

August 24,
2015

TASSCUBO Summer Meeting – July 2015

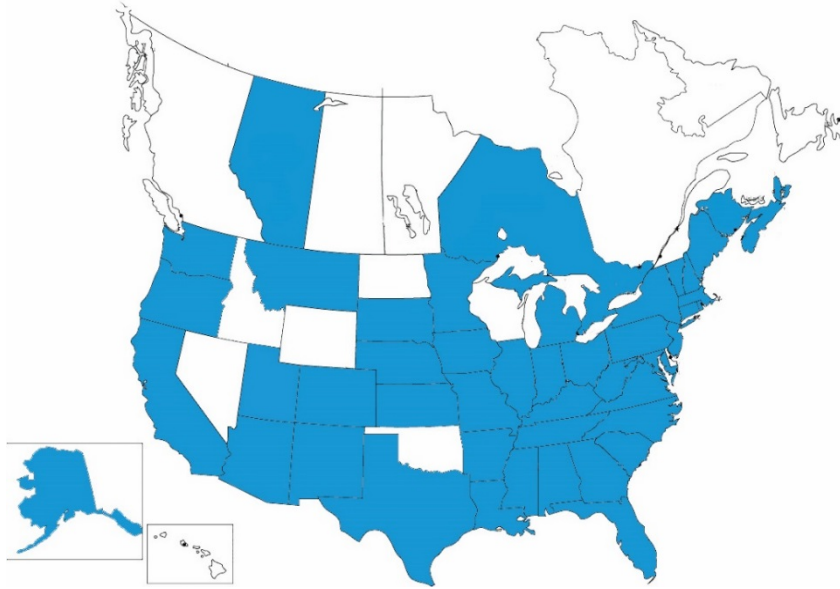
Jim Kadamus, Sightlines

Bob Brown, University of North Texas



Who Partners with Sightlines?

Robust membership includes colleges, universities, consortiums and state systems



Serving the Nation's Leading Institutions:

- **70% of the Top 20 Colleges***
- **75% of the Top 20 Universities***
- **33 Flagship State Universities**
- **13 of the 14 Big 10 Institutions**
- **11 of 14 SEC Institutions**
- **Growing data base in Texas and SW**

* U.S. News Rankings

Sightlines is proud to announce that:

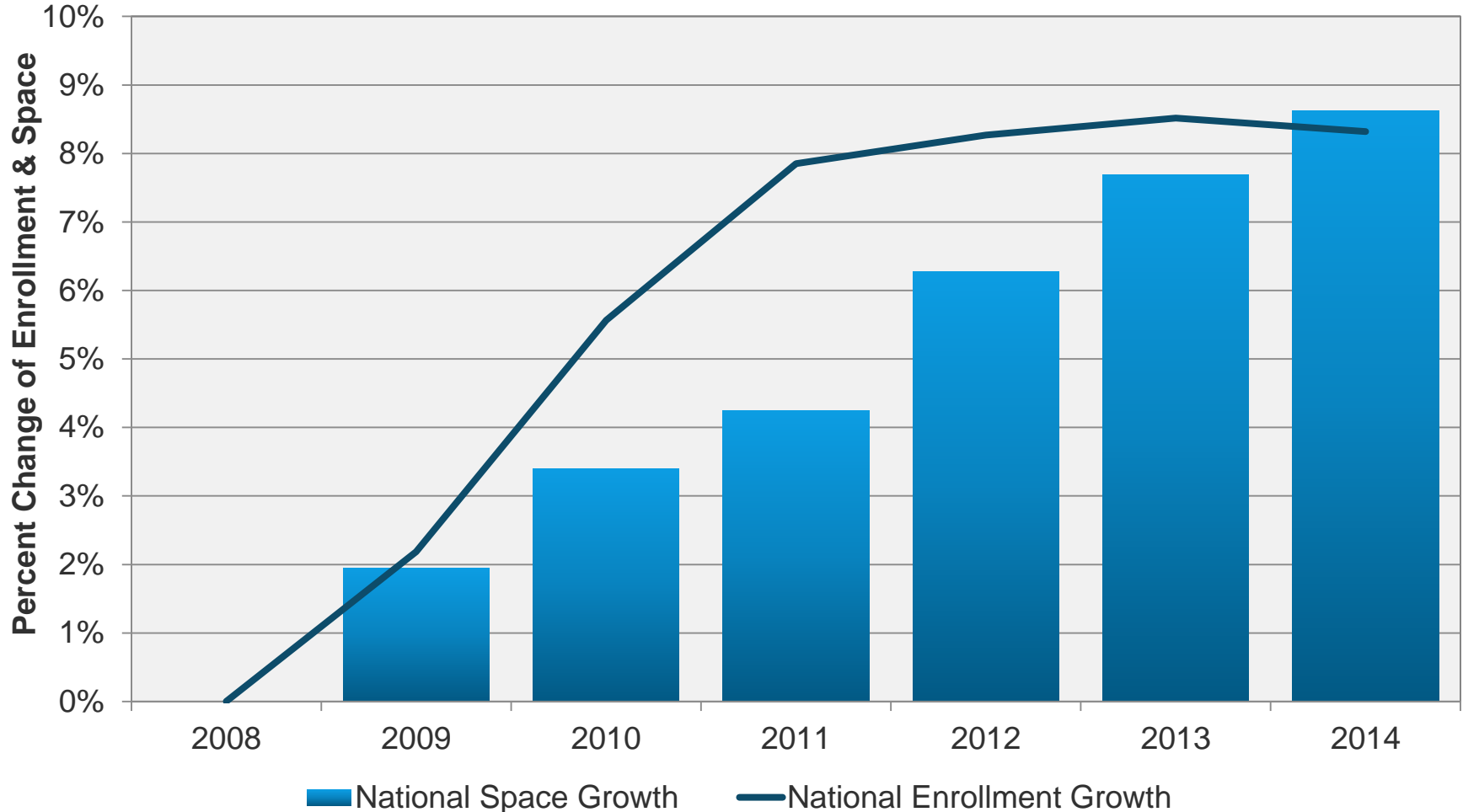
- 450 colleges and universities are Sightlines clients including over 325 ROPA members.
- 93% of ROPA members renewed in 2014
- We have clients in 43 states, the District of Columbia and four Canadian provinces
- More than 100 new institutions became Sightlines members since 2013

State of Higher Education Facilities – National Trends

Campus Space and Enrollment

Growing campus enrollment levels off

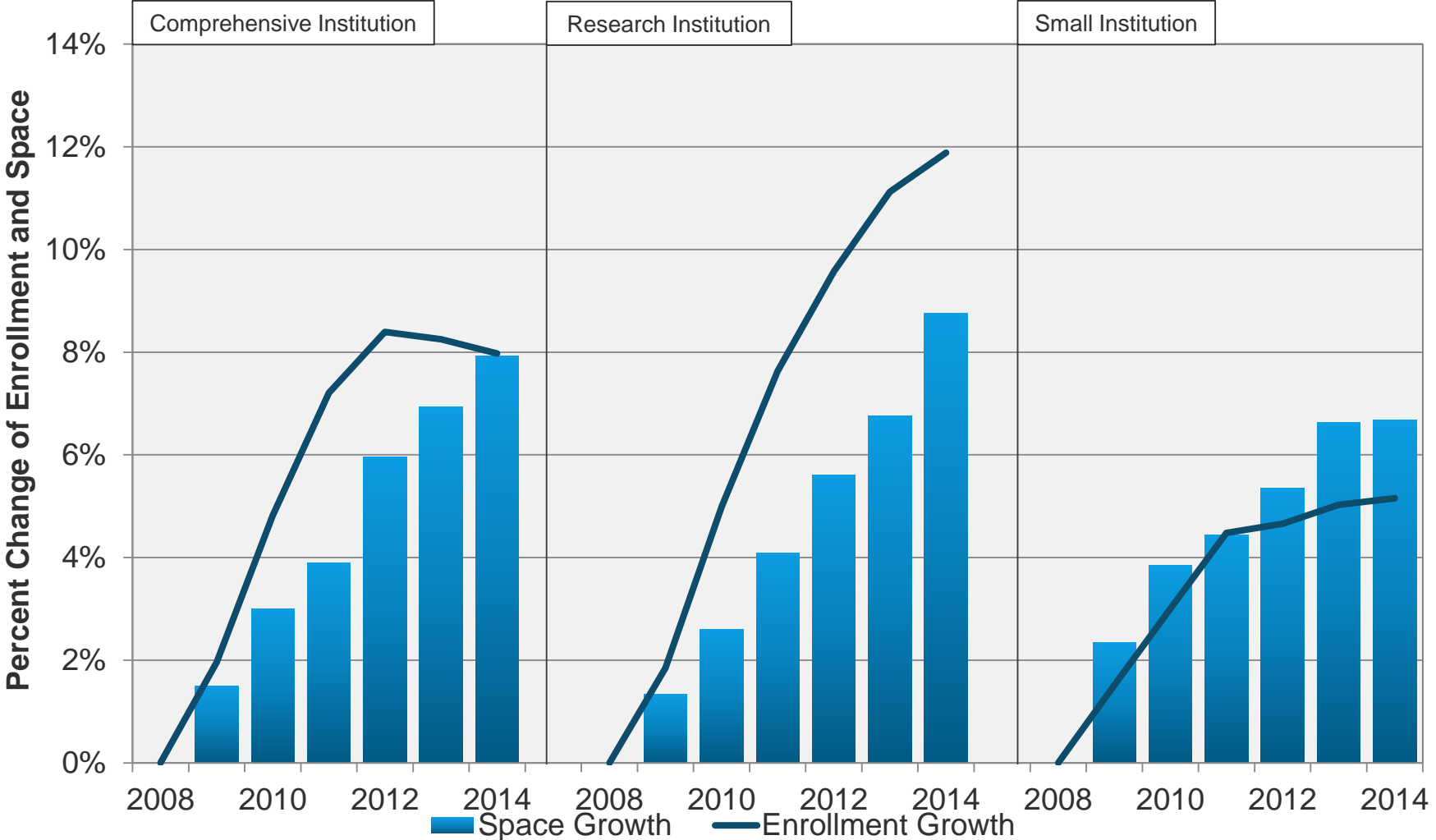
National Average within Sightlines Database



Campus Space and Enrollment

Research Universities growing faster than other sectors

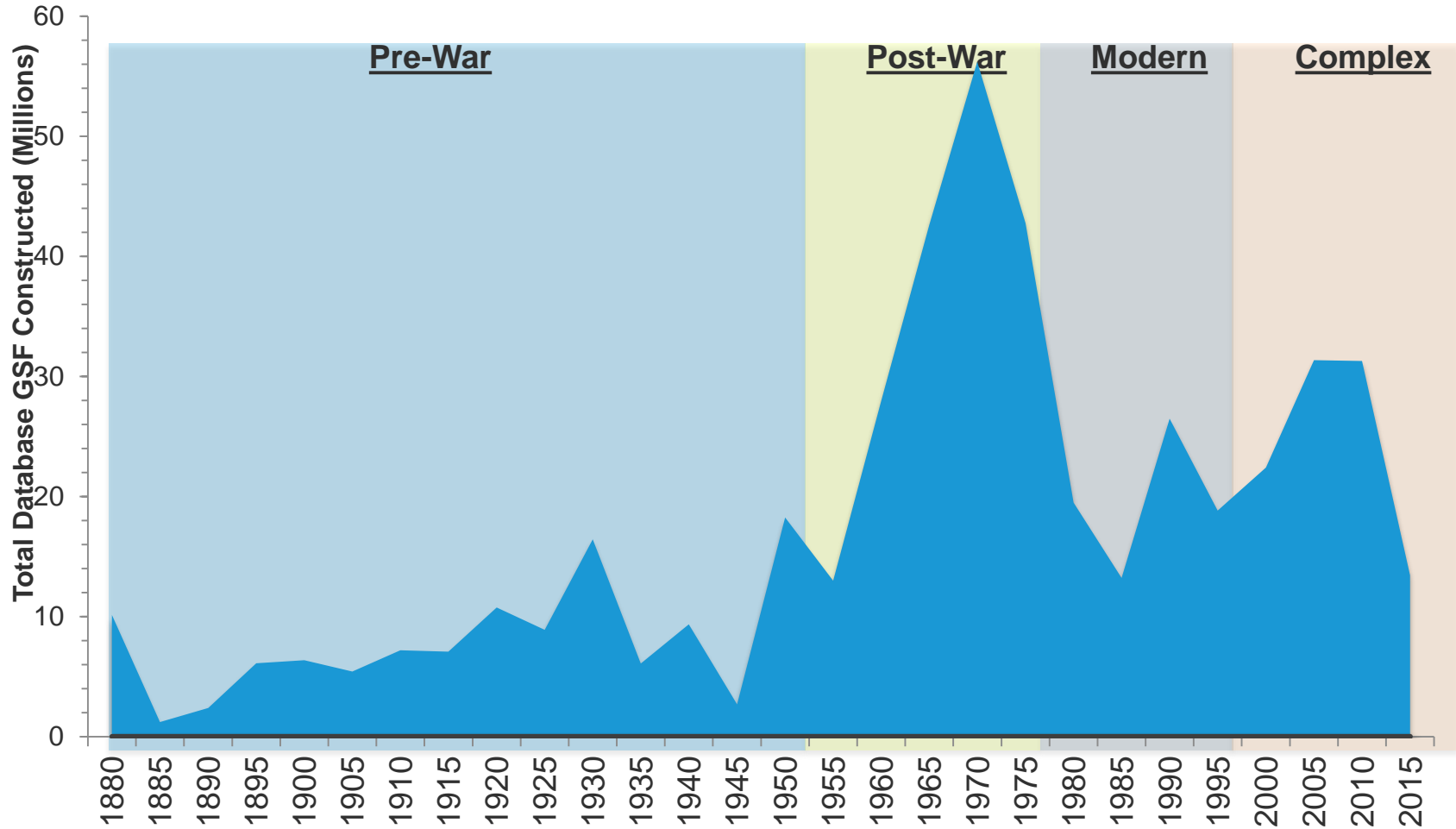
Nation By Constituent Group



Database Construction Trends

Two waves of construction drive campus capital decisions

Constructed Space Since 1880 – 1.6 billion GSF

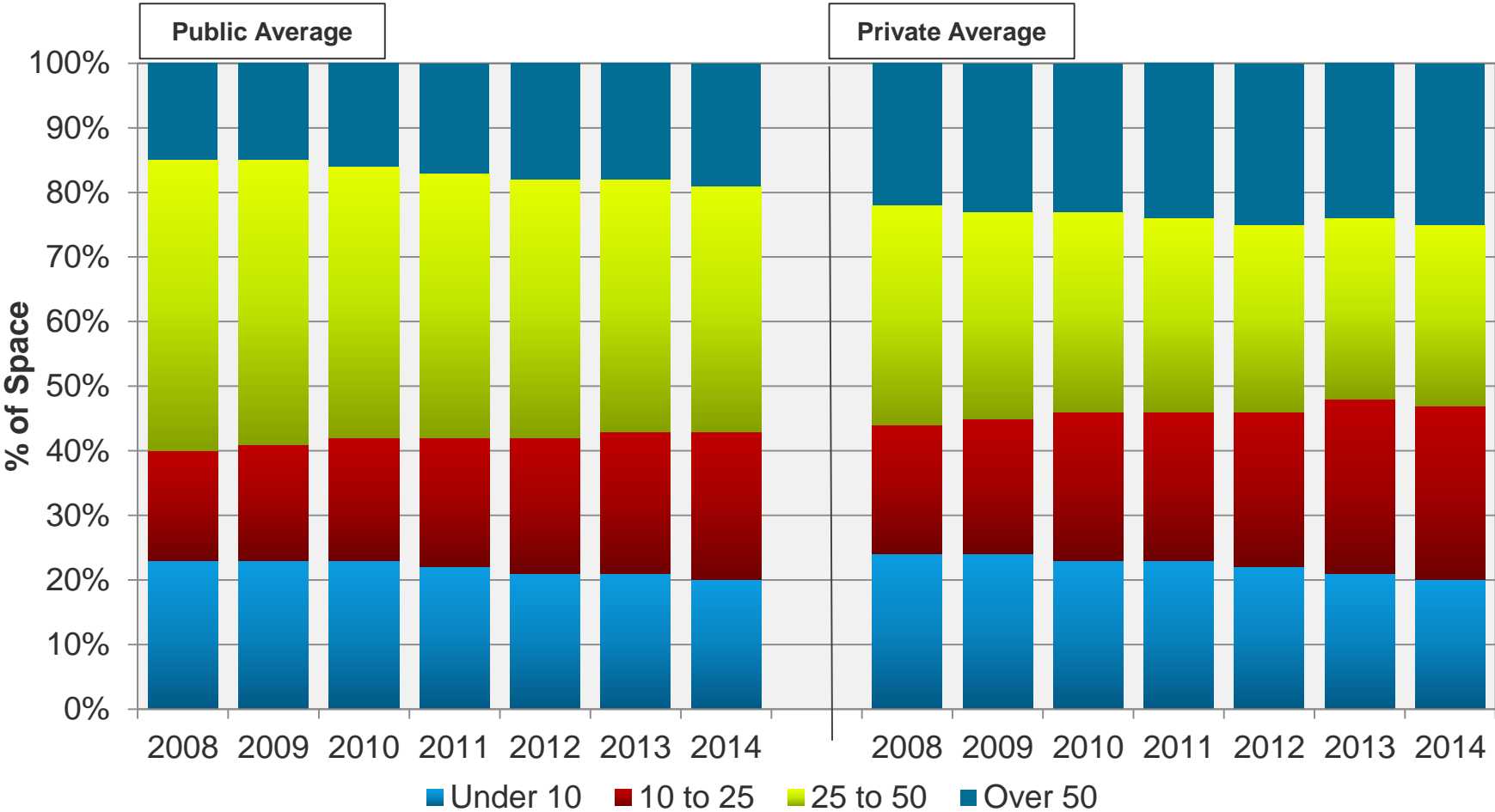


The Aging Campus

Minimal progress in resetting the clock on aging buildings

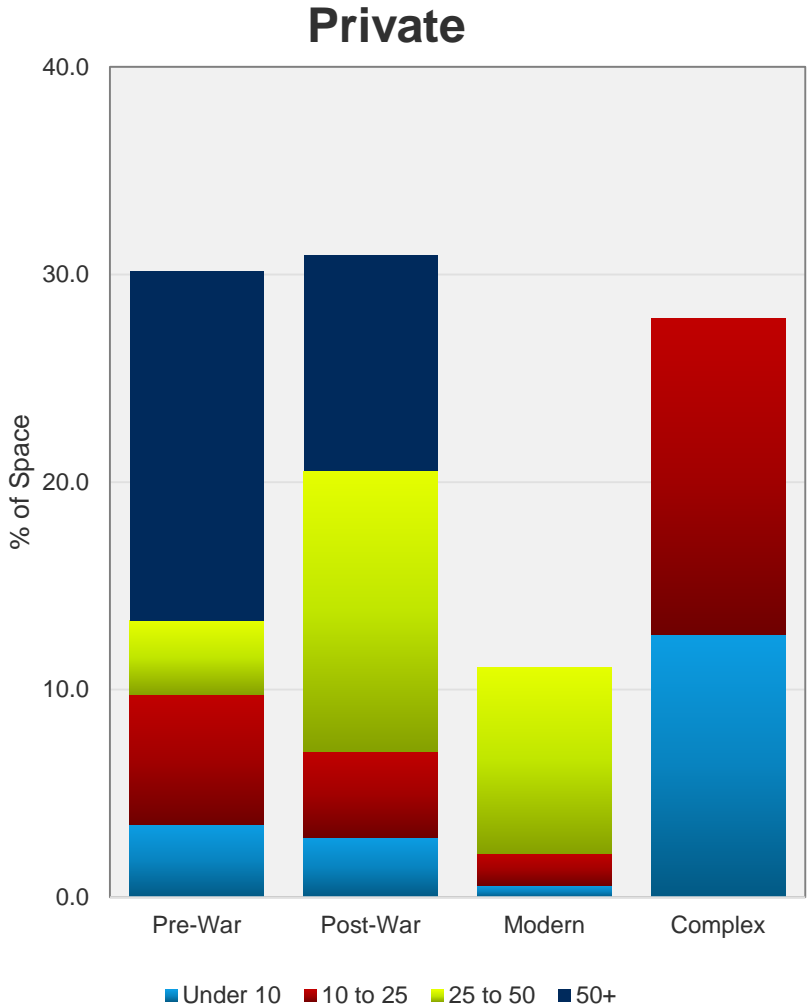
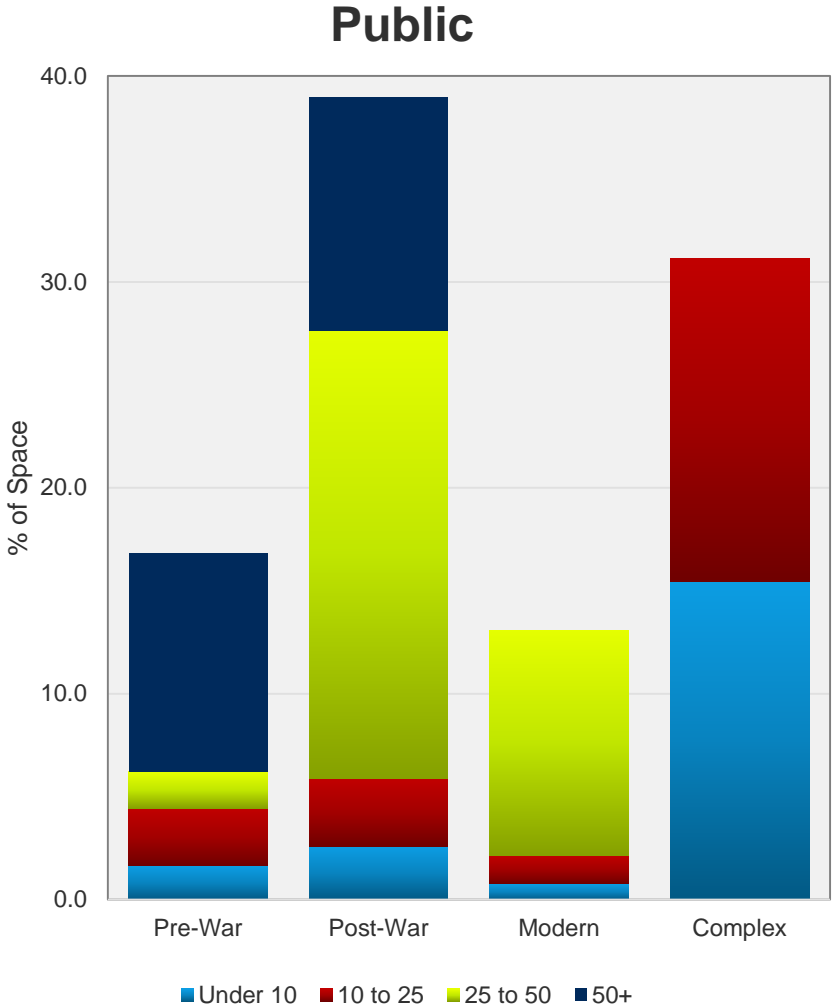
Square Footage by Age Category

National Renovation Age



Age Is Important – But Differs By Sector

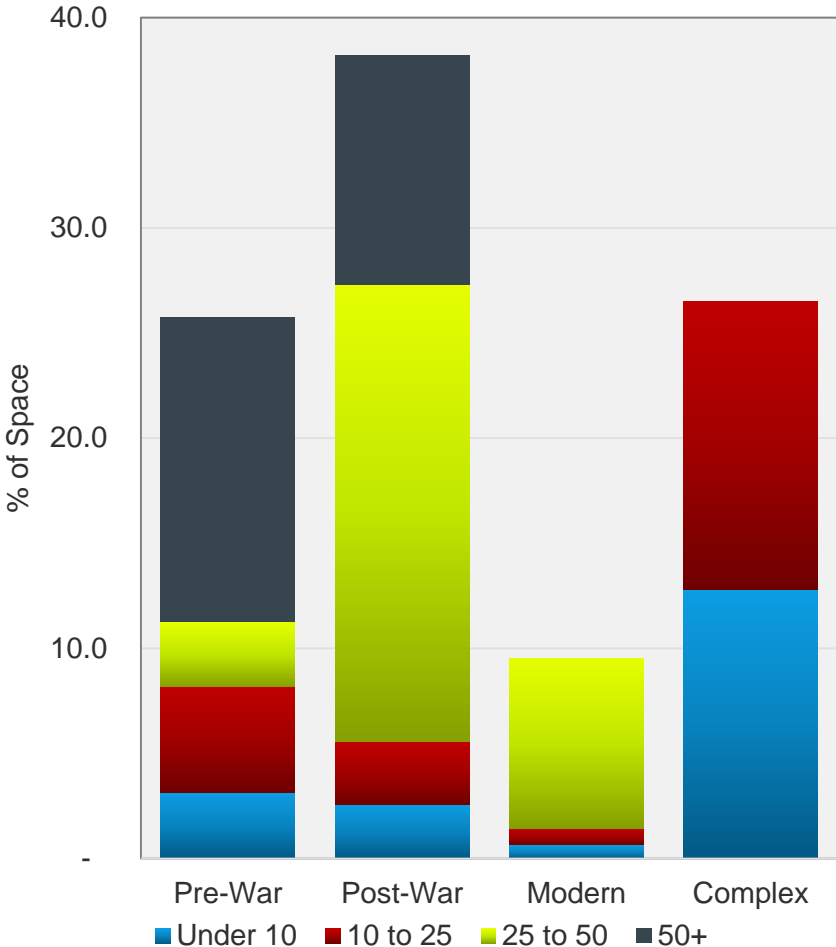
Public campuses age profile dominated by post war and complex space; private more balanced mix of space



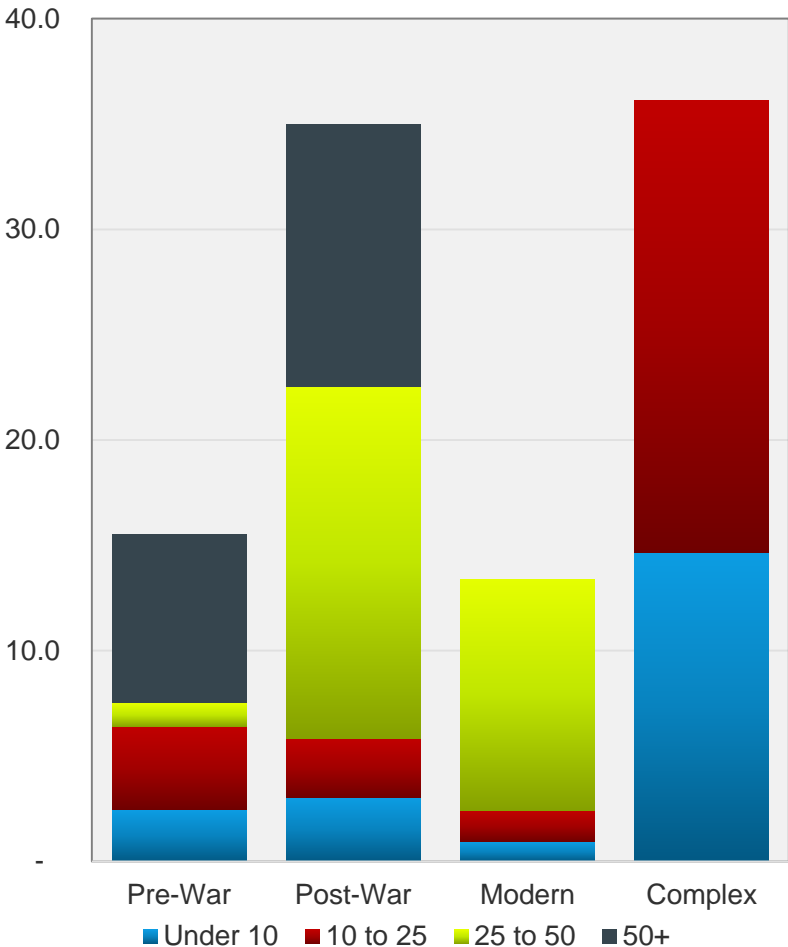
Age Is Important – But Differs By Region

Majority of space in East from pre-war and post-war; West has more complex space

East

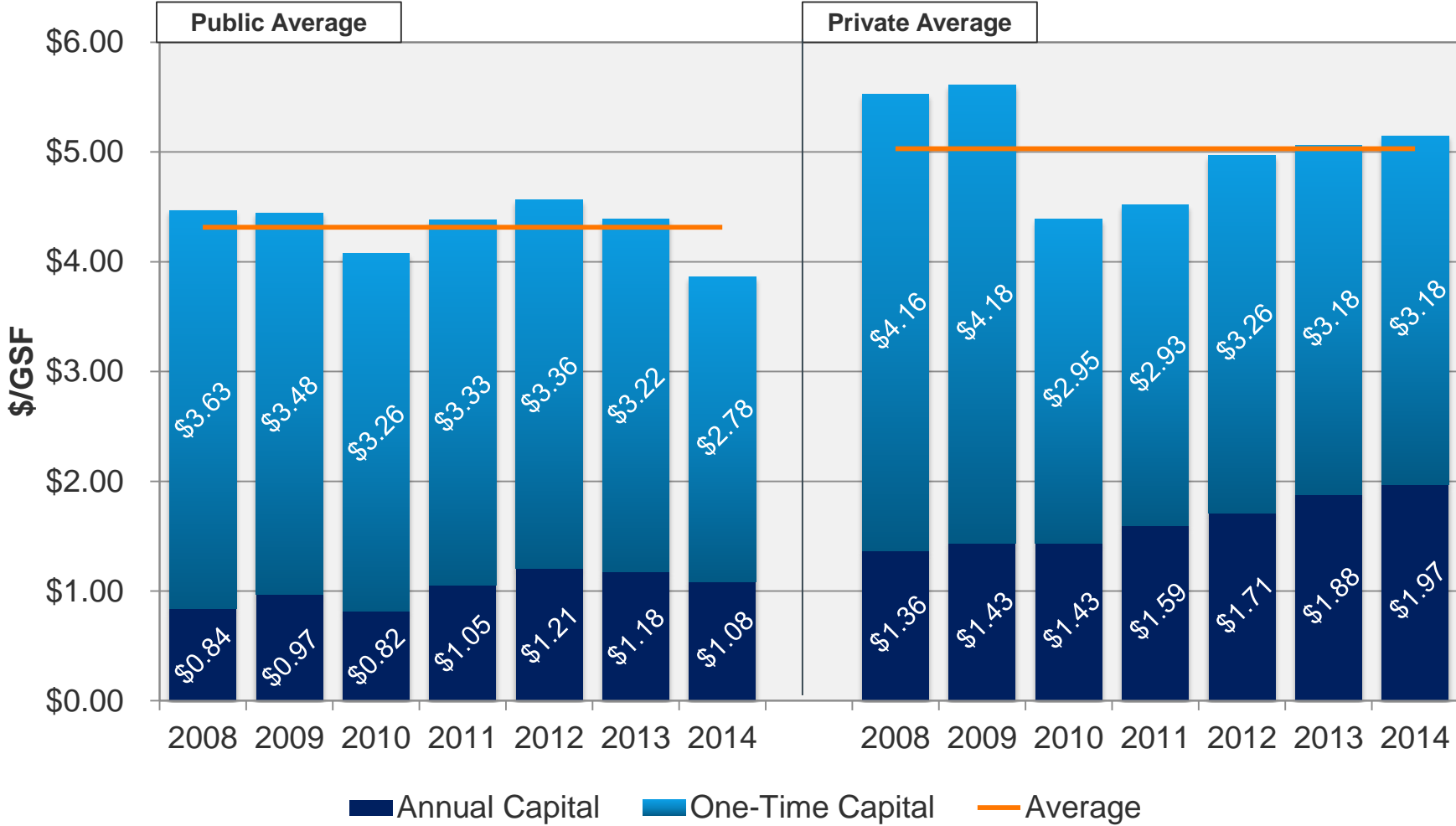


West



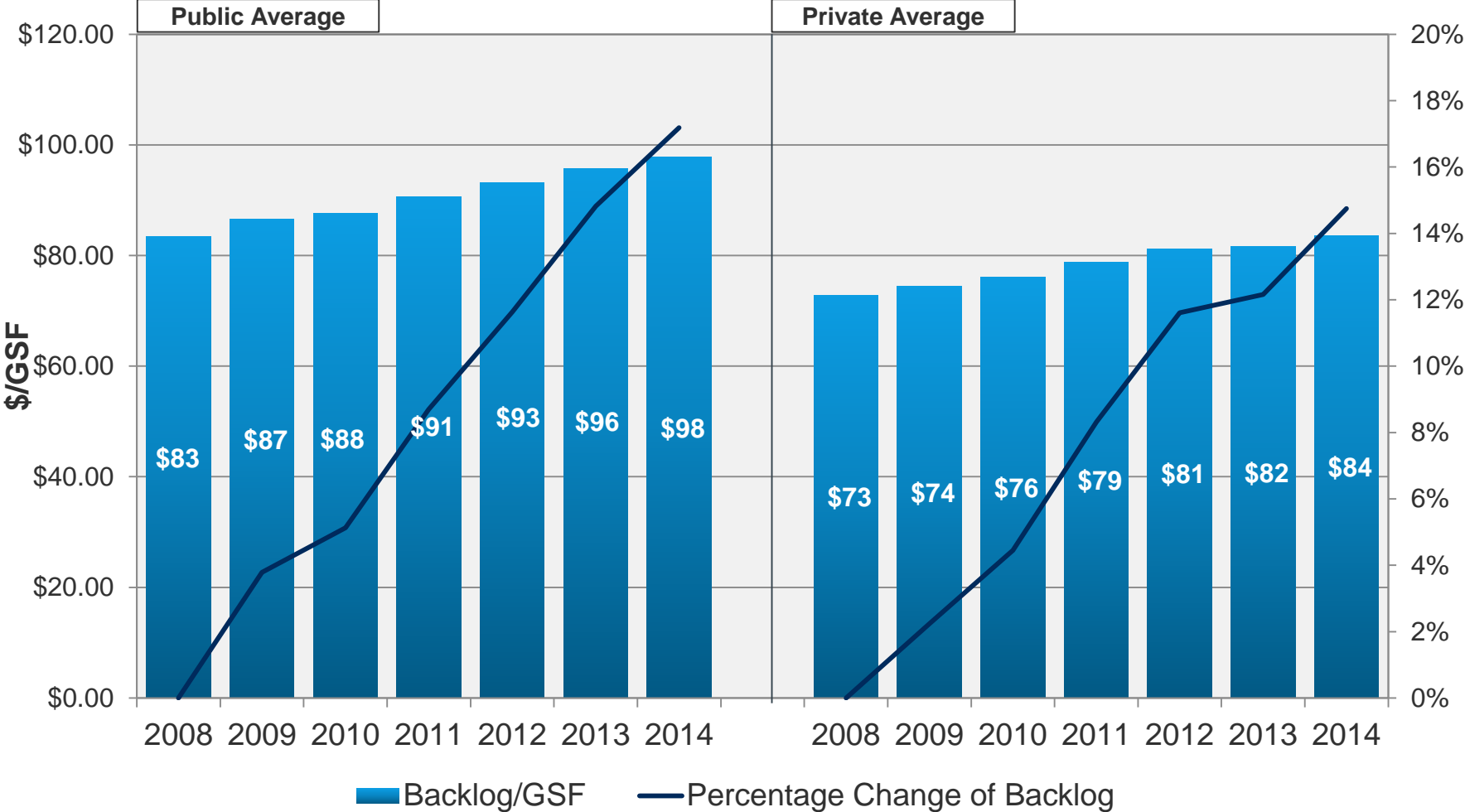
Capital Spending not Recovered from Recession

Capital Investment into Existing Space National



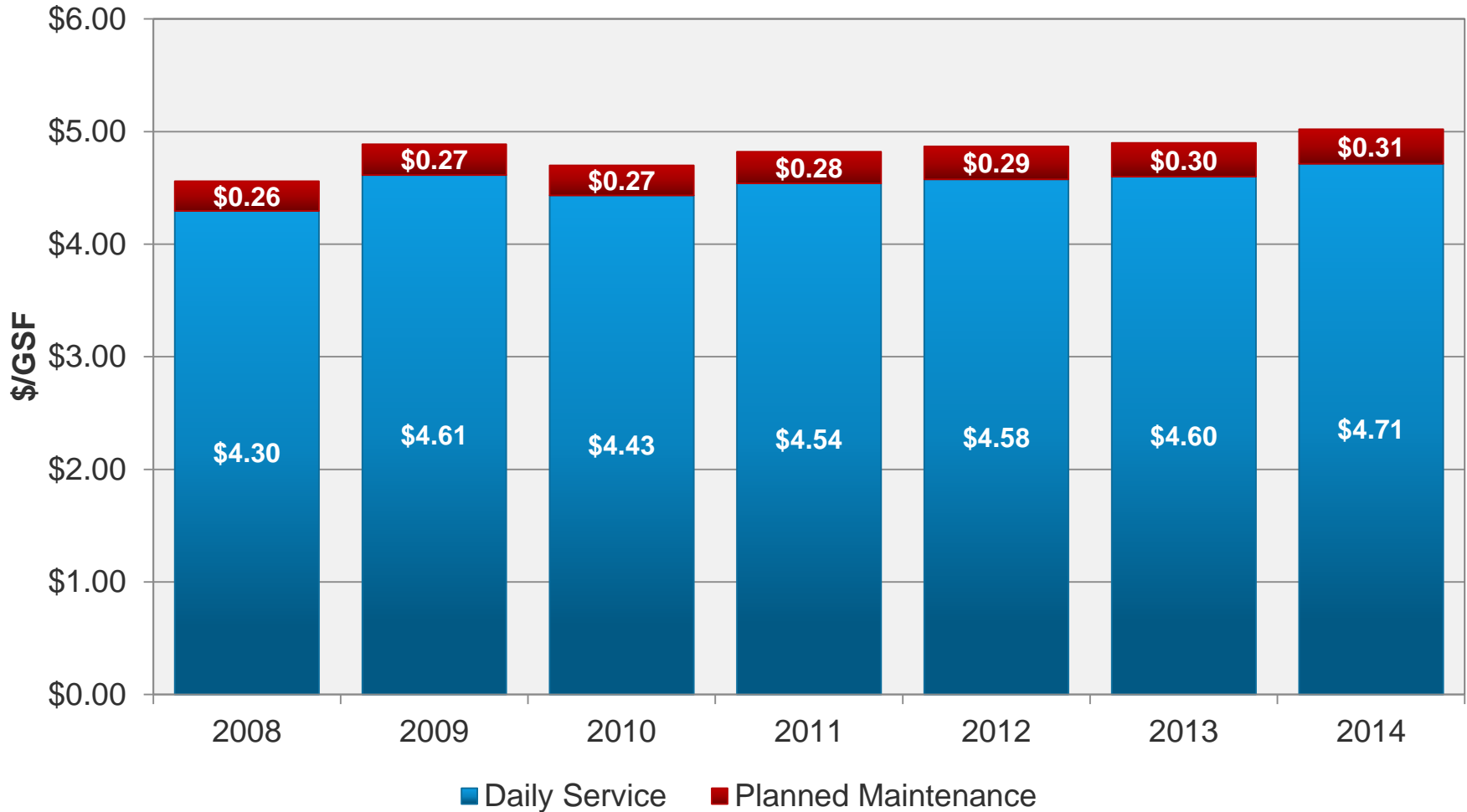
Facilities Backlogs Continue to Rise; Approaching \$100/GSF

Backlog \$/GSF National



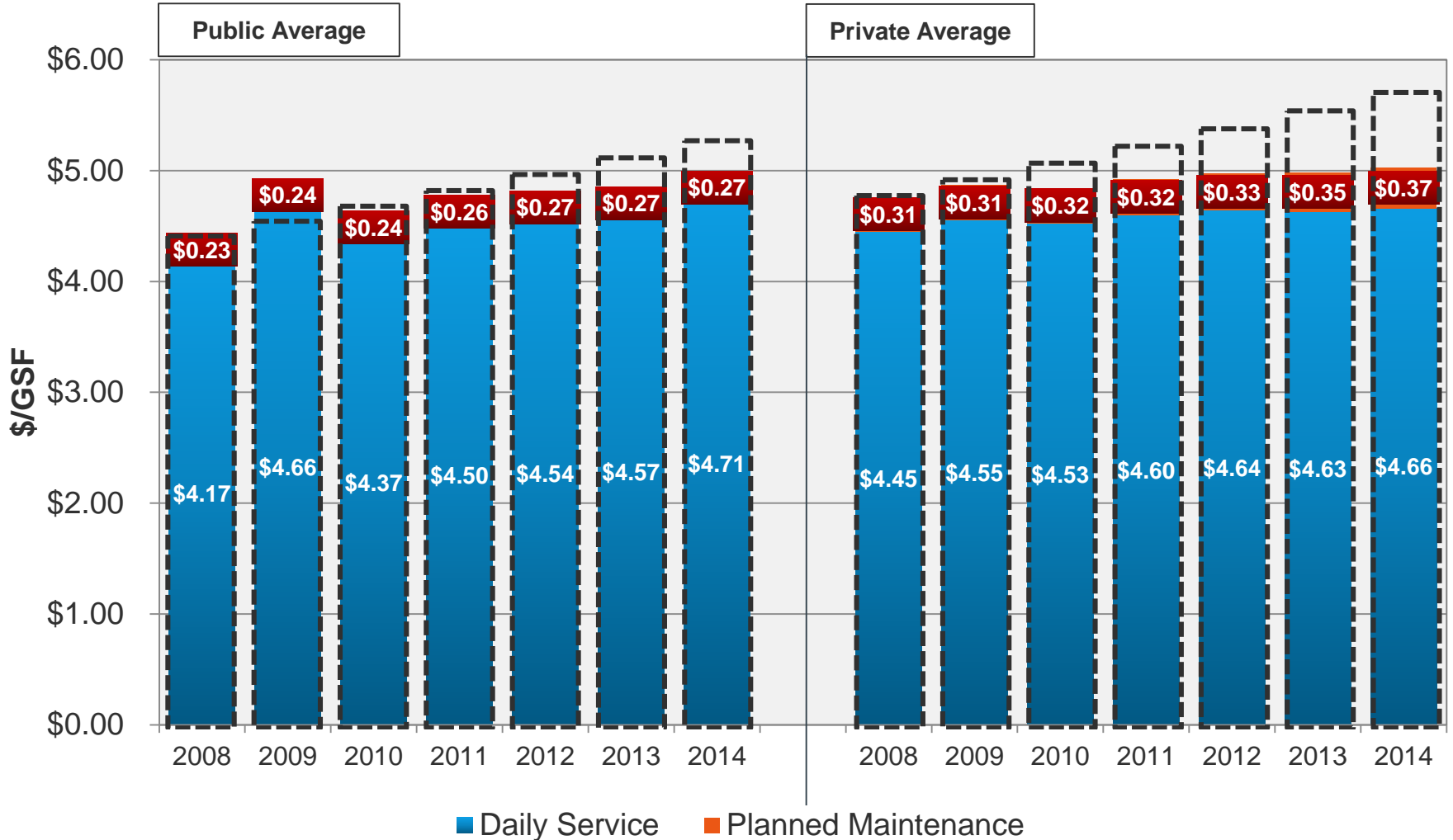
Facilities Operating Budgets Flat

National Operating Budget Average



Operating Budgets Short of Inflation

National Operating Budget – Public vs. Private



Given these results – Why hasn't the roof caved in?



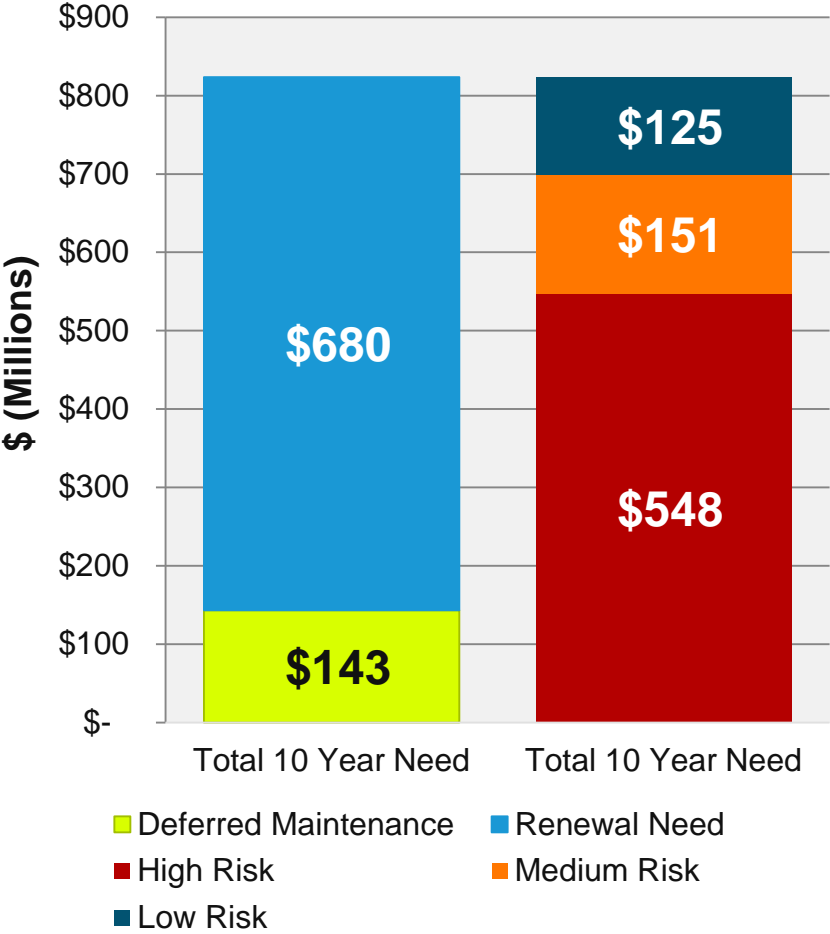
Campuses are Managing the Facility Risks

1. Maintenance organizations have, by default, taken an effective approach to manage the most critical repair risks for campus. Often lower cost repairs to systems rather than full system replacements have bought extra service time.
2. Because campuses are a collection of buildings – the risk is diversified over the portfolio.
3. Engineering lifecycle estimates are appropriately conservative and therefore systems tend to outperform their statistical target
4. The functional obsolescence of space drives investments that brings outside resources that fixes stuff!
5. Campuses are using data and analytical tools to identify and manage capital investment to mitigate risk.

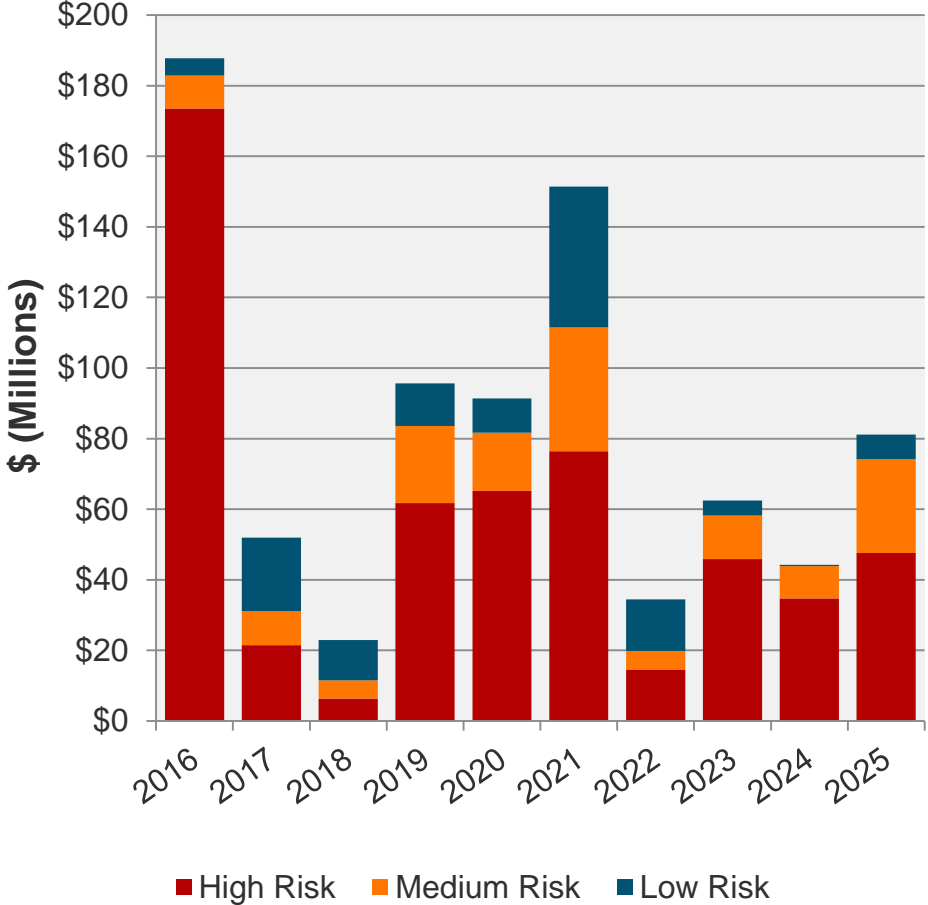
Investment Model Identifies Future Needs

10 Year risk profile of campus with 10 million GSF

Total Capital Need



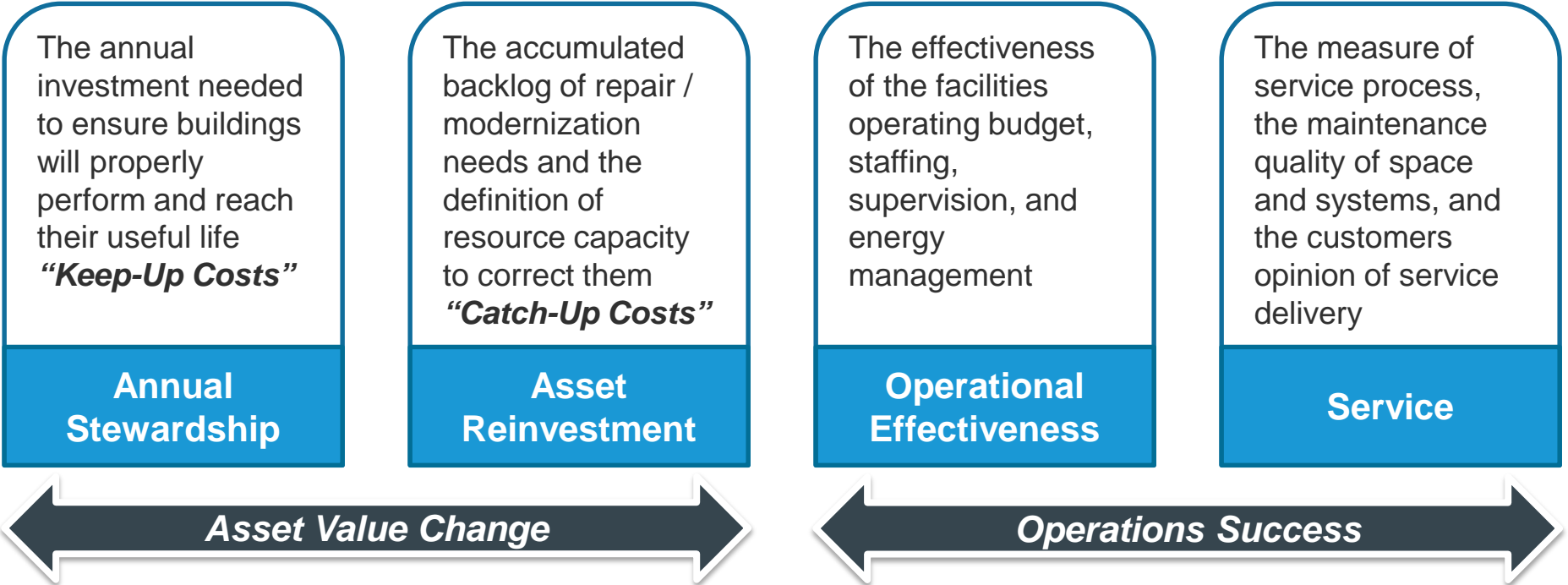
Upcoming Total Capital Need by Year



University of North Texas

A vocabulary for measurement

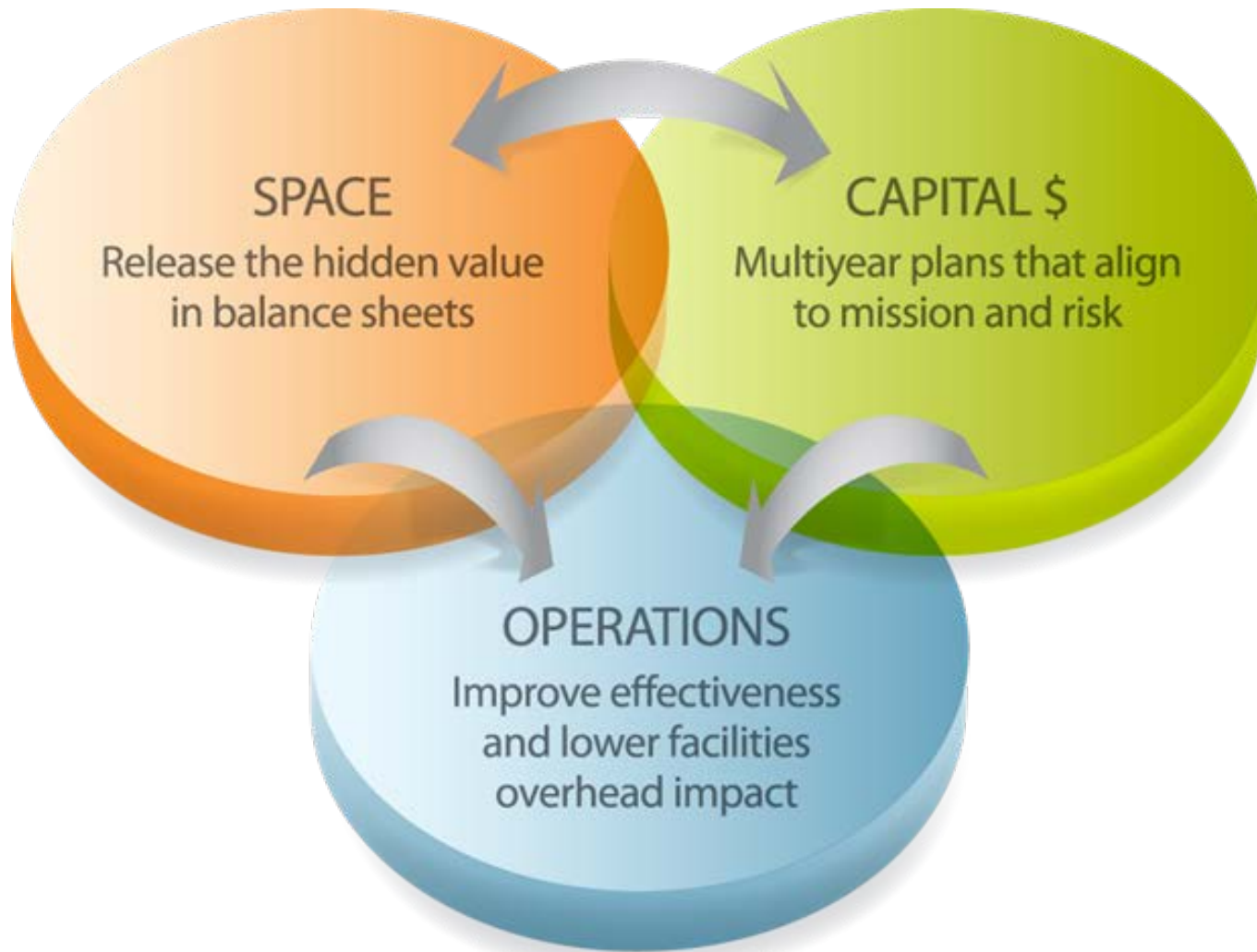
The Return on Physical Assets – ROPASM



Facilities-Focused Peer Institutions

George Mason University	Louisiana State University	Mississippi State University
New Mexico State University	University of Alabama	University of Arkansas
University of Mississippi	University of Southern Mississippi	University of Texas Dallas
Virginia Commonwealth University		

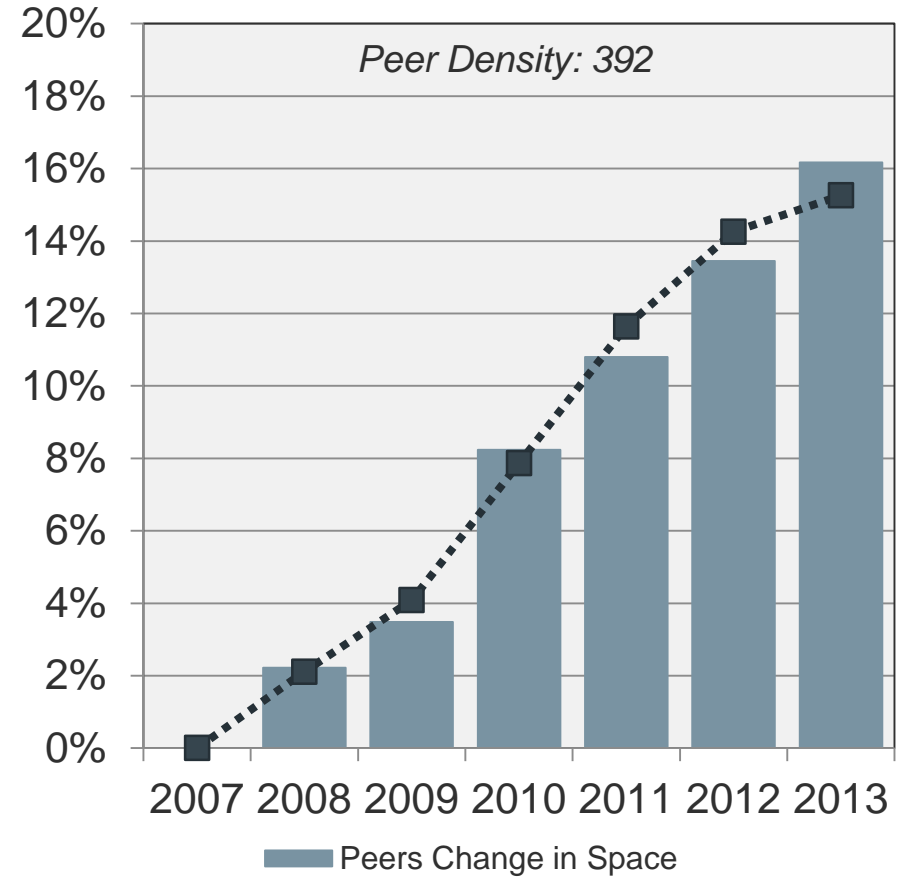
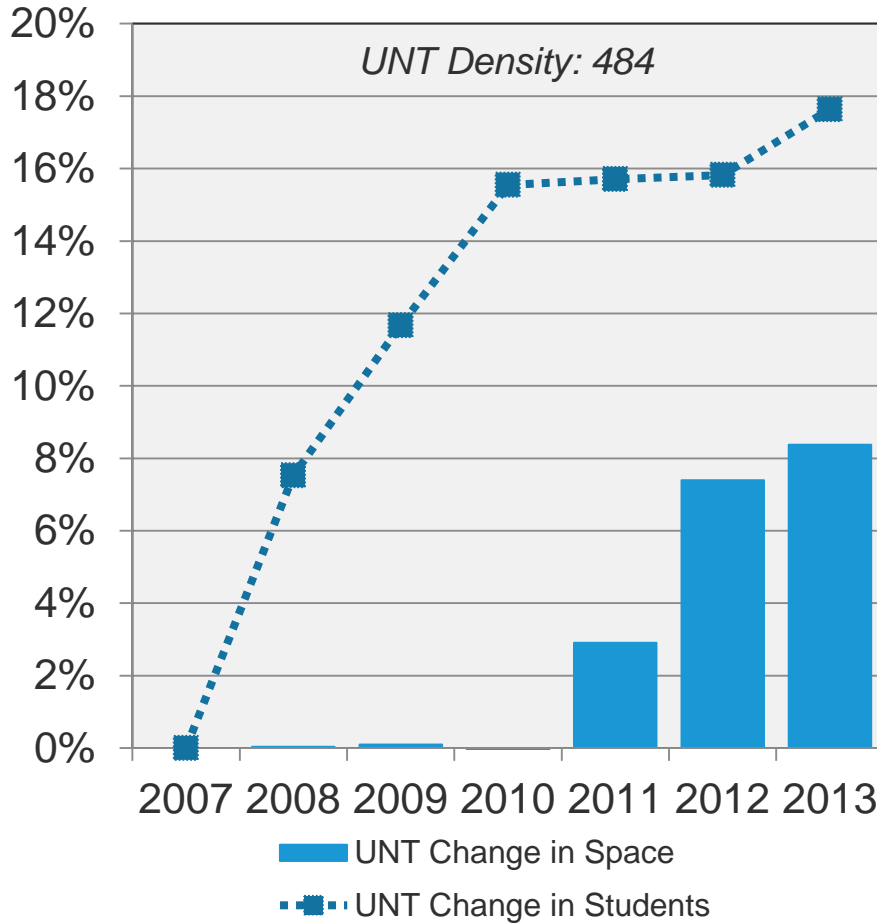
Changing the Conversation



Campus is becoming increasingly dense

In 2013 UNT had 28,280 student FTEs on 3.9M GSF

Change in Campus Space vs. Change in Enrollment

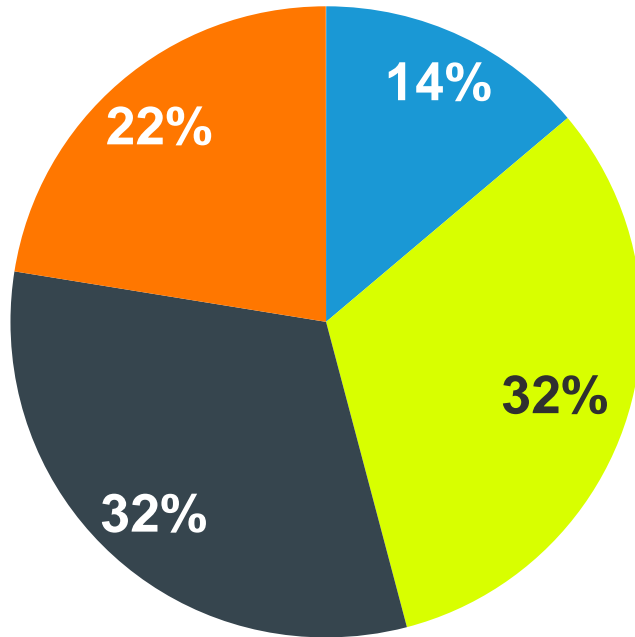


Density: Student, Faculty, and Staff FTEs per 100,000 GSF

Construction periods at UNT

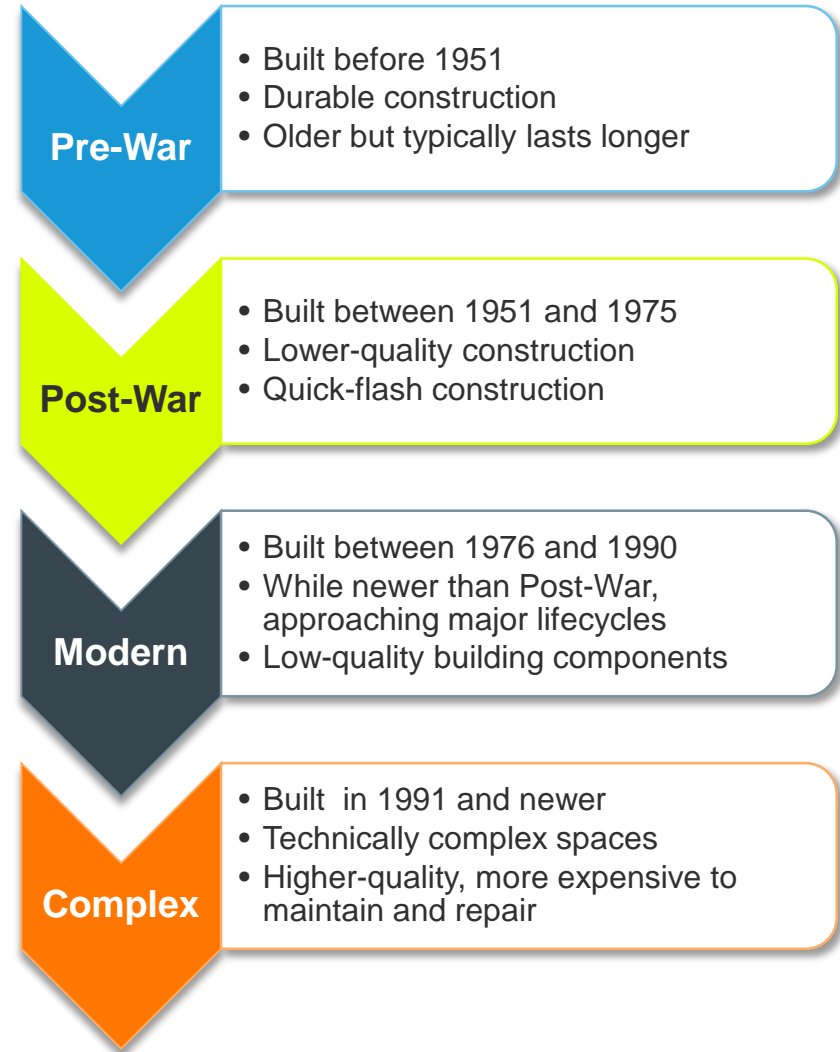
Concentration of space in lower-quality construction eras

Construction Vintage



■ Pre-War ■ Post-War ■ Modern ■ Complex

Based on Construction Vintage, 64% of UNT's campus was constructed during low-quality construction periods, and an additional 22% in the Complex era.

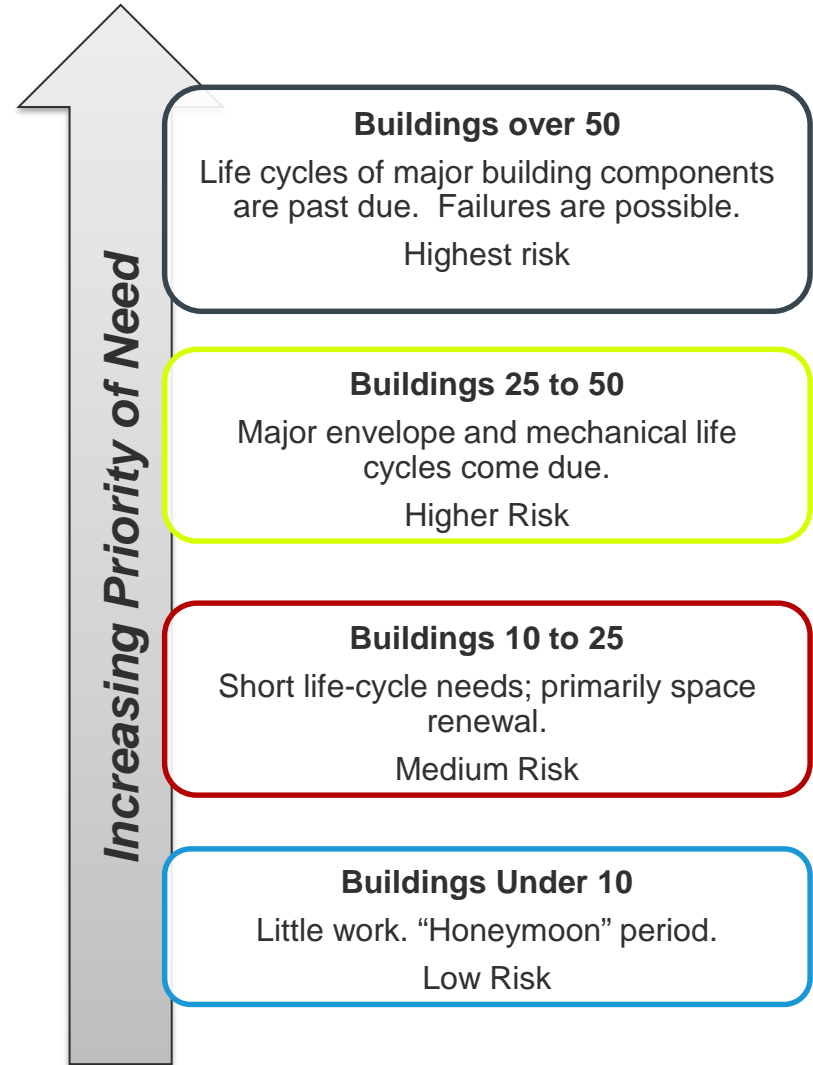
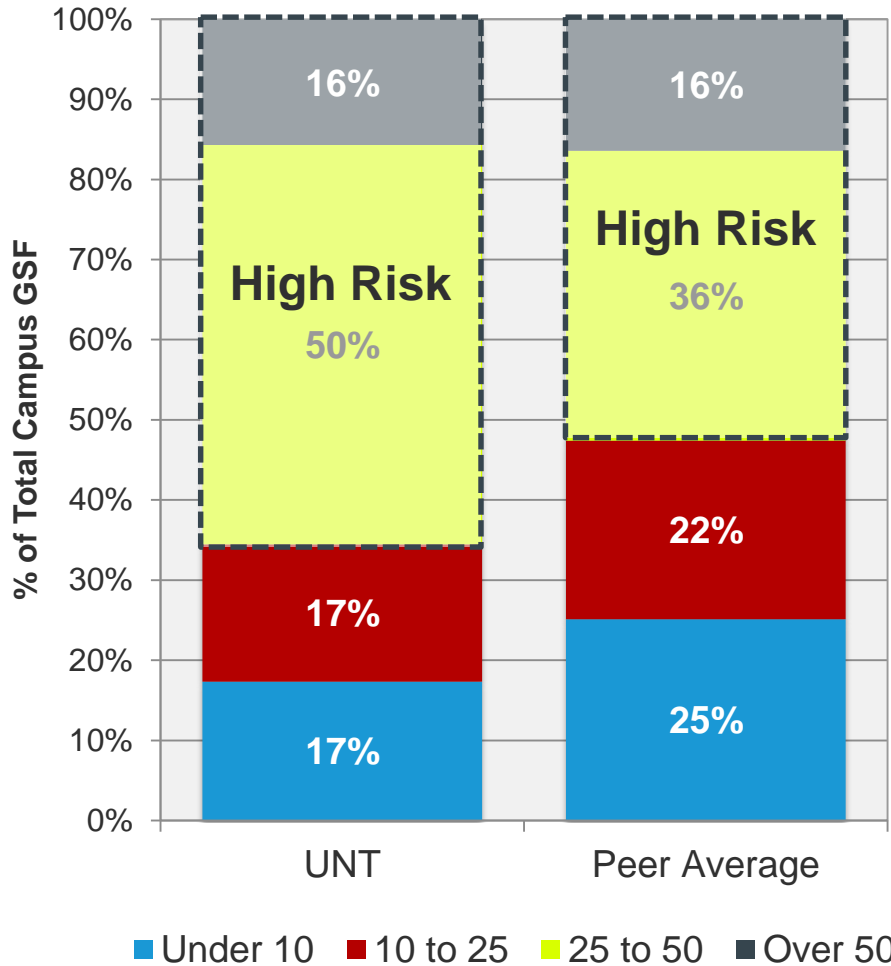


Note: Includes E&G buildings only

Older campus profile

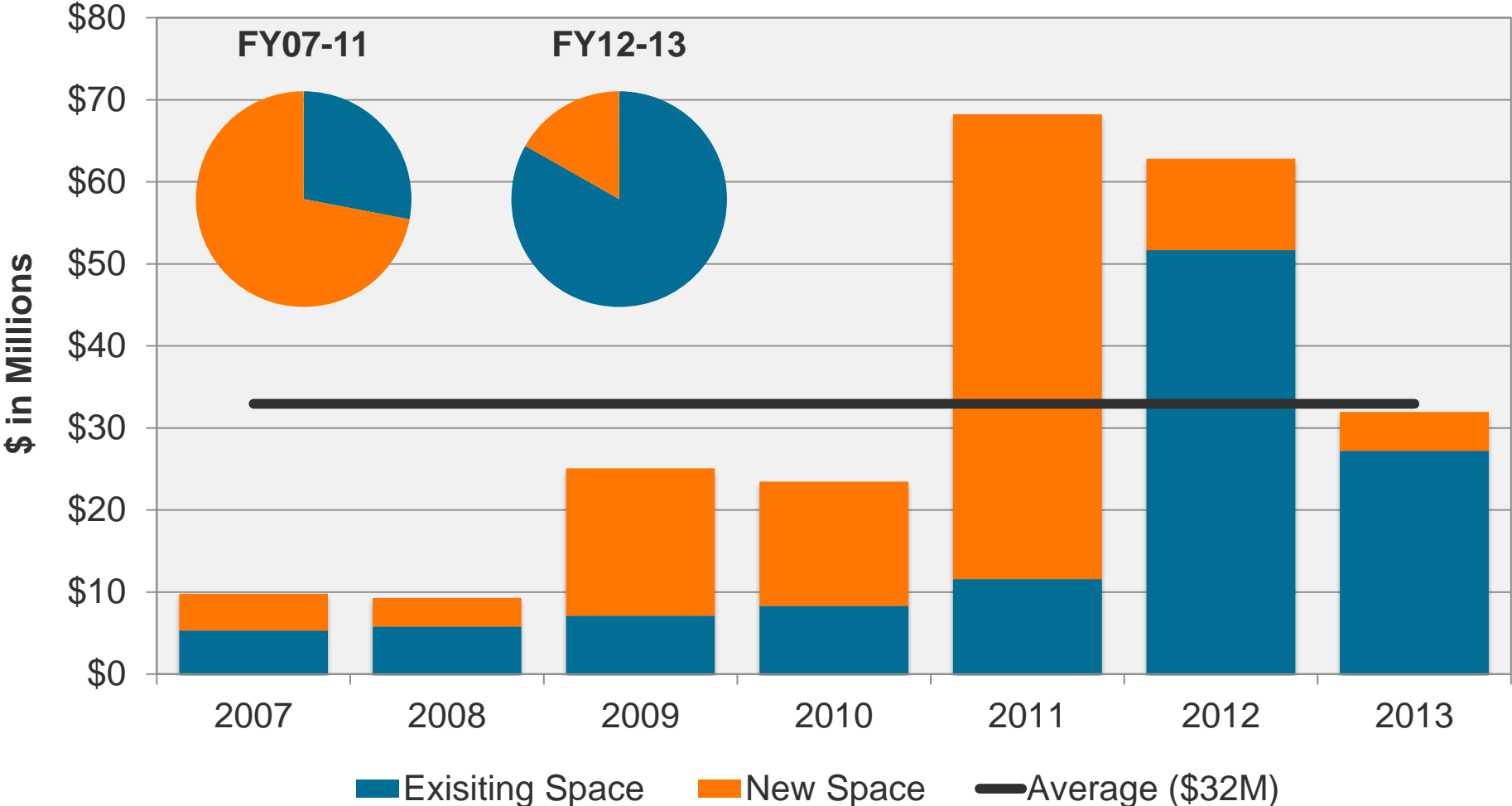
Peers have reset the clock on more older space than UNT

Campus Renovation Age by Category

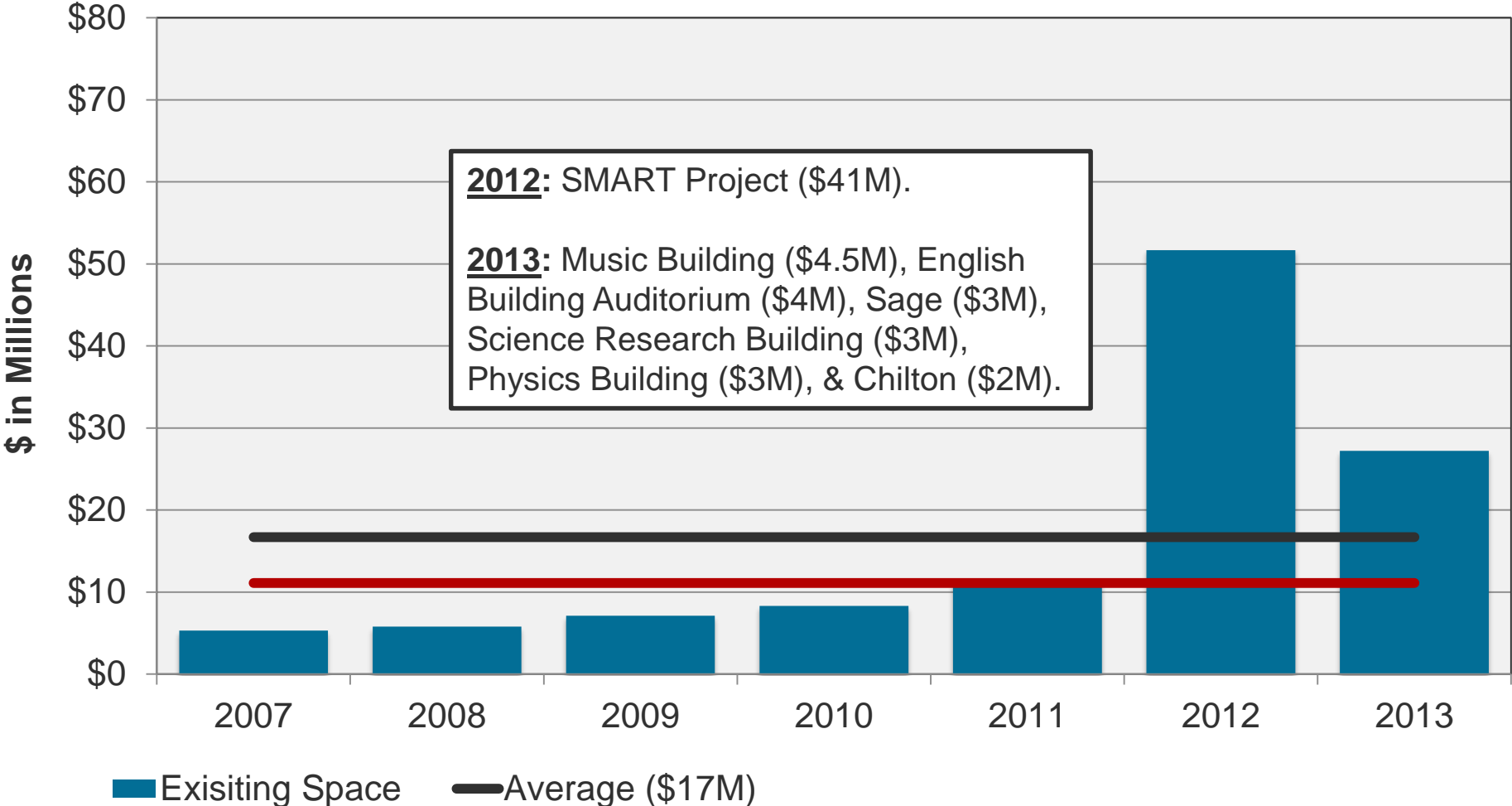


Investment shifts toward existing space

Total Capital Spending

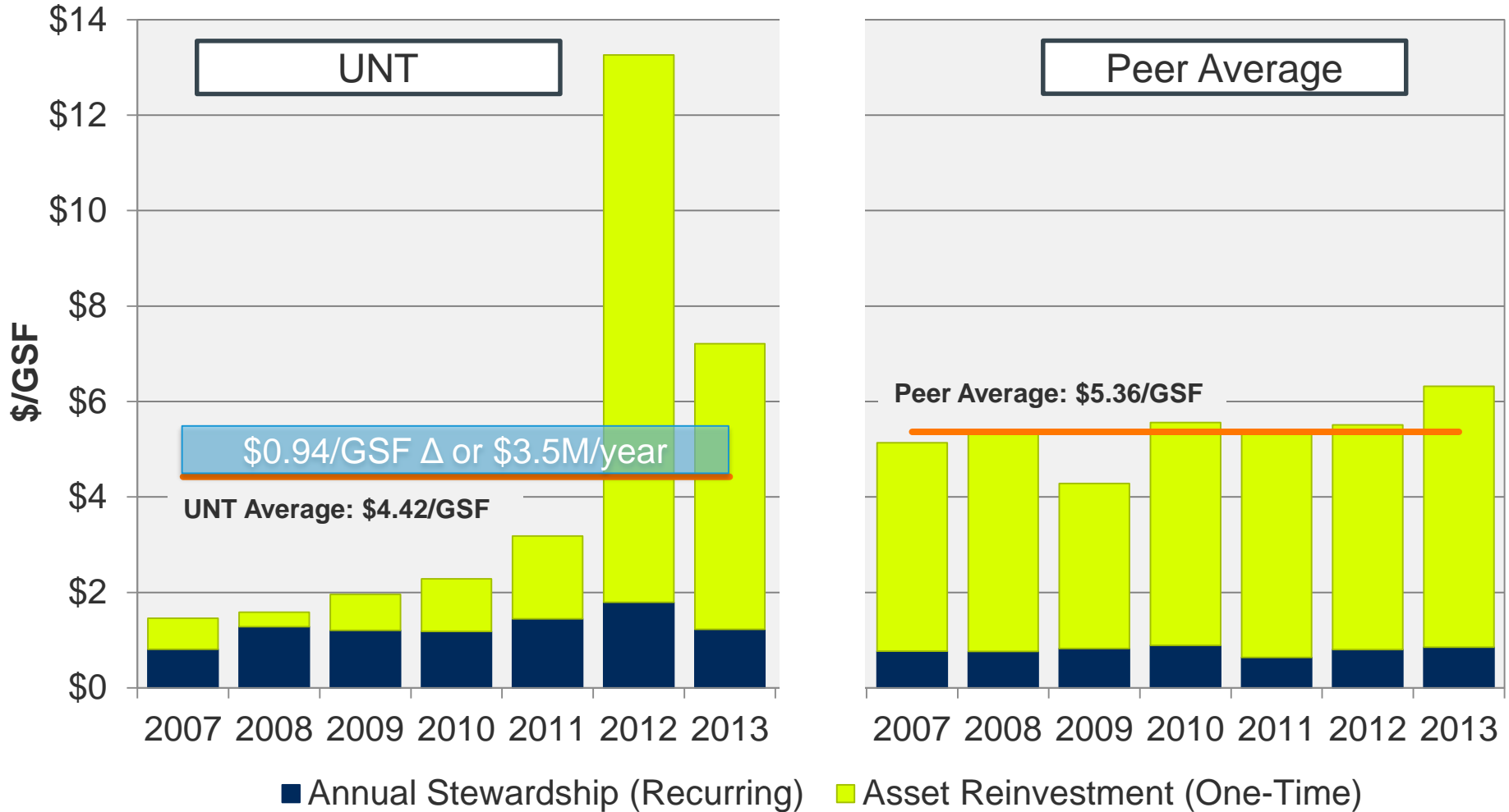


Investment into Existing Space



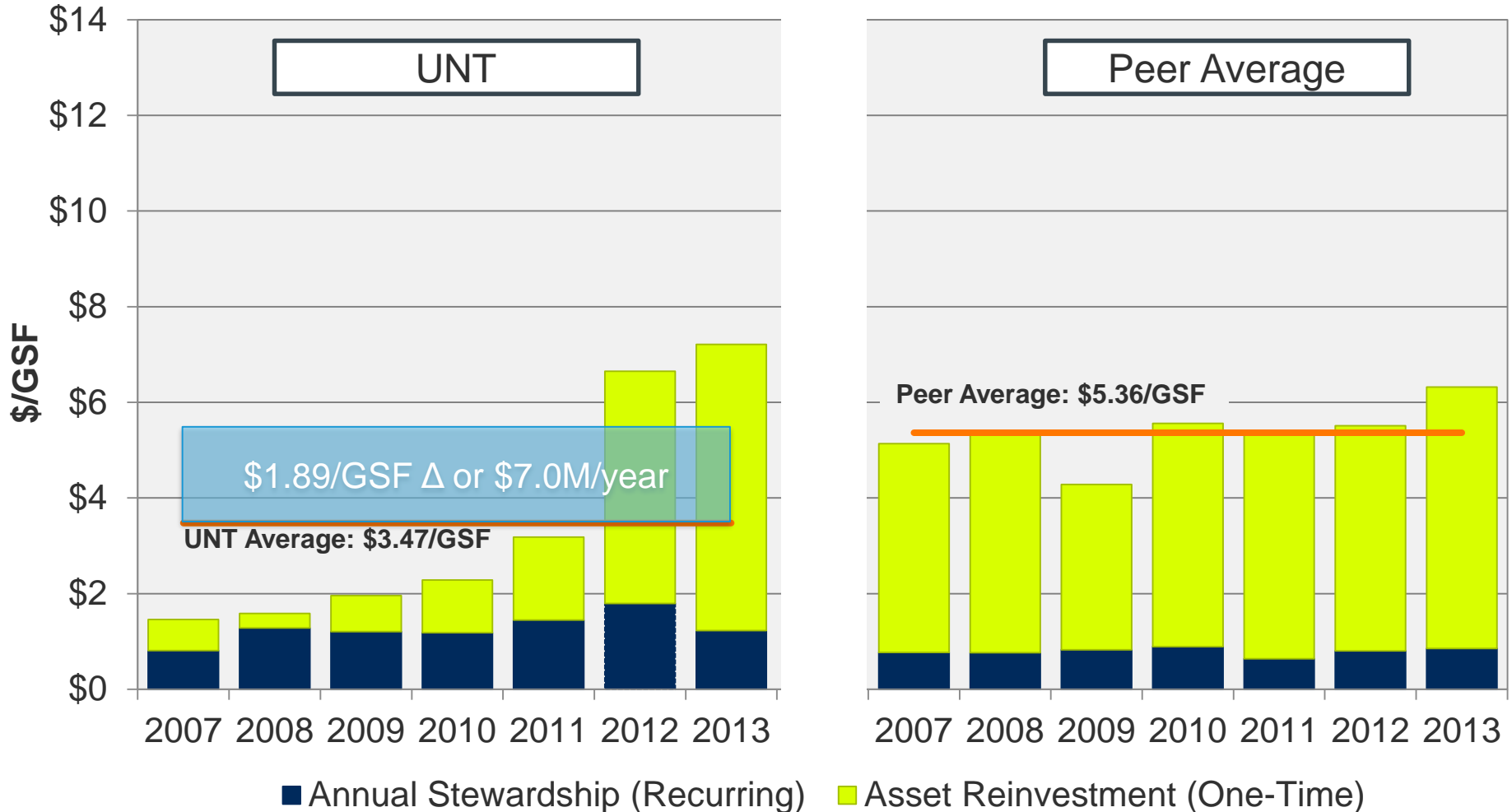
Facilities investment below peer levels

Total Project Spending by Funding Source - Existing Space



Facilities investment below peer levels

Total Project Spending excluding Infrastructure Project

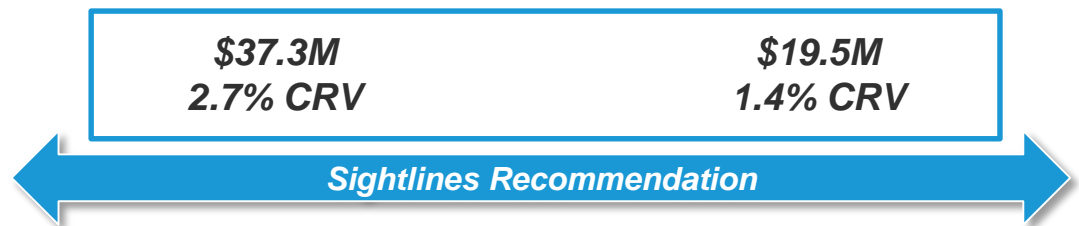
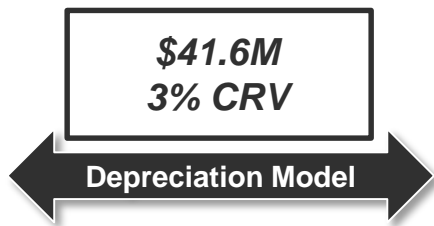
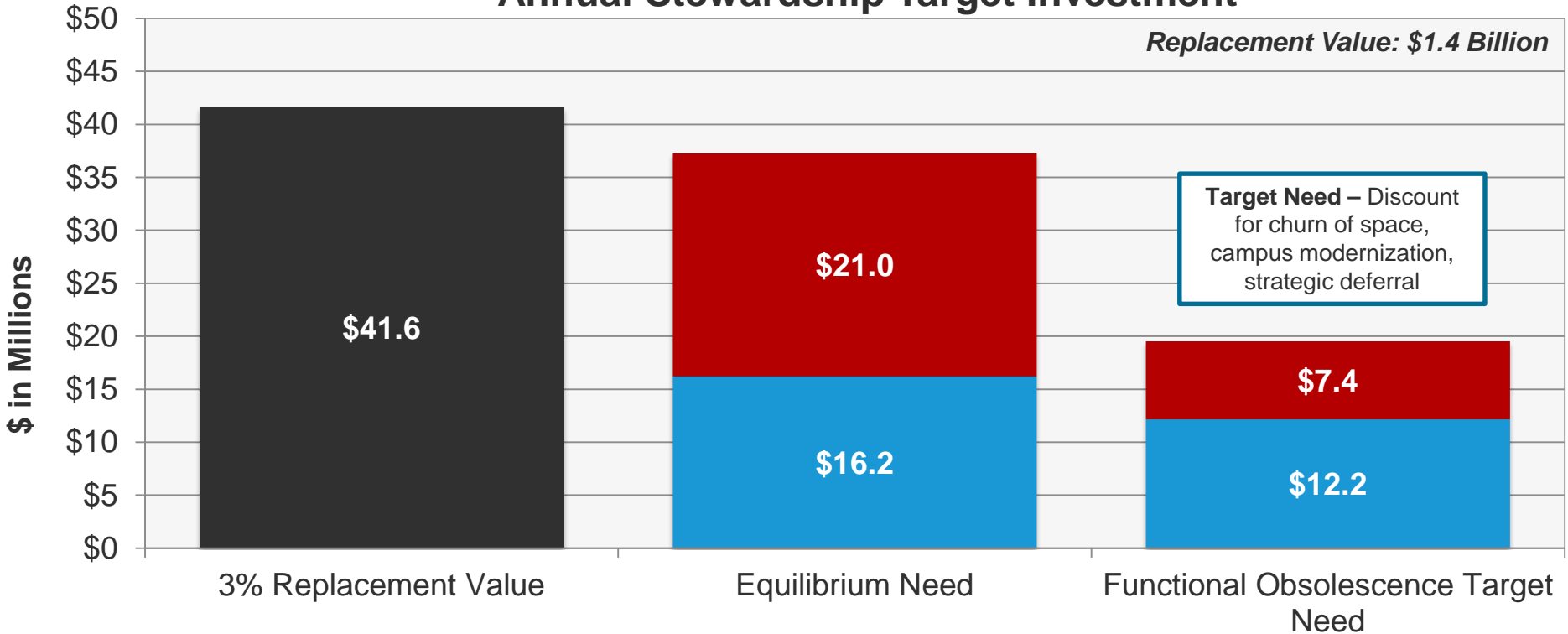


Defining 2013 Investment Targets

Target for 2013 totaled \$19.6M

Annual Stewardship Target Investment

Replacement Value: \$1.4 Billion

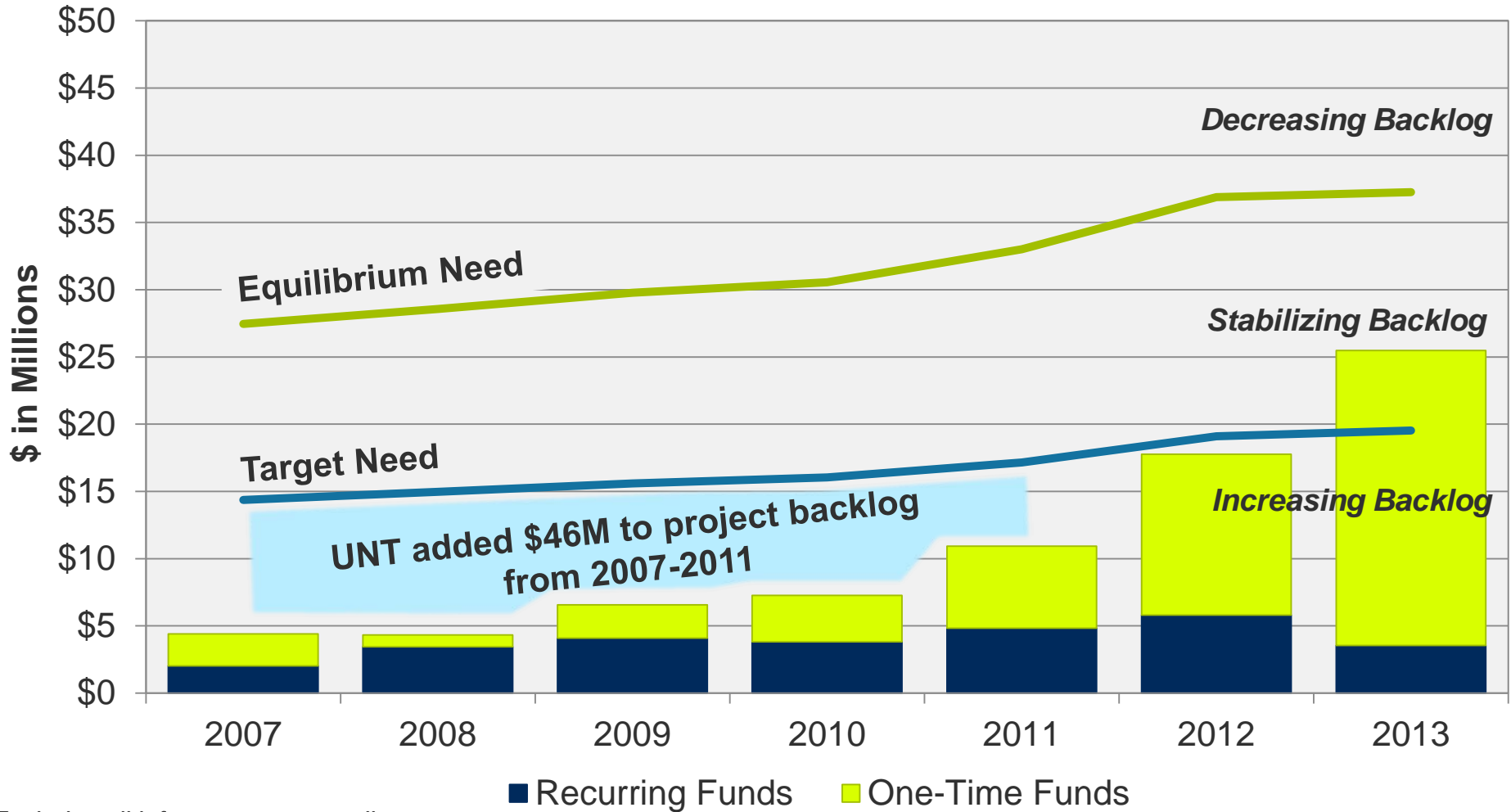


■ Envelope/Mechanical

■ Space/Program

FY13 investment meeting target for first time

UNT Historical Investment vs Target

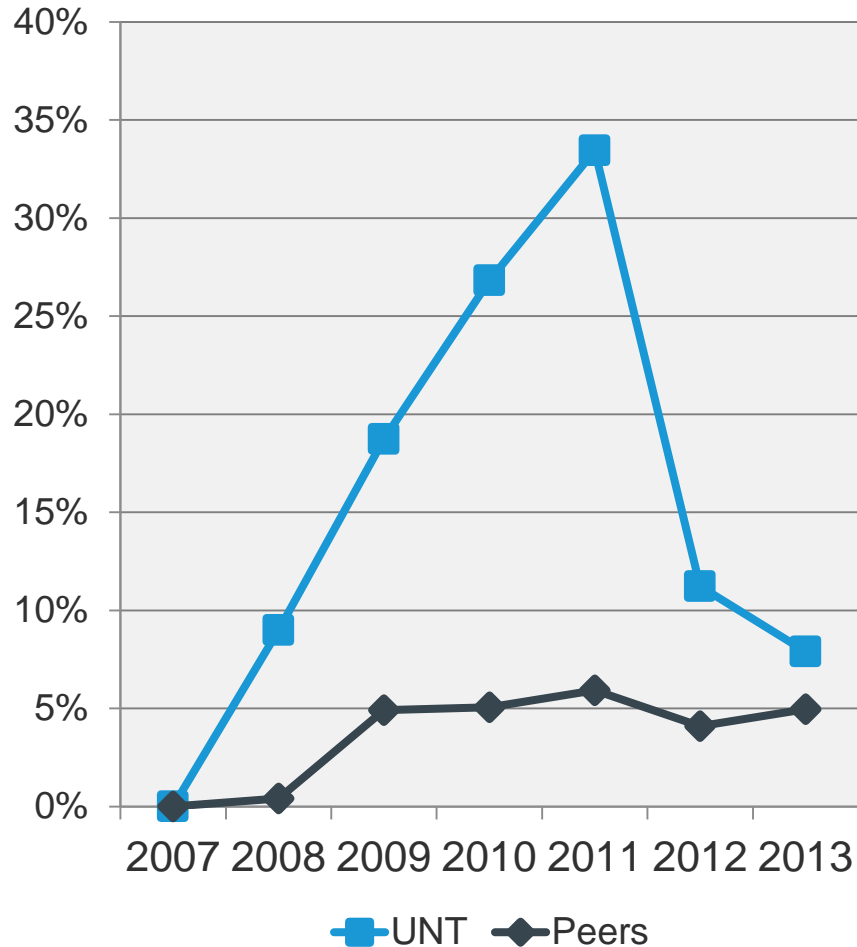


Excludes all infrastructure spending

Recent investment has reduced backlog

Using age analysis to identify top priority buildings for investment

Percent Change in Backlog



Top Priority Buildings by Vintage & Age

Building	GSF	Age
DISCOVERY PARK	563,296	25
WILLIS LIBRARY**	175,521	43
GENERAL ACADEMIC BLDG	146,679	35
MUSIC BLDG*	140,735	35
RADIO, TV, & PERFORMING ARTS	113,838	45
PHYSICAL EDUCATION BLDG	106,302	34
ART BLDG	94,994	41
SAGE HALL*	89,520	52
WOOTEN HALL**	88,794	43
MATTHEWS HALL**	80,986	52

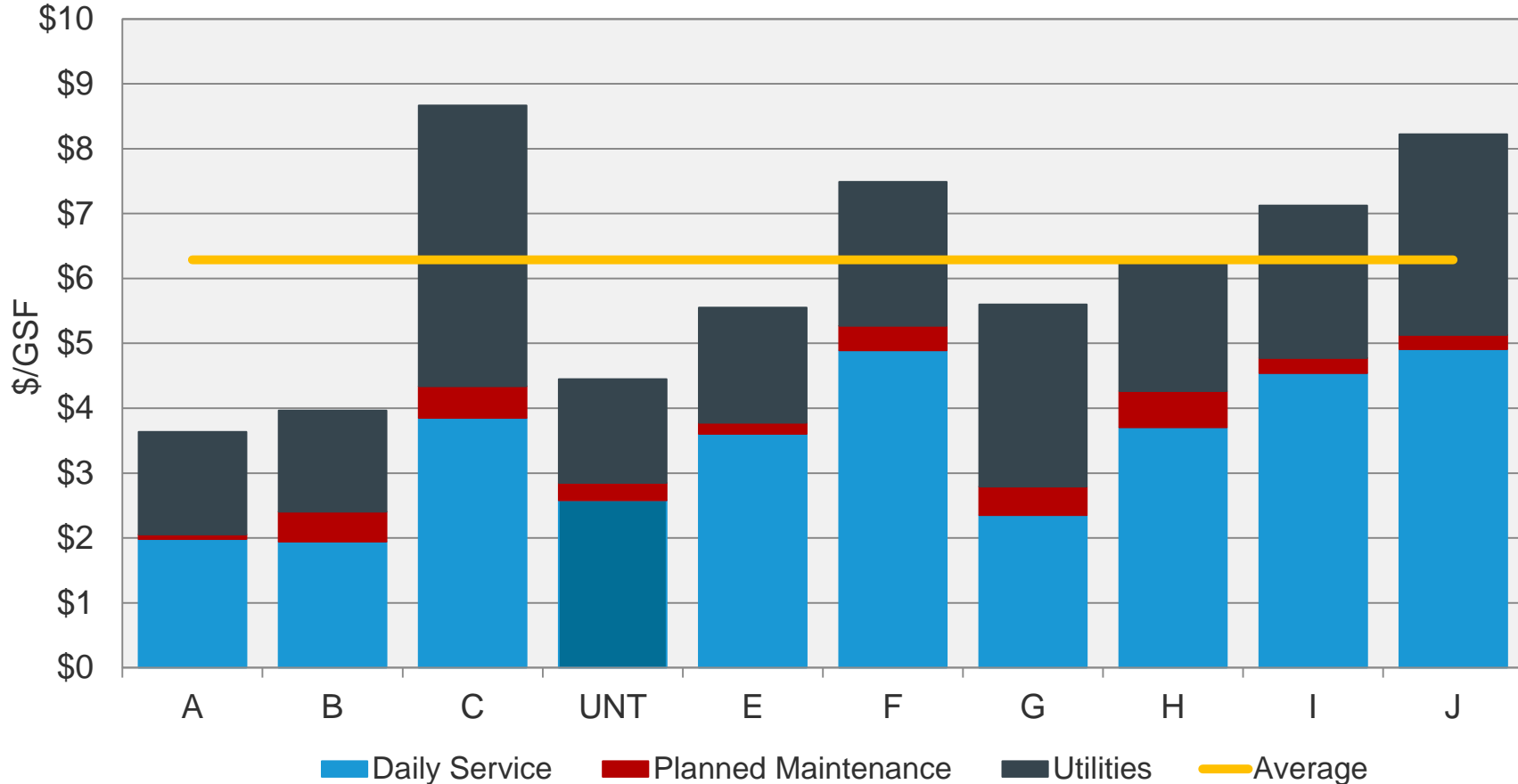
* Currently under MEP renovation.

** Currently under MEP assessment.

Low operating costs

Operating resources among lowest in peer group

2013 Operating Expenditures

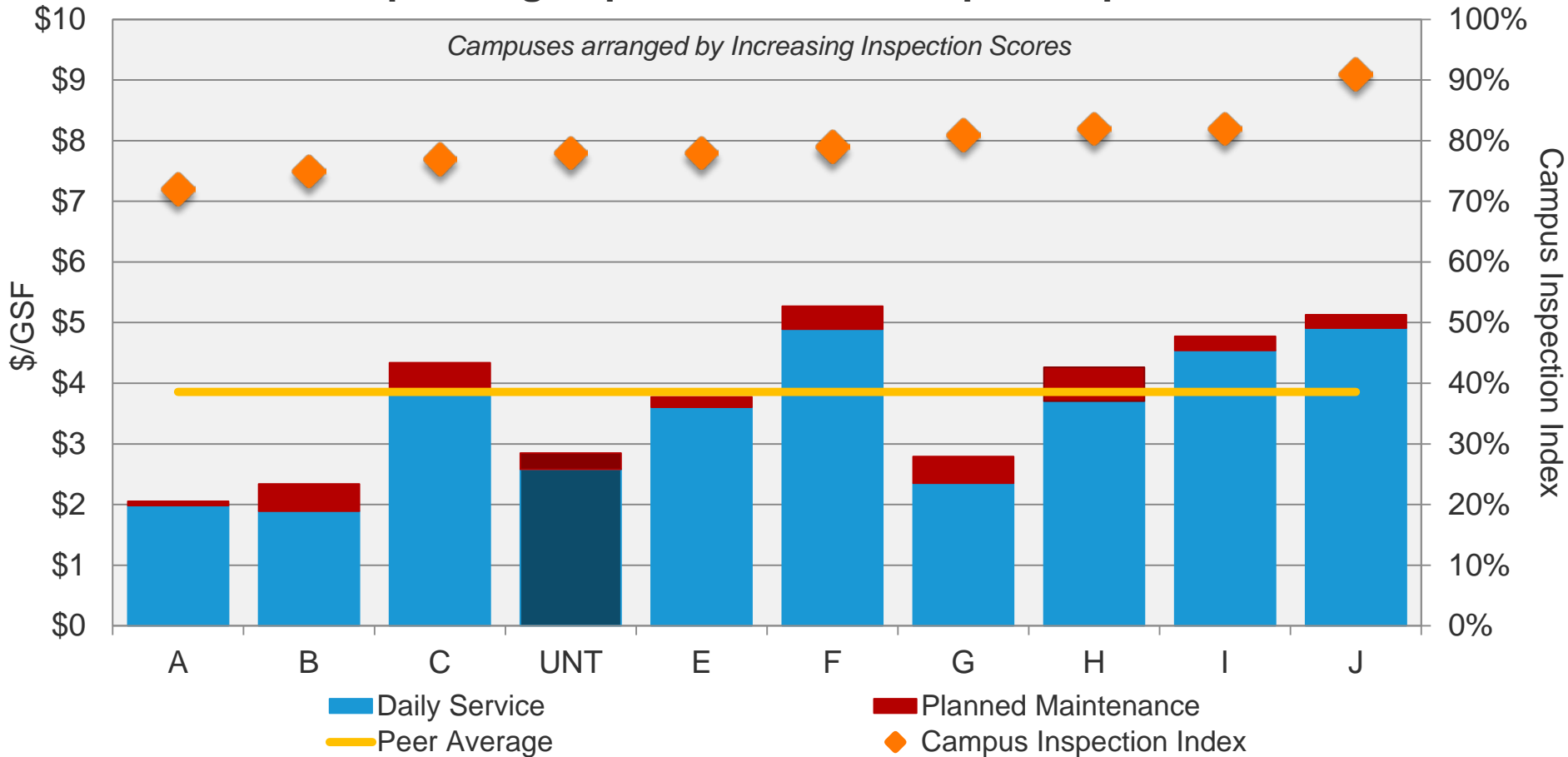


Costs have been regionally adjusted for Denton

Operating inputs versus outputs

Achieving comparable outputs with limited operating resources

2013 Operating Expenditures vs Campus Inspection Index



Costs have been regionally adjusted for Denton

How Do We Make the Case for Resources?

The old approach of defining needs in a way that makes the DM problem bigger and then requesting money will not work. Problem is too big to address in total – must break it down in size and priority

How do we ...

Lower Demands - Space Management

Make the Problem “Smaller” – Use Building Portfolio Management

Sustain Impact of Finite Funding - Create Multi Year Plans

Mitigate Risk - Target Capital to Safety, Reliability and Program Issues

Increase Funding - Invest in Operations to release savings that self-funds stewardship

Bob Brown

Using Data to Make the Case for Capital Planning

Strategies to Address Deferred Maintenance

Strategy 1: Change the conversation throughout higher education. Educate policy makers about the impacts of the space profile, capital plans that are aligned with the institutional mission and risk, and improving operating effectiveness while lowering costs.

Strategy 2: Set capital priorities to address the deferred maintenance needs in aging buildings that are determined to be critical to the mission and programmatic needs of universities.

Strategy 3: Consider eliminating or replacing aging space with new modern facilities, especially buildings with certain construction vintages where poor quality construction was prevalent. Sometimes less is more when it comes to addressing aging buildings with lots of deferred maintenance.

Strategies to Address Deferred Maintenance

Strategy 4: New construction must support the mission of the university and support the future program needs of each university.

Strategy 5: Make annual stewardship (keep-up) investment that addresses building components as they come due a priority at every campus. The more a campus keeps-up with life cycles as they come due, the less deferred maintenance grows.

Strategy 6: Institute facilities operational practices that are proactive at extending the life cycles of key expensive building components like HVAC, electrical systems and roofs. Proactive maintenance is not only a good idea when it comes to managing university facilities, it will save money in the long-run.

Questions & Discussion