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Saint Louis University

FY19 ROPA+ Preliminary Presentation

Presenters: Jack Kasten & Julia Bove

May 2020

University of the Sciences in Philadelphia
University of Toledo
University of Vermont
University of Washington
University of West Florida
University of Wisconsin - Madison
Vanderbilt University
Virginia Commonwealth University
Wake Forest University
Washburn University
Washington State University
Washington State University - Tri-Cities Campus
Washington State University - Vancouver
Washington University in St. Louis
Wayne State University
Wellesley College
Wesleyan University
West Chester University
West Virginia Health Science Center
West Virginia University
Western Oregon University
Westfield State University
Widener University
Williams College
Worcester Polytechnic Institute
Worcester State University

A Vocabulary for Measurement

Facilities Measurement, Benchmarking & Analysis

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

Topics to Review

I. Discuss Facilities Benchmarks for FY19

- *"Dual" Identities*
- *Pre-War Construction*
- *5 Year Anniversary of Original Facilities Assessment Study*
- *What does the future hold for resources?*
- *Getting to a True Cost of Ownership*

II. Key Takeaways

III. What Tools are at our Disposal?

- *Who do we need to communicate to? What do we need to communicate?*
- *What context/data points do we have so our message be heard?*
- *COVID Discussion*

Saint Louis University Facilities Peer Institutions

ROPA+ Analysis Space Totaling **6.5M** GSF

Jesuit Peers

Institution	Location
Boston College	Newton, MA
Creighton University	Omaha, NE
Fairfield University	Fairfield, CT
Gonzaga University	Spokane, WA
Loyola University Maryland	Baltimore, MD
Seattle University	Seattle, WA
St. Joseph's University	Philadelphia, PA
University of San Francisco	San Francisco, CA

Research Peers

Institution	Location
Boston University	Boston, MA
Carnegie Mellon University	Pittsburgh, PA
Northwestern University	Evanston, IL
The University of Chicago	Chicago, IL
Vanderbilt University	Nashville, TN
Wake Forest University	Winston-Salem, NC
Washington University in St. Louis	St. Louis, MO

Comparative Considerations

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

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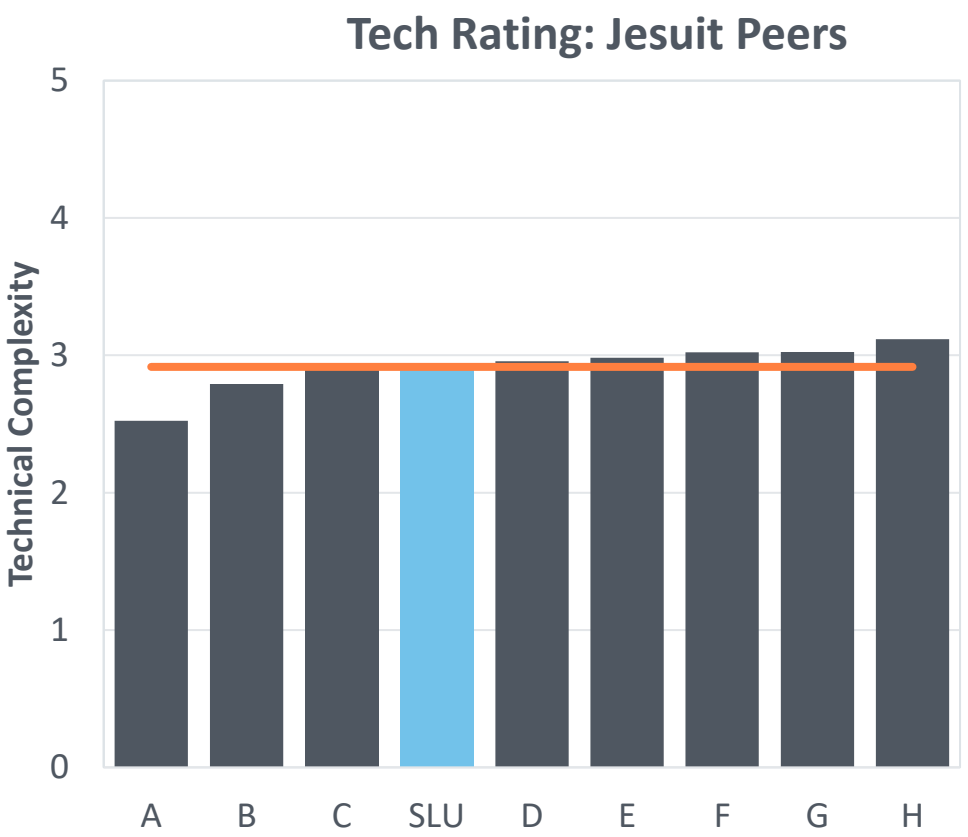
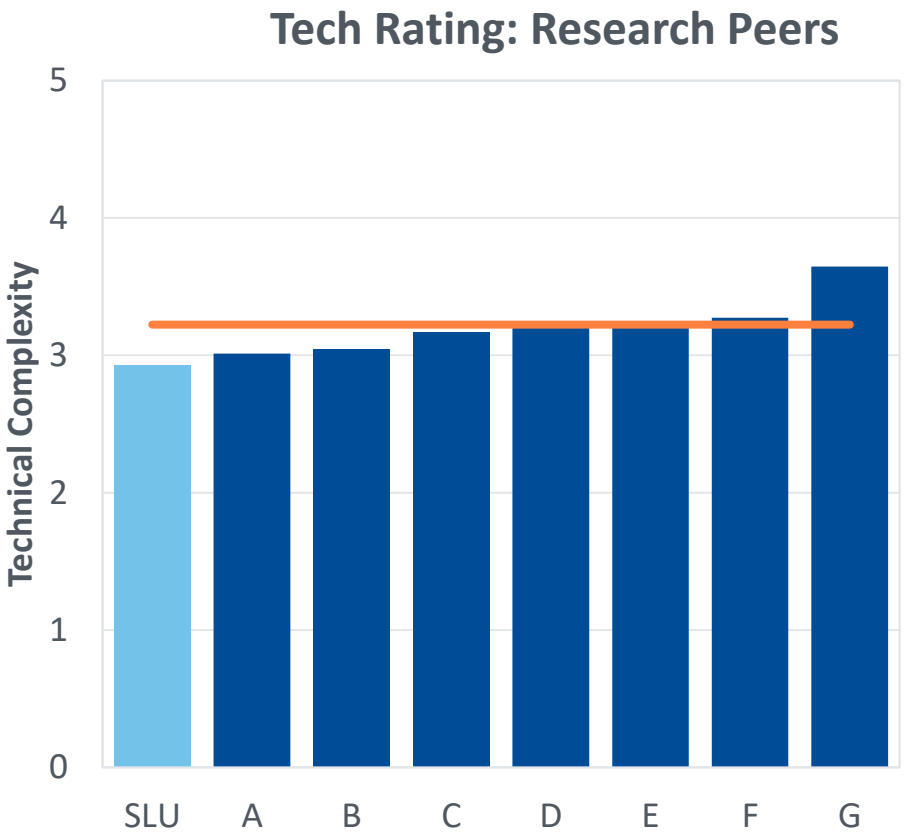
Space Profile

Qualifying Metrics – Technical Complexity





Tech Complexity Affects:

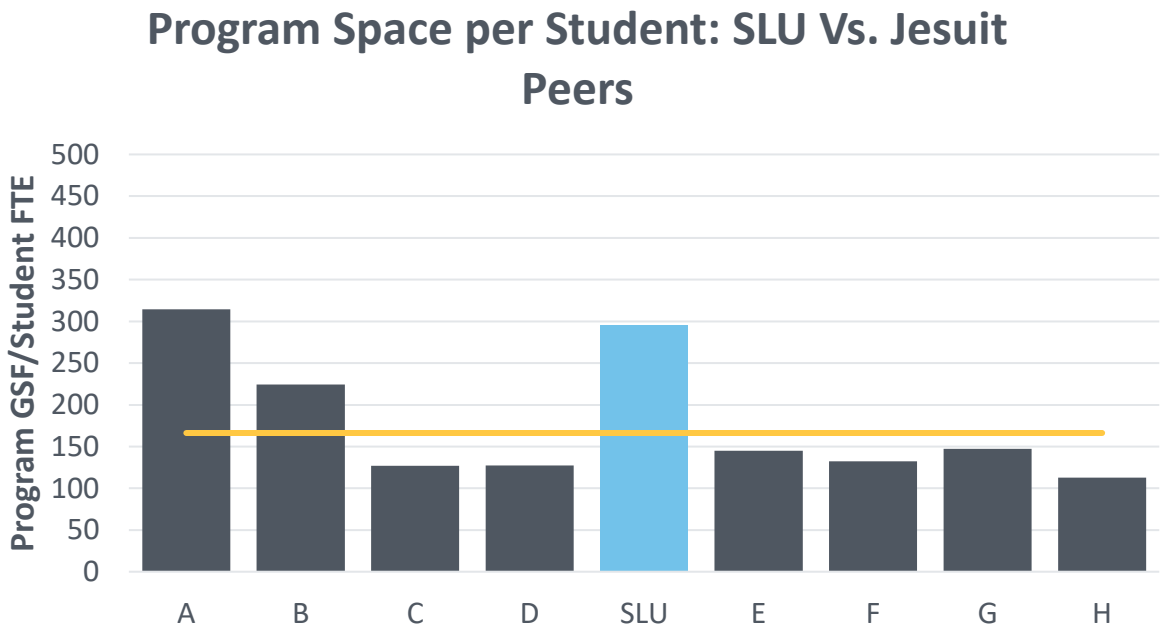
- Repair and Replacement Cost
- Energy Consumption
- Operational Demands

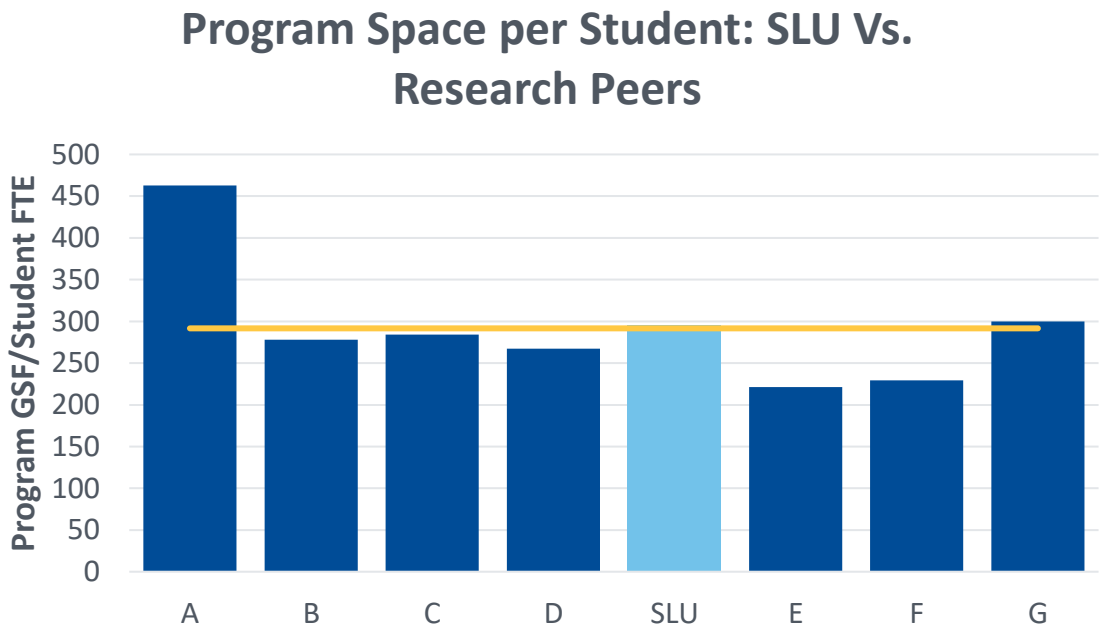
1. House
2. Academic building with no central cooling
3. Academic building with central cooling
4. Academic science facility
5. High-end science research or Hospital

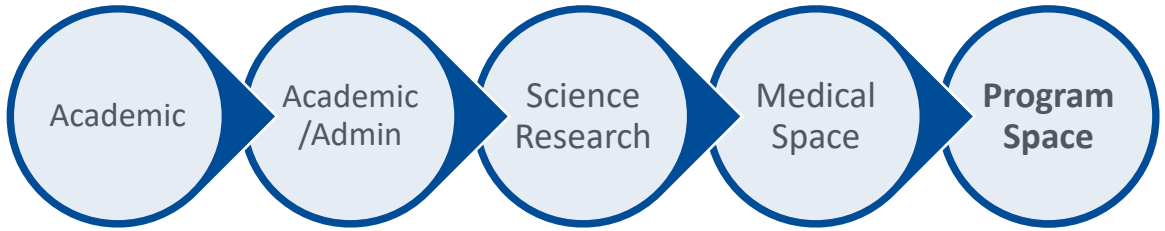
**Arranged by Tech Rating*

Comparing Program Space per Student Among Peer Groups

SLU has much more program space per student than Jesuit peers and is more comparable to research peers





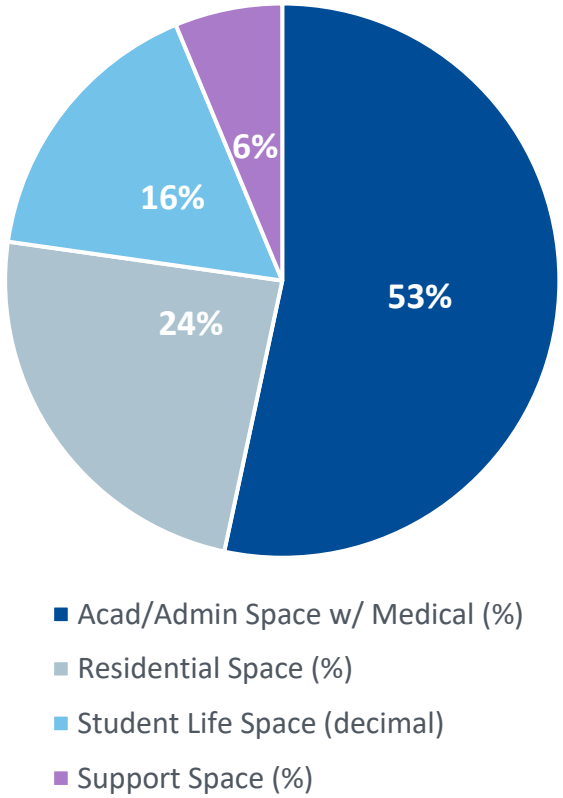


**Arrayed by density*

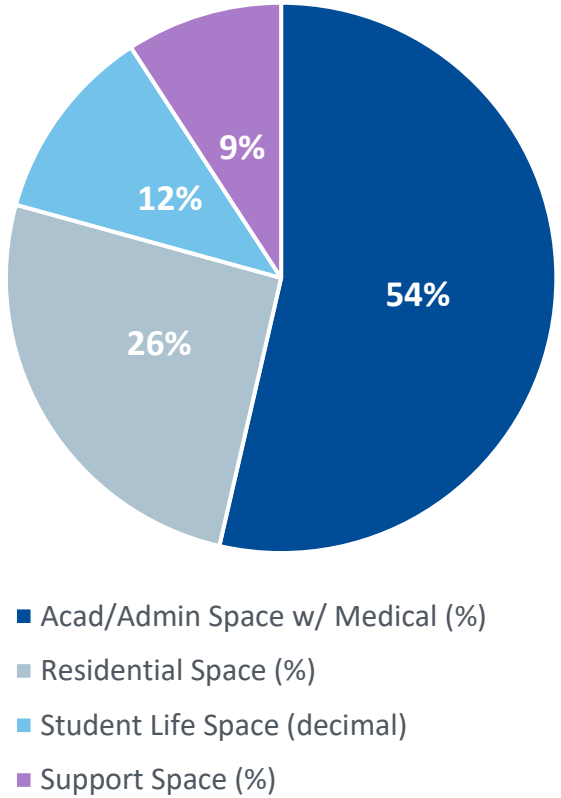
SLU's Space Distribution More Similar to Research Peers

Jesuit peers have much more residential space but less academic/admin space

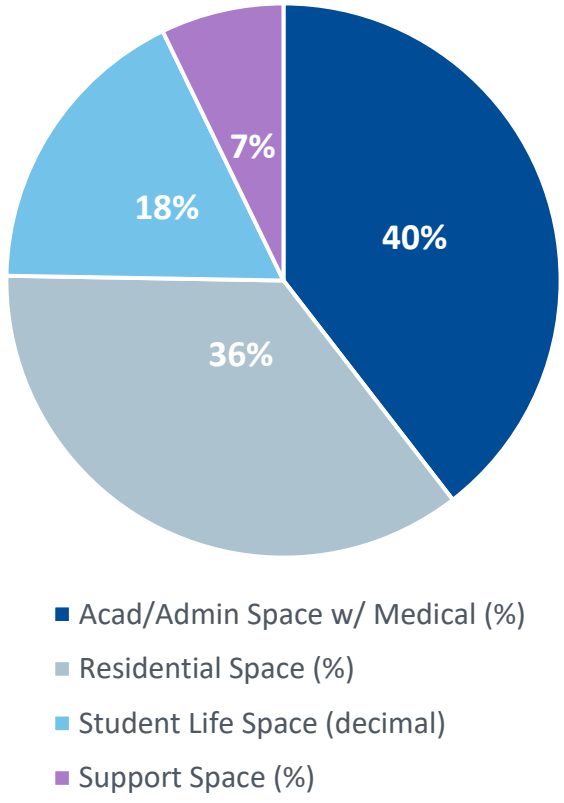
Space by Function: SLU



Space by Function: Research Peers

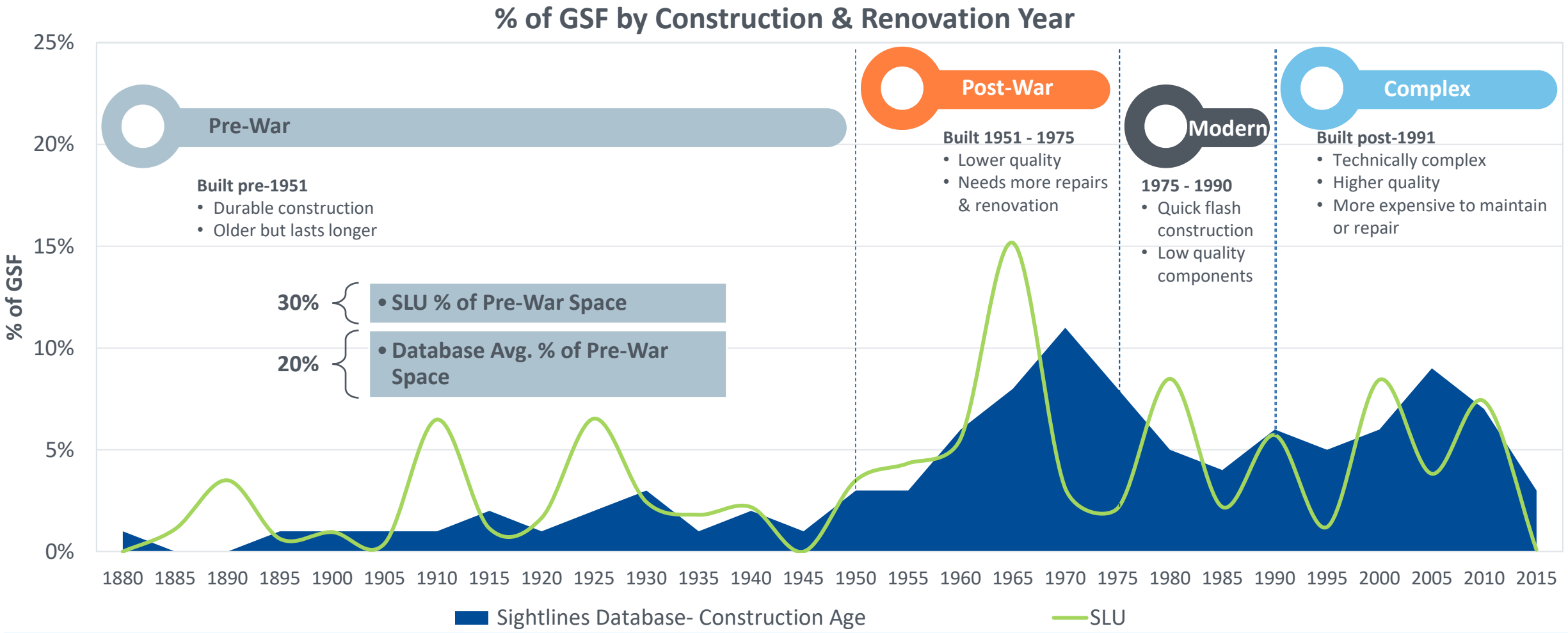


Space by Function: Jesuit Peers



Putting Your Campus Building Age in Context

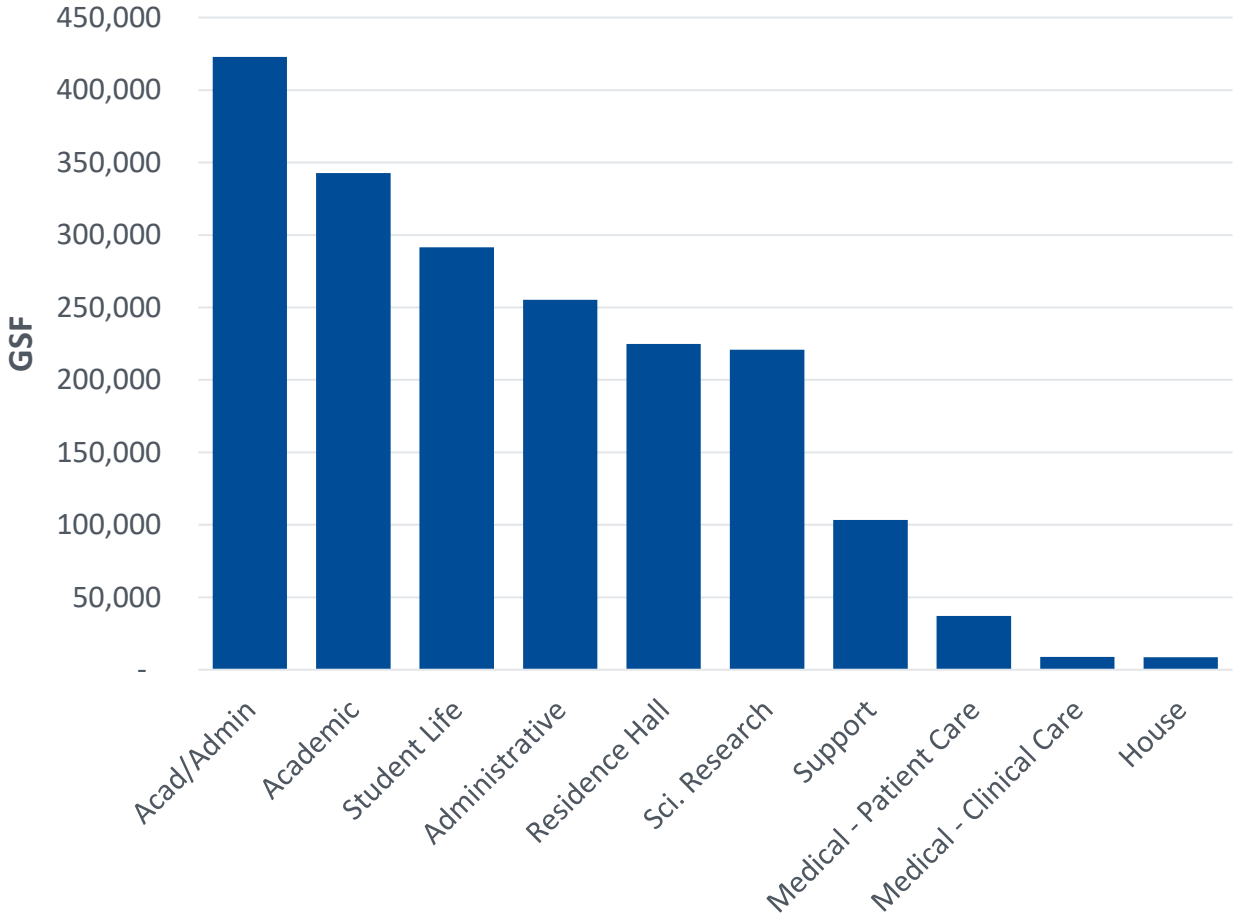
SLU's waves of construction features several peaks in the Pre-War vintage, totaling 30% of space



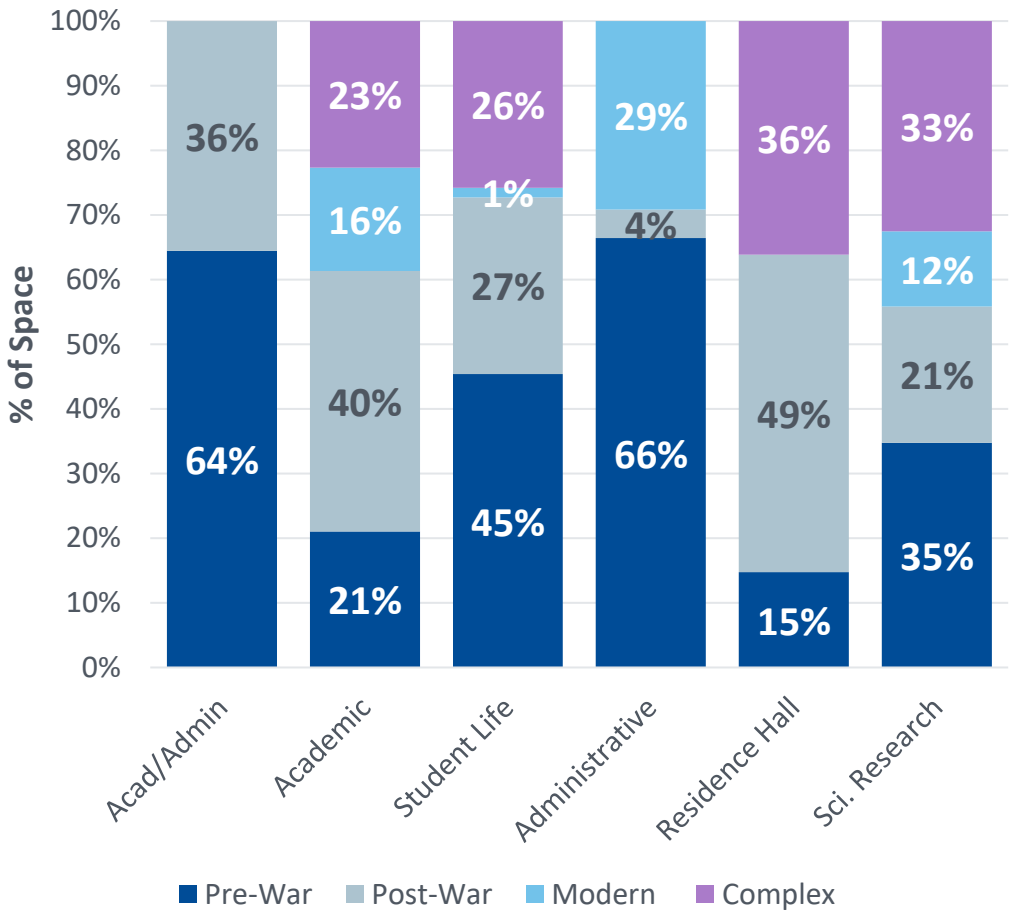
Pre-War Space by Function: 41 Buildings

Academic & Administrative space makes up high proportion of pre-war space

Pre-War Space by Function

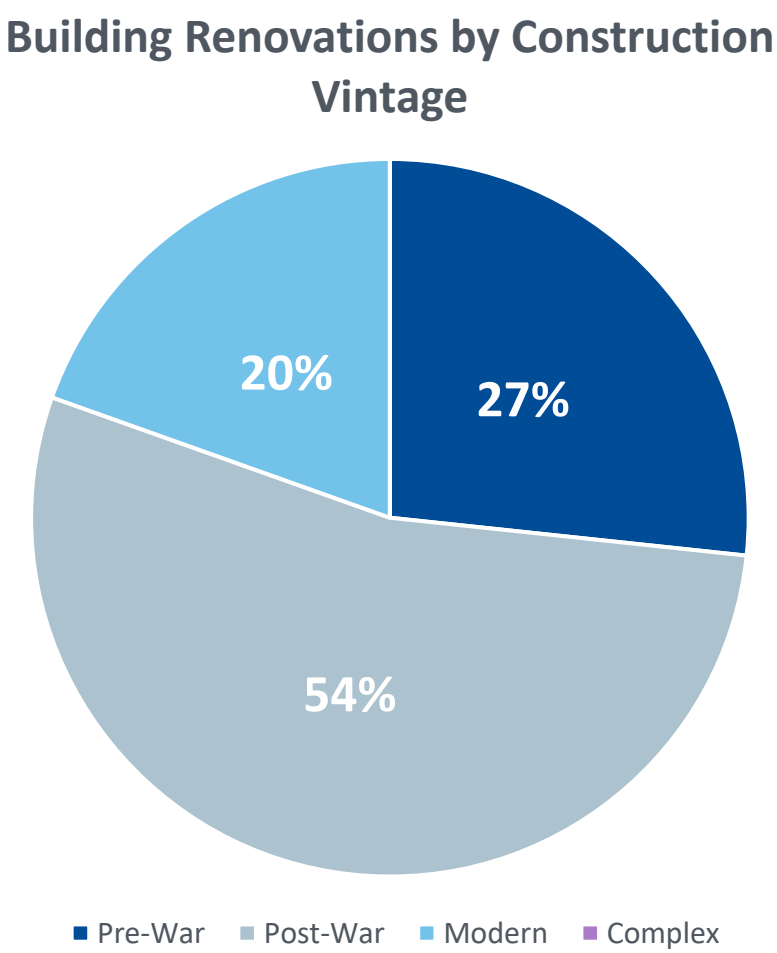


Space Functions by Construction Vintage



Building Renovations by Construction Vintages

Renovations have occurred mostly in post-war space

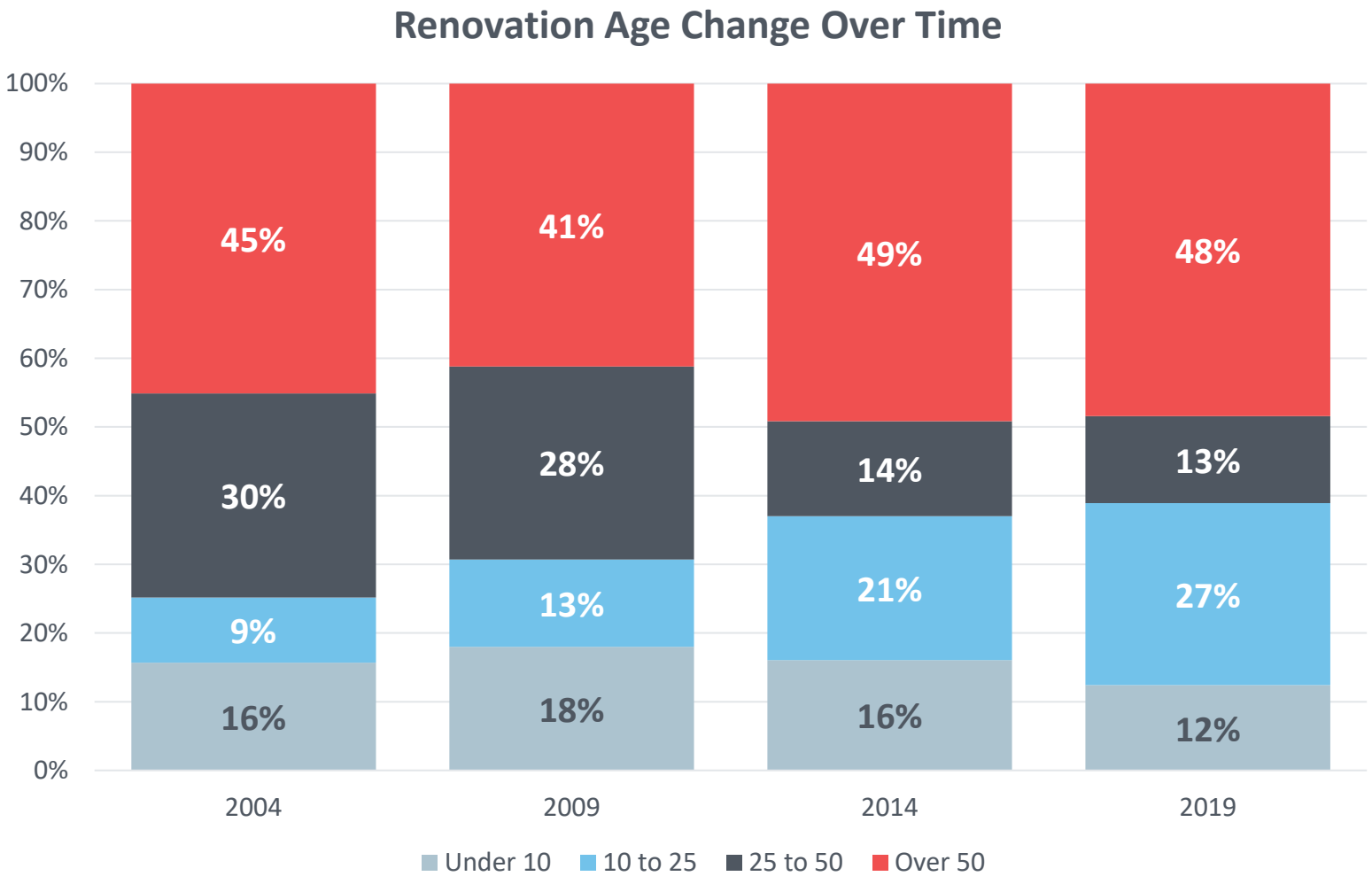


Renovated Pre-War Buildings

Pre-War Building	GSF	SL Function	Renovation Year
Young Hall	35,055	Academic	1995
Il Monastero Banquet Center	13,067	Student Life	2008
Beracha Hall	38,346	Academic	2009
Searls Hall	25,650	Support	2009
Center for Global Citizenship	77,996	Student Life	2013
Casa de Salud Expansion	4,148	Support	2018
TOTAL	**194,262**		

How Has Age Changed Over Time?

High risk space has been reduced since 2004 while 10 to 25 space continues to grow



Buildings Over 50

Life cycles of major building components are past due. Failures are possible. Core modernization cycles are missed.

Highest risk

Buildings 25 to 50

Major envelope and mechanical life cycles come due. Functional obsolescence prevalent.

Higher Risk

Buildings 10 to 25

Short life-cycle needs; primarily space renewal.

Medium Risk

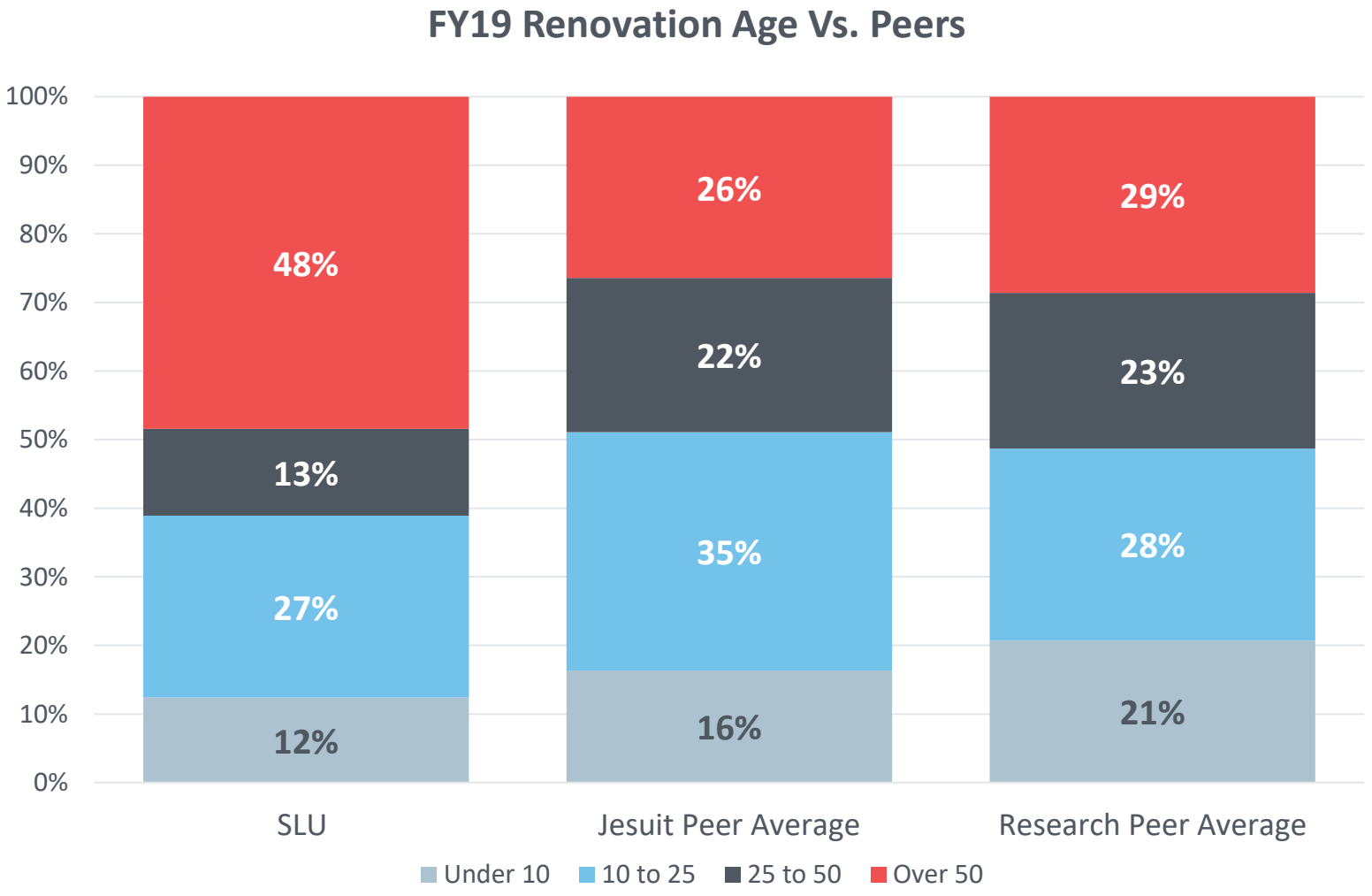
Buildings Under 10

Little work. “Honeymoon” period.

Low Risk

SLU Has More High Risk Space than Both Peer Groups

Both peer groups have around 50% of space in high risk while SLU has 60%



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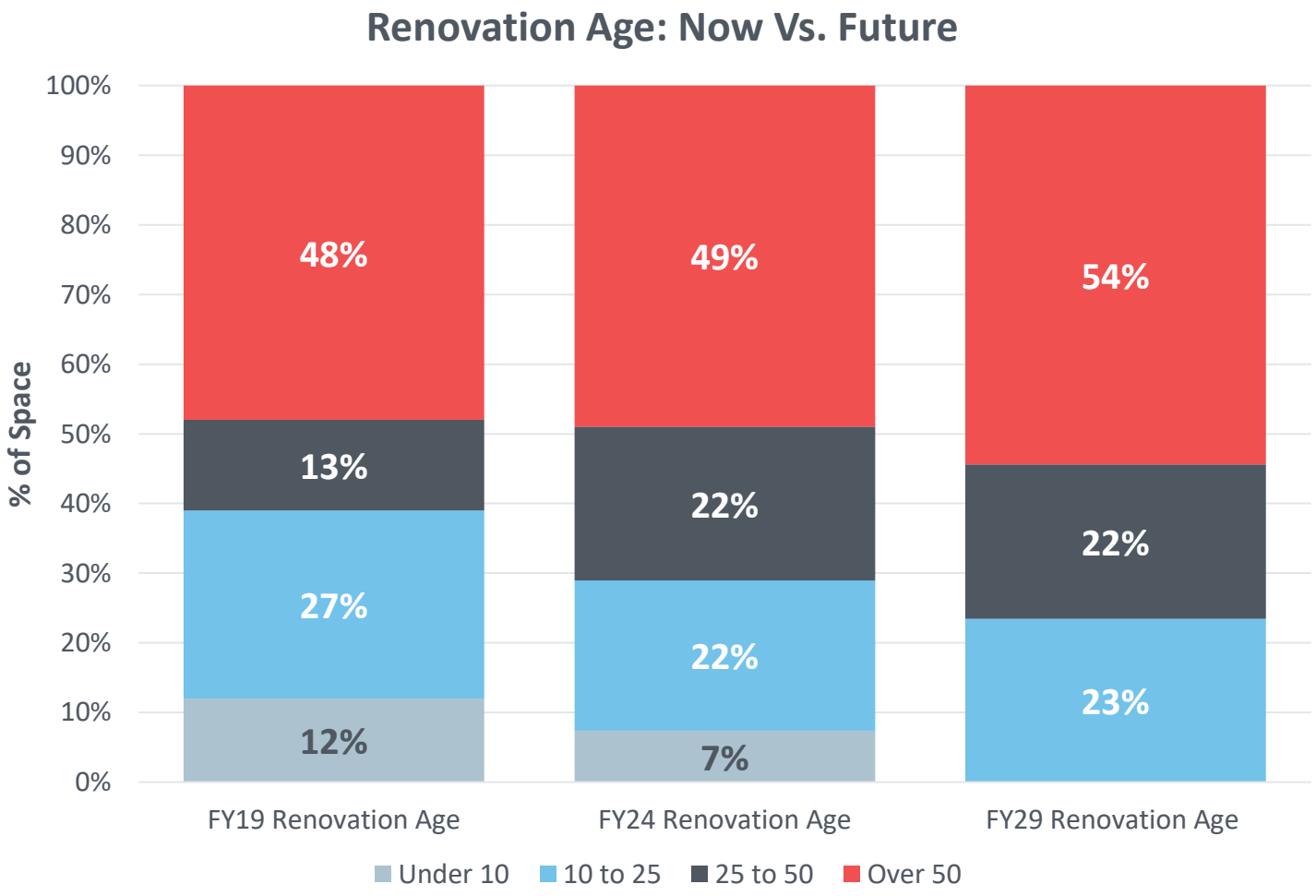
Future Outlook of Age with No Renovations

Assuming no space changes, more of SLU's campus will move into high risk



Buildings Entering Over 50 Category in Projection

Building	GSF
Learning Resources Center	107,123
School of Nursing	81,563
Doisy Hall	73,931
Doctor's Office Building	46,378
Tegeler Hall*	36,498
Lewis Annex	33,861
Boileau Hall	9,390
Total	**388,744**

**Tegeler Hall is only building that enters over 50 category in FY24*

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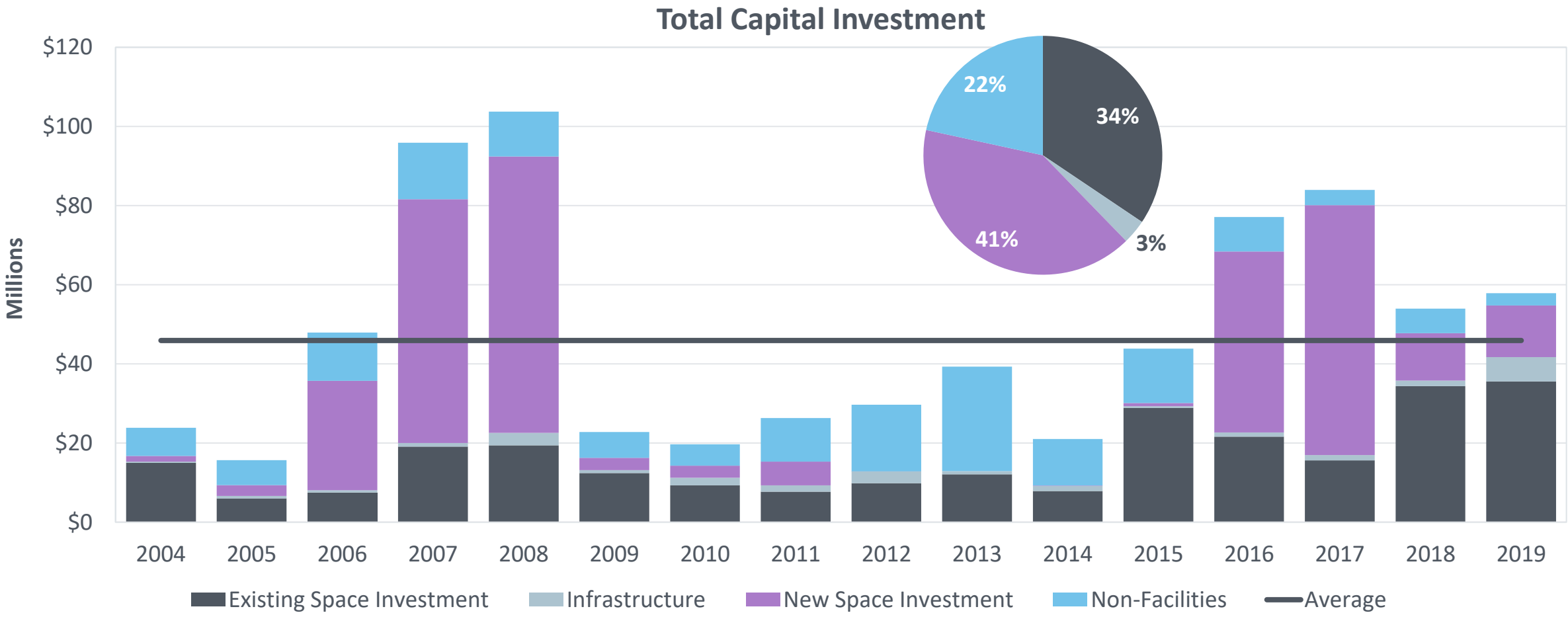
Capital Spending & Future Need

Total Capital Investment

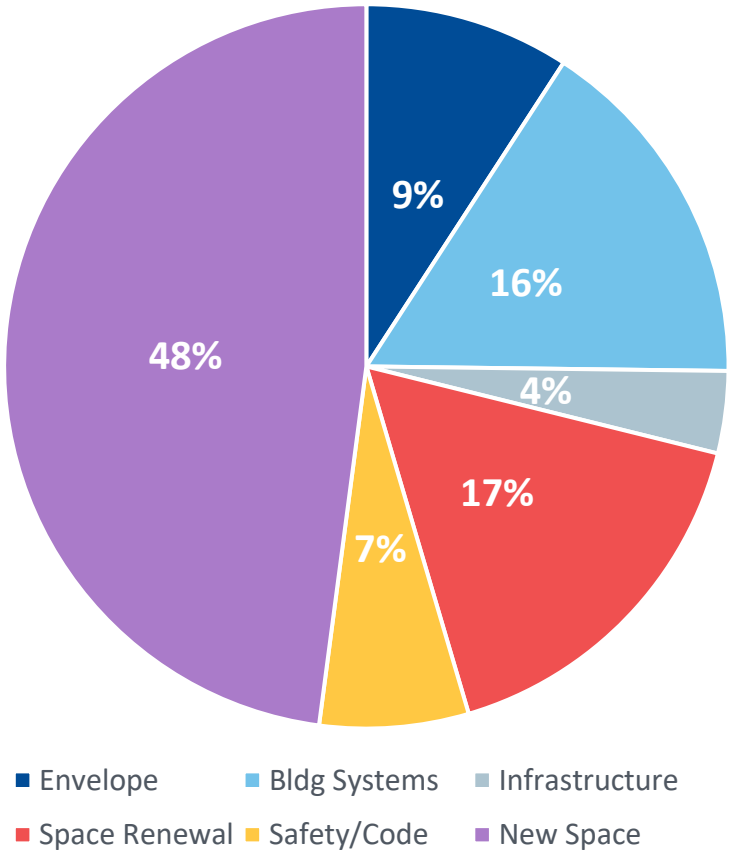
Over time, SLU has spent more into new space than existing space and infrastructure combined



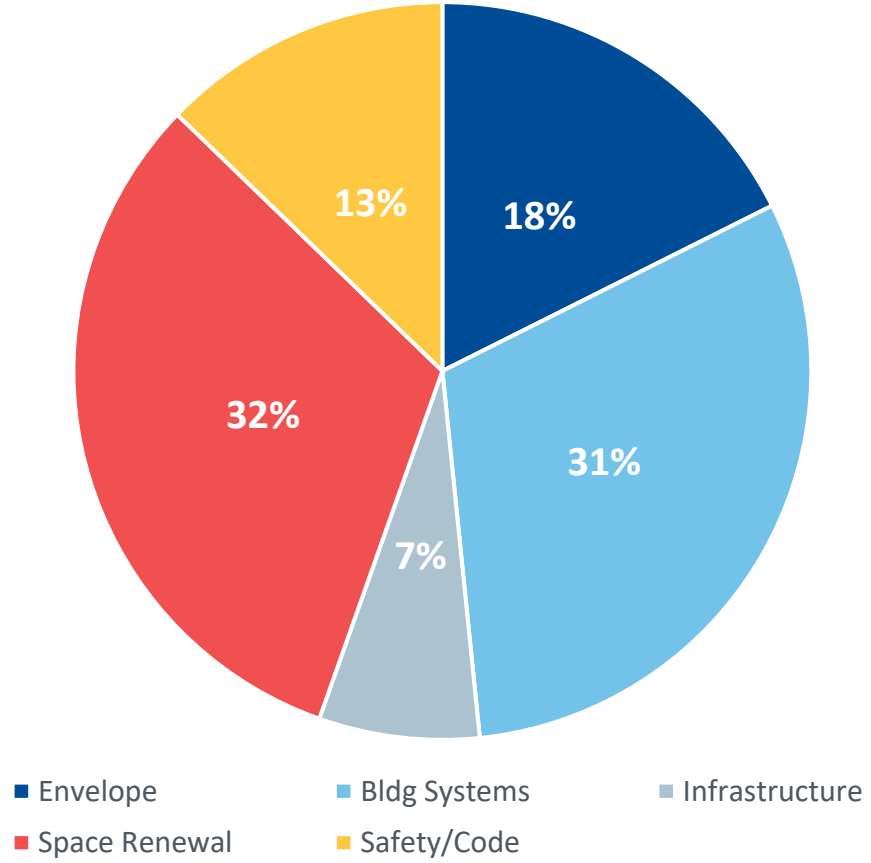
Spending by Category: Impact of New Space Investment

When excluding new space spending, the breakout shows highest investment into space renewal

Total Spending by Category: 5-Year Average



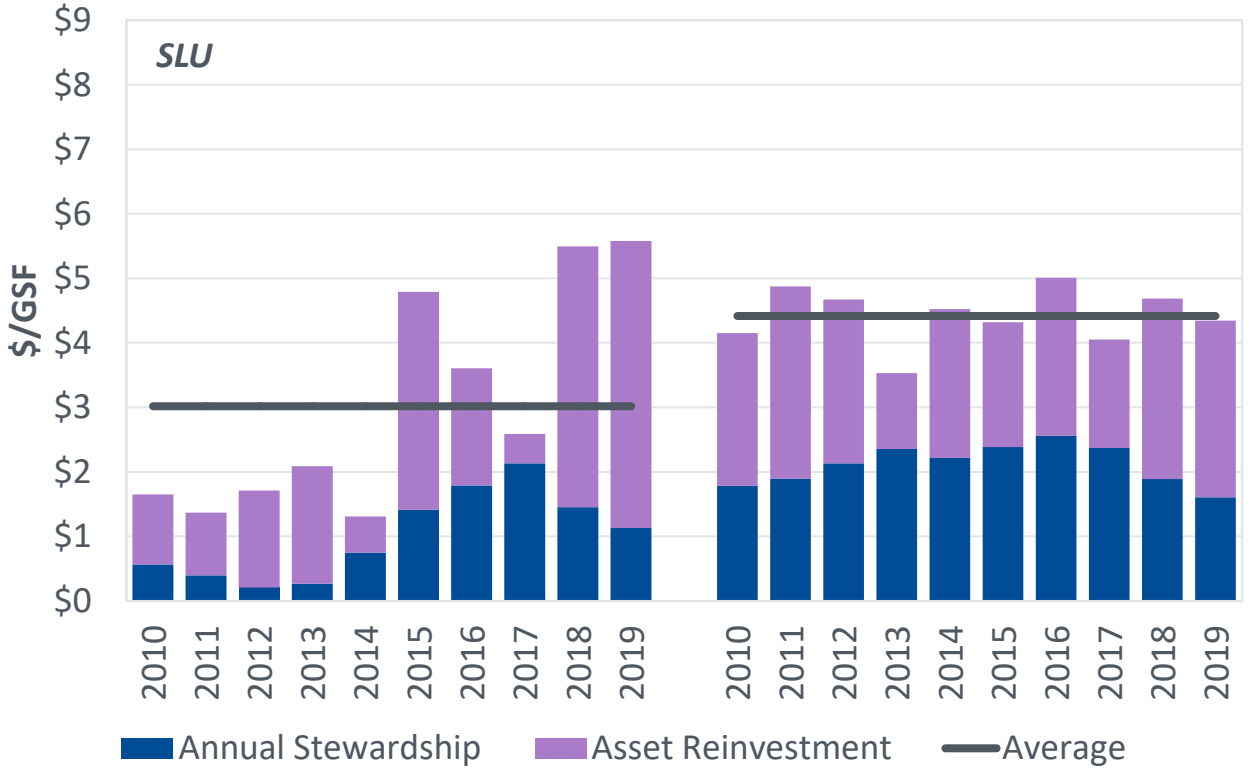
Total Spending by Category Without New Space: 5-Year Average



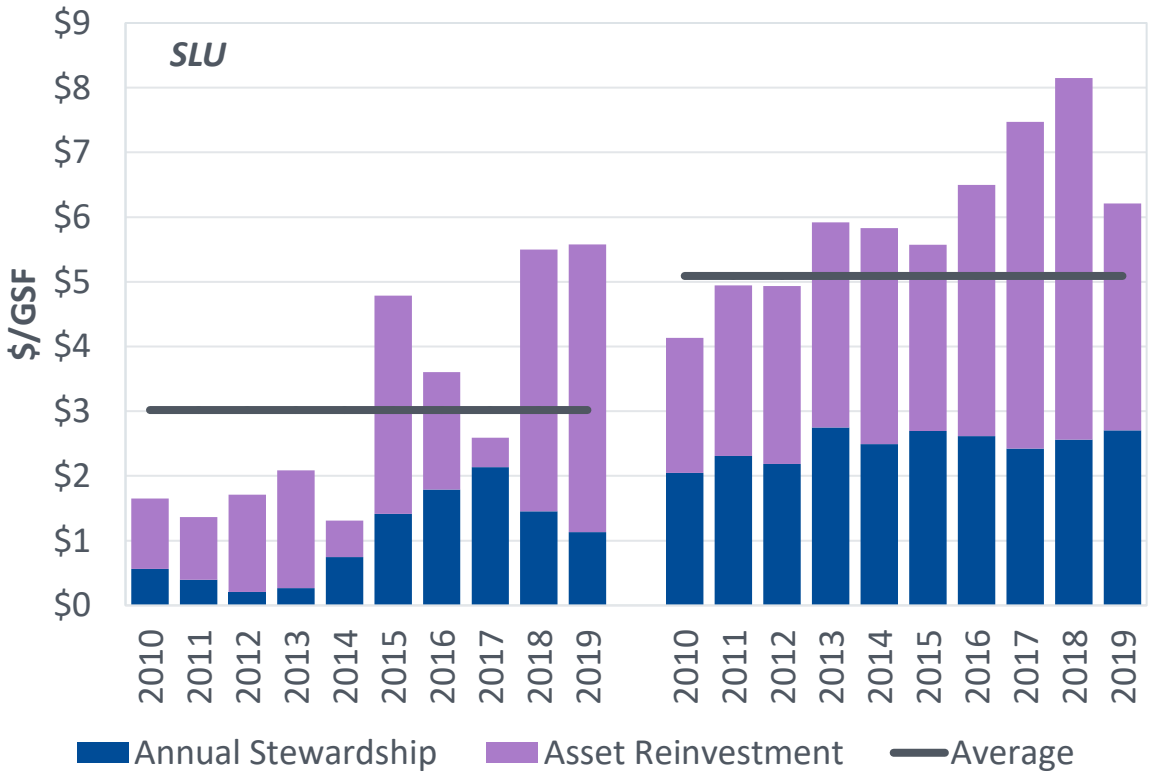
SLU Spending Less than Peers on Average

SLU has less one time funds than research peers and more one-time funds than Jesuit peers, but both peers have more stewardship dollars

Total Capital Investment by Funding Source vs. Jesuit Peers



Total Capital Investment by Funding Source vs. Research Peers

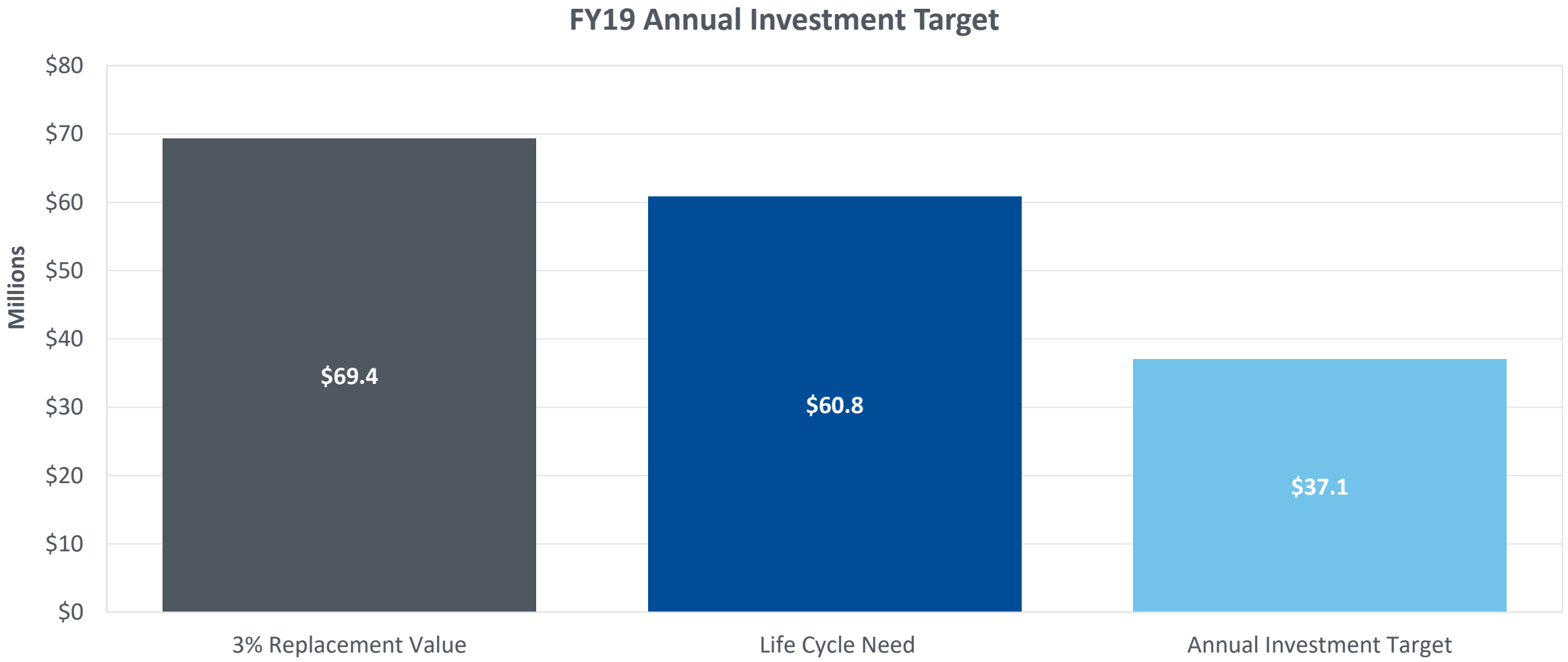


*does not include infrastructure

**Fairfield removed from Jesuit peers for FY17-FY19

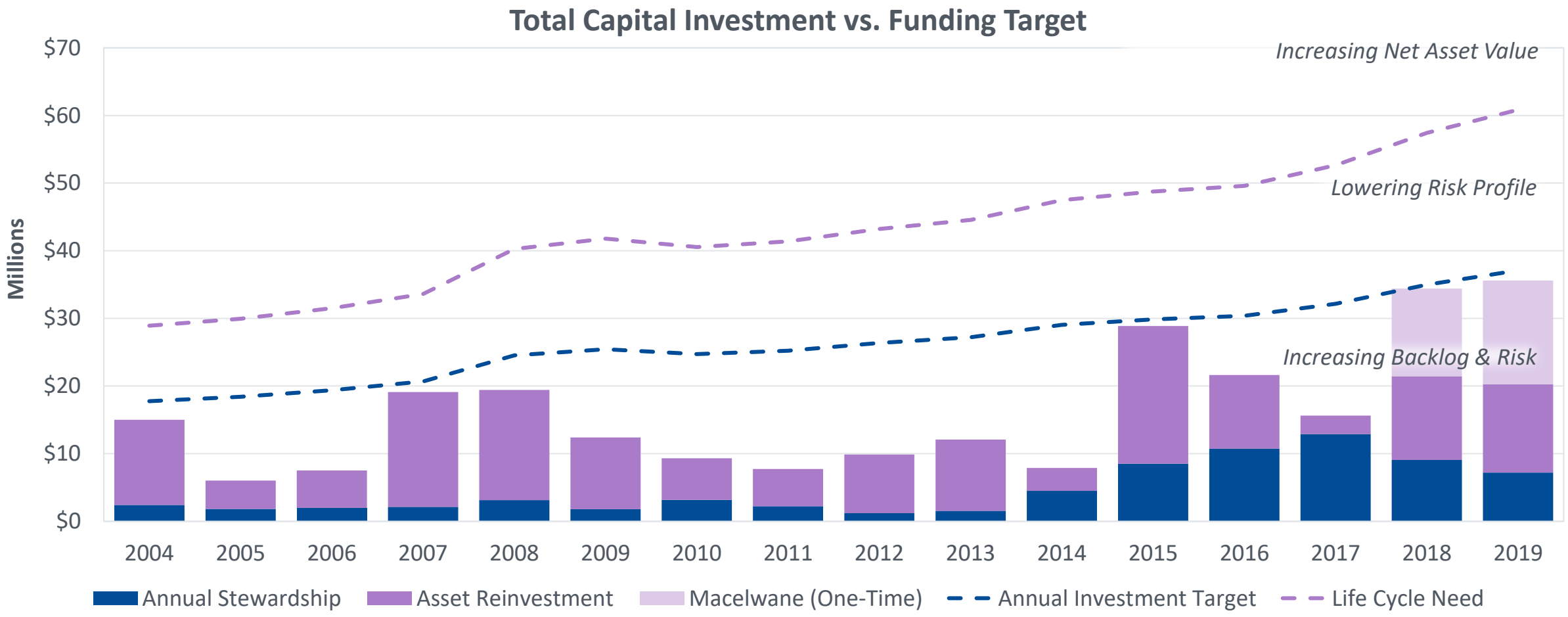
Defining an Annual Investment Target

Annual Funding Target: $37.1M



Total Capital Investment vs. Funding Target

Sizable increase in overall capital investment, especially in Annual Stewardship funding

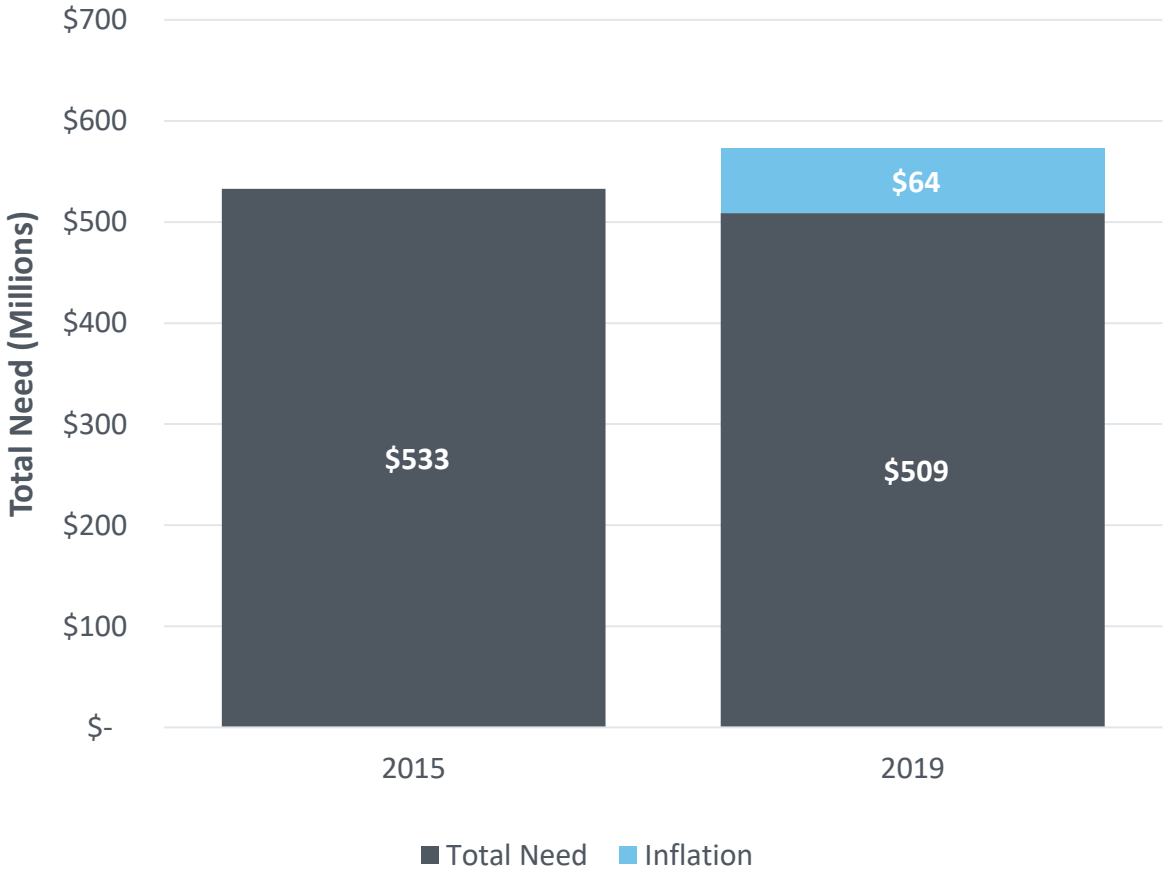


*does not include infrastructure

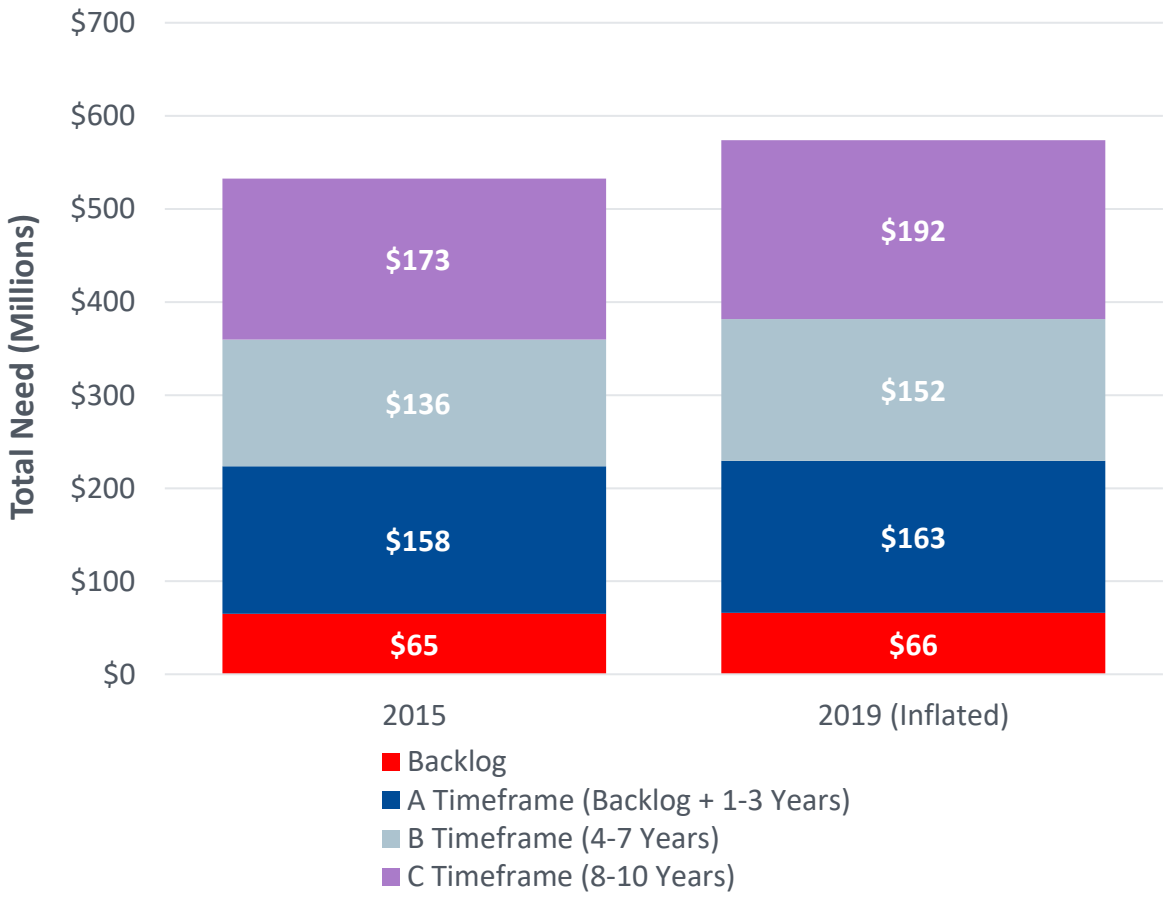
Total Need Comparisons: 2015 Vs. 2019

While needs have been addressed since 2015, inflation calculation increases overall total need

Total Needs: 2015 Vs. 2019



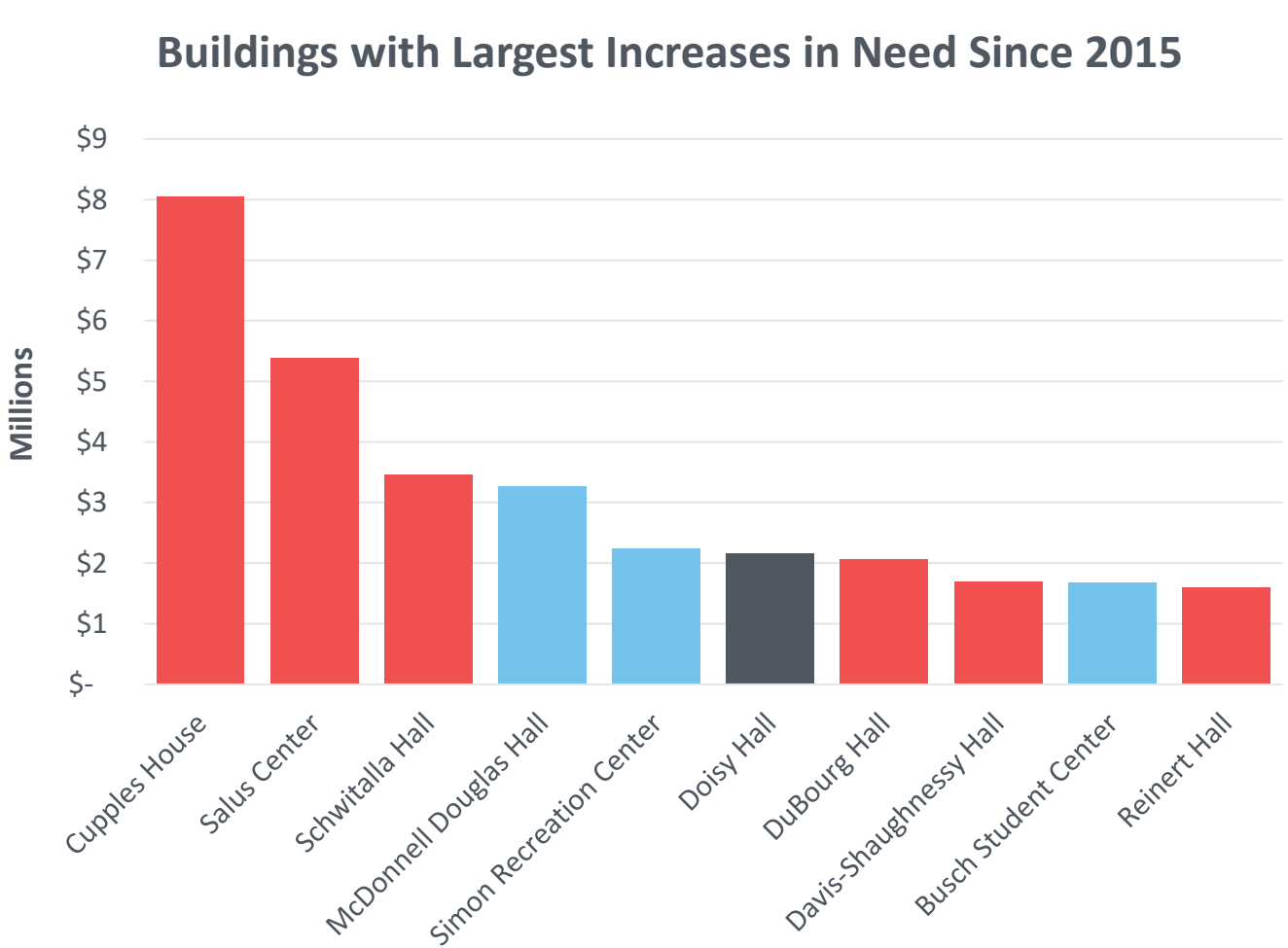
Total Needs by Timeframe: 2015 Vs. 2019

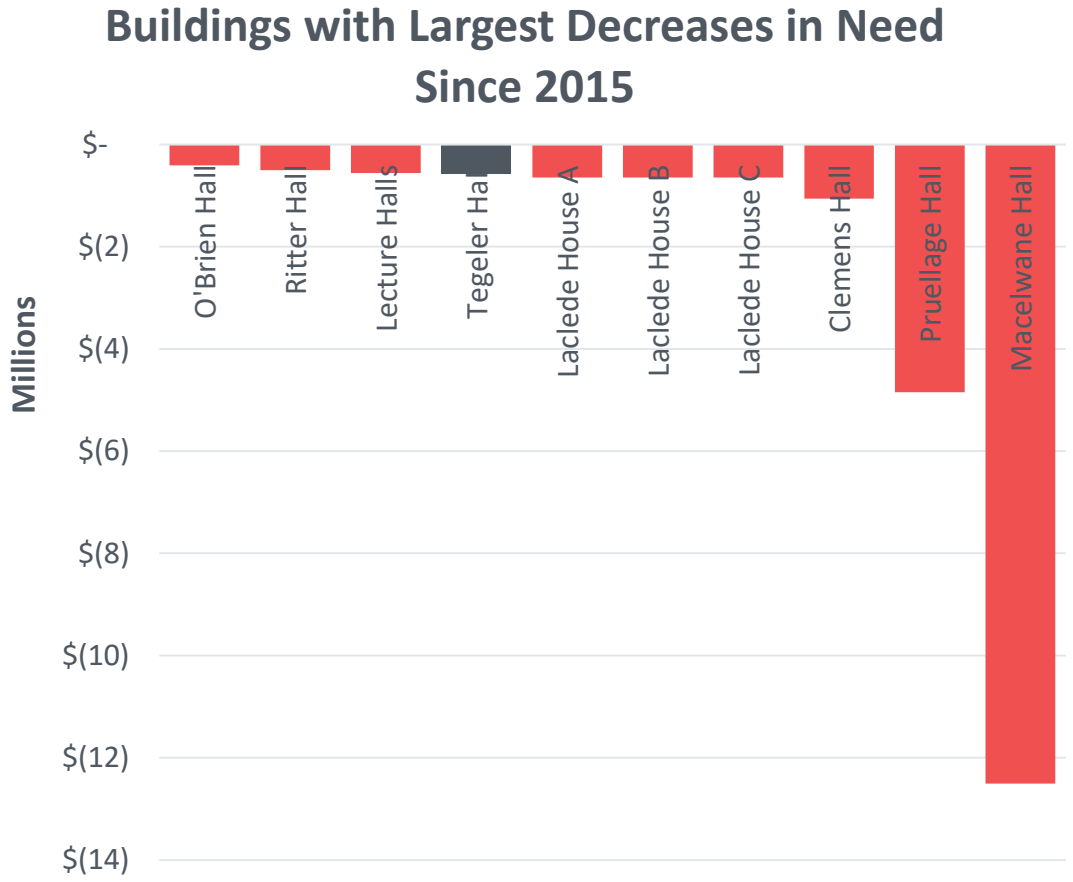


**includes building, grounds, and infra.*

Highest Changes in Needs by Building

Over 50 buildings have the largest increase in needs, but also represent the buildings taken offline





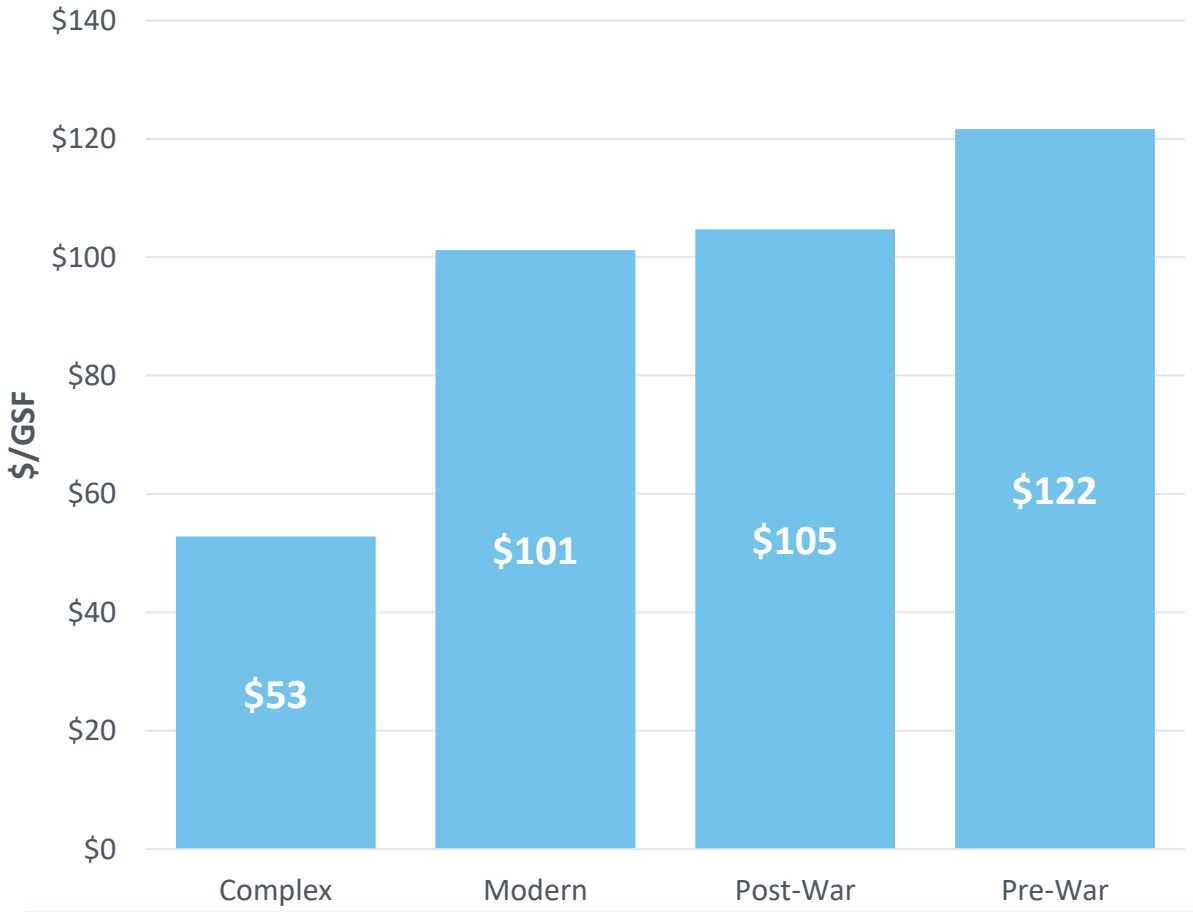
Under 10 | 10 to 25 | 25 to 50 | Over 50

**Accounts for inflation*

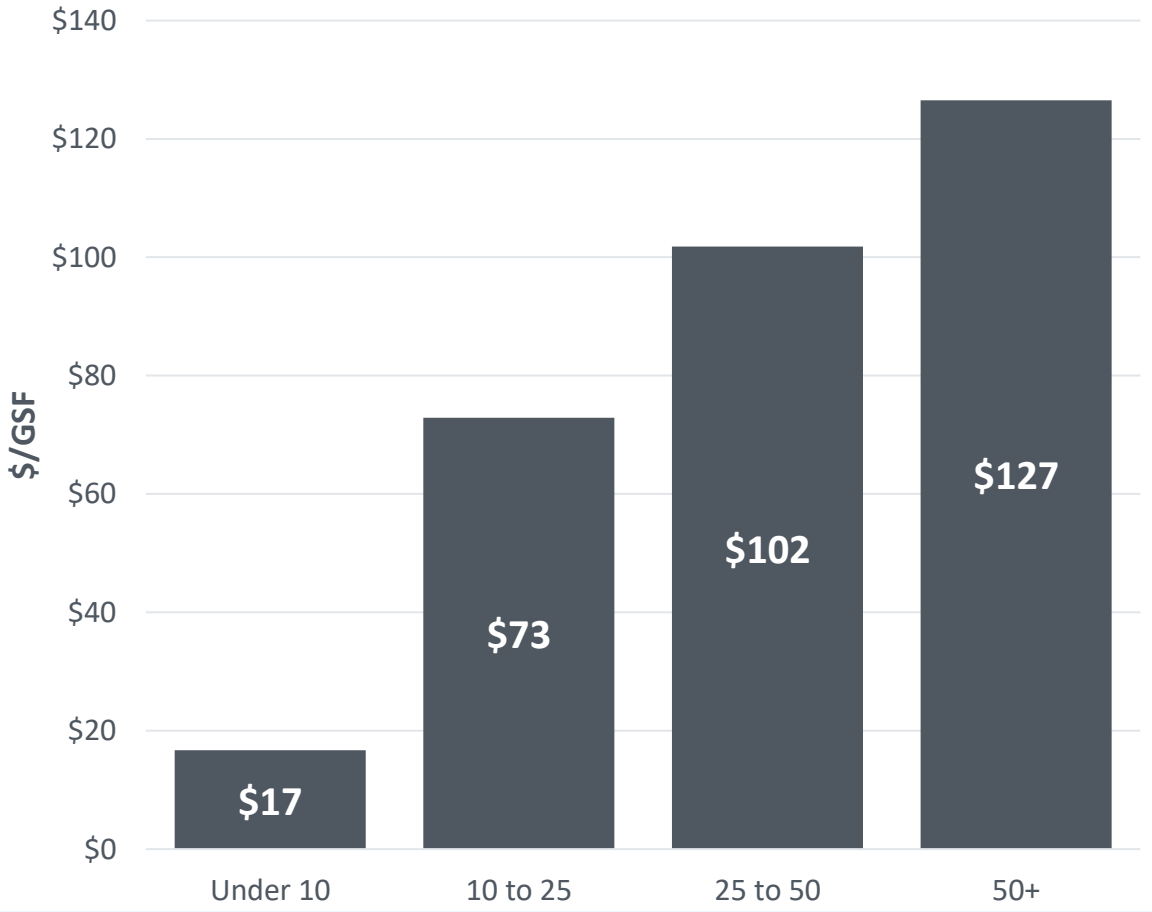
Older Spaces Experiencing Higher Need

Pre-War buildings have more needs per GSF than any other vintage despite some being renovated

Need ($/GSF) by Construction Vintage

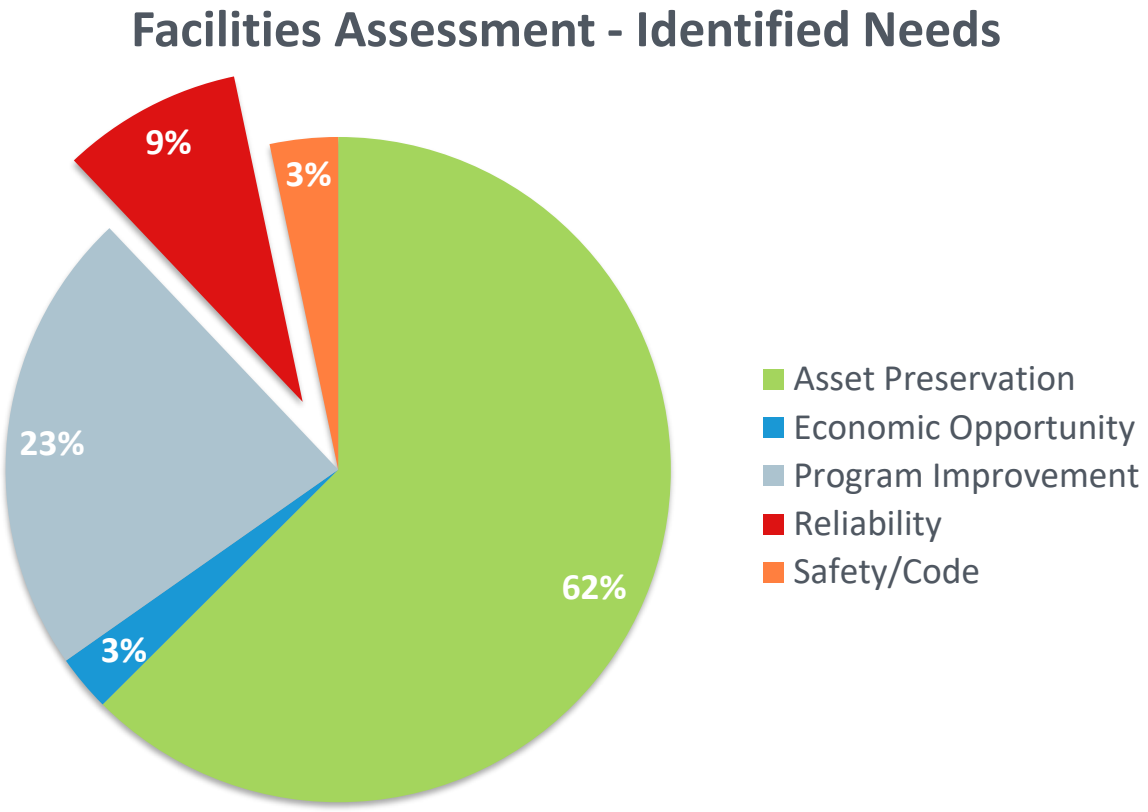


Need ($/GSF) by Renovation Age Category



Defining Investment Criteria for SLU

Roughly 10% of SLU's 10-year needs are classified as reliability needs that present high risk



- **Reliability**: Issues of imminent failure of compromise to the system that may result in interruption to program or use of space.
- **Safety/Code**: Code compliance issues and institutional safety priorities or items that are not in conformance with current codes, even though the system is "grandfathered" and exempt from current code.
- **Asset Preservation**: Projects that preserve or enhance the integrity of buildings systems, structure, or campus infrastructure.
- **Economic Opportunity**: Projects that result in a reduction of annual operating costs or capital savings.
- **Program Improvement**: Projects that improve the functionality of space, primarily driven by academic, student life, and athletic programs or departments. These projects are also issues of campus image and impact.

Buildings with Highest Reliability Needs Present Risk

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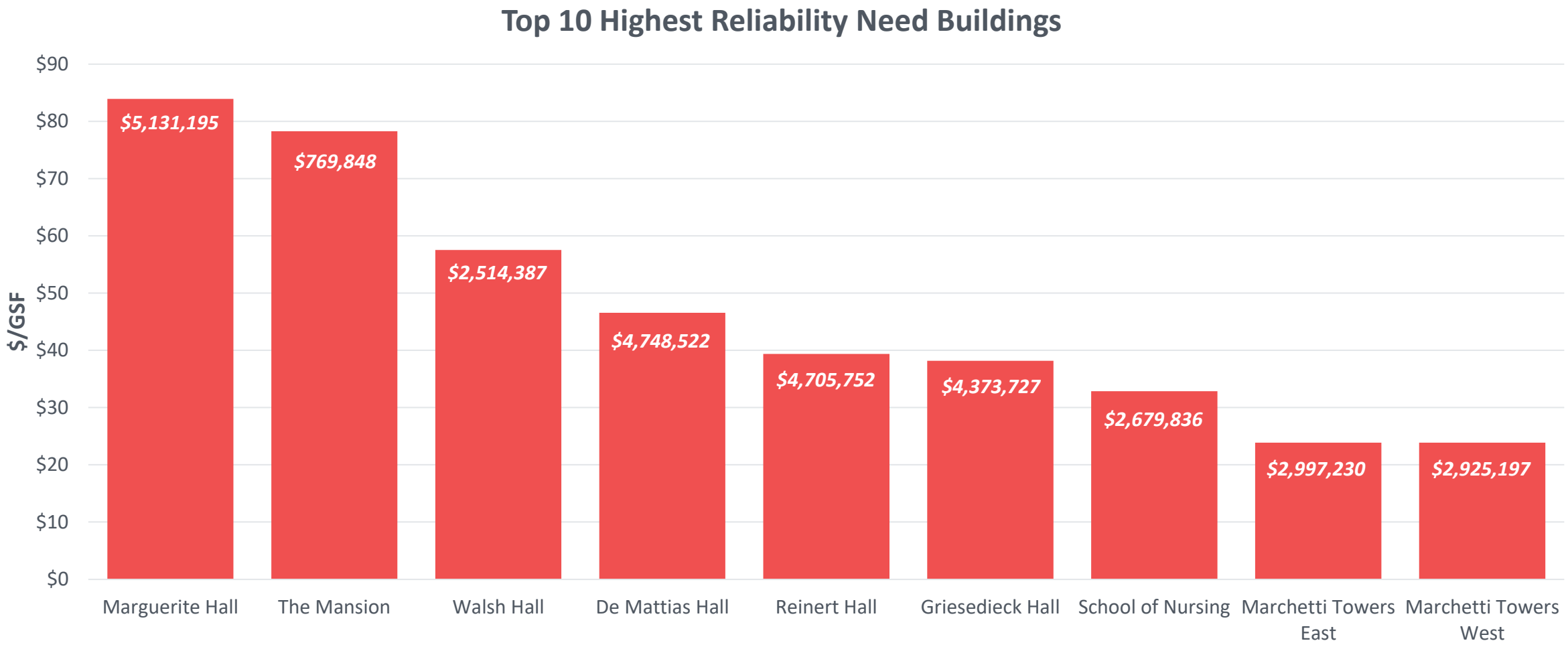
Marguerite and The Mansion have the highest reliability needs per GSF, risking displacement of students



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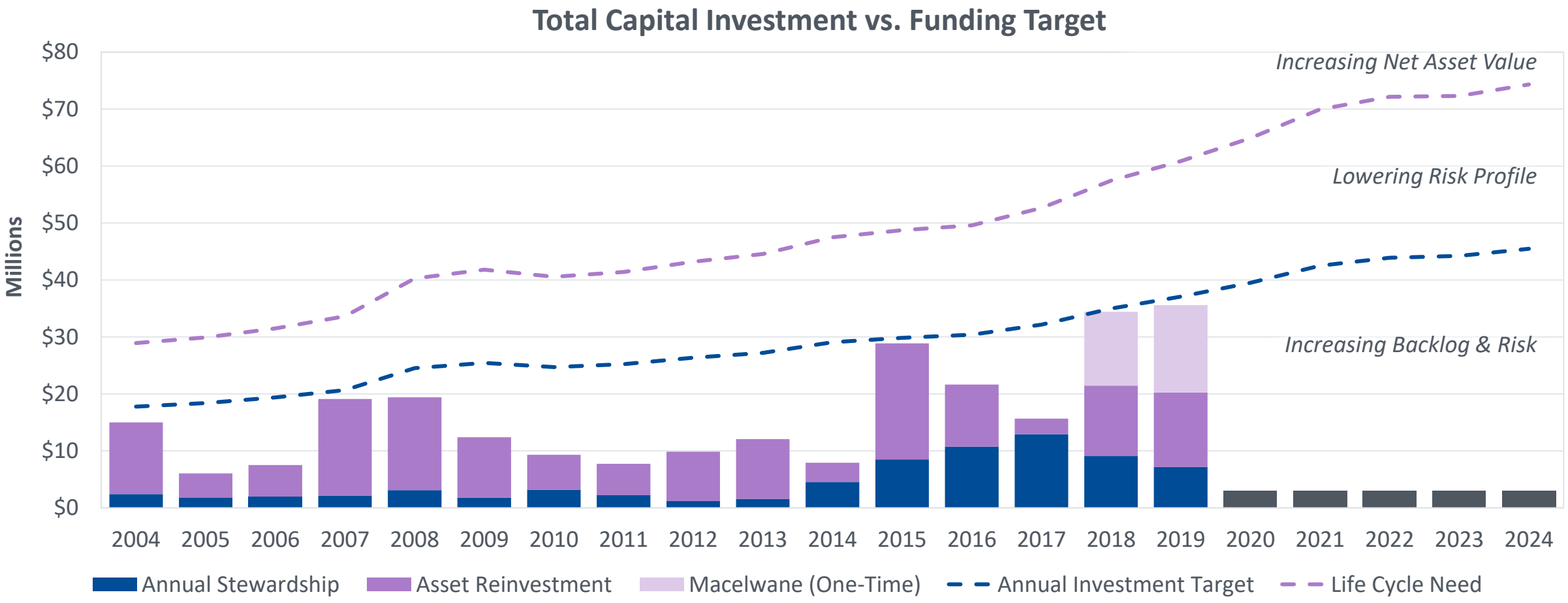
Spending to Target: 5 Year Projection

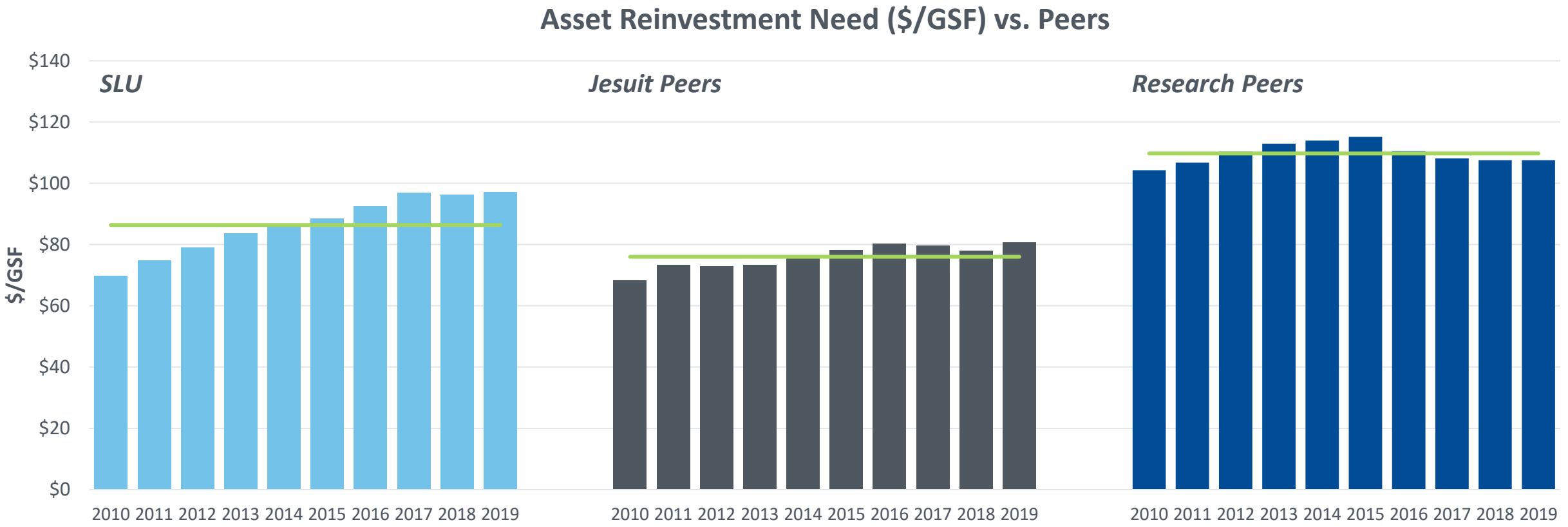
Targets will increase with the addition of the second half of the SLUCare Academic Pavilion and ISE Building



*does not include infrastructure

SLU's AR Need Stabilizes, Driven by Recent Capital Investments

SLU is just under $100/GSF in AR Need, which indicates a campus is more reactive than proactive



FY10-FY15: **27% increase**
FY15-FY19: **10% increase**

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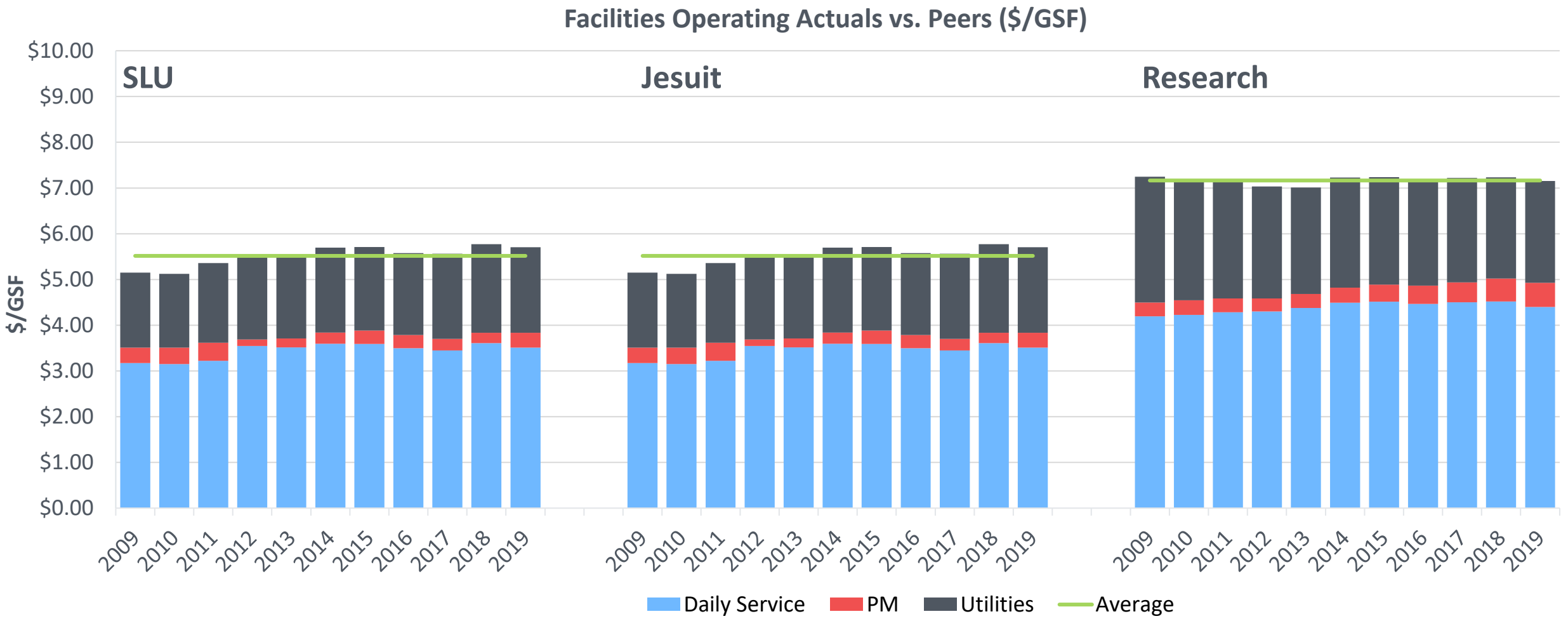
Operations Profile

Comparing Operating Resources vs. Peer Institutions

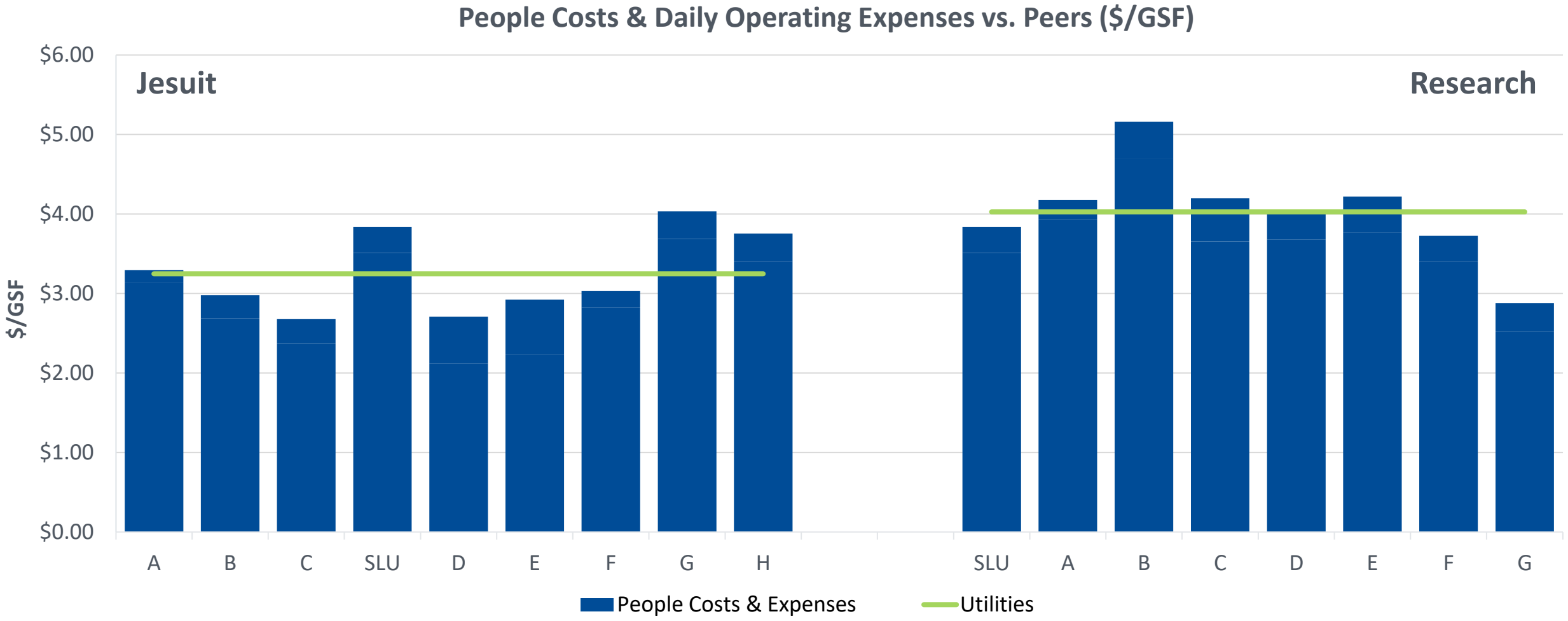
New buildings will require annual operational and capital attention to keep up to the demand of the space



*dollars shown in present day value

Research Peers Feature More Resources On Average

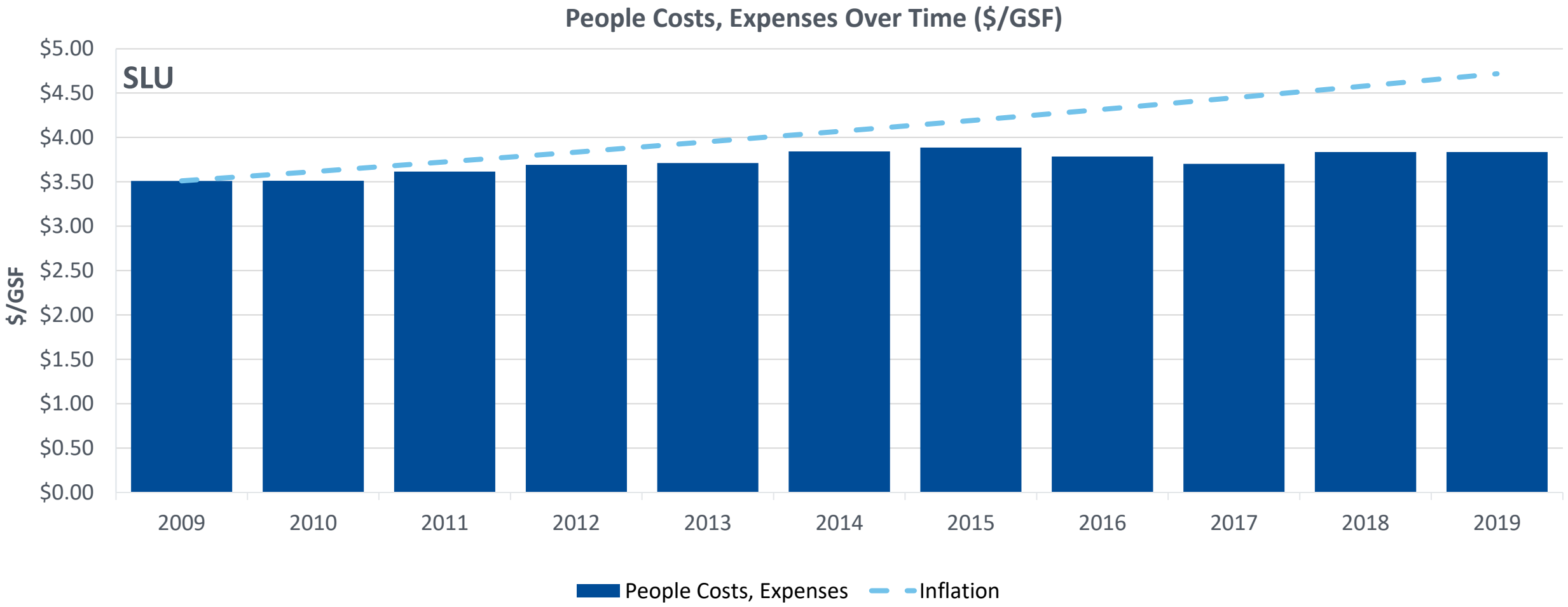
Research institutions have almost $1/GSF more on average than Jesuit peers



*dollars shown in present day value

Resources Keeping Pace With Space Additions, Not Inflation

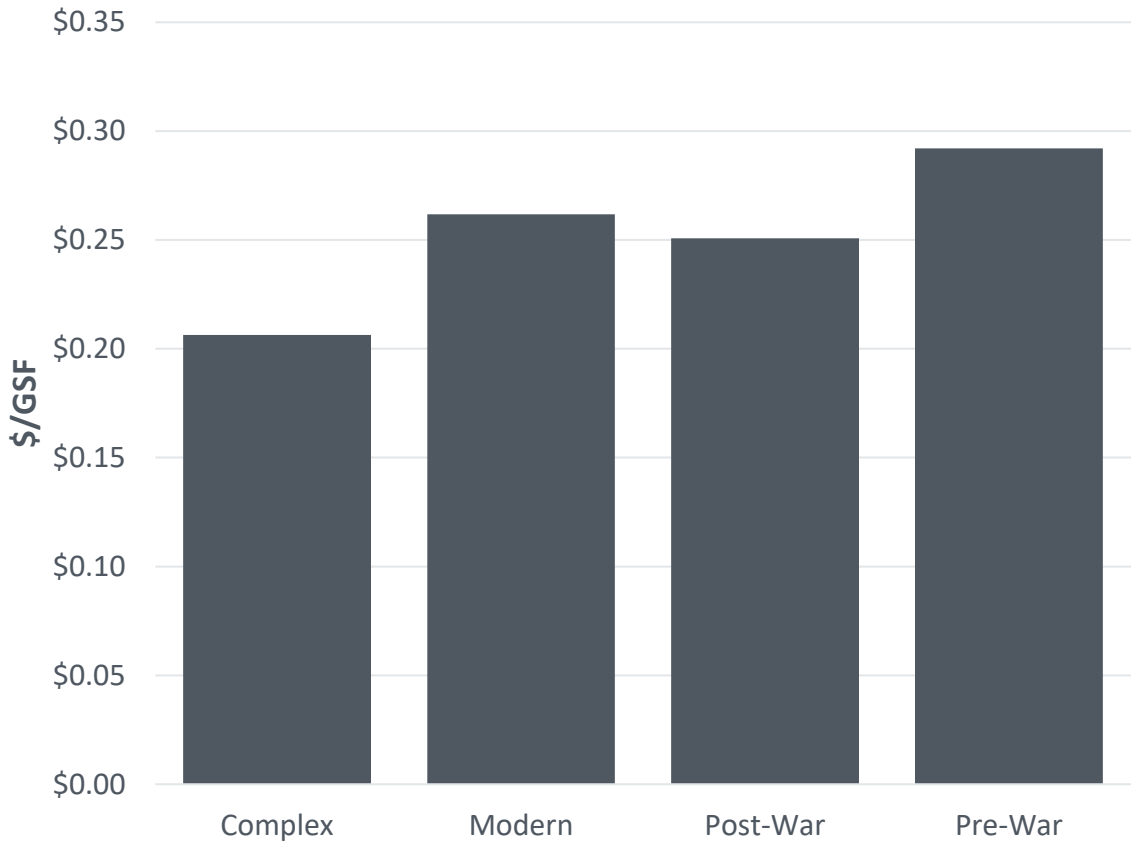
New buildings will require annual operational and capital attention to keep up to the demand of the space



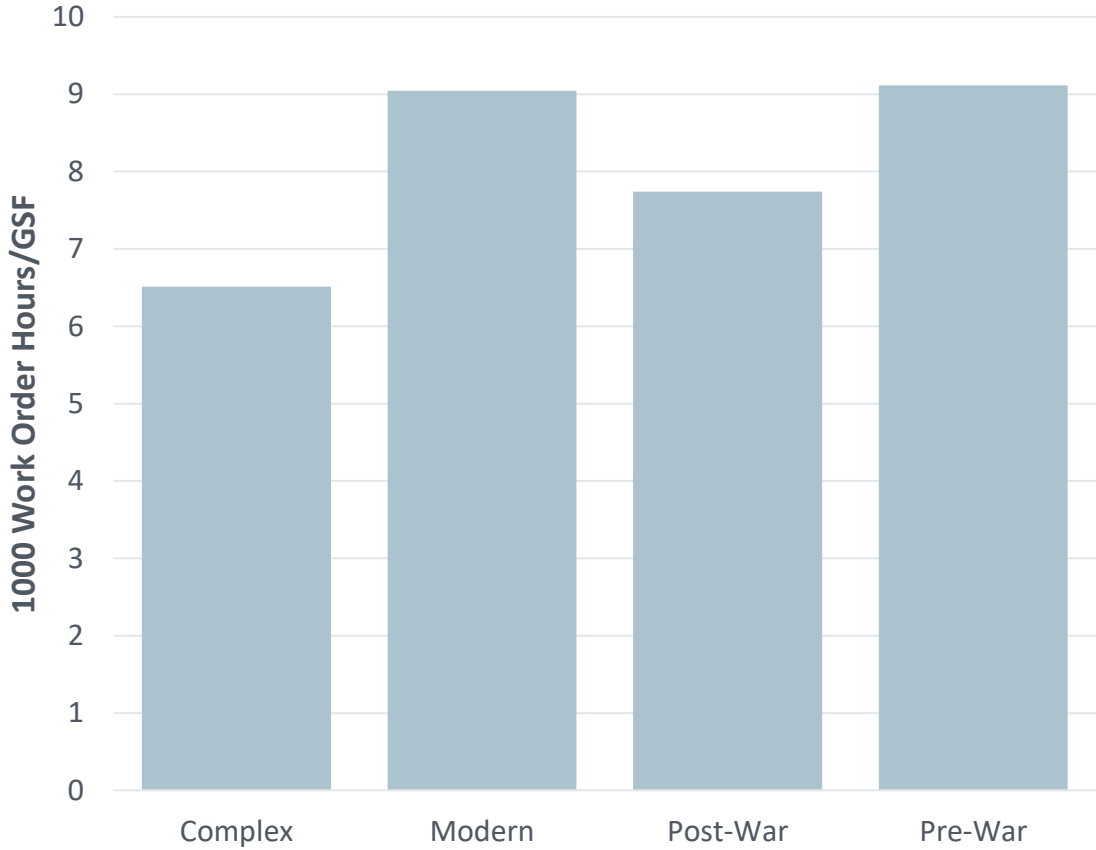
Reactive Work Orders by Construction Vintages

Pre-war buildings consuming the most time and resources of maintenance staff

Reactive Work Order Cost by Construction Vintage



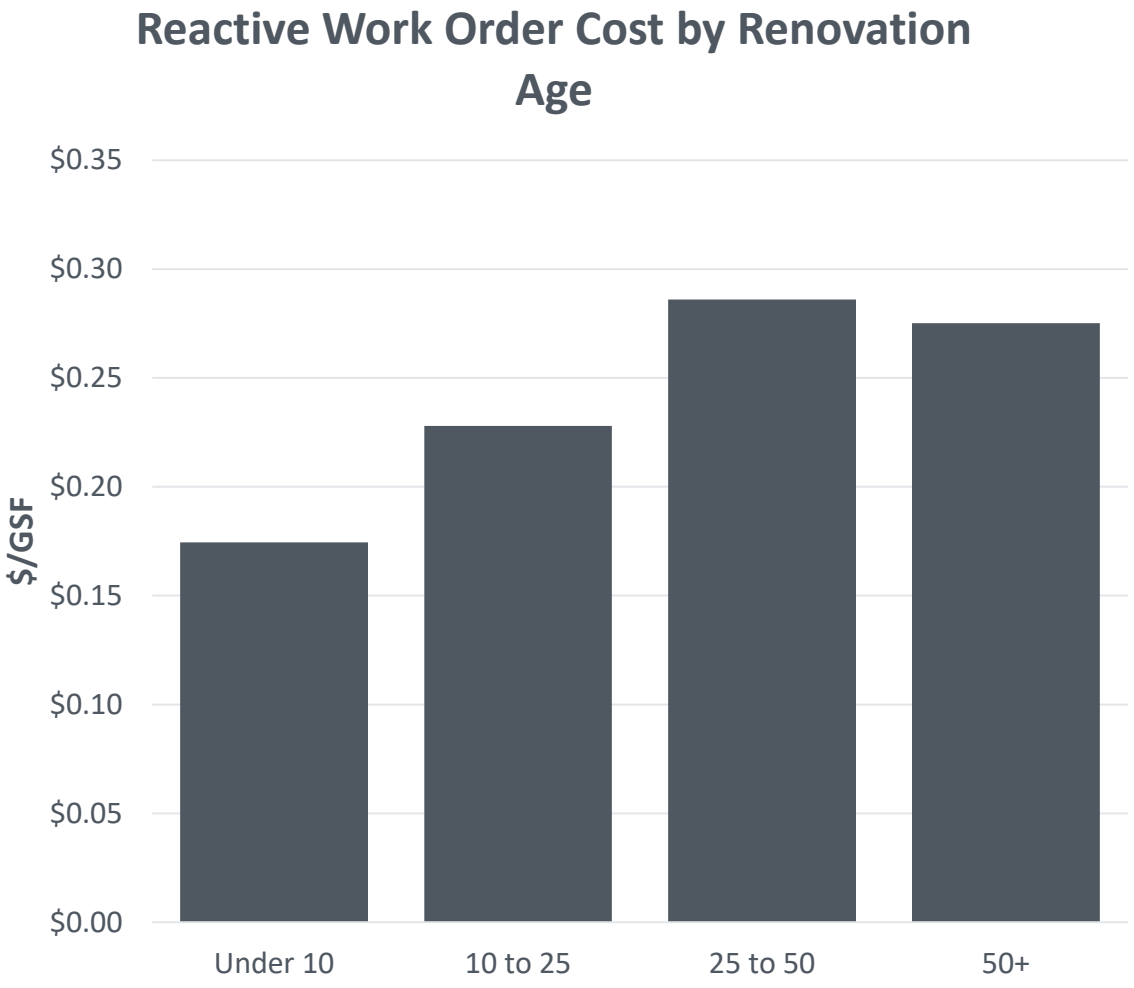
Reactive Work Order Hours by Construction Vintage

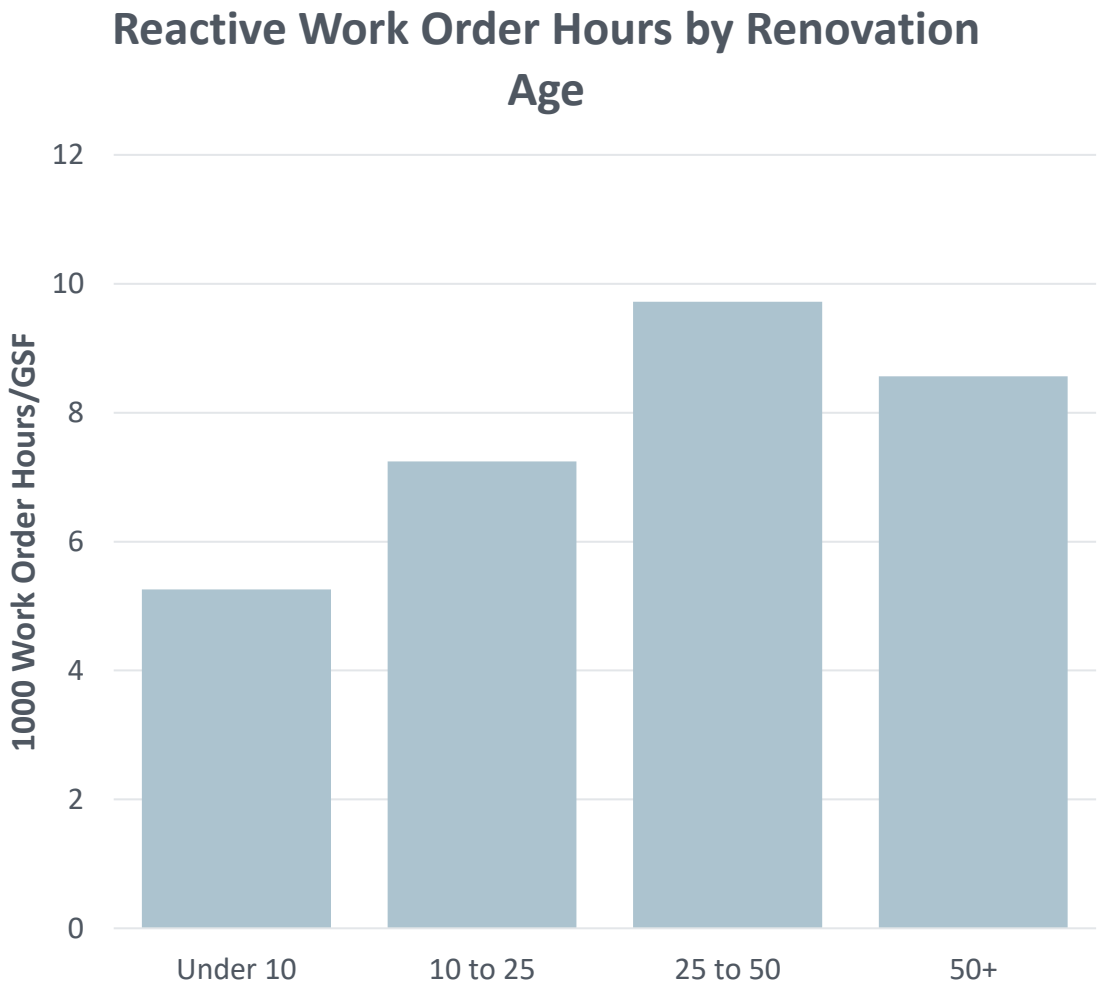


Arrayed youngest to oldest

Reactive Work Orders by Renovation Age

Factoring renovations into age, 25 to 50 aged buildings are consuming the most time & resources

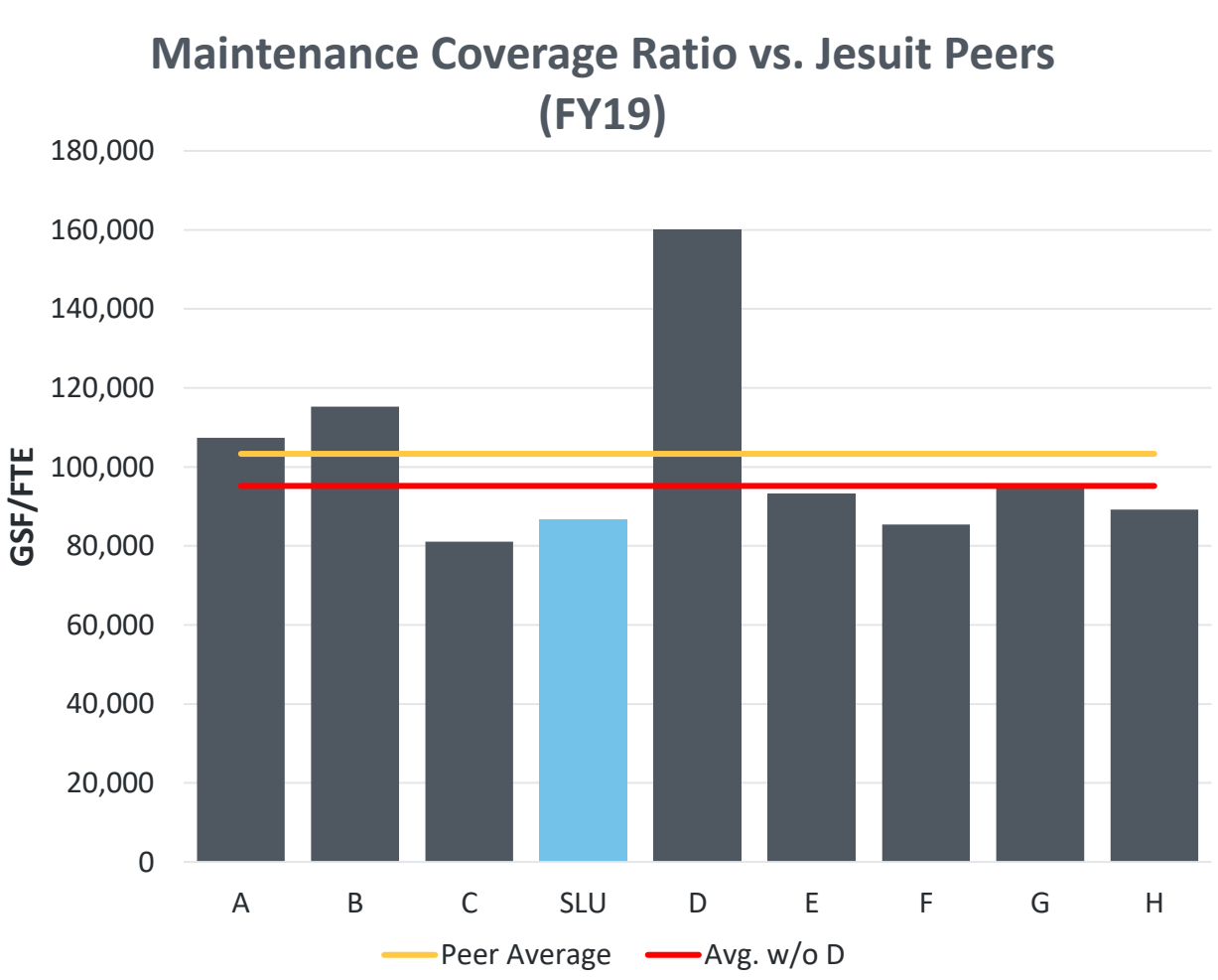


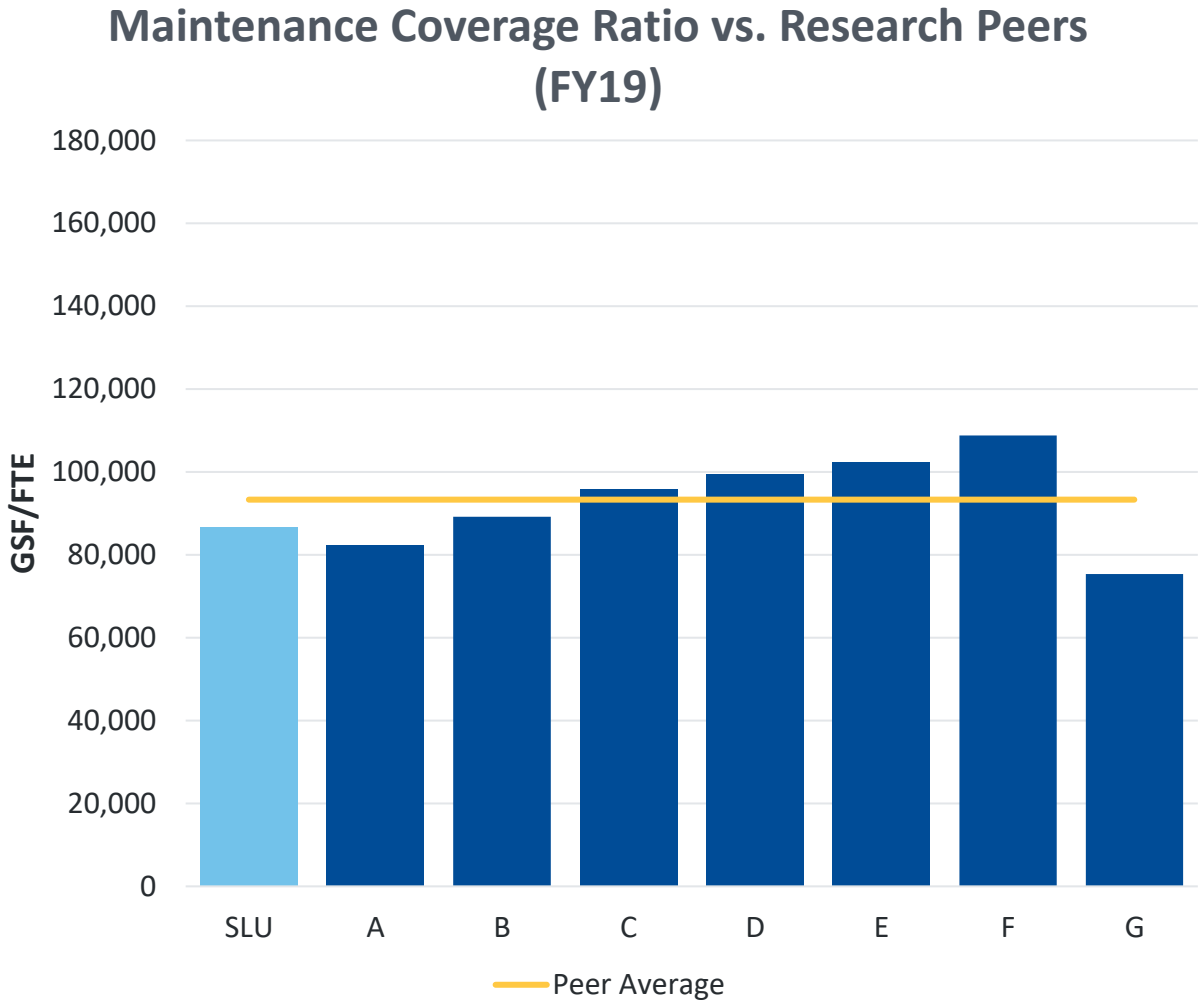


Arrayed youngest to oldest

Comparing Maintenance Coverage Among Peer Groups

SLU's maintenance coverage in line with peer institutions

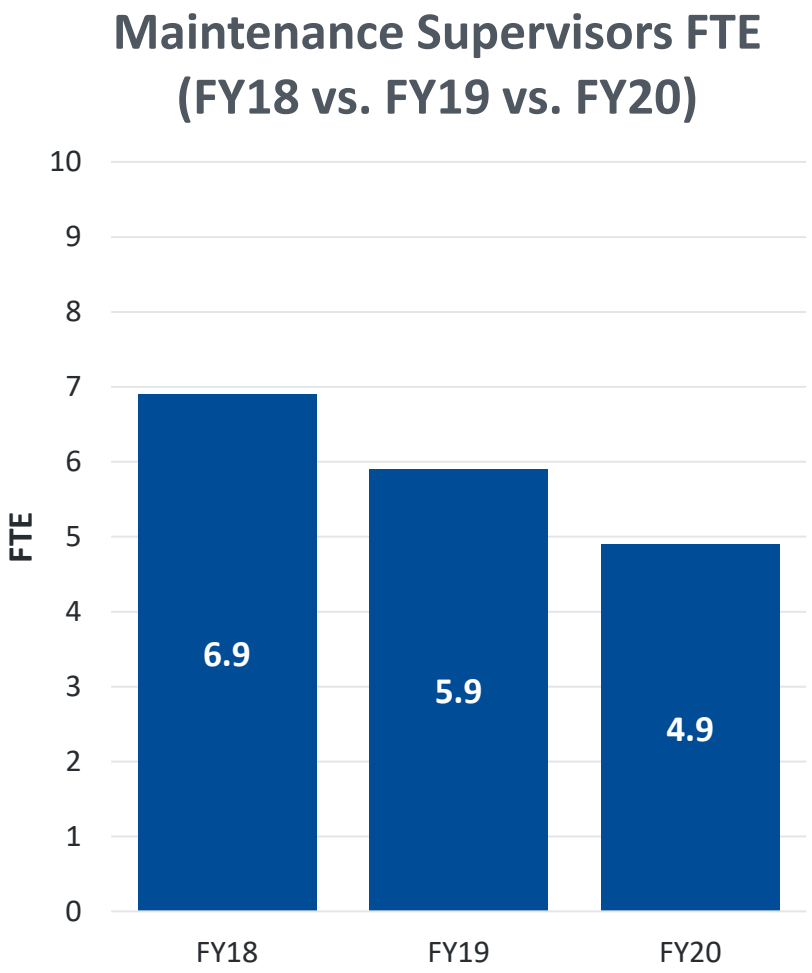




Arrayed by technical complexity

Maintenance Worker, Supervisor FTE Overview

Angela Hawkins' departure brings supervisor FTE to 4.9 in FY20



Supervisor Name	FY18	FY19	FY20
Joe Steen	1	1	1
John Wenkel	1	1	1
Grayson Rasnic	1	1	1
Ismael Lopez	1	1	
Angela Hawkins	1	1	
Matt McCuen	1		
Charles Goedde			1
Barth Breneman*	0.3	0.3	0.3
Keith McCune*	0.3	0.3	0.3
Ty Dennison*	0.3	0.3	0.3

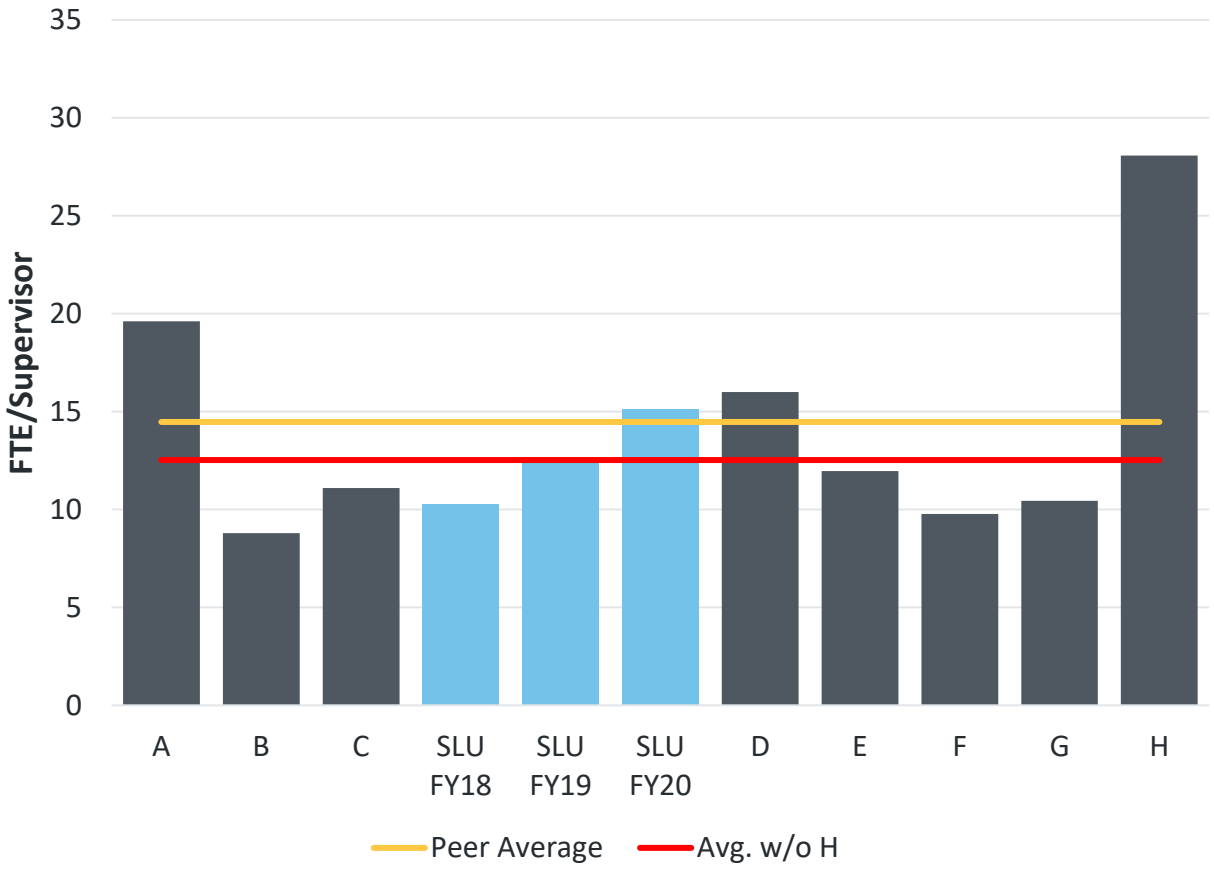
Matt McCuen moved into Project Manager, Construction Services role (FY19).

**One-third of AD's time spent supervising*

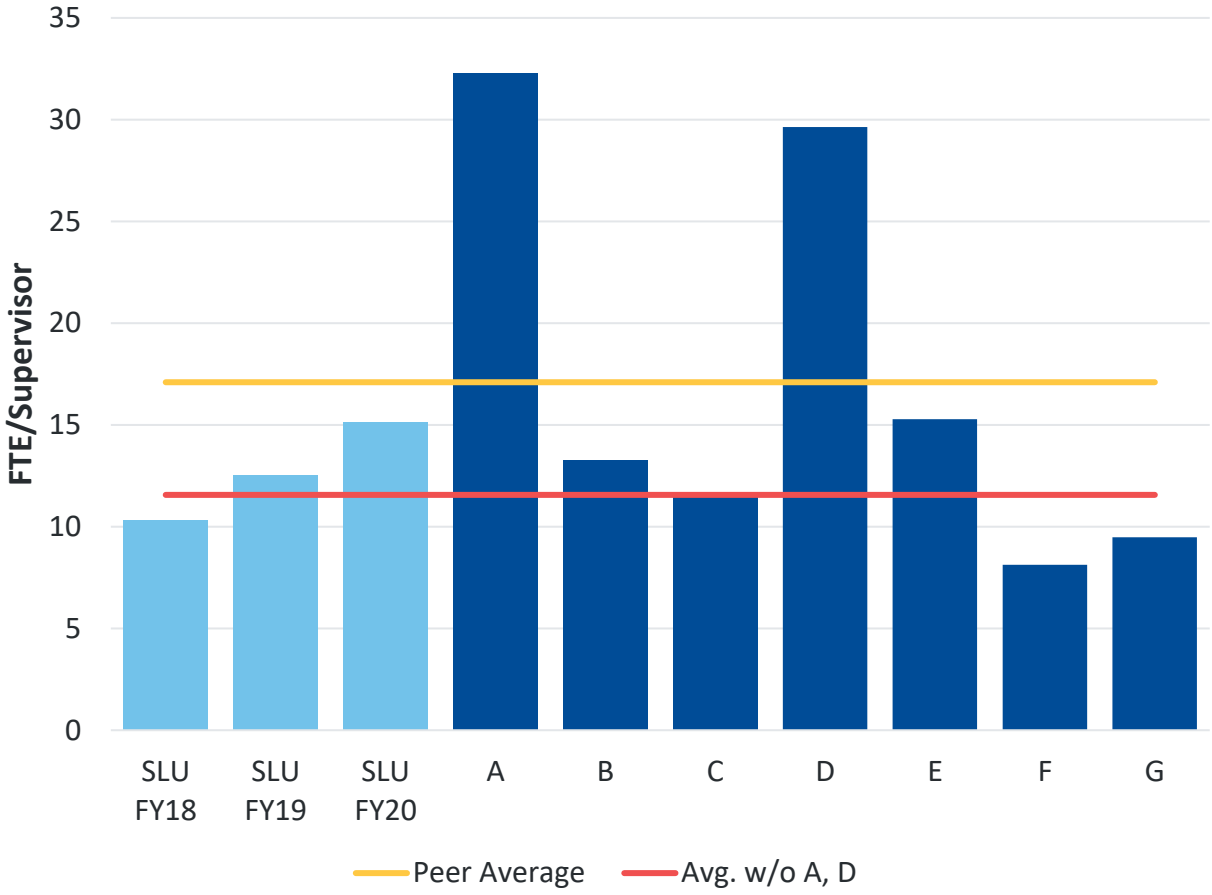
Comparing Maintenance Supervision Among Peer Groups

Replacing at least one additional supervisor will be important to stay in line with peers

Maintenance Supervisor Ratio vs. Jesuit Peers (FY19)



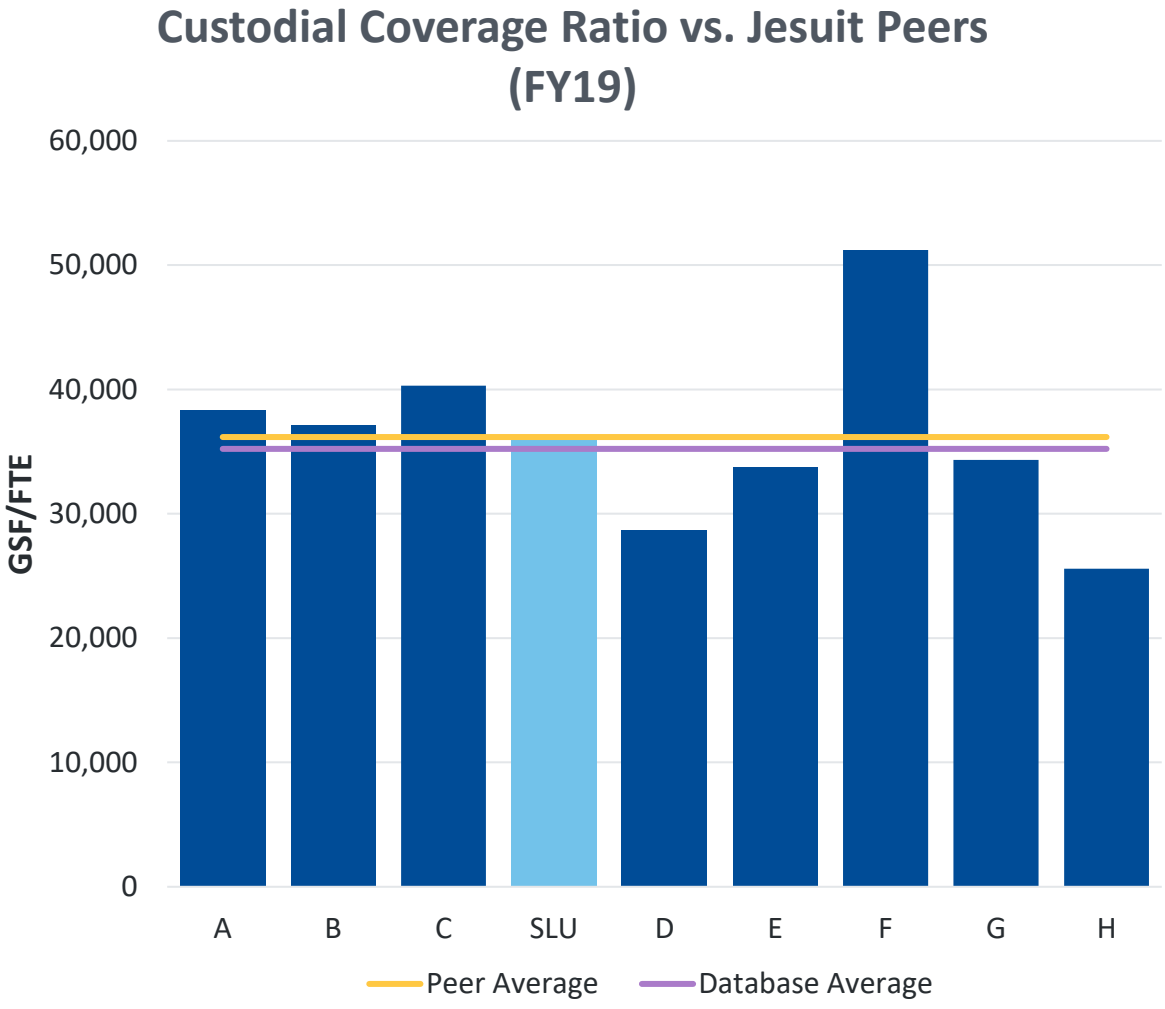
Maintenance Supervisor Ratio vs. Research Peers (FY19)

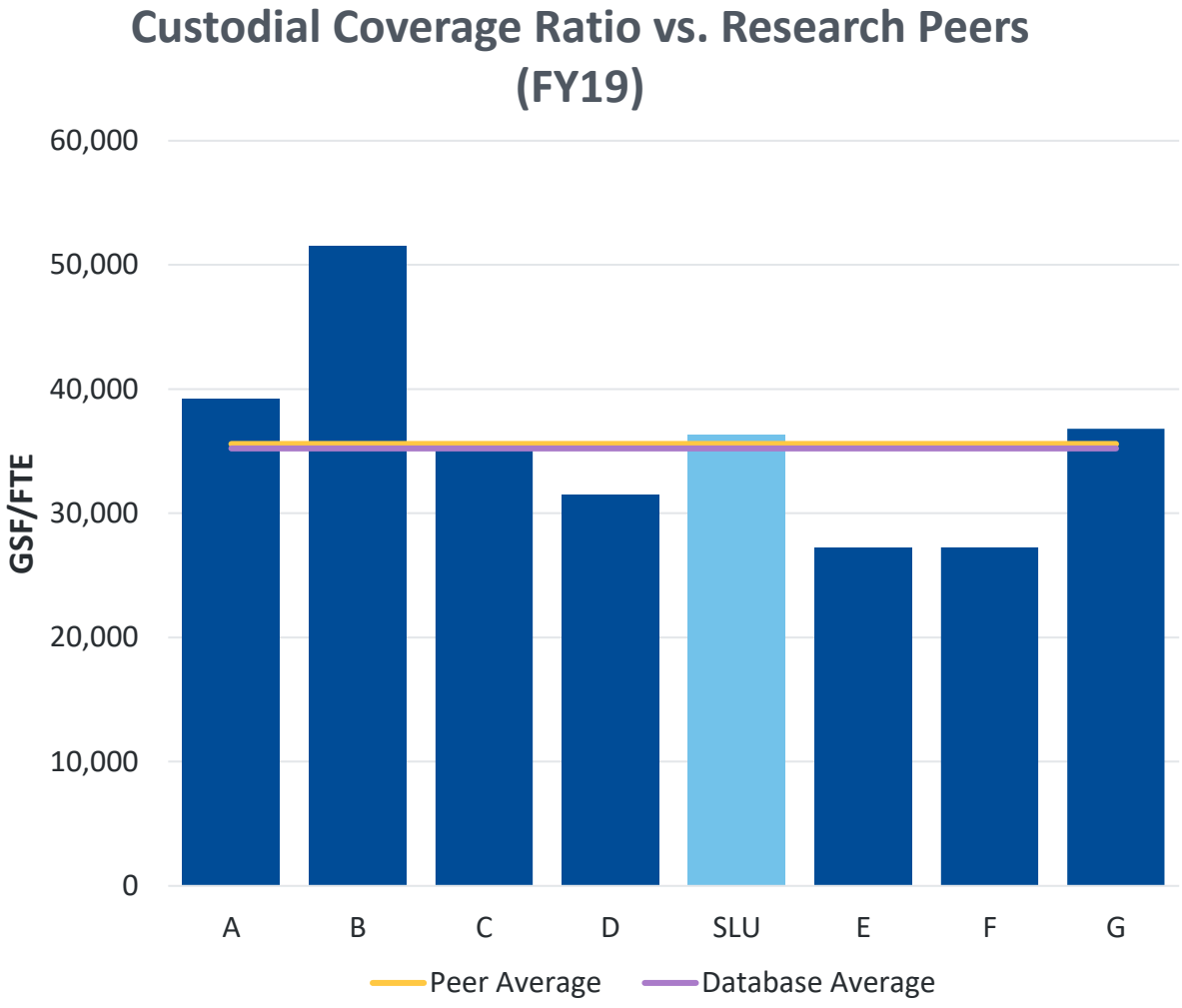


Arrayed by technical complexity

Comparing Custodial Coverage to Research & Jesuit Peers

SLU similar to peer averages & database average in custodial coverage





Arrayed by density

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Key Takeaways

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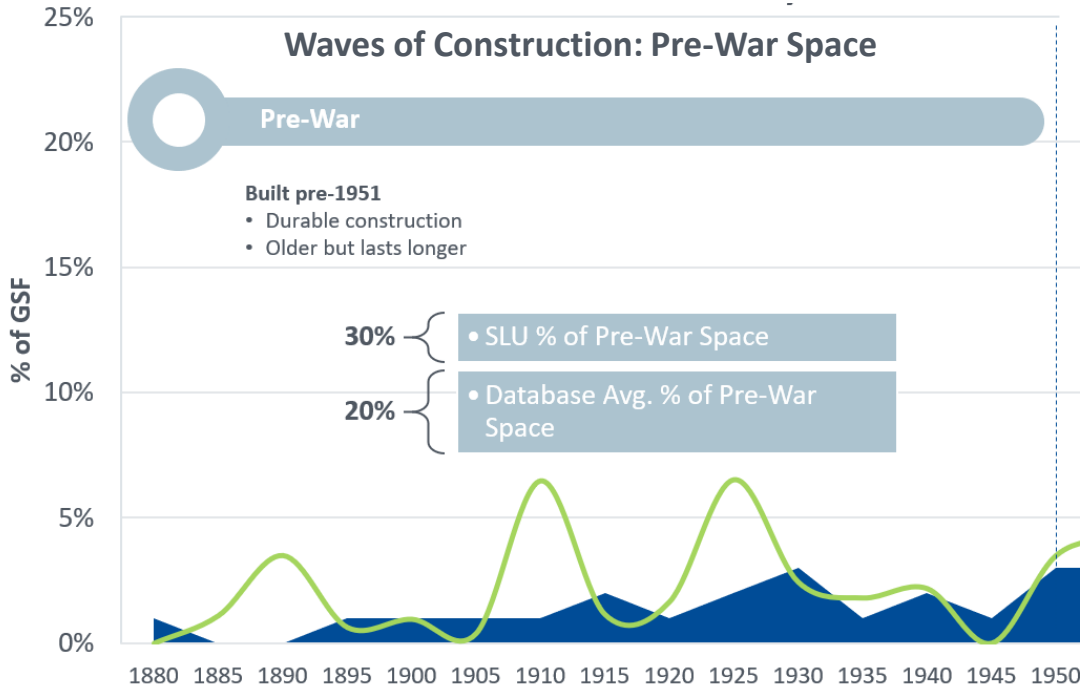
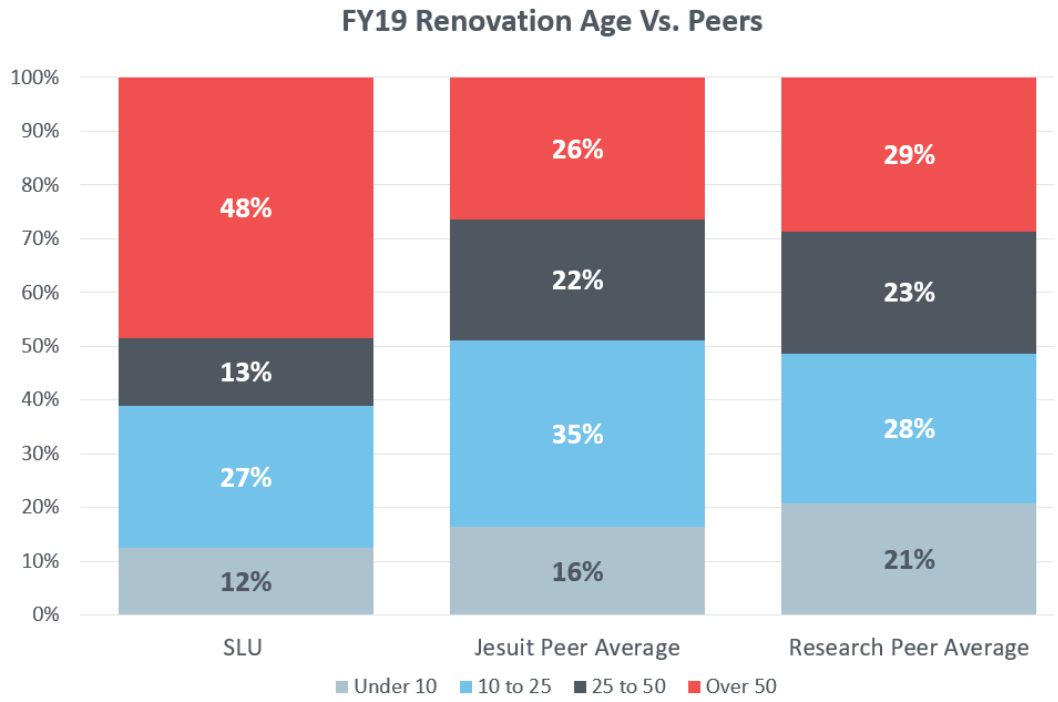
The oldest buildings on campus cost more, and there's more of this space on SLU's campus than Peers

SLU's space profile is driven by its older Pre-War construction with almost 50% of campus over 50 years old. This percentage will continue to rise without major building renovations in the near future. Understanding that major renovations may be difficult to undertake, due to the types of buildings and financial constraints, strategic project selection becomes an even more important strategy.





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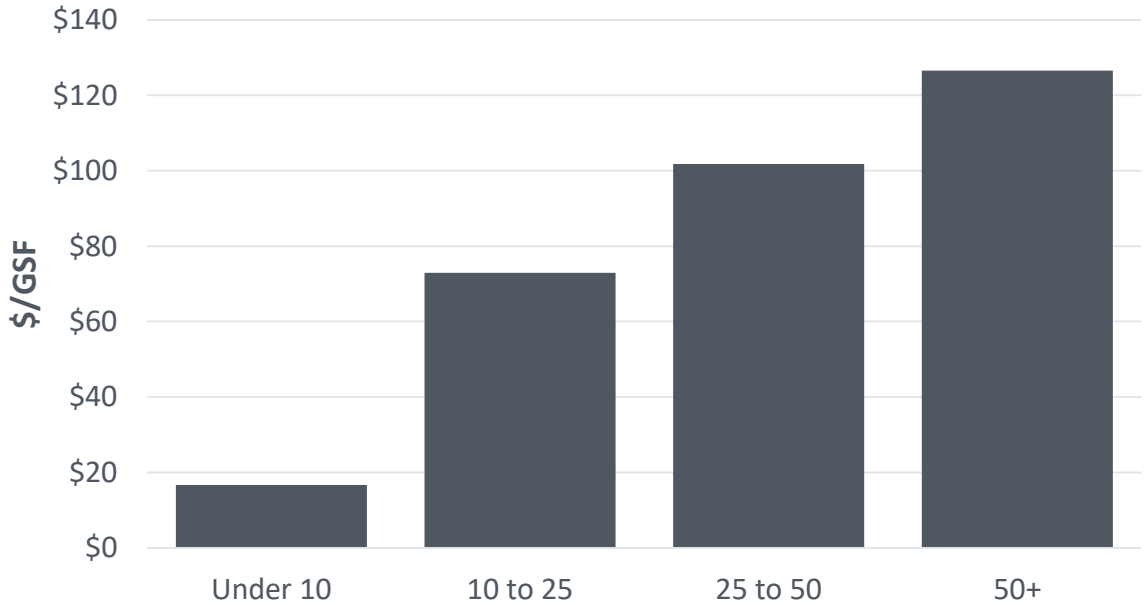
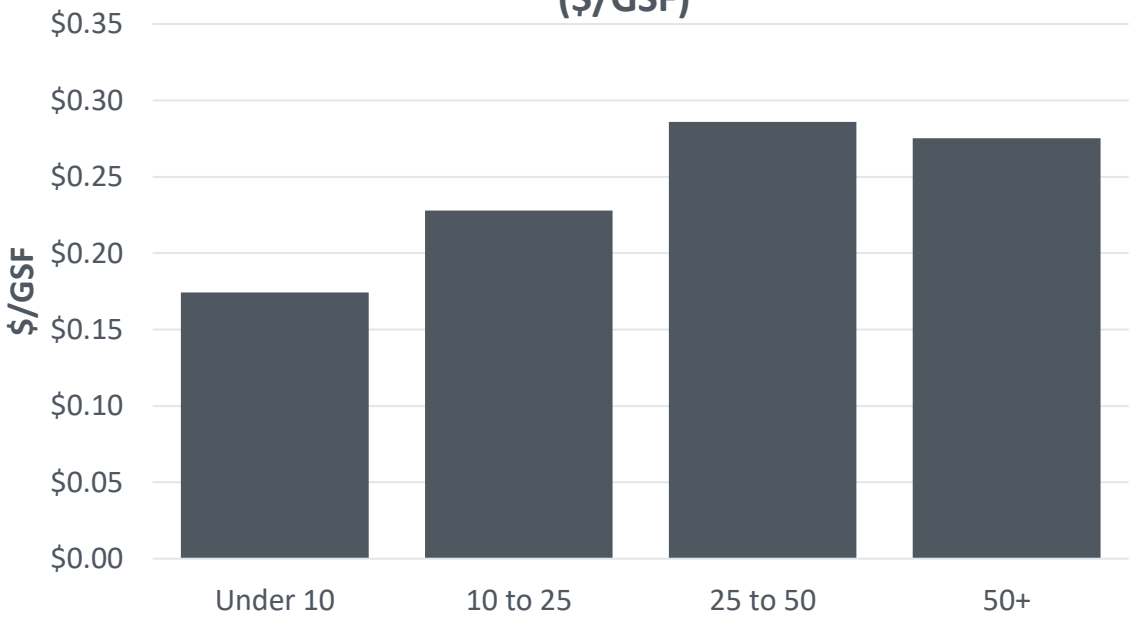
Capital Need ($/GSF) by Renovation Age Category



Reactive Work Order Cost by Renovation Age ($/GSF)

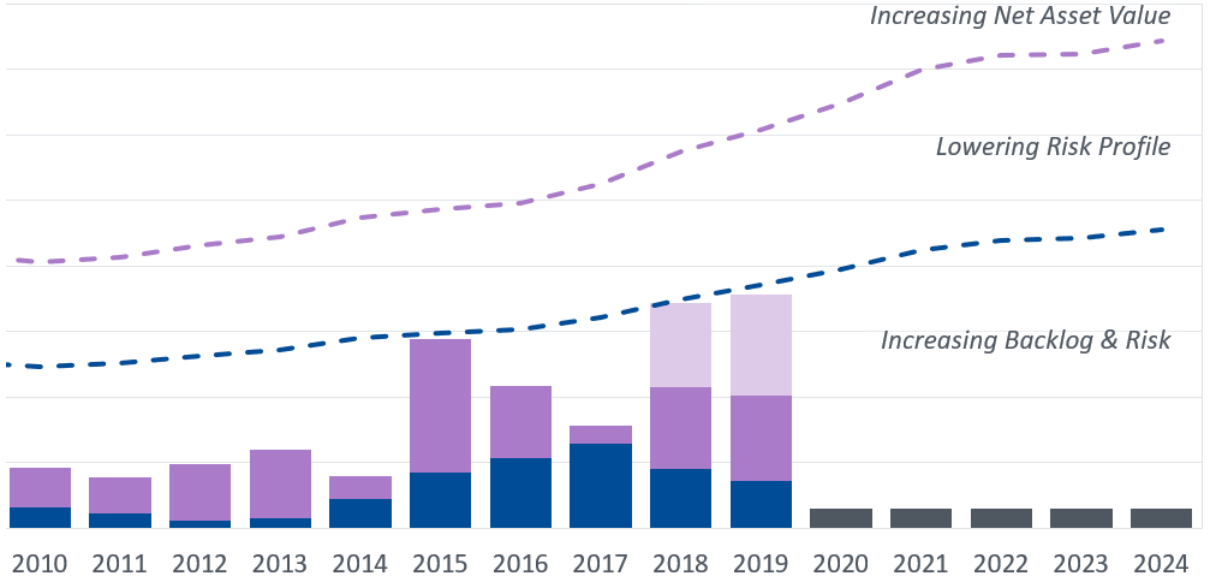


Key Takeaways

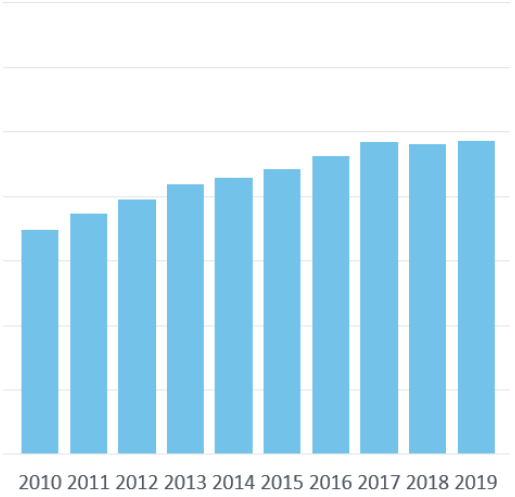
Significant increase in capital investment stabilizes deferred maintenance growth

In 2015, SLU and Sightlines worked together to build a 10 year outlook of the capital investment needs on campus. This project lead to a substantial increase in capital funding over the next 5 years, where the average annual investment into existing space increased from $9M per year to $27M per year. This influx of capital stunted a historical rise in Asset Reinvestment Need, especially in the last 2 years. Ensuring current funding capacities will be integral to the long-term health of the building systems on campus.

Total Capital Investment vs. Funding Target



Asset Reinvestment Need ($/GSF)

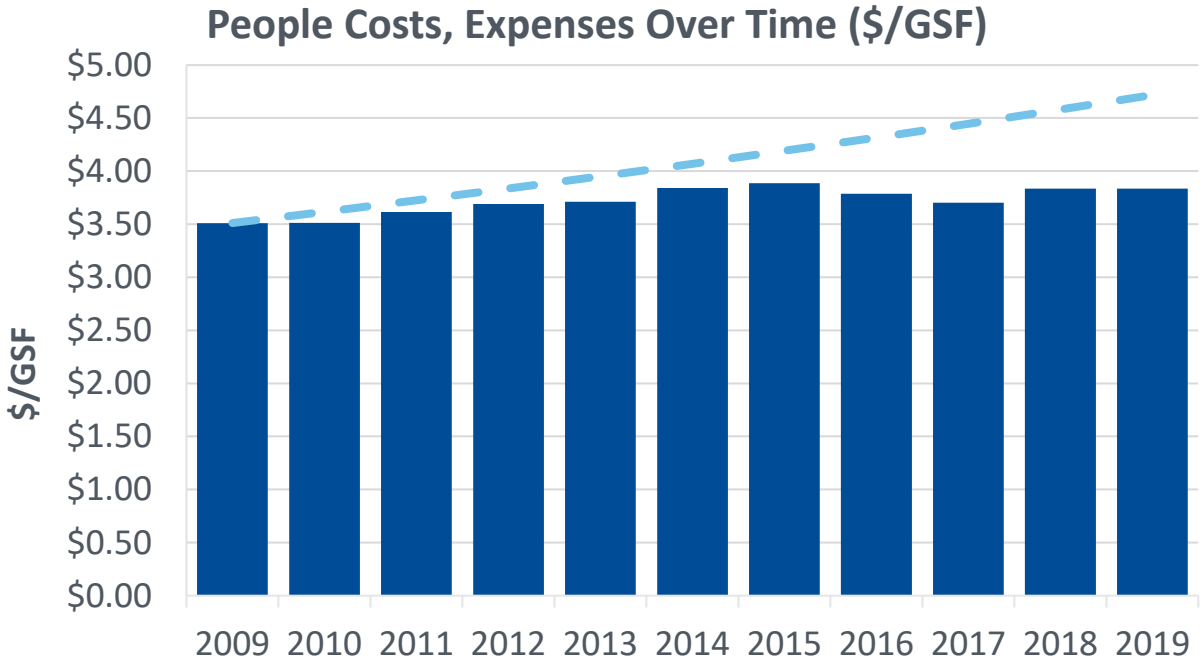


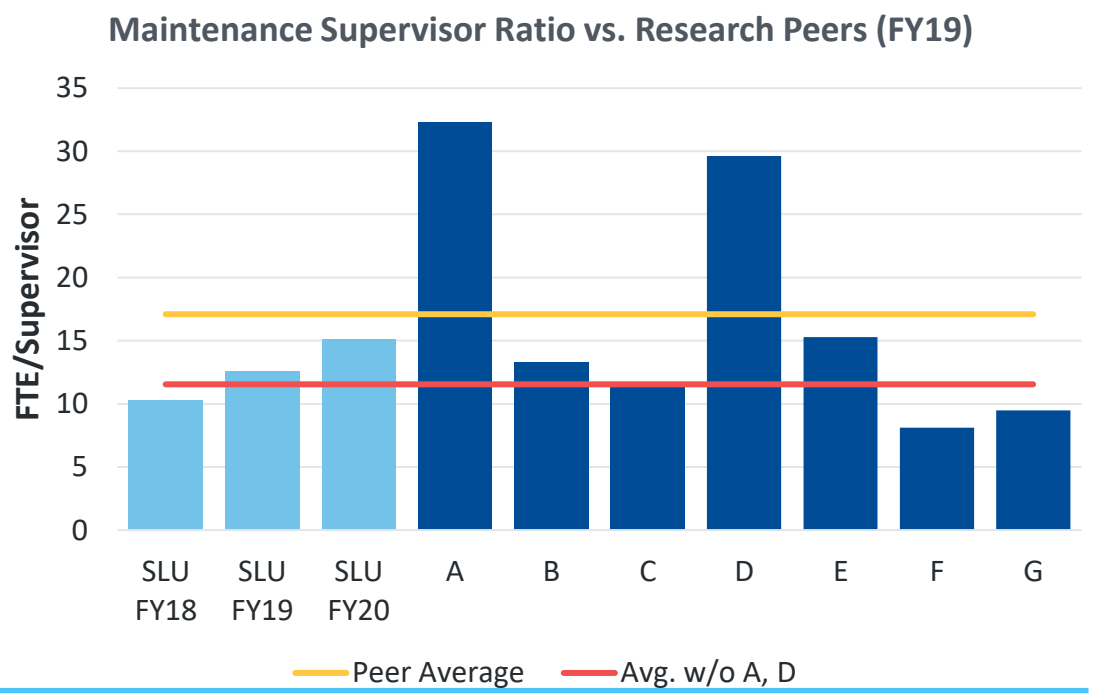
FY10-FY15: **27% increase**
FY15-FY19: **10% increase**

Key Takeaways

Operating resources keeping pace with space additions, but not all campus changes

Daily operating resources to address both reactive and planned maintenance has remained steady and consistent, even as the amount of space on campus ebbs and flows. Other issues, however, like inflation and staffing turnover, are external factors that force the facilities department to do more with less, and thus creates strain on the department and the campus as a whole.





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Tools At Our Disposal To Communicate Facilities Needs

Bringing In Outside Information to Add Additional Context

This report outlines major trends that are happening throughout the industry

1. Growing facilities needs backlog
2. Compounding waves of lifecycle needs
3. Fewer students and less revenue

Another Resource:

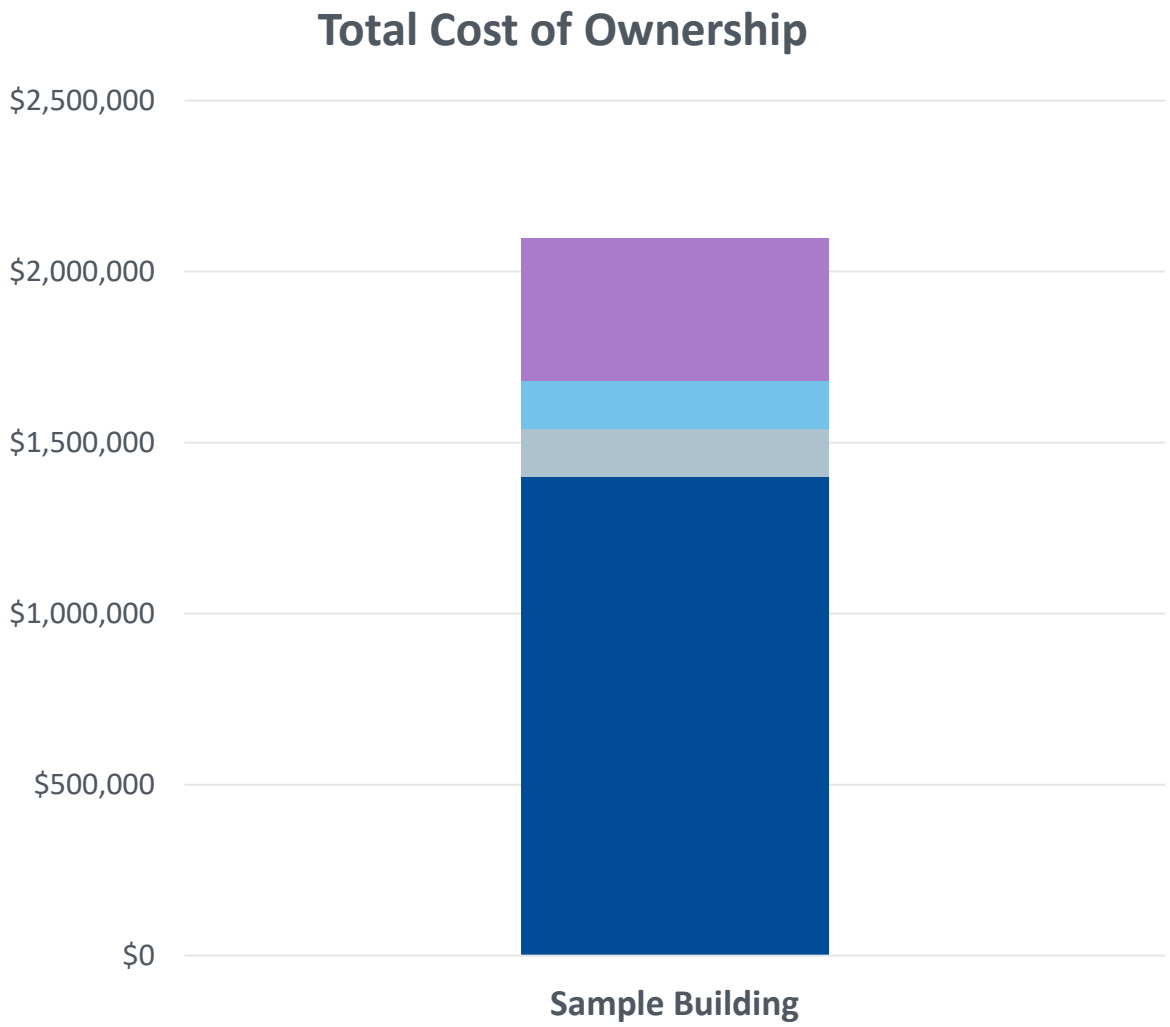
The Chronicle is hosting webinars over Zoom.

"What a College Should NOT Do During a Recession"

1. Refrain from any rash decision making
2. Utilize data whenever possible to influence decision making

https://zoom.us/webinar/register/WN_joy1iA21QzKxh_6cwQ-6BA?mkt_tok=eyJpIjoiTmpVMlpqUTFZVEZpTUdVeSIsInQiOiJiUk9hTVI0aDRXYTdld3ZDeUR0TWh6ZlwvR1VwaXV4VmlrWDZ4dGlRRUhYSVpYVU1GSmJJSG5yejF6MEZjMEZmWUl5TVZ4WGQxYk1OM1RcL1FHQVlMRUFhVWNlOHJpNzI4M2ZRUEtOaUNsWDU0YjBIakVQVVRERmNqWUxYZUNiYm1RIn0%3D

How Can We Measure the True Cost of Ownership?



Utility Cost
Cost and consumption of water, sewer, fossil, & electric

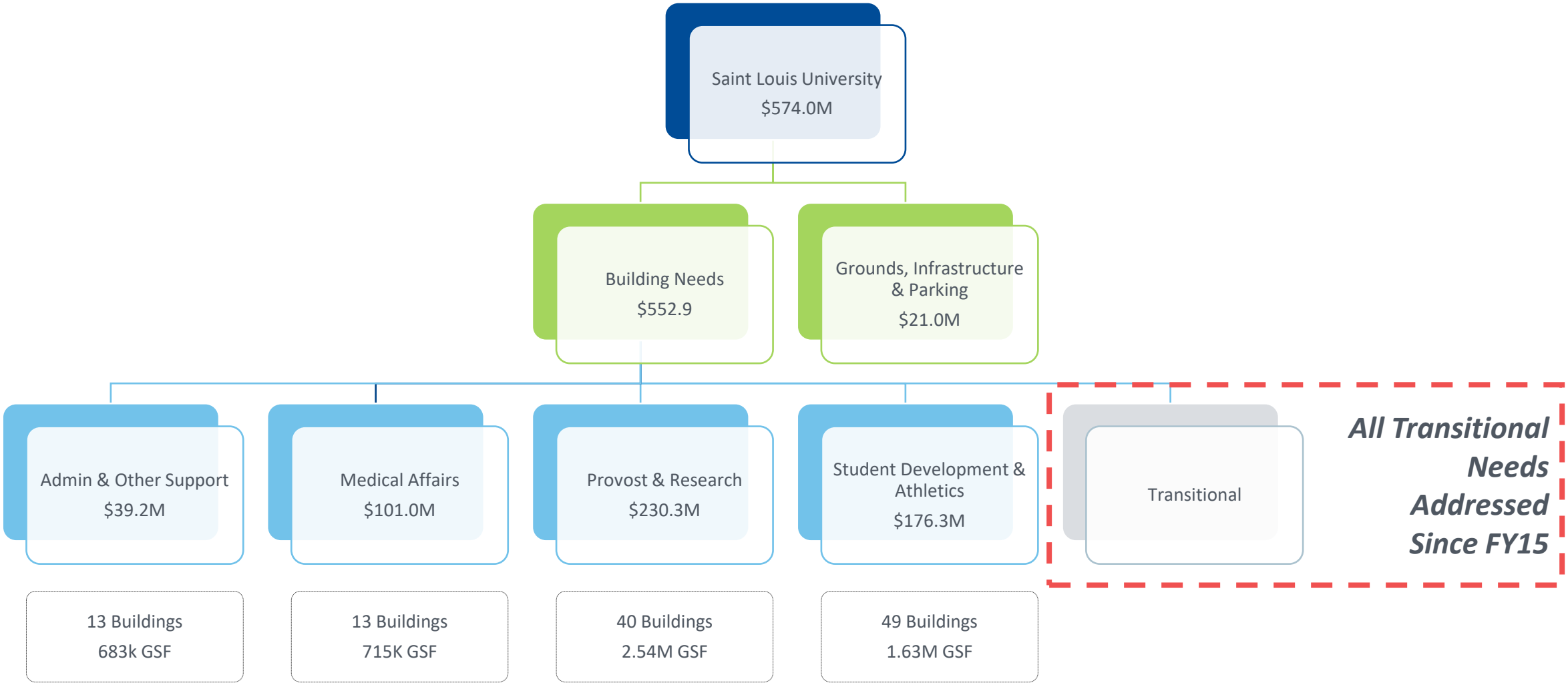
Custodial Cost
Cleaning costs associated to the specific building; tracking labor hours, materials

Maintenance Cost
Sum of all internal and contracted reactive and planned maintenance efforts; labor and materials

Annual Capital Need
Capital dollars needed on an annual basis to fund projects/renovations (10 year look - from project list)

Sample Data

Classifying Buildings into Portfolios



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COVID Response in Higher Education

Covid-19: What Actions Are Other Schools Taking?

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SEC Meeting Highlights

- **Current Actions:**
  - Rotating schedule for staff
  - Not testing their staff for Covid
  - Not doing temperature checks
- **Refunds:**
  - Almost all are refunding room and board
  - Some are refunding a portion of tuition
- **Thoughts on FY21:**
  - Opening up in the fall – split responses: 1/3 neg, 1/3 pos, 1/3 neutral
  - Do big lecture halls go away? Some schools considering this.
  - Will social distancing require more space?
  - Faculty worried about teaching in a room with a bunch of students

UMASS Meeting Highlights

- **Changes to Daily Life on Campus:**
  - Rotating schedule for staff – no cross contamination between groups
  - Staff have to fill out survey about symptoms each day before starting work
  - Masks: encouraged on campus. Some are supplying masks to high risk workers (high-risk from how they have to work.
  - Have locked down as much space as possible and monitoring who swipes into what building.
  - They are not able to do temperature checks.
- **Confirmed Case Actions:**
  - If a staff member is confirmed with Covid – anyone who was within 6 ft for 15 mins or more gets tested (CDC guidelines).
  - Hiring contracted cleaners to clean the buildings after any confirmed cases
- **Weekly Meetings:**
  - Meeting weekly to share best practices
  - Zoom calls twice a week to allow staff to share any concerns with leadership

Covid-19: What Actions Are Other Schools Taking?

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SLAC Meeting Highlights

- **Current Situation and Actions:**
  - Campuses in various states of close, but most pretty empty
    - Dealing with many student belongings left on campuses.
  - Facilities staff not working on site except minimally necessary
  - Many providing space to house first responders who aren't going home to family
  - Summer programs mostly cancelled
  - Construction activity varies by jurisdiction
  - Construction being curtailed to preserve cash
  - Wide variety of commencement/reunion plans from slight to one year deferrals
  - Trying to start aligning present actions with future implications.

- **Planning for FY21**
  - Most planning for both online and on site teaching in fall
  - Some actually concerned about lack of space if not abroad programs for students this fall
  - Significant budget concerns in coming year and several years to follow

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Questions & Discussion

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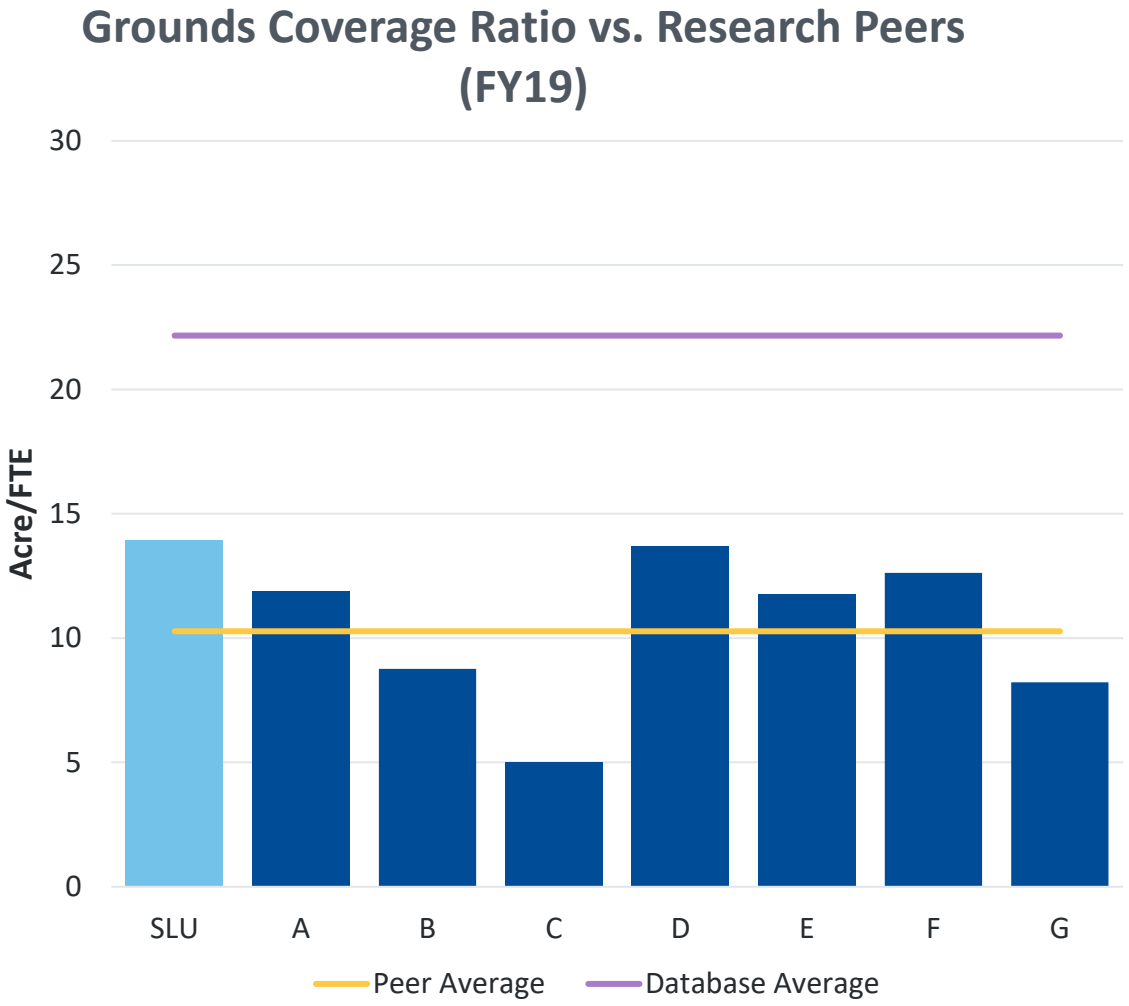
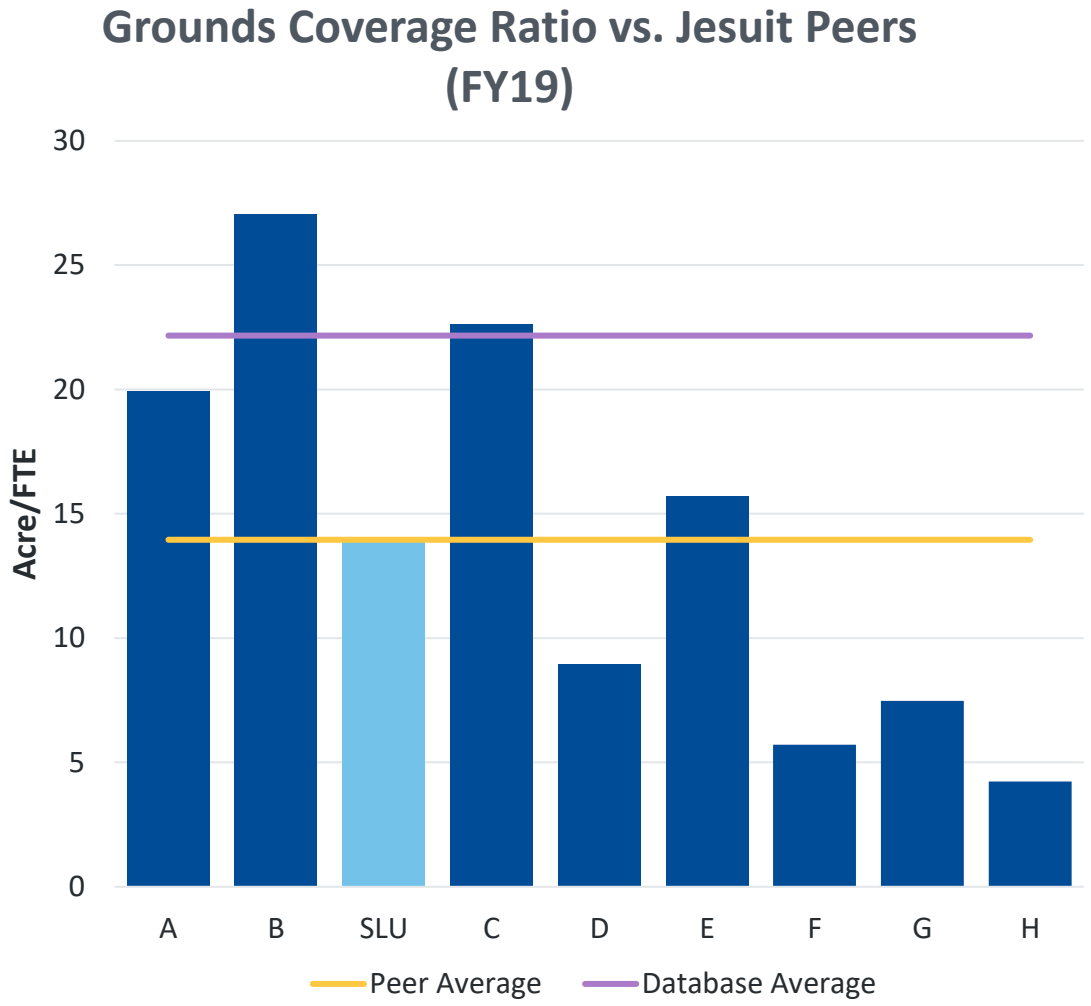
Appendix

Comparing Grounds Coverage to Research & Jesuit Peers

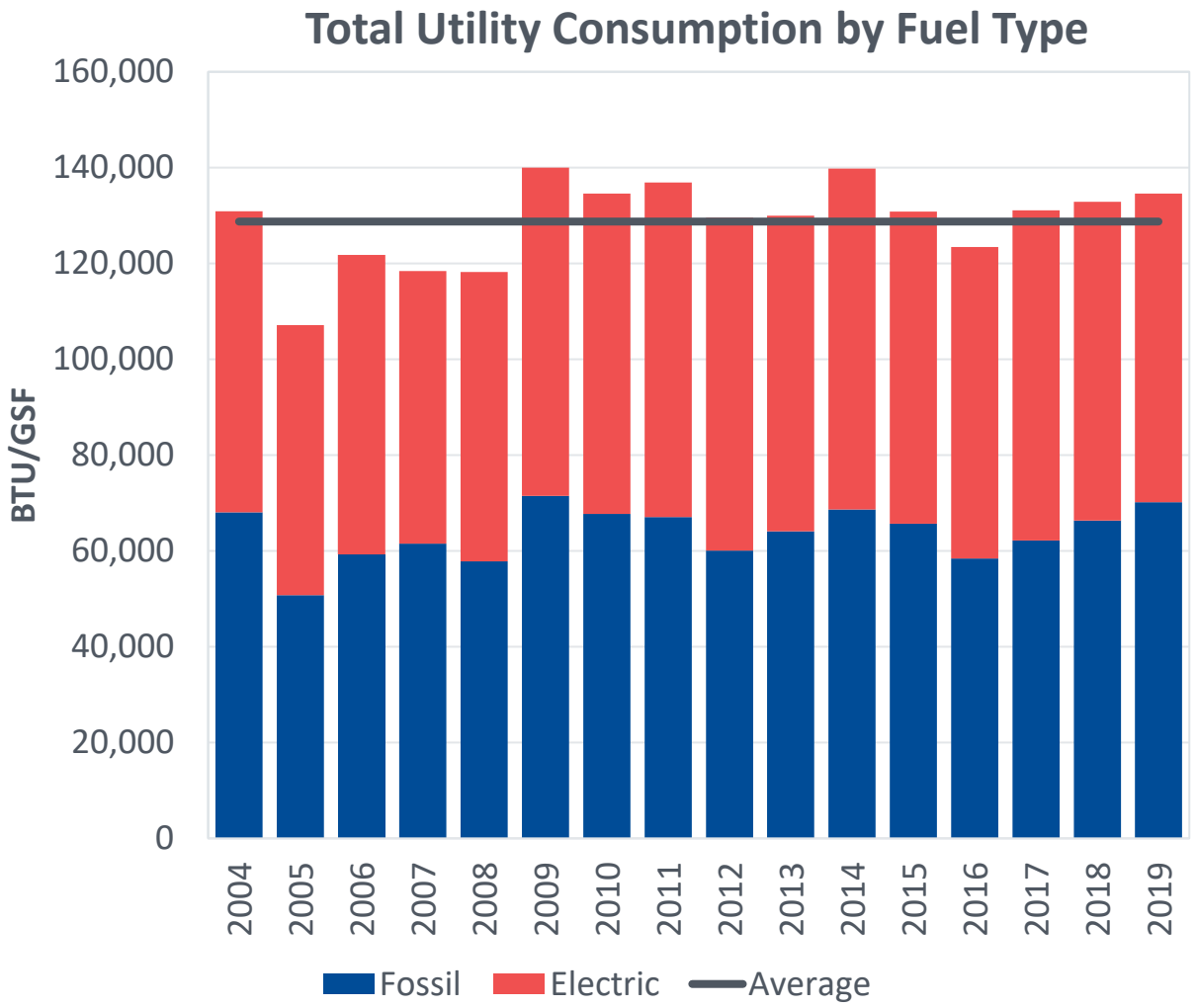
Grounds coverage more comparable to Jesuit peers, although both peer group averages below database

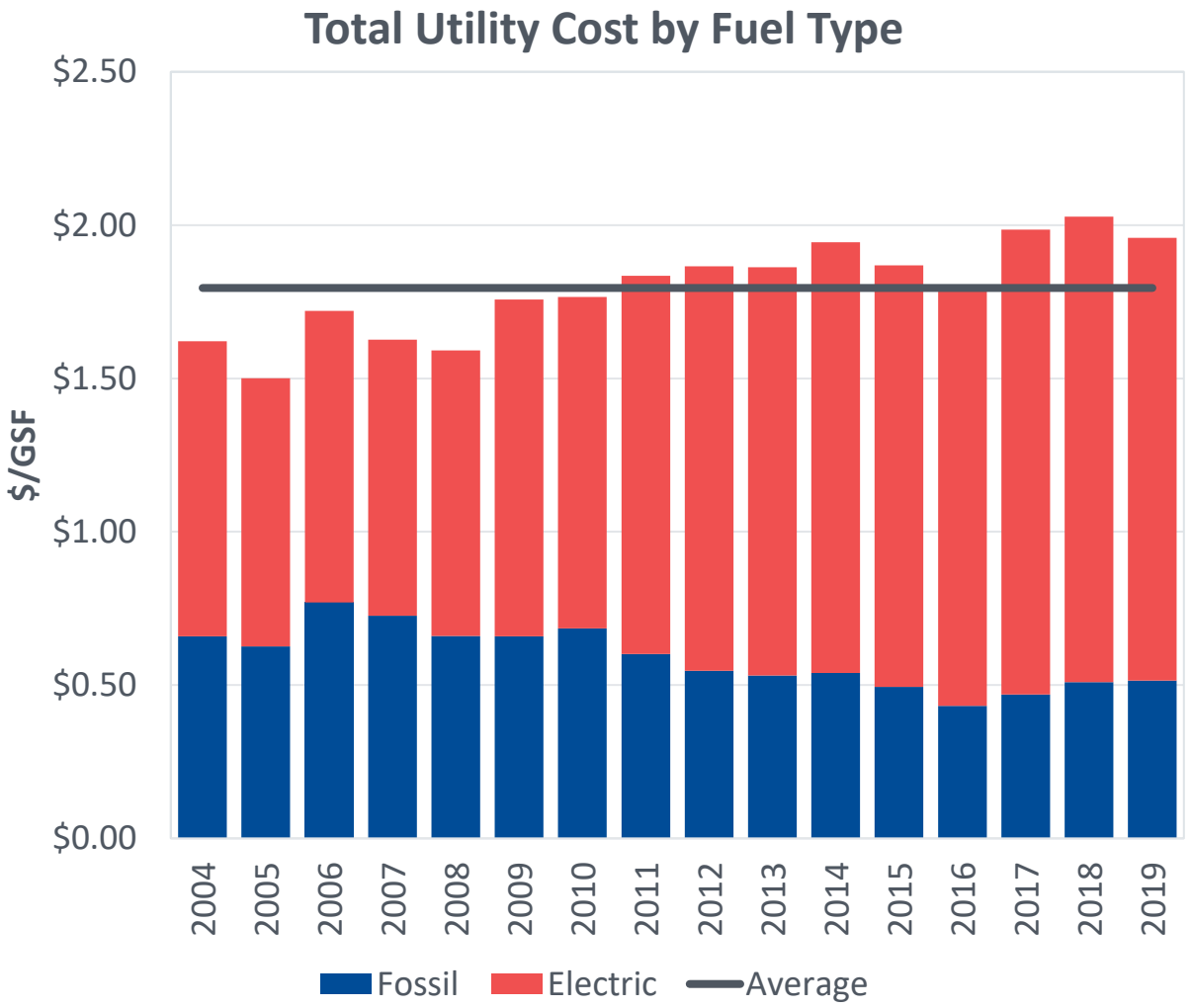




Arrayed by grounds intensity

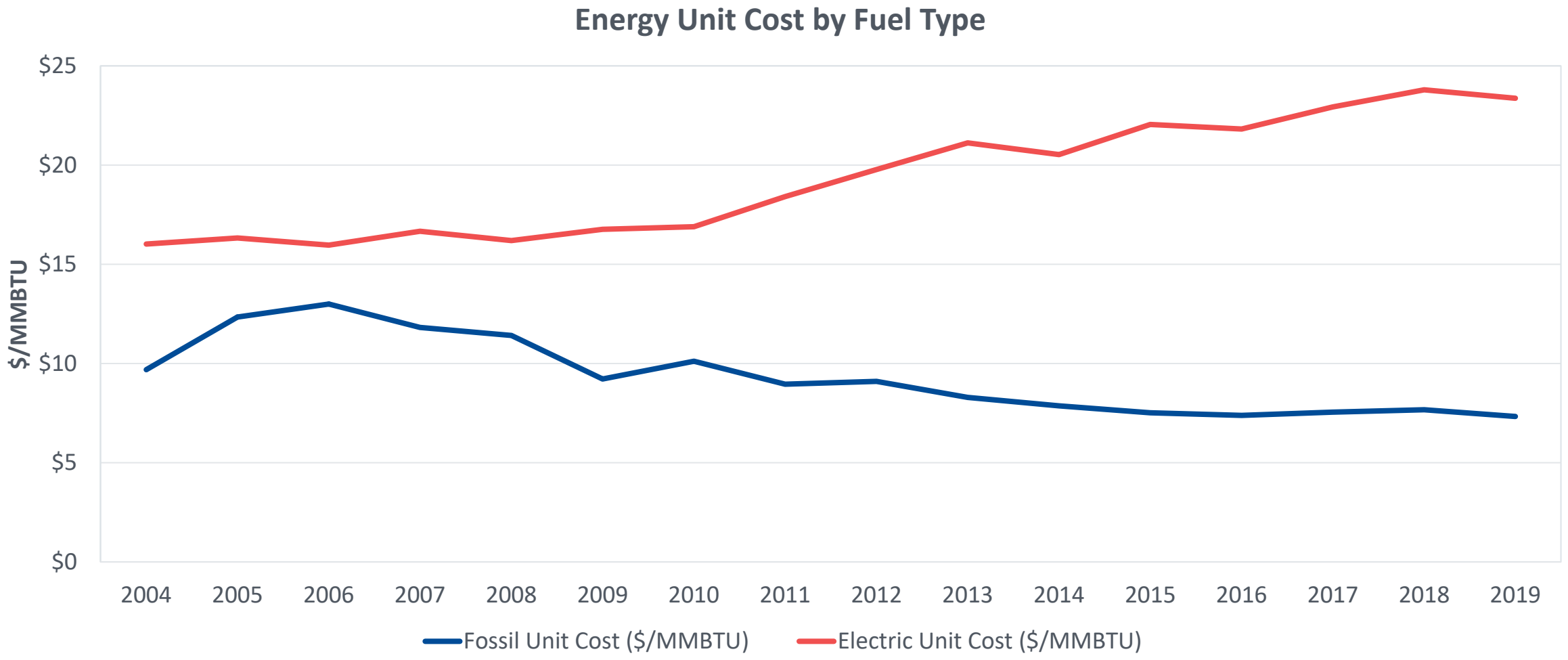
SLU Energy Cost & Consumption Over Time





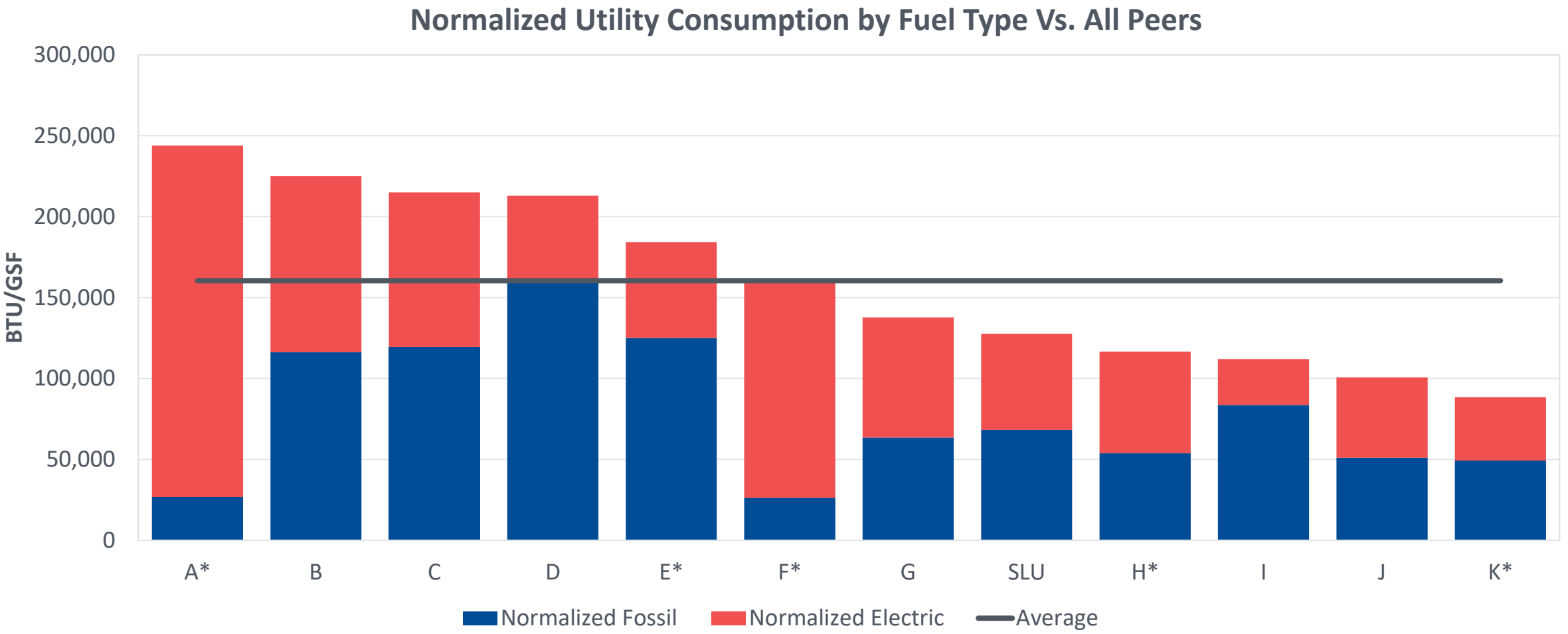
SLU Energy Unit Cost by Fuel Type

Electric unit cost has risen over time, while fossil unit cost has decreased



Energy Consumption Compared to Peers

When accounting for weather, SLU consumes less energy than peers on average



*Indicates Jesuit Peer