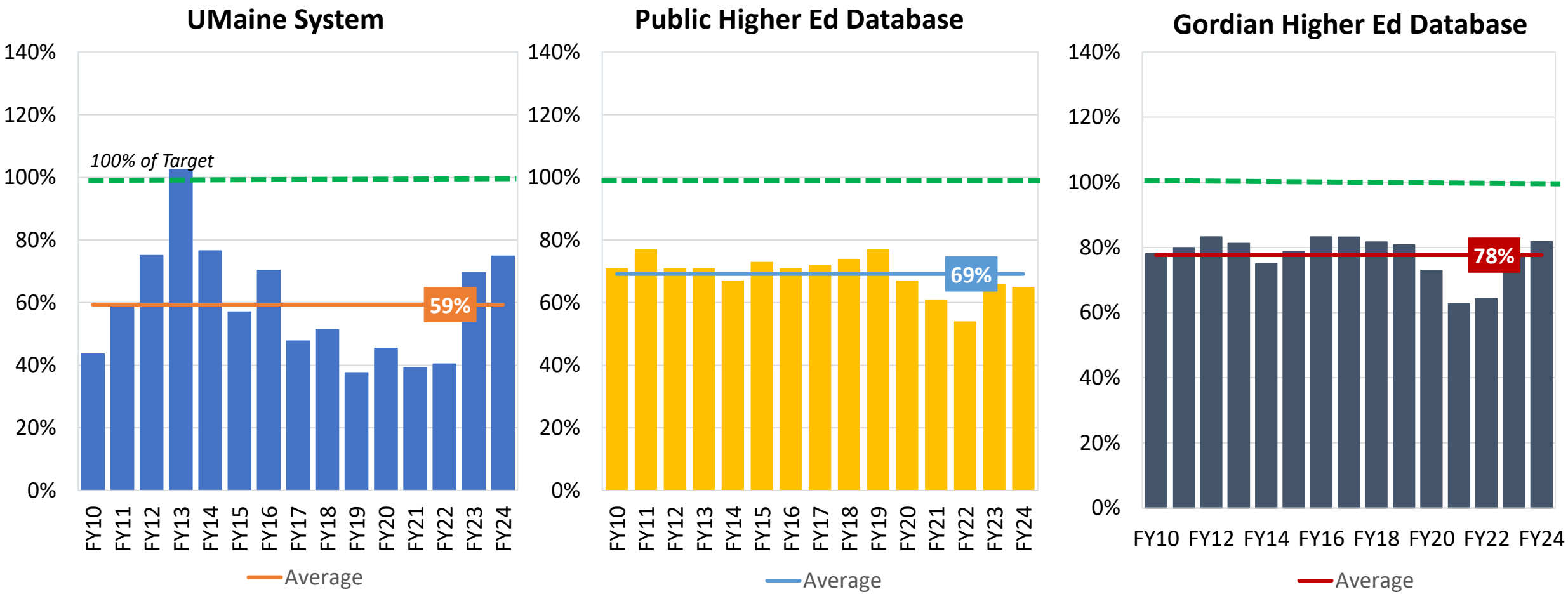
UMS Investments Are Below Industry Average in FY24

Investment as % of Target



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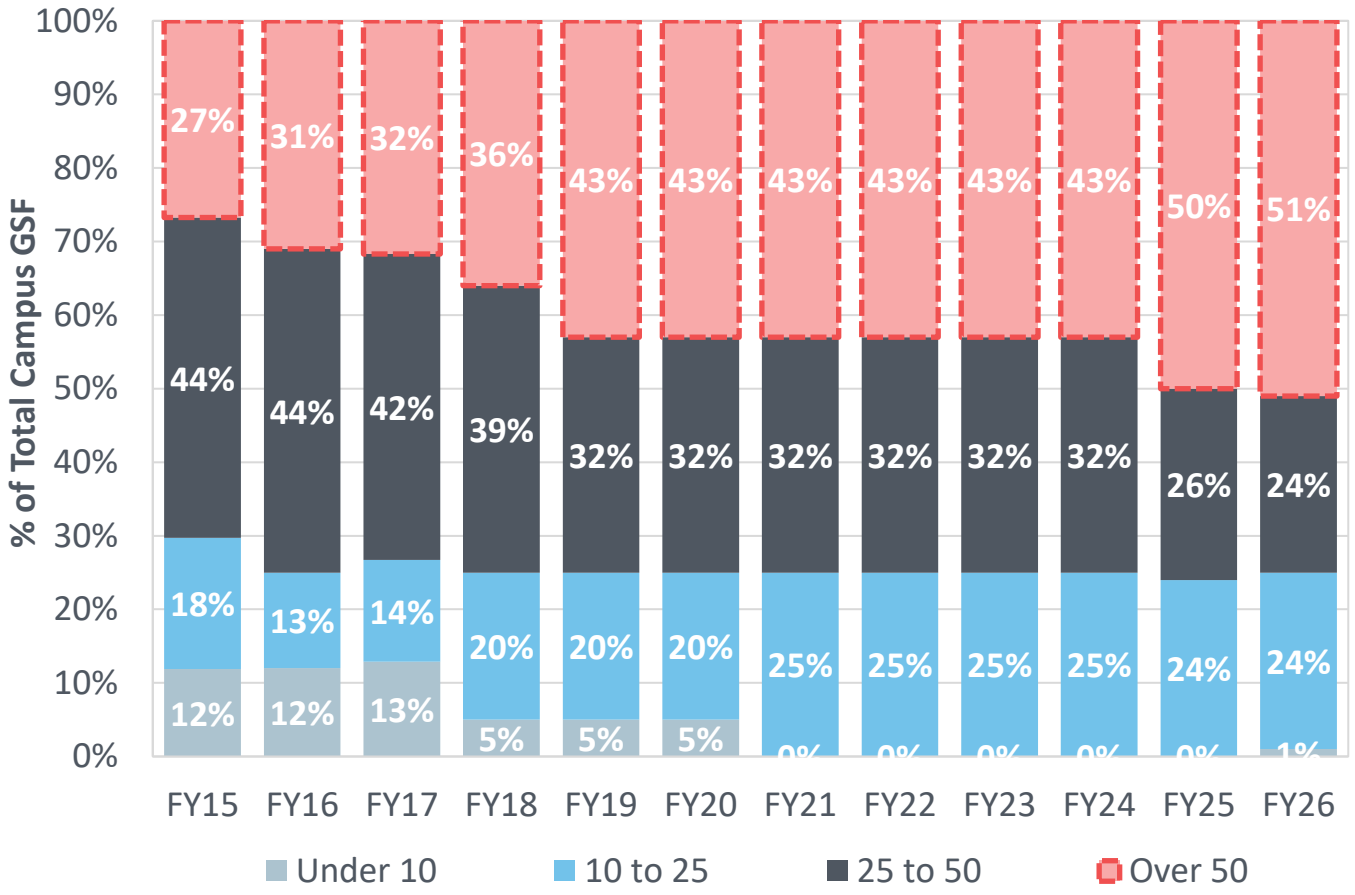
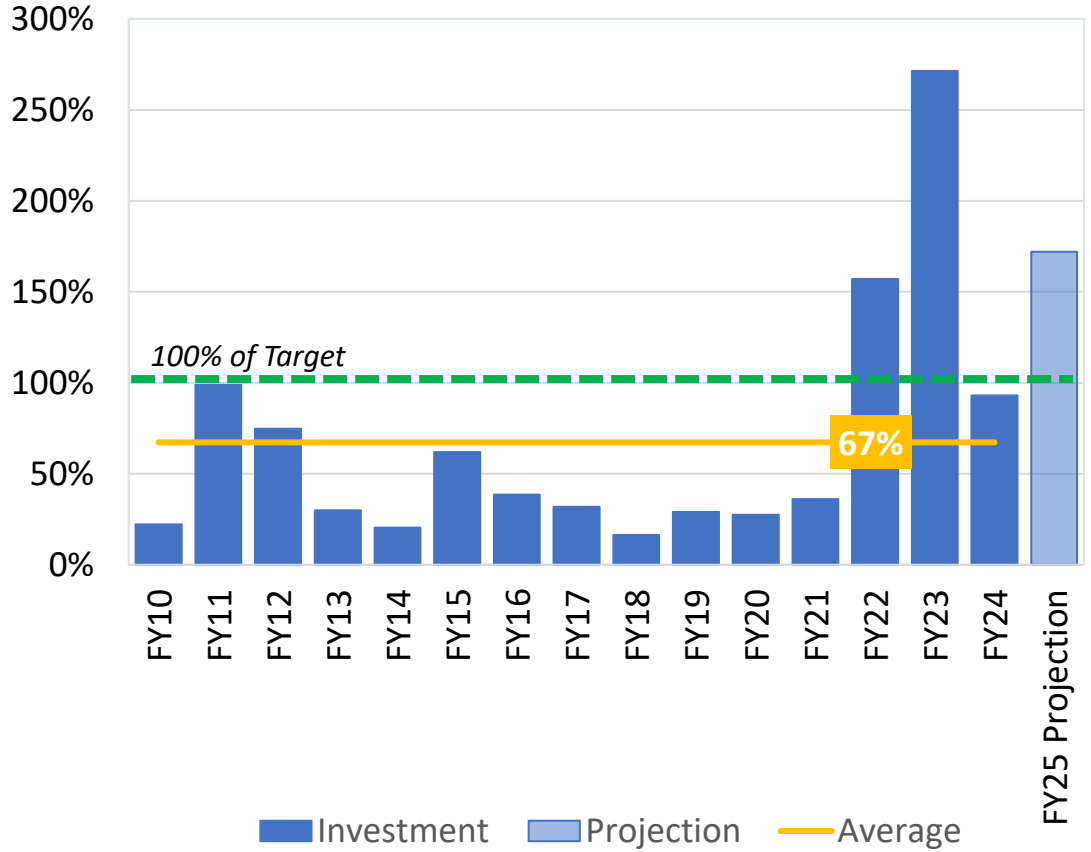
Case Study: UMPI Future Divestment Impacts Campus Investment to Target

Campus Renovation Age by Category



UMPI Investment to Target



* Houlton Center offline in FY25 and Skyway Dorm offline in FY26

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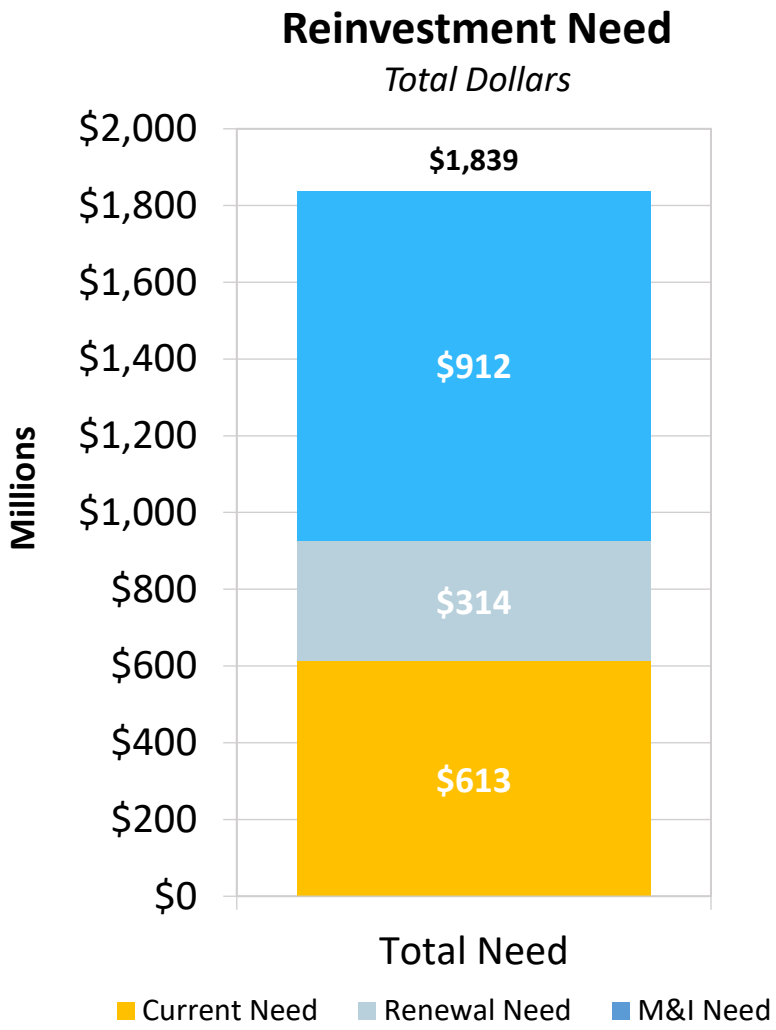
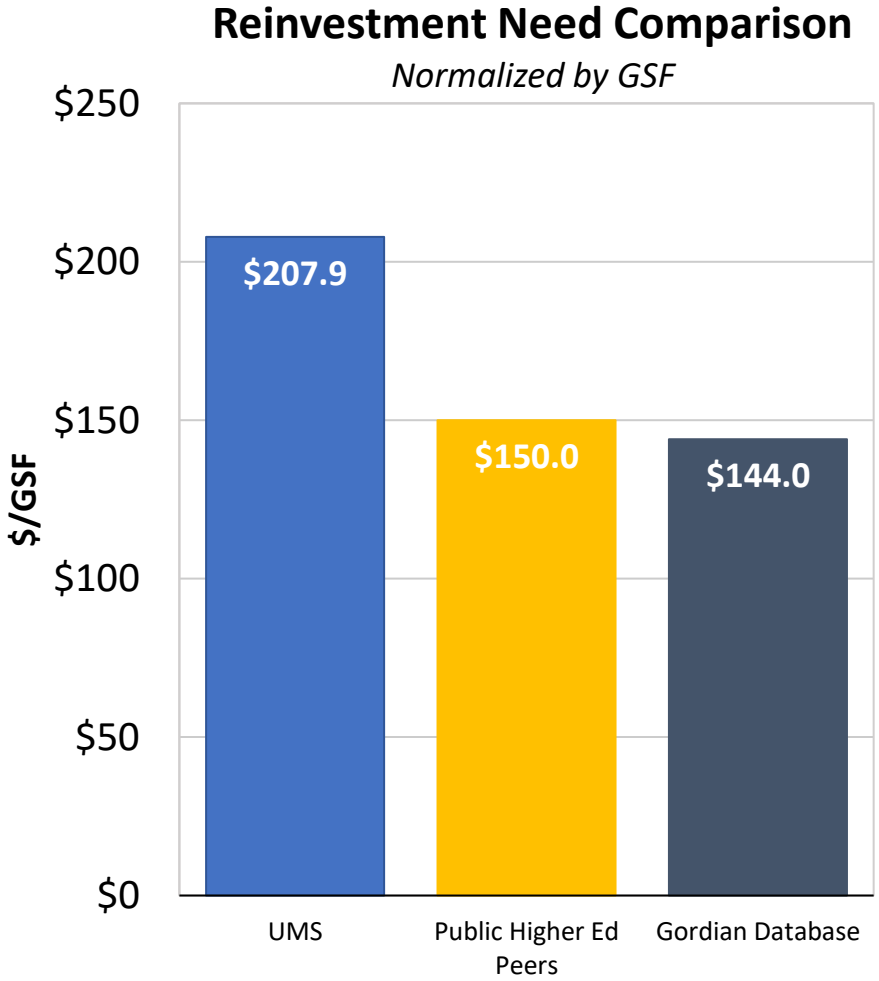
Reinvestment Need Requires Strategic Prioritization

UMaine System has similar reinvestment needs compared to public peers on a $/GSF basis

Defining Reinvestment Need:

- Values include work past due, plus need predicted to come due over the next 10 years
- Values represent in-kind replacement of systems
- Values are not intended to reflect program change and modernization impacts





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Using Net Asset Value to Determine Investment Strategy

Net Asset Value (NAV): Measuring the Percent "Good" in a Building

NAV Calculation:

$$\frac{\text{Replacement Value} - \text{Reinvestment Need}}{\text{Replacement Value}}$$

Example:

Gordian Hall

Constructed in 2020

Estimated Replacement Value: $20,000,000

Total Reinvestment Need: $1,000,000

NAV: 95%

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Using Net Asset Value to Determine Investment Strategy

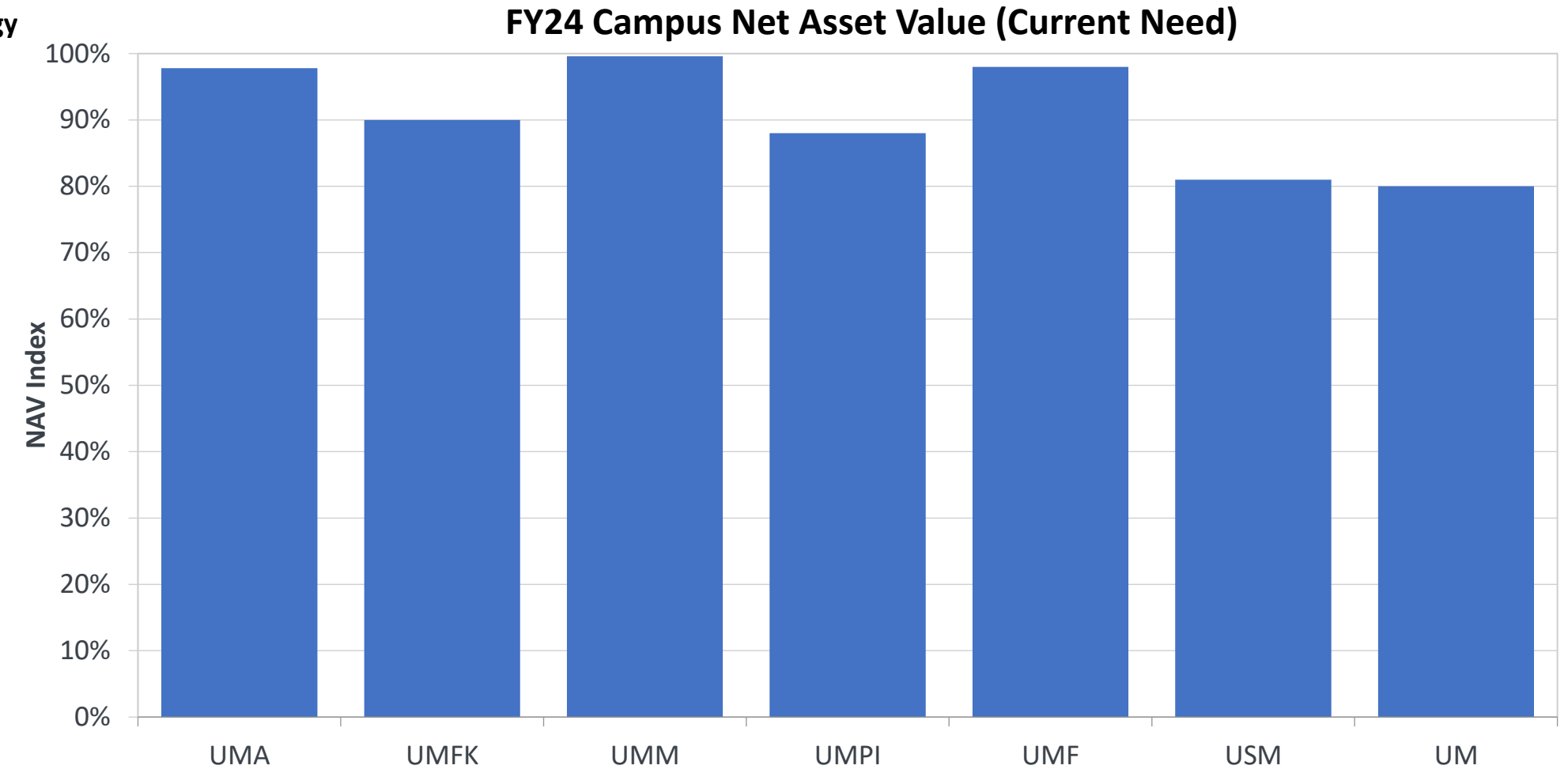
Portfolio	NAV Range	Investment Strategy
Capital Upkeep	100% - 85%	**Capital Upkeep Stage:** Primarily new or recently renovated buildings with sporadic building repair & life cycle needs.
Repair & Maintain	84% - 75%	**Repair & Maintain Stage:** Buildings begin to show their age and require more significant investment on a case-by-case basis.
Systemic Renovation	74% - 50%	**Systemic Renovation Stage:** Buildings require more significant repairs; large-scale capital infusions or renovations are inevitable.
Transitional	Below 50%	**Transitional Stage:** Major buildings components are past due, even in jeopardy of failure. Reliability issues are widespread. Major renovation, demolition, or other transitional event should be considered to fully address building need

Campus leadership can set custom NAV goals for different buildings and portfolios, helping to balance capital investments across campus and direct funding to where it is most needed

NAV by Current Needs On Campus

Investment Strategy

- 100%- 85% Capital Upkeep Stage
- 84%- 75% Repair and Maintain Stage
- 74%- 50% Systemic Renovation Stage
- Below 50% Transitional Stage



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UMA and UMPI Exceed System NAV Goal

Investment Strategy

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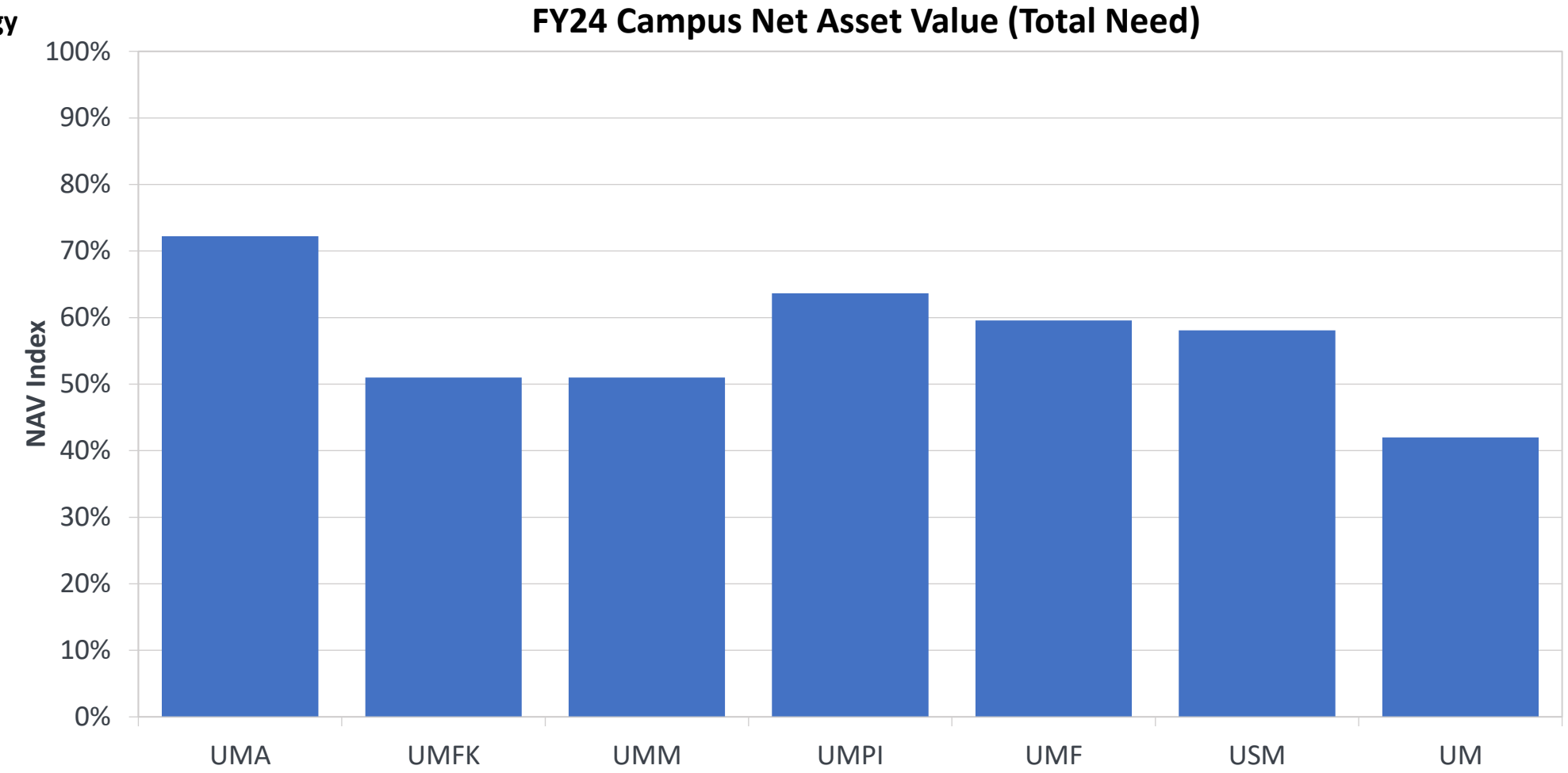

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UMS NAV Decreases Despite Higher Levels of Funding

Investment Strategy

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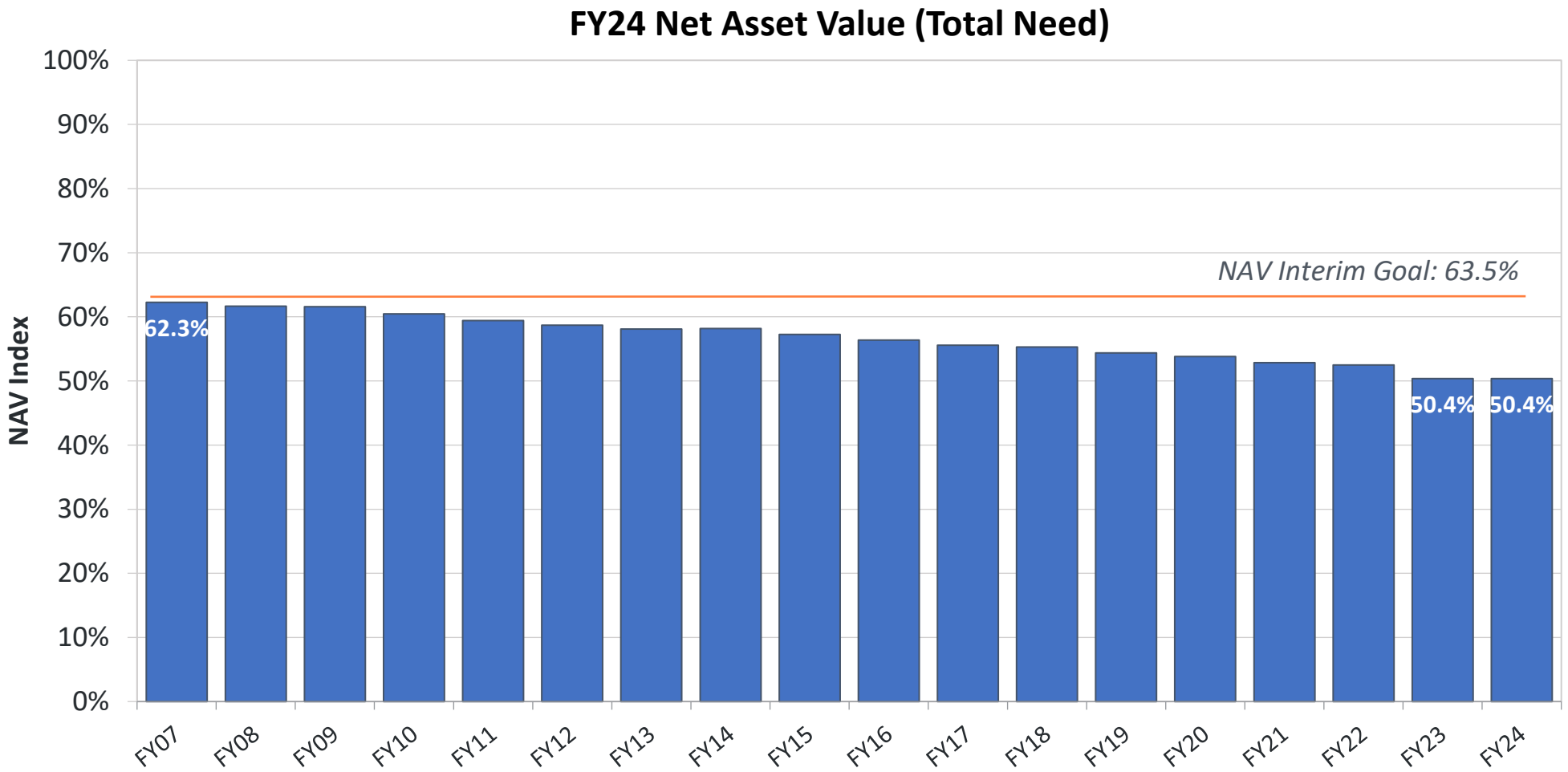
84%- 75%	Repair and Maintain Stage
74%- 50%	Systemic Renovation Stage
Below 50%	Transitional Stage



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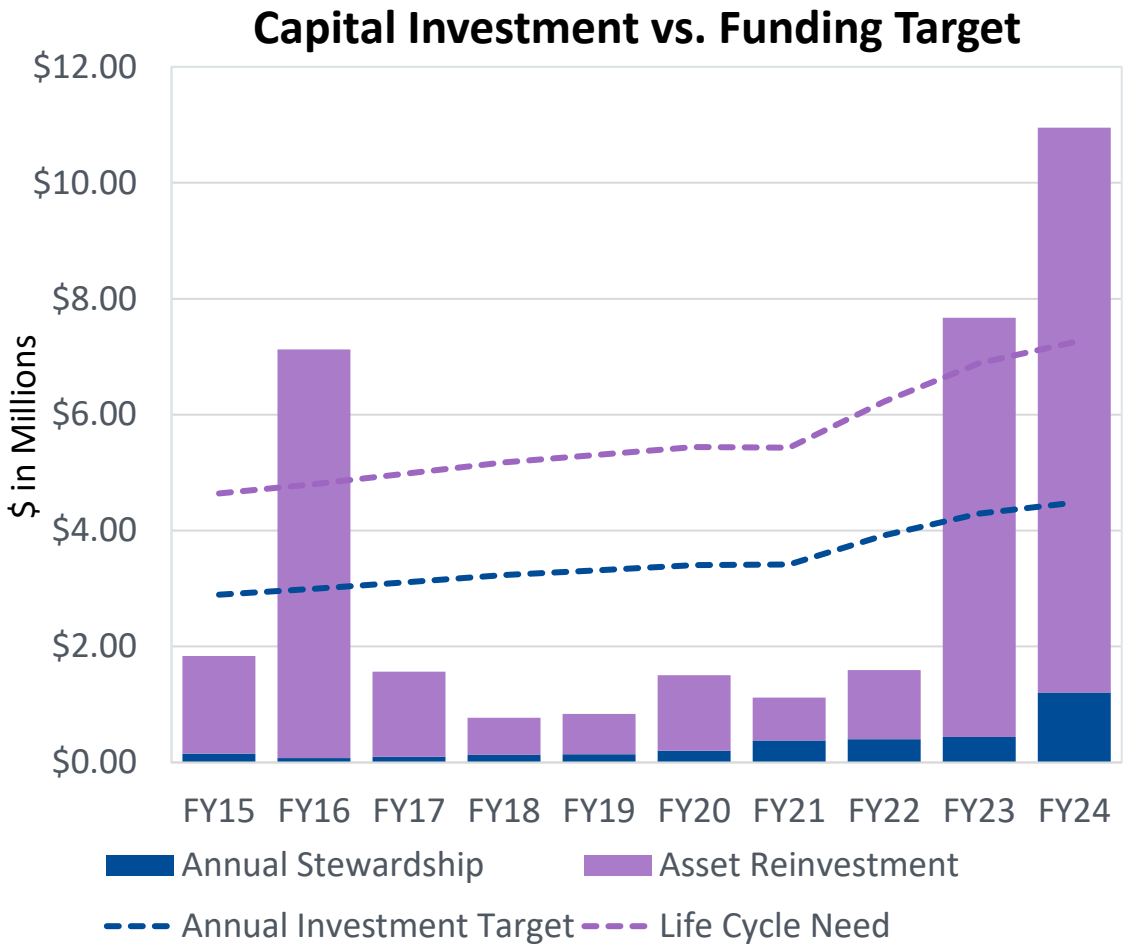
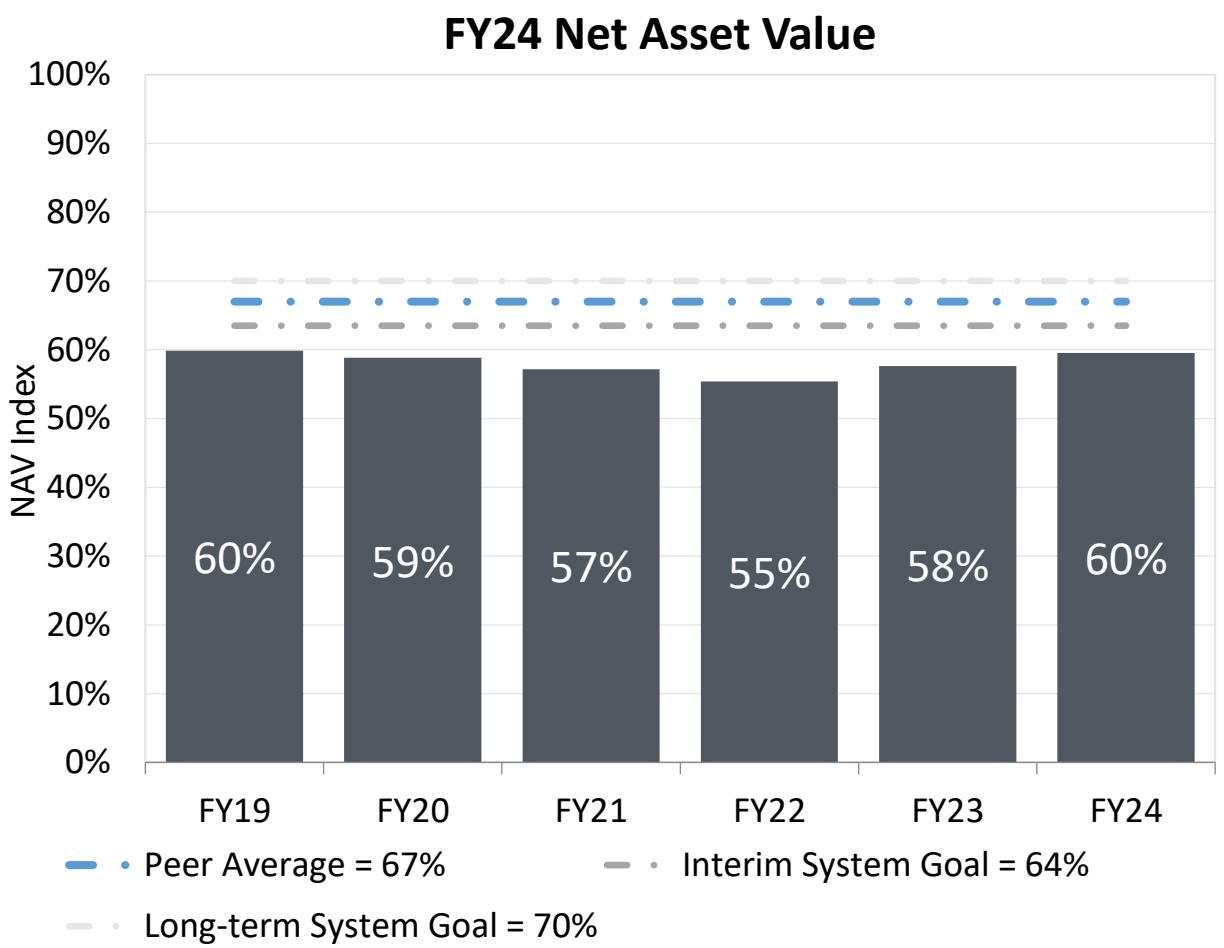
Case Study: UMF Experiences 2% Growth in NAV in FY24

Impacts of the ESCO project is evident for building level NAV





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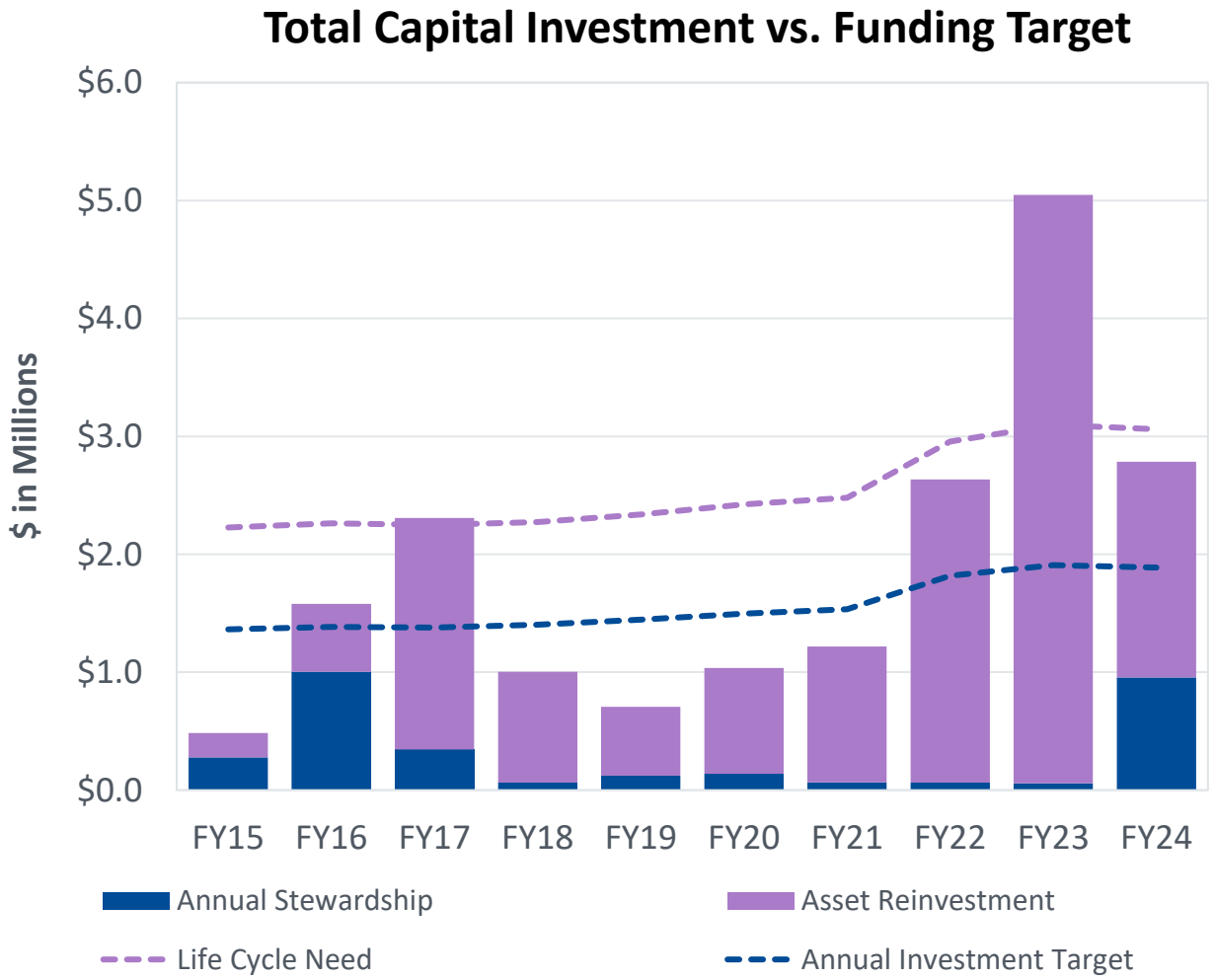
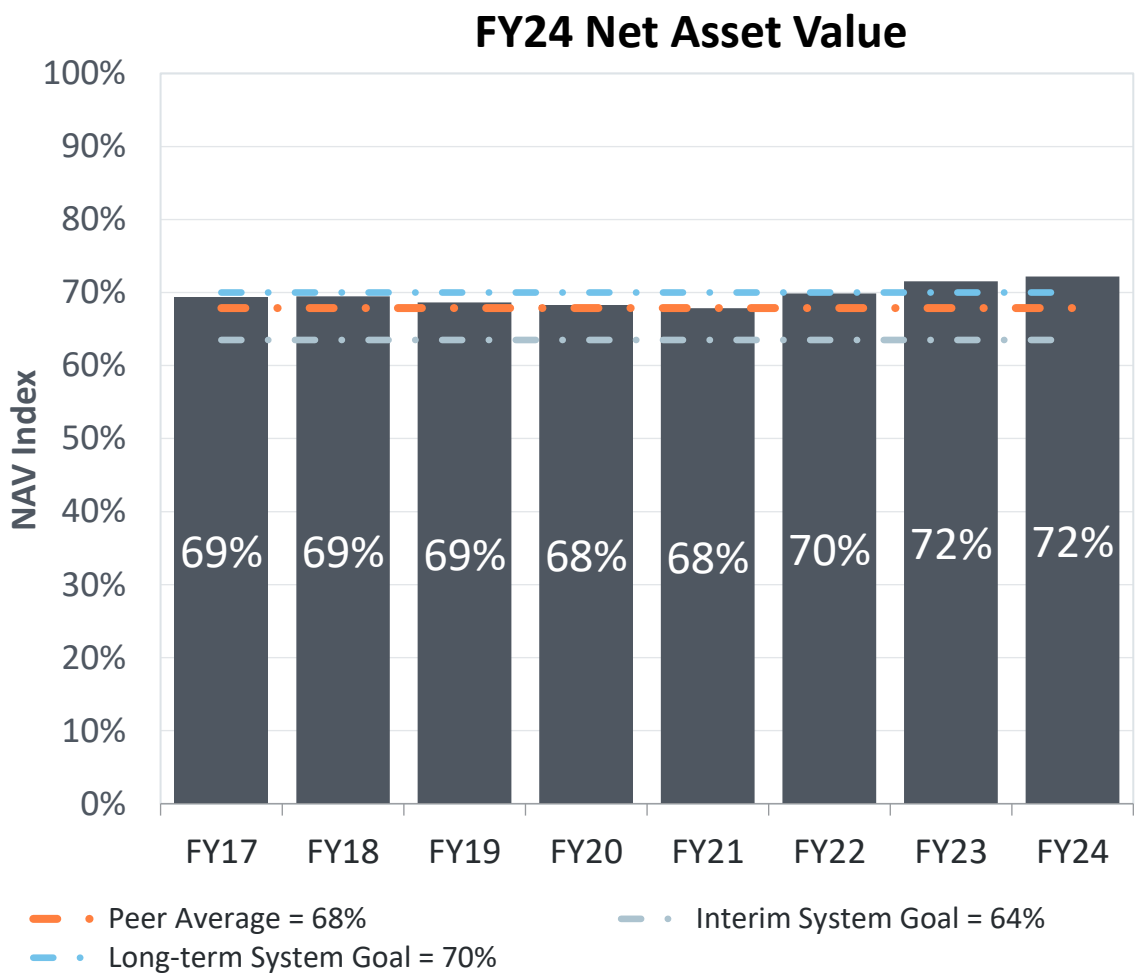
Case Study: UMA's NAV Exceeds Peer Average and System Goal

Continued investment at or near annual targets keeps UMA's NAV steadily above system goal





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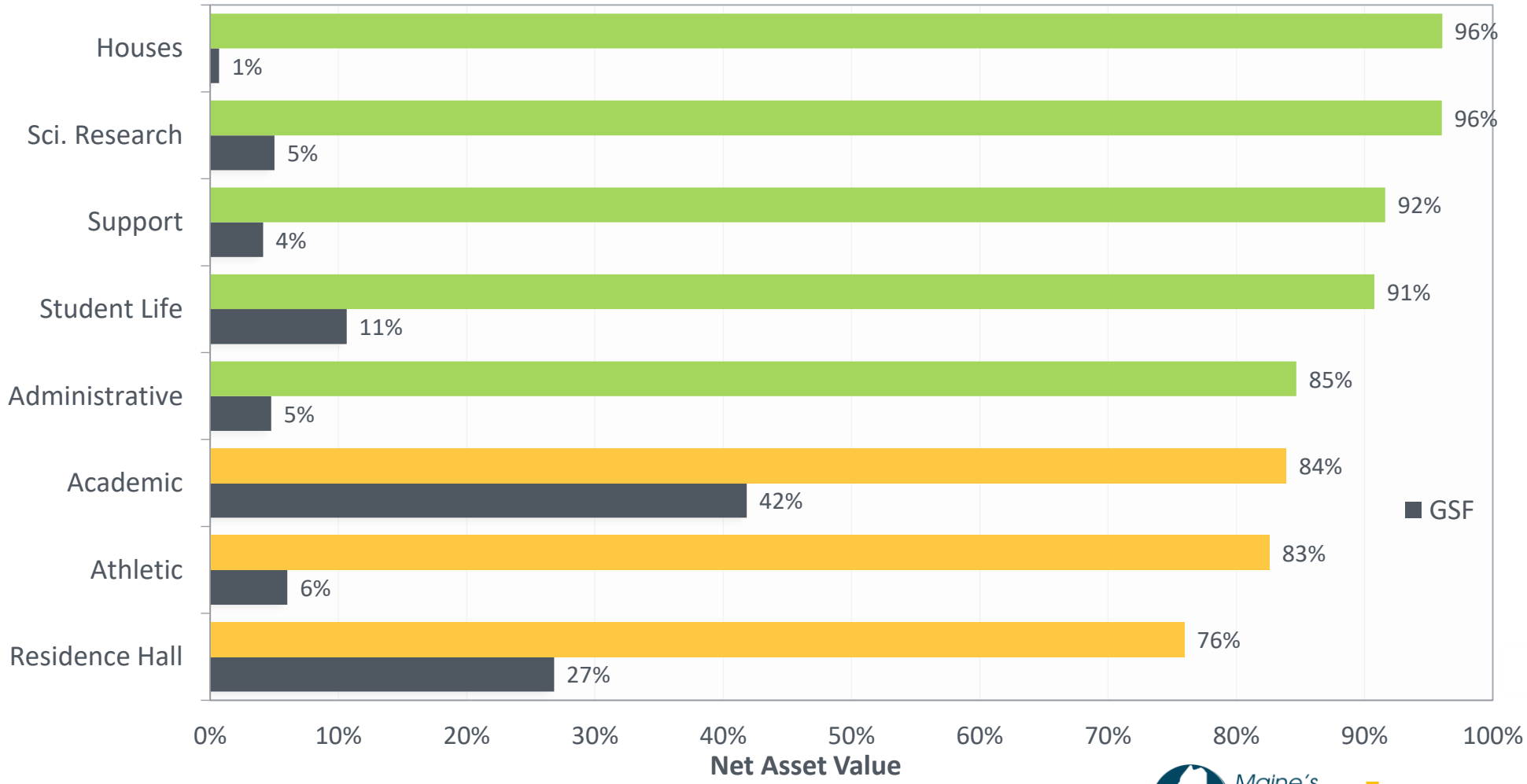
FY24 NAV Index by Function Across UMS (Current Need)

100%- 85%
Capital Upkeep Stage

84%- 75%
Repair and Maintain Stage

74%- 50%
Systemic Renovation Stage

Below 50%
Transitional Stage



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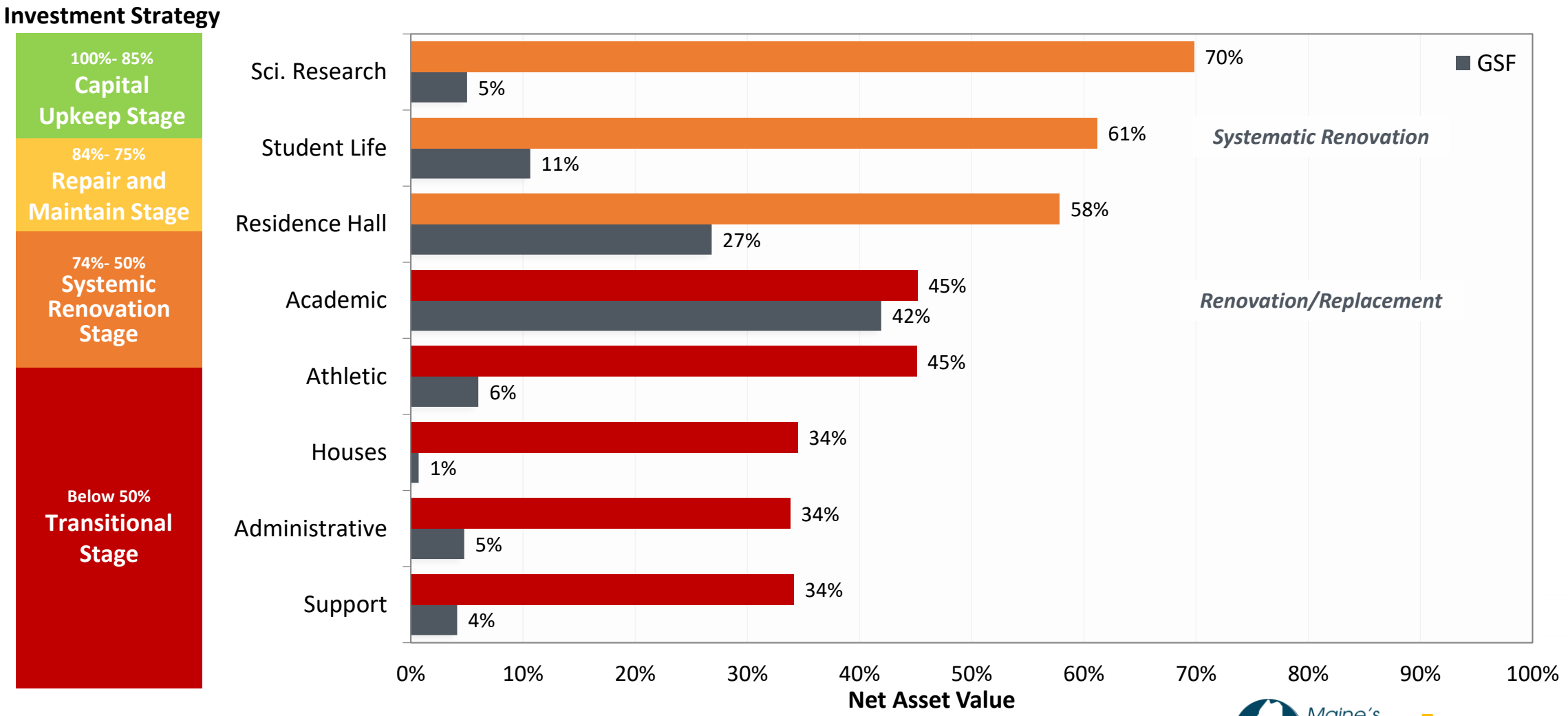
FY24 NAV Index by Function Across UMS (Total Need)



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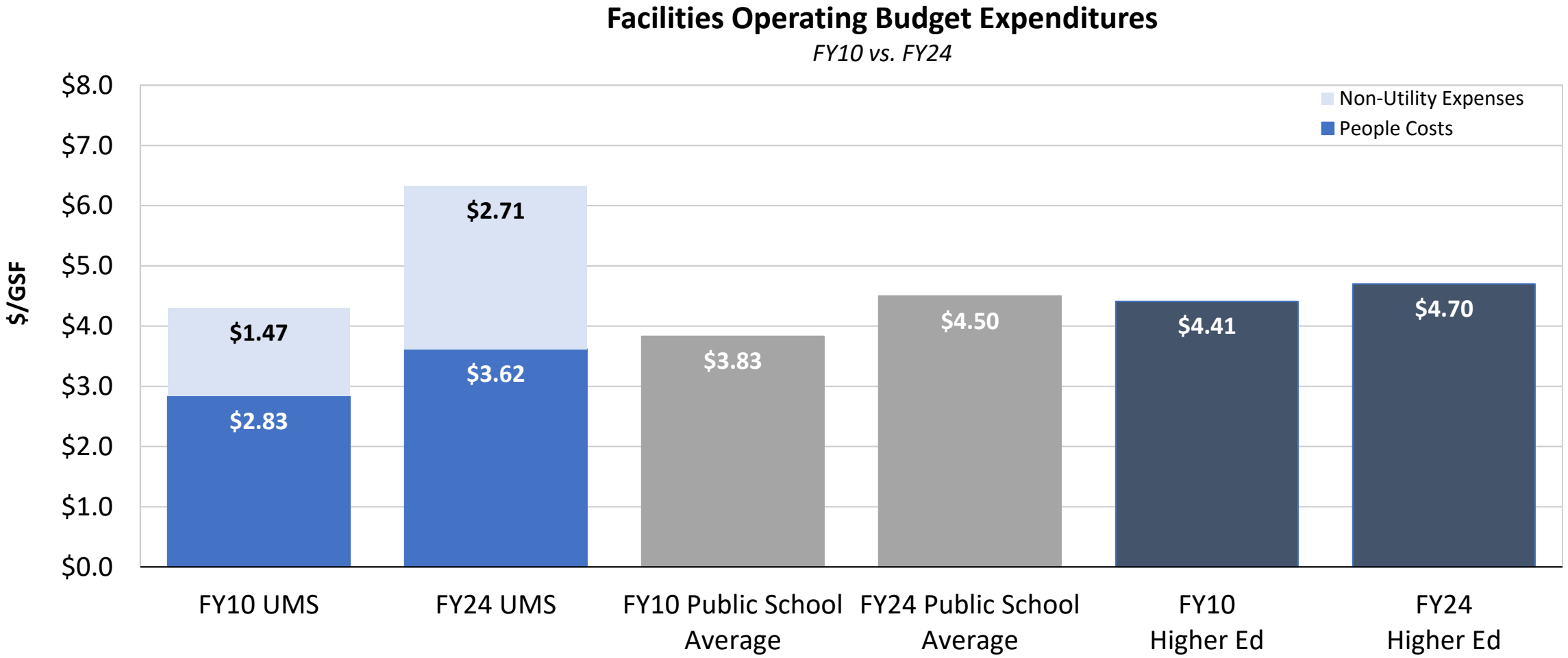
Operational Effectiveness

UMaine System Operating Cost Growth Outpaces Gordian Database



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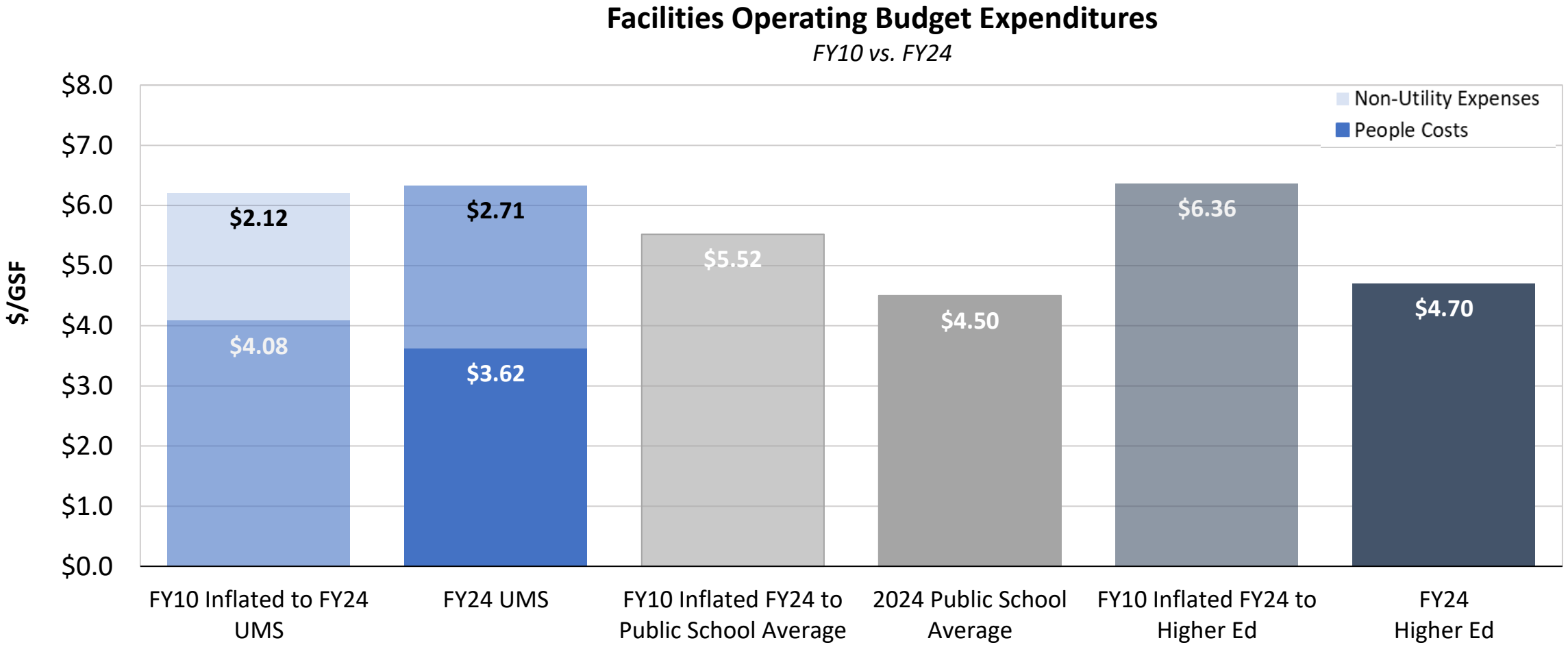
Operating Resource Levels Have Not Kept Pace With Inflation

UMS and peers are experiencing similar challenges as the industry as a whole



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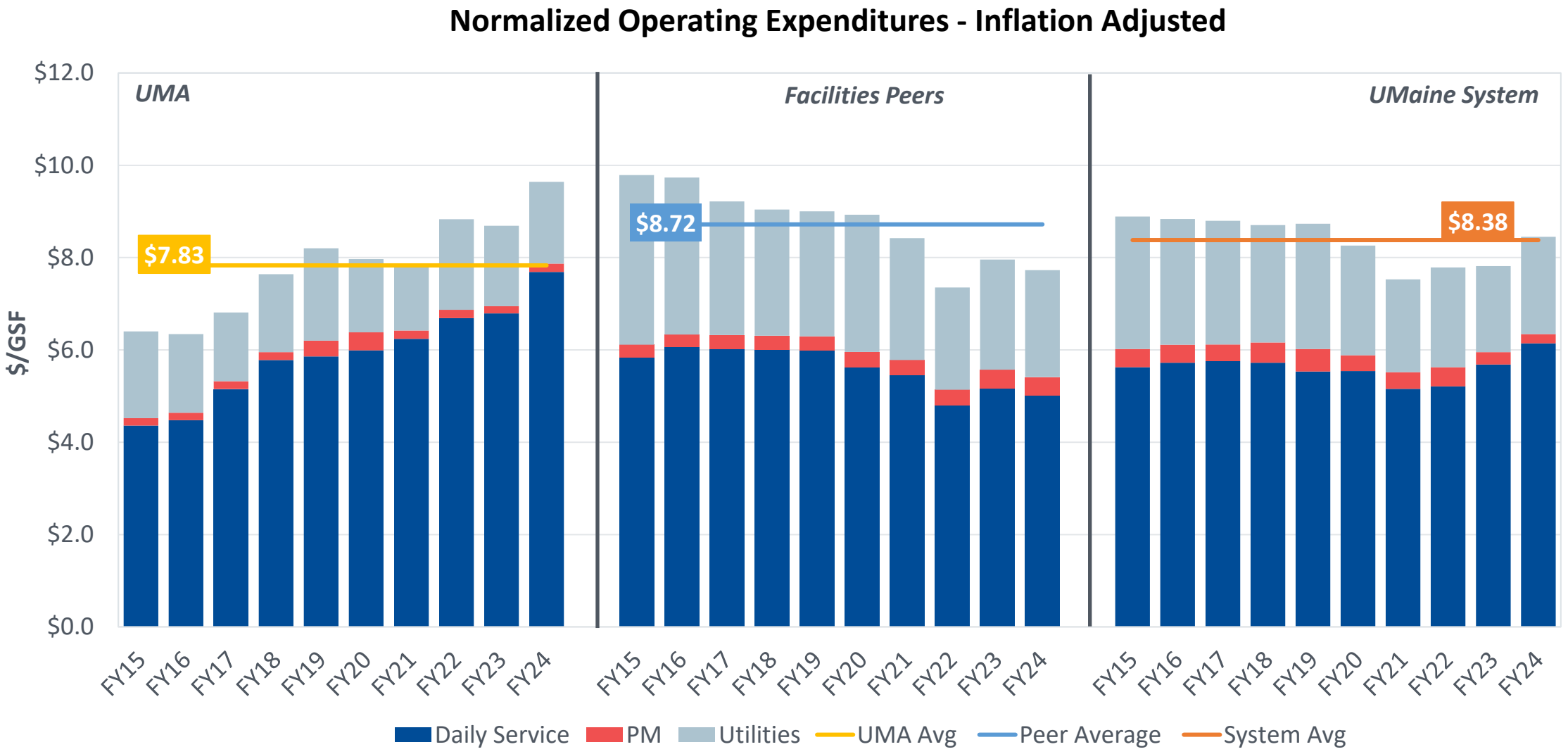
Case Study: UMA's Operating Costs Have Kept Up With Labor and Material Inflation



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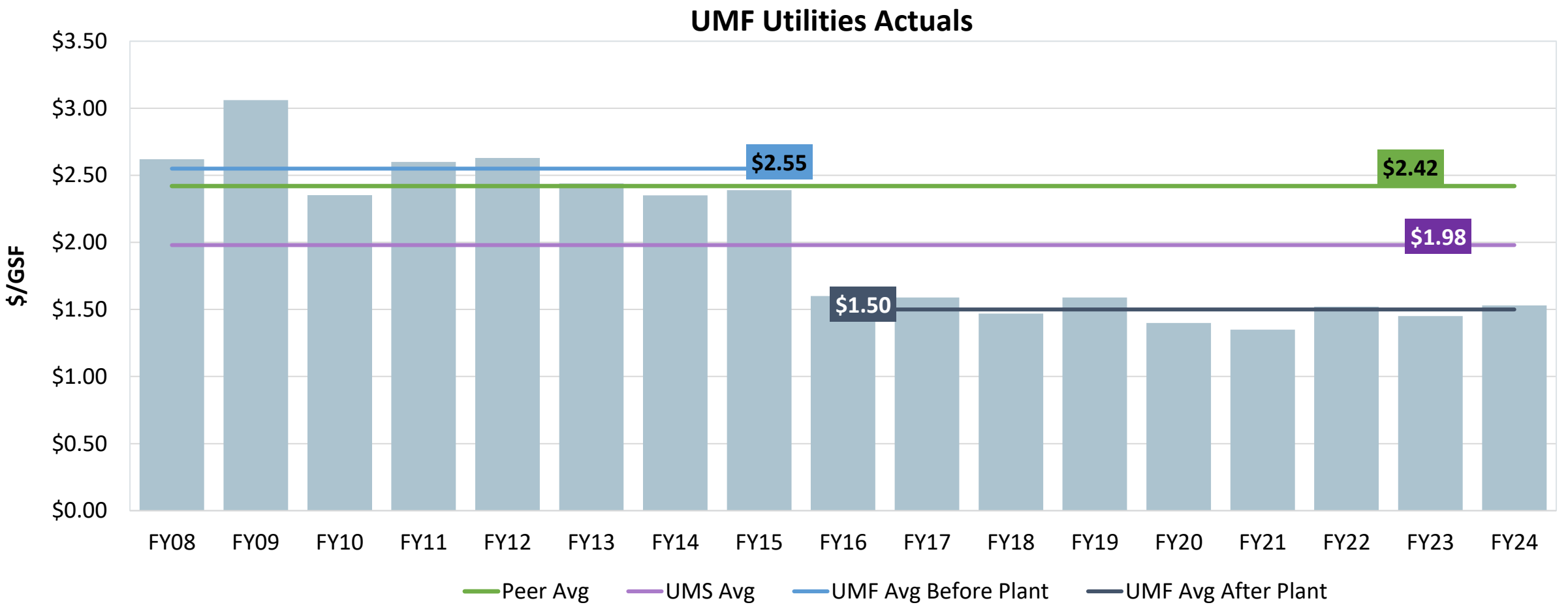
Case Study: UMF Sees 42% Reduction in Annual Utility Expenses

Plant investments resulted in decreasing utility costs, saving approximately $800K annually in purchased fossil



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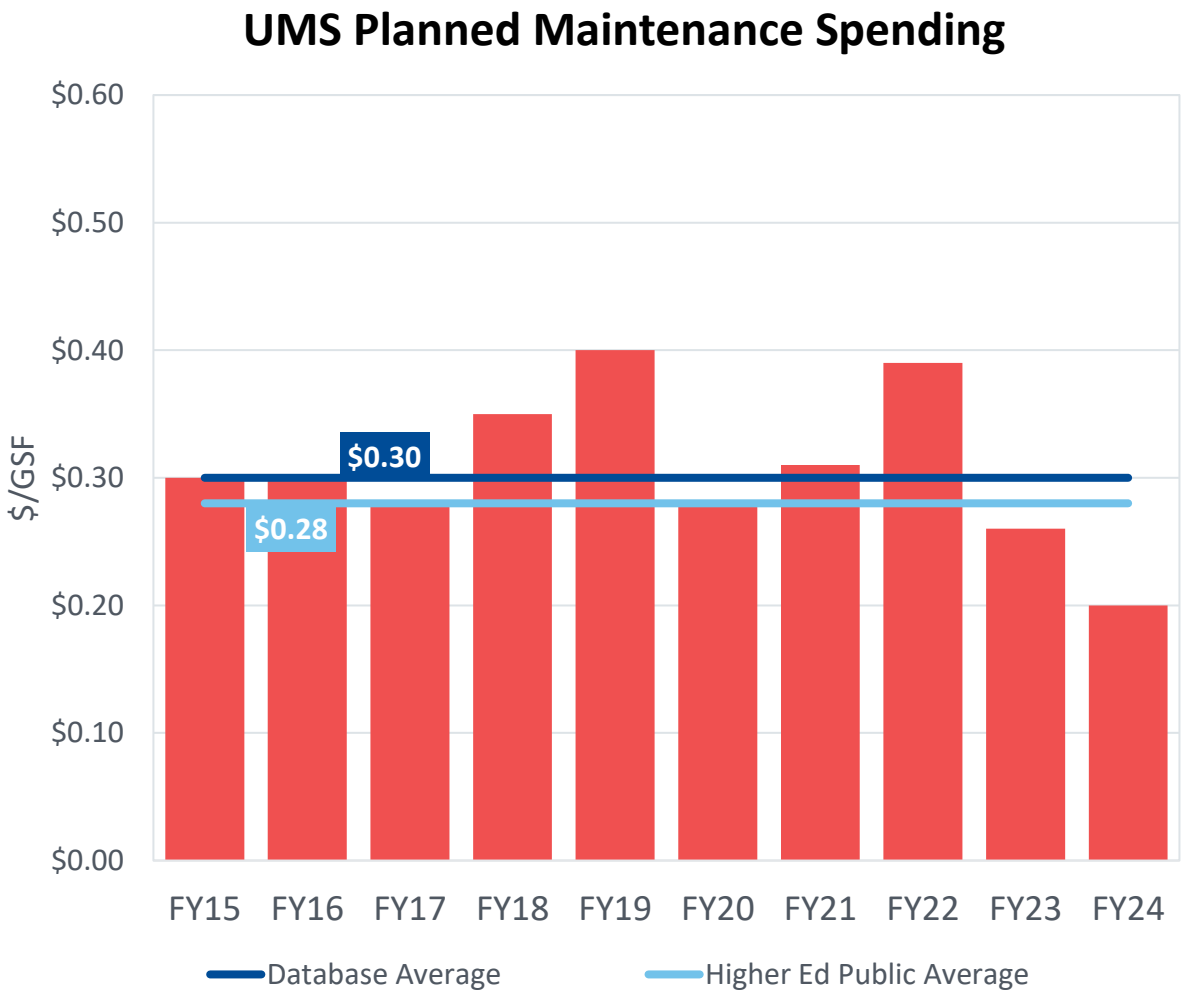
Planned Maintenance Spending at UMS

UMaine PM spending decreases in FY24; spending is less than public peers



THEORY

$1.00 invested in PM now

SAVES $2.78 in reactive maintenance later

Strategic Deferral of PM

- Usually in buildings/systems over 50 years old targeted for renovation or replacement
- Reallocates resources from the older buildings/systems to younger buildings and systems.
- Use Assessment in coordination with work order reporting to start identifying these opportunities.

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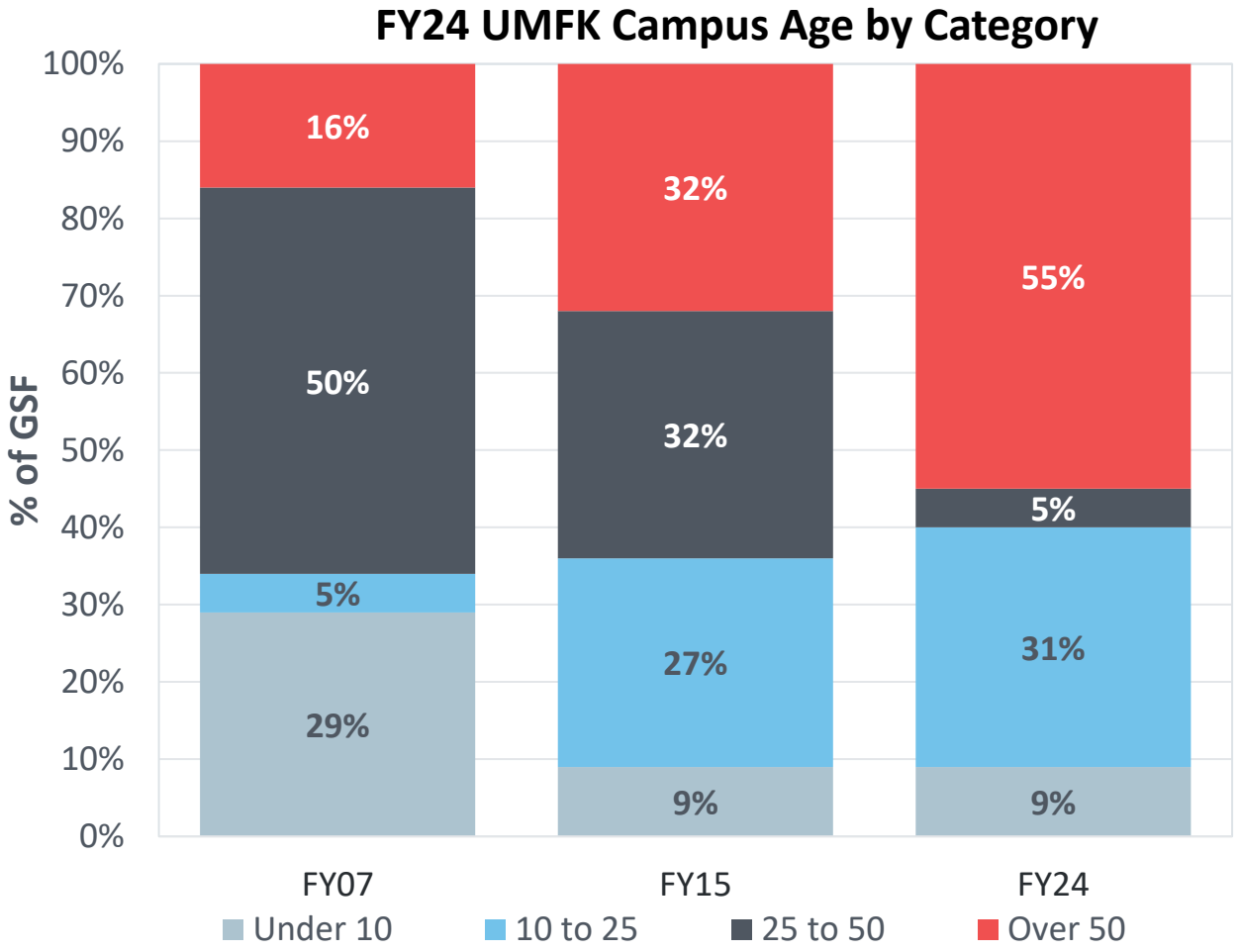
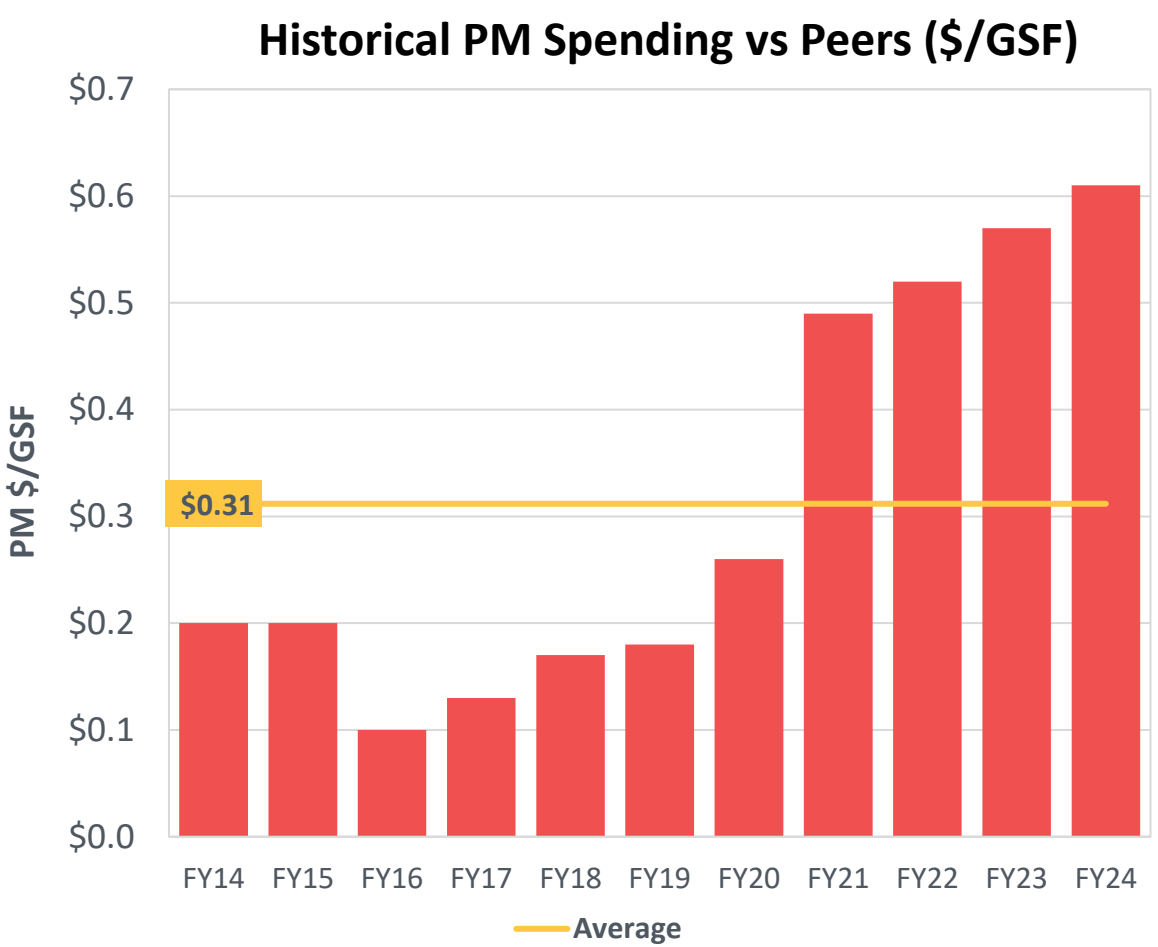
Case Study: UMFK Continues Increase in PM

Establishing planned maintenance practices is integral in ensuring younger spaces age gracefully





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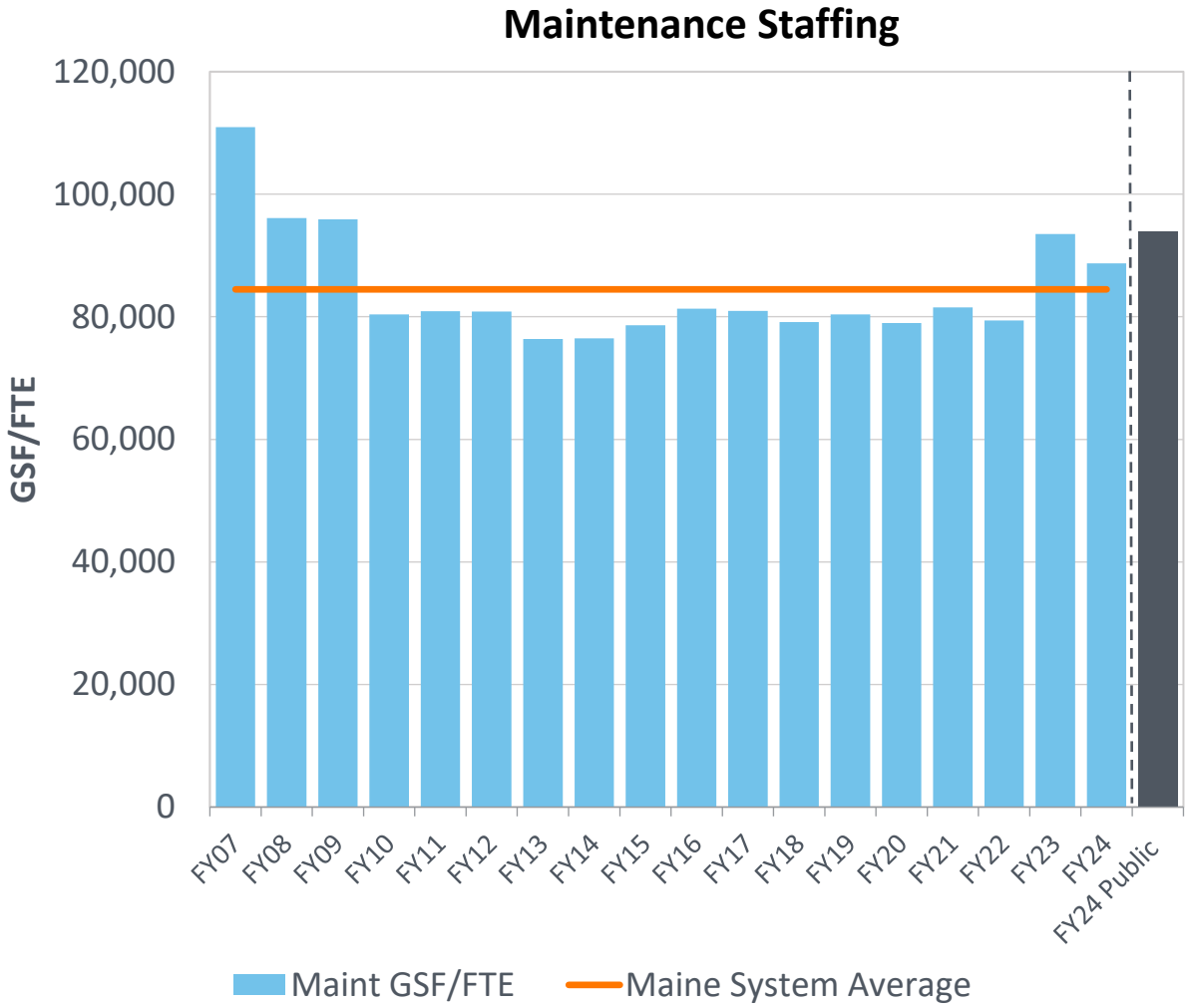
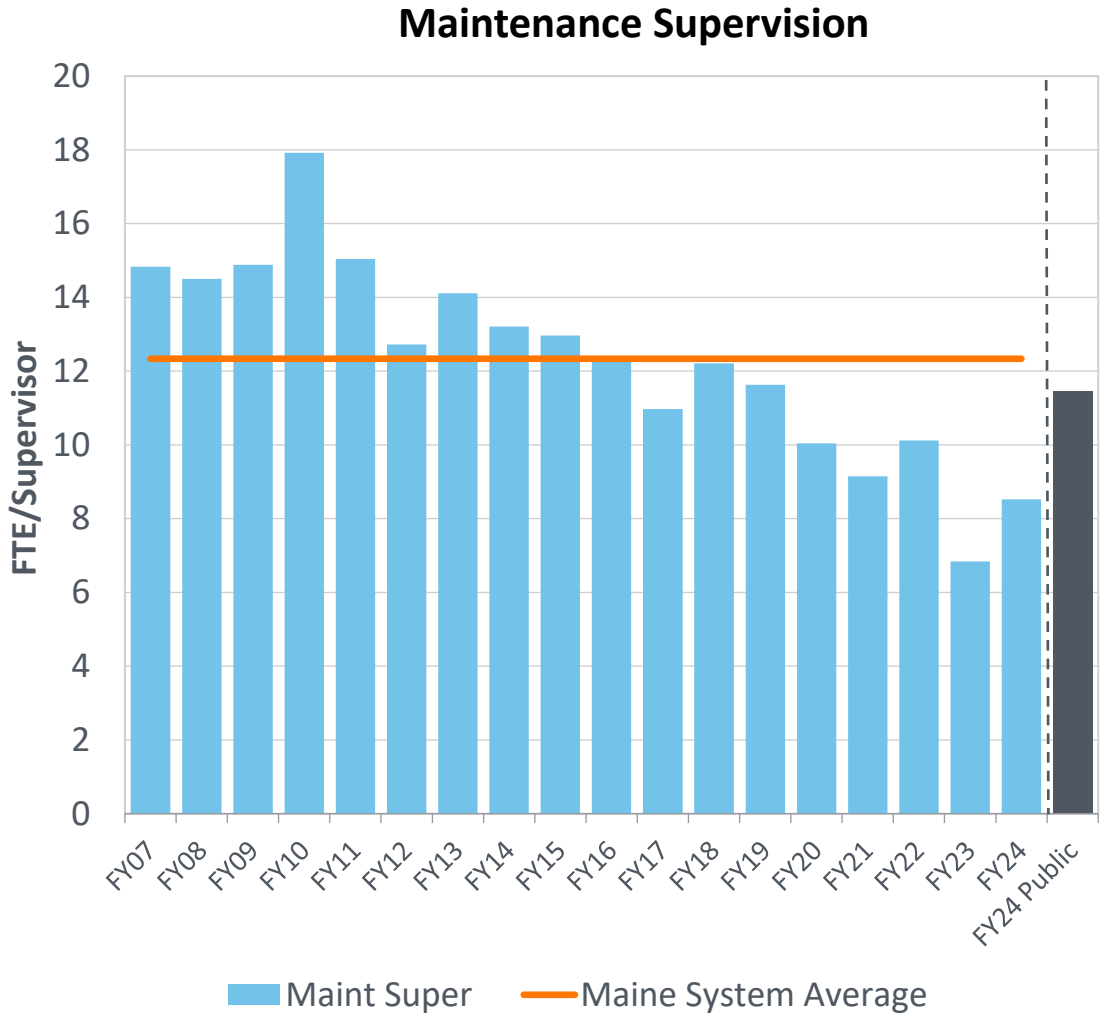
Campuses Maintaining Levels Similar to Historical Average

Maintenance staff is responsible for similar coverage to public school peers while with tighter supervision





FY24 Public: Gordian Public Higher Ed. Database Average for FY24

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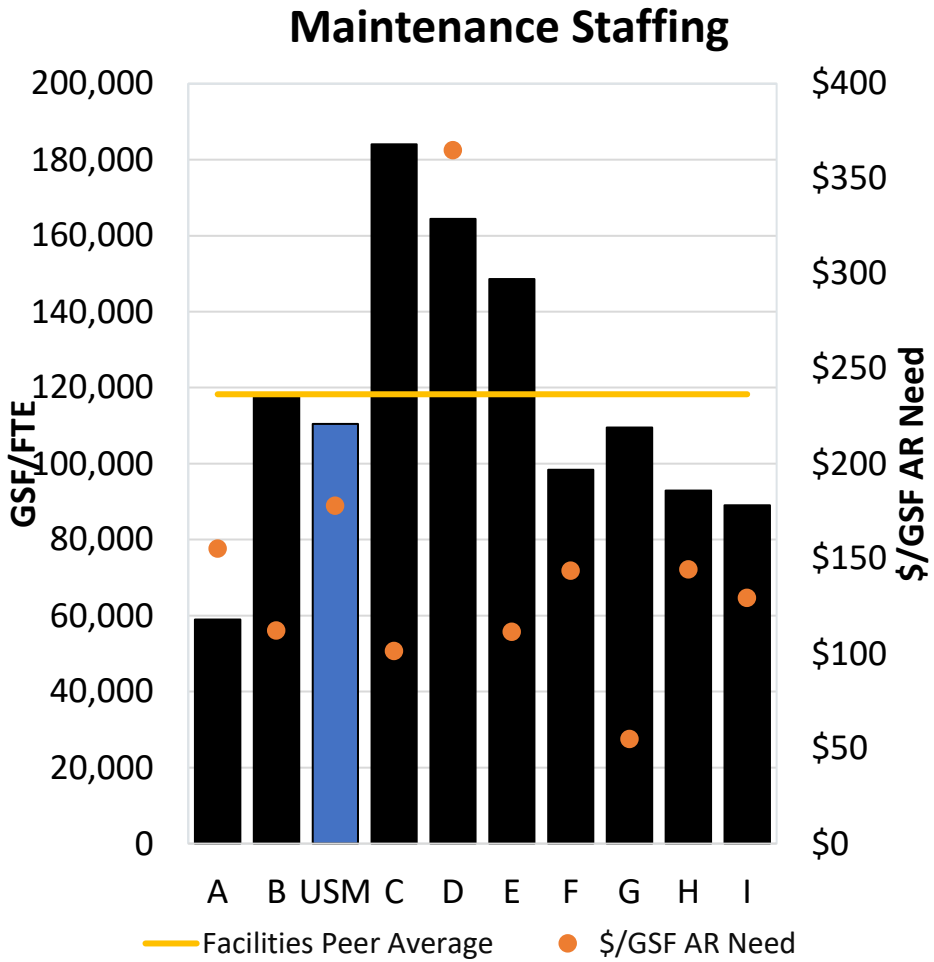
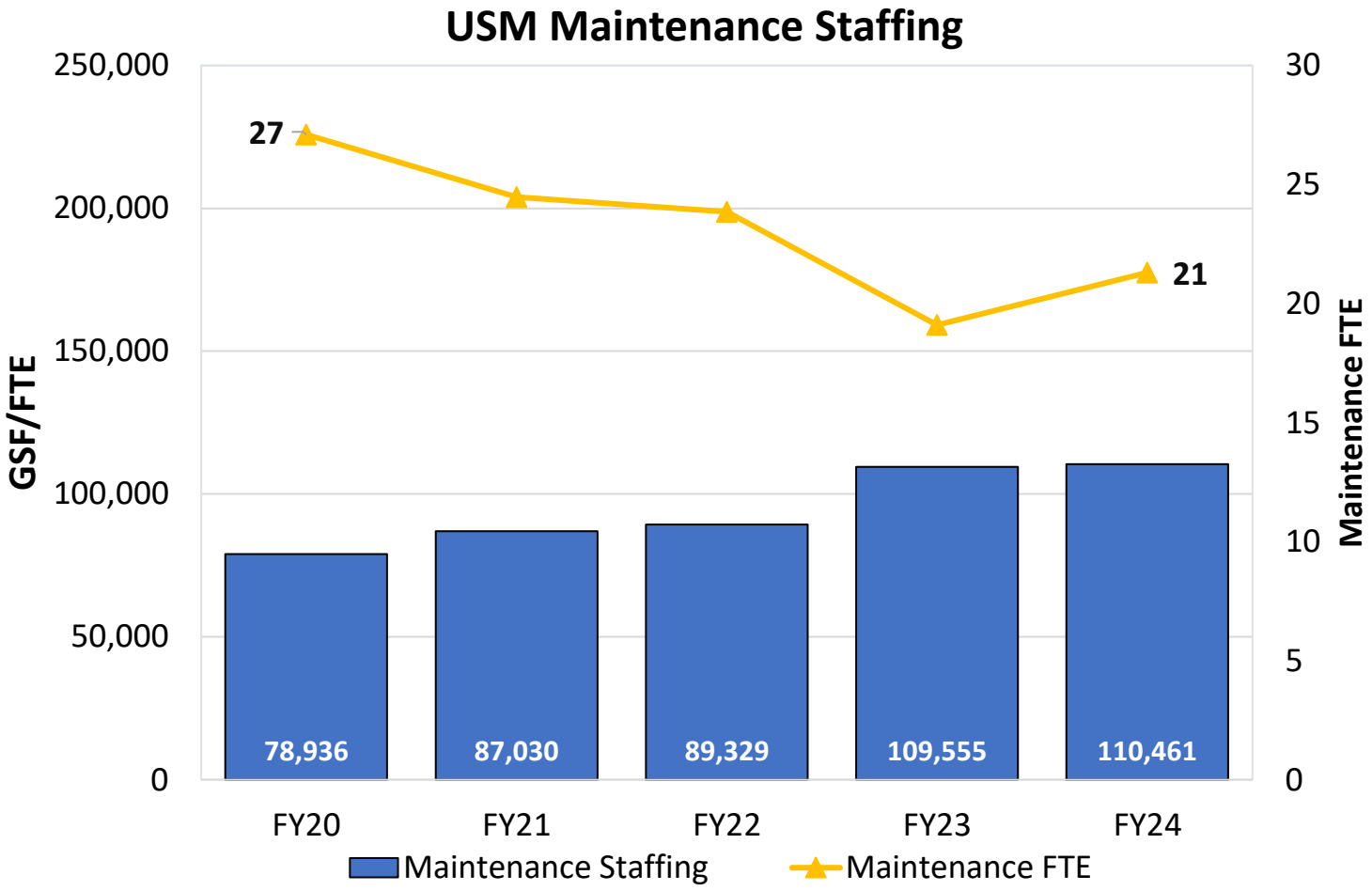
Case Study: USM Staff Covering More Space Today than Pre-Pandemic

USM trades staff have decreased by 6 FTE; remaining staff responsible for an additional 31.5k GSF each



Peers ordered by Tech Rating



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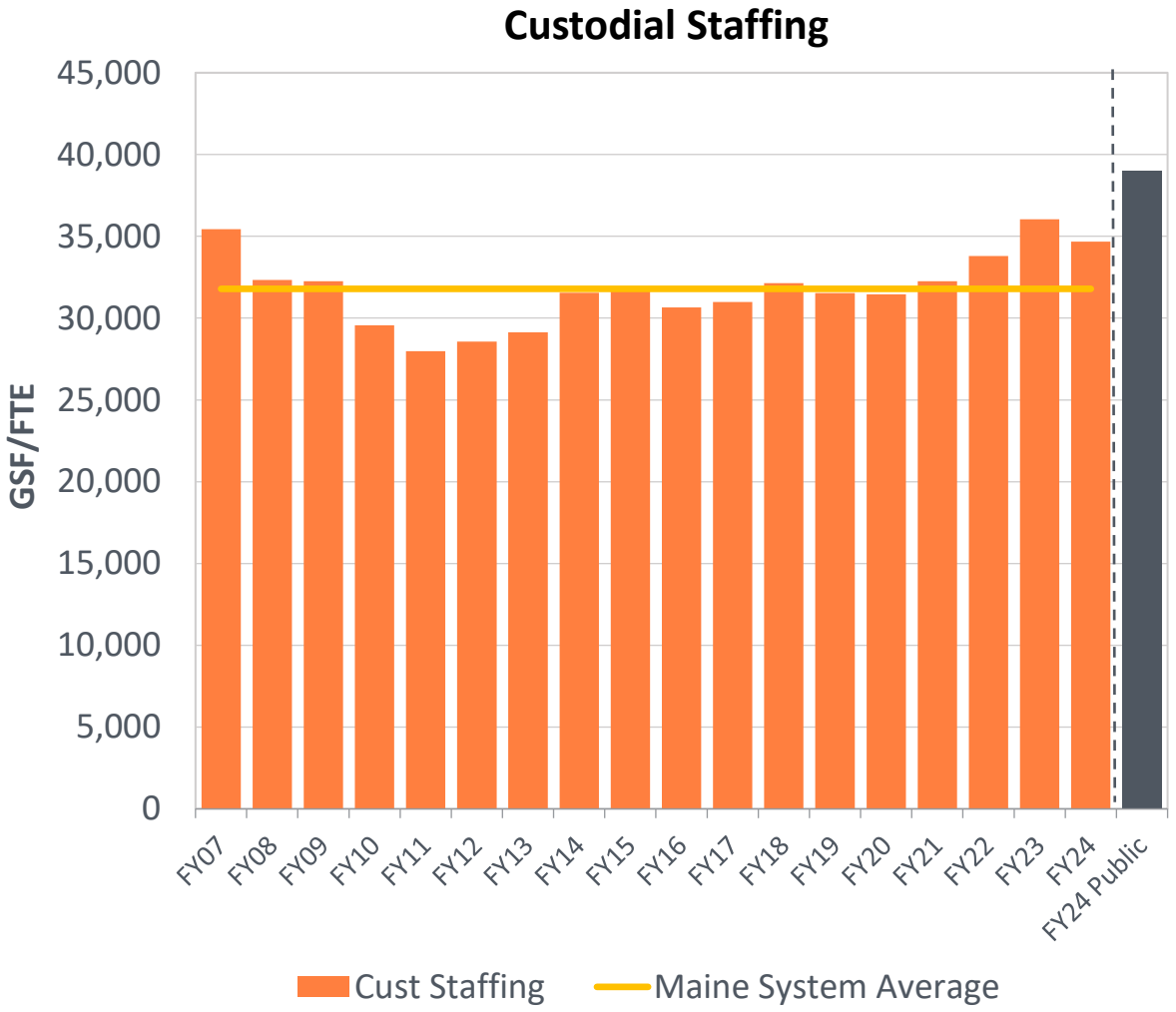
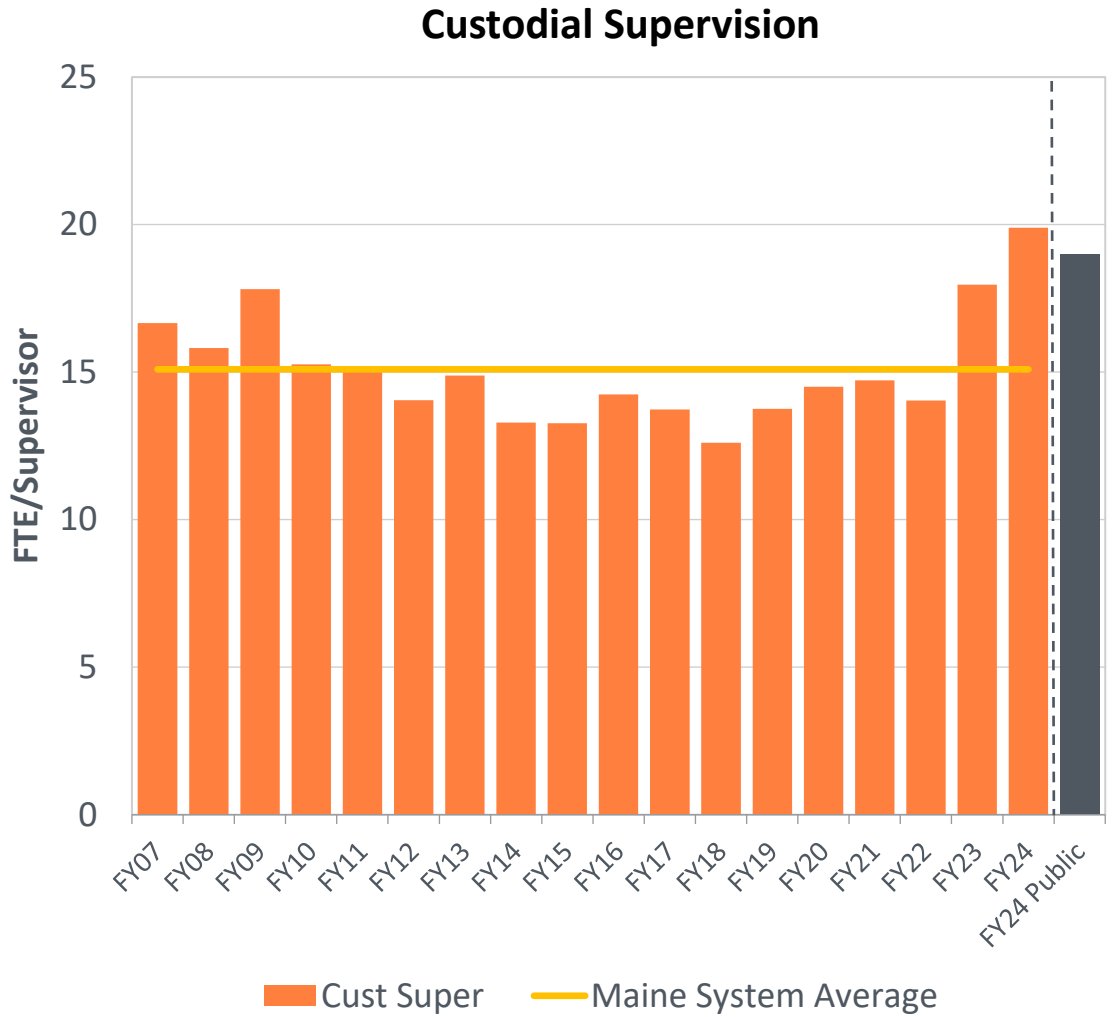
Custodians Responsible For Less Space Than Public School Peers with Less Supervision





FY24 Public: Gordian Public Higher Ed. Database Average for FY24

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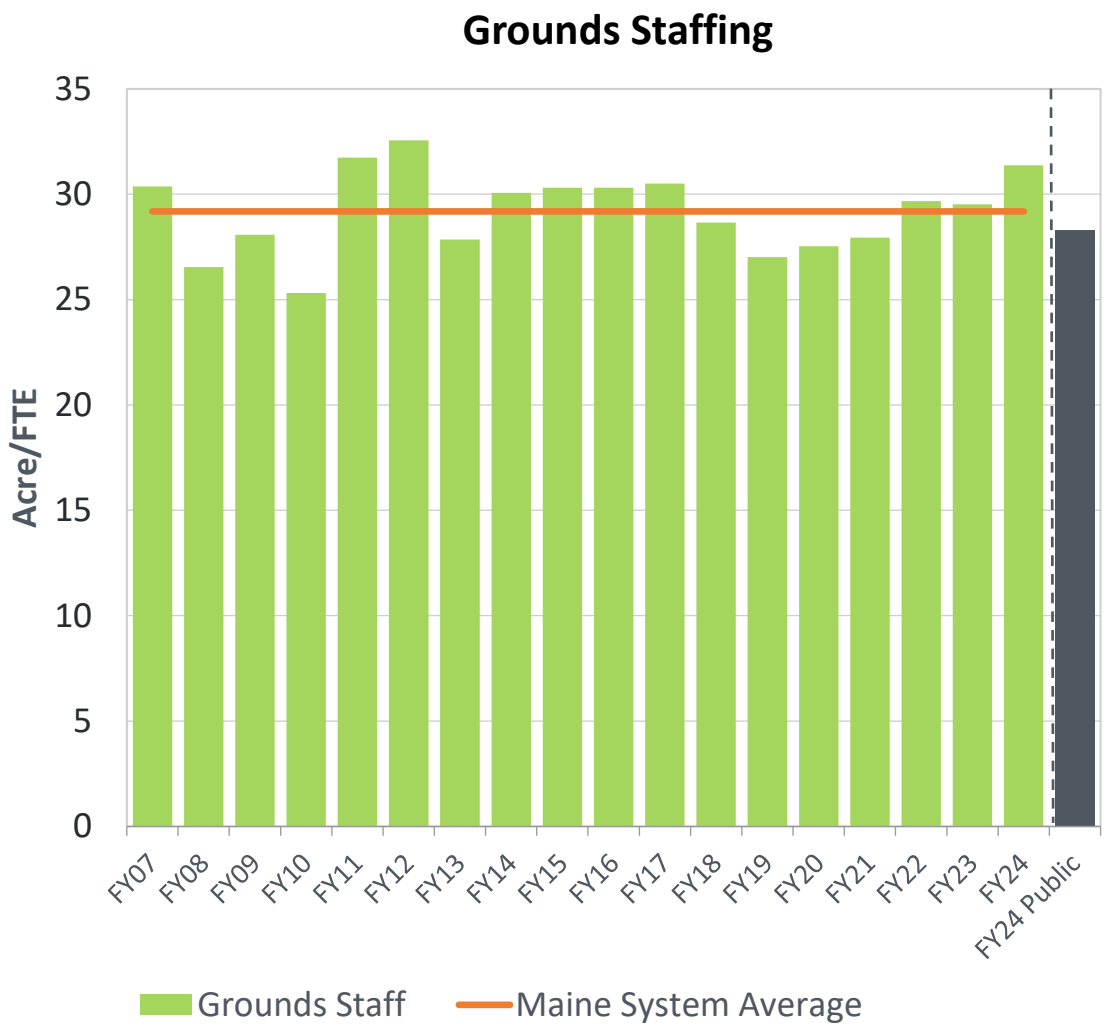
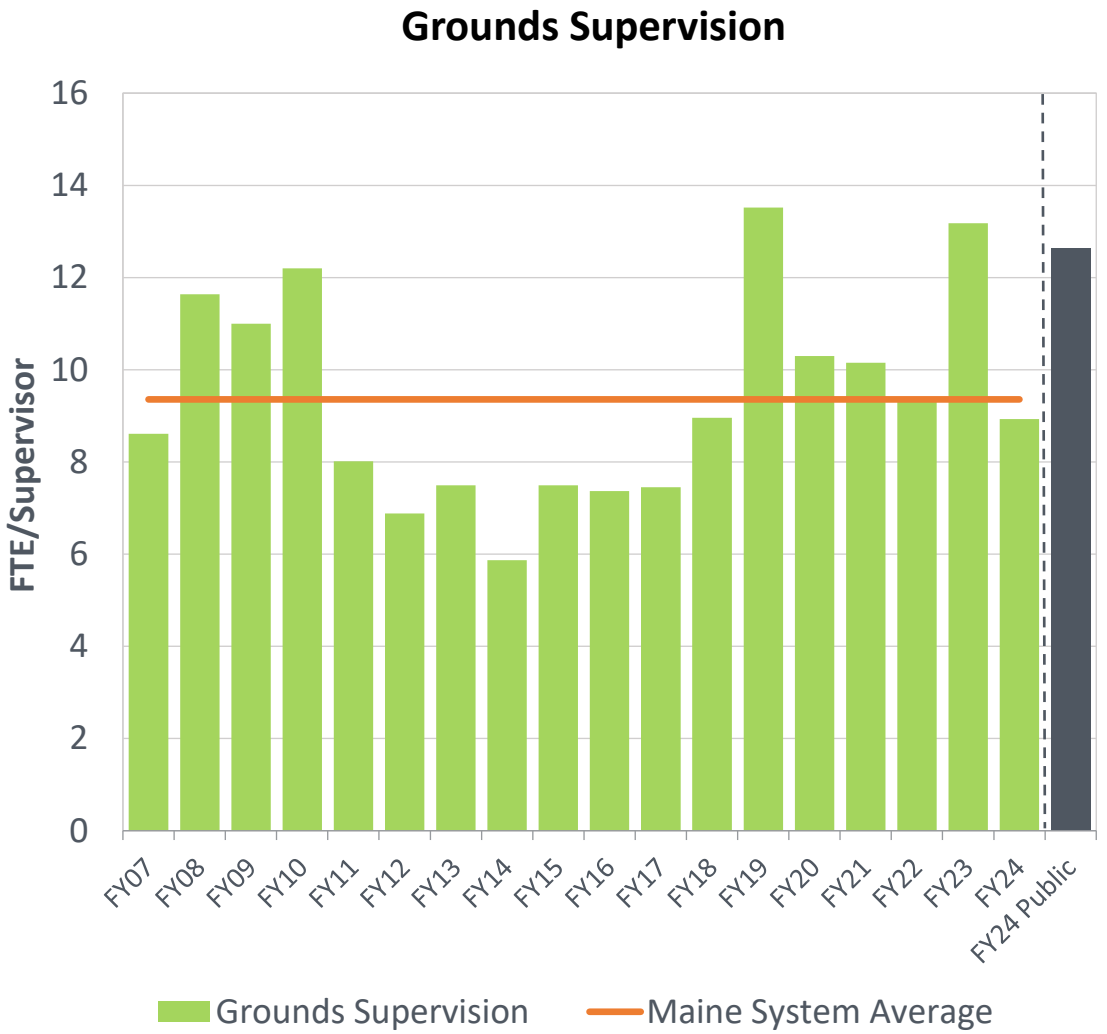
Grounds Staff Responsible for More Acres with Tighter Supervision





FY24 Public: Gordian Public Higher Ed. Database Average for FY24

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Concluding Comments

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- *UMS will need $54.5-88M each year to slow the aging process and mitigate deferred maintenance.*
- *Strategically invest into facilities that are critical to institutional mission by focusing on function of space and low NAVs.*
- *To reverse the aging process and begin to decrease deferred maintenance within the System inventory, significant space reductions will need to occur.*
- *Removing space from the inventory will improve building usage at each campus.*
- *UMS is experiencing staffing shortages and talent loss due to wage discrepancies within surrounding areas. According to Gordian's 2024 State of Facilities, an estimated 40% of current building industry workers will retire by 2030, while hiring efforts are hindered by significant wage gaps in local communities.*

Questions & Discussion