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University of Alaska Southeast

FY21 Facilities Benchmarking & Analysis

Comprehensive Facilities Intelligence Solutions

UNIVERSITY of ALASKA SOUTHEAST

FACILITIES BENCHMARKING & ANALYSIS

Take control of your facilities and make the case for change without the guesswork

FACILITIES ASSESSMENT & PLANNING

Plan and execute capital investment plans that are inclusive, credible, flexible, affordable and sustainable

SPACE UTILIZATION

Ensure your space is working up to its full potential

SUSTAINABILITY SOLUTIONS

Measure and improve environmental stewardship

Vocabulary for Facilities Benchmarking & Analysis

UNIVERSITY of ALASKA SOUTHEAST

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

University of Alaska – Southeast Peer Institutions

UNIVERSITY of ALASKA SOUTHEAST

Return on Physical Assets (ROPA+) includes all space at UAS totaling 556,487 GSF

Facilities Peer Institutions	Location
University of Maine at Fort Kent	Fort Kent, ME
University of Maine at Farmington	Farmington, ME
University of Maine at Machias	Machias, ME
University of Maine at Presque Isle	Presque Isle, ME
Slippery Rock University of PA	Slippery Rock, PA
Mansfield University of PA	Mansfield, PA
Lockhaven University of PA	Lock Haven, PA
University of Maine at Augusta	Augusta, ME

Comparative Considerations

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

Core Campus Observations

Space

UAS's space profile is different than peer institutions in several key areas:

- Younger, lower risk space than peers due to new construction and renovation, especially at Ketchikan campus
  - UAS is in an advantageous situation to manage their campus age and remain at, or above, their Space KPI target of 50% of space being younger than 25 years old
- Lower population density
  - UAS has seen enrollment decrease in greater magnitude than peers. Creative strategies will need to be implemented to hit the density KPI target of 250

Capital

- Investment focus on existing space has historically managed age and deferred maintenance need but has decreased in recent years
- The historically reliable one-time sources of capital that helped achieve funding targets have dropped in recent years
- UAS can manage deferred maintenance through divestment and demolition of space to maintain high performing FCI compared to KPI target

Operations

- Historically operated with a higher budget than peers, but decreased below peer levels in recent years
- UAS has increased PM spending in recent years and spends a larger percentage of operation budget on PM compared to peers
- Staffing levels, supervision, and materials fluctuate across trades shops, but results are consistent and competitive

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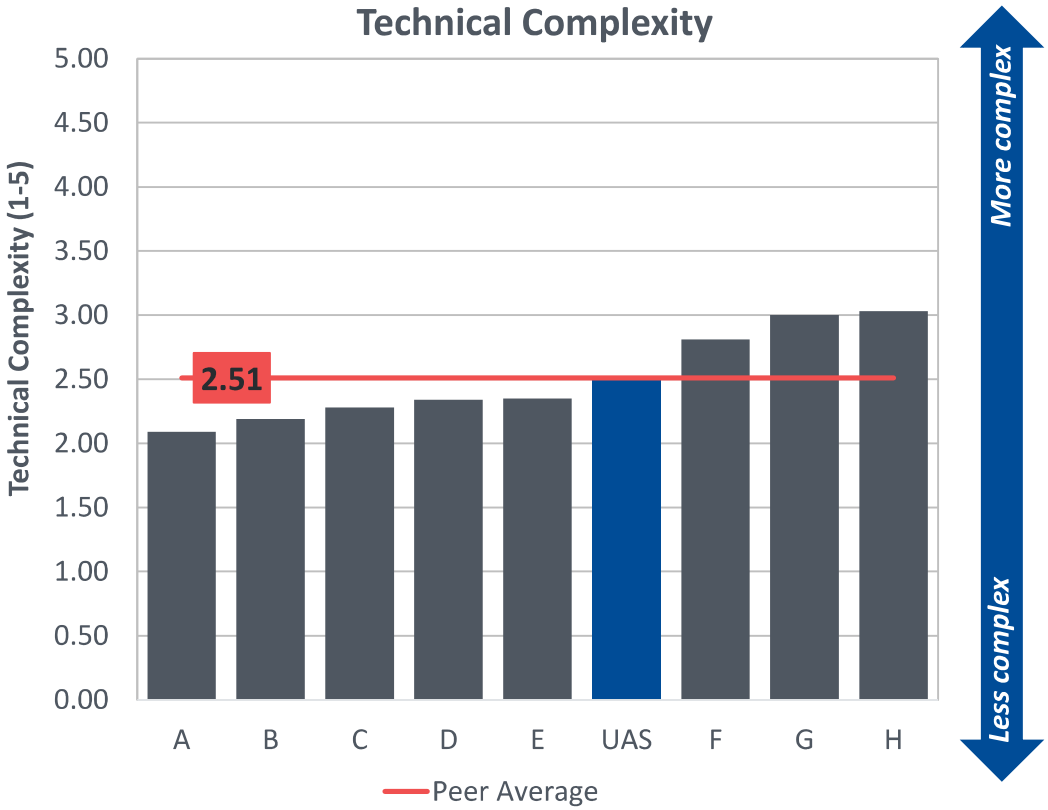
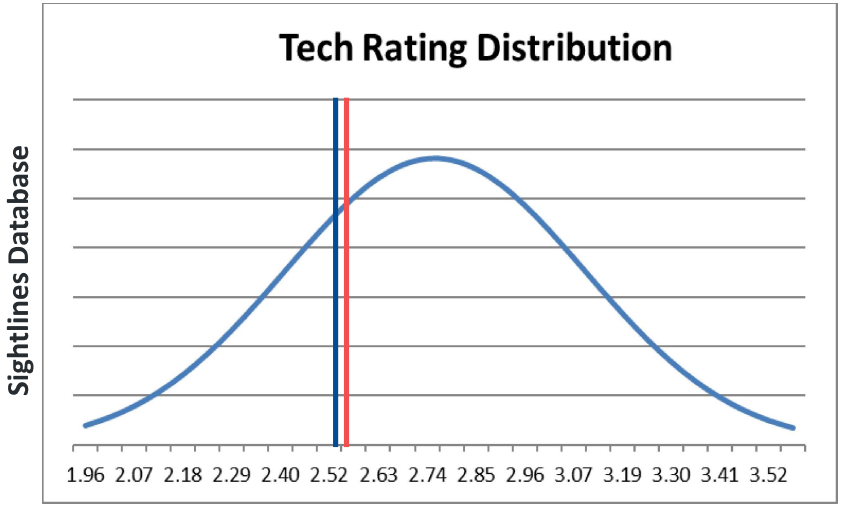
Space Profile

UAS's Technical Complexity is On-Par With Peers



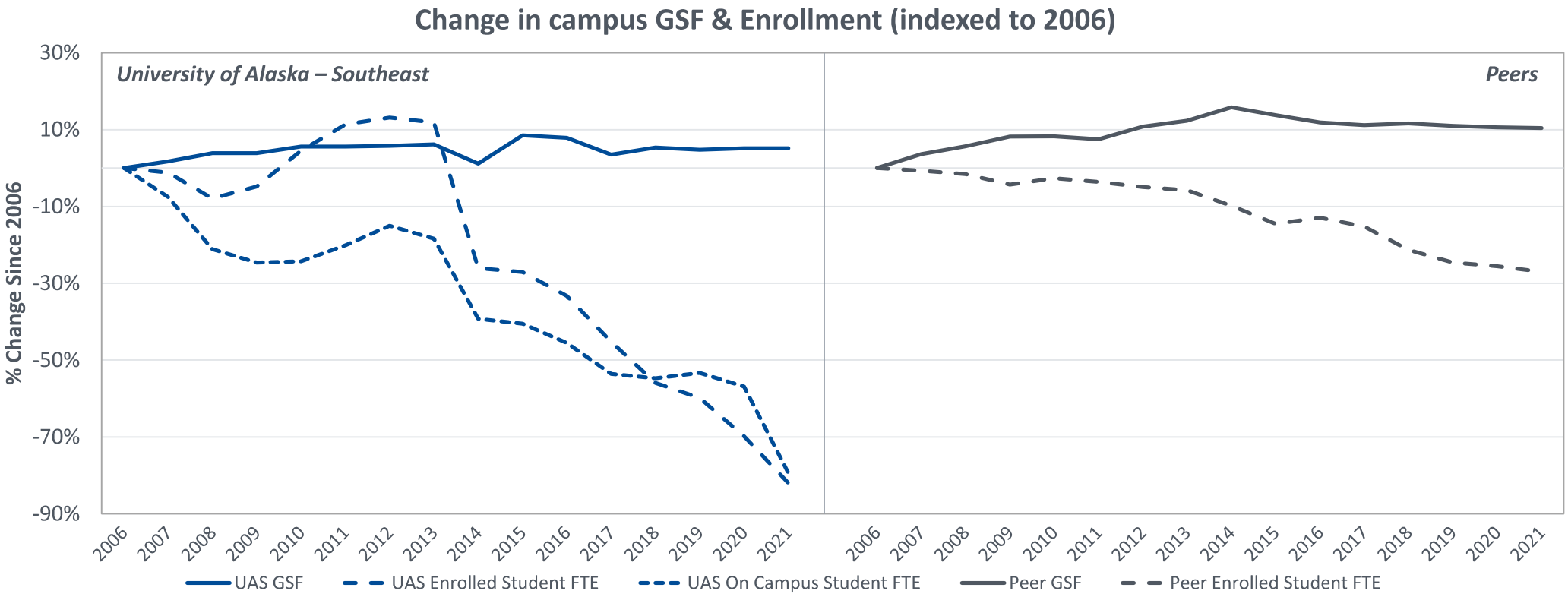
Areas Impacted by Tech Rating				
Energy Consumption	Maintenance Staffing	Replacement Values	Stewardship Targets	Operational Demand



Institutions arranged by Technical Complexity

UAS' Campus has Grown Similar to Peers in GSF

However, total enrollment has decreased by 82%, while peers saw a 27% decrease



UAS has a Lower Density Campus than Peers

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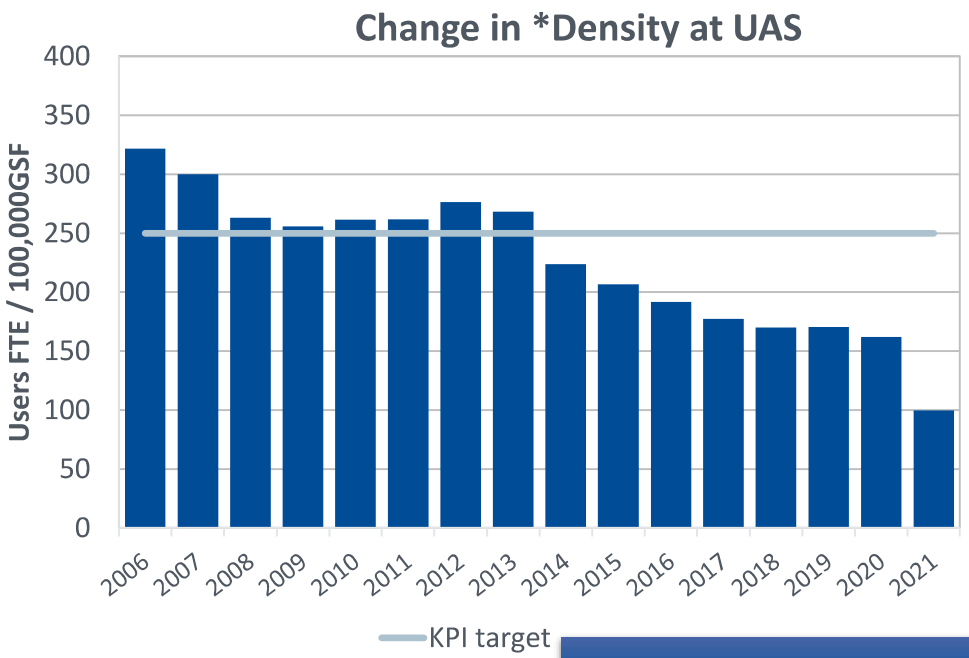
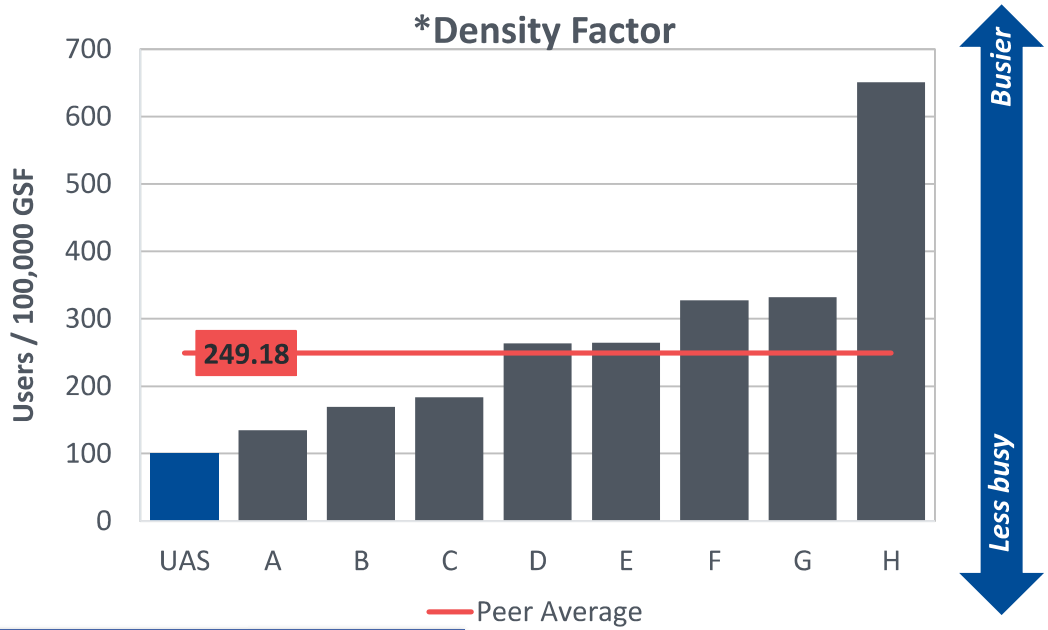
Density factor measures the busyness of campus





Areas Impacted by Density Factor		
Wear and Tear on Space	Custodial Operations	Energy Demand

**Density is calculated using On-Campus Student FTEs, Faculty FTE, and Staff FTE*

Institutions arranged by Density Factor

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UAS Step to Reach Target

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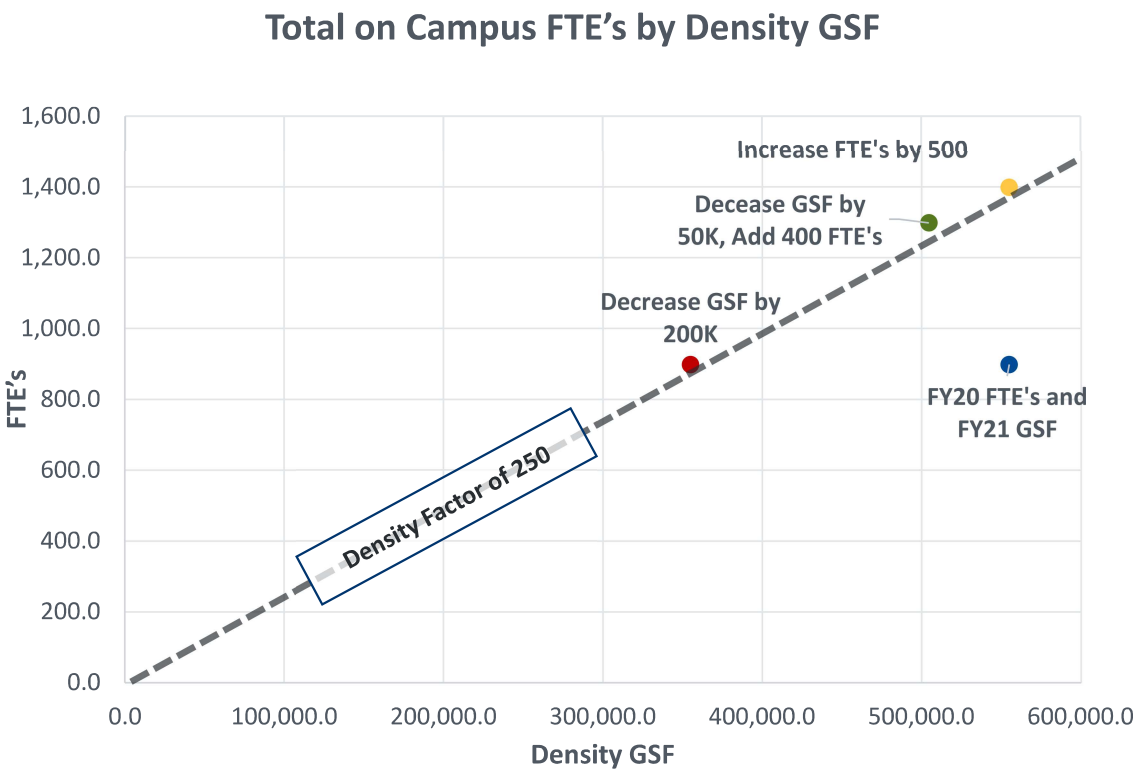
UAS can add FTE's, decrease usable square footage, or both to reach target



**Density is calculated using On-Campus Student FTEs, Faculty FTE, and Staff FTE*

Scenarios to Reach 250 KPI Target:

1. Decrease total GSF by 200,000
2. Increase total FTE's by 500 (no space Changes)
3. Use a targeted approach to decrease GSF, which includes:
   - Demolish the NSRL- 17,591 GSF
   - Demolish Mattocks House- 1,200 GSF
   - Sell and/or recategorize Mathisen House GSF- 1,604.00
     - Should Mathisen be included in Density calculations?
   - Adjust Density GSF at Donald Sperl Joint Use to 27,707 (50%)
     - What portion of building is not-useable by UAS?
   - Remove Fitzgerald house from building inventory- 2,279.00

Total GSF removed from Density – 50,381.5

- Still requires adding 400 FTE's

- Are there other buildings that are underutilized, which could have increased utilization allowing for more demolition of space?

Institutions arranged by Density Factor

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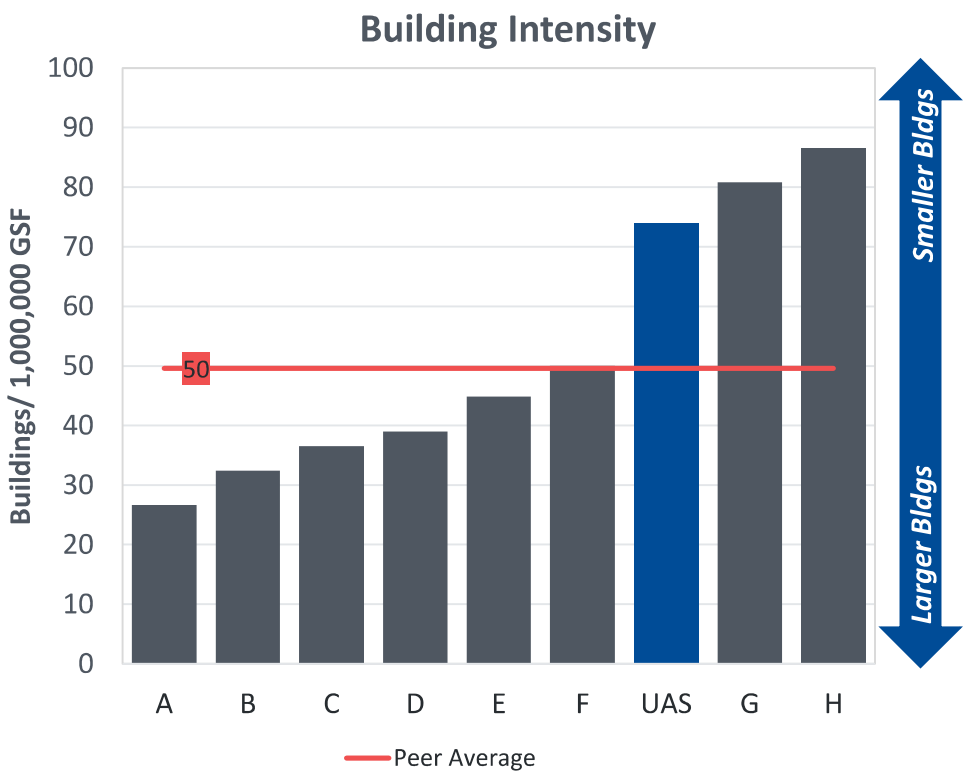
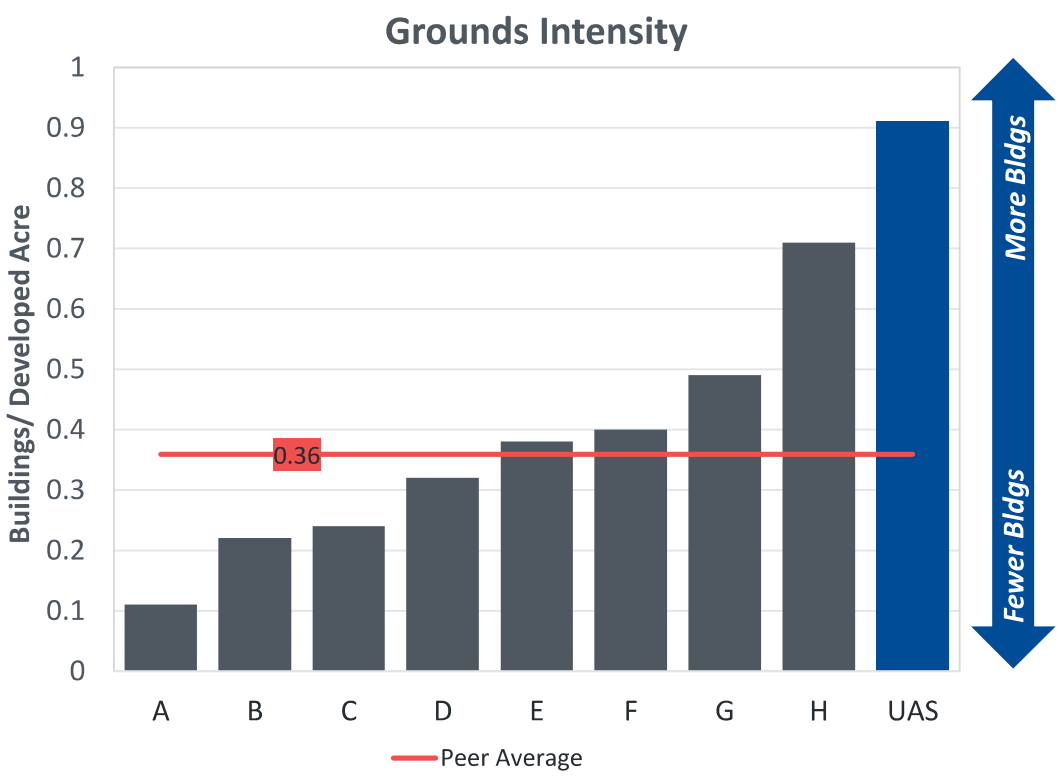
Building and Grounds Intensity

UAS' smaller buildings and compact grounds space produces challenges in efficiency for staff





UAS Carries a Significantly Younger Campus Age

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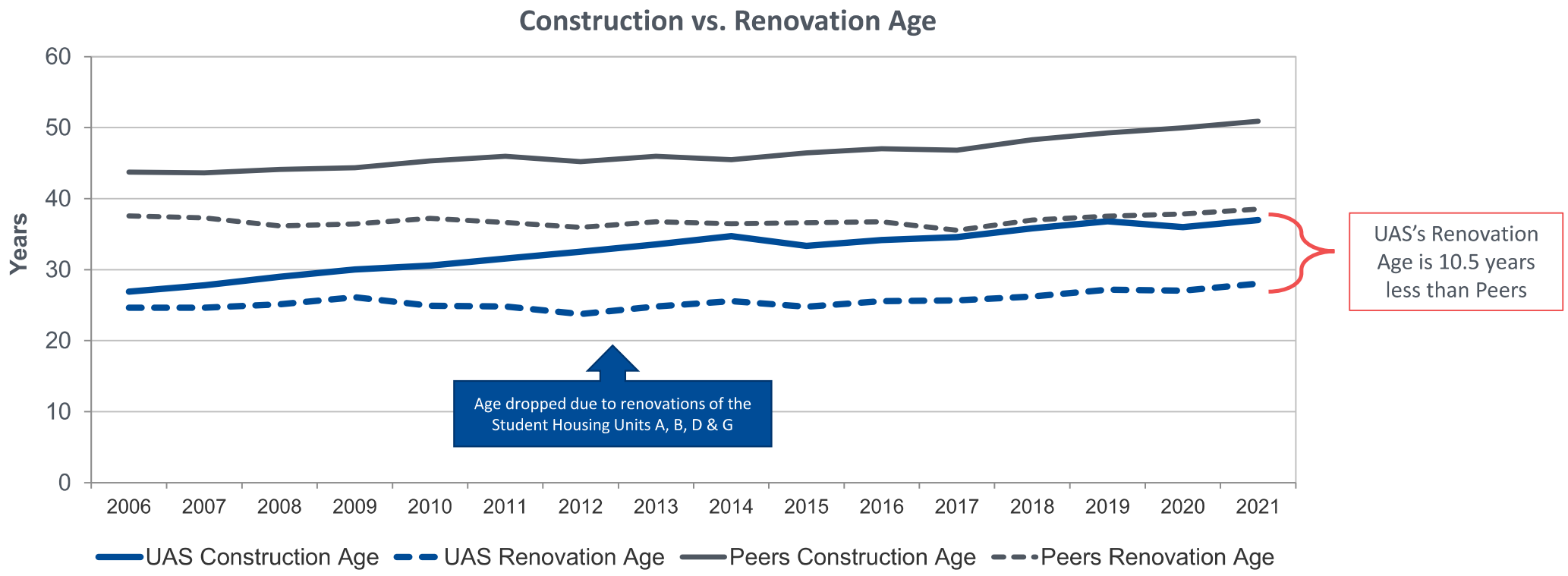
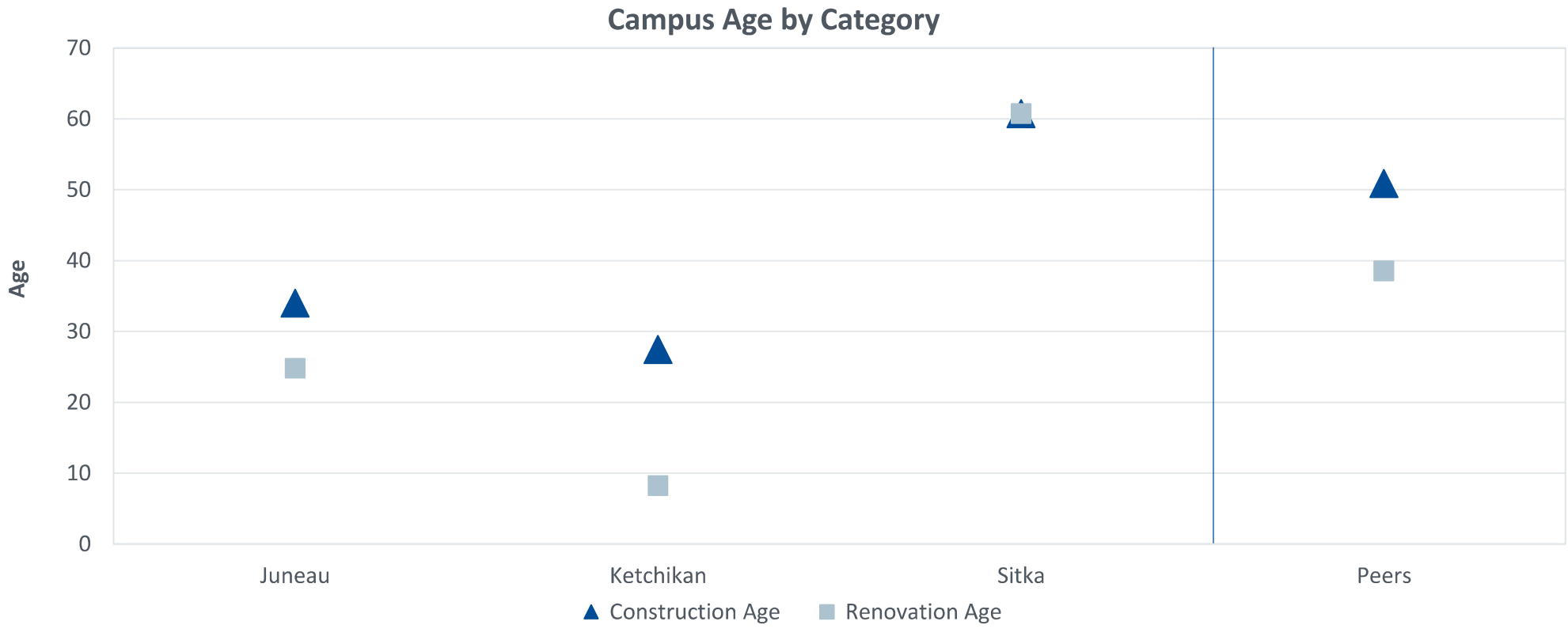
UAS has started renovating buildings which offsets aging



Ketchikan & Juneau are Younger through Renovations

These two campuses have firmly reduced their age through full building renovations



UAS Has More Low Risk Space Than Peers

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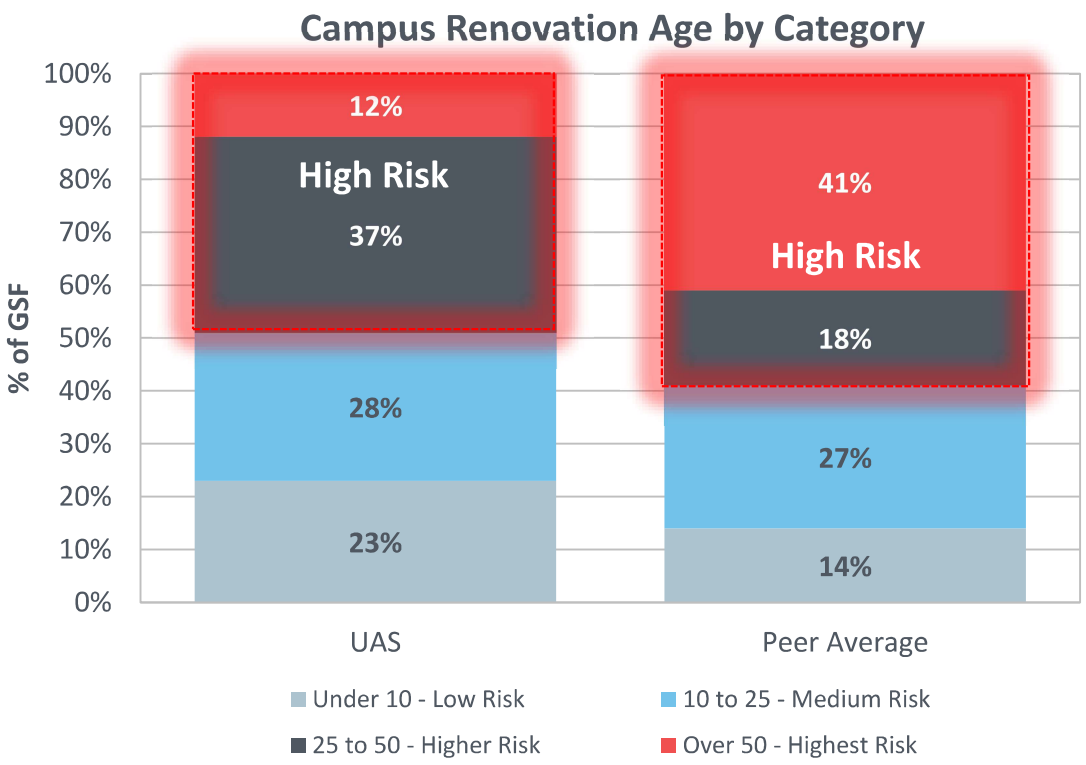
Lower risk affords the opportunity to plan ahead for future needs



	Operational Demands:	Capital Risk:
Over 50	**React as Needed:** Issues in components past the end of their lifecycles will demand reactive maintenance.	**Highest Risk:** Life cycles of major components past due – end of building life cycle approaching.
25-50	**Balance PM and Reactive Maintenance:** Younger components still require PM. Aging components require reactive maintenance.	**Higher Risk:** Life Cycles coming due in core building components.
10-25		**Medium Risk:** Lower cost space renewal updates needed.
Under 10	**Focus on PM:** Significant need for PM in young systems.	**Low Risk:** "Honeymoon" period – little need for capital reinvestment.

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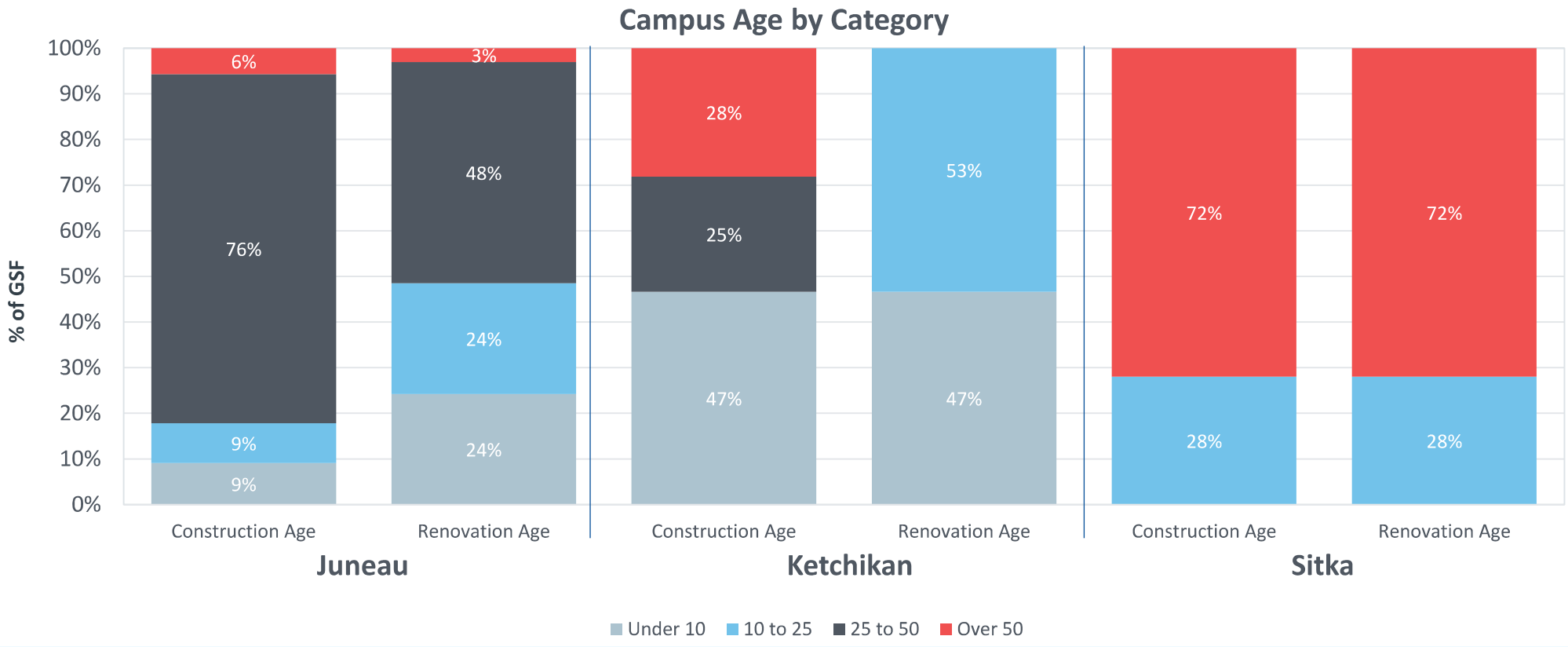
Understanding Campus Age

Renovations at Ketchikan make systems younger



UAS Has Flexibility of Managing a Young Campus

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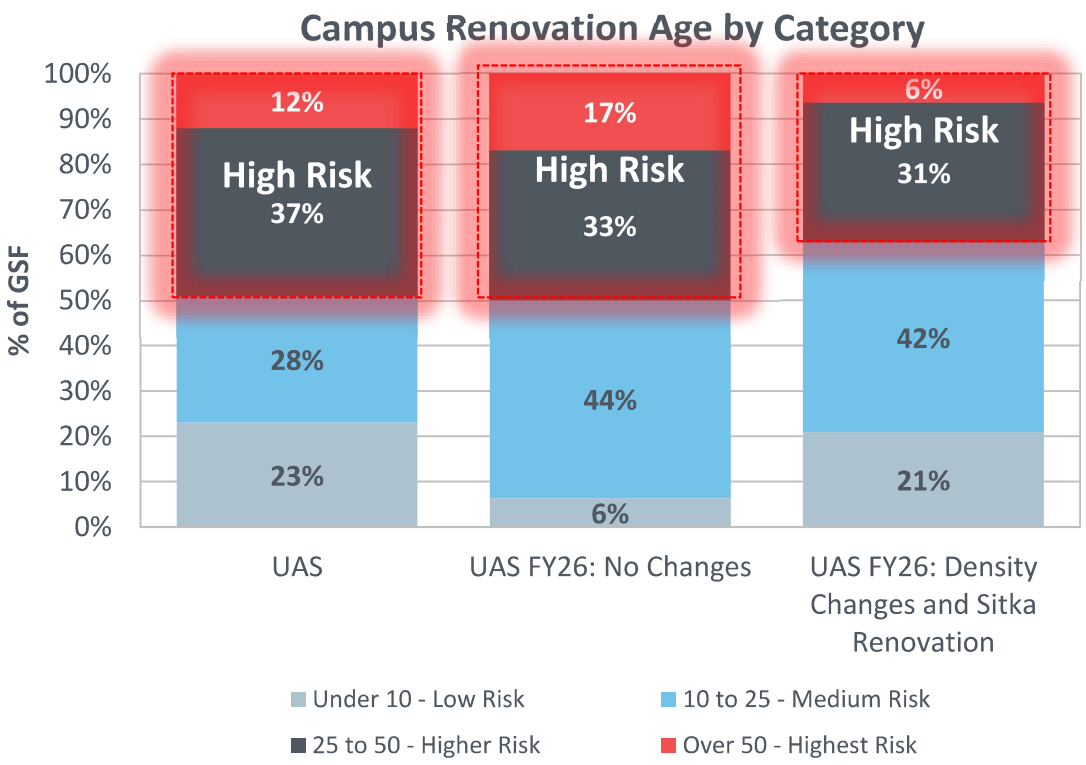
UAS will continue to be meet or exceed KPI space target, regardless of approach



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Under 10	**Focus on PM:** Significant need for PM in young systems.	**Low Risk:** "Honeymoon" period – little need for capital reinvestment.

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Understanding the Impact of Age on Future Need

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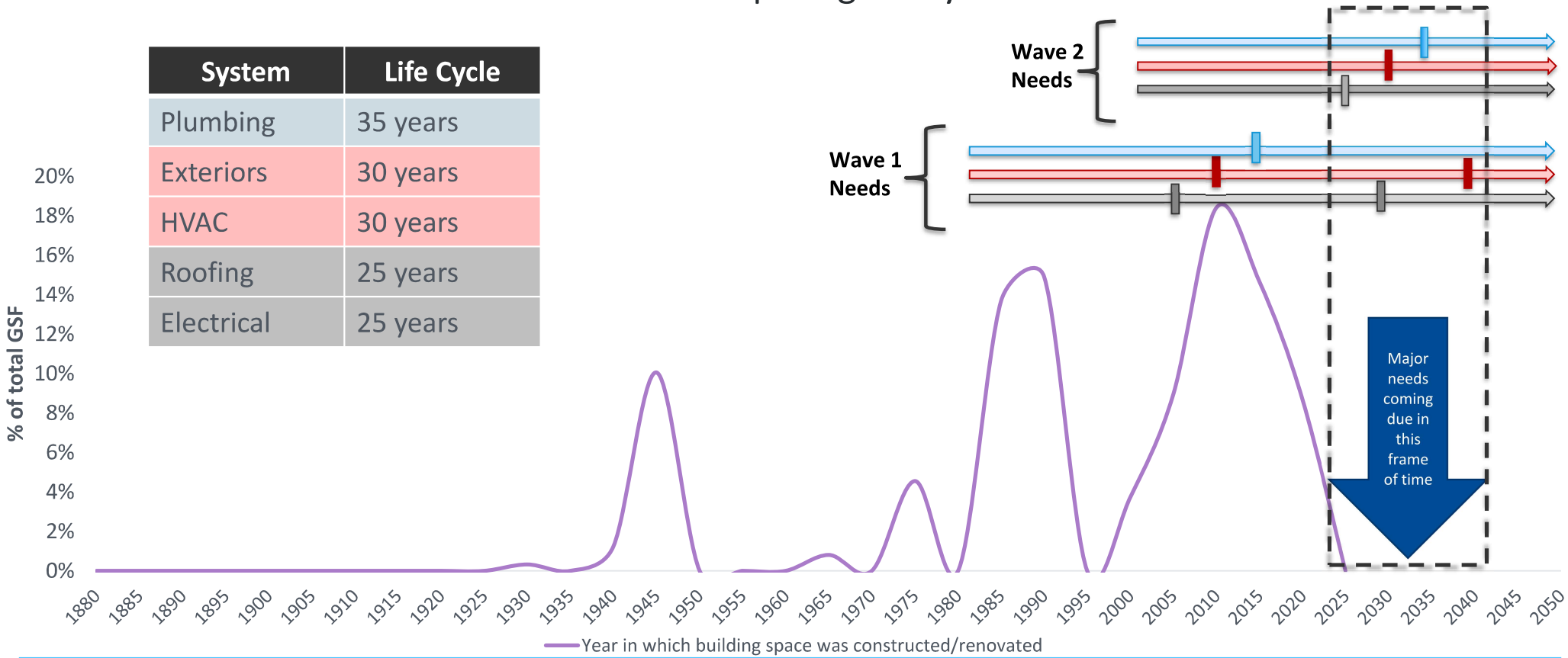
Different construction waves will have competing life cycle needs in the future

System	Life Cycle
Plumbing	35 years
Exteriors	30 years
HVAC	30 years
Roofing	25 years
Electrical	25 years



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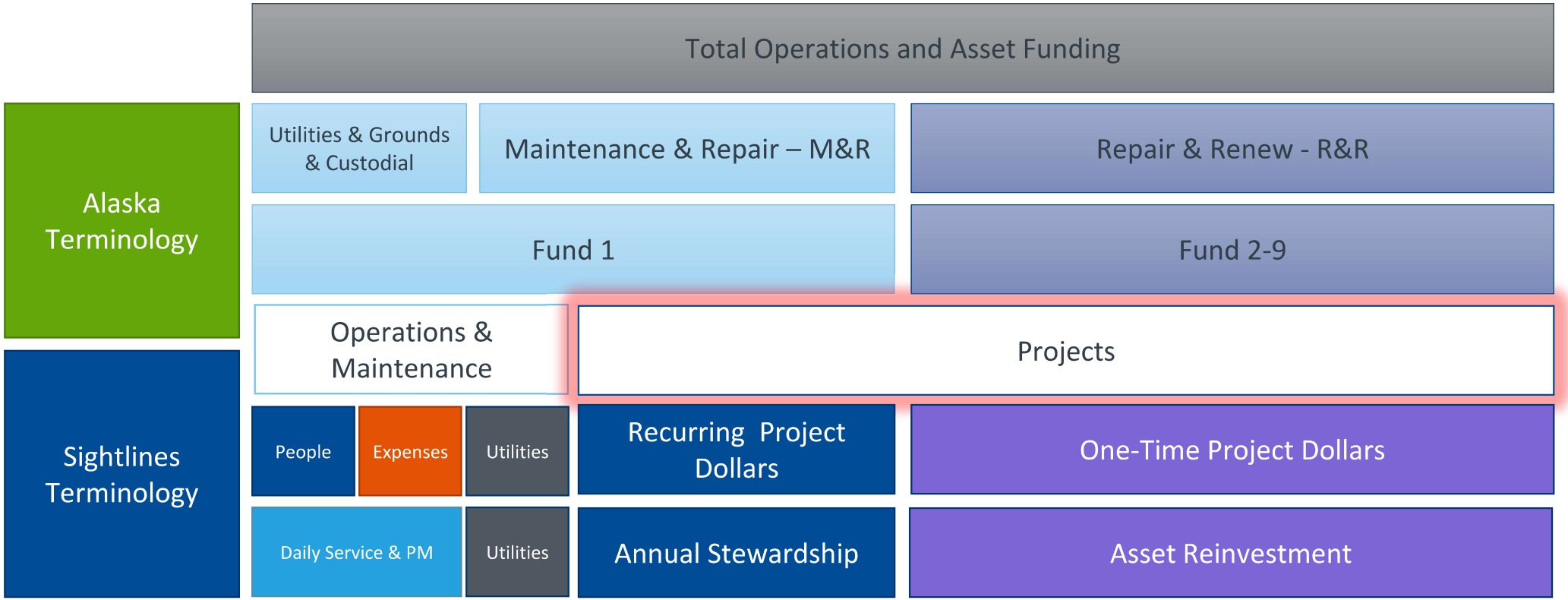
Capital Profile

Capital Funding Sources



Increased Focus on Existing Space in Recent Years

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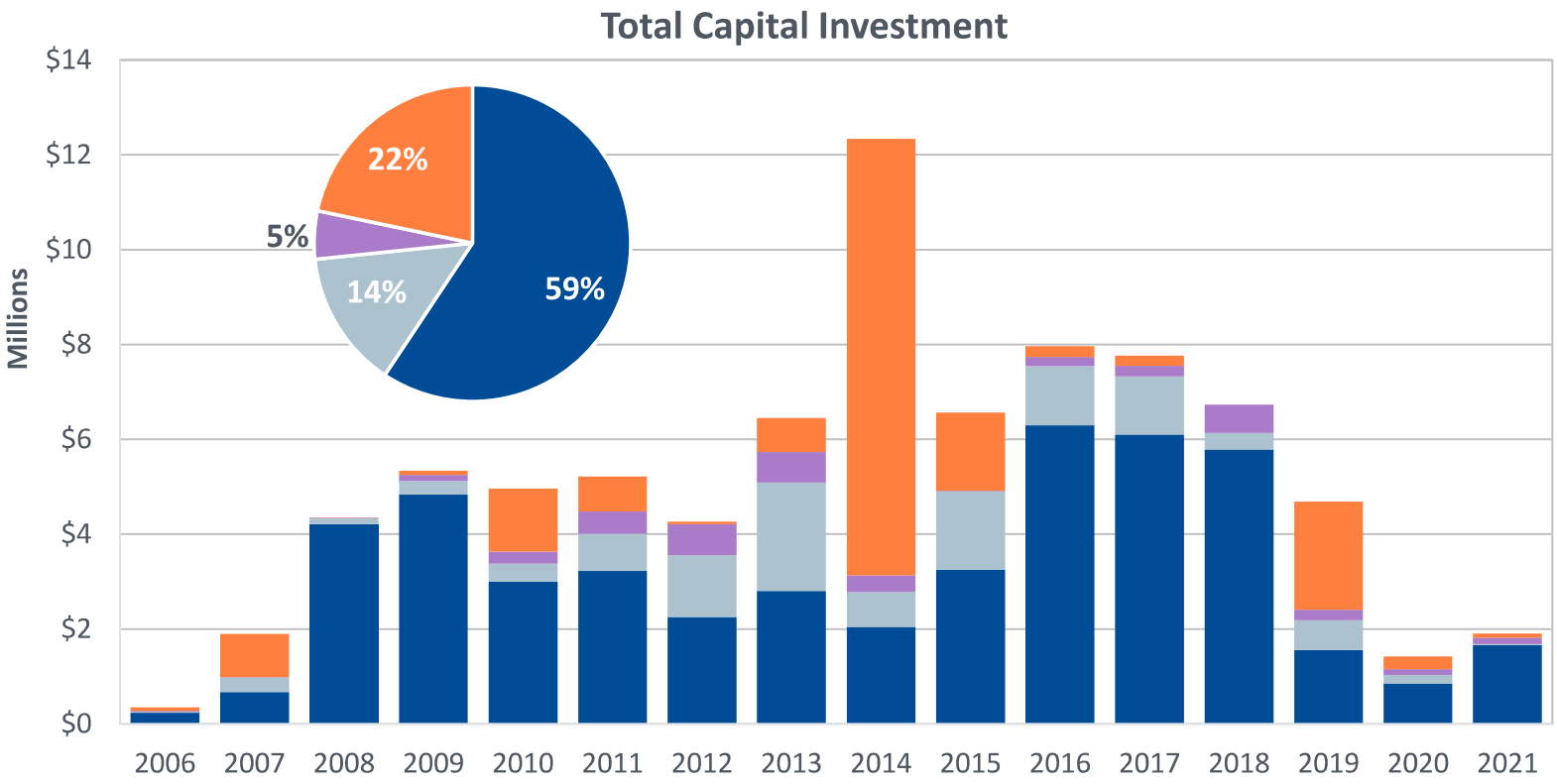
Existing Space investment decreased in recent years, but has seen high investment



Existing Space

- Exterior Doors
- Windows
- Pointing
- Roofs
- Insulation
- Gutters
- Mechanical Systems
- HVAC Projects
- Electrical Systems
- Carpeting
- Painting
- Replacement of Light Fixtures
- Furniture Replacement
- Room reconfiguration
- ADA Work
- Fire/Sprinkler Systems
- Asbestos Removal

Infrastructure

- Utility: Work Done on Central Utility Plants
- Utility: Underground Piping
- Grounds: Sidewalks
- Grounds: Parking Lots
- Grounds: Signage
- Grounds: Grass and Turf Fields

Non-Facilities

- Master Plans
- Feasibility Studies
- IT
- Equipment Purchases

New Space

- Any addition of GSF (new construction, additions to existing buildings)

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Defining an Annual Investment Target

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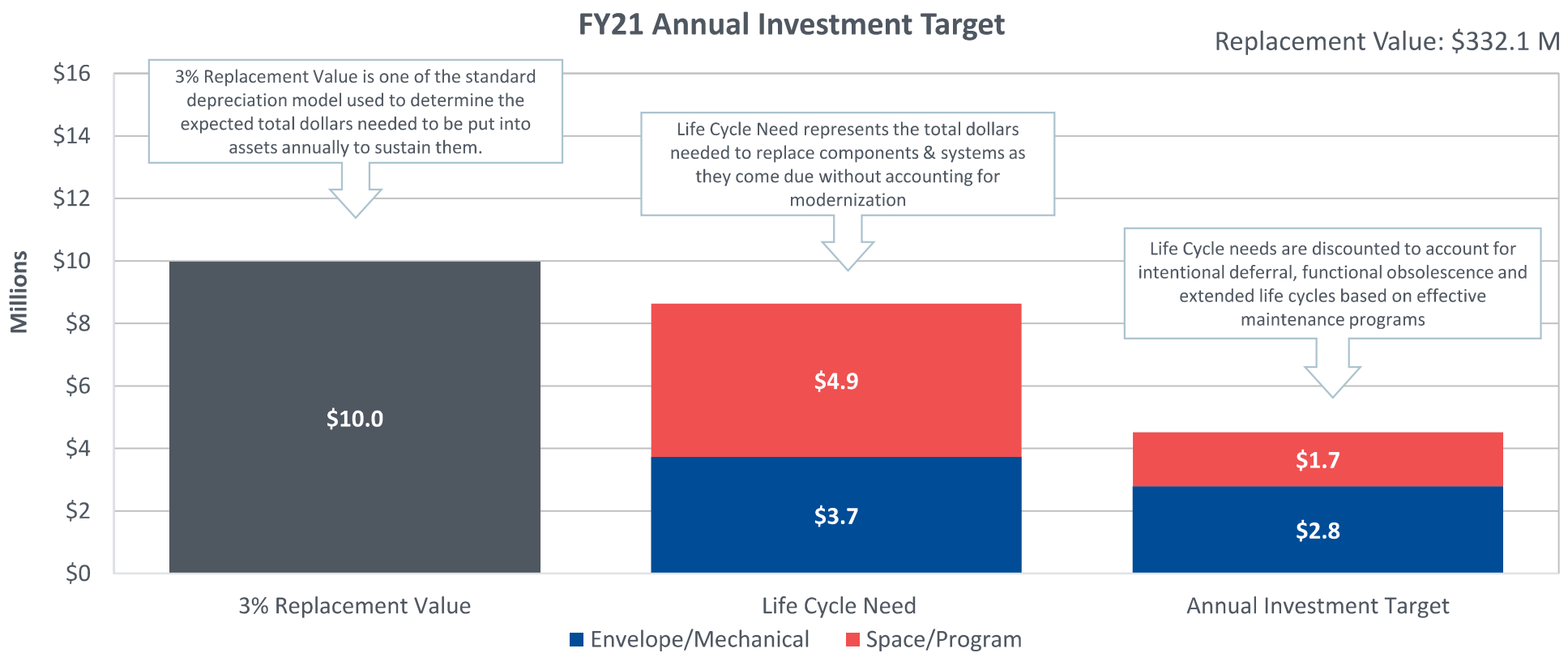
Annual Funding Target: $4.5M



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Recurring Capital Spending Falls Short of Target

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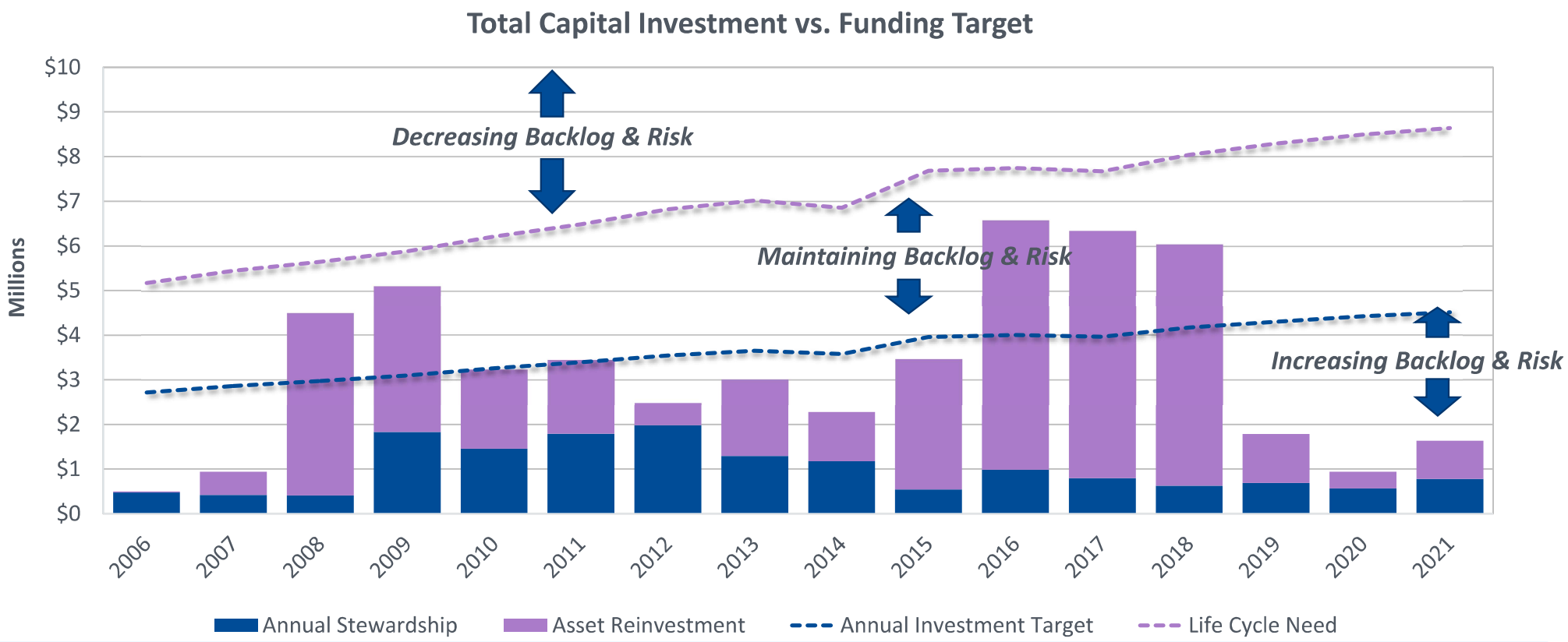
In FY19, FY20, and FY21 UAS has increased its backlog



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Fund 1 Projects: Annual Stewardship
Funds 2-9 Projects : Asset Reinvestment

Juneau Capital Spending Sets the Trend

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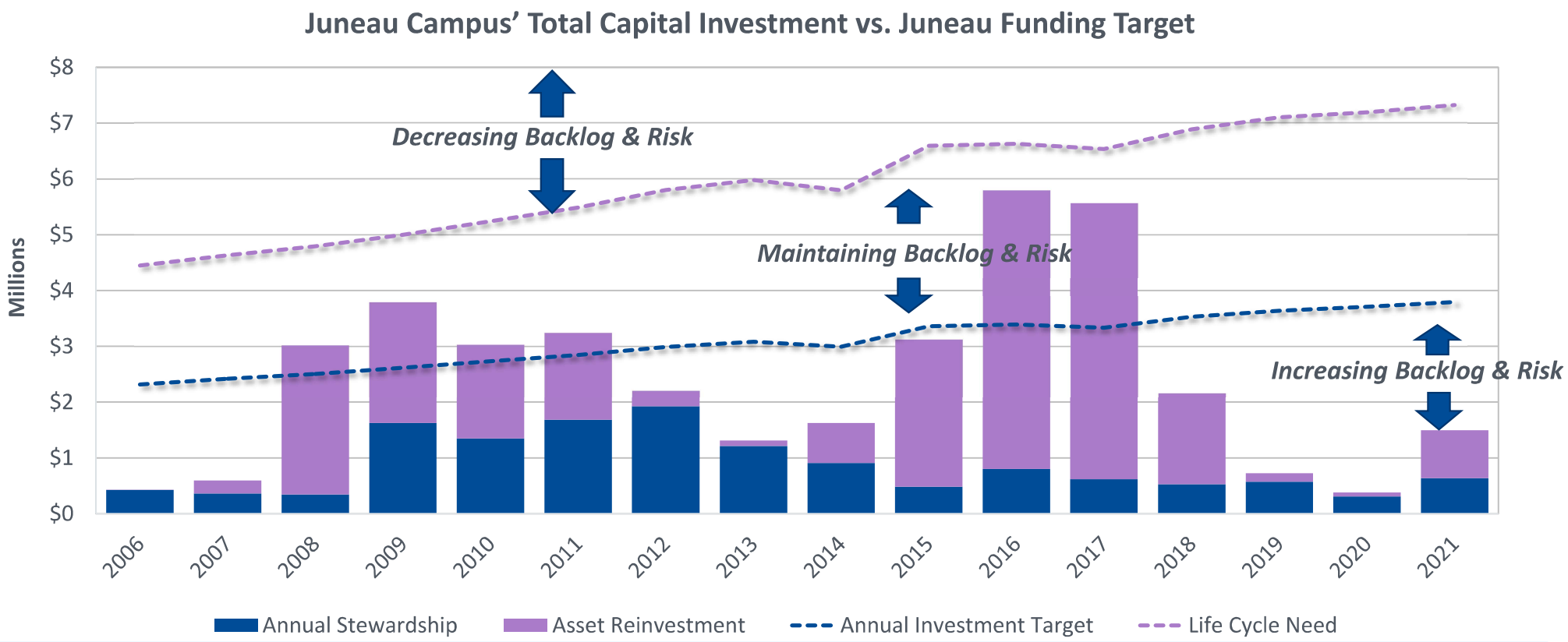
Unlike the combined spending trend, Juneau's trend begins to decrease in FY18



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Fund 1 Projects: Annual Stewardship
Funds 2-9 Projects : Asset Reinvestment

Ketchikan Capital Spending Frequently Meets Target

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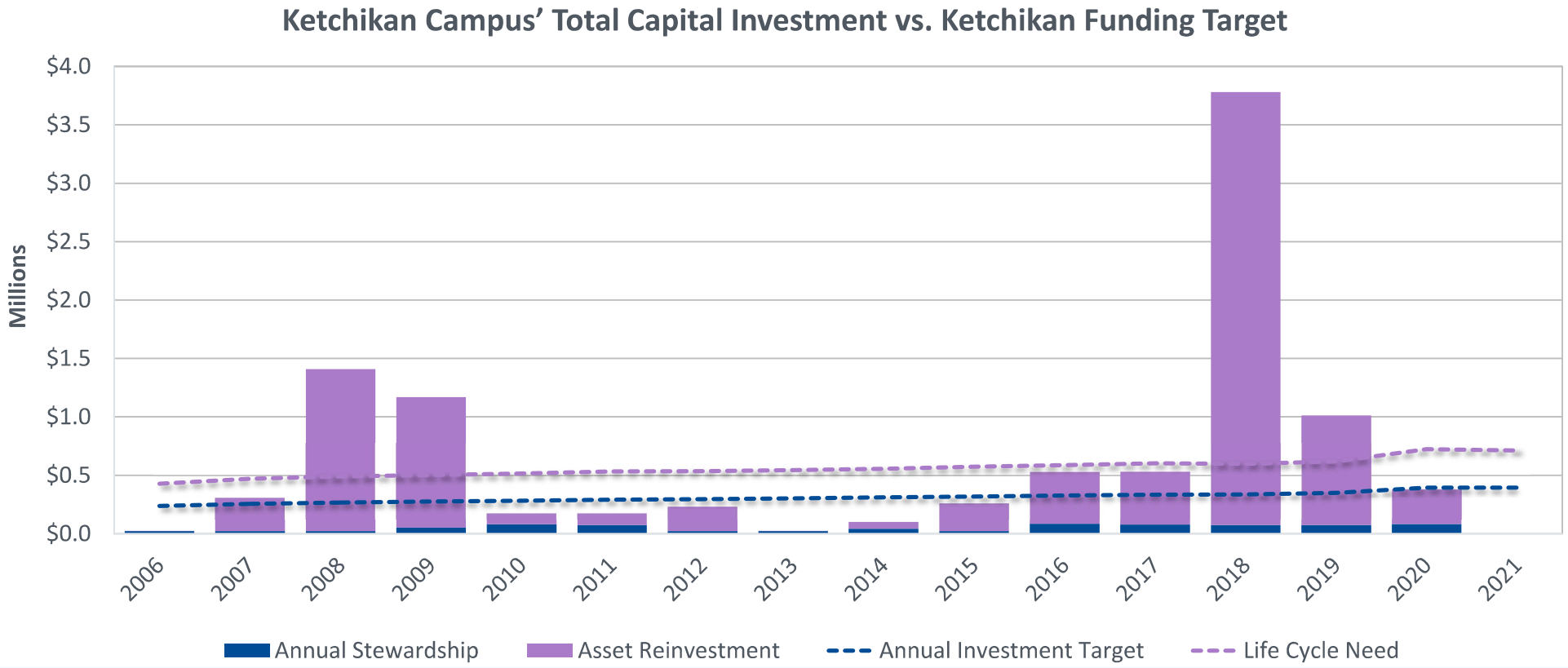
In FY18, Ketchikan spent $3.7 Million into the Maritime Center



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Fund 1 Projects: Annual Stewardship
Funds 2-9 Projects : Asset Reinvestment

Sitka's Lower Capital Spending Increases Backlog and Risk

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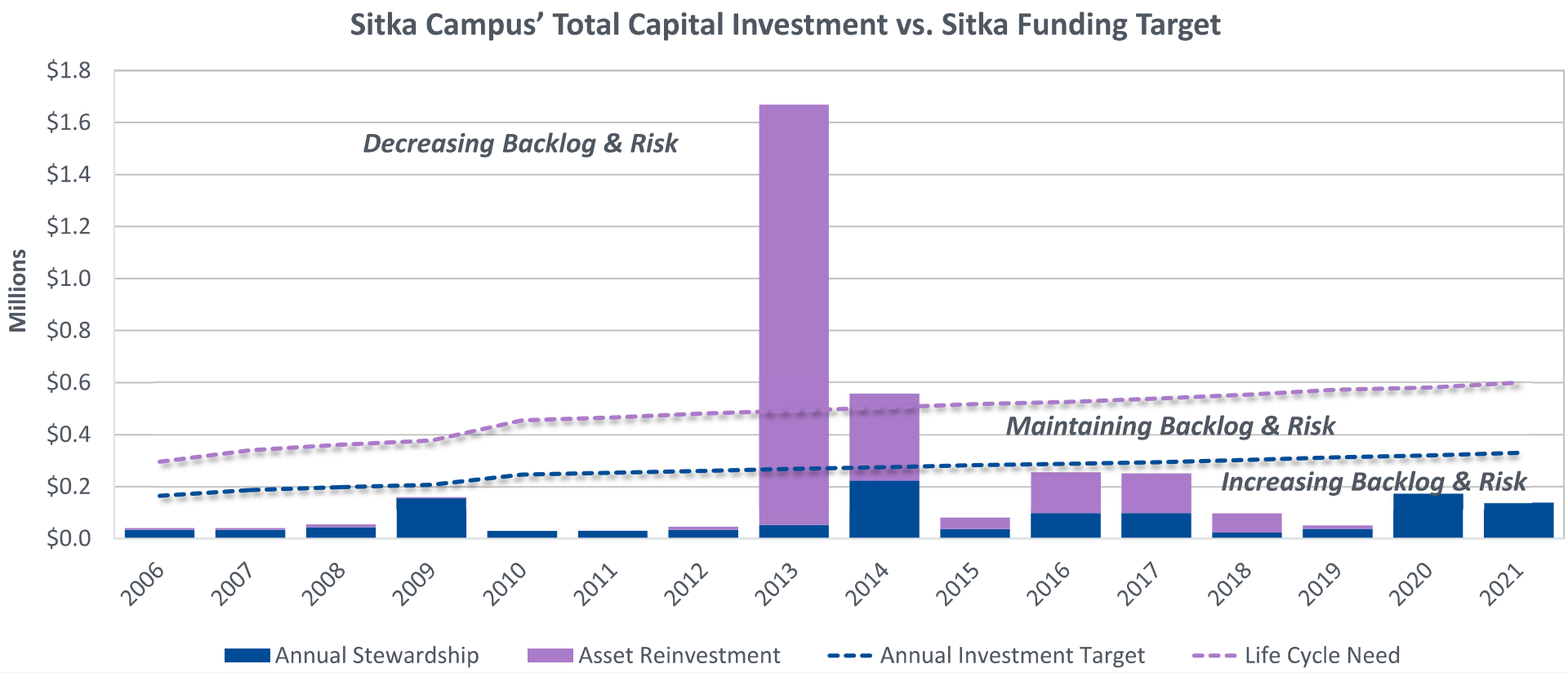
In FY13 $1.6 Million went into Campus Completion, capital targets missed since FY15



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Fund 1 Projects: Annual Stewardship
Funds 2-9 Projects : Asset Reinvestment

Historic Annual Stewardship Higher at UAS

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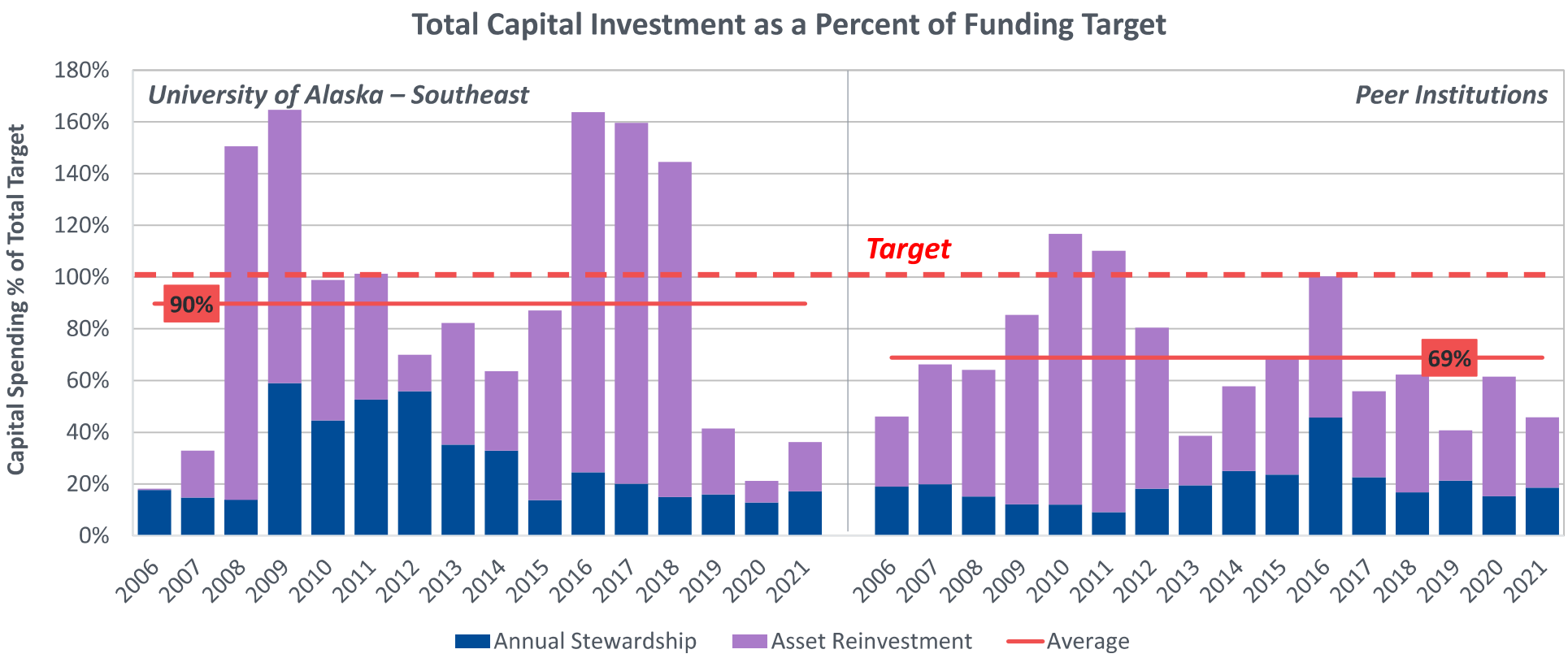
Asset reinvestment, or one-time, sources of funding close the gap to reach capital targets



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Fund 1 Projects: Annual Stewardship
Funds 2-9 Projects : Asset Reinvestment

Disparity In Reaching Targets Across Campuses

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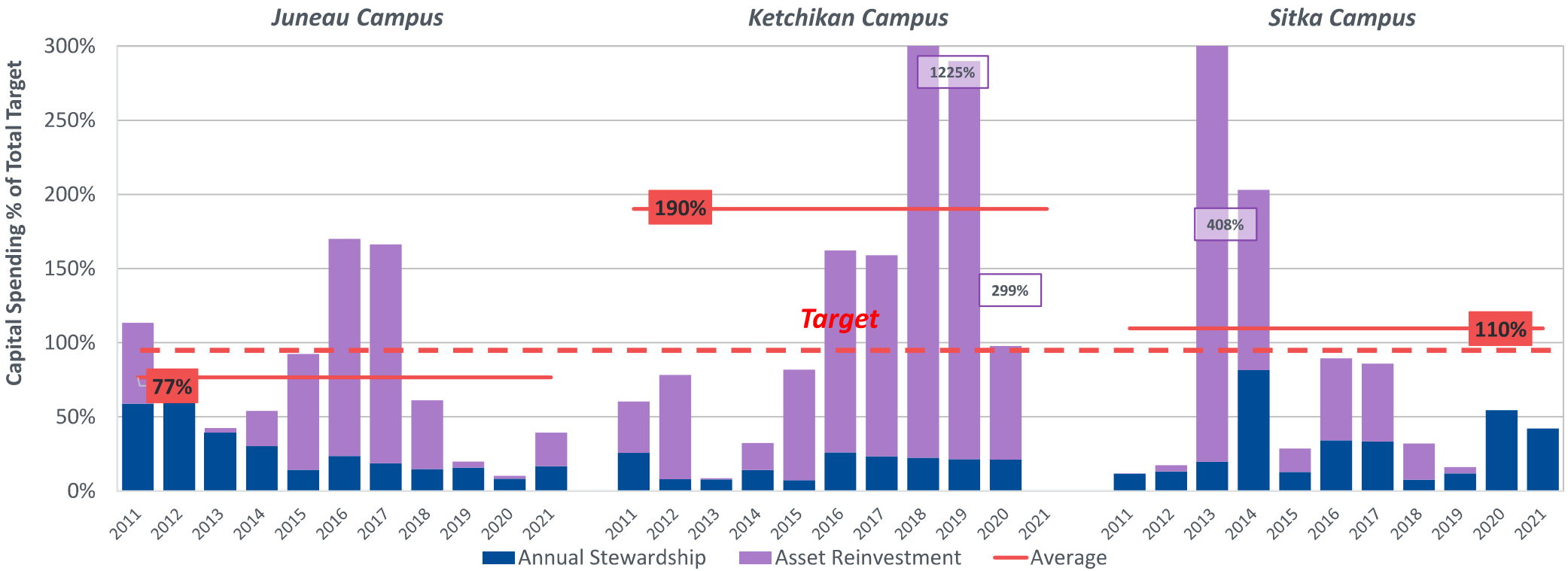
Large infusions of capital inflate average spend to target

Total Capital Investment as a Percent of Funding Target



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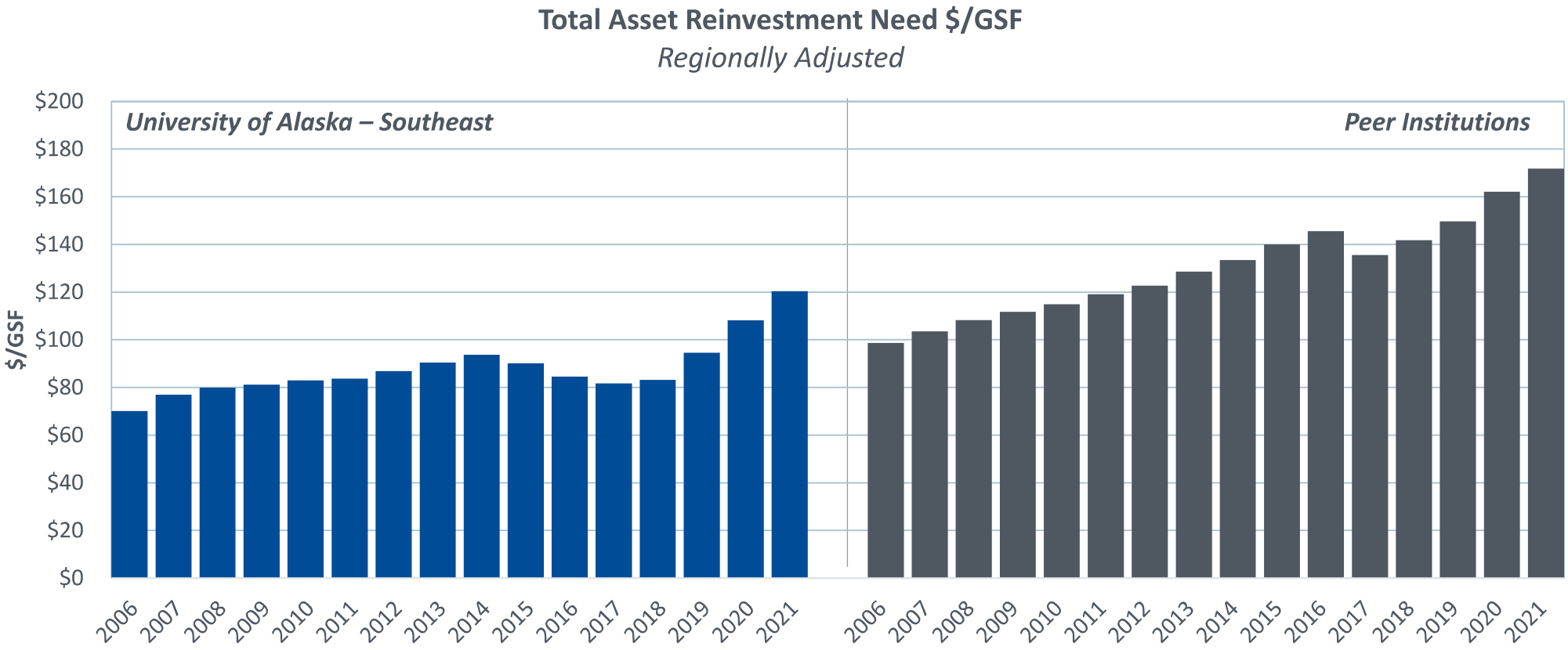
Fund 1 Projects: Annual Stewardship
Funds 2-9 Projects : Asset Reinvestment

Total Need is Greater than Peers

Total need based on FY21 Facilities Condition Assessment



The Effect of Demolitions and Divestment on FCI

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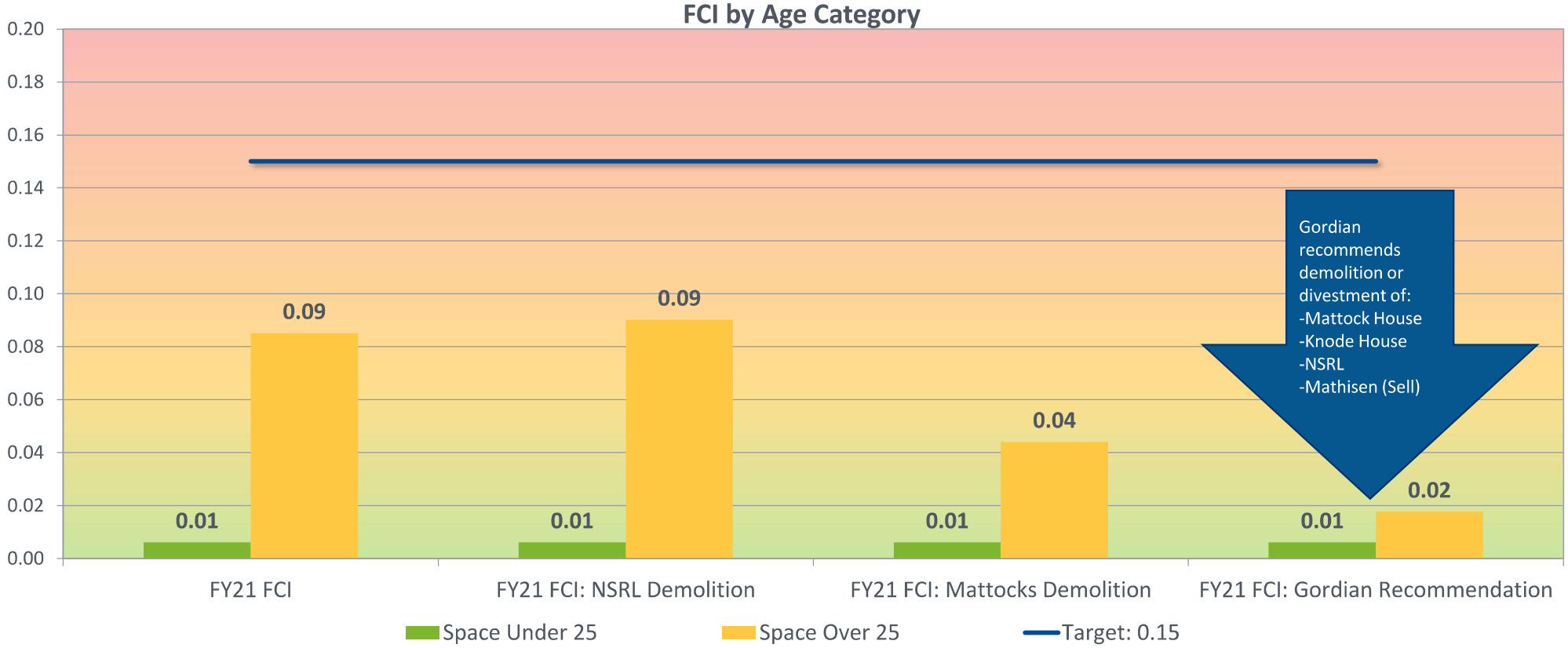
UAS can greatly improve FCI by completing planned divestment and demolition



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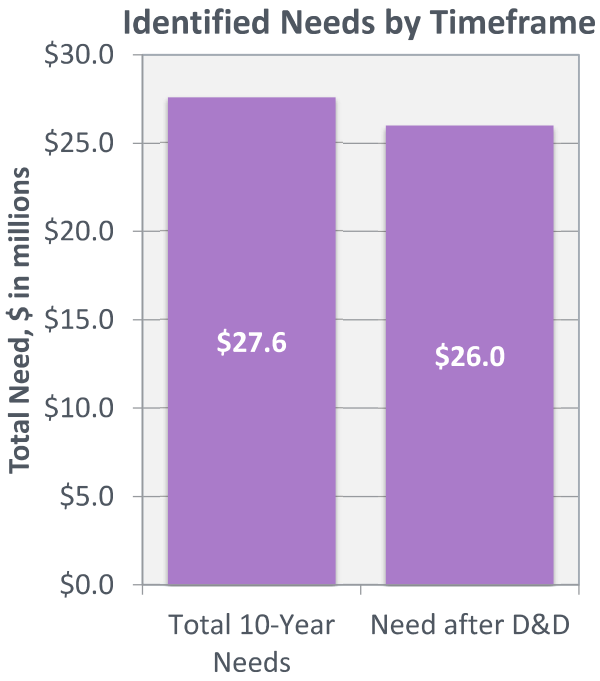
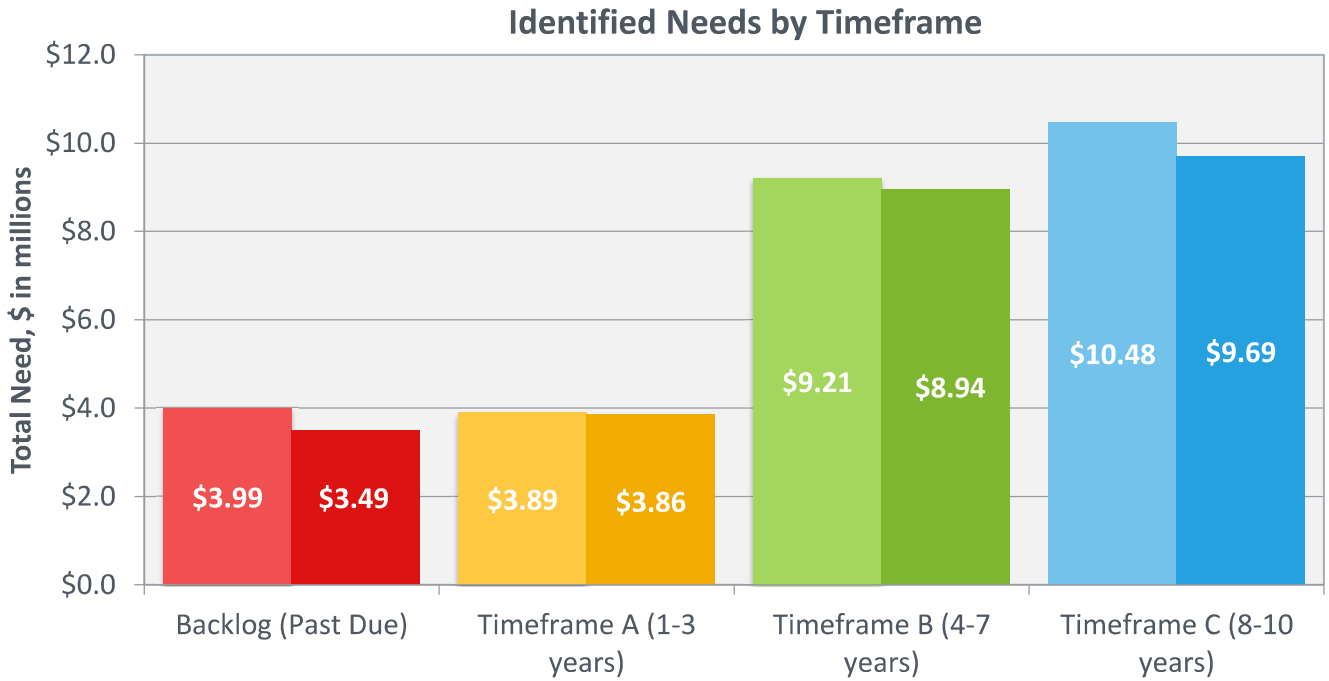
Gordian D&D Plan Reduces Capital Need by $1.6 M

The NSRL demolition accounts for a $1 Million reduction in capital need





# of projects	498

65	58	162	213

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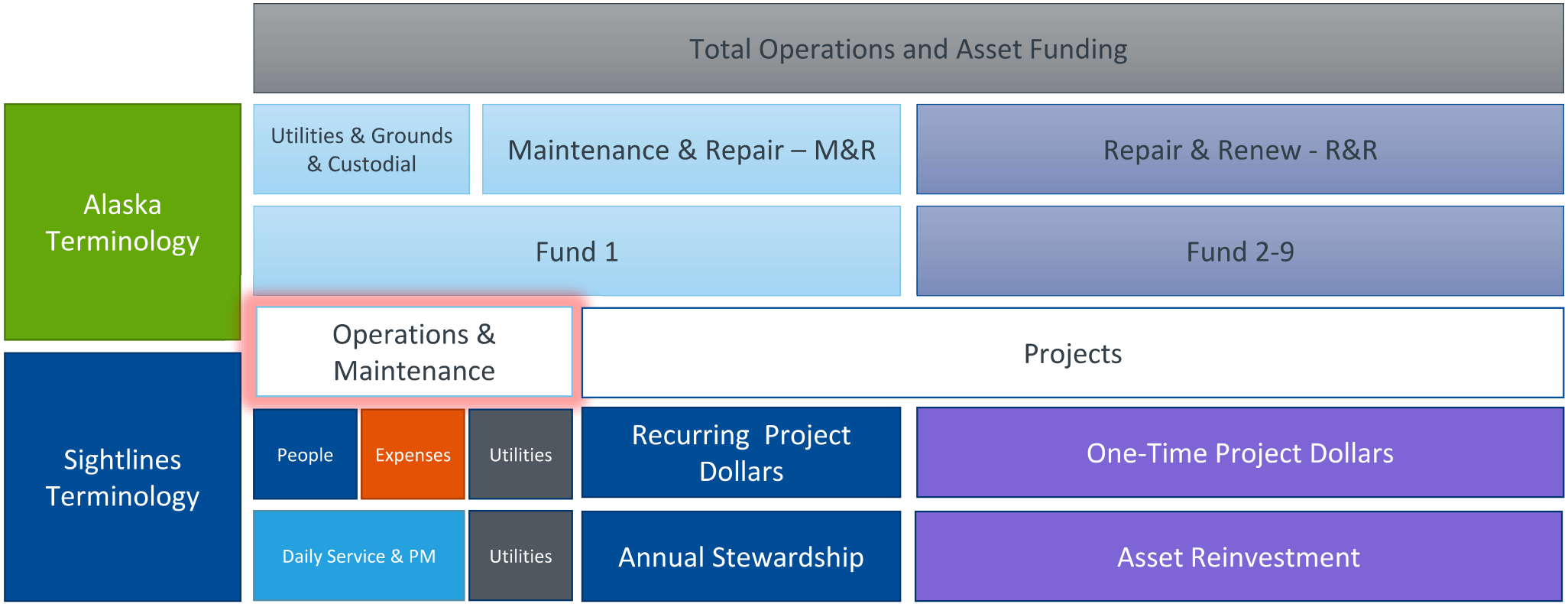
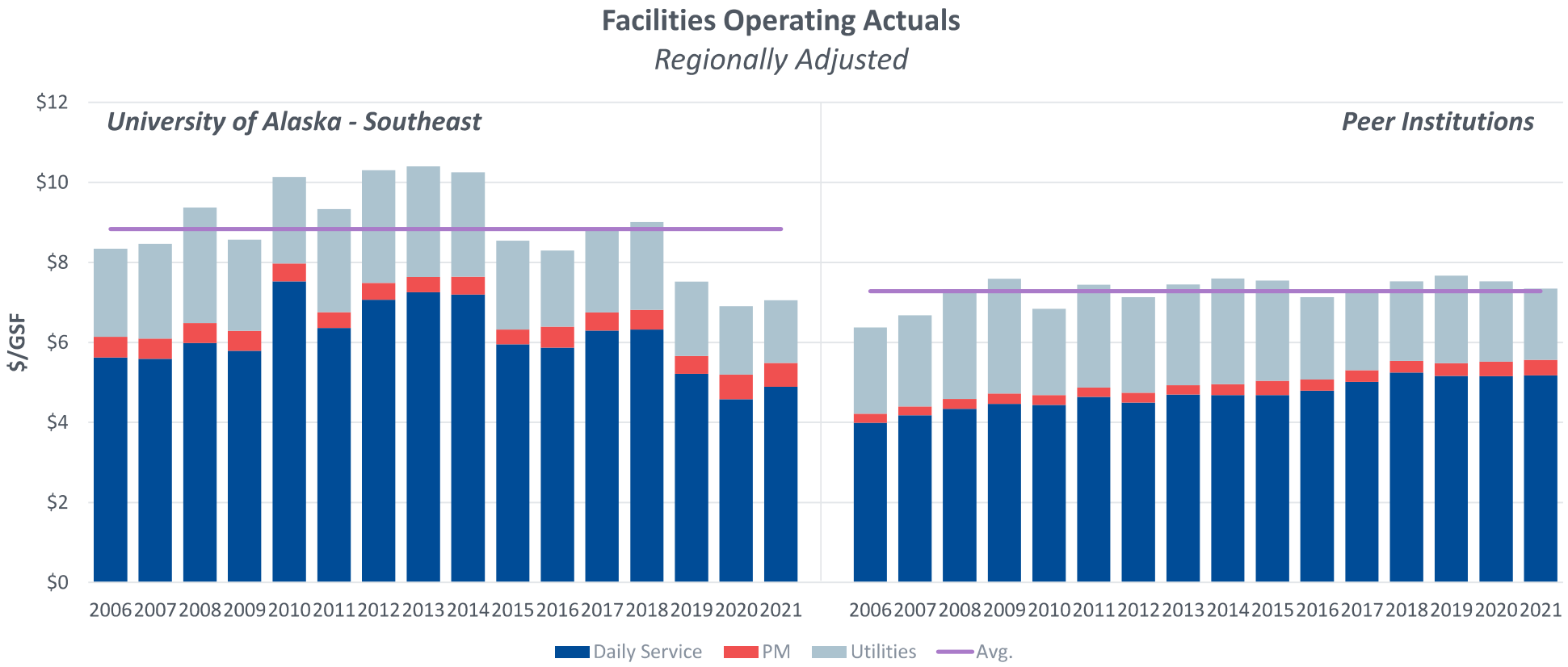
Operations Success

Capital Funding Sources



Facilities Operating Expenditures vs. Peers

UAS has reduced its Daily Service expenditures in recent years below peer average



Budget Cuts Limit Purchasing Power

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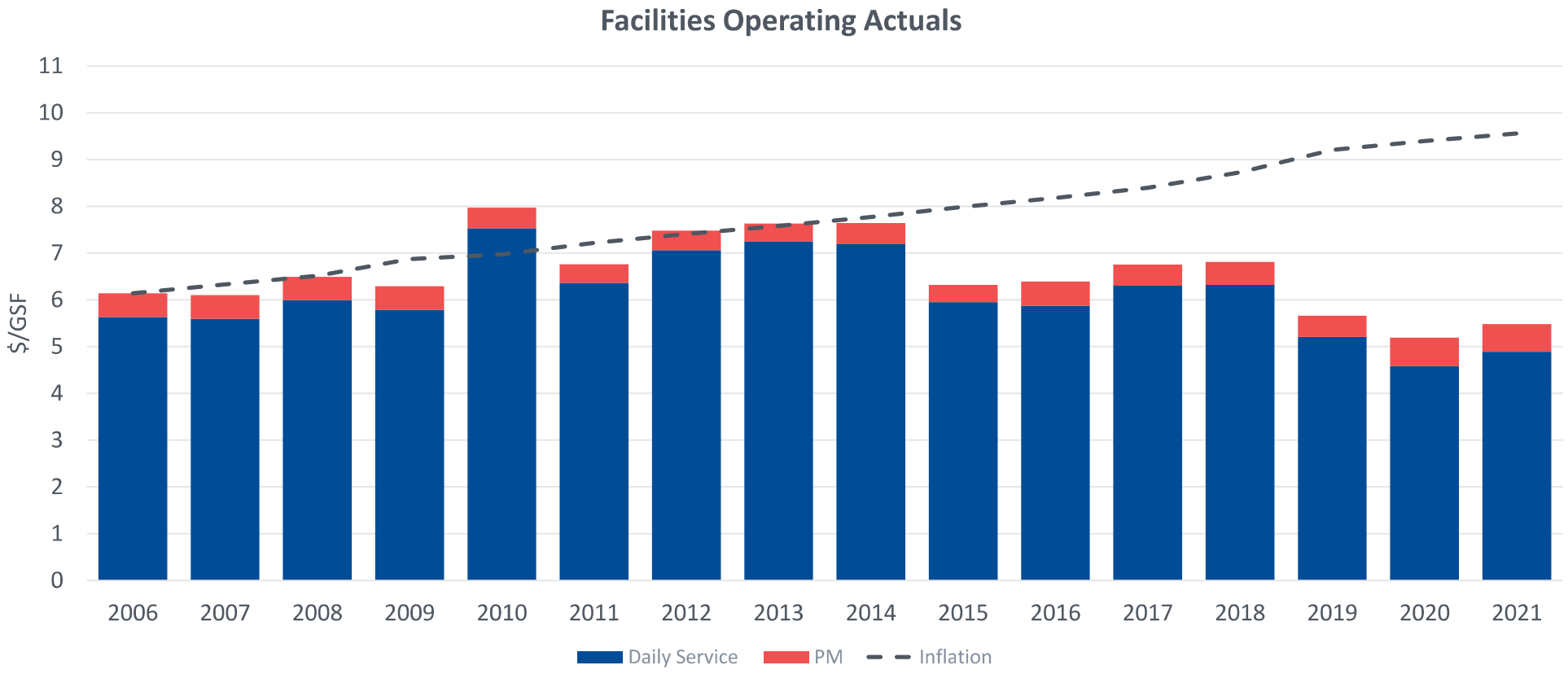
2021 difference amounts to $2.1M less buying power than 2006 budget



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Juneau's Decreasing Budget Follows University Trend

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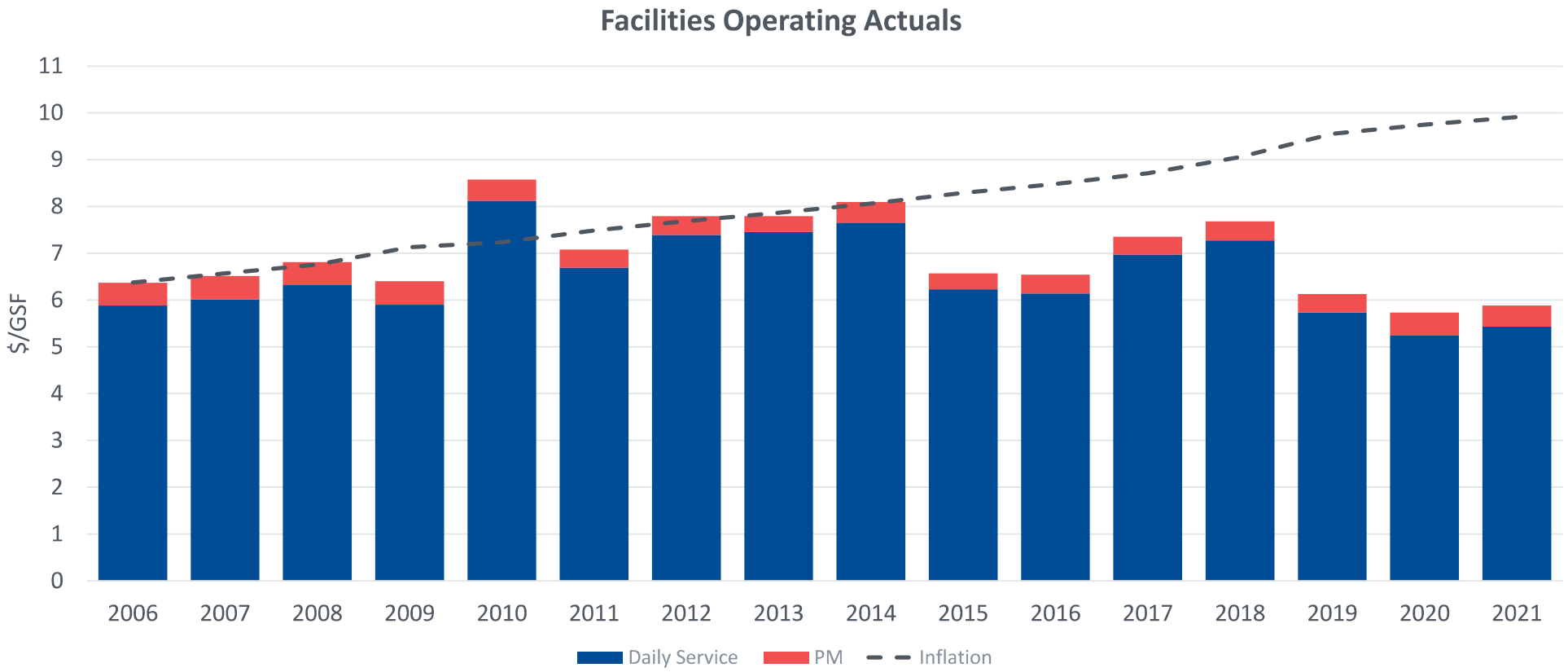
2021 difference amounts to $1.6M less buying power than 2006 budget



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Ketchikan Budget Emphasizes PM in Recent Years

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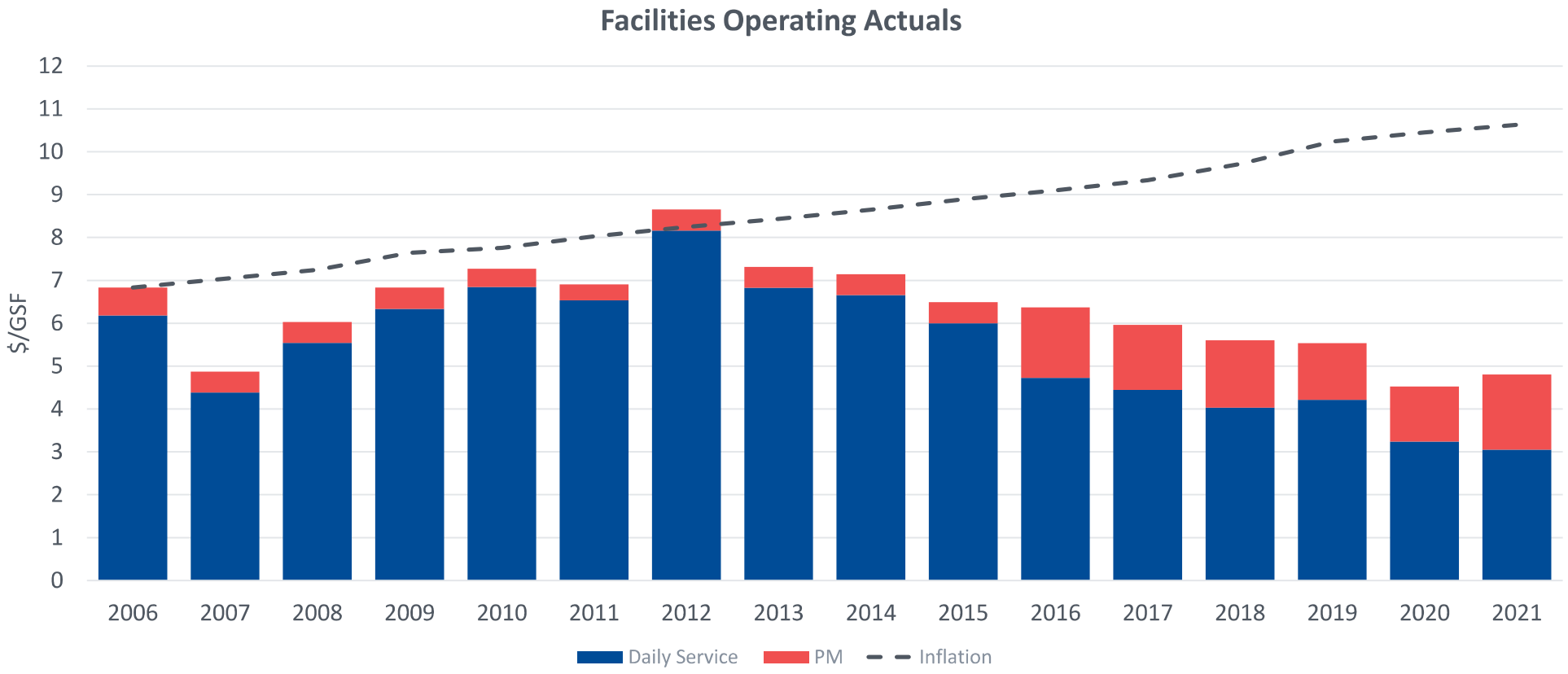
Investments into PM will extend building lifecycles and decrease capital need



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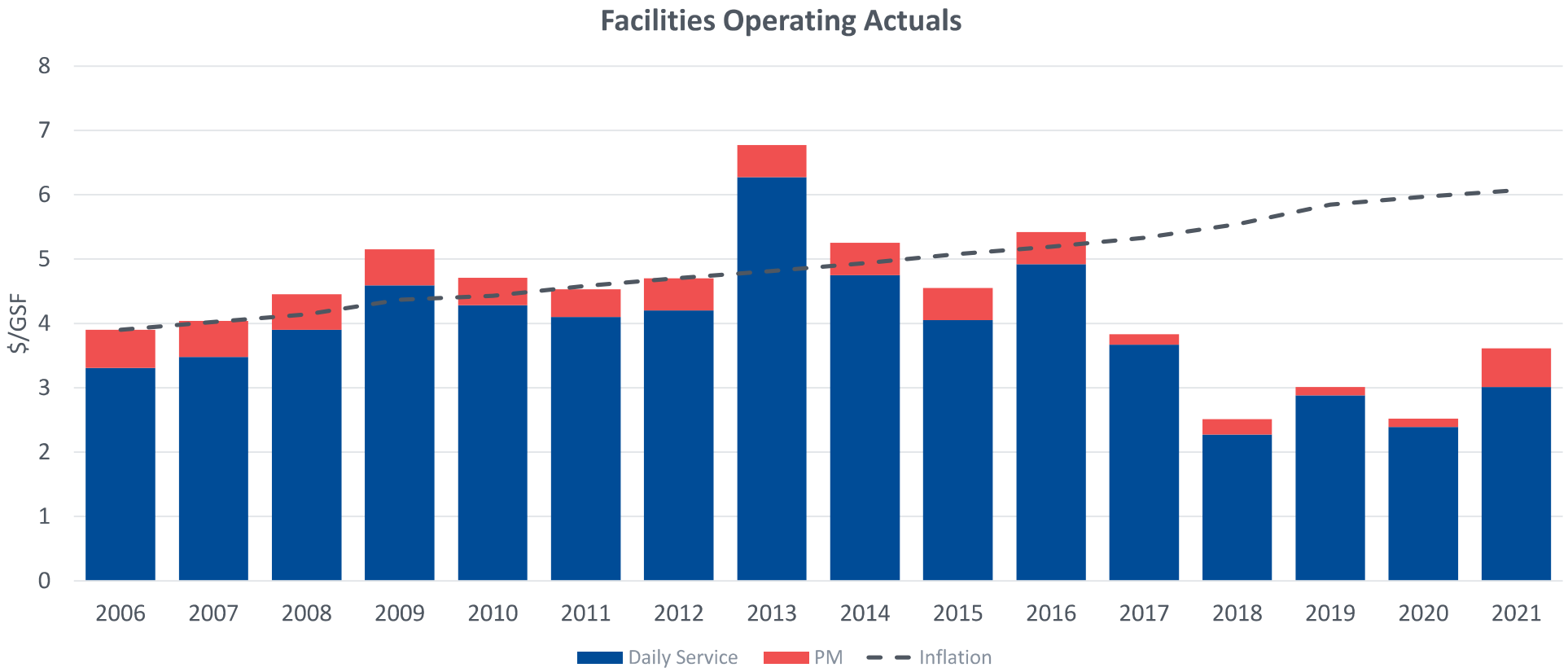
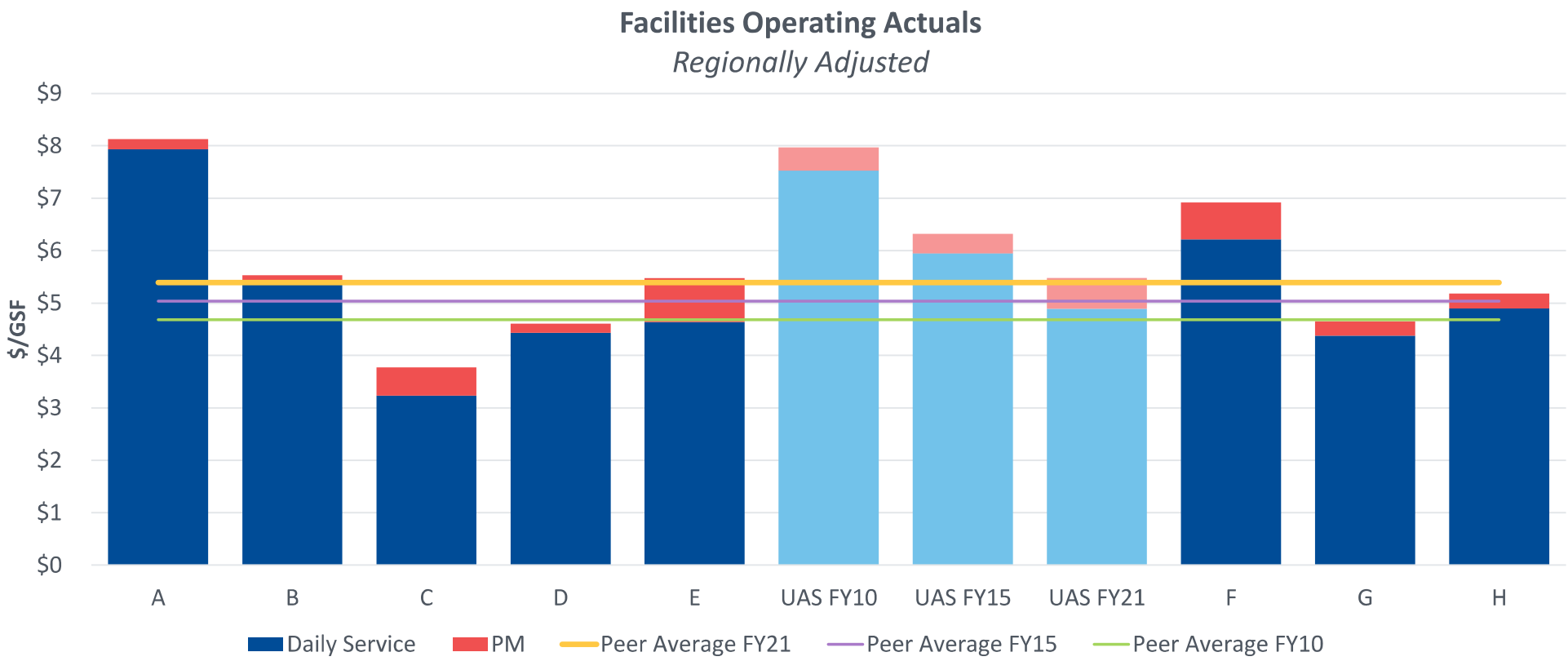
Sitka's Recent Budget Lacks Purchasing Power of Past Years

Sitka's operational spending decreased 41% since 2006, accounting for inflation



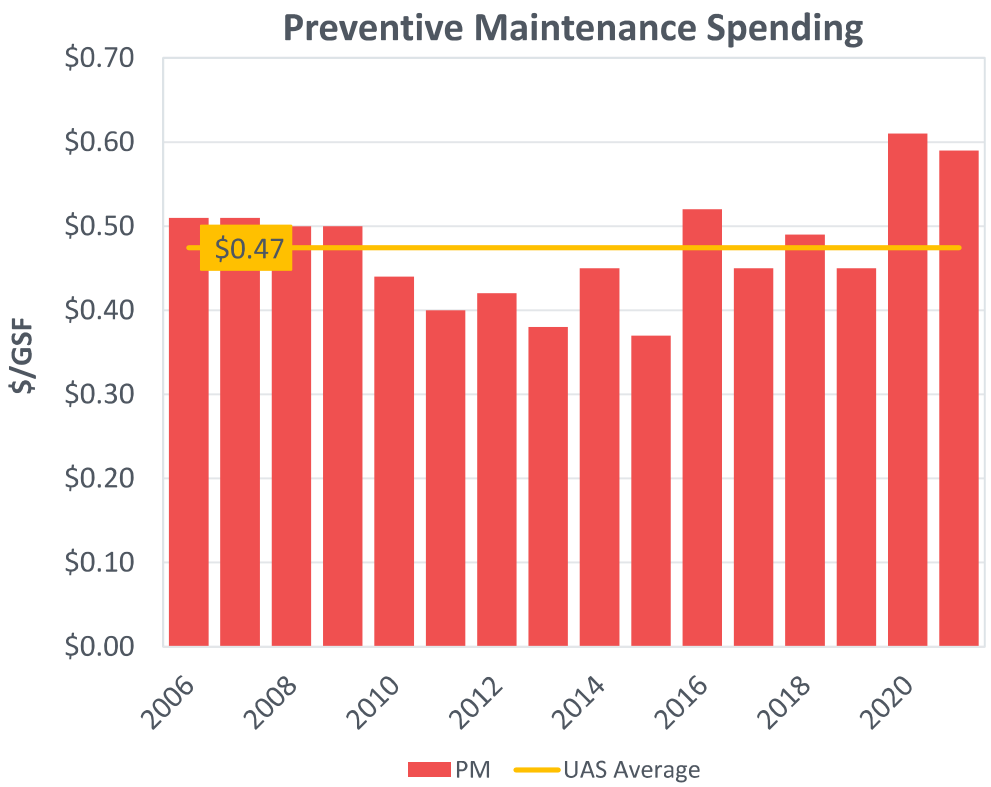
Facilities Operating Expenditures vs. Peers

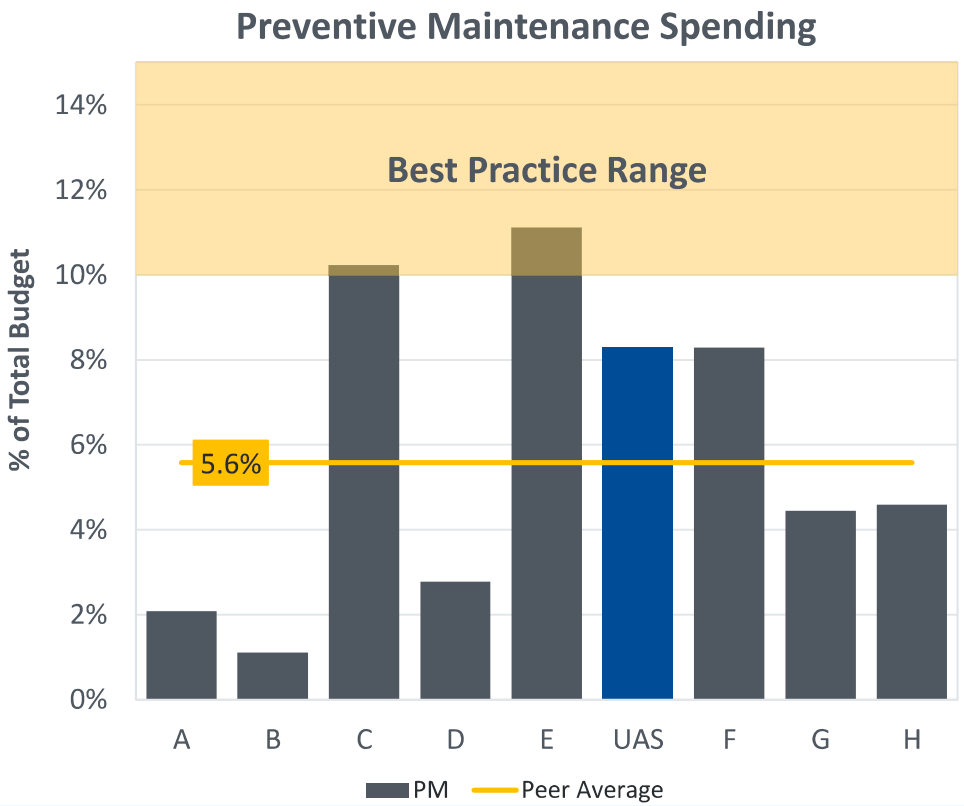
UAS has decreased its daily service expenditures, while Peer spending has increased



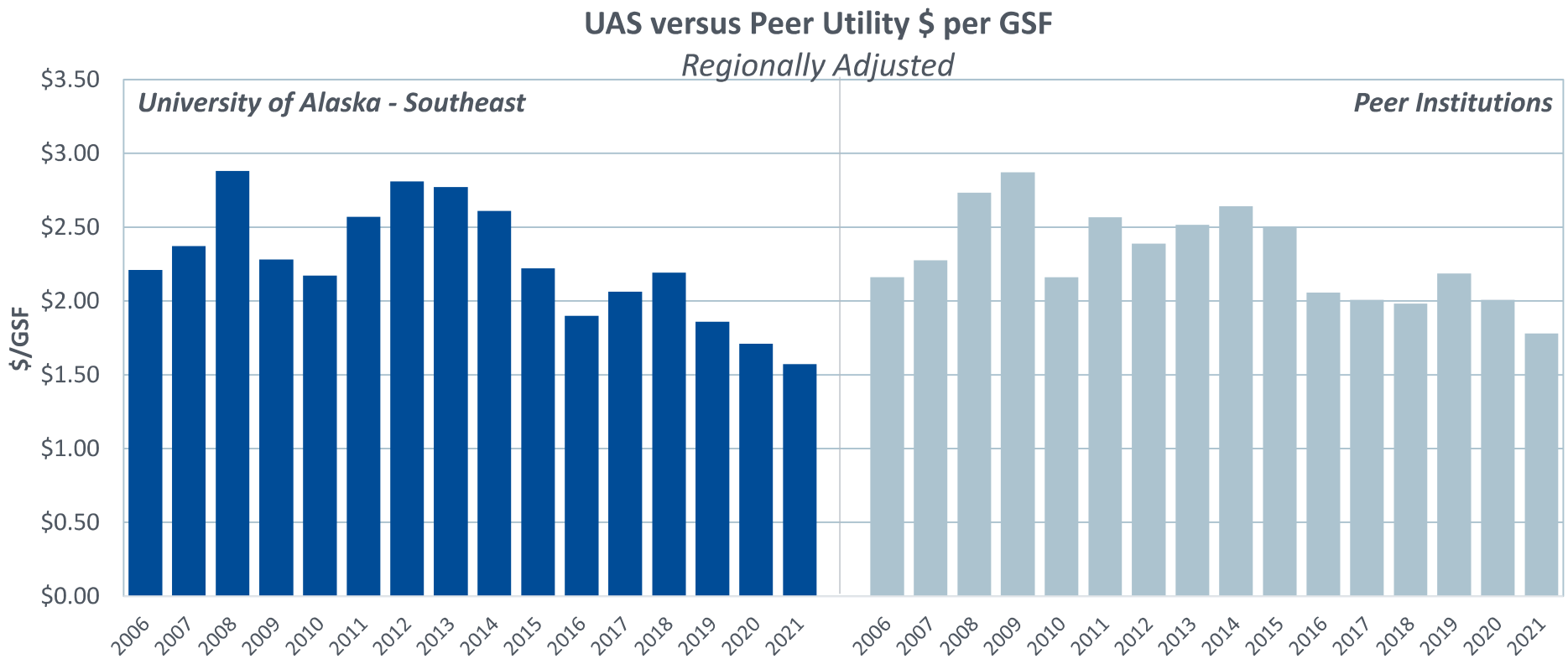
UAS Allocates More Resources to PM than Peers

Recent increases in PM spending result in UAS approaching "Best Practice Range"



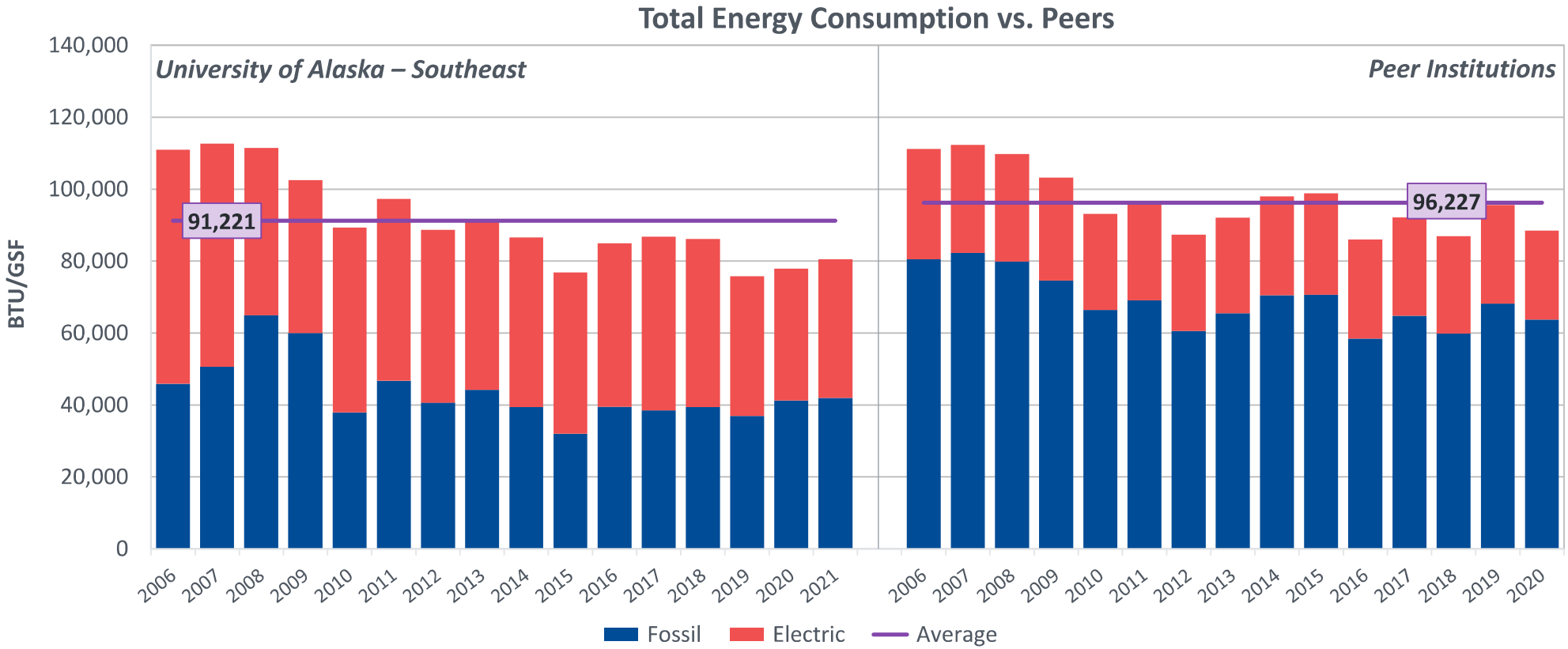


Utility Operating Expenditures Compared to Peers



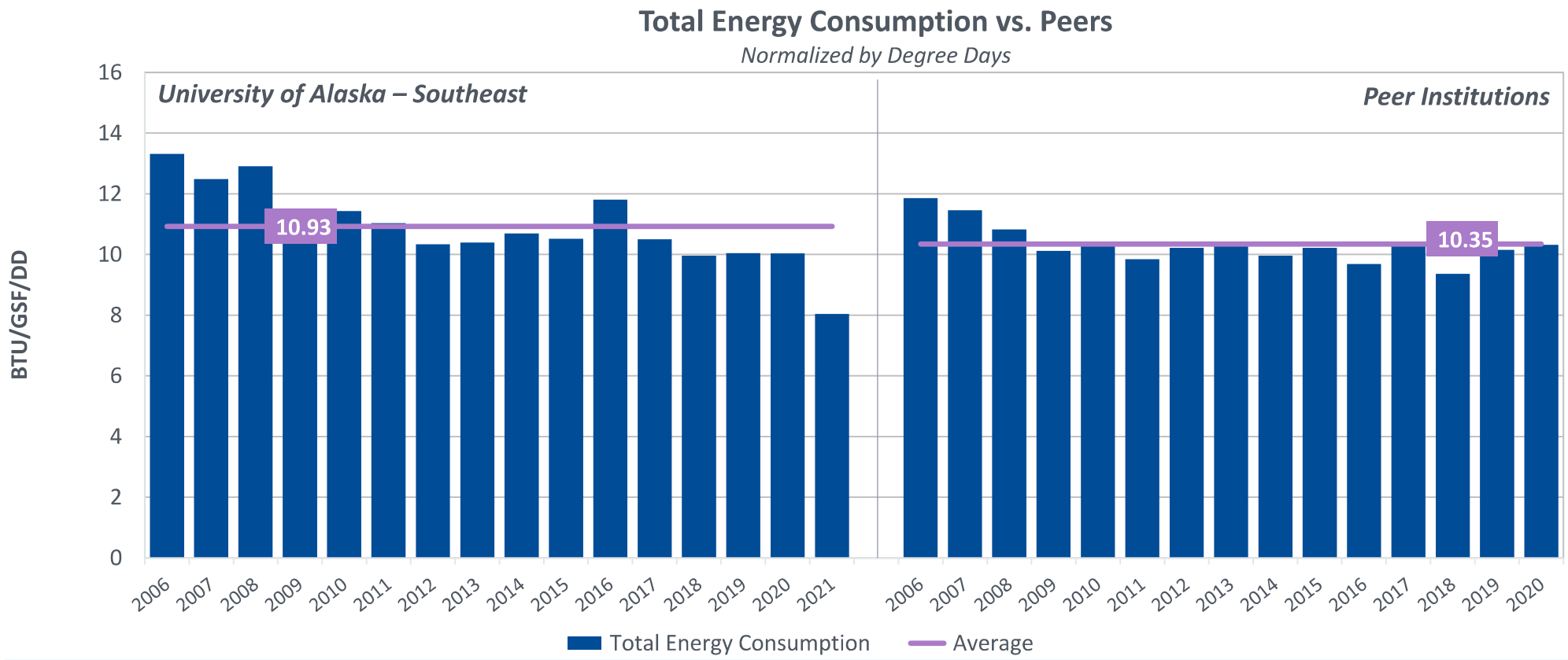
Total Energy Consumption

UAS has seen consumption increase since FY19, but it is still well below peers



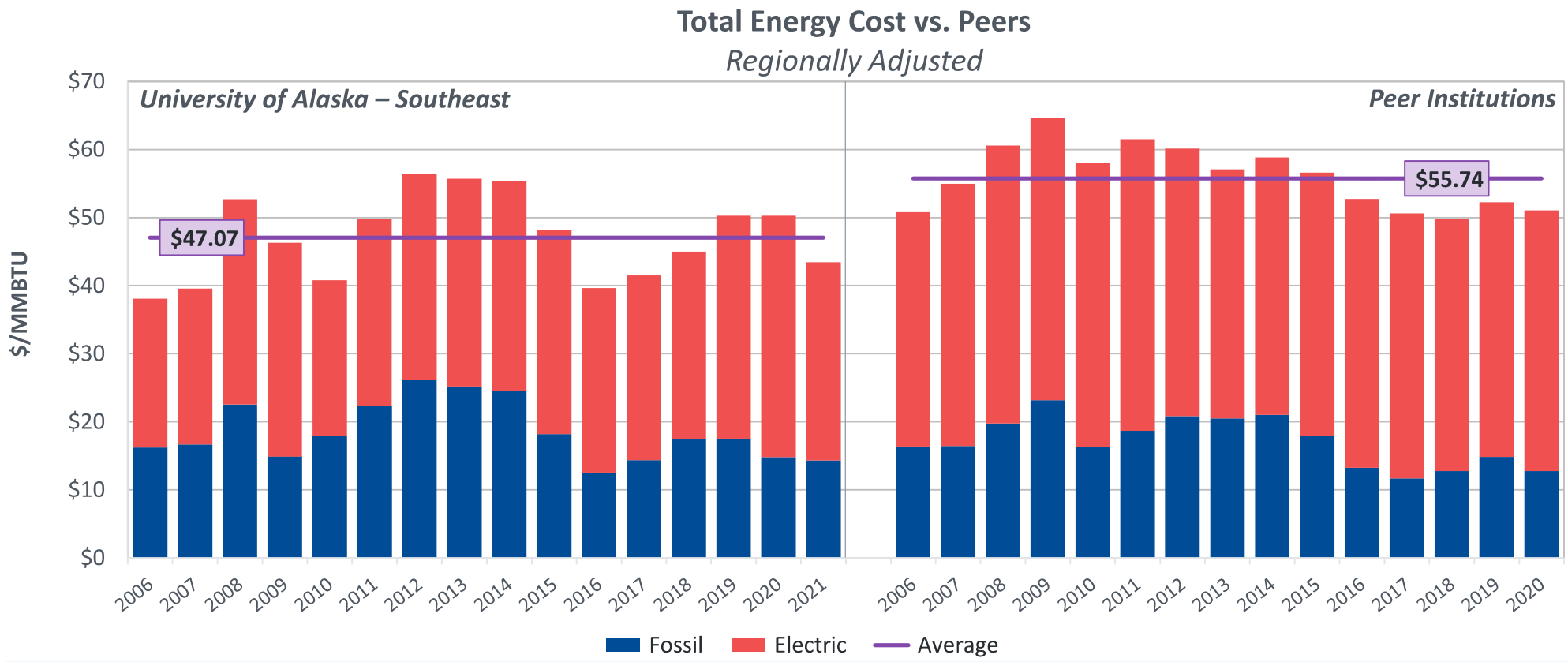
Total Energy Consumption

When normalizing by degree day, UAS' decrease in consumption is more pronounced



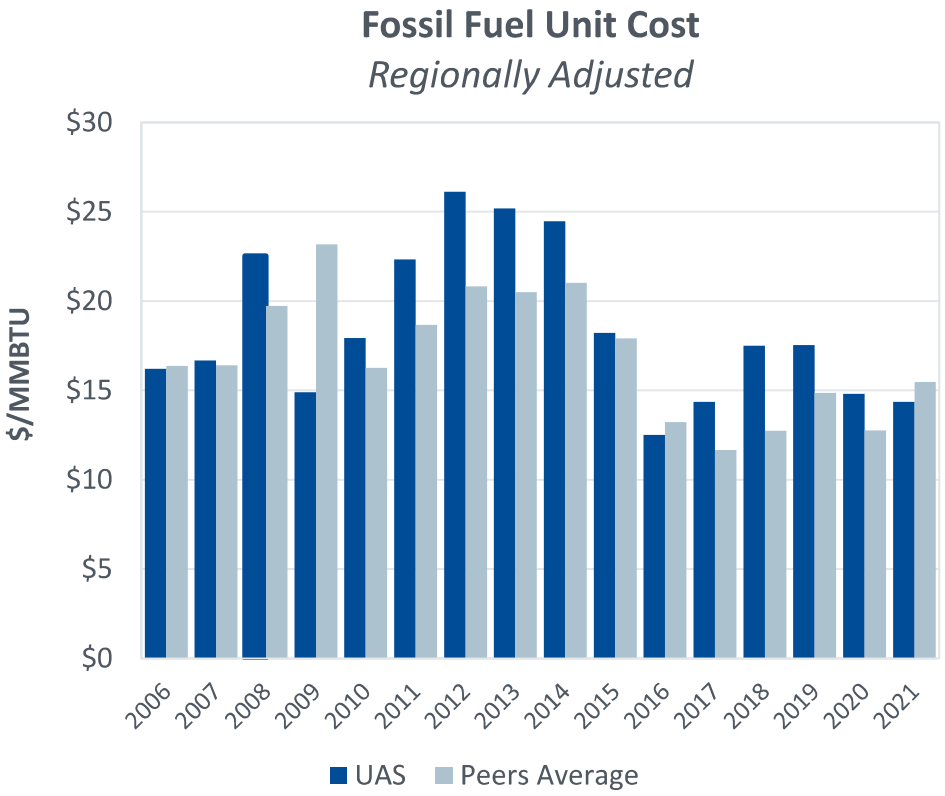
Energy Expenses Fluctuate in Consistent Manner

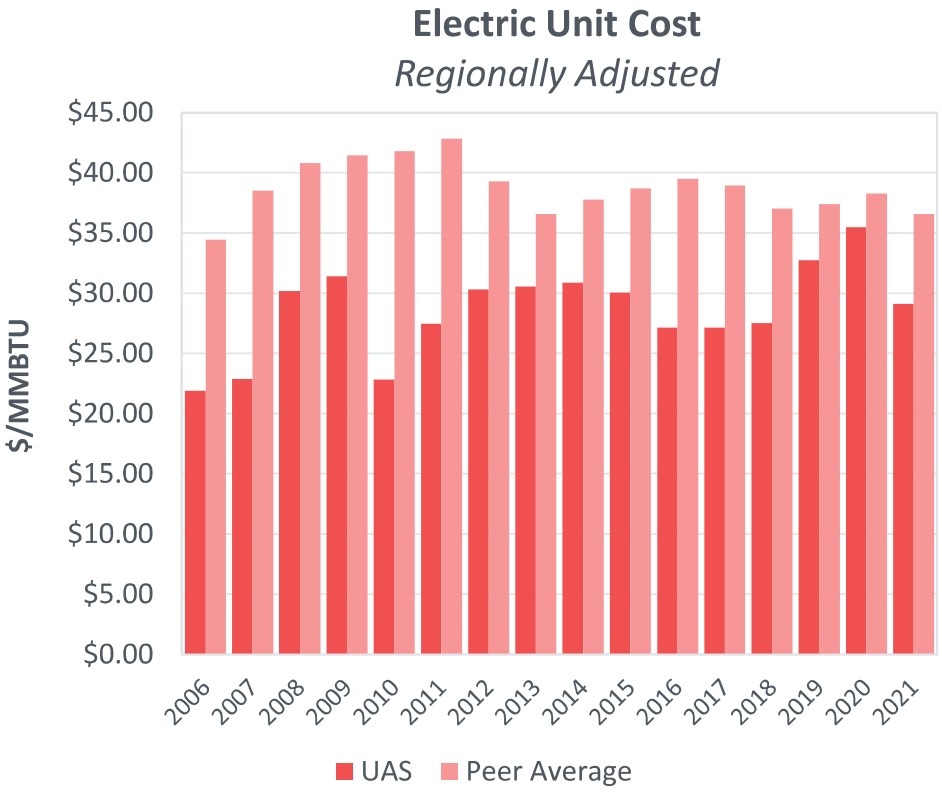
UAS' total energy costs continues to be well below peer average



Differences in Unit Costs are Growing vs. Peers

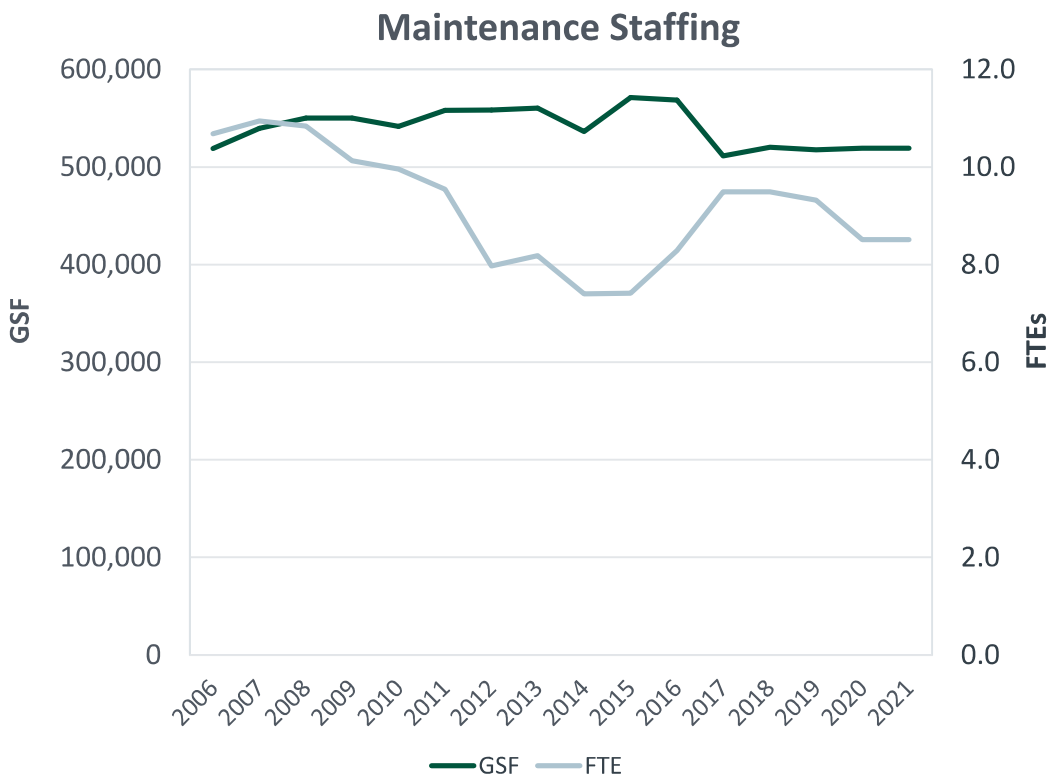
Both Fossil and Electric unit costs are lower than peers, when regionally adjusted

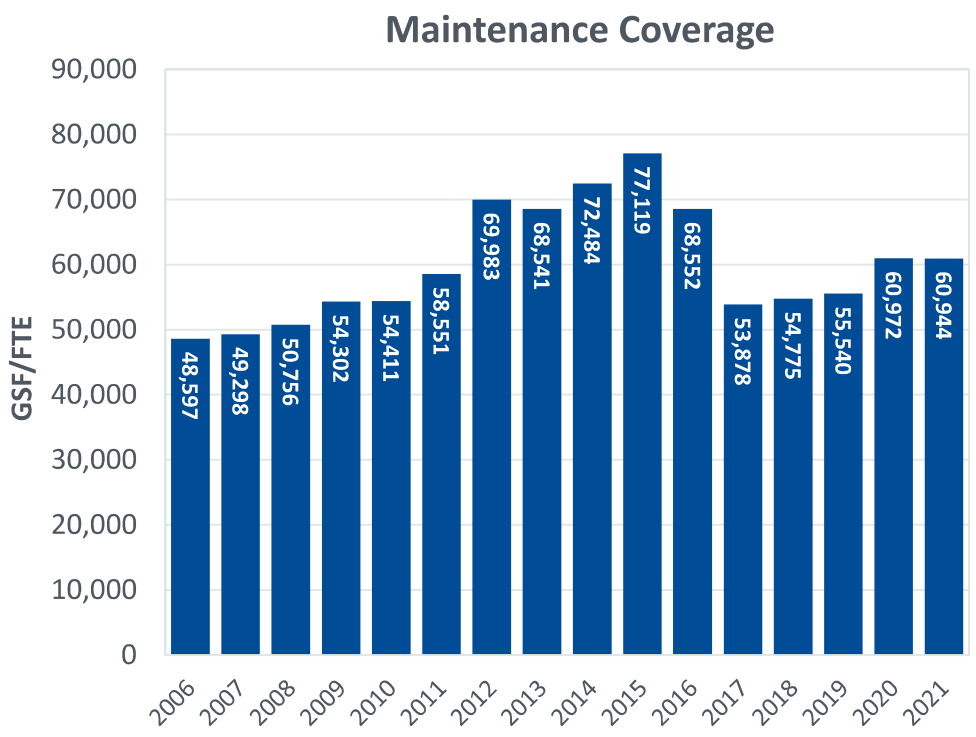




Maintenance Staffing Coverage

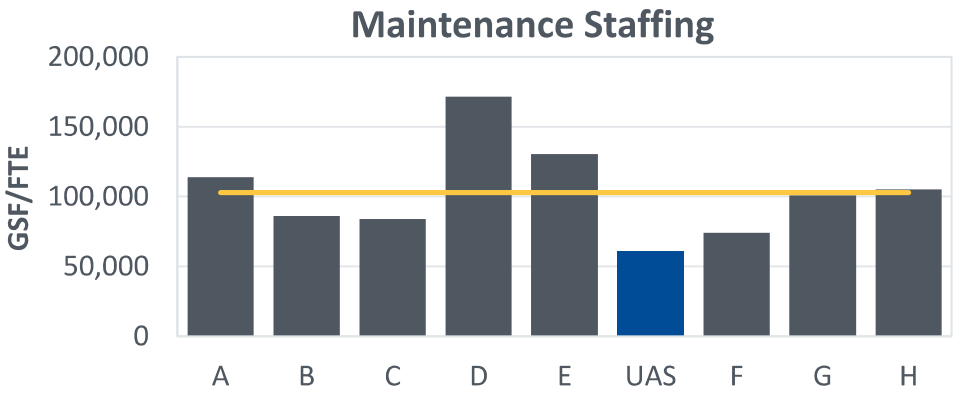
Coverage ratios have begun to increase in recent years, due to decreases in FTE's

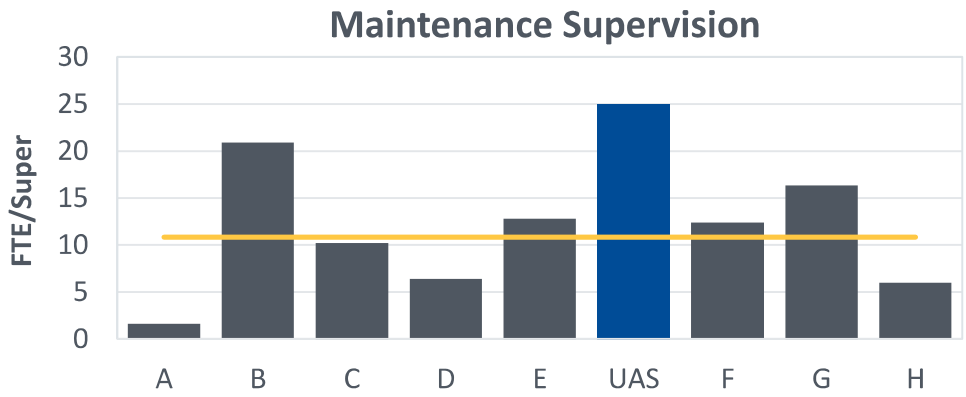


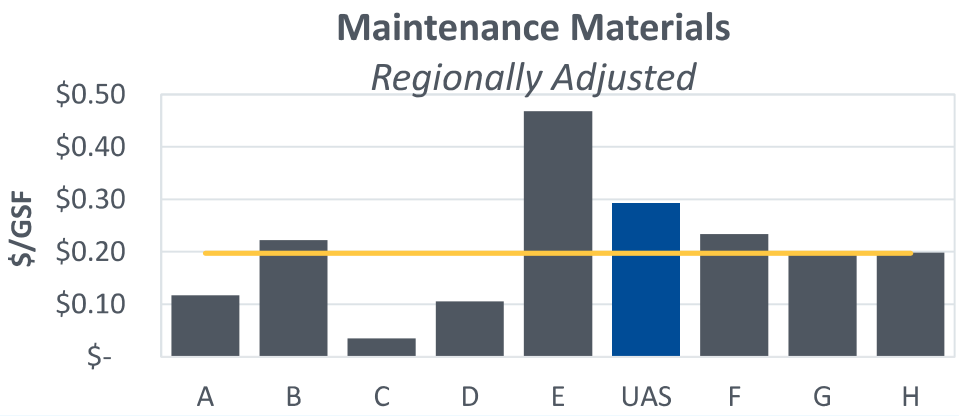


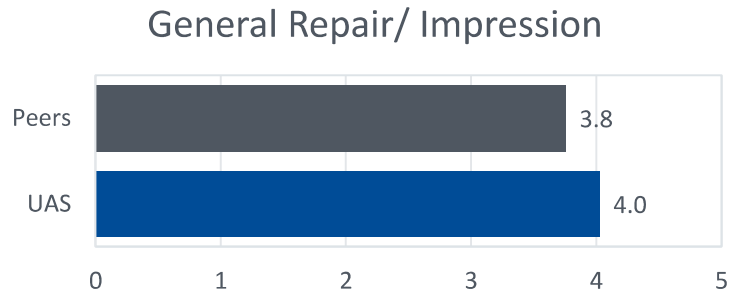
Maintenance Metrics

UAS has fewer maintenance supervisors, but more staff and material spend







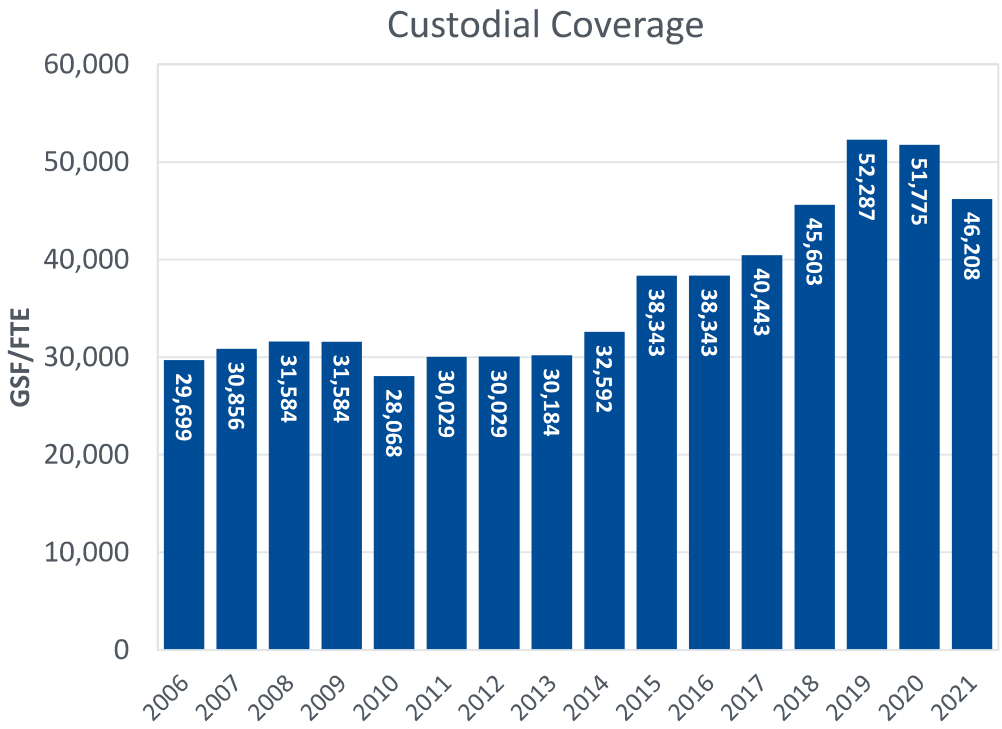


Peer Average

Institutions arranged by Technical Complexity

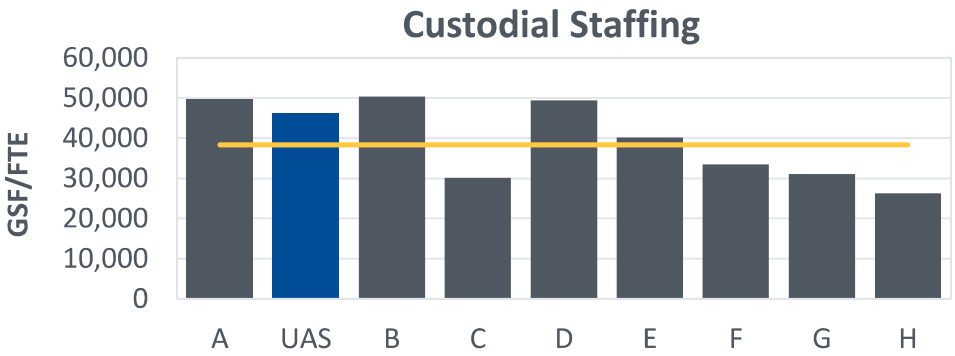
Custodial Staffing Coverage

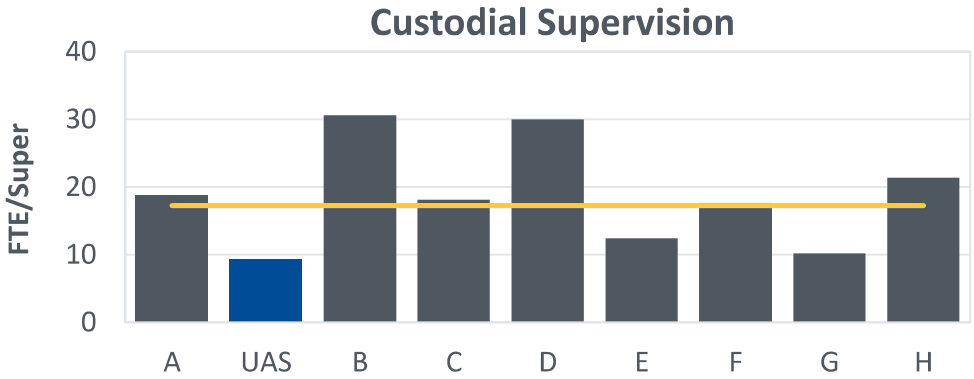
Custodial staff coverage has returned to FY18 levels

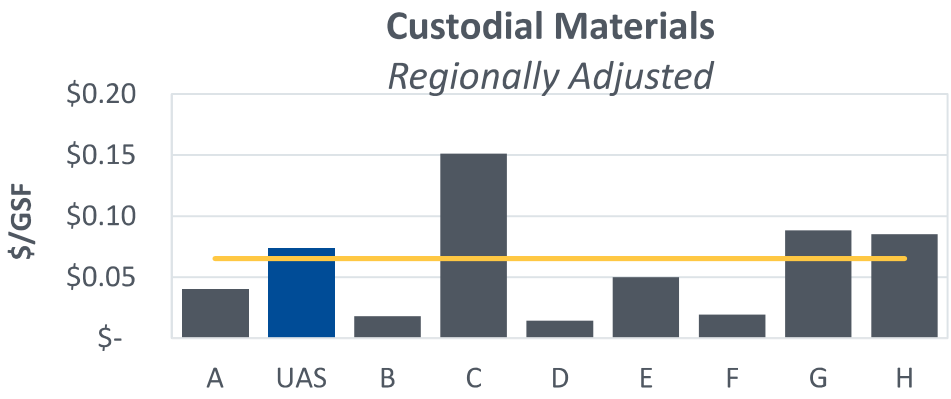


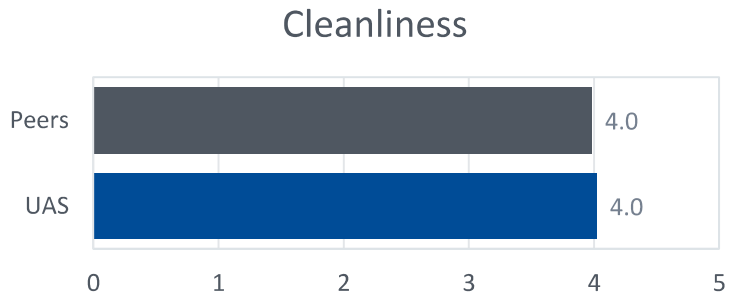
Custodial Metrics

UAS has more custodial supervisors, but less custodial staff, equivalent material spend







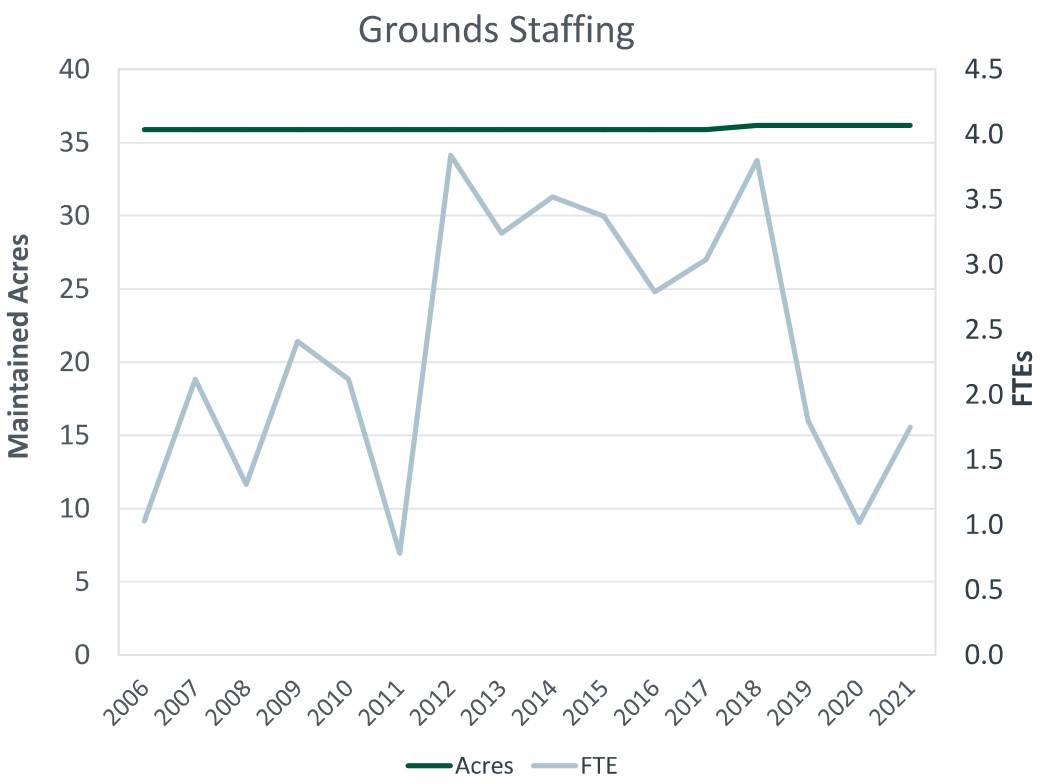


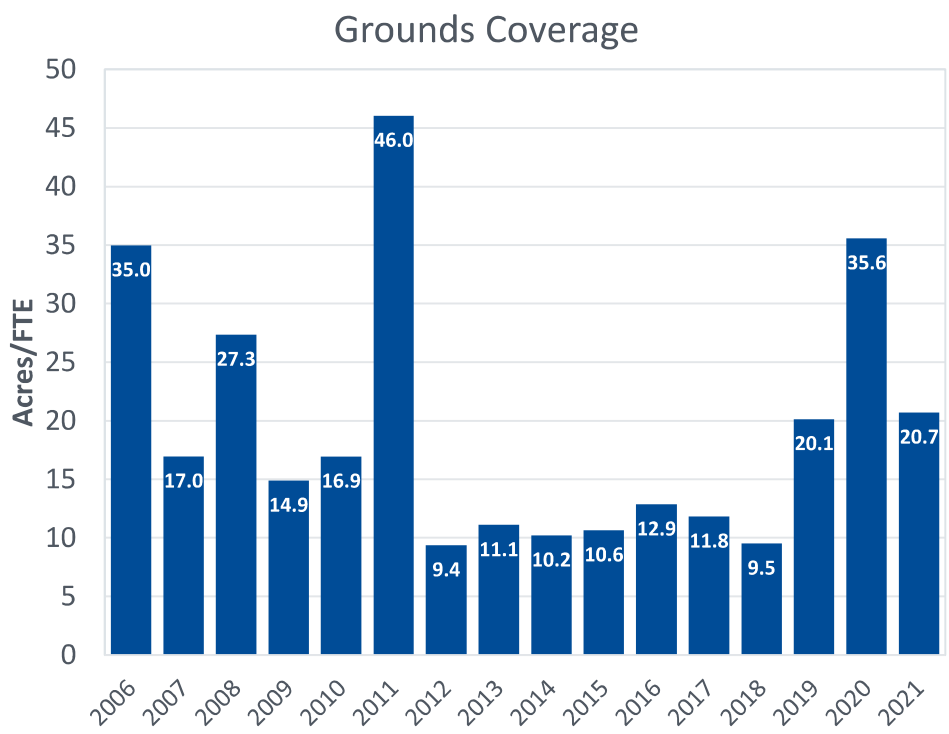
Peer Average

Institutions arranged by Density Rating

Grounds Staffing Coverage

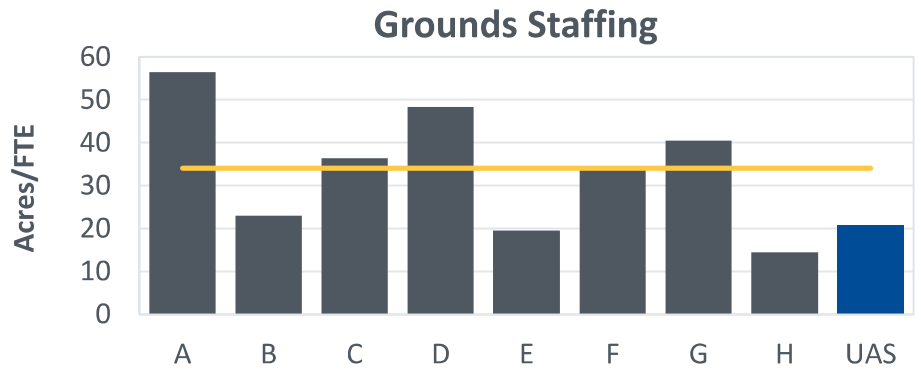
Coverage stayed mostly steady until a notable increase happened in recent years

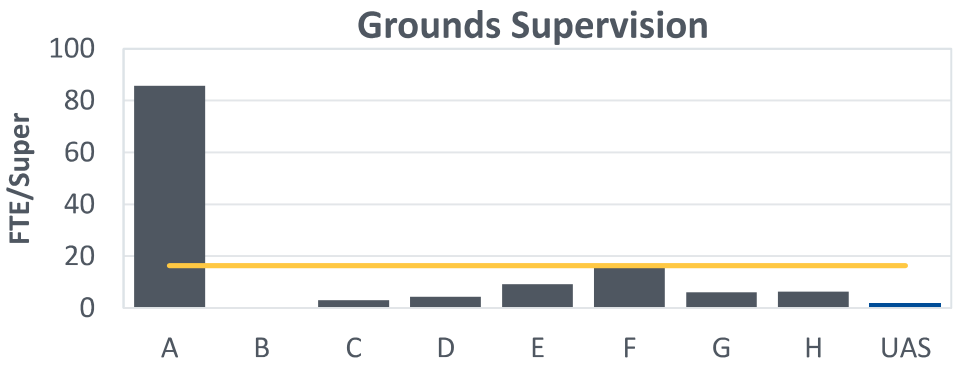


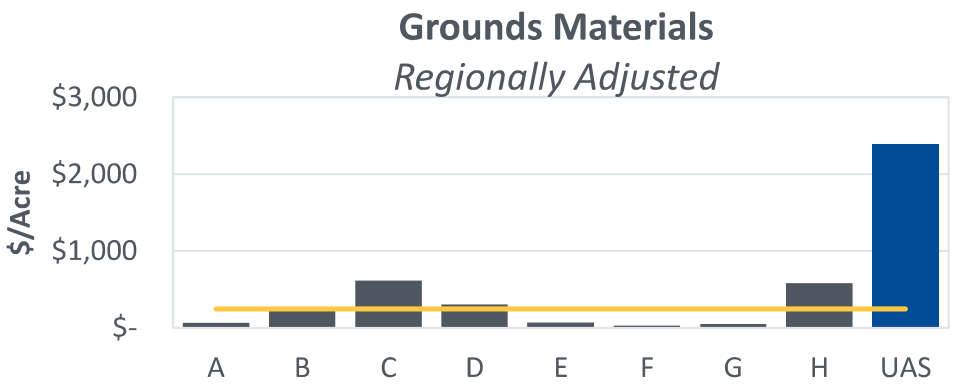


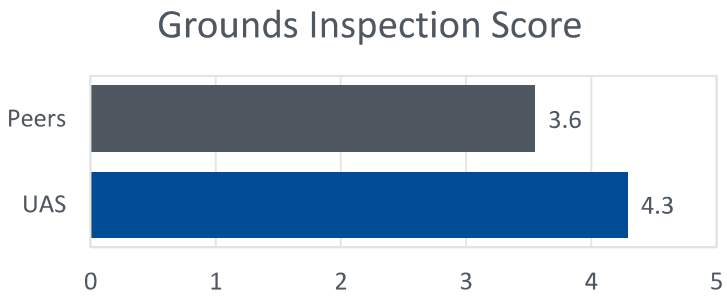
Grounds Metrics

UAS has the highest grounds intensity, which correlates with lower rates of coverage









Peer Average

Institutions arranged by Grounds Intensity

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Conclusion

Key Takeaways

UNIVERSITY of ALASKA SOUTHEAST

- UAS' young space profile benefits from proactive capital and operational approaches – because of this UAS can be flexible in their management of campus space. However, UAS should consider what spaces are under utilized, in order to take space offline and increase user density.
- Capital spending should continue to focus on reinvesting into existing space. The good condition of younger buildings allows UAS the opportunity to target invest into older, higher FCI buildings. However, recent decreasing trends in capital investment could lead to more reactive funding predicaments.
- Small buildings and small grounds space produces efficiency challenges for maintenance and grounds staff, requiring more FTEs to tackle problems effectively. Identifying buildings to divest resources from will ease this operational strain challenge.

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Building knowledge

Questions & Discussion