



Setting a Facilities Baseline

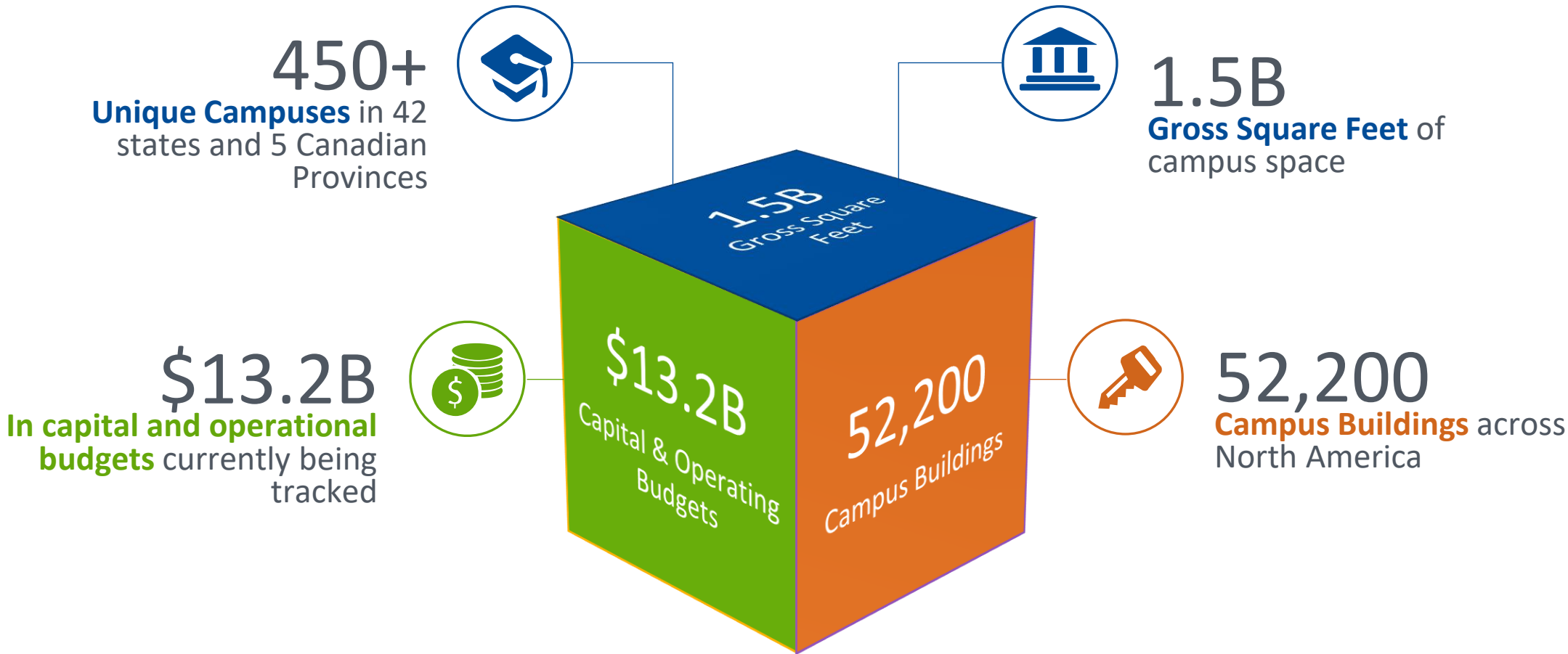
University of Maine System

December 17, 2024

Victoria Vasile and Emma Viles

Gordian and Sightlines

Owners of the largest verified facilities database in higher education

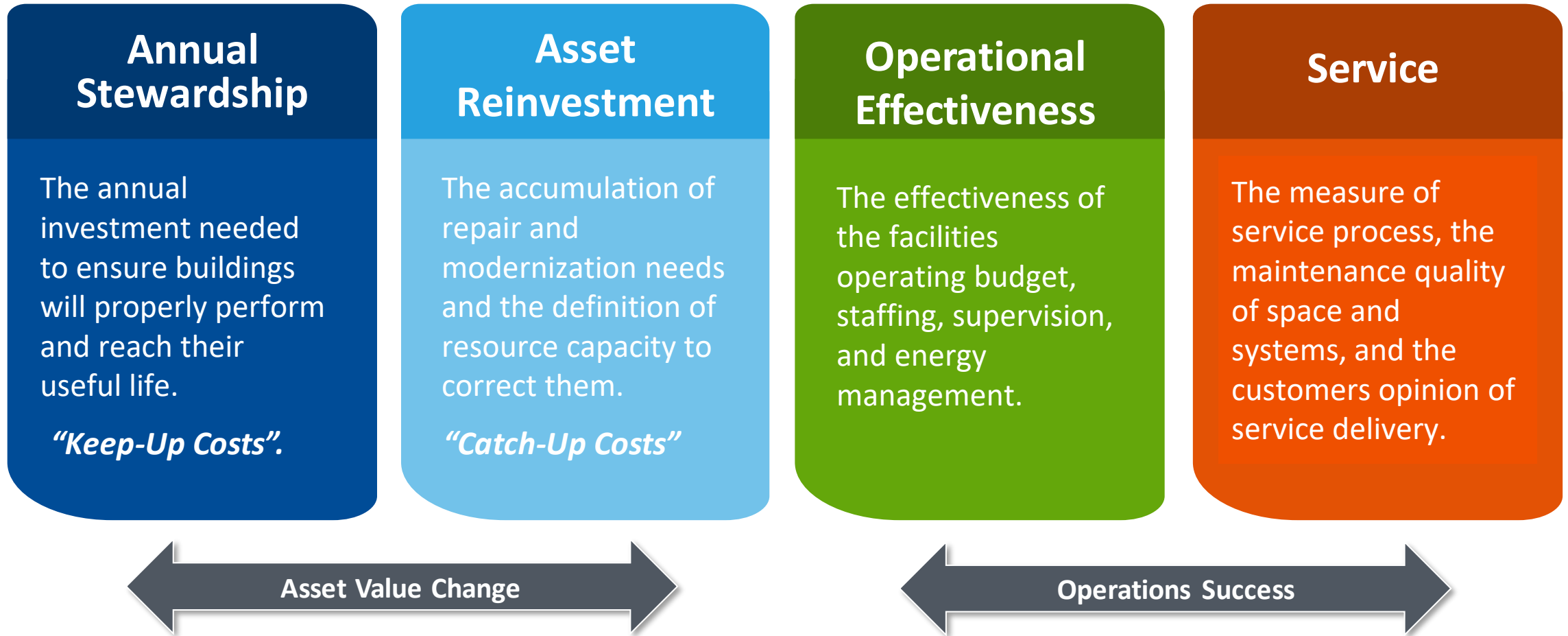


Sightlines members serve **over 20%** of US College Enrollment

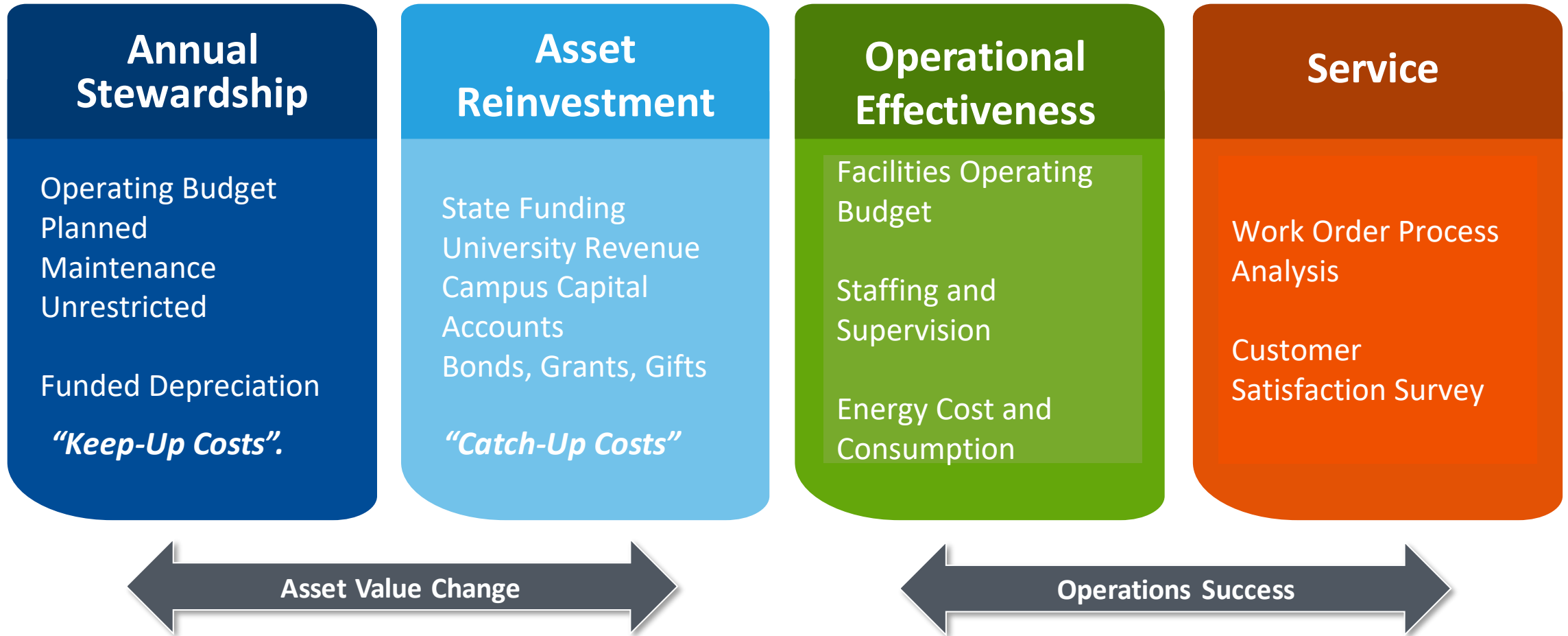
Introduction

- **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)



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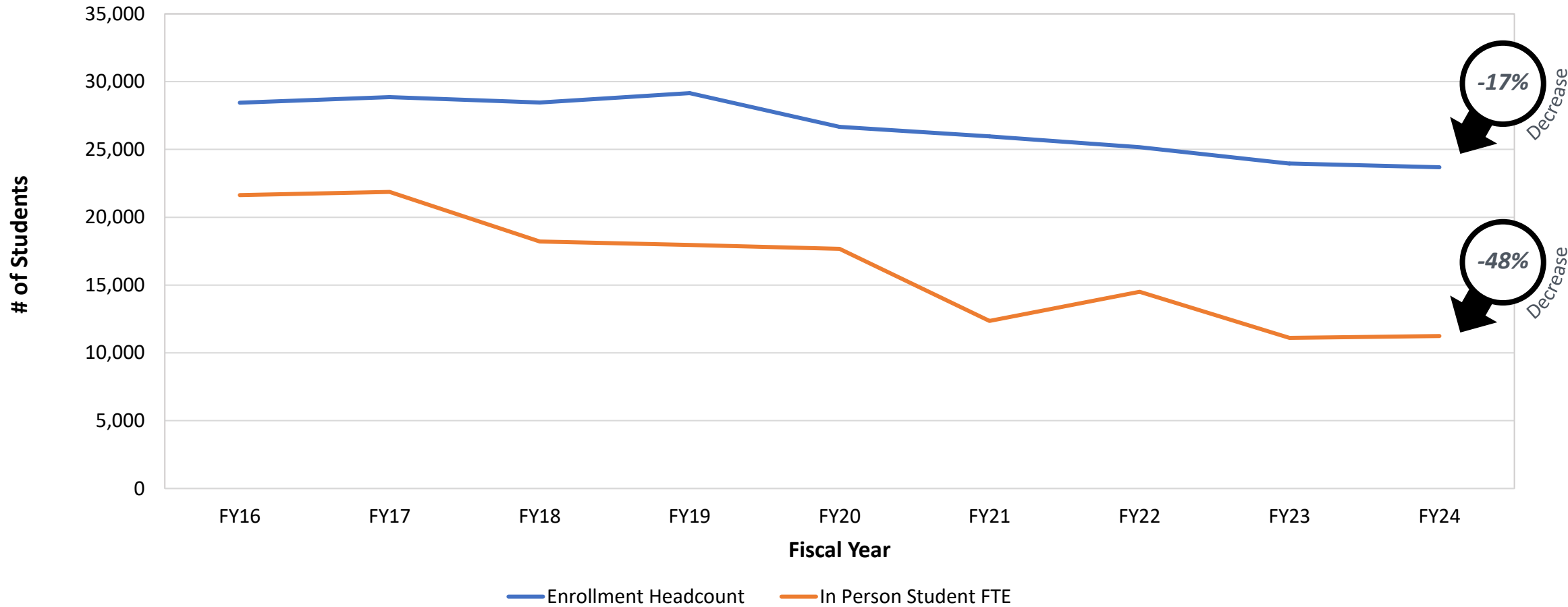
UMaine System: Core Observations

- 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.

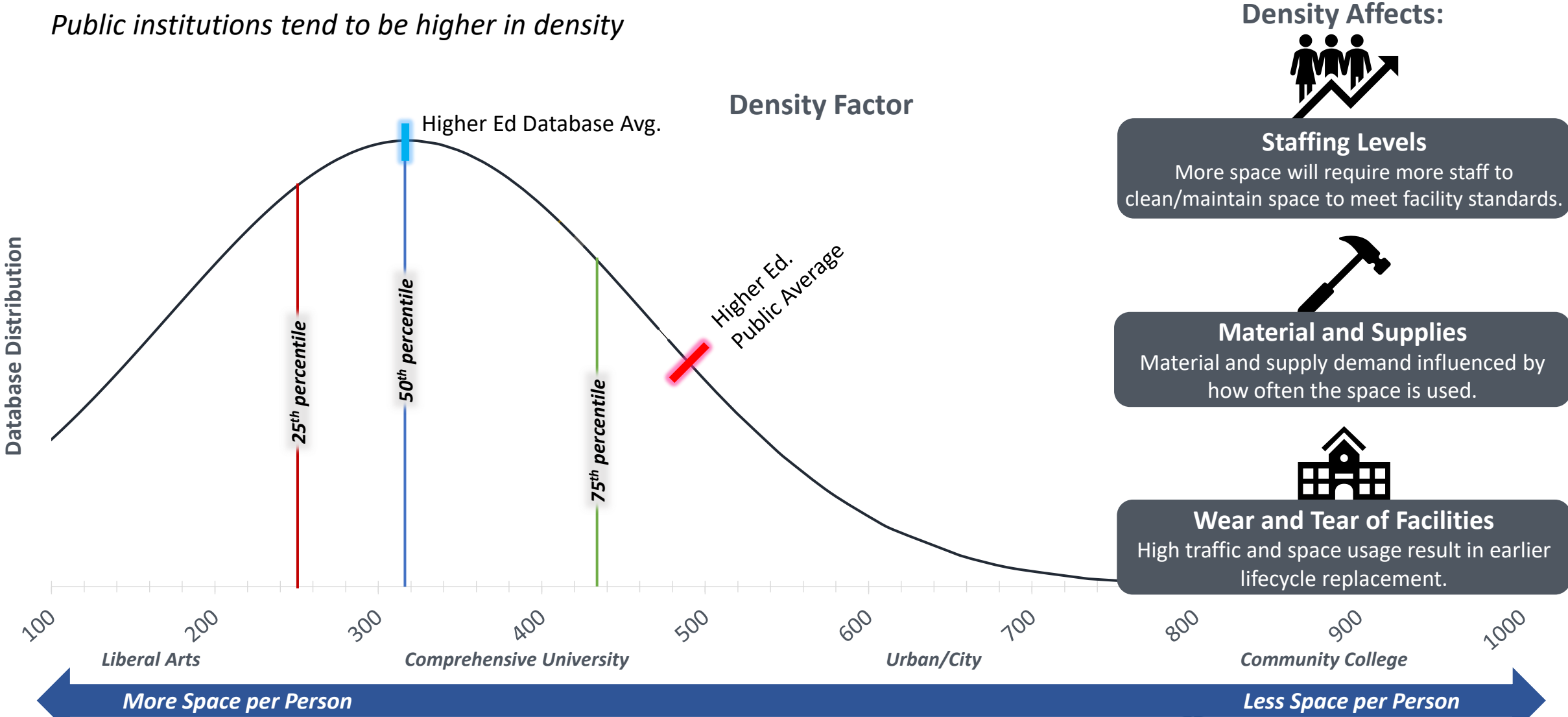
Building Use Shifts as In Person Student FTEs Decrease

Enrollment vs In Person Student FTE



Density Measures Campus Population per 100k GSF

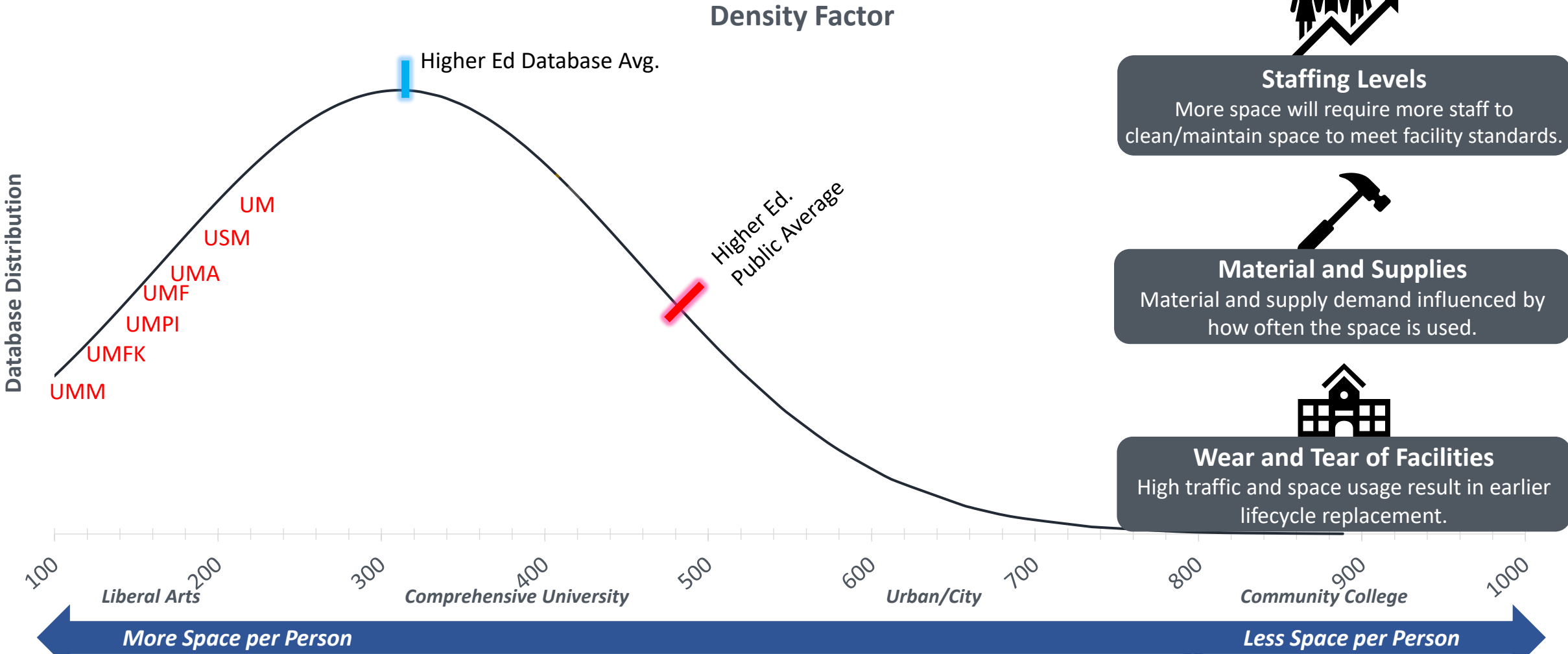
Public institutions tend to be higher in density



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

Density Across the System

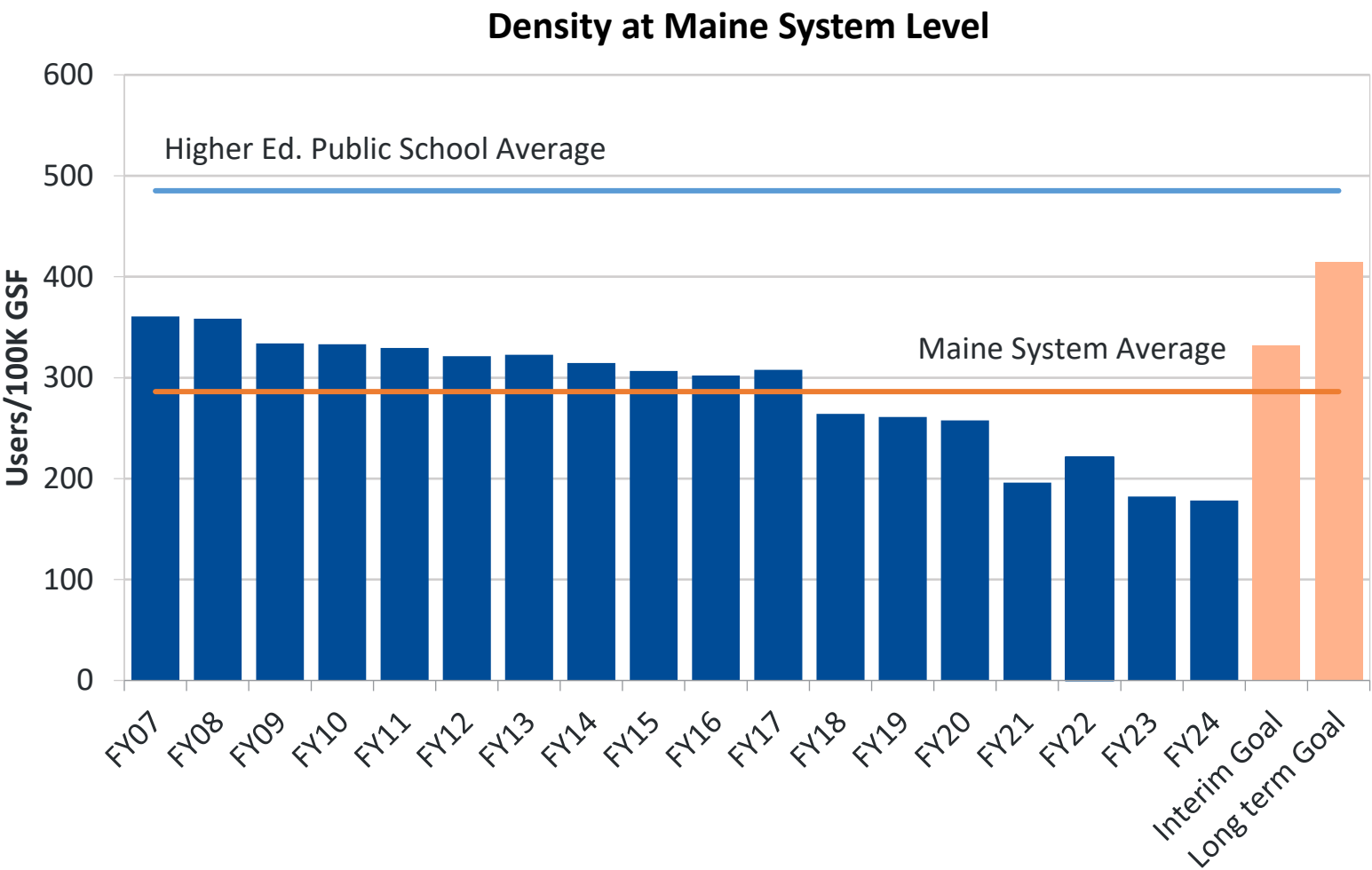
Every building increases the capital and operational resources that are needed



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

Density Across the Maine System Decreases

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



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.

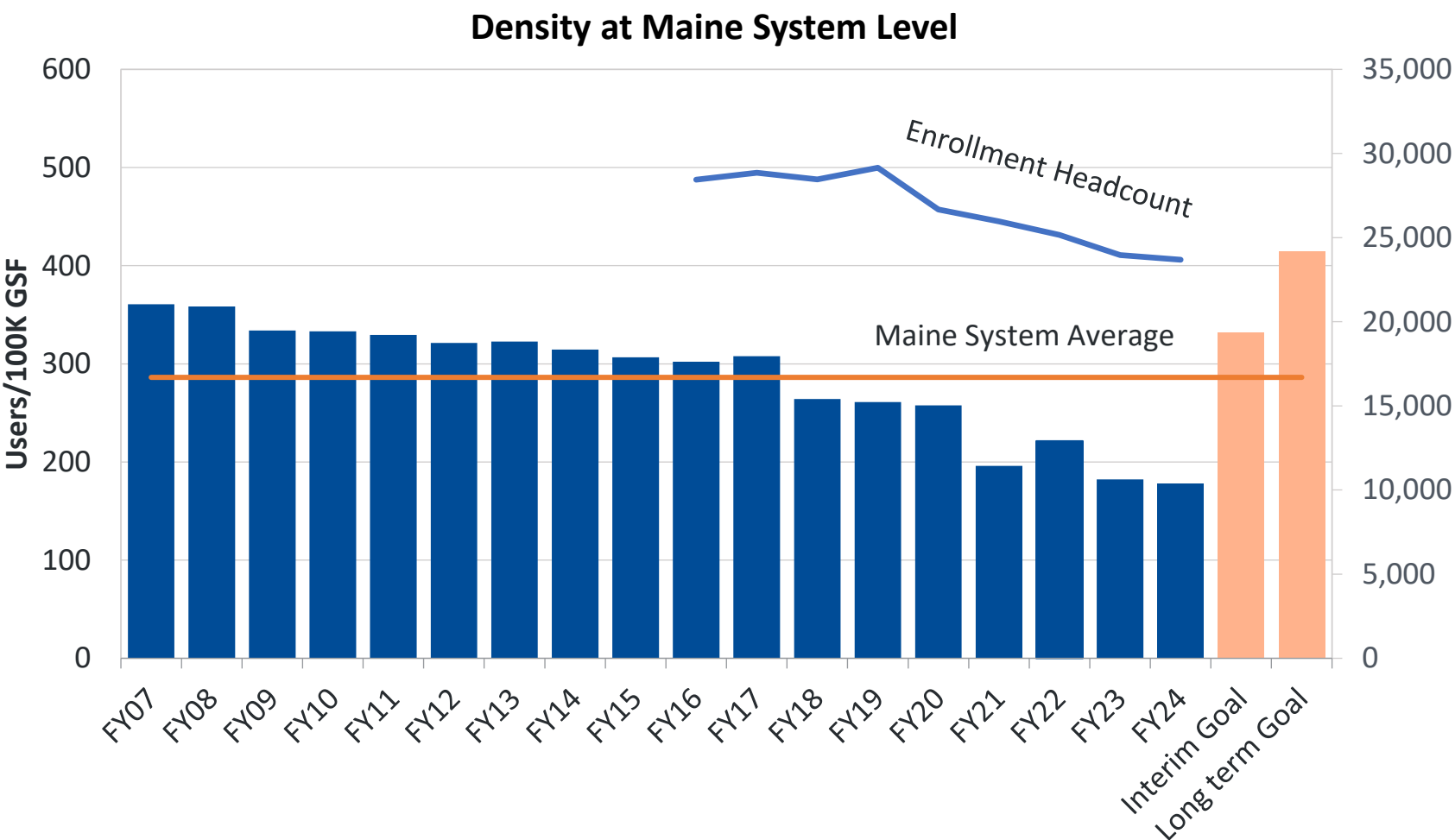


Wear and Tear of Facilities
High traffic and space usage result in earlier lifecycle replacement.

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Users include all student, faculty and staff FTEs
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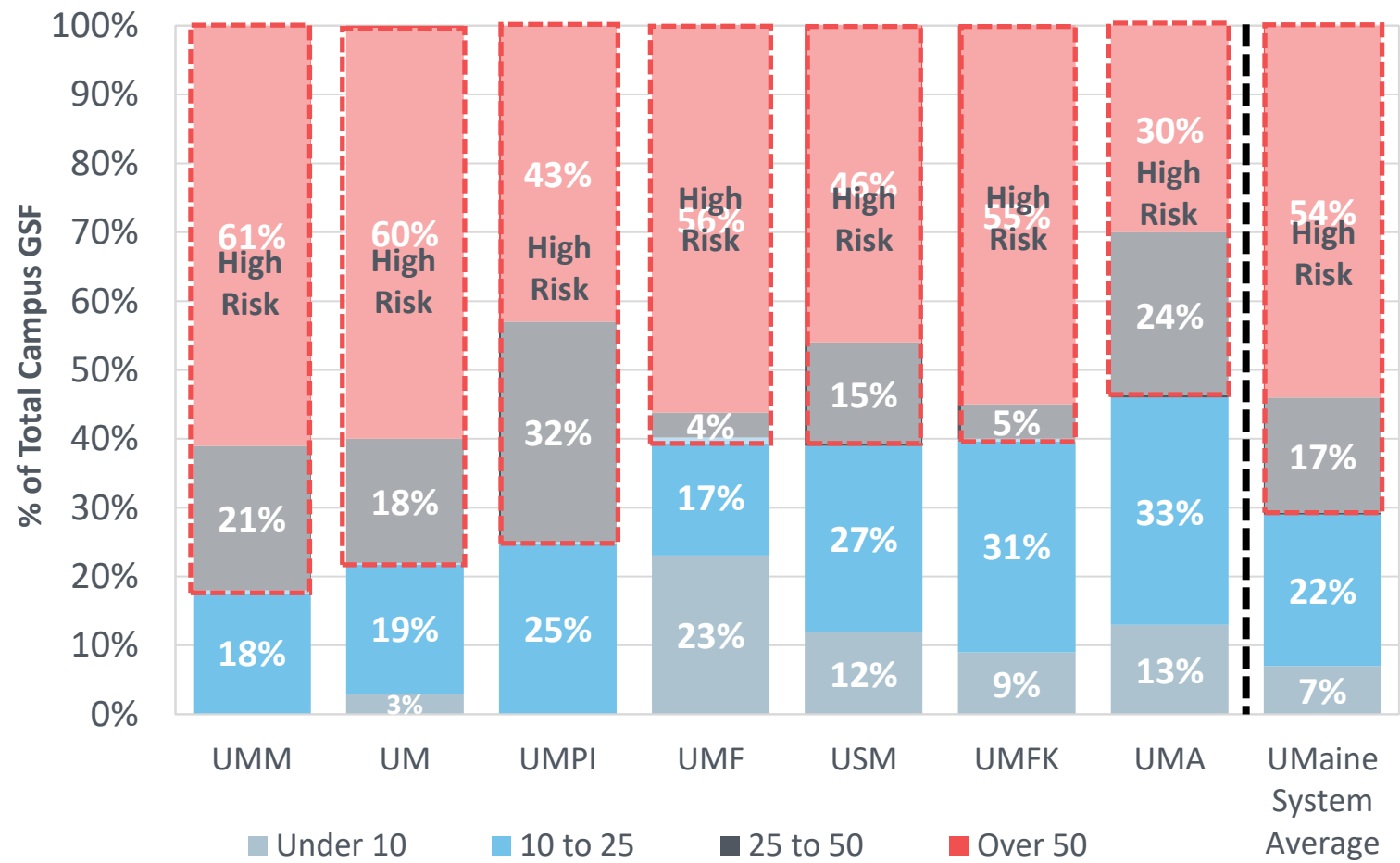
Users include all student, faculty and staff FTEs

Measures campus building usage on a daily basis

Creating Additional Context With Age Profile

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

Campus Renovation Age by Category



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.

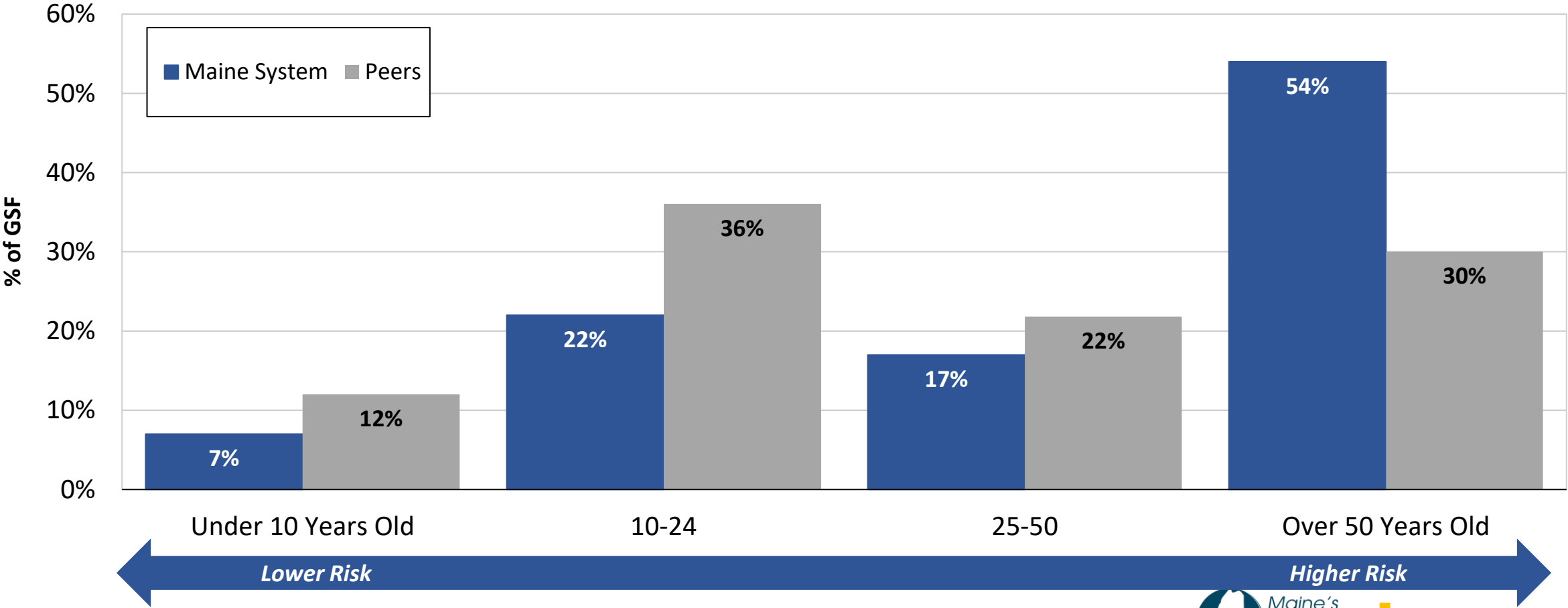
Operational Demands:

- 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.

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

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

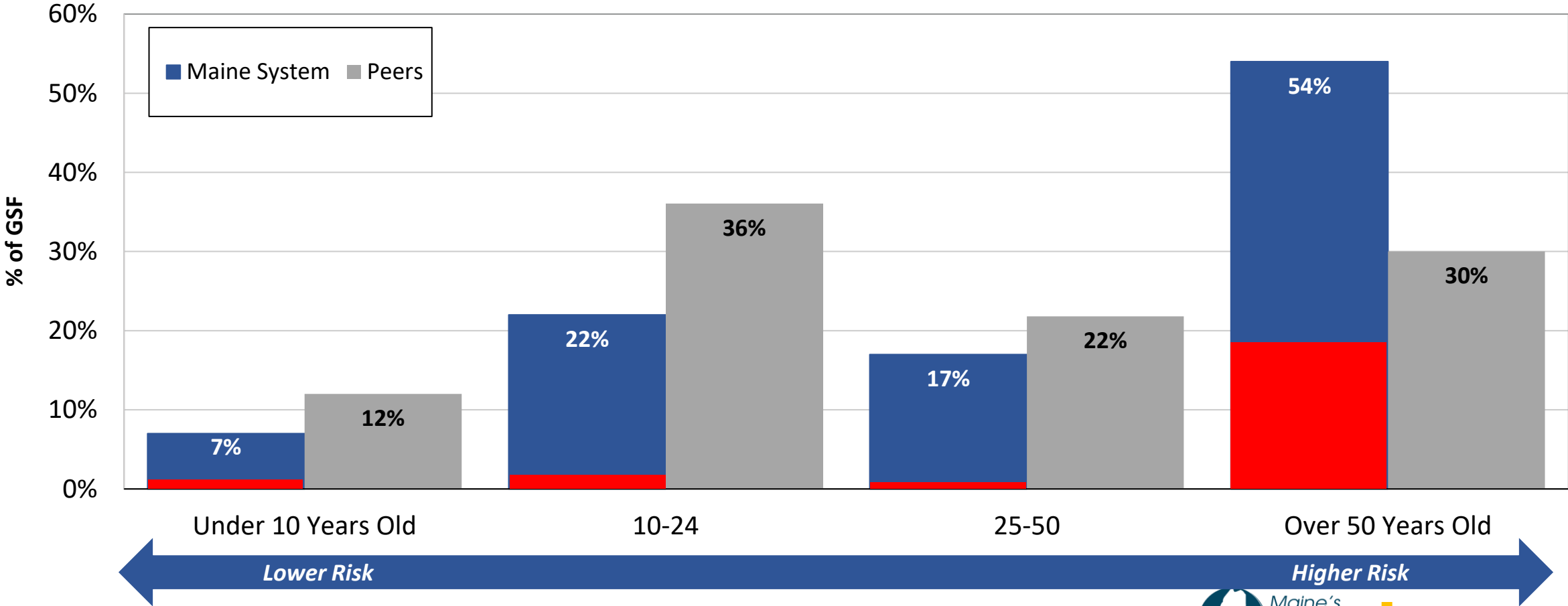
FY24 Renovation Age Distribution
UMaine System vs. Peers



Residence Hall Portfolio is Highest Risk on Campus

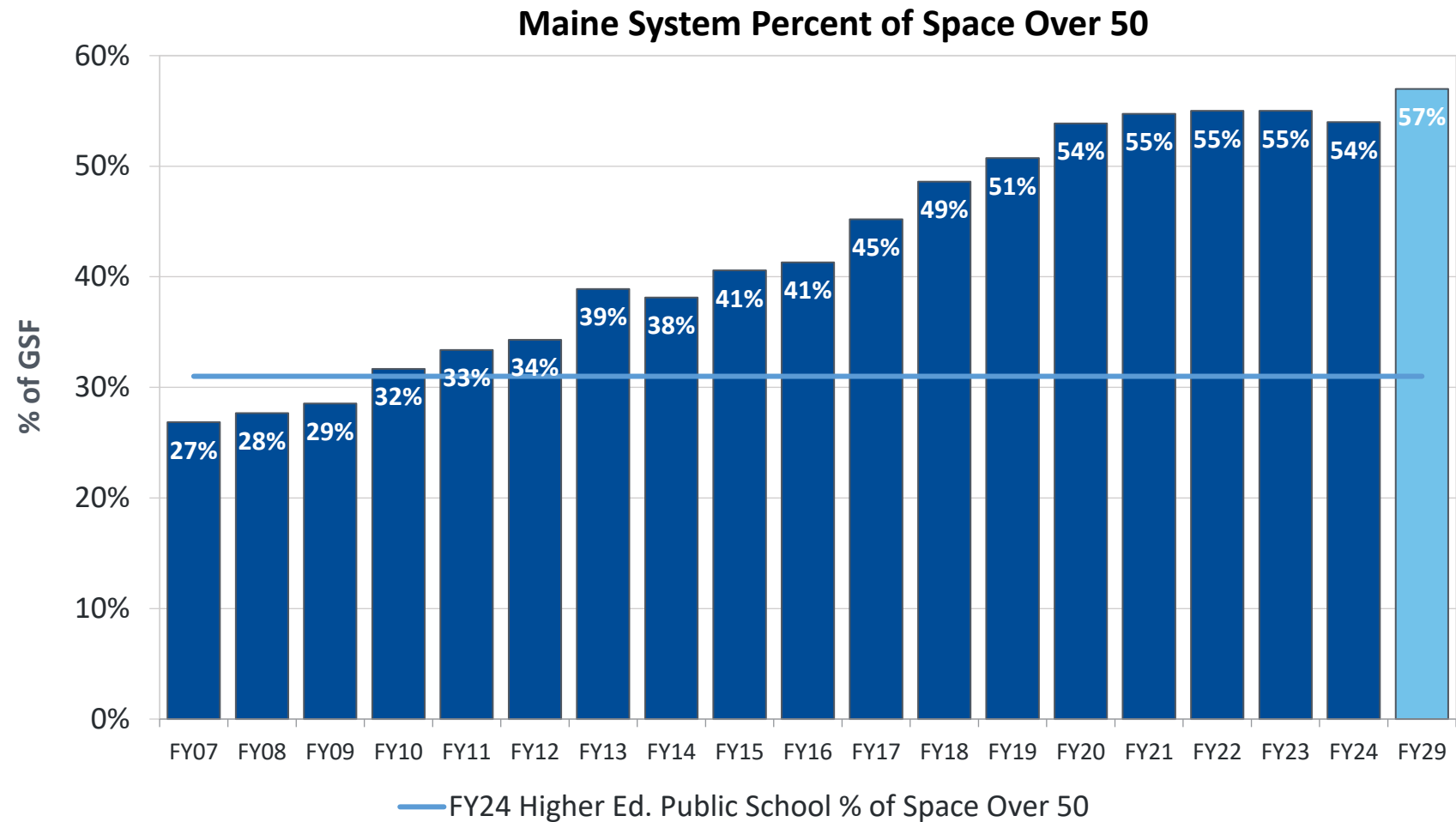
69% of residence halls are currently over 50 years old

FY24 Renovation Age Distribution
UMaine System vs. Peers



Investment and New Construction Lowers Aging of Facilities

Space Will Continue to Age Without Divestment or Renovations



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:
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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.

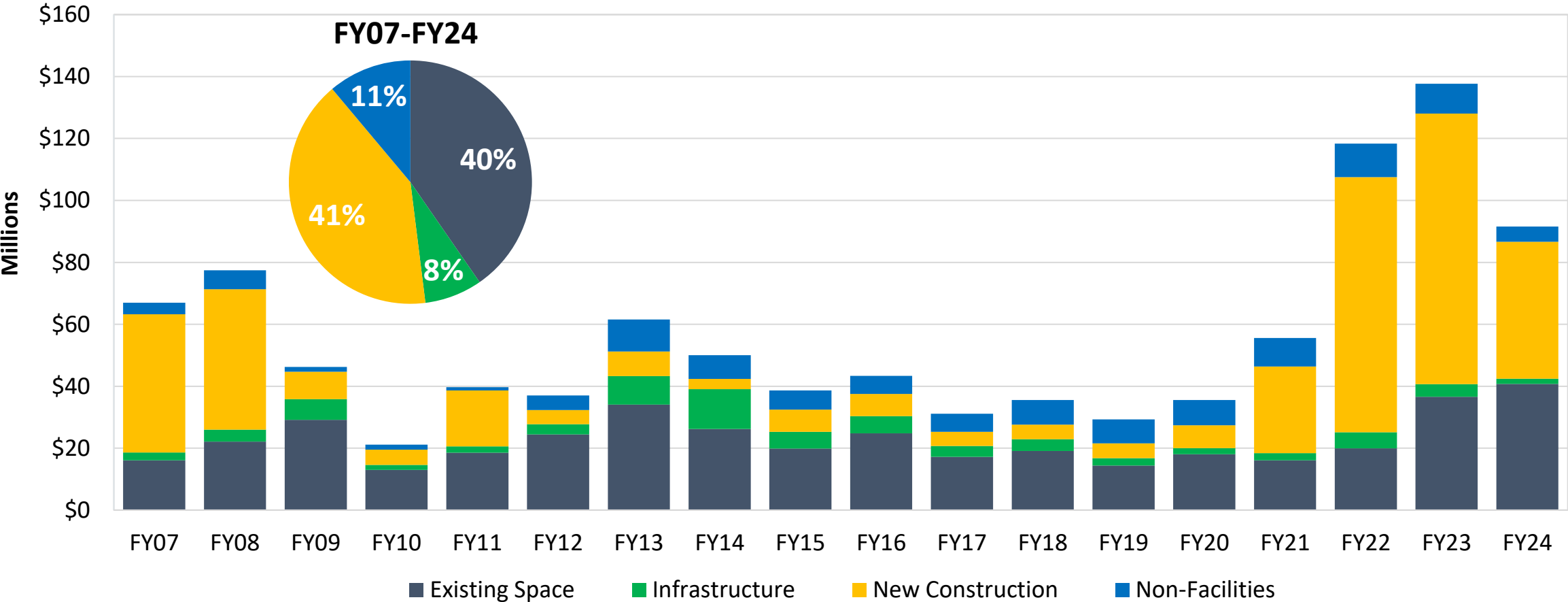
Focus on PM:
Significant need for PM in young systems.

Asset Reinvestment

UMS' Investments Split Between Existing & New Space in FY24

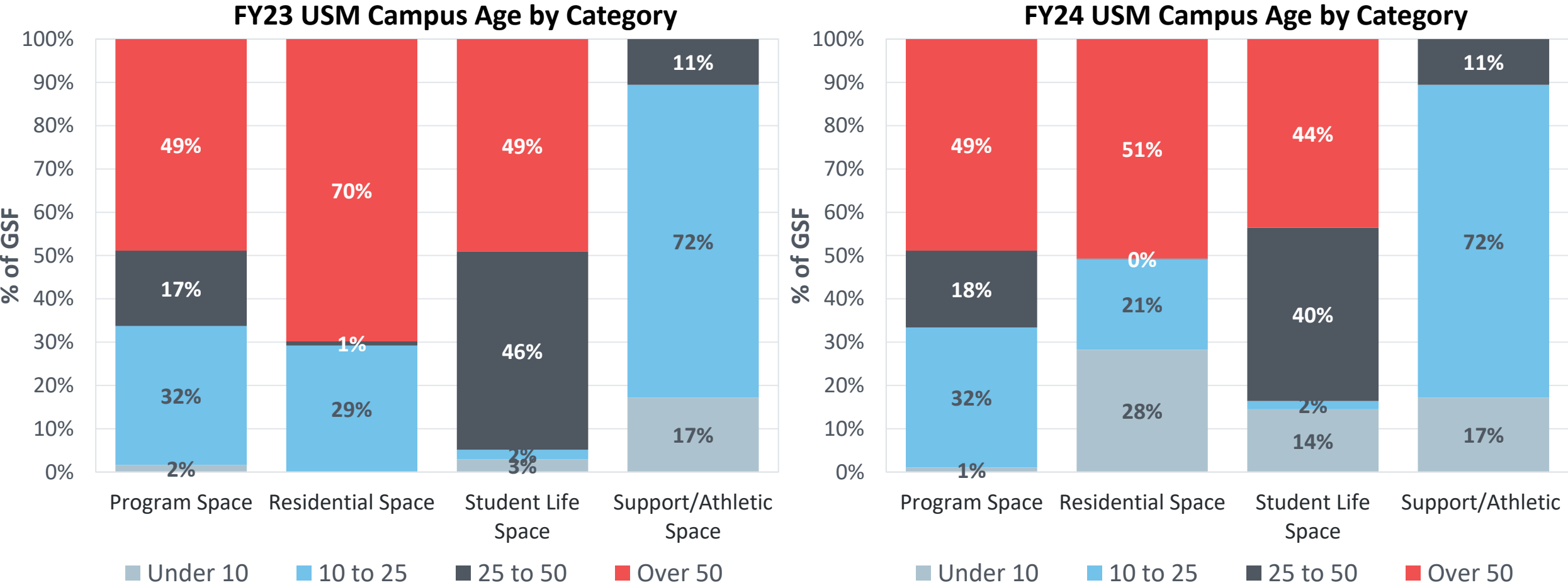
Funding into existing space increased to its highest level since 2007 in FY24

Total Investment Profile



Case Study: New Construction at USM Shifts Age Profile

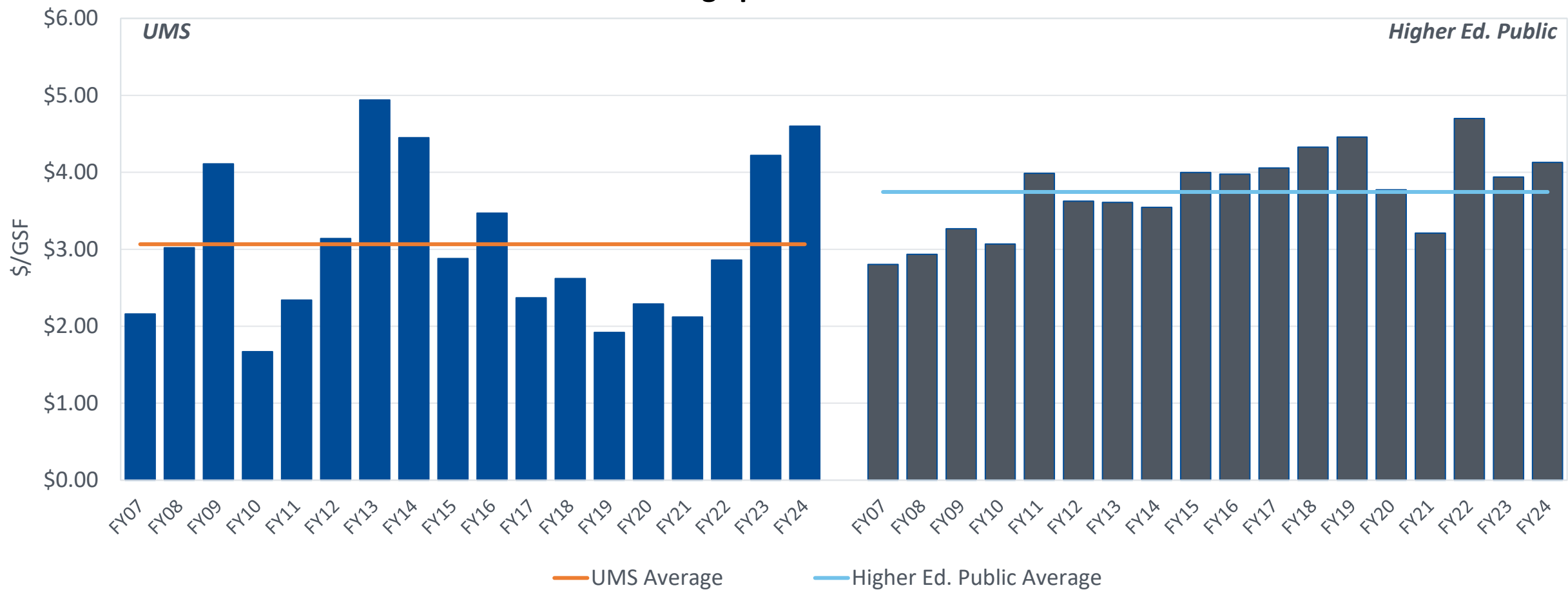
Residential and Student Life portfolios risk redistributed with Portland Commons and McGoldrick Center for Career and Student Success



Banner Year for Existing Space Investment at UMS

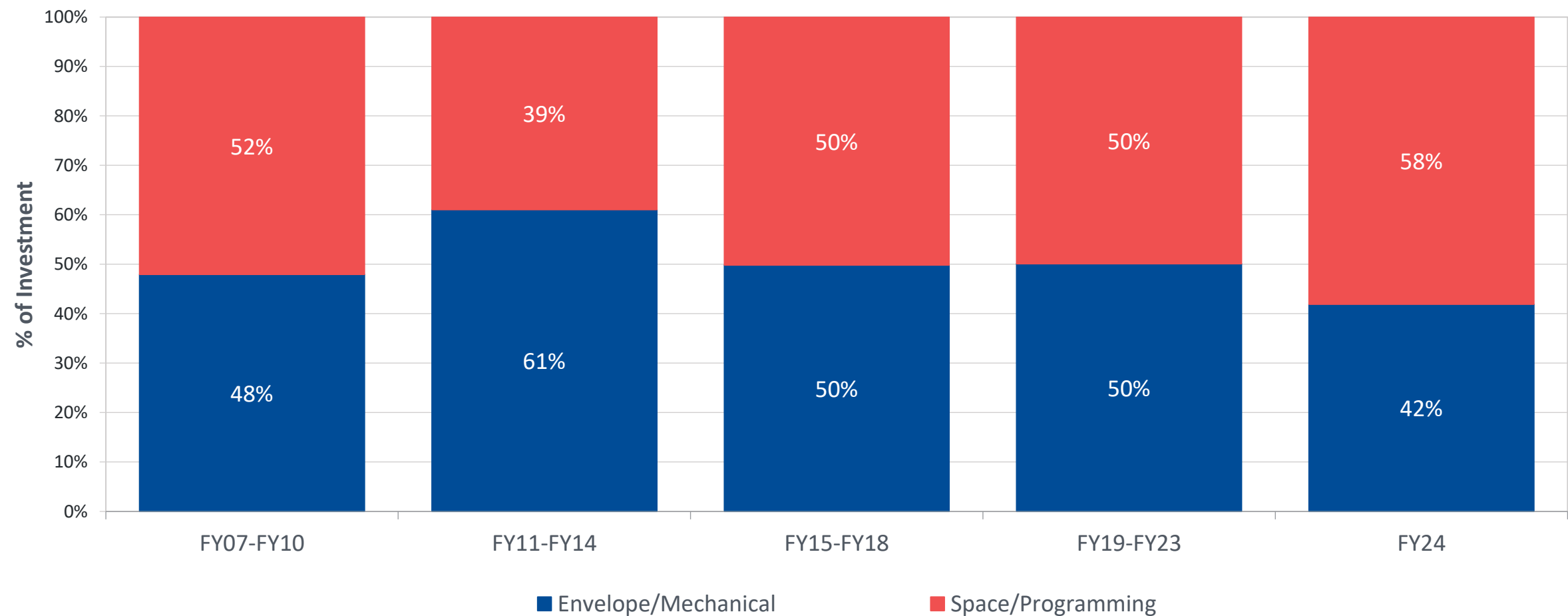
UMaine System exceeded the public peers spending by \$.47/GSF in FY24

Existing Space Investment vs. Peers

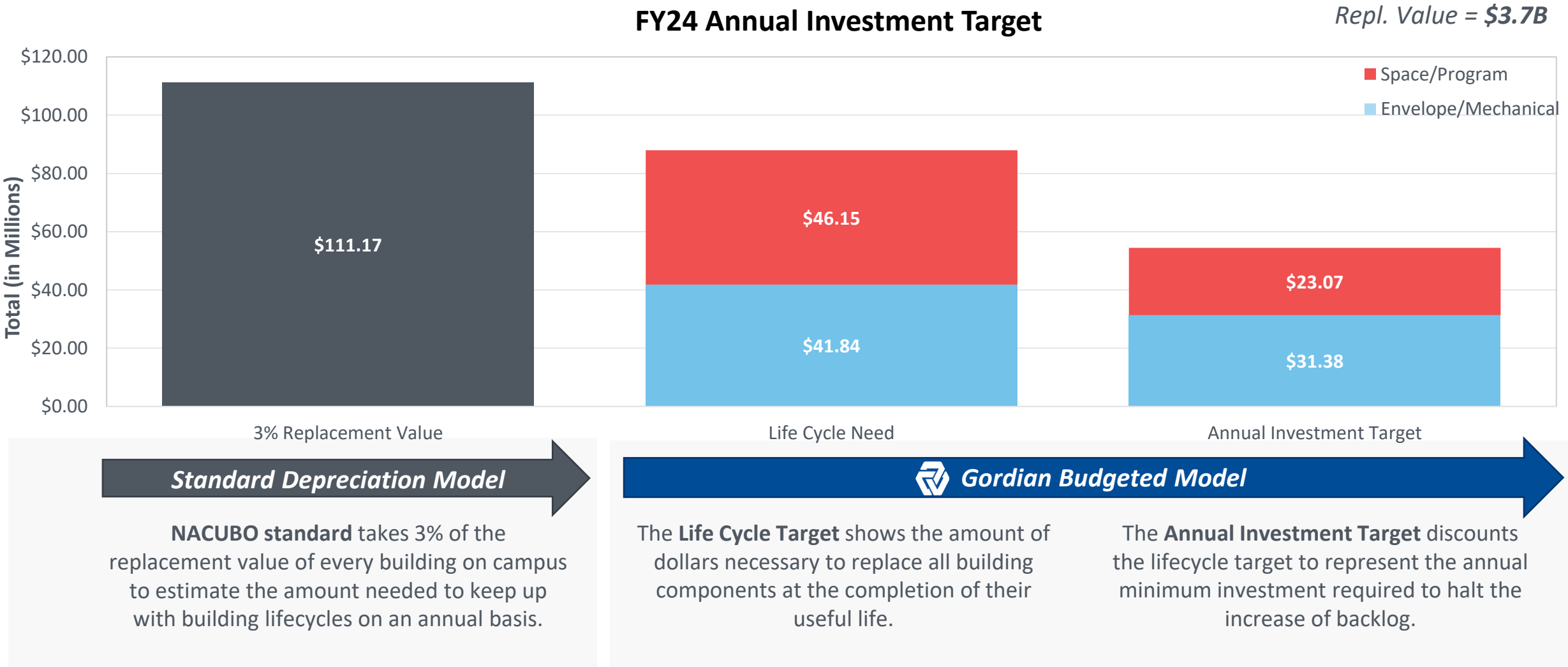


Investment Shifts Towards Space/Program in FY24

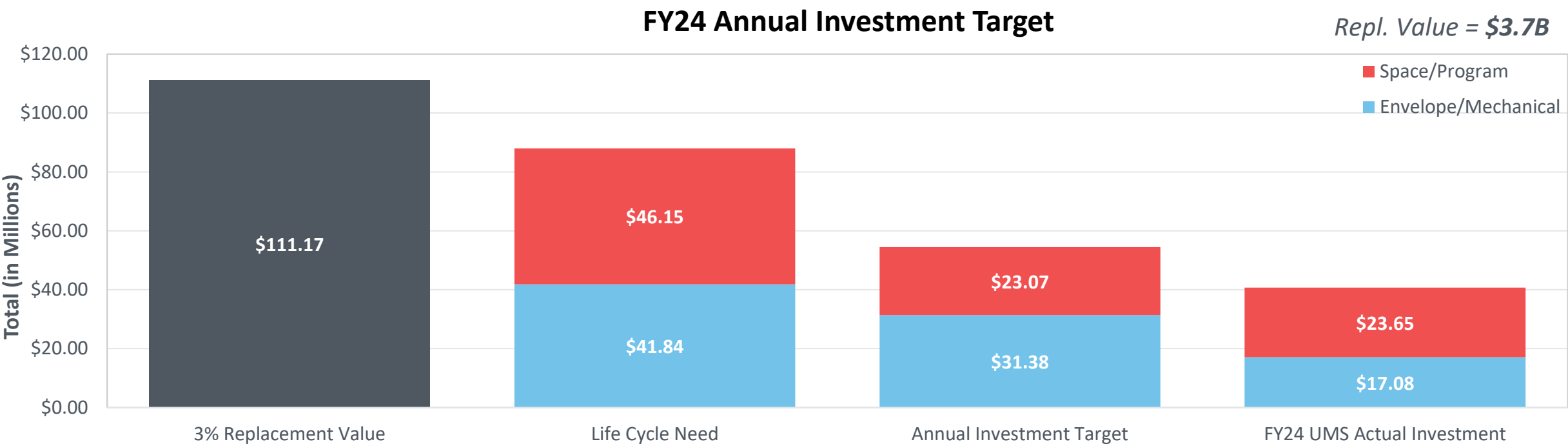
UMS Investment Over Time



Defining an Annual Investment Target



Performance Against 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

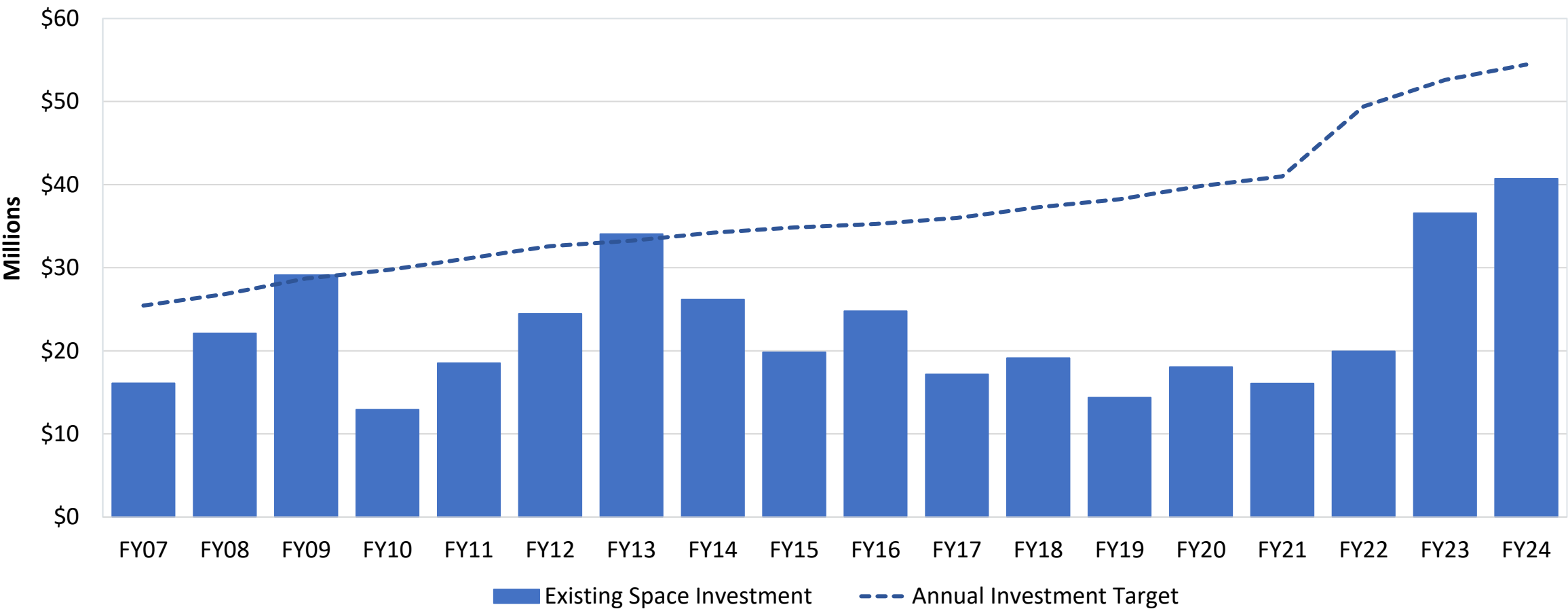
The **Life Cycle Target** shows the amount of dollars necessary to replace all building components at the completion of their useful life.

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

UMS Continues to Close the Gap to Target

UMS existing space spending reached 74% to target in FY24

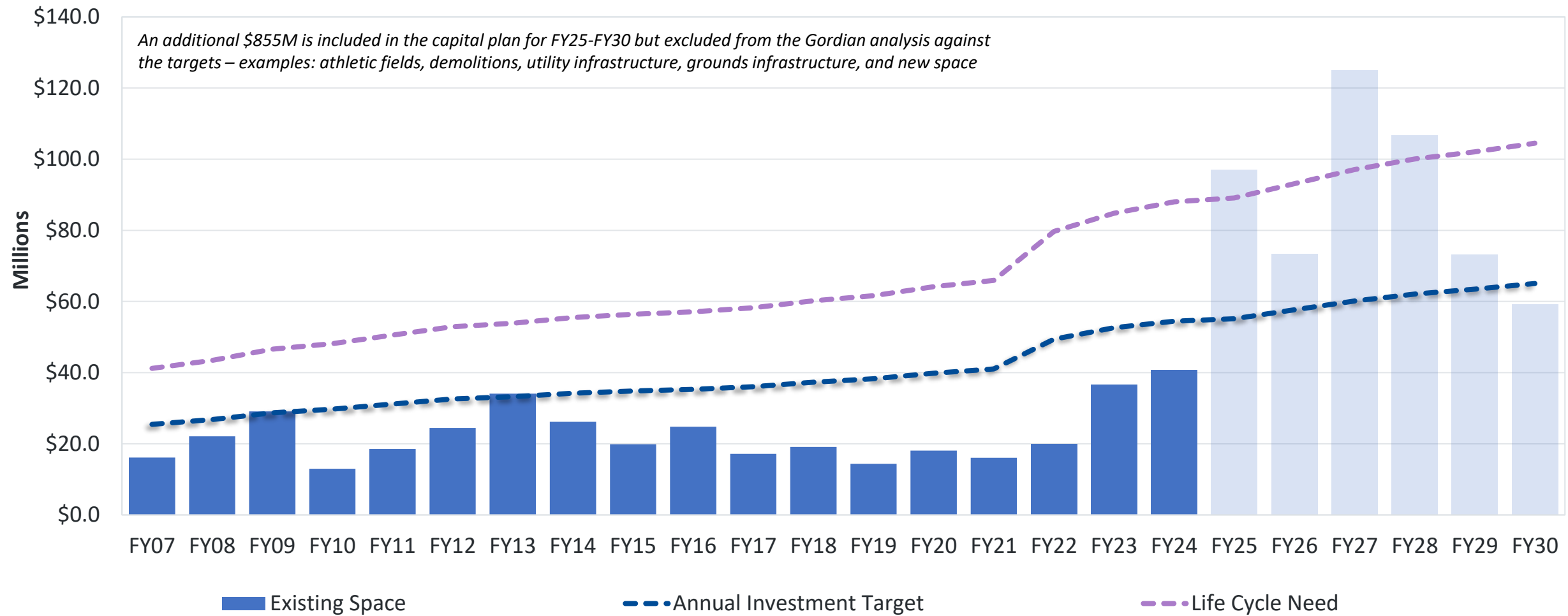
Existing Space Investment vs. Annual Target



*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.

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

Capital Plan in Existing Space vs Funding Target Over Time

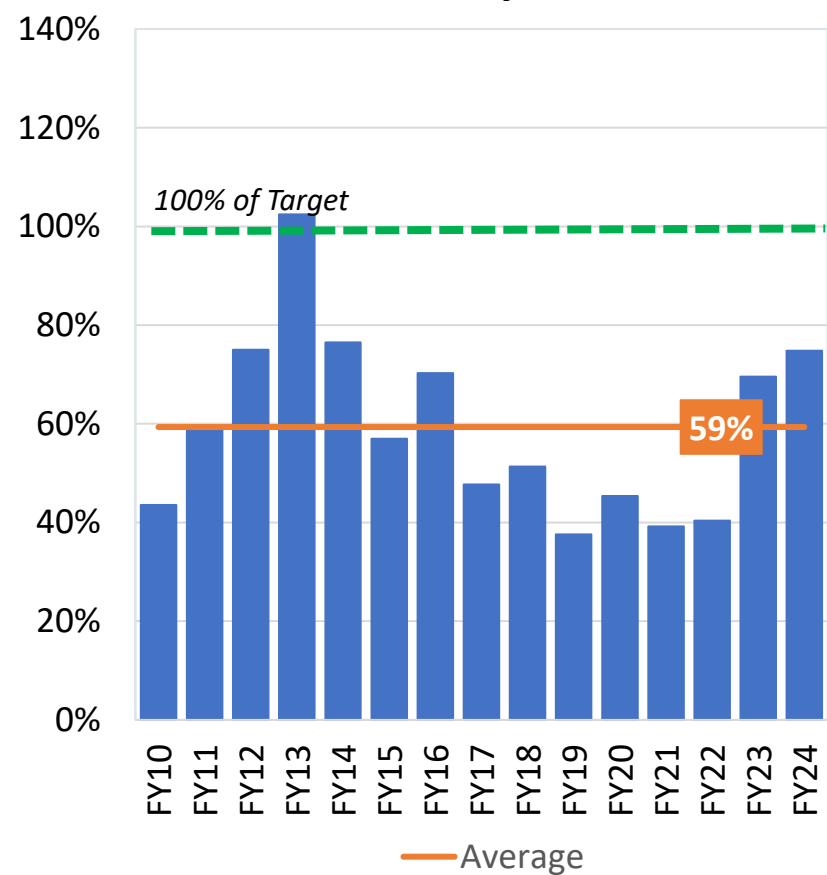


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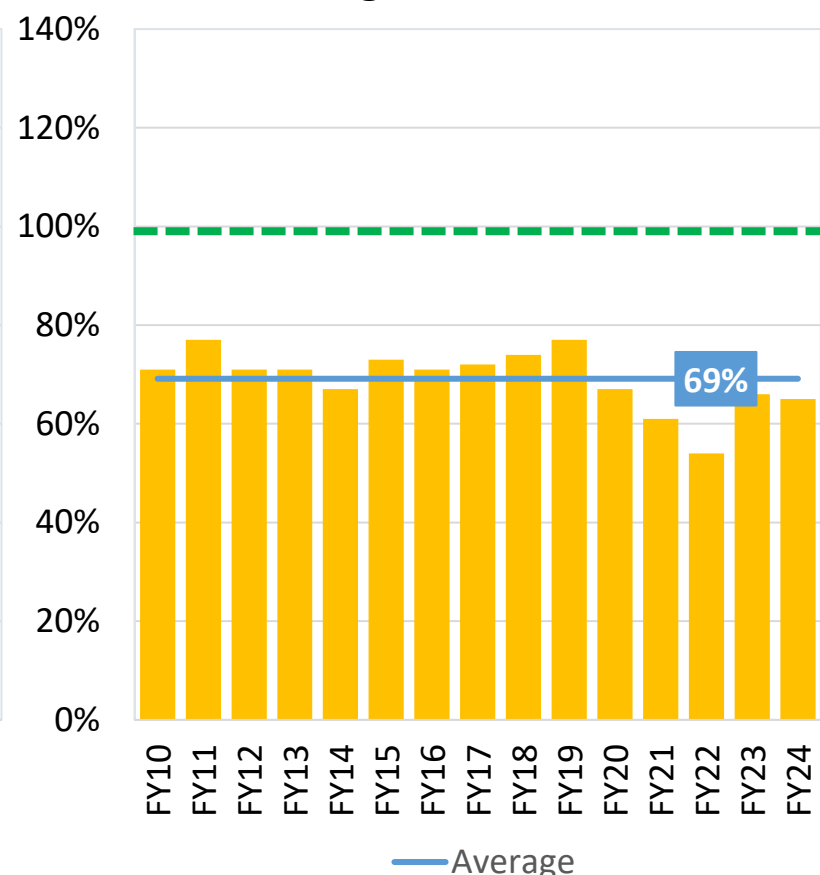
UMS Investments Are Below Industry Average in FY24

Investment as % of Target

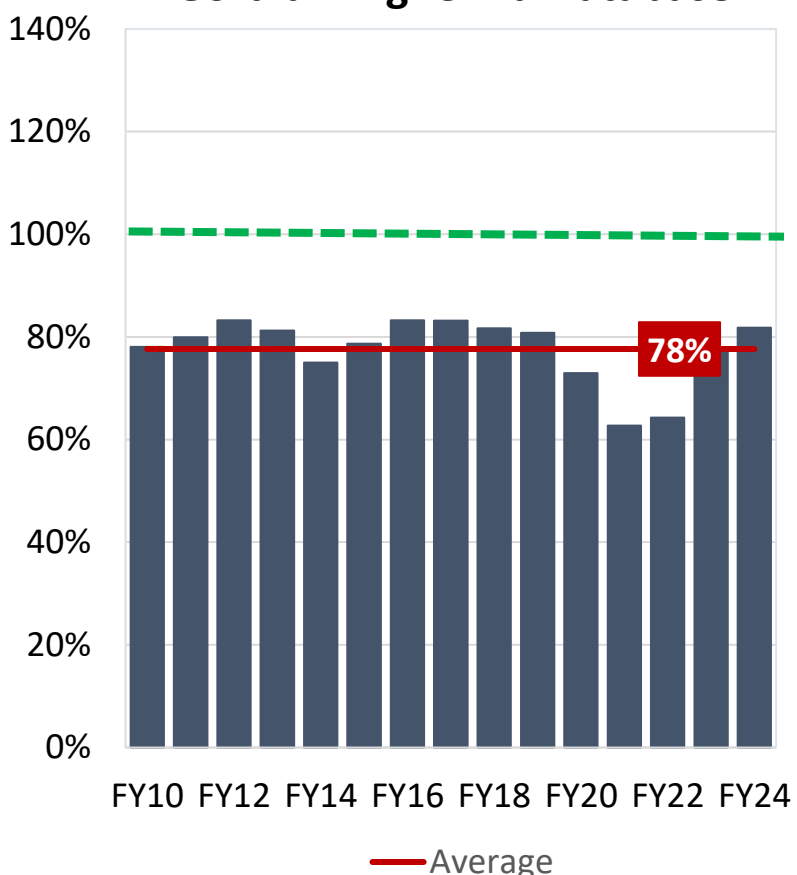
UMaine System



Public Higher Ed Database

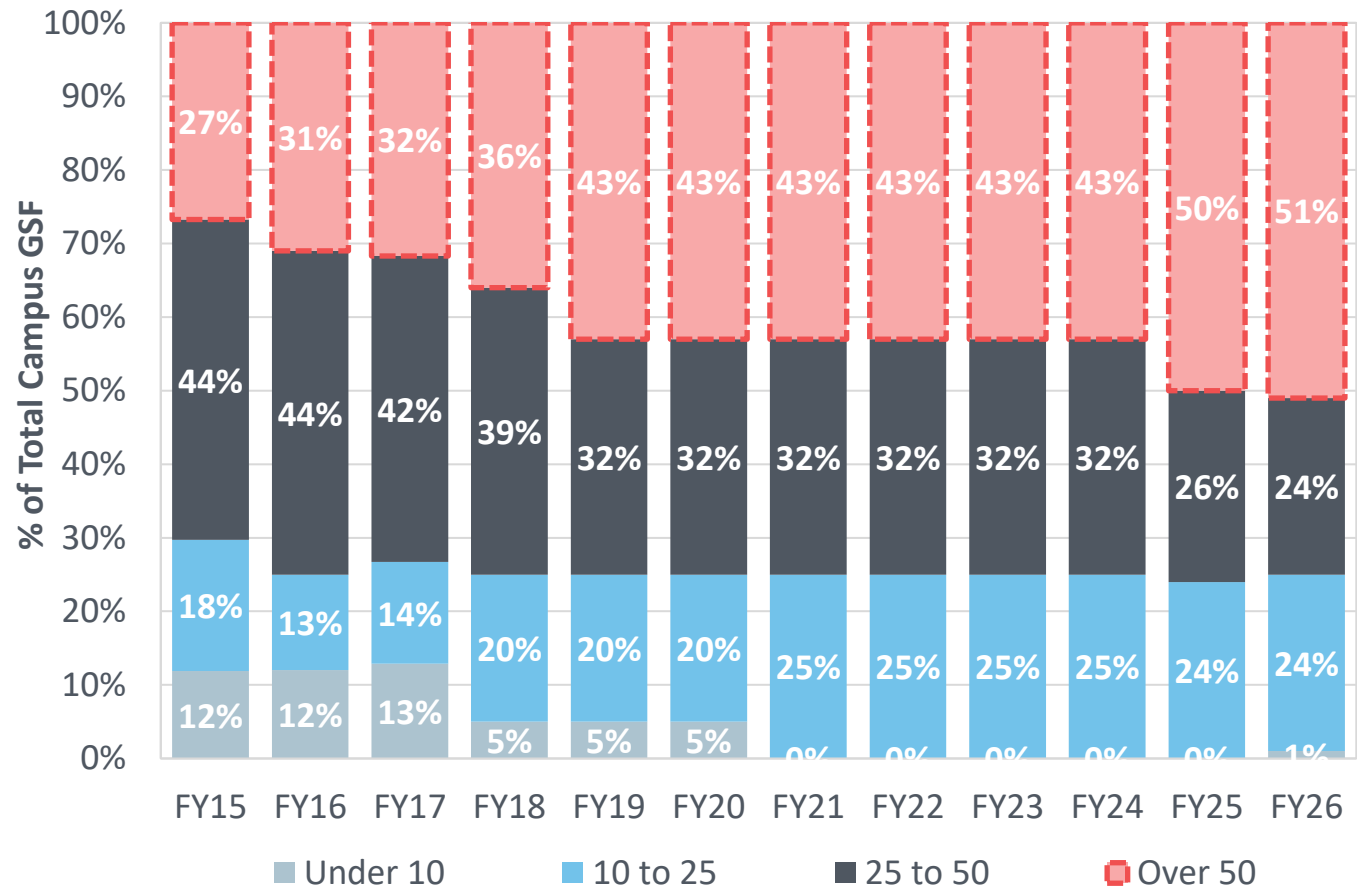


Gordian Higher Ed Database

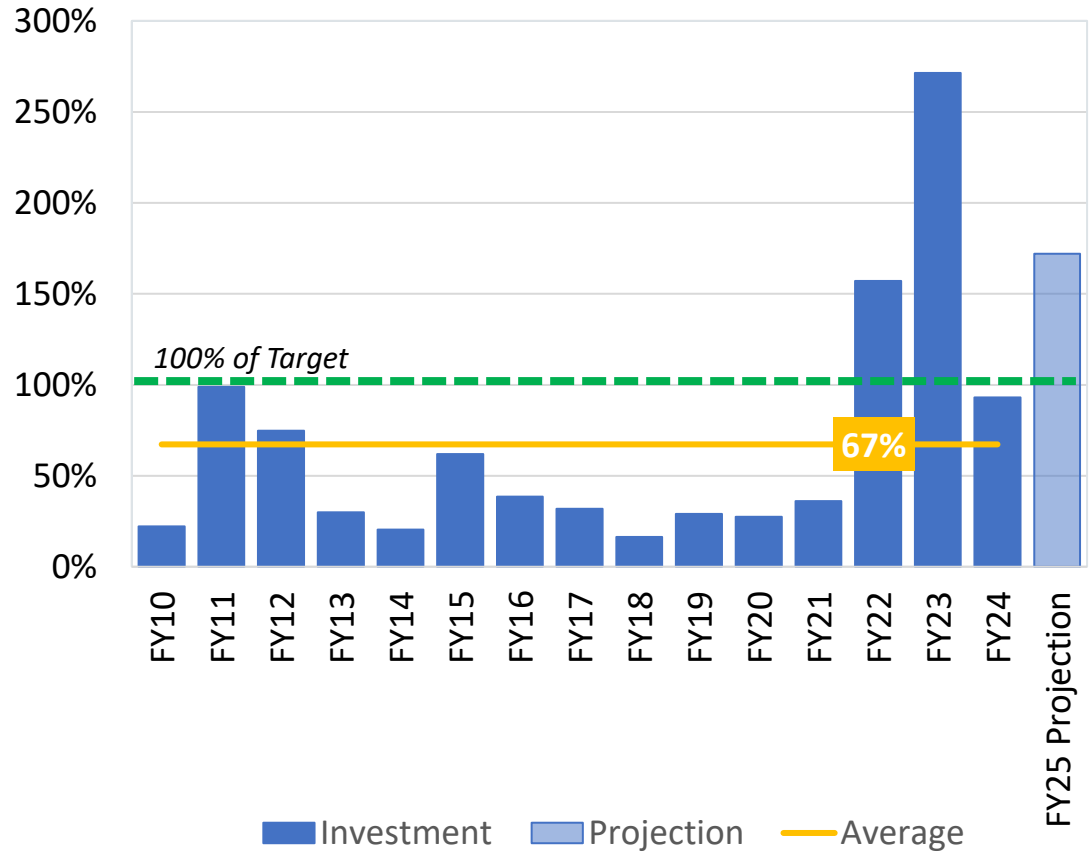


Case Study: UMPI Future Divestment Impacts Campus Investment to Target

Campus Renovation Age by Category



UMPI Investment to Target



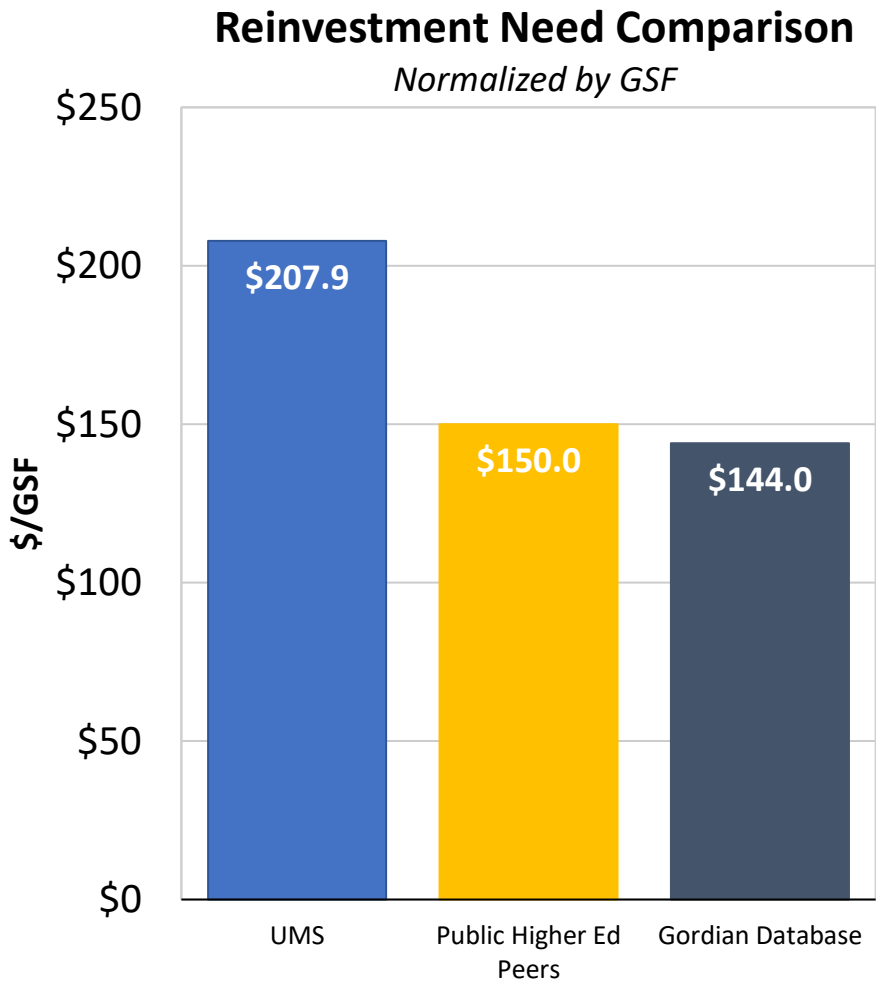
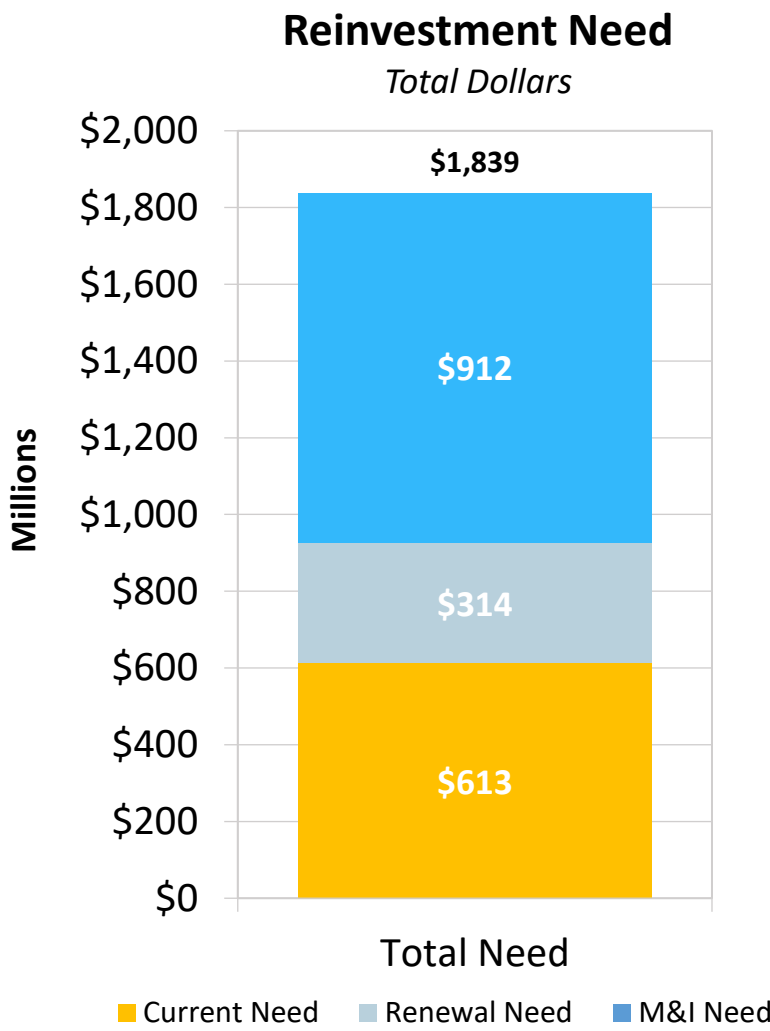
* Houlton Center offline in FY25 and Skyway Dorm offline in FY26

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



Using Net Asset Value to Determine Investment Strategy

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

NAV Calculation:

Replacement Value – Reinvestment Need

Replacement Value

Example:

Gordian Hall

Constructed in 2020

Estimated Replacement Value: \$20,000,000

Total Reinvestment Need: \$1,000,000

NAV: 95%

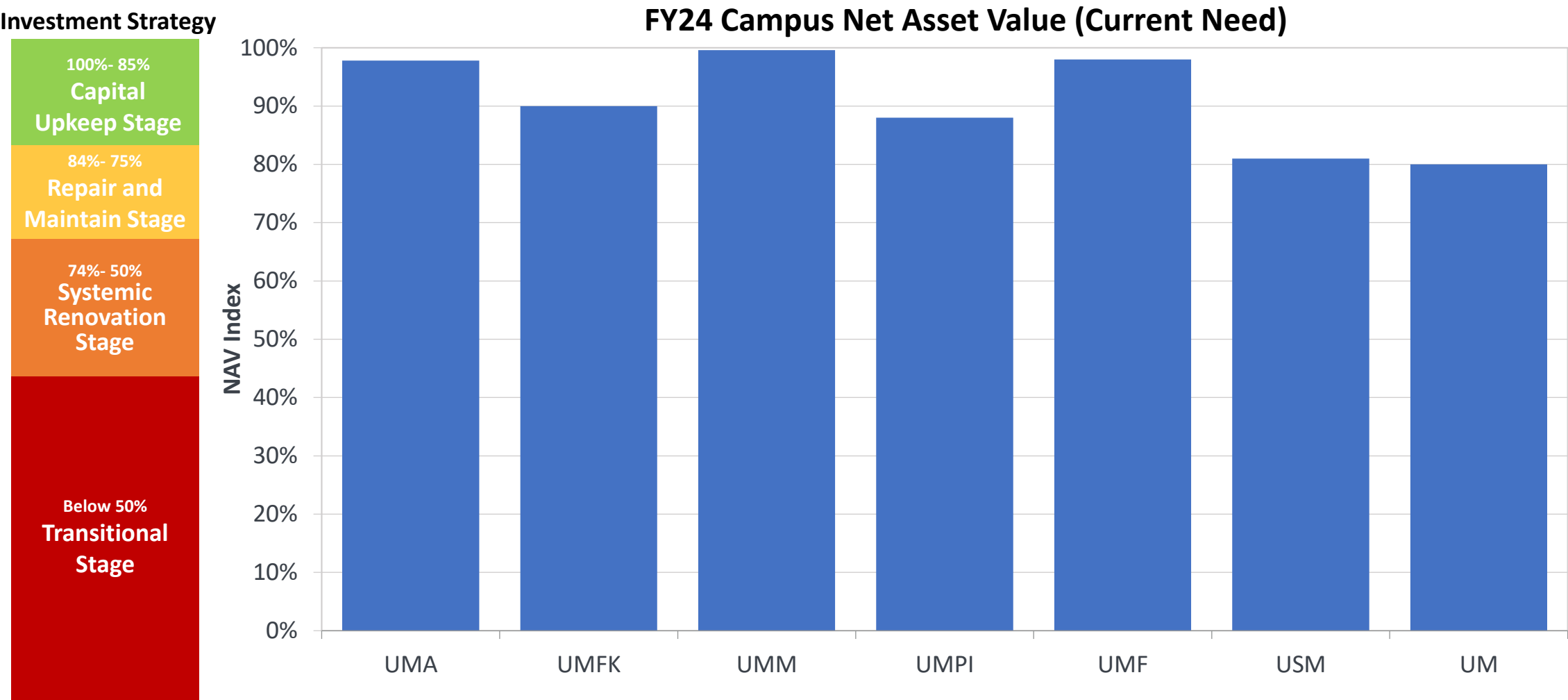


Using Net Asset Value to Determine Investment Strategy

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

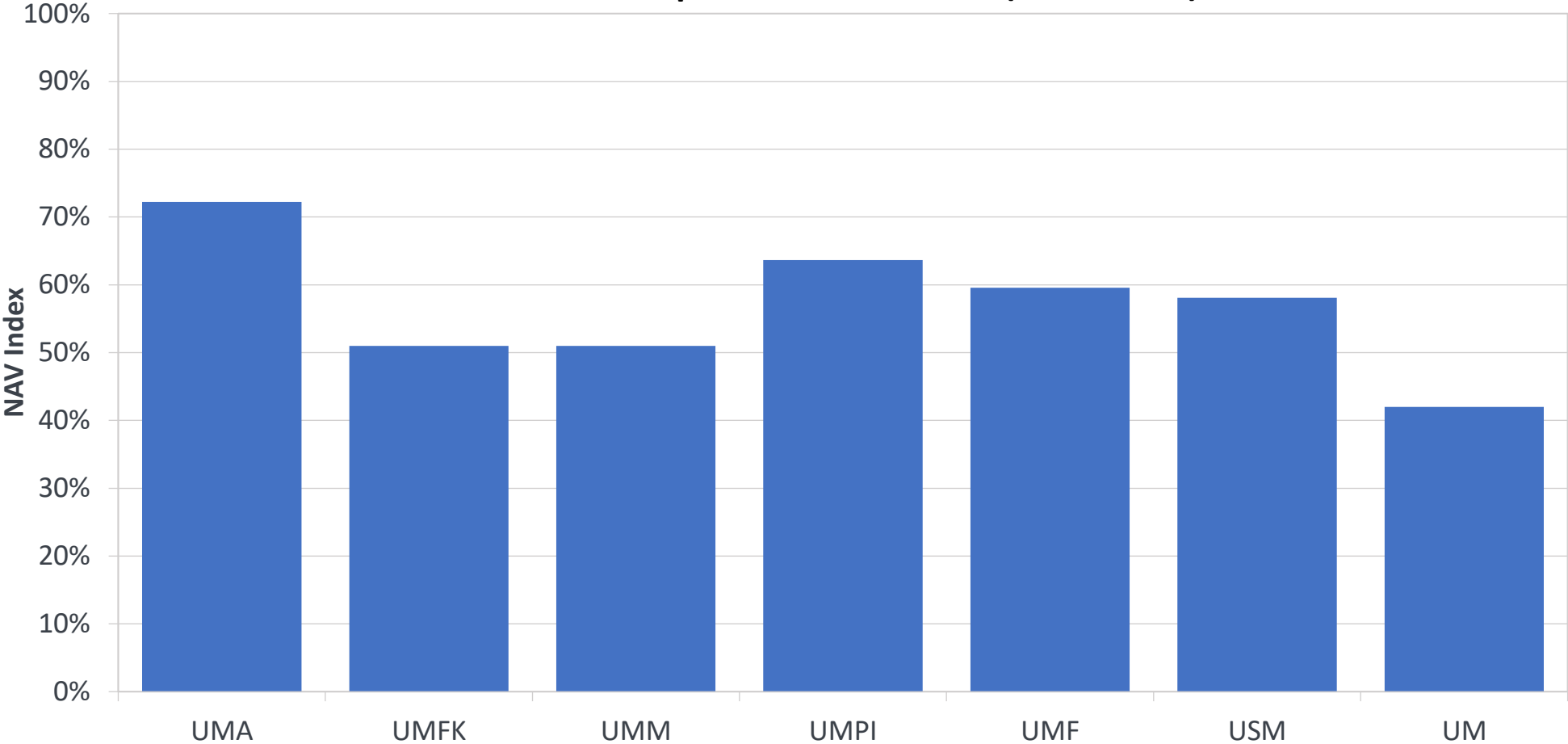


UMA and UMPI Exceed System NAV Goal

Investment Strategy



FY24 Campus Net Asset Value (Total Need)

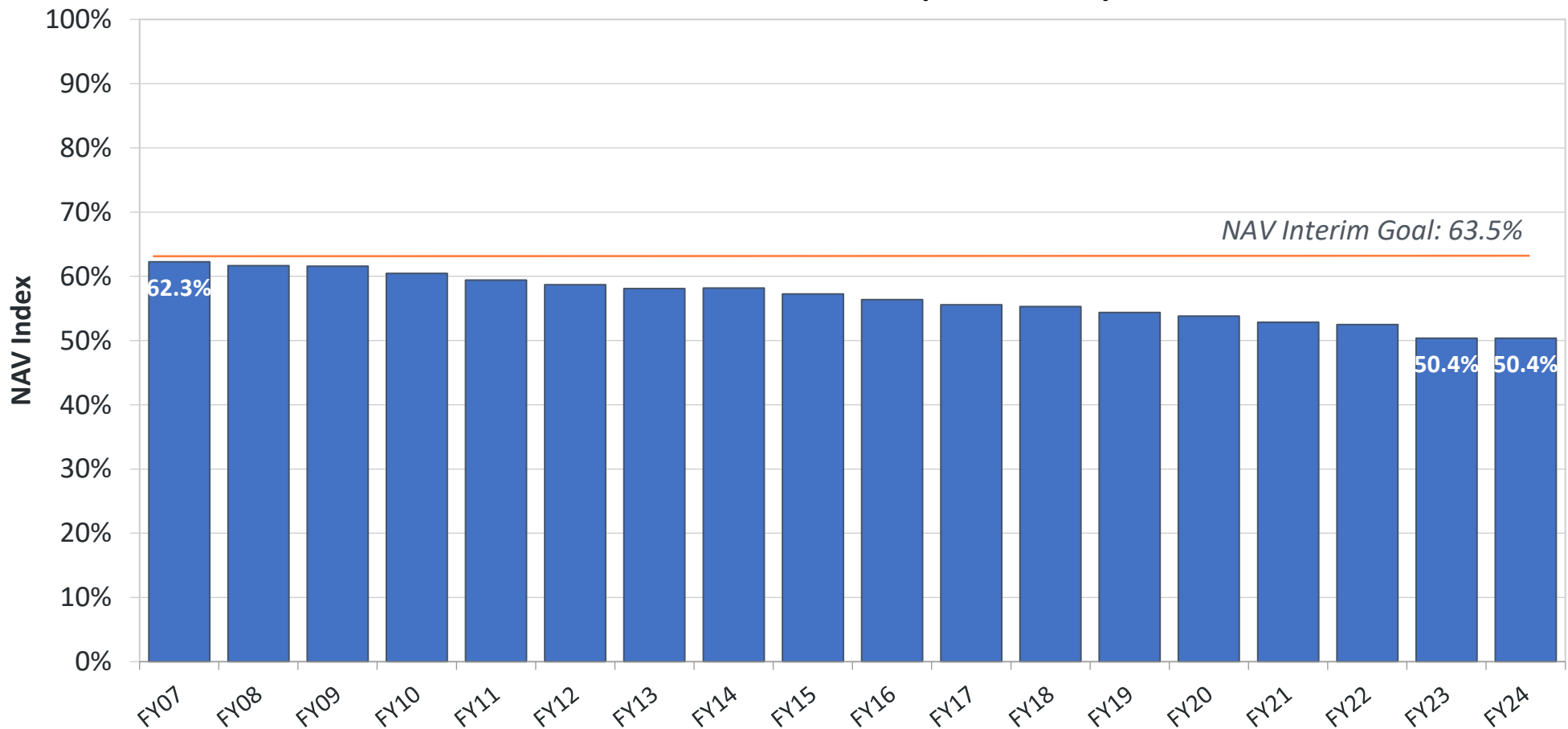


UMS NAV Decreases Despite Higher Levels of Funding

Investment Strategy



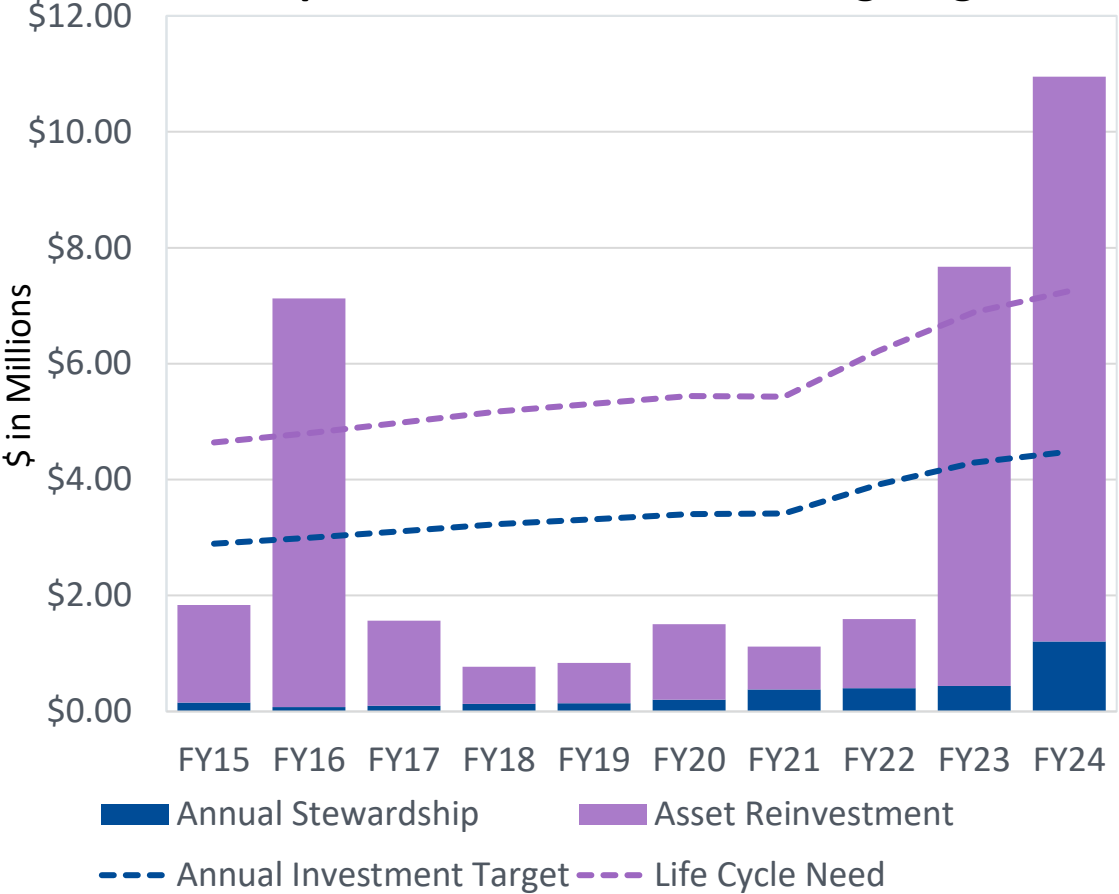
FY24 Net Asset Value (Total Need)



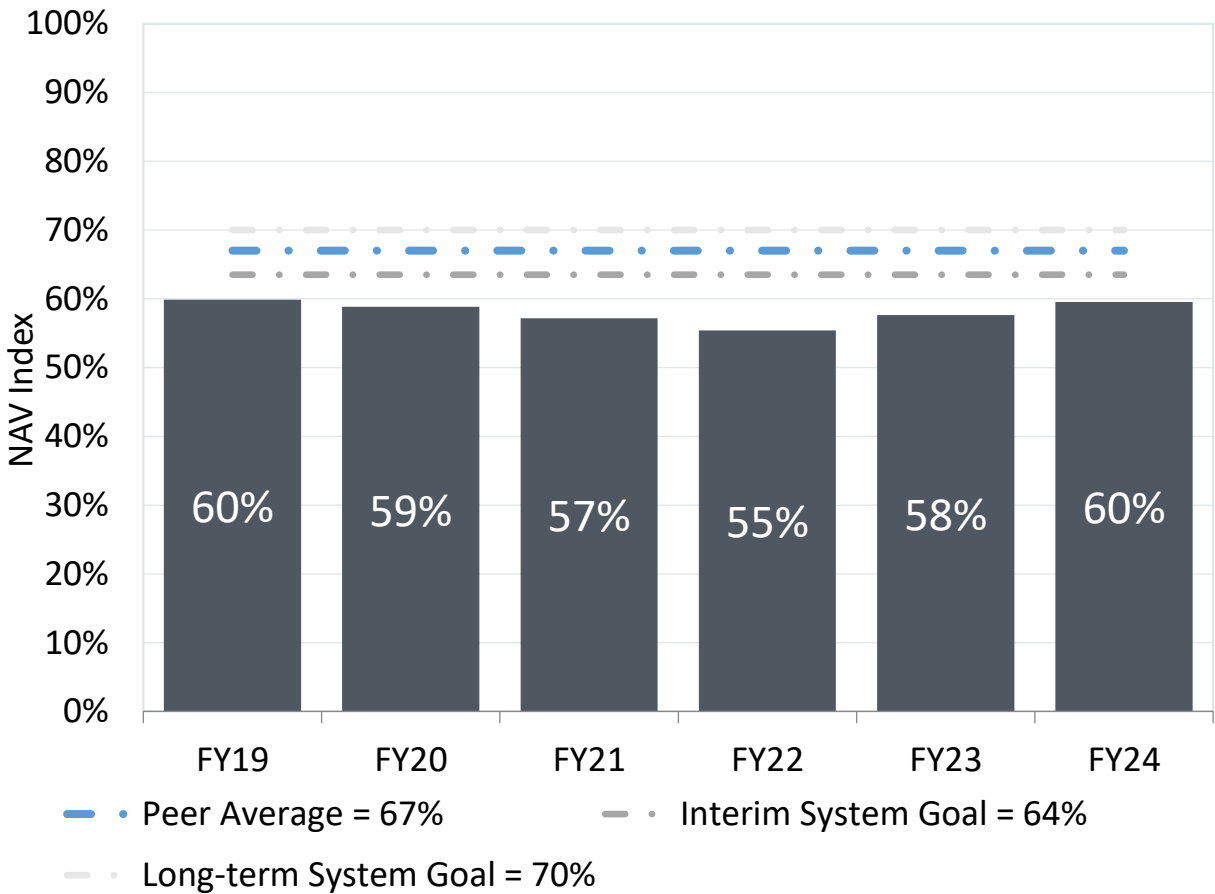
Case Study: UMF Experiences 2% Growth in NAV in FY24

Impacts of the ESCO project is evident for building level NAV

Capital Investment vs. Funding Target



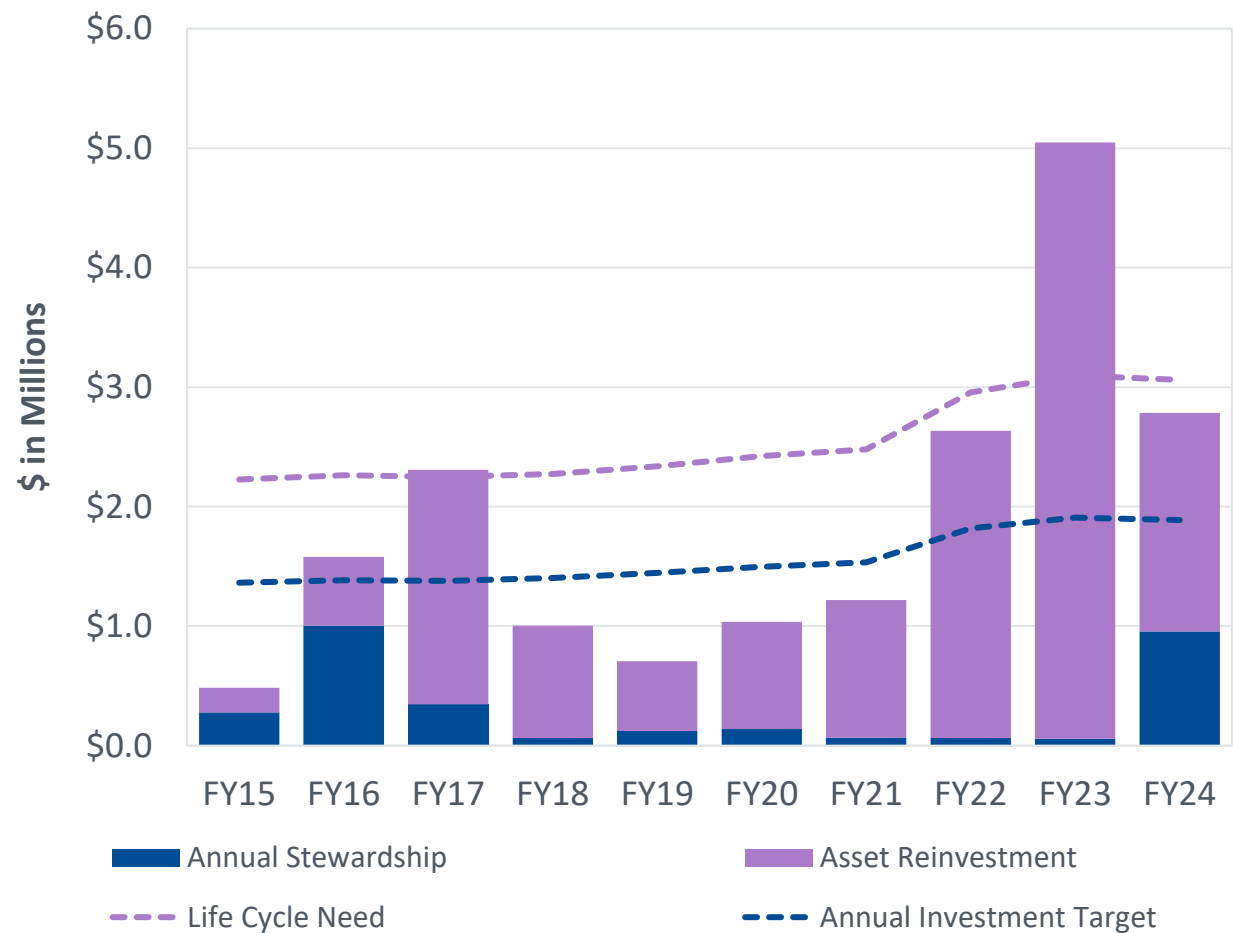
FY24 Net Asset Value



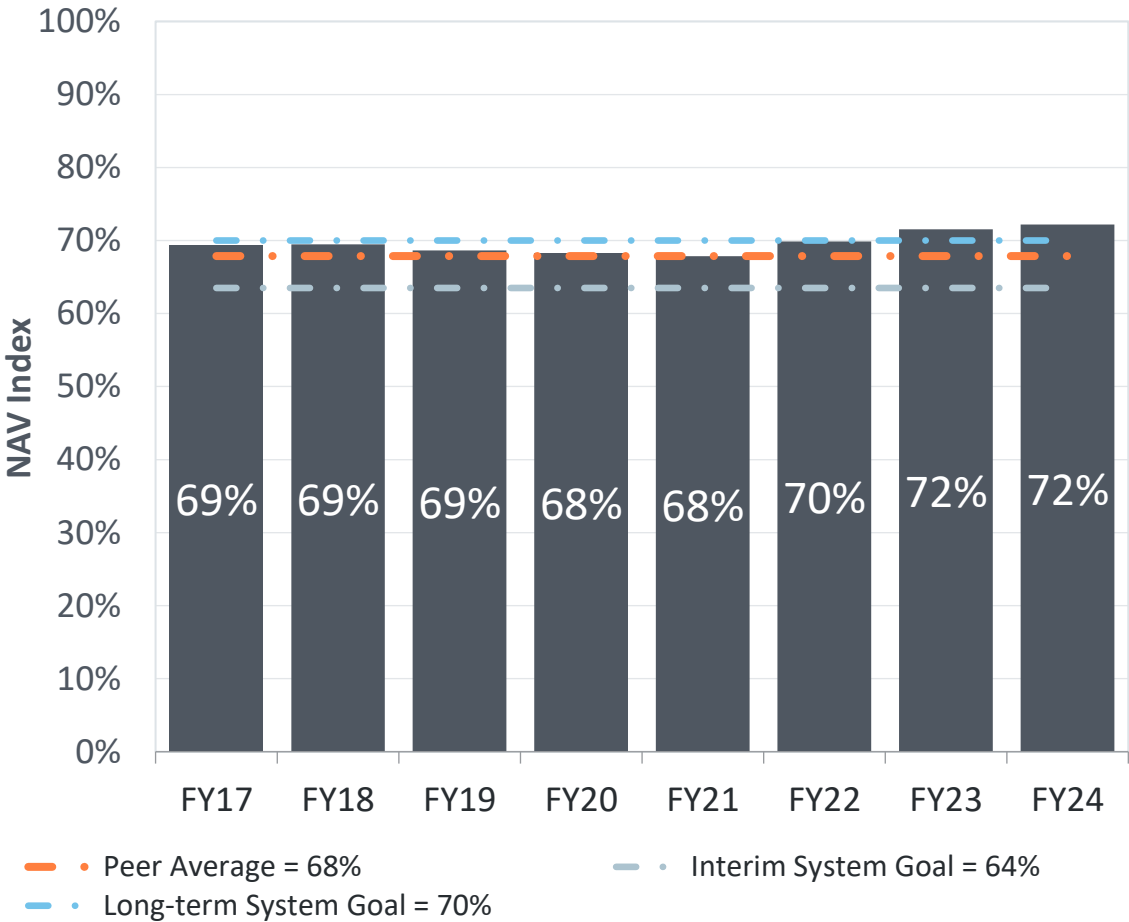
Case Study: UMA's NAV Exceeds Peer Average and System Goal

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

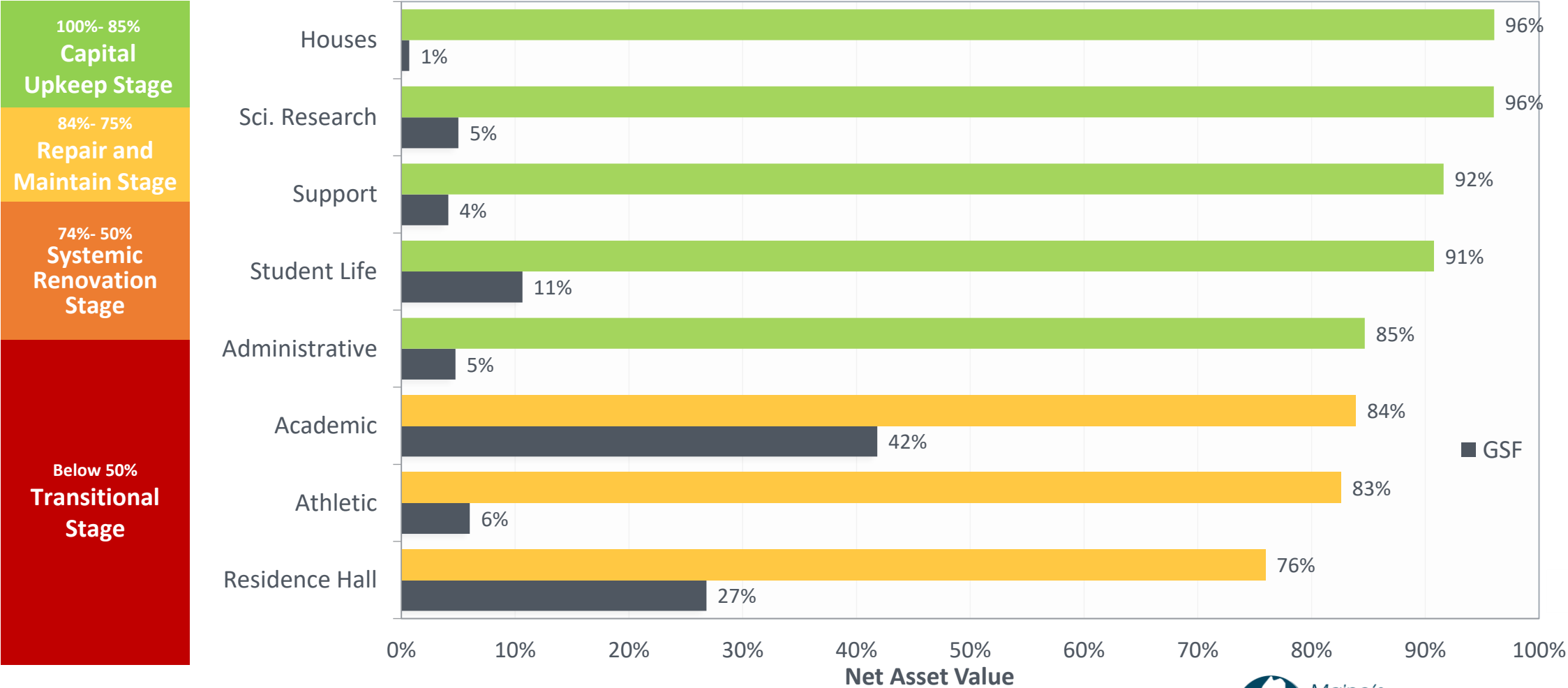
Total Capital Investment vs. Funding Target



FY24 Net Asset Value

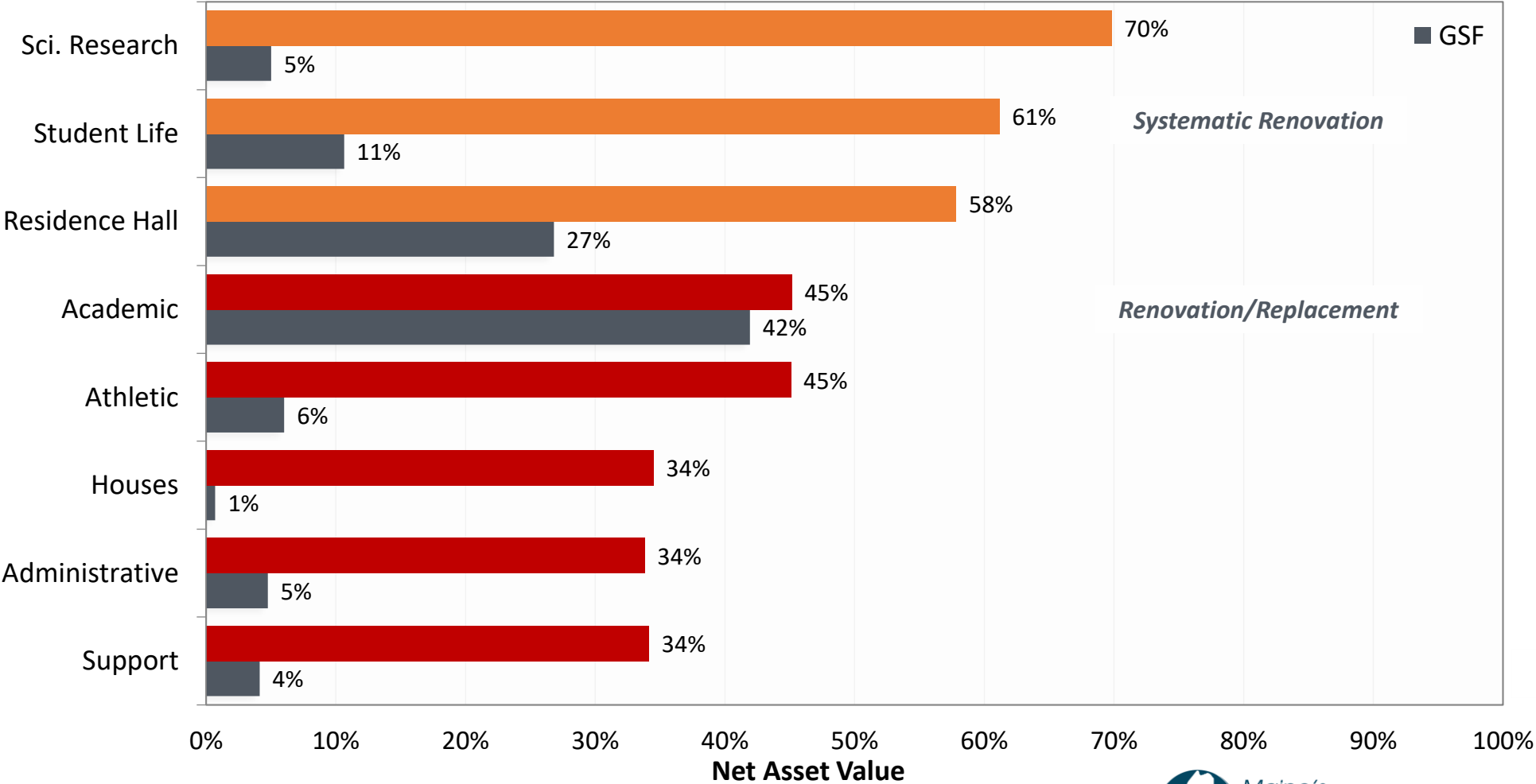


FY24 NAV Index by Function Across UMS (Current Need)



FY24 NAV Index by Function Across UMS (Total Need)

Investment Strategy

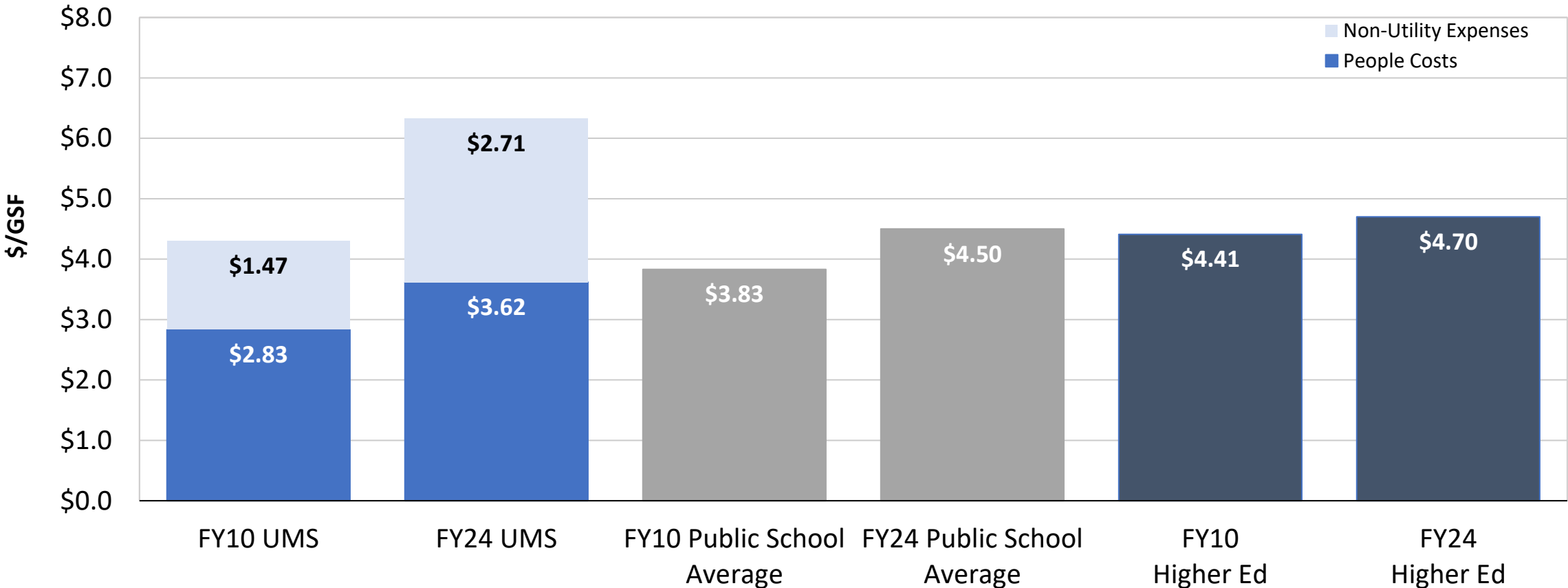


Operational Effectiveness

UMaine System Operating Cost Growth Outpaces Gordian Database

Facilities Operating Budget Expenditures

FY10 vs. FY24

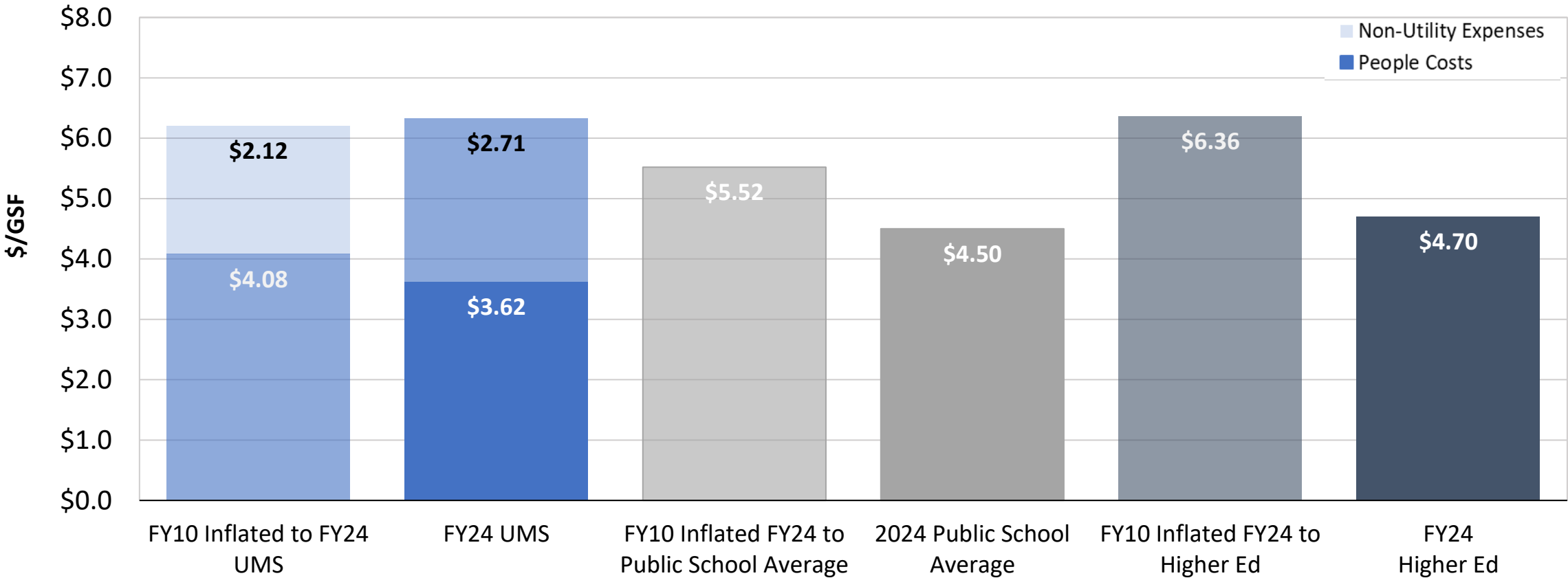


Operating Resource Levels Have Not Kept Pace With Inflation

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

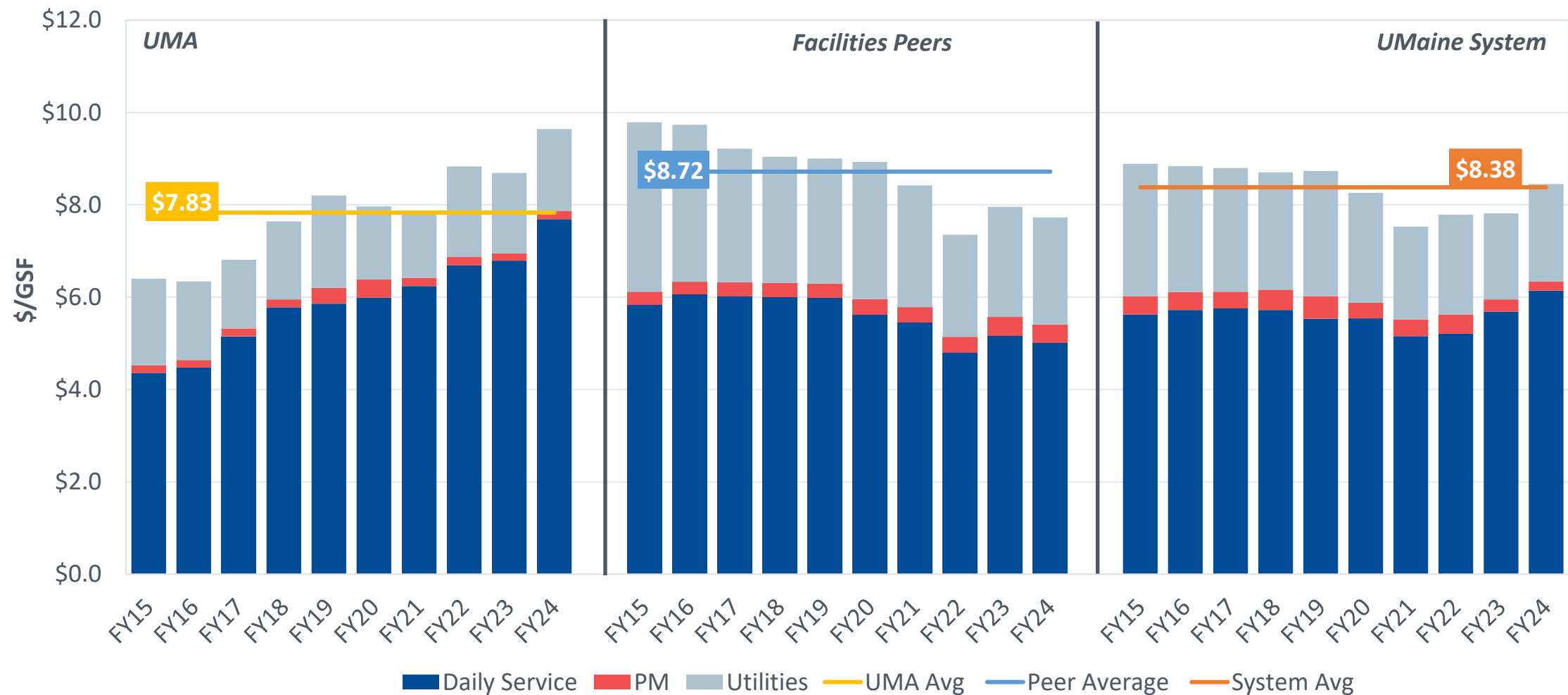
Facilities Operating Budget Expenditures

FY10 vs. FY24



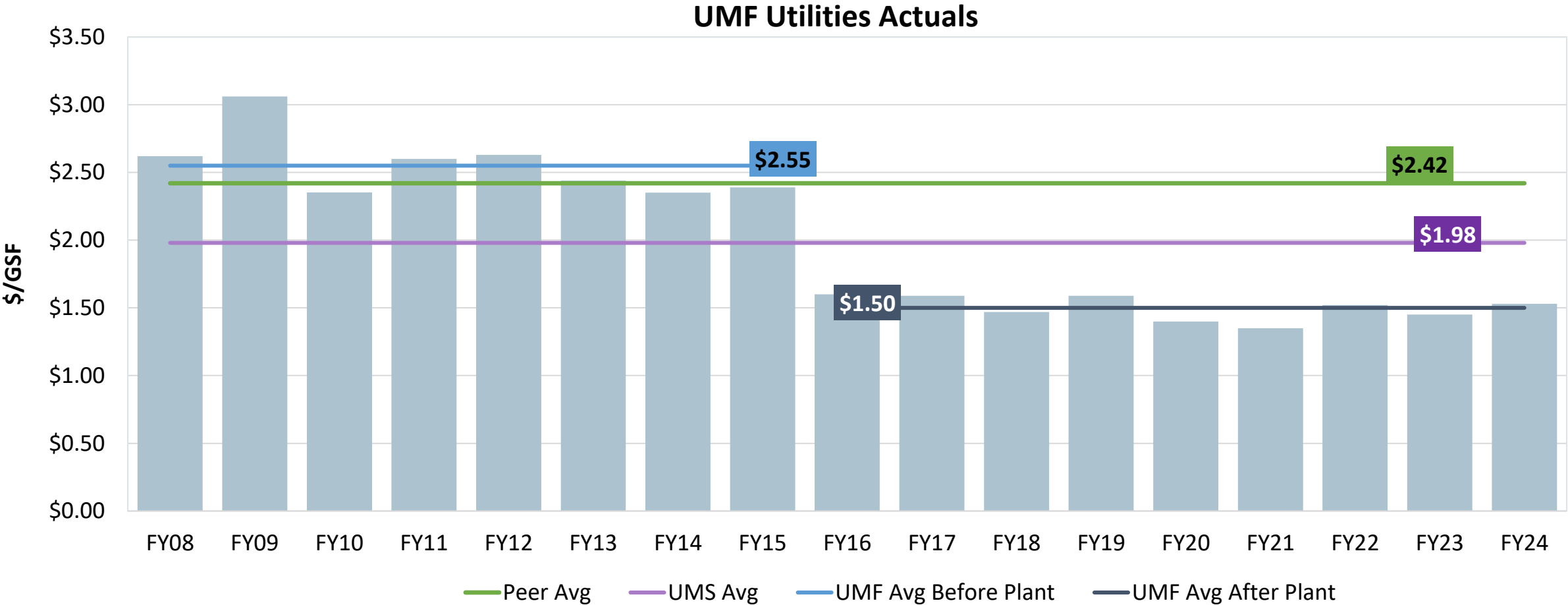
Case Study: UMA's Operating Costs Have Kept Up With Labor and Material Inflation

Normalized Operating Expenditures - Inflation Adjusted



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

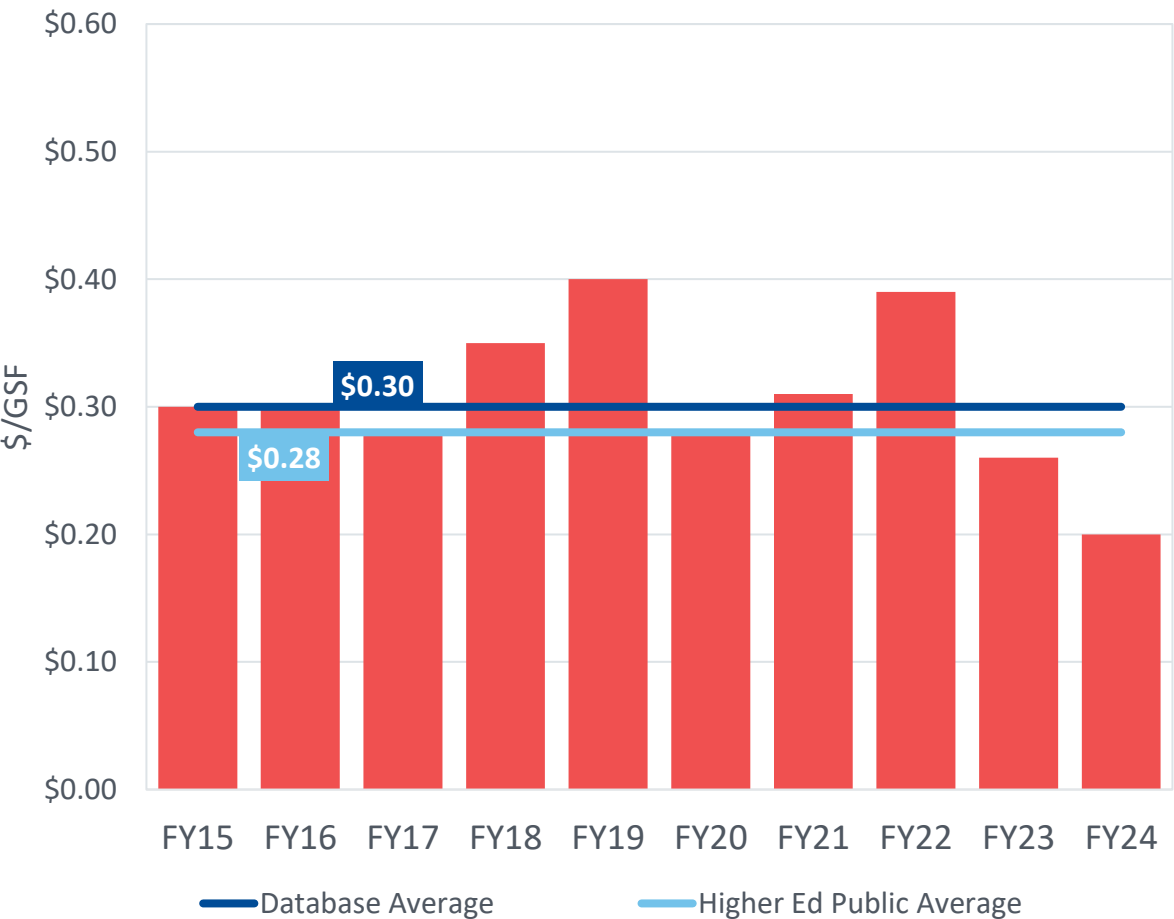
Plant investments resulted in decreasing utility costs, saving approximately \$800K annually in purchased fossil



Planned Maintenance Spending at UMS

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

UMS Planned Maintenance Spending



THEORY



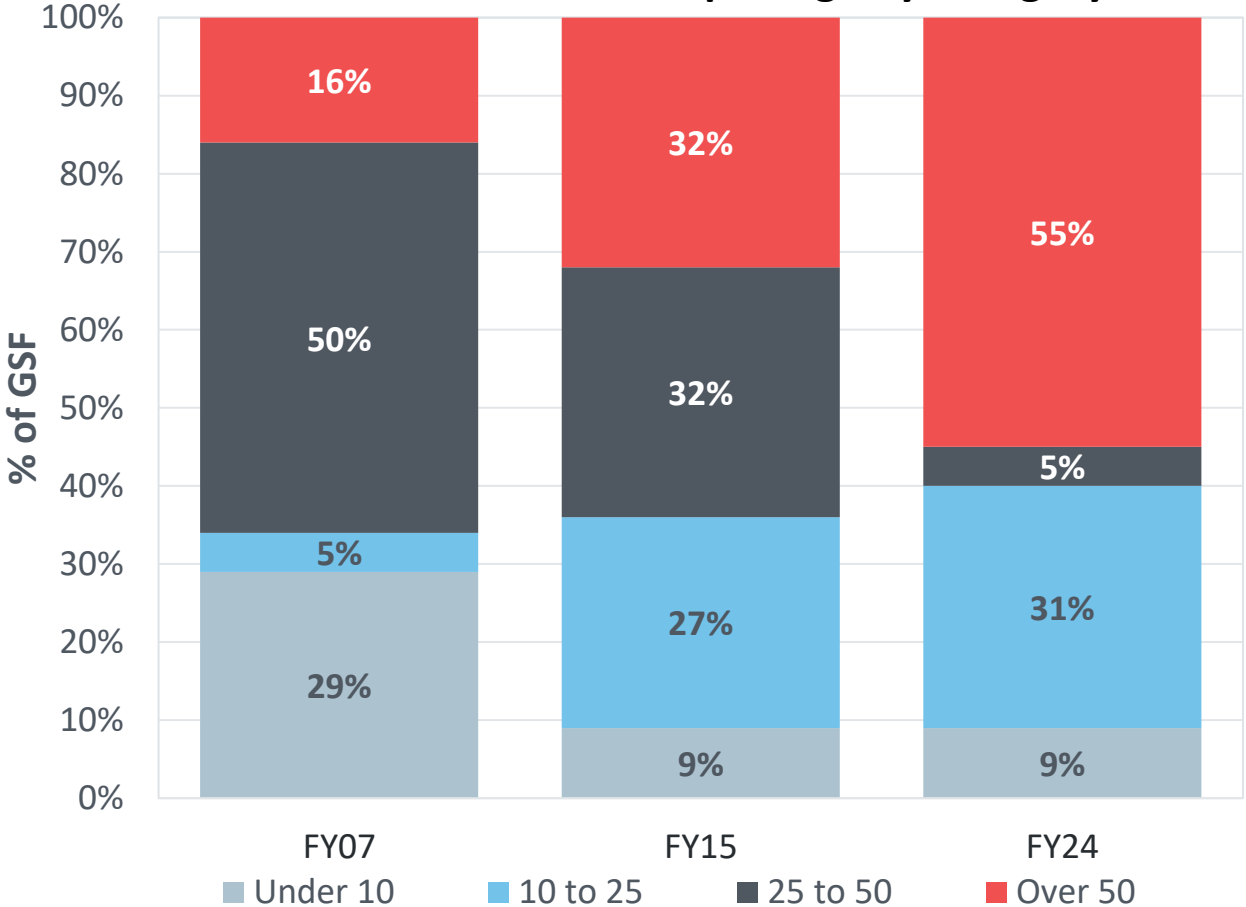
Strategic Deferral of PM

- 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.

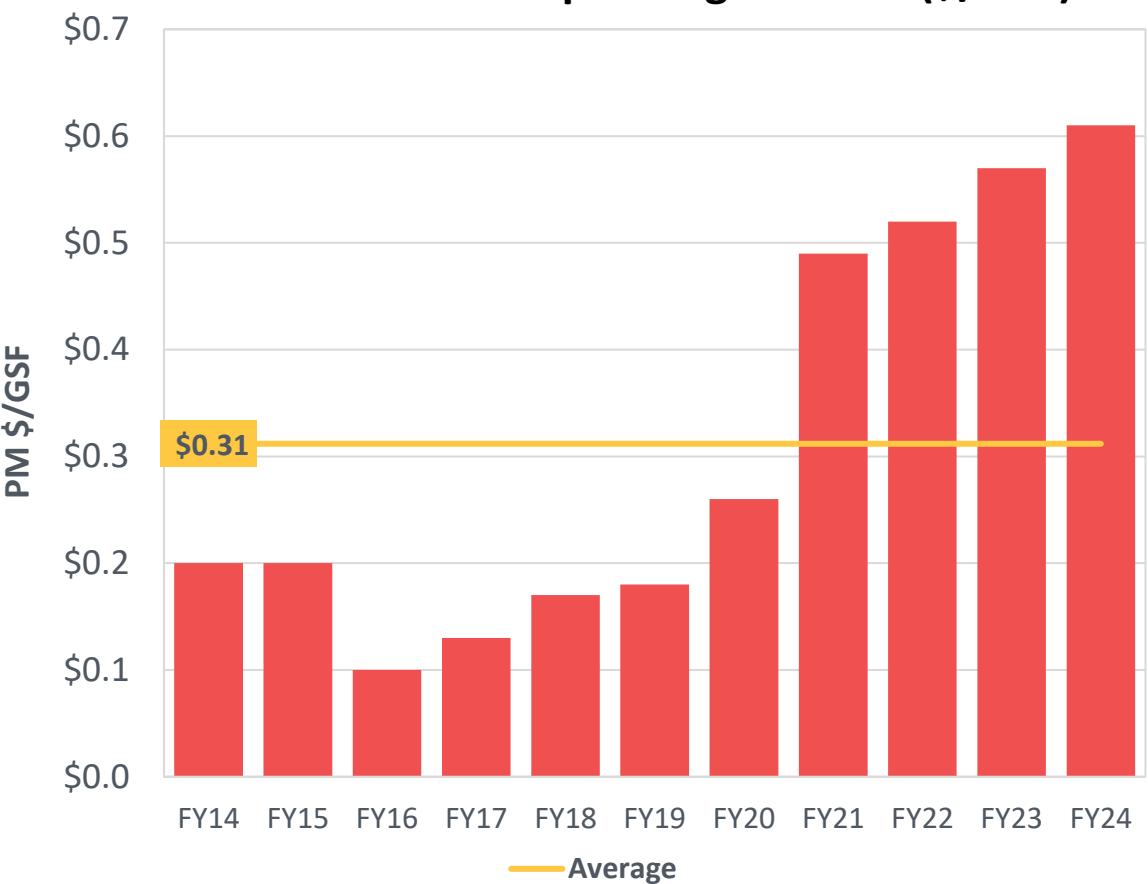
Case Study: UMFK Continues Increase in PM

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

FY24 UMFK Campus Age by Category

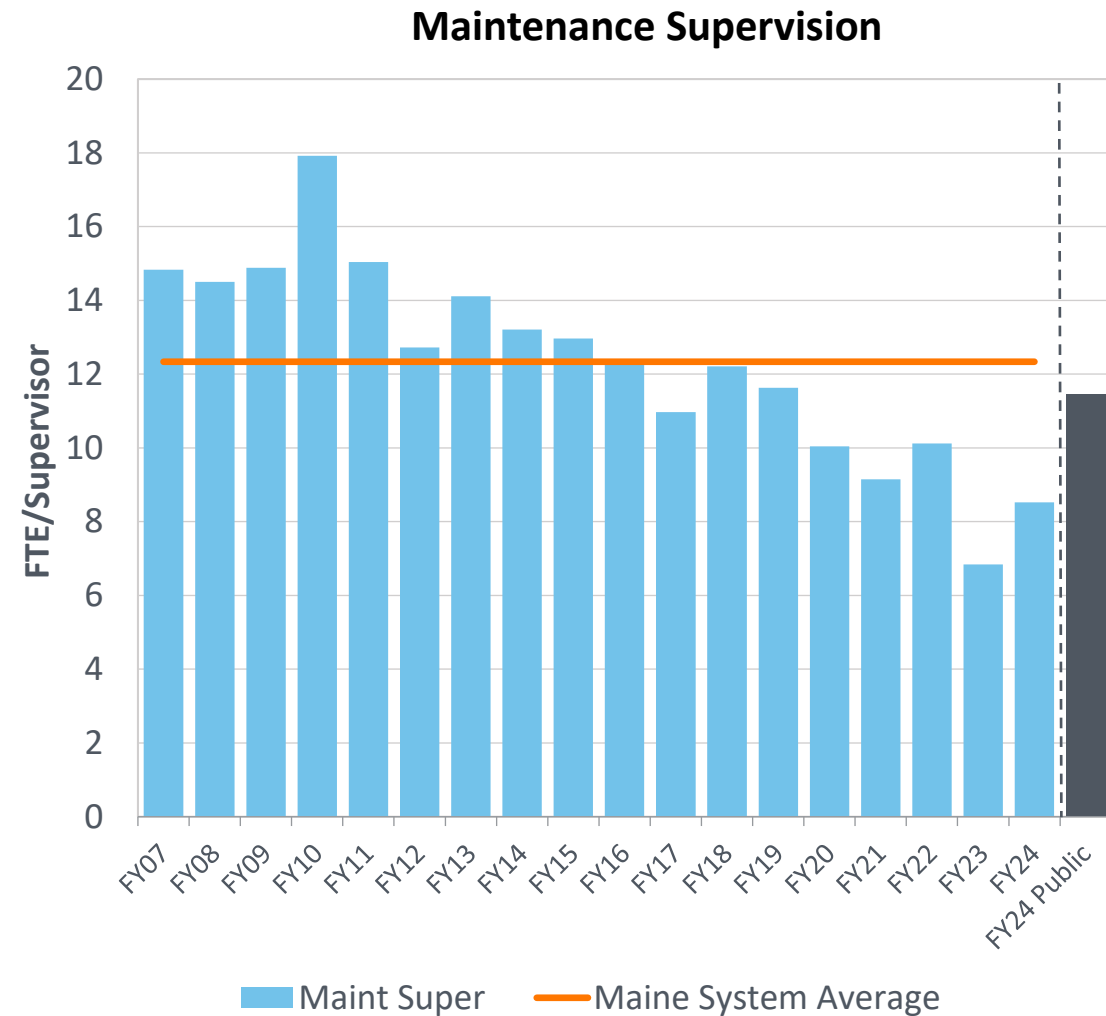
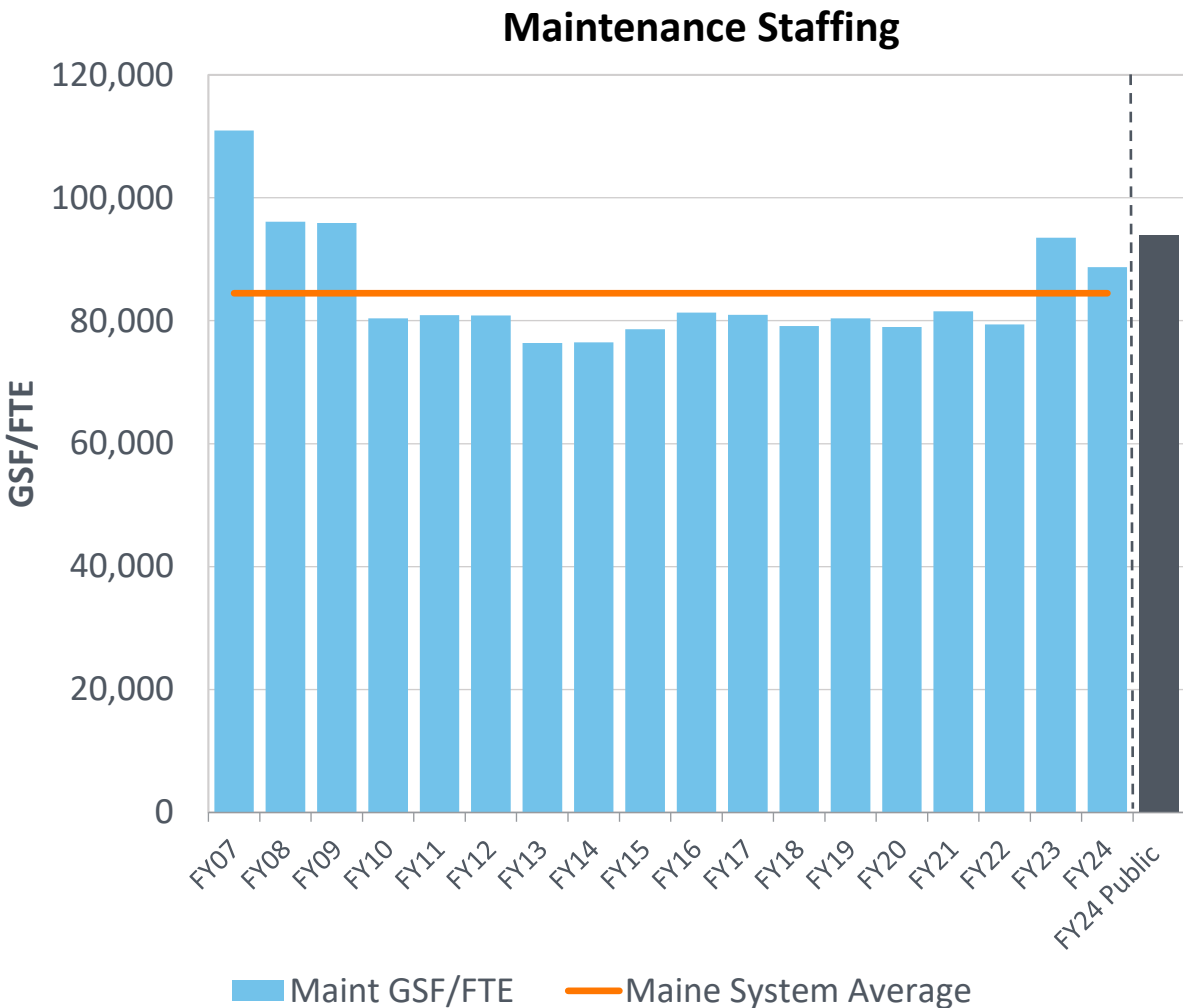


Historical PM Spending vs Peers (\$/GSF)



Campuses Maintaining Levels Similar to Historical Average

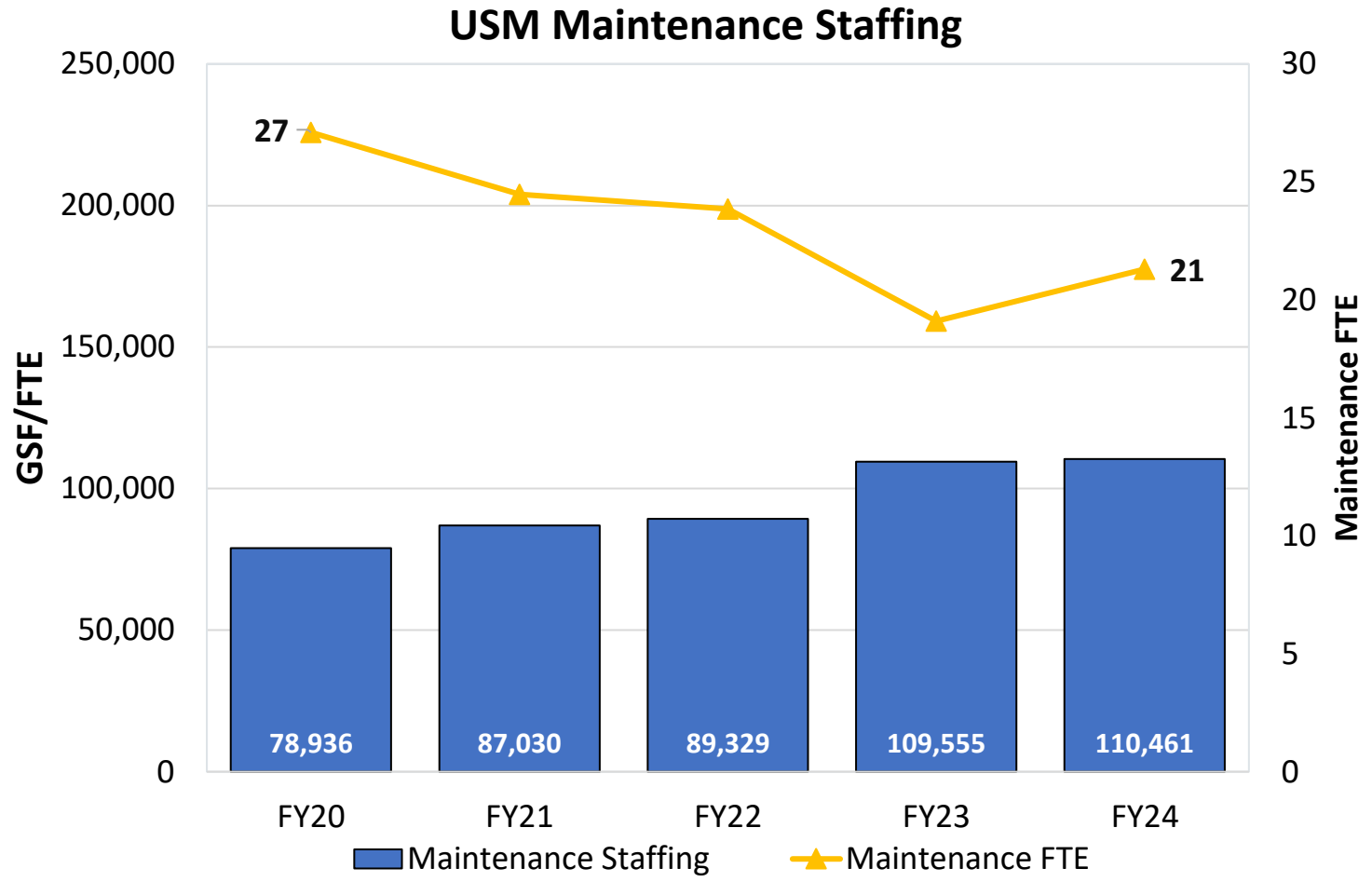
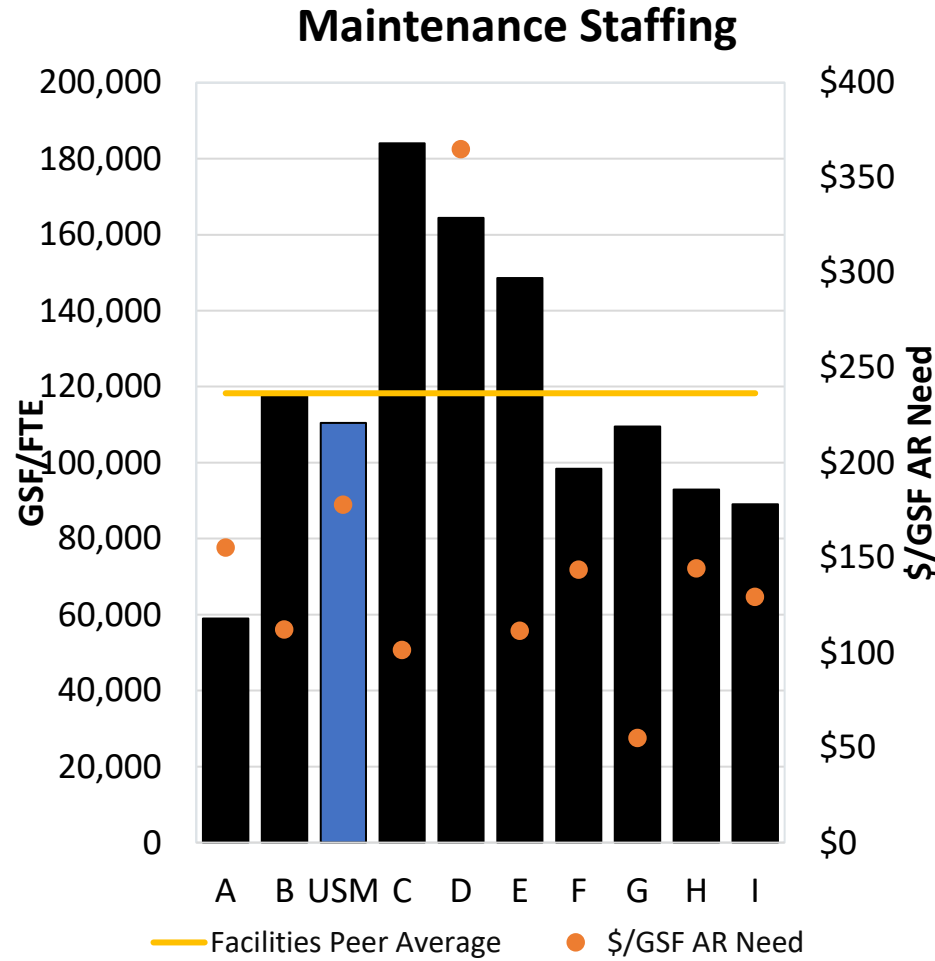
Maintenance staff is responsible for similar coverage to public school peers while with tighter supervision



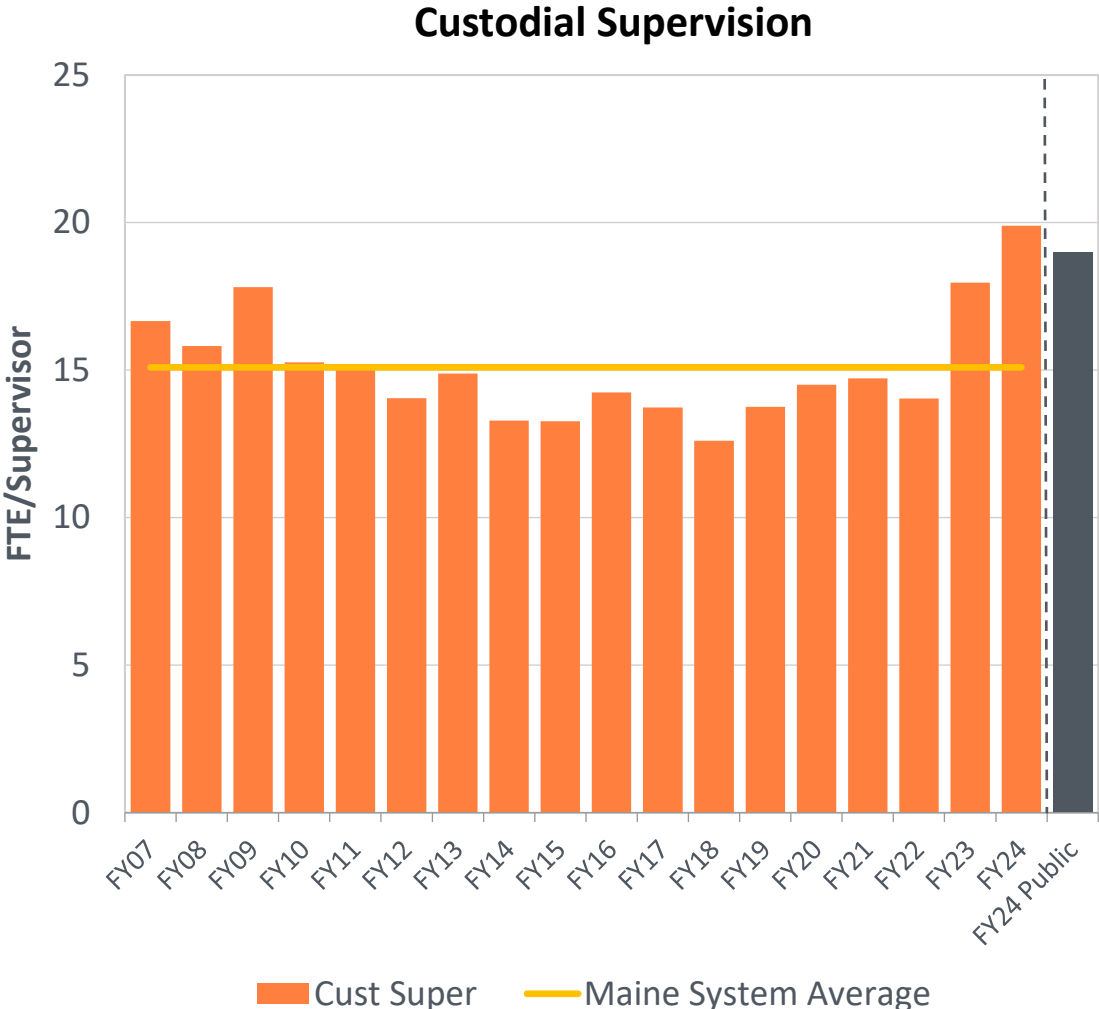
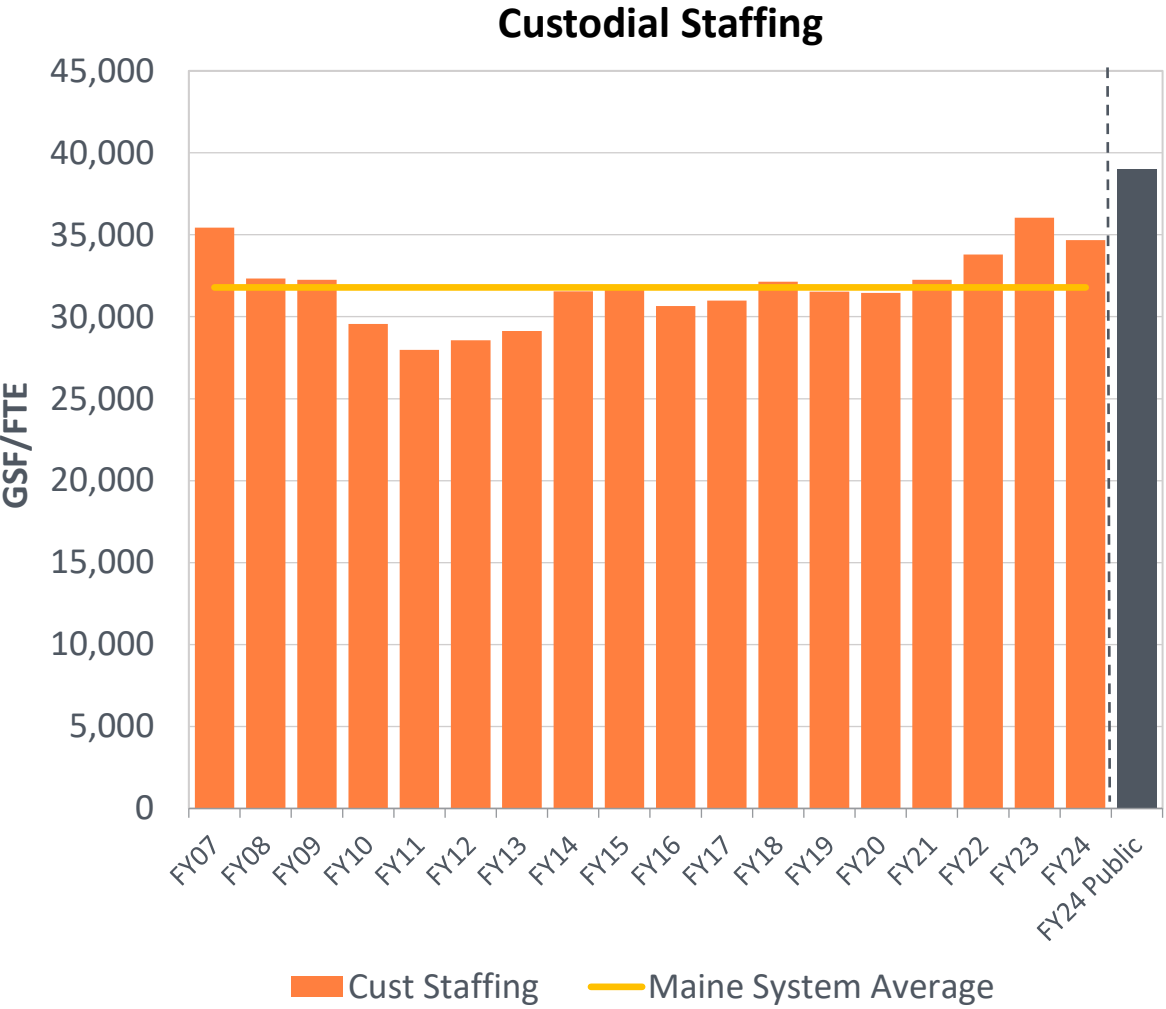
FY24 Public: Gordian Public Higher Ed. Database Average for FY24

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

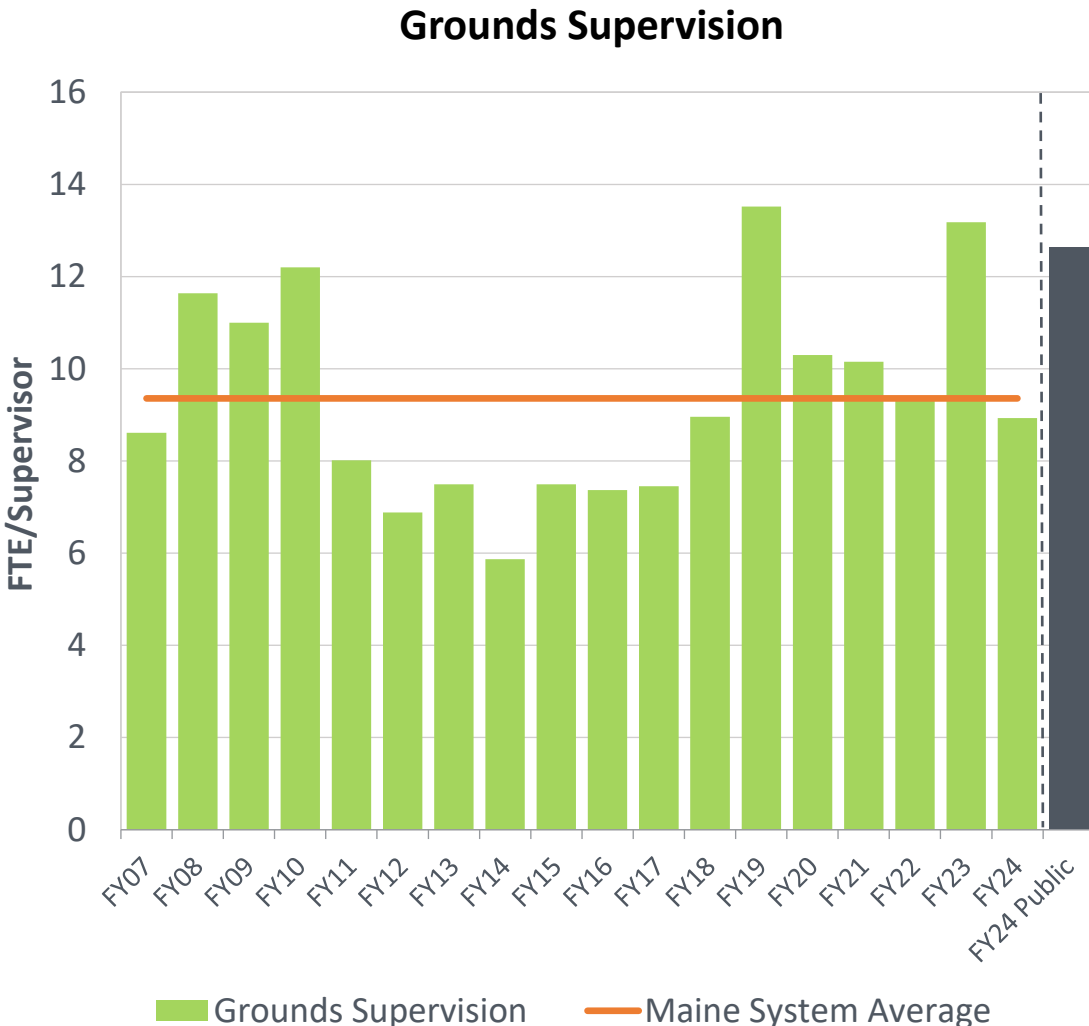
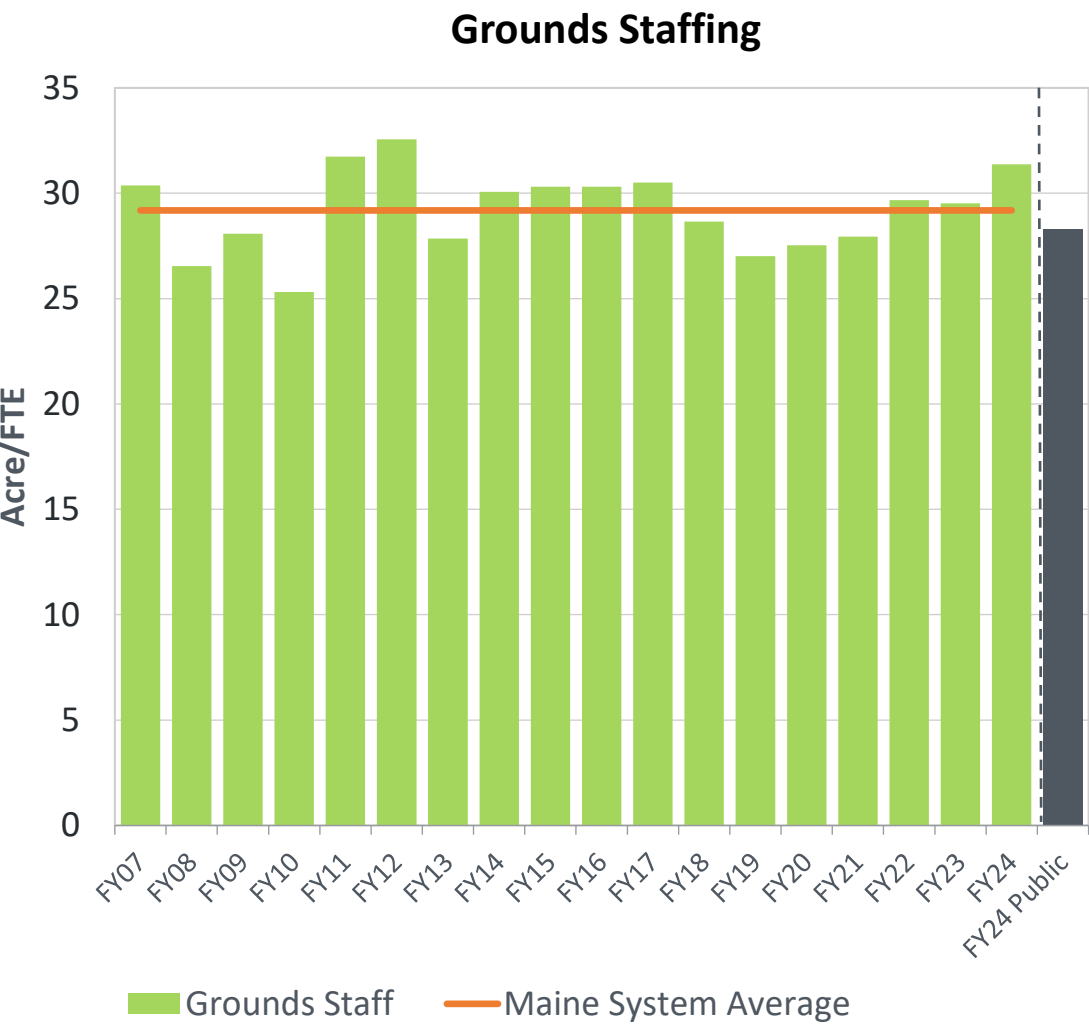


Custodians Responsible For Less Space Than Public School Peers with Less Supervision



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

Grounds Staff Responsible for More Acres with Tighter Supervision



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

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