



sightlines

ROPA+

Mississippi Institutions of Higher Learning

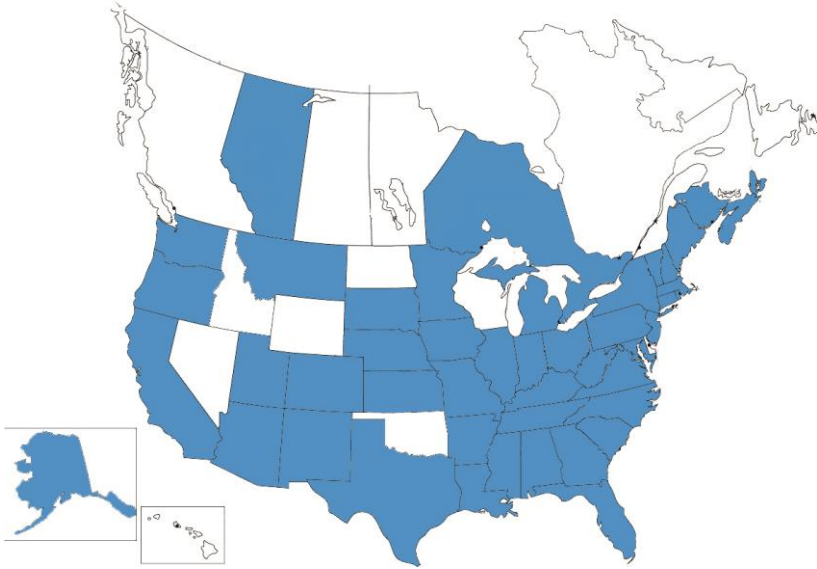
Presenter: Peter Reeves

June 18, 2014

Washington University in St. Louis
Wellesley College
Wesleyan University
West Chester University
West Liberty University
West Virginia Institute of Technology
West Virginia School of Osteopathic Medicine
West Virginia State University
West Virginia University
Western Connecticut State University
Western Oregon University
Westfield State University
Wheaton College
Widener University
Williams College
Williston Northampton School
Worcester Polytechnic Institute
Worcester State University
Xavier University
Yale University
Yeshiva University

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**
- **9 of the 12 Ivy Plus Institutions**
- **7 of 12 Selective Liberal Arts Colleges**

* 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 42 states, the District of Columbia and four Canadian provinces
- More than 100 new institutions became Sightlines members since 2013

Sightlines advises state systems in:

- Alaska
- California
- Connecticut
- Hawaii
- Maine
- Massachusetts
- Minnesota
- Mississippi
- Missouri
- Nebraska
- New Hampshire
- New Jersey
- Pennsylvania
- Texas
- West Virginia

A vocabulary for measurement

The Return on Physical Assets – ROPASM

The annual investment needed to ensure buildings will properly perform and reach their useful life
“Keep-Up Costs”

**Annual
Stewardship**

The accumulation of repair and modernization needs and the definition of resource capacity to correct them
“Catch-Up Costs”

**Asset
Reinvestment**

The effectiveness of the facilities operating budget, staffing, supervision, and energy management

**Operational
Effectiveness**

The measure of service process, the maintenance quality of space and systems, and the customers opinion of service delivery

Service

Asset Value Change

Operations Success

- > *Through a combination of new construction, renovation, and demolition, the IHL has achieved a balanced age profile*
- > *Both E&G and Housing have reduced the average age of buildings meaningfully over the last 8 years*
- > *Increased capital investment has closed the gap to peers systems and slowed the rate of backlog growth*
- > *Despite having fewer resources than peer systems, operational performance across the IHL has shown improvement in both efficiency and effectiveness*

Space Profile – *Driver of Challenges and Opportunities*

Putting Your System Building Age in Context



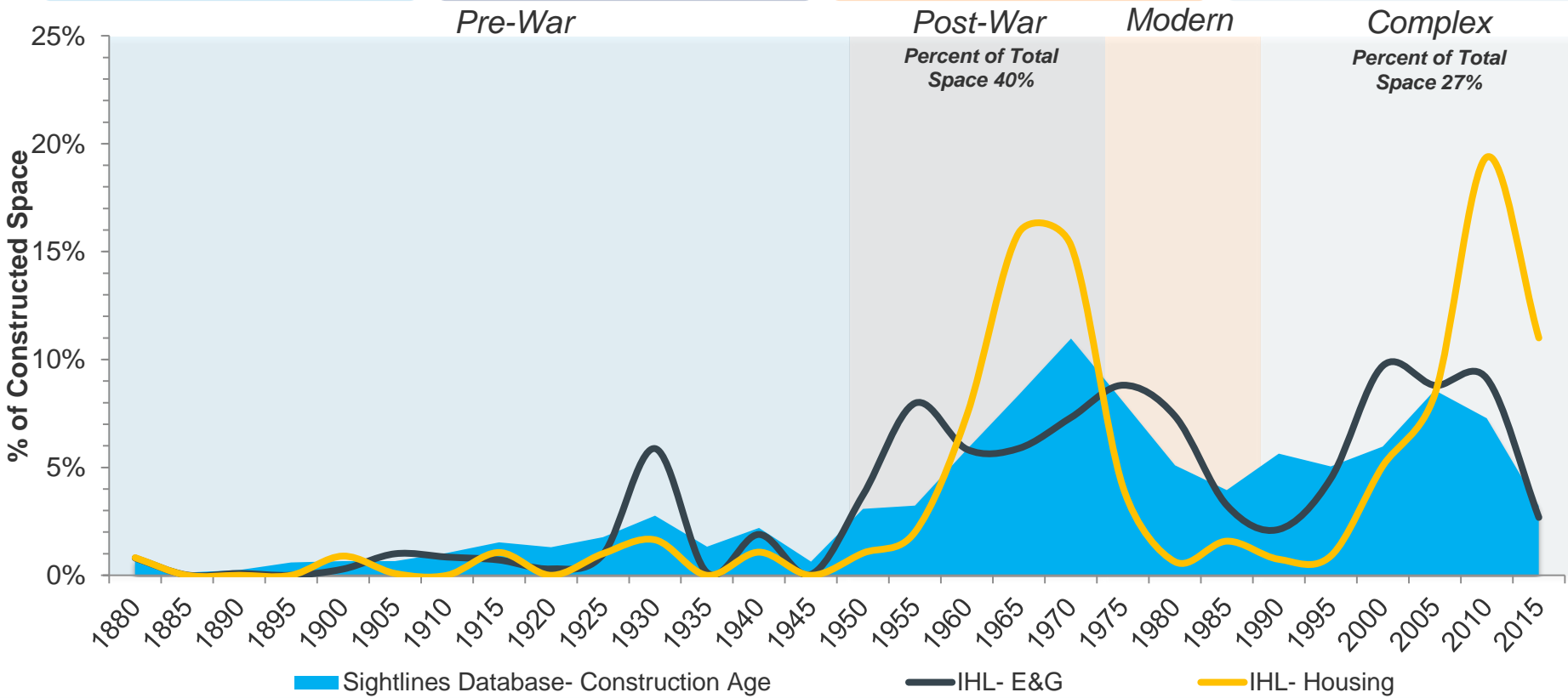
The system age drives the overall risk profile

Pre-War
Built before 1951
Durable construction
Older but typically lasts longer

Post-War
Built between 1951 and 1975
Lower-quality construction
Already needing more repairs and renovations

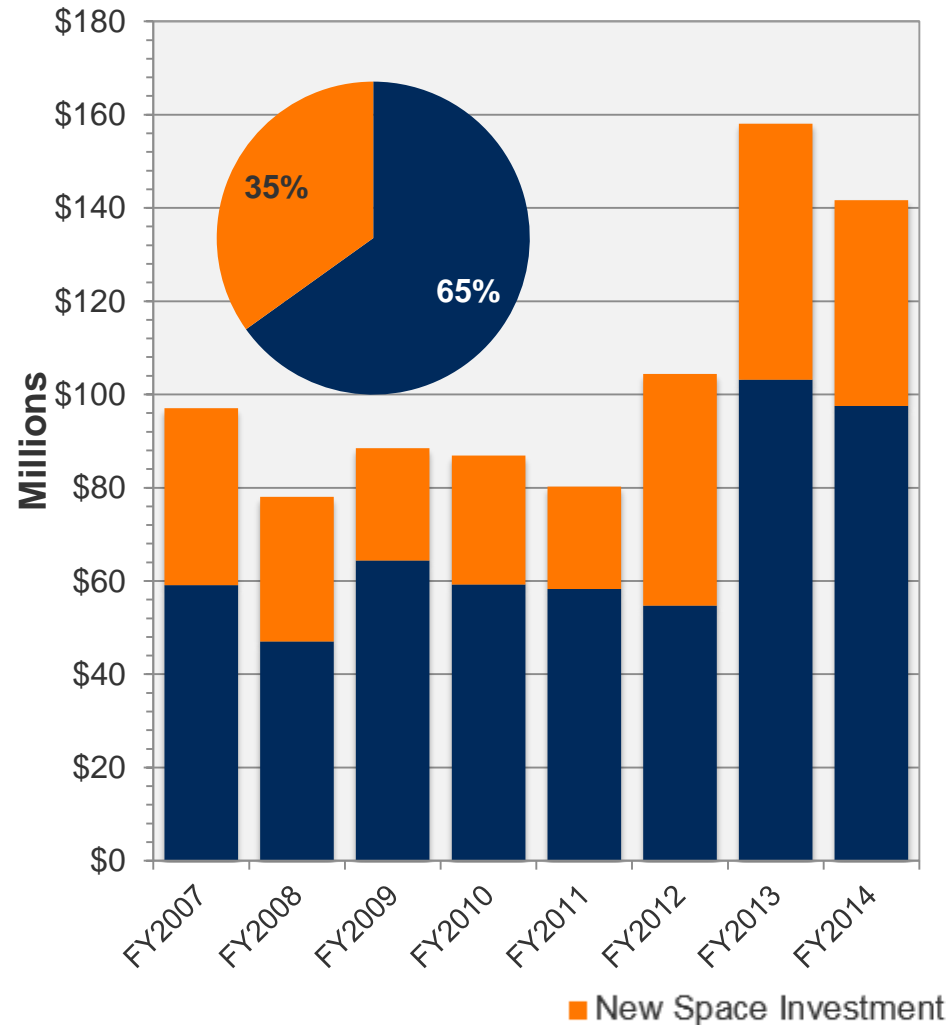
Modern
Built between 1975 and 1990
Quick-flash construction
Low-quality building components

Complex
Built in 1991 and newer
Technically complex spaces
Higher-quality, more expensive to maintain & repair

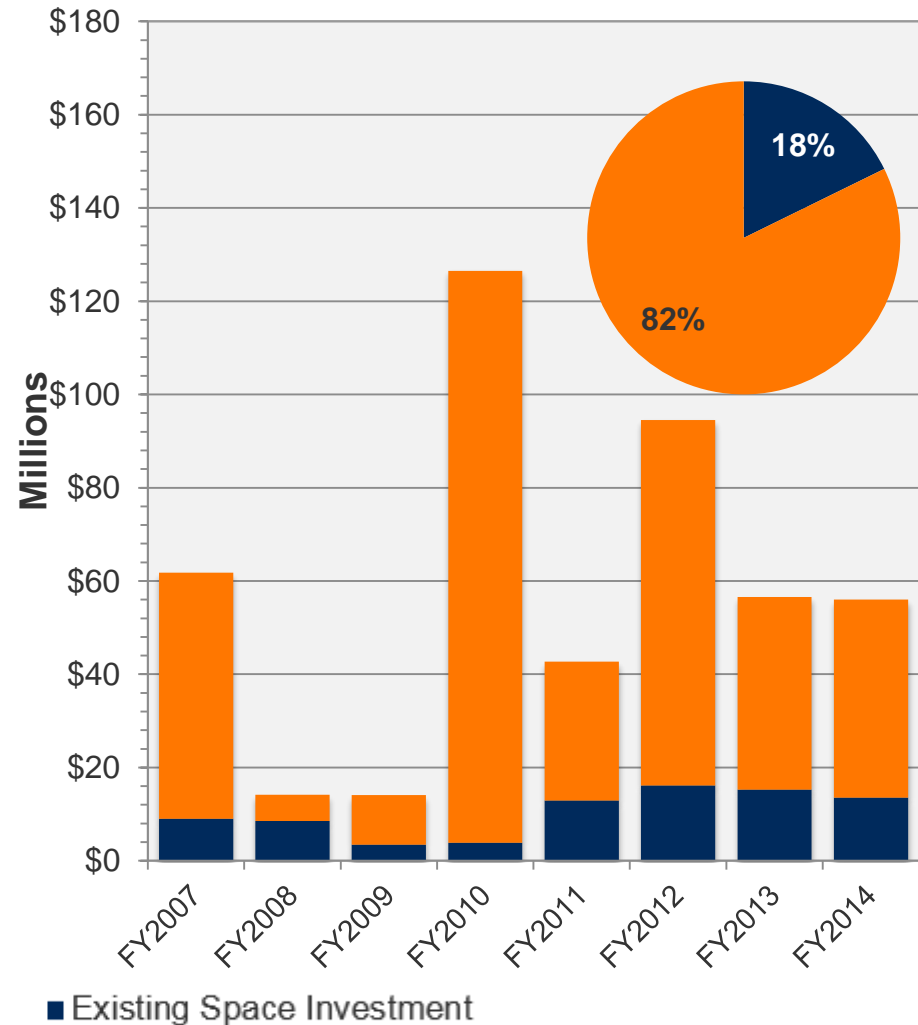


Total Capital Investment

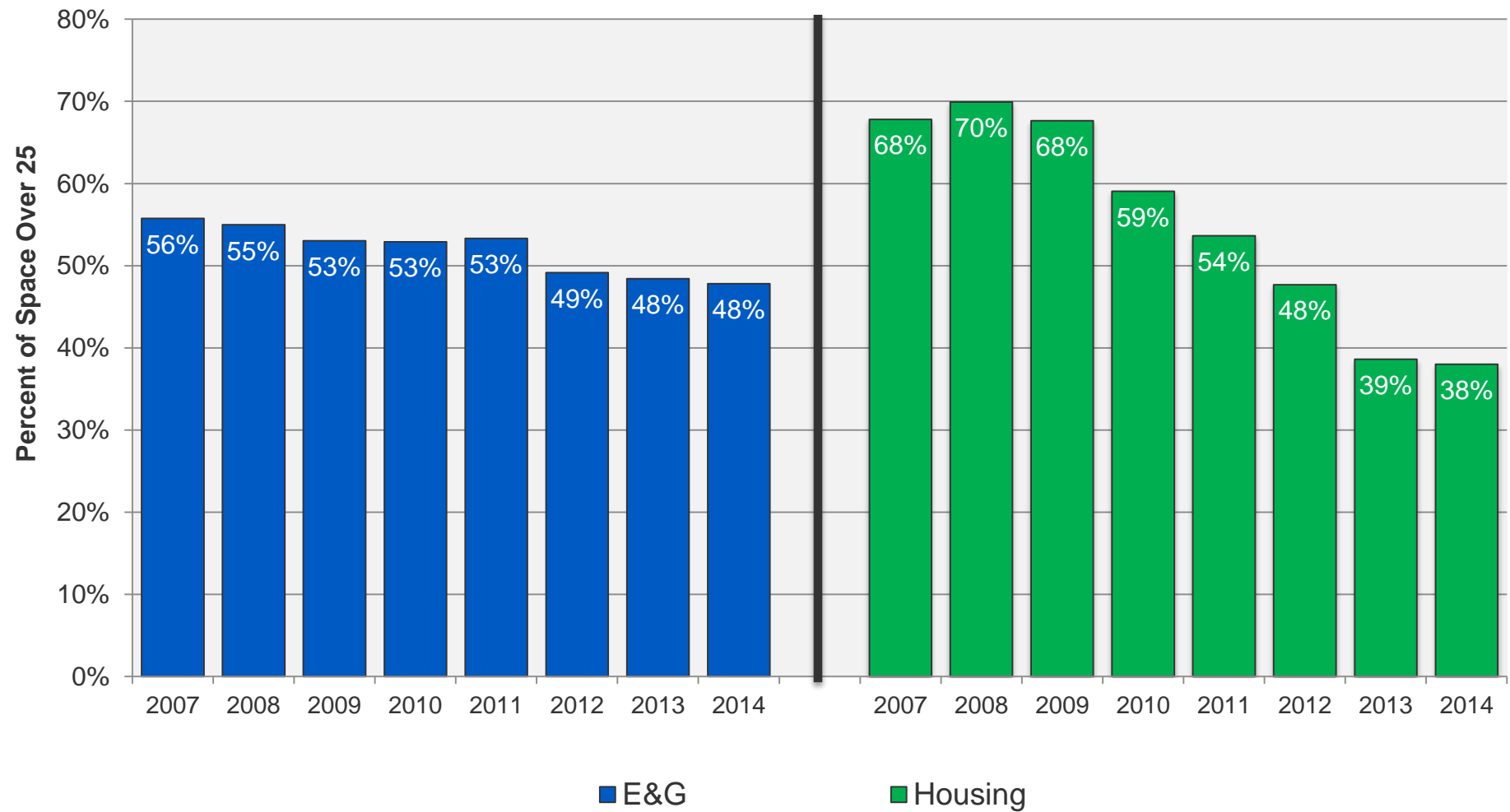
Total Capital Investment (E&G)



Total Capital Investment (Housing)

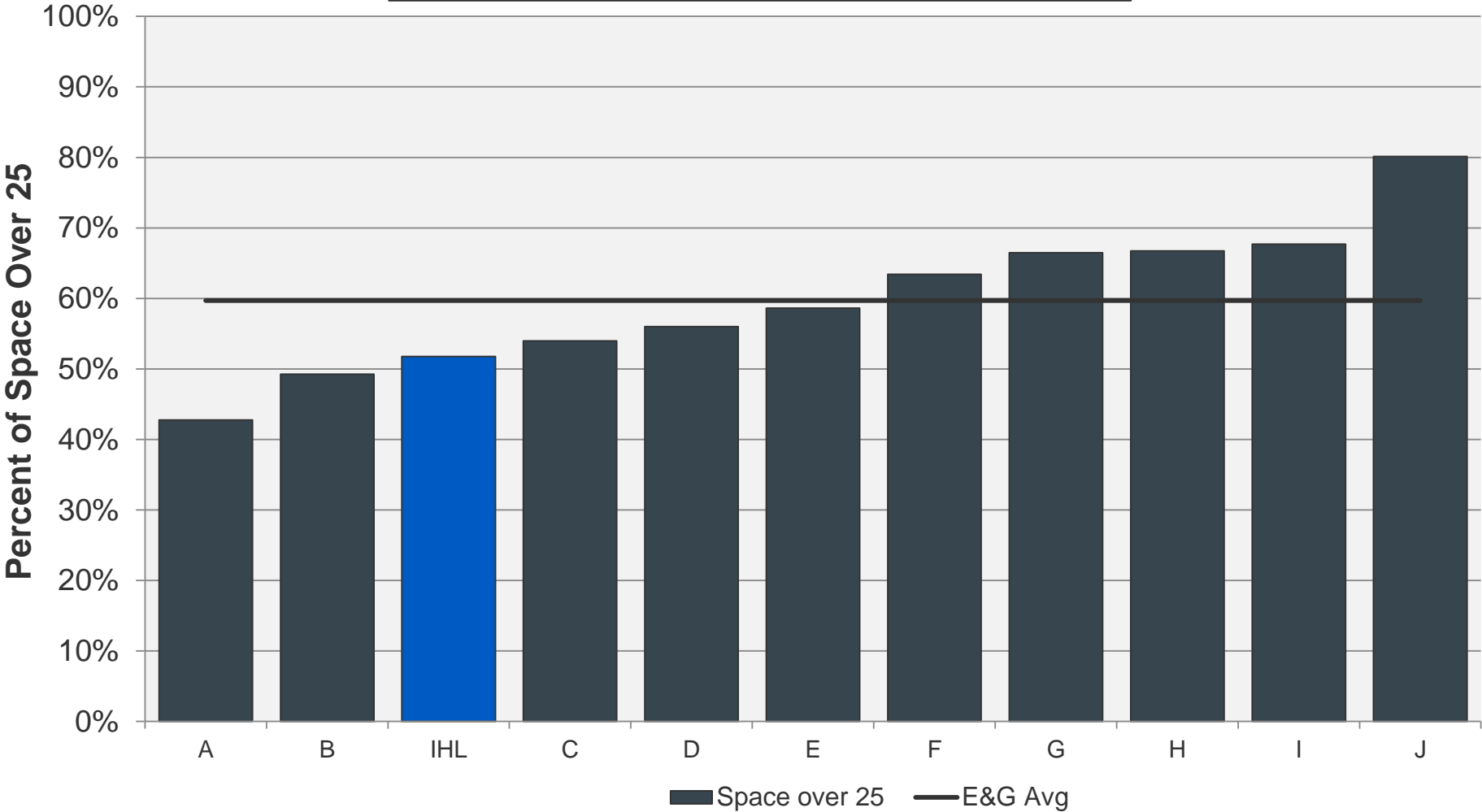


MS IHL Space over 25 years old



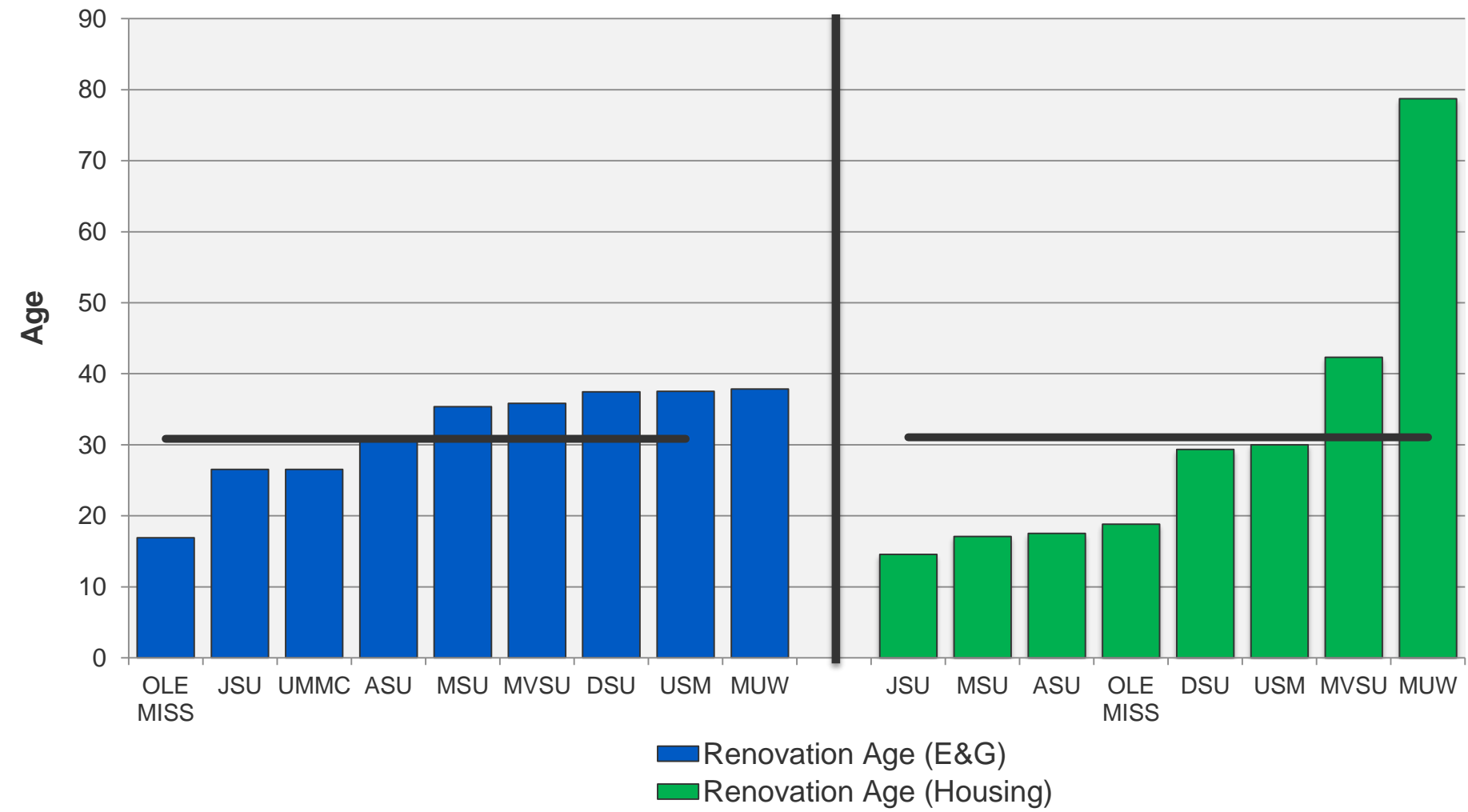
IHL has less space over 25 than peers

FY14 IHL vs. Peers Space Over 25



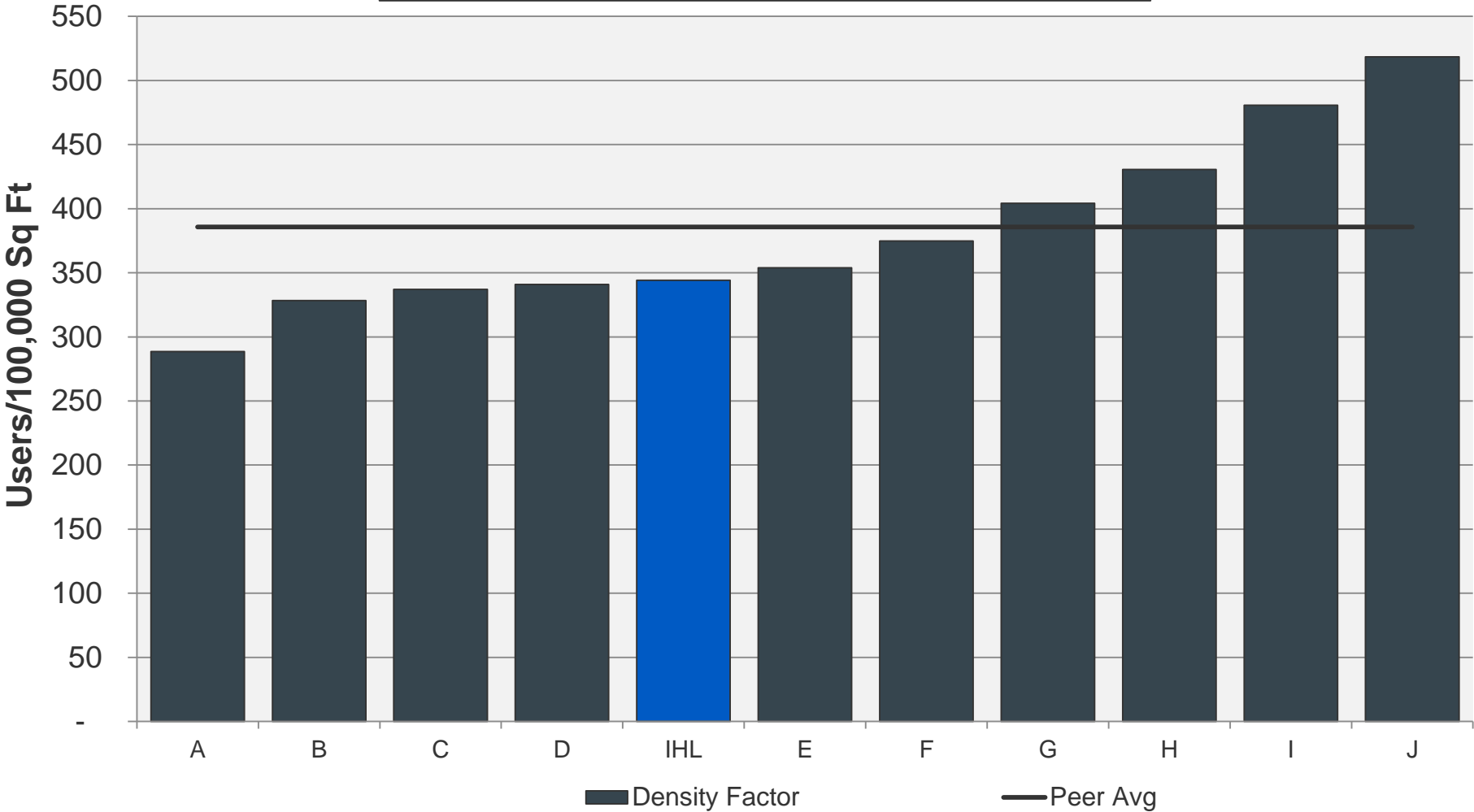
Housing Space Younger Than E&G Space

FY14 E&G vs. Housing Renovation Age

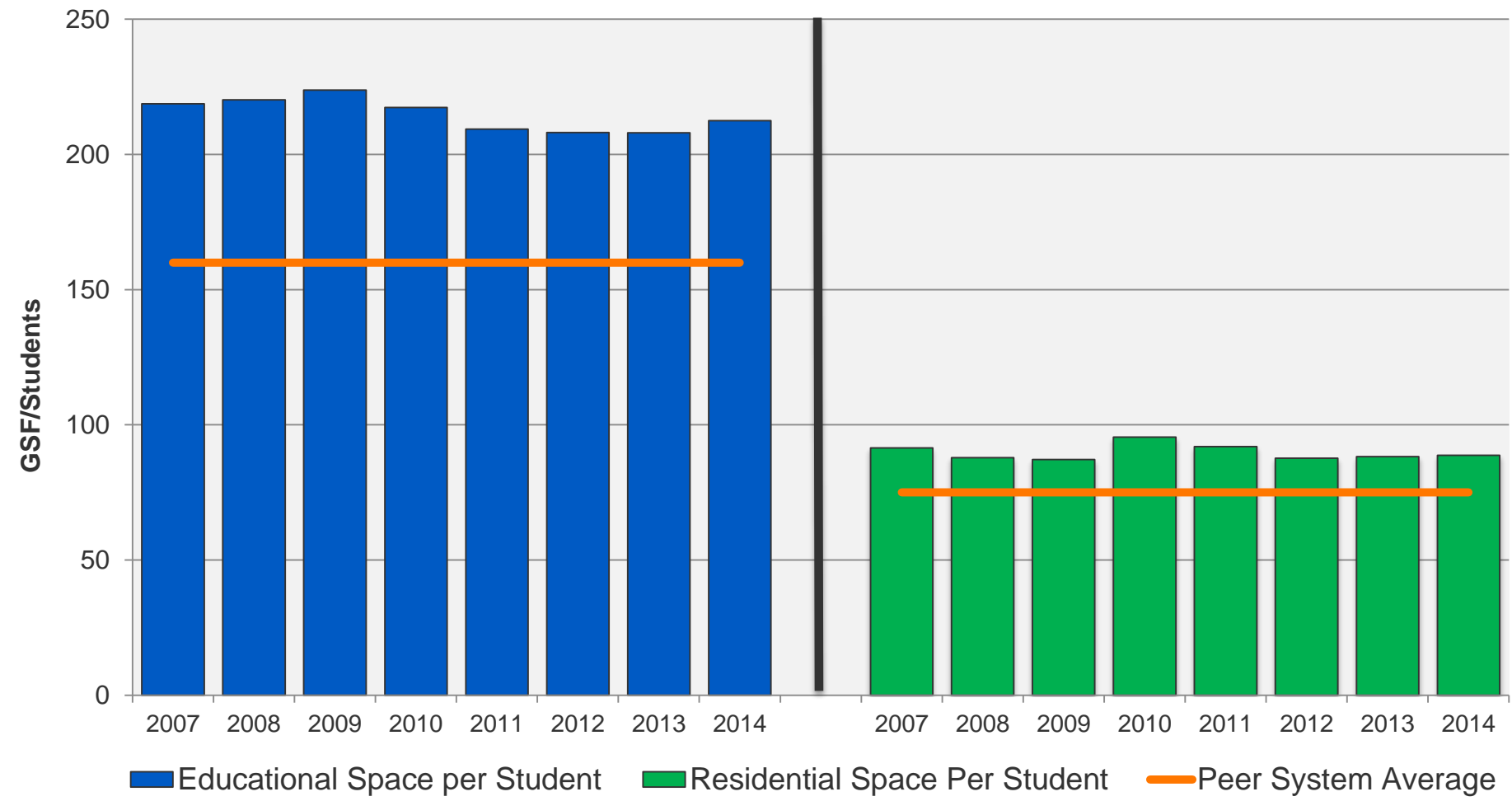


IHL Density Factor vs. Other Systems

FY14 IHL Density Factor vs Peers

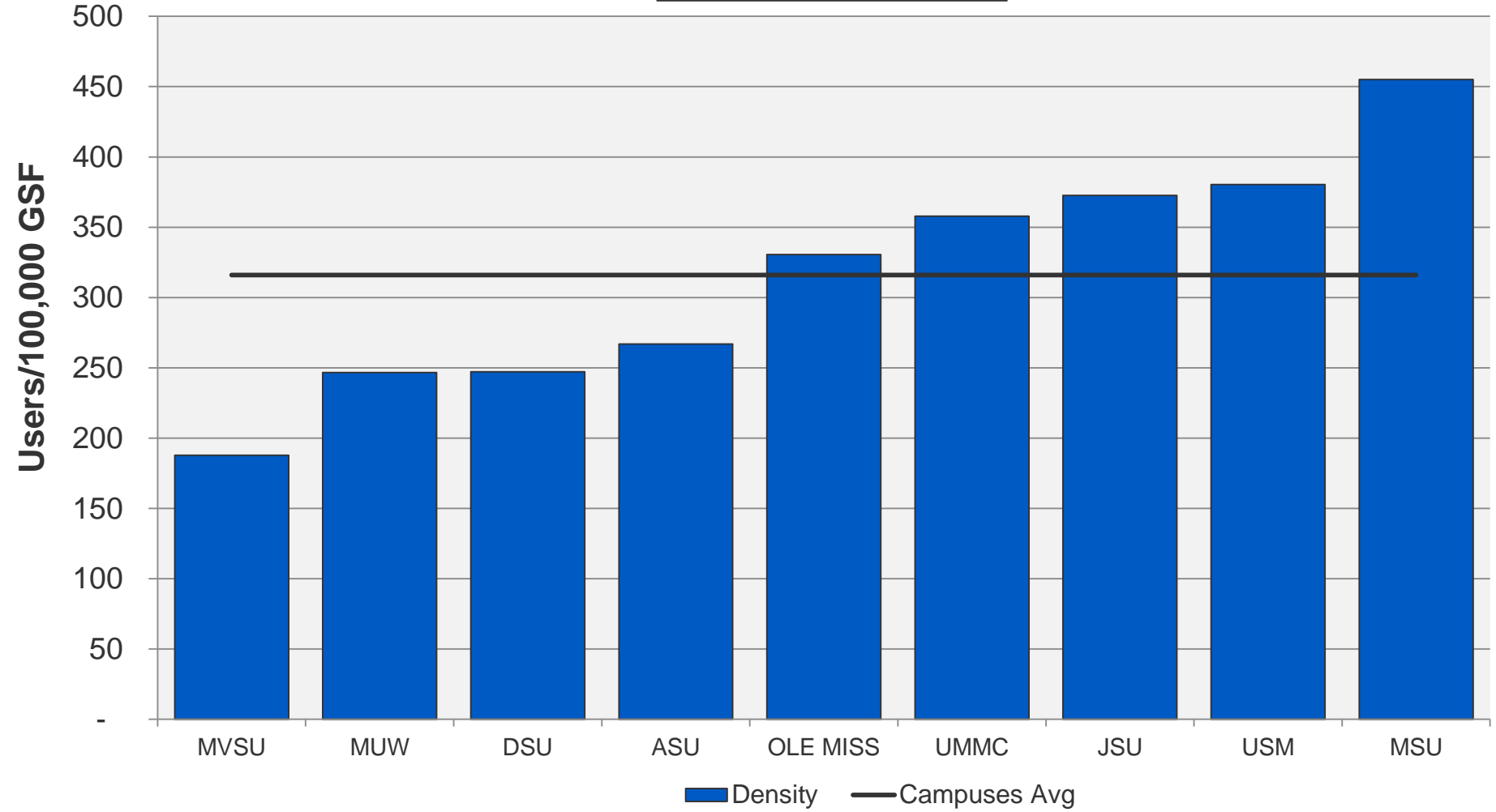


IHL Educational vs Residential Space



Variation Between Campus Density

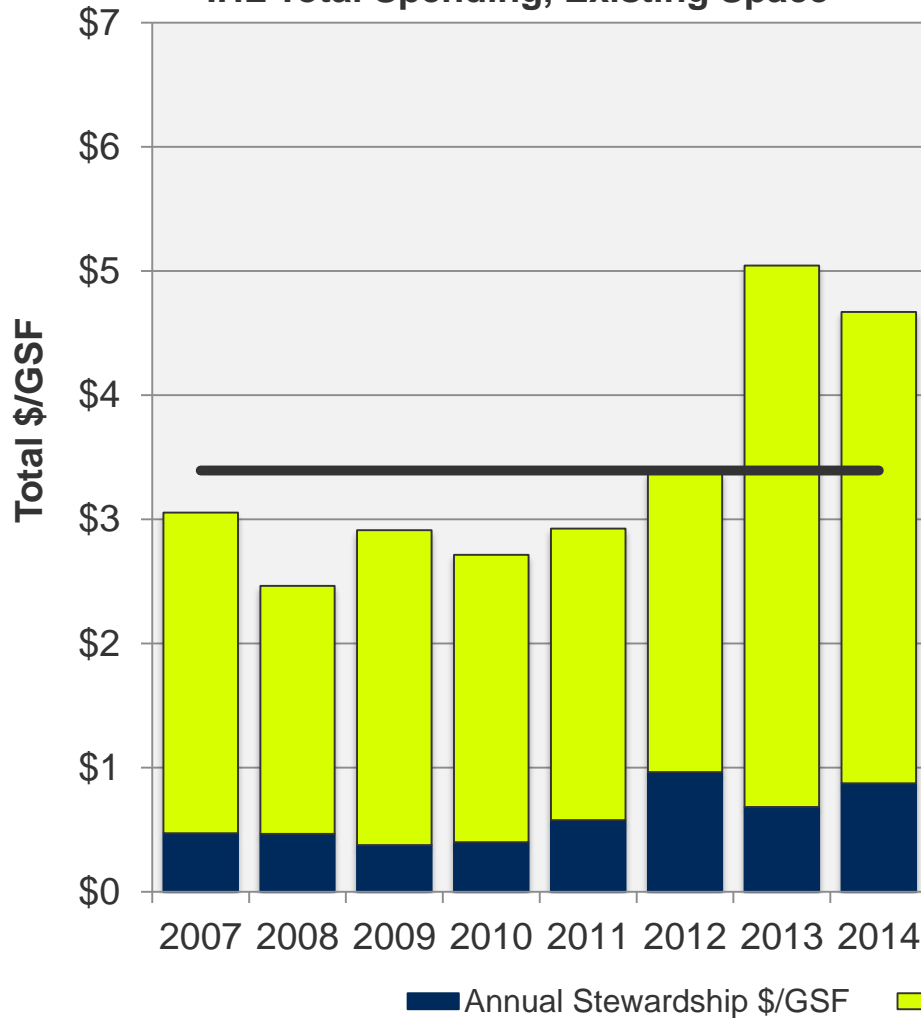
Density Factor



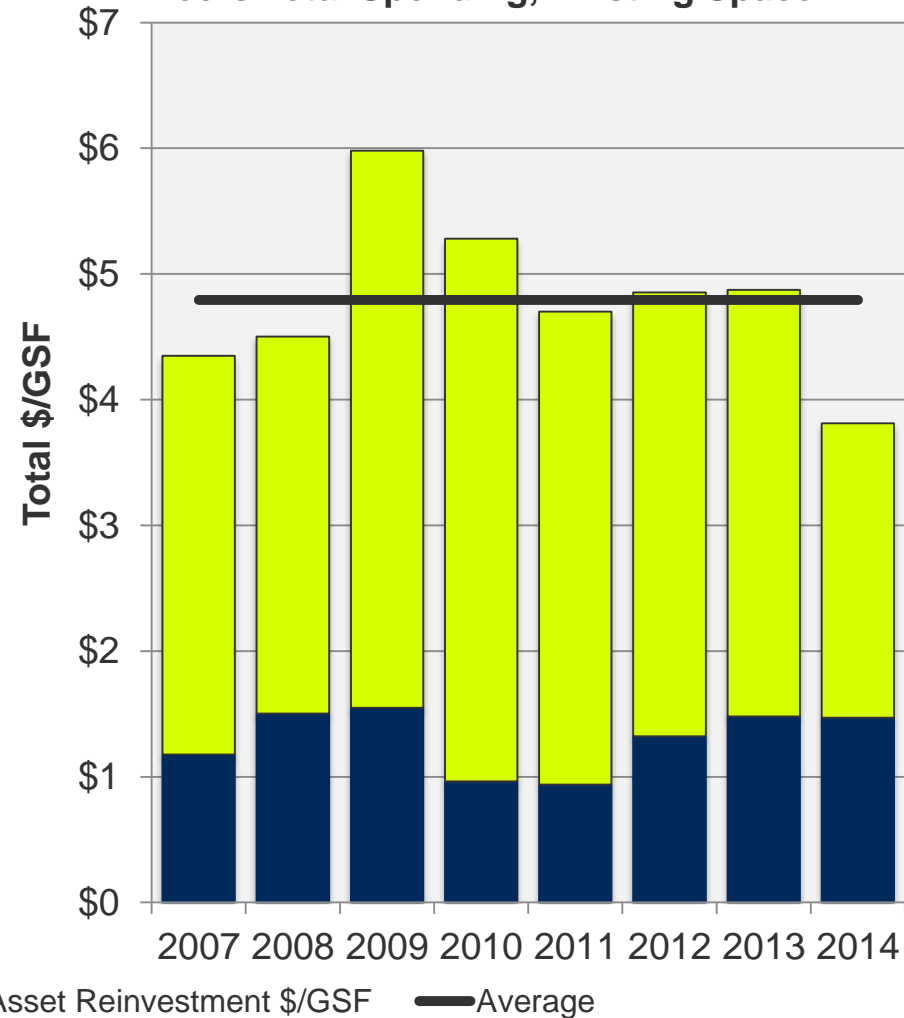
Capital Investments – *Recent trends improve IHL's position*

IHL Spending Closing the Gap to Peer Systems

IHL Total Spending, Existing Space



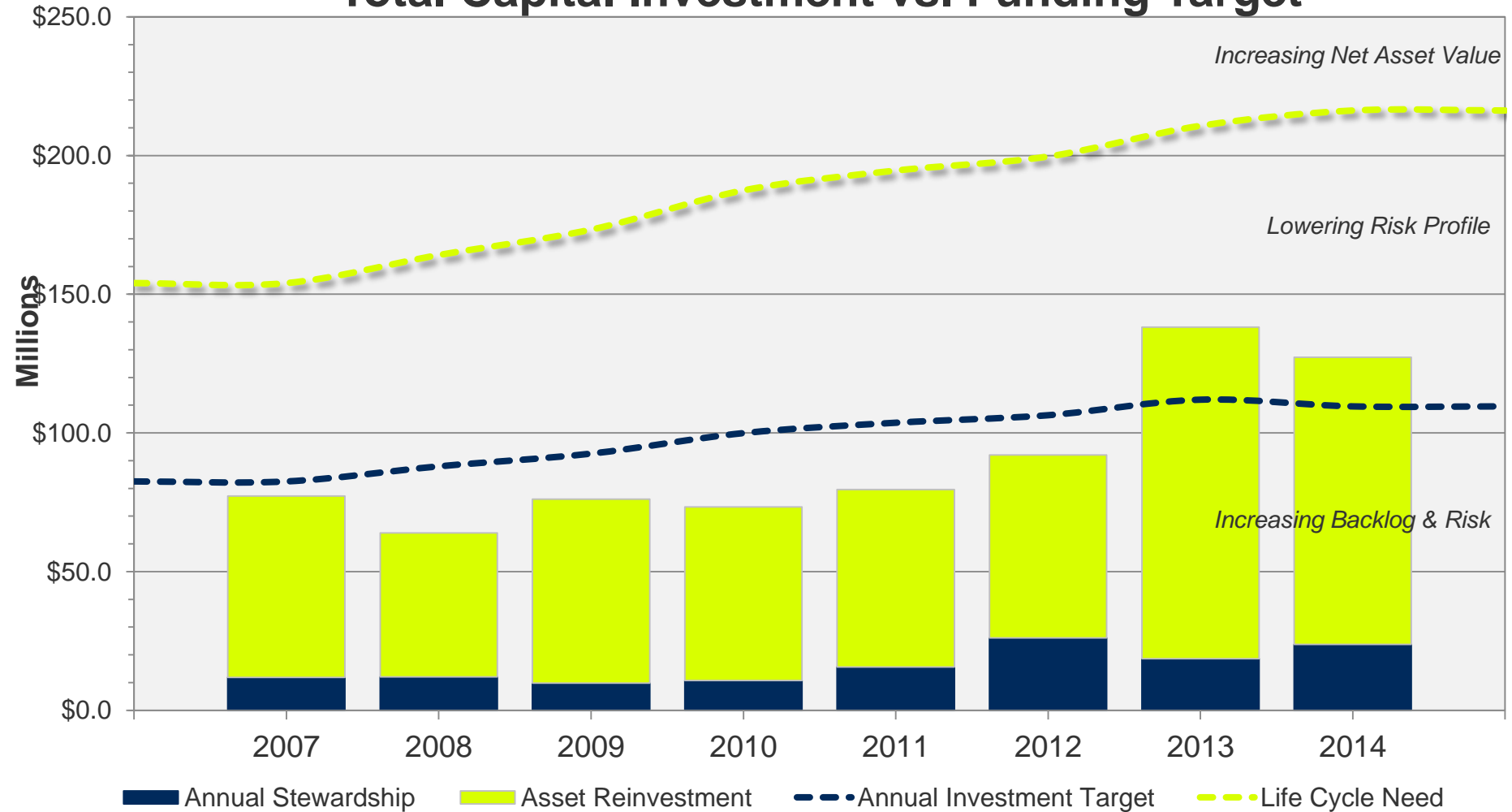
Peers Total Spending, Existing Space



Investments Reaching Target in Recent Years

Includes only the investment in existing facilities

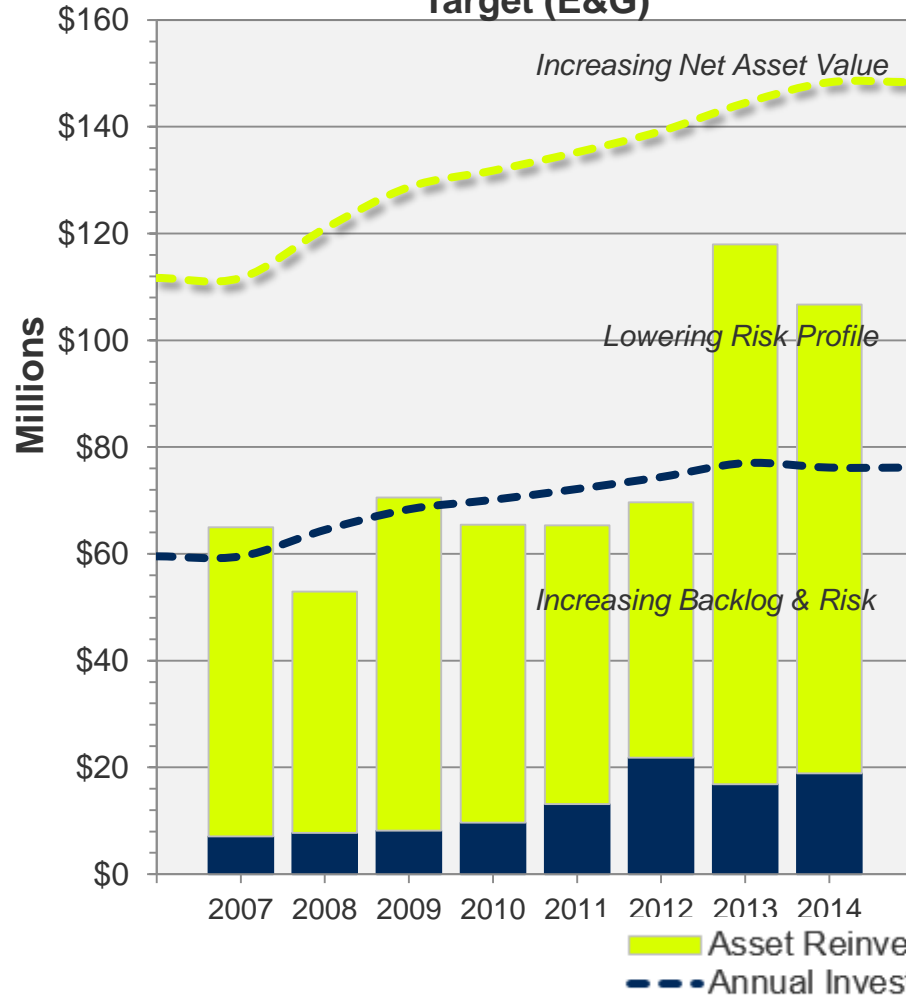
Total Capital Investment vs. Funding Target



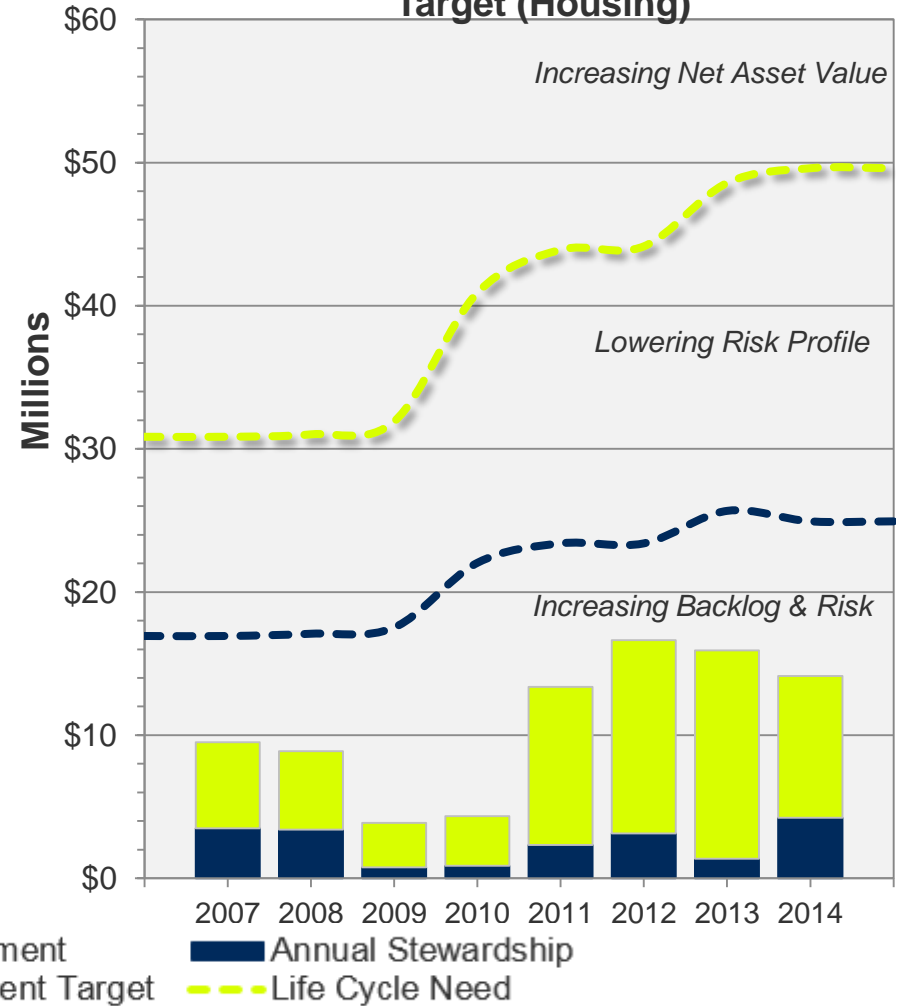
E&G and Housing Differ in Approach

Includes only the investment in existing facilities

Total Capital Investment vs. Funding Target (E&G)

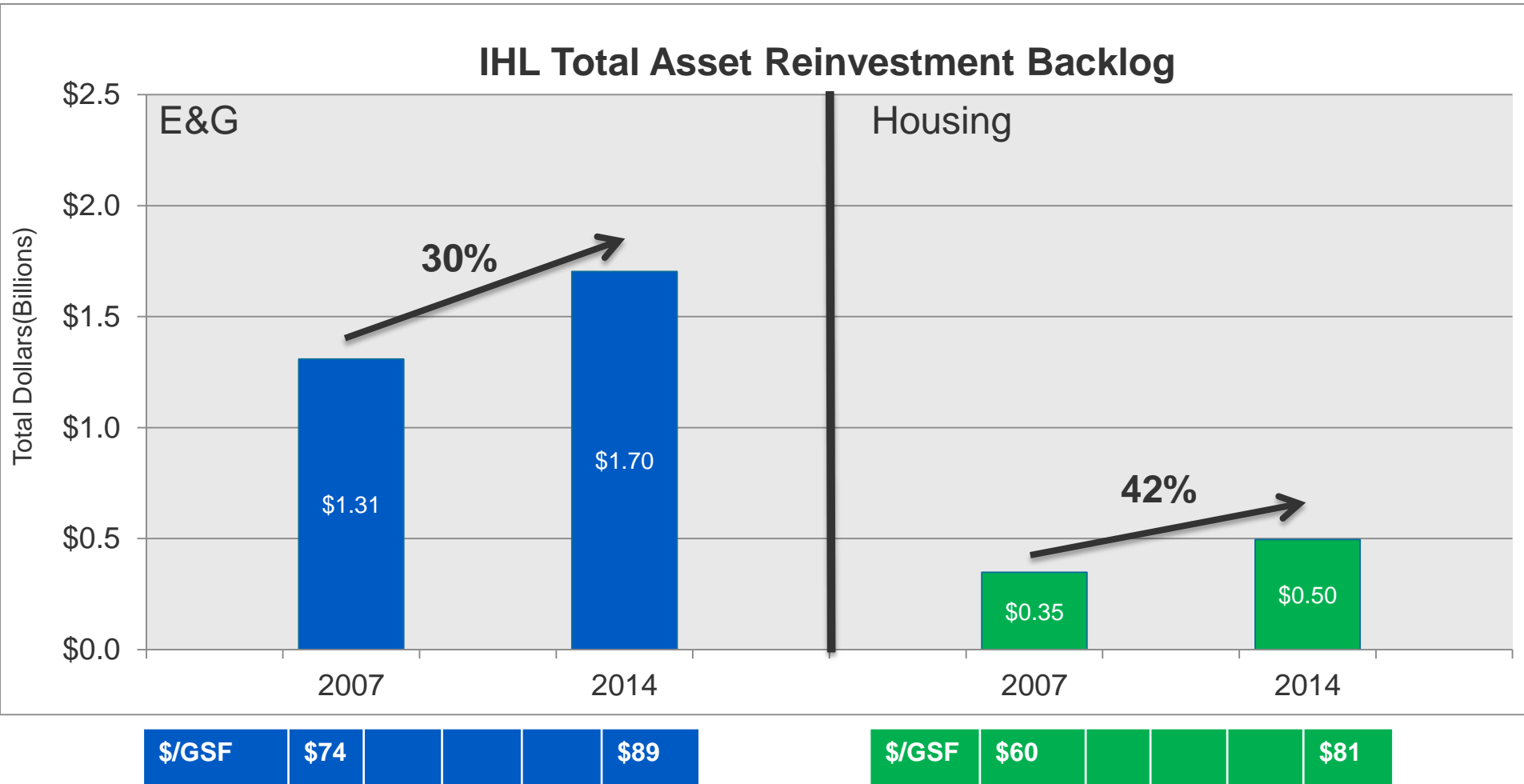


Total Capital Investment vs. Funding Target (Housing)



Significant Growth in Total Backlog

IHL E&G backlog over \$1 billion and is growing

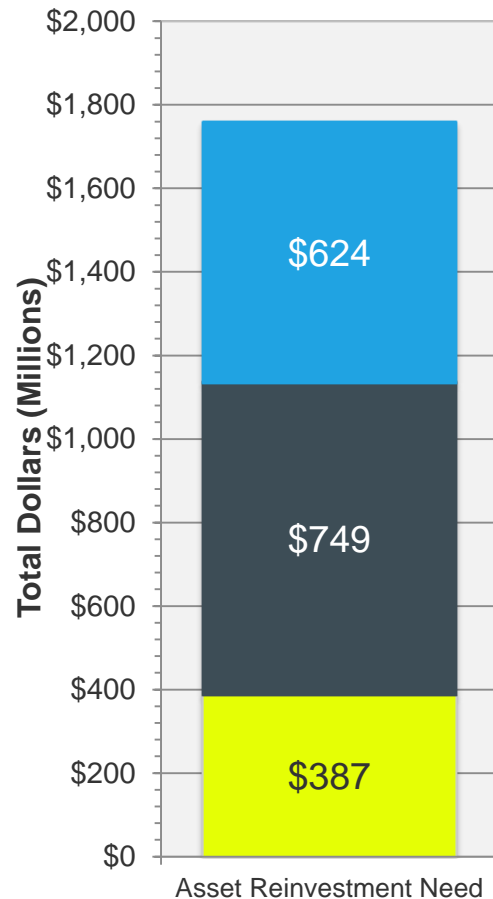


Sightlines System Average (\$/GSF): \$96 / GSF

Capital Renewal – *Understanding the upcoming 10 Year Capital Needs*

MS IHL 10 Year Capital Needs

Total 10 Year Capital Needs



Infrastructure & Modernization Need

- *Estimated based on building function and age, against a Sightlines database of needs.*

Renewal Needs:

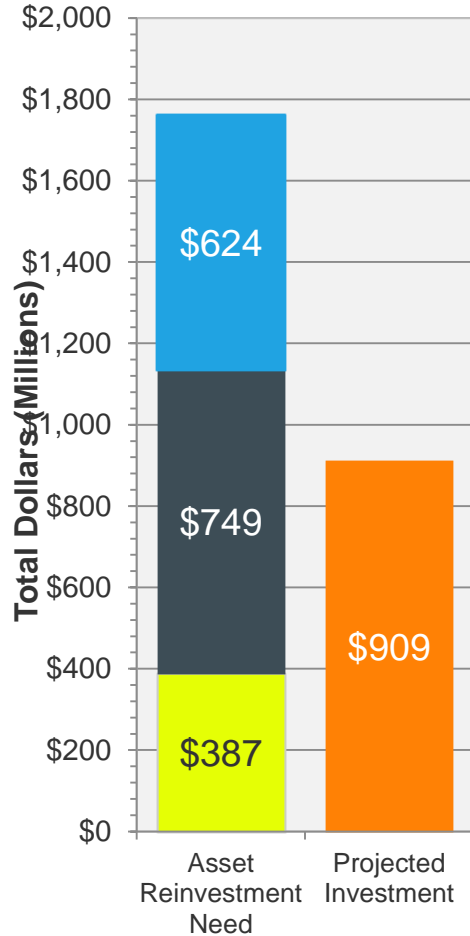
- *Life cycle needs coming due between 2016-2025.*

Current Needs:

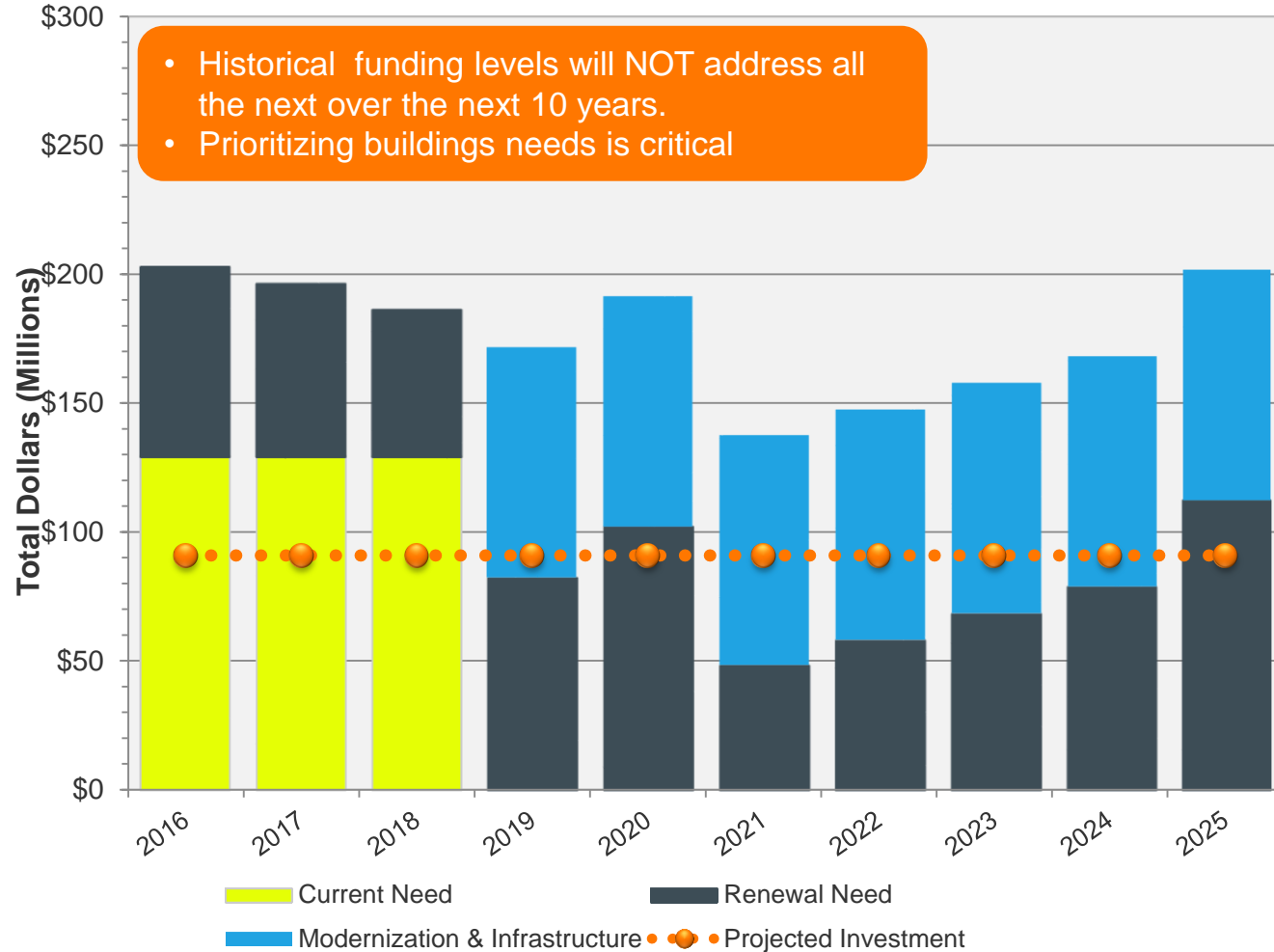
- *The subsystem has already failed*
- *The subsystem is functioning with substantial degradation of efficiency or performing at increased cost*

Projecting the Investment Shortfall

Asset Reinvestment
Need

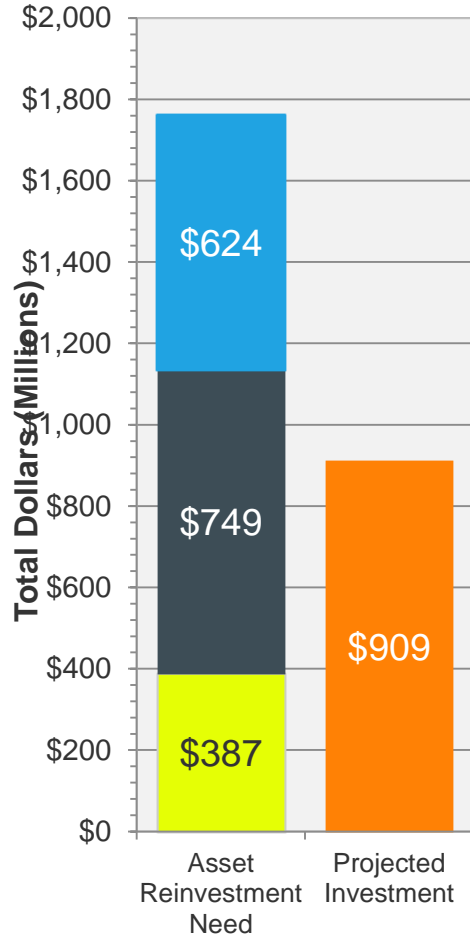


10 Year Capital Forecast

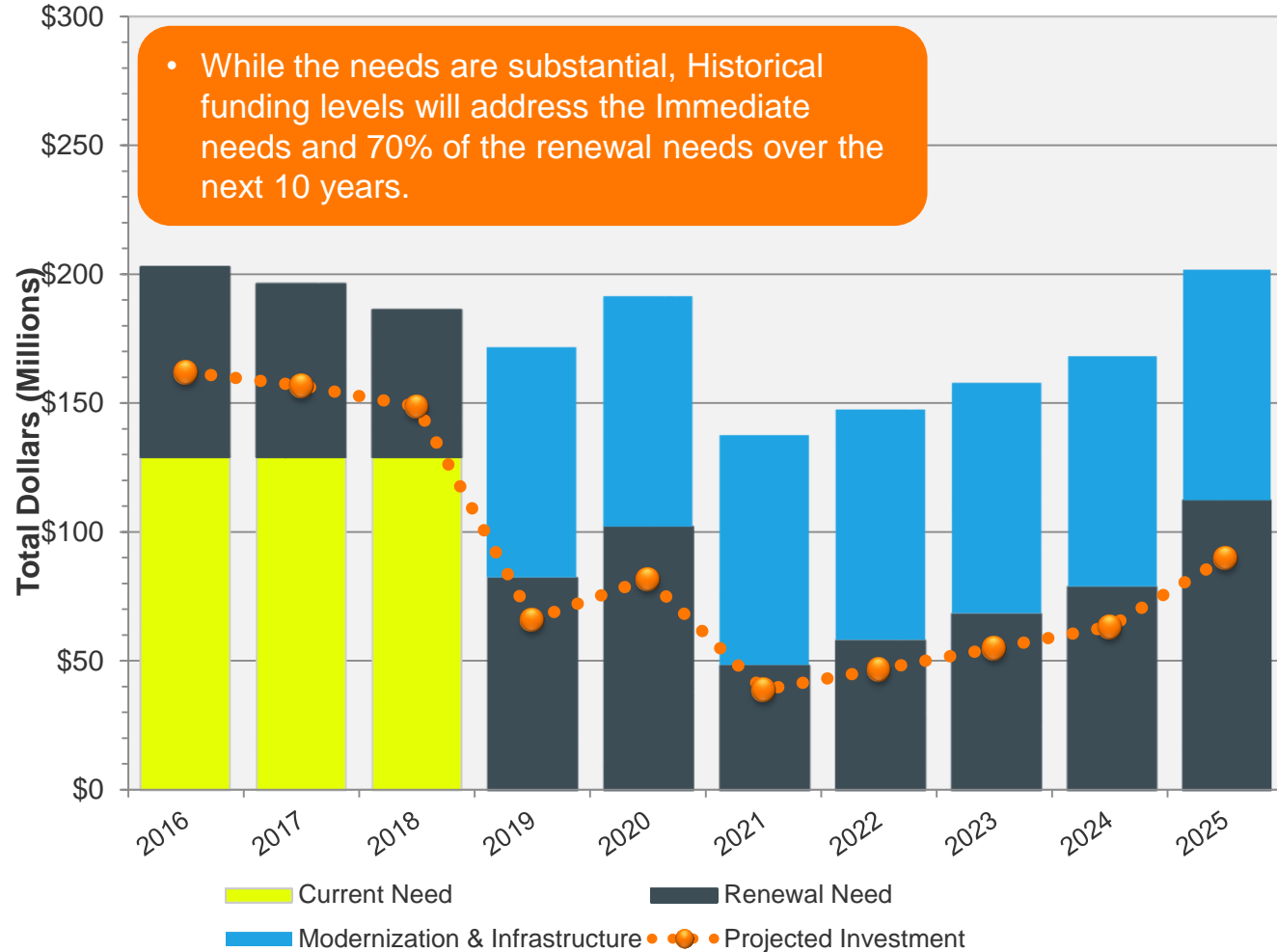


Prioritizing helps address highest risk needs

Asset Reinvestment
Need



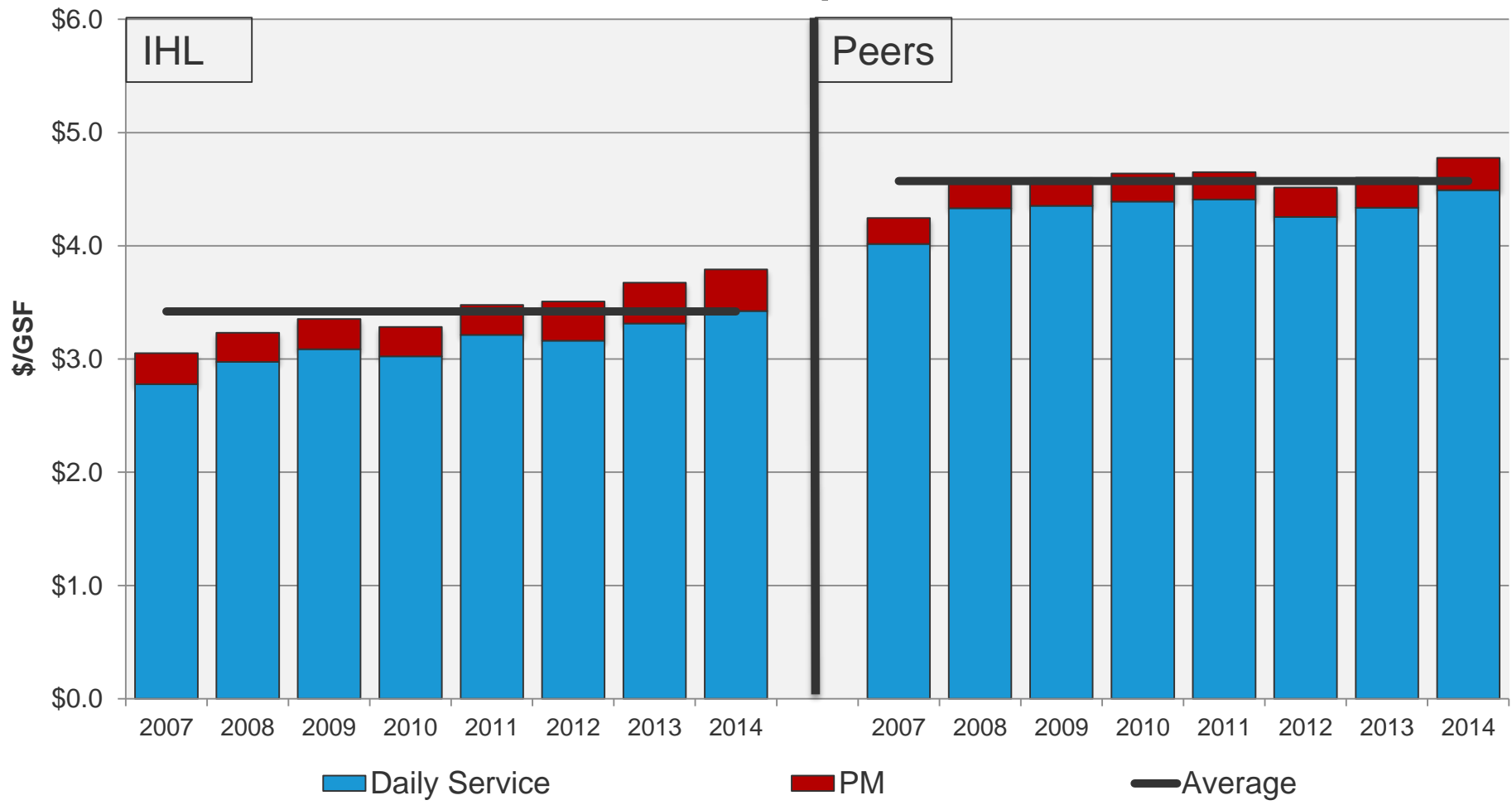
10 Year Capital Forecast



Operational Effectiveness –

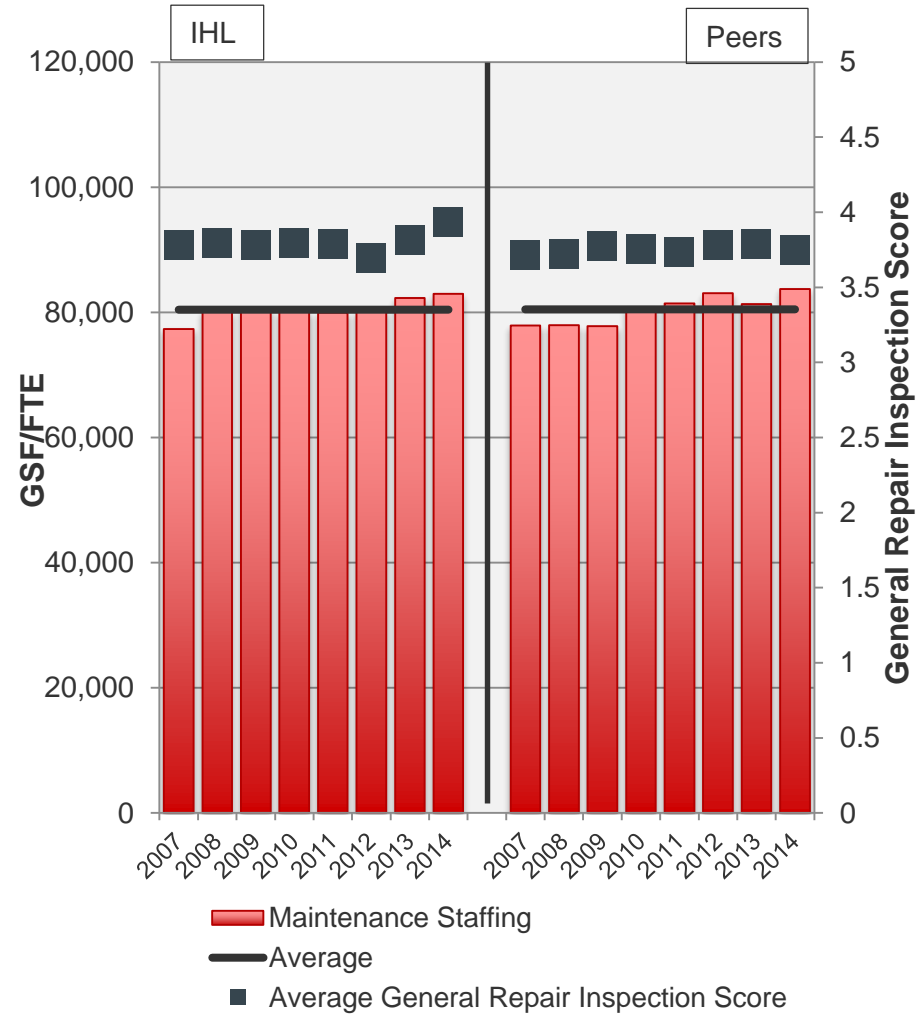
*Highlighting efficiencies that have been observed
over the last 3 years*

FY14 Actual Expenditures \$/GSF

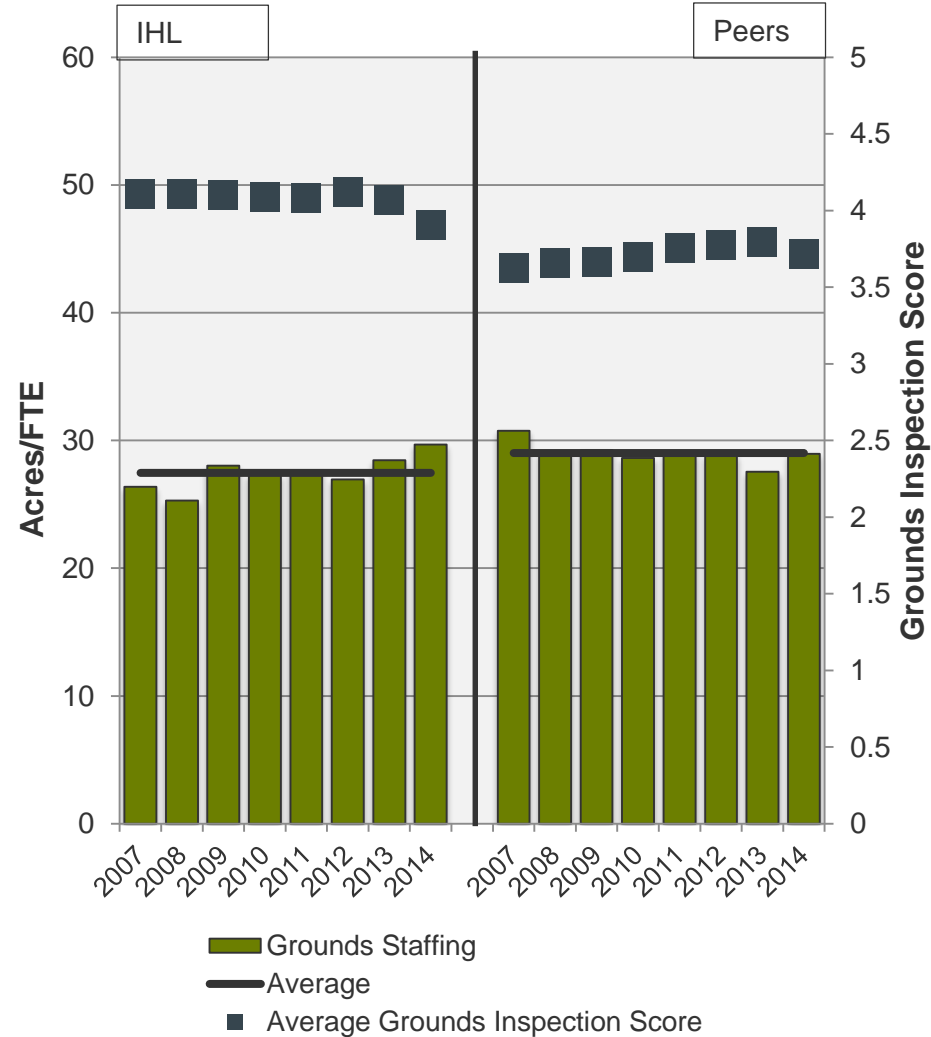


Operational Efficiencies Realized Since 2011

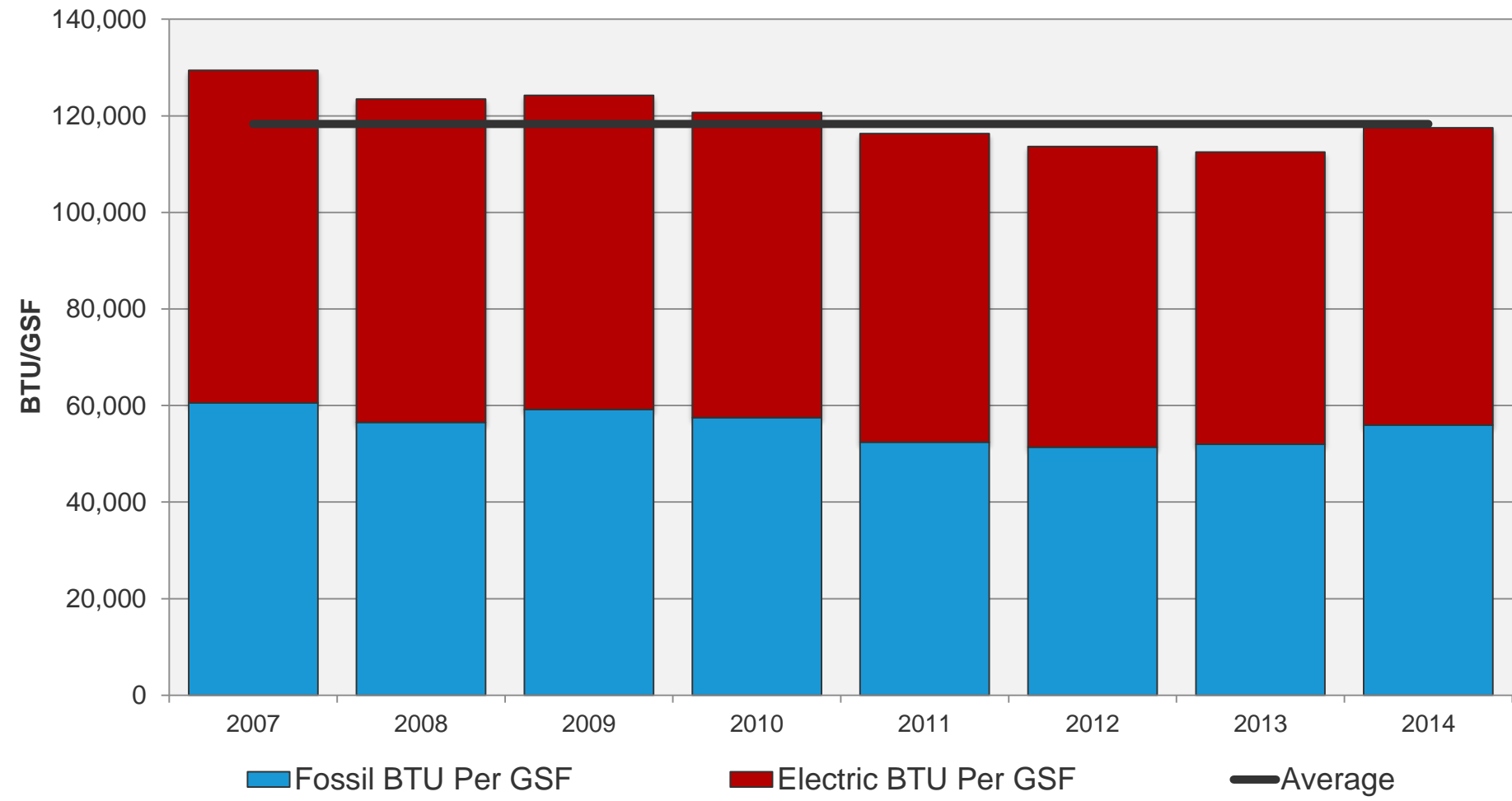
Maintenance Staffing



Grounds Staffing



Energy Consumption



- > **Variations in each campus' space profile require a customized approach to funding capital needs across the system. A successful approach will:**
 - > *Develop a “catch-up” strategy to address older campuses to address significant accumulated needs.*
 - > *Maintain and grow annual capital funding to younger campuses, slowing the growth of backlog.*
- > **Capital Renewal provides the IHL with a tool to help understand and effectively target future building needs**
- > **Project Selection will be crucial to maximizing the impact of the resources that the IHL campuses have.**
 - > *Target “high risk” immediate needs to minimize operational demands and service interruptions*
 - > *Develop portfolios of buildings to identify and potentially divest of non – core assets*

Questions & Discussion

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System Comparison Group

Connecticut State Colleges & Universities

Massachusetts State Colleges and Universities

Pennsylvania State System of Higher Education

Rutgers University Campuses

University of Alaska System

University of Maine System

University of Massachusetts System

University of Missouri System

University System of New Hampshire

West Virginia Higher Education Policy Commission

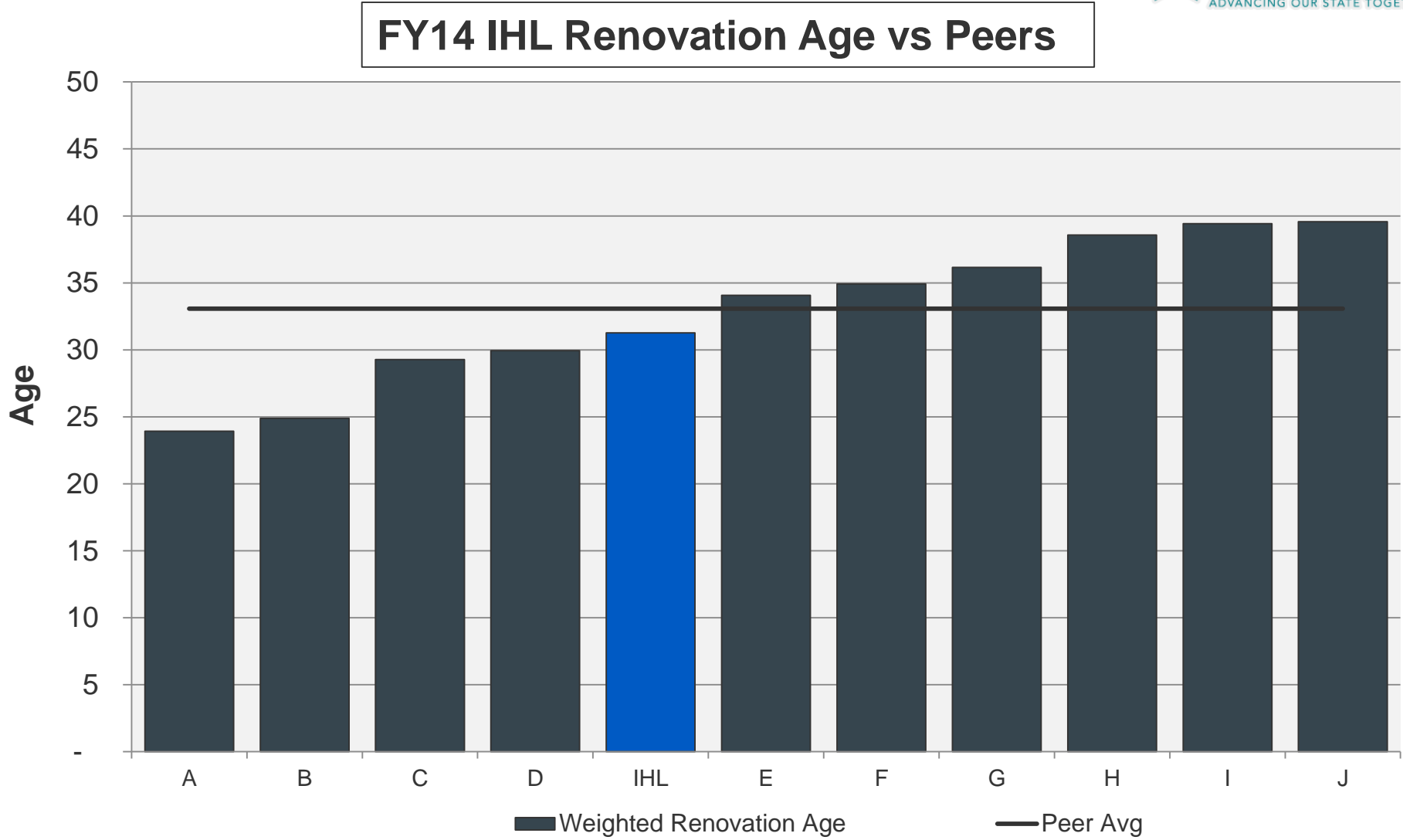


Comparative Considerations

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

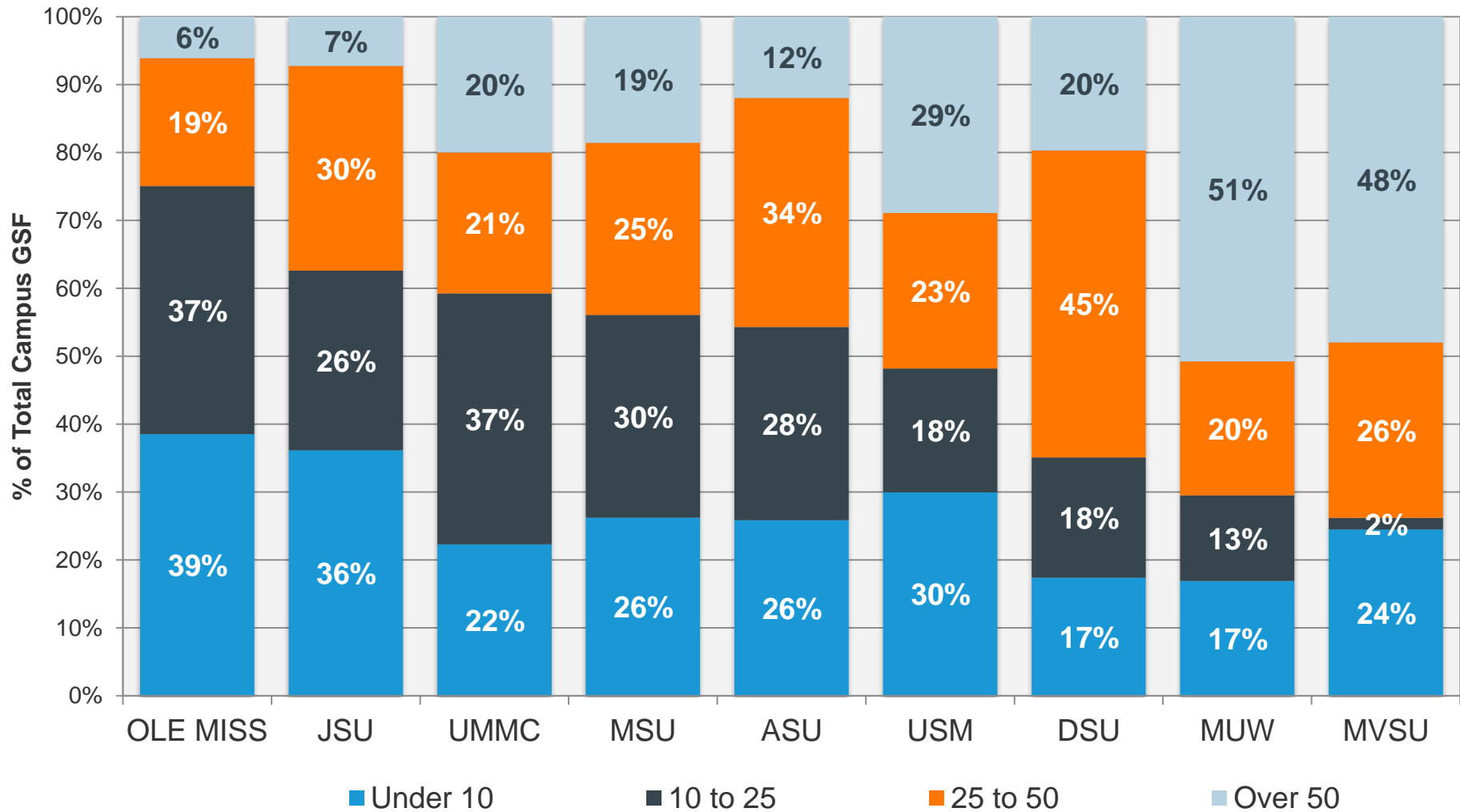
Appendix #1: Space Profile

IHL slightly younger than peers



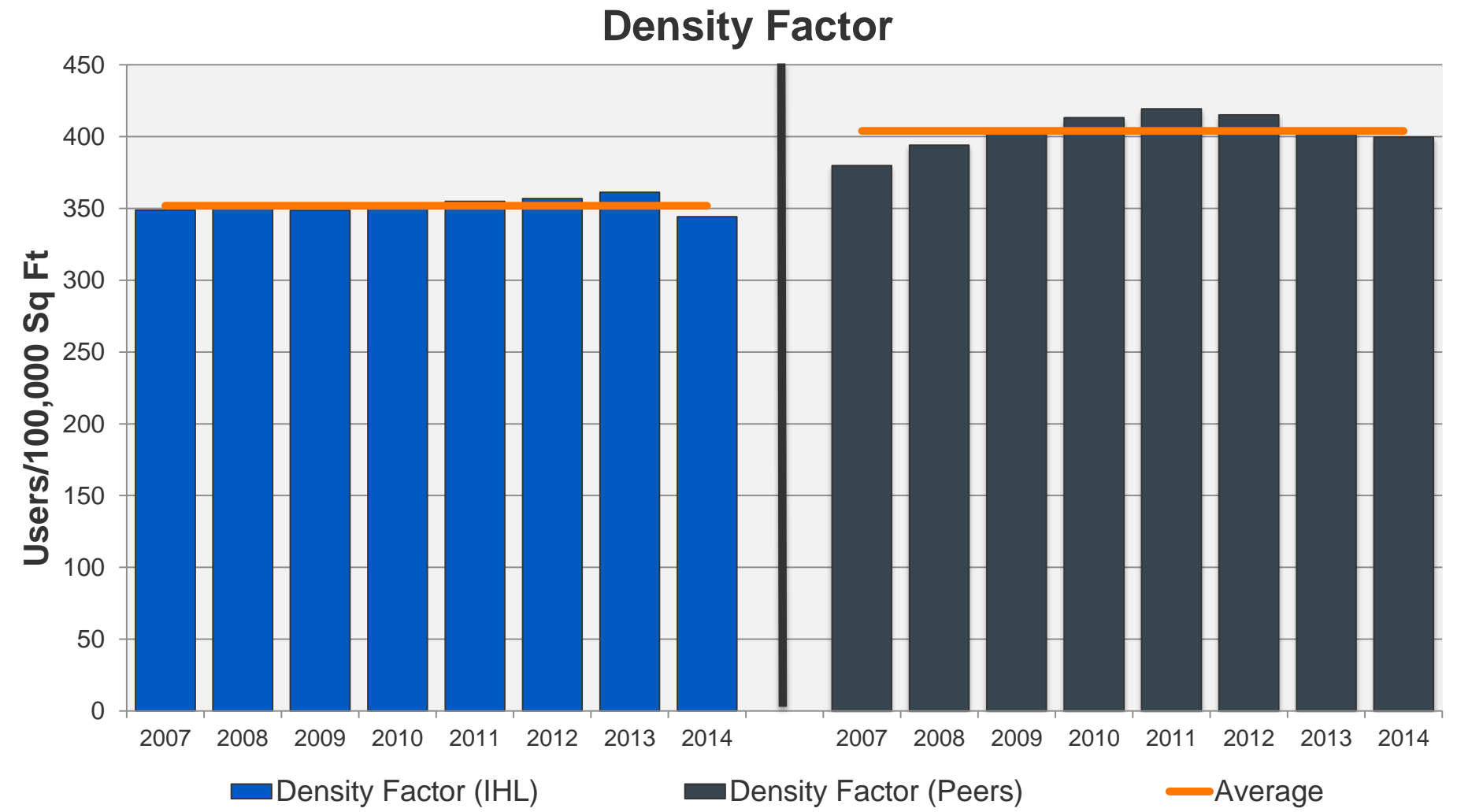
Campus Age Profile

Campus Age by Category



***Ordered by increasing space over 25*

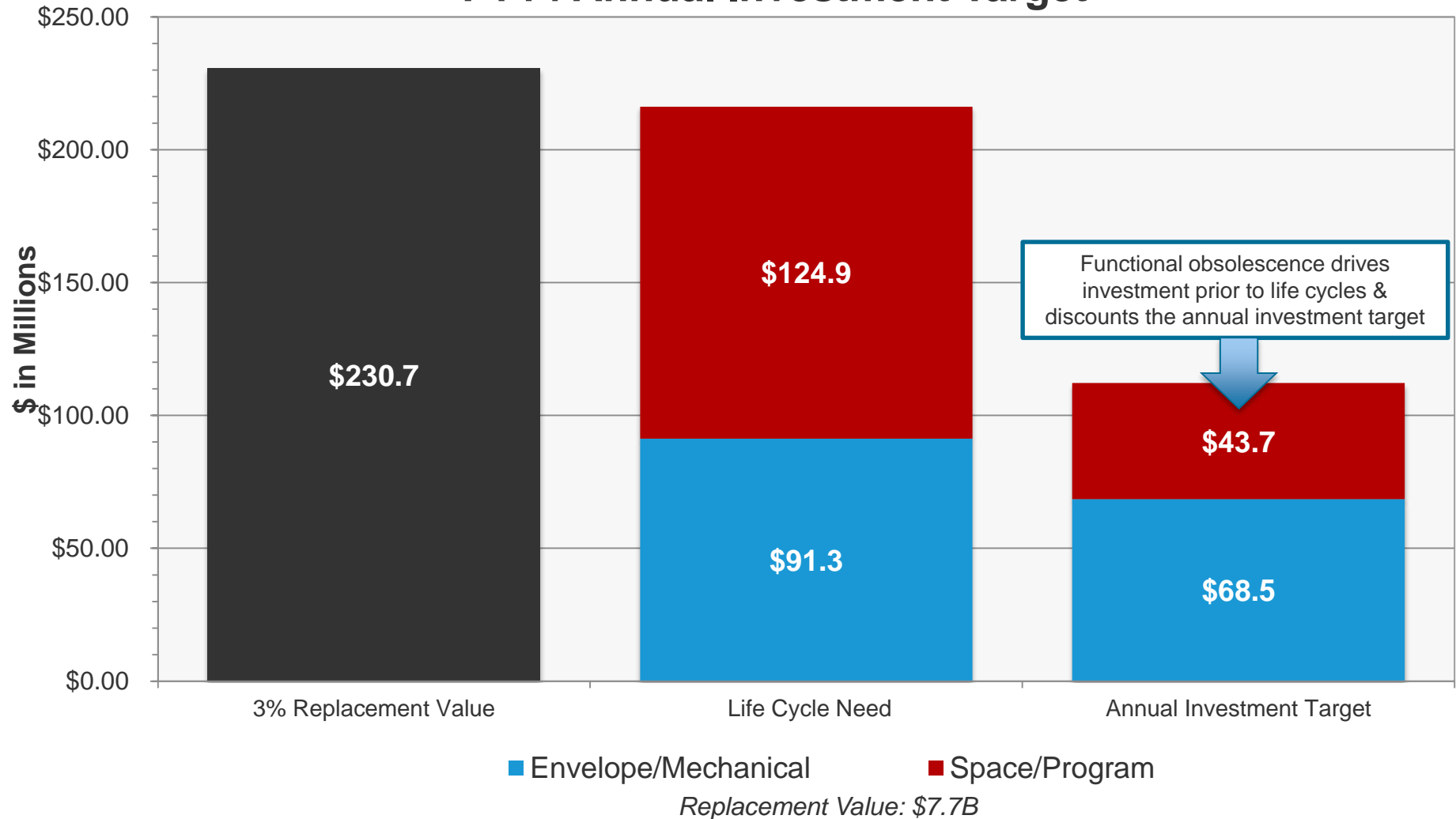
IHL less dense than peers



Appendix #2: Capital and Backlog

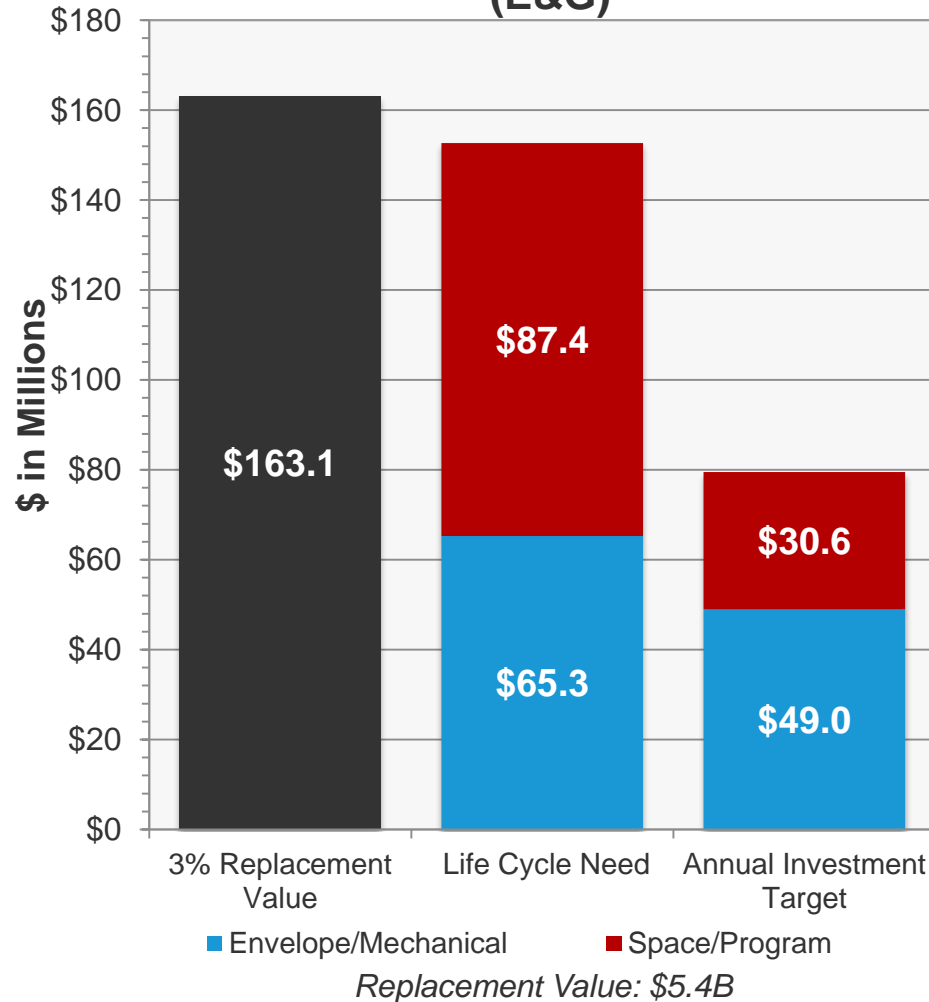
Defining an Annual Investment Target

FY14 Annual Investment Target

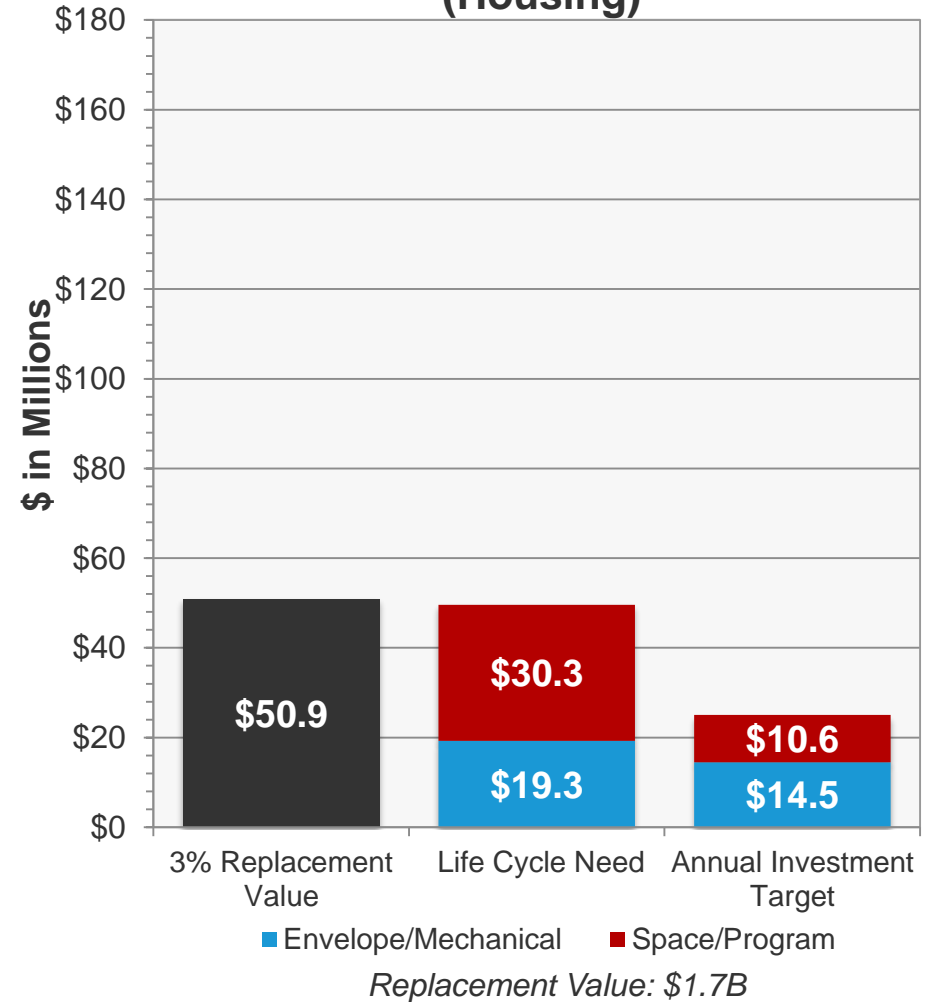


Defining an Annual Investment Target

FY14 Annual Investment Target (E&G)

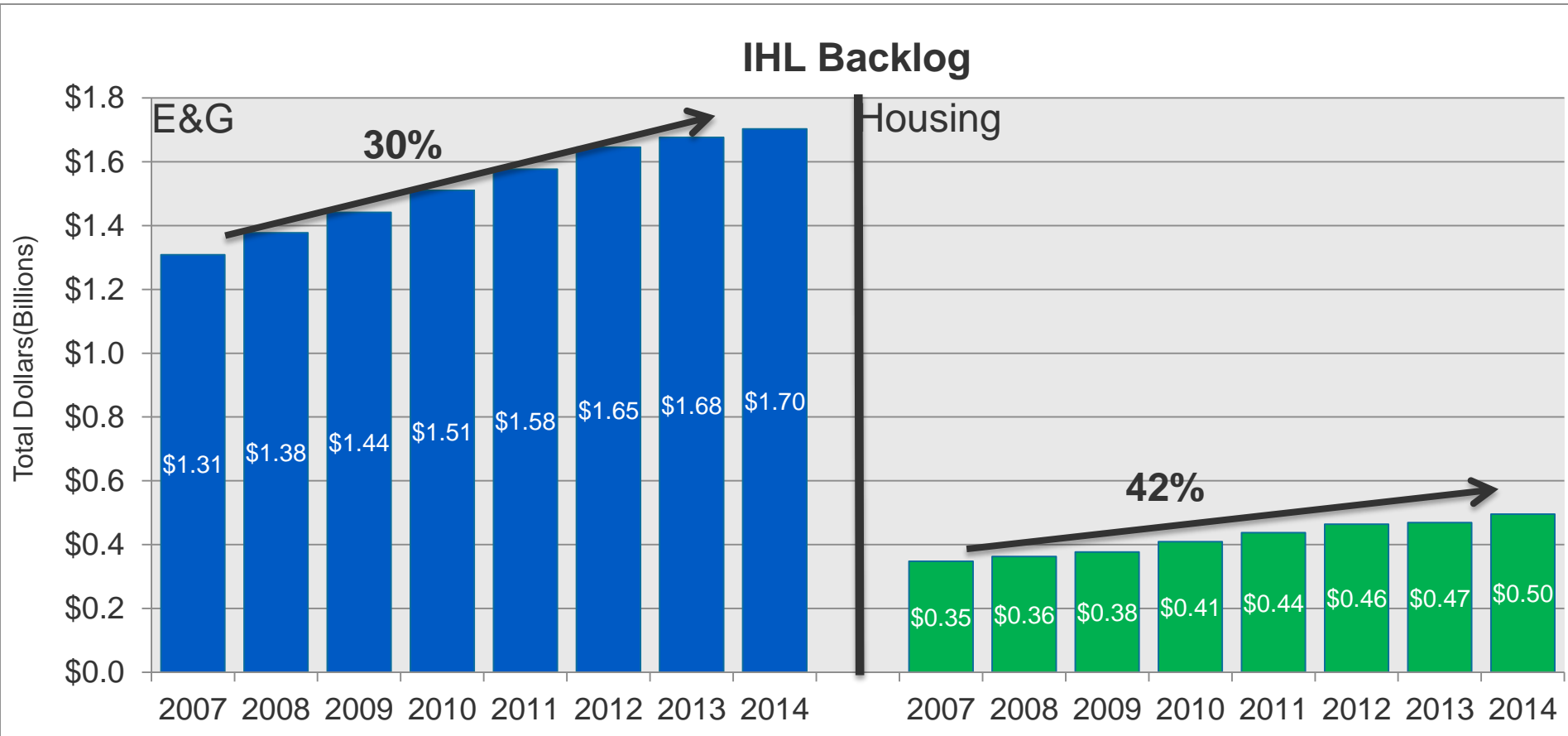


FY14 Annual Investment Target (Housing)



Significant Growth in Total Backlog

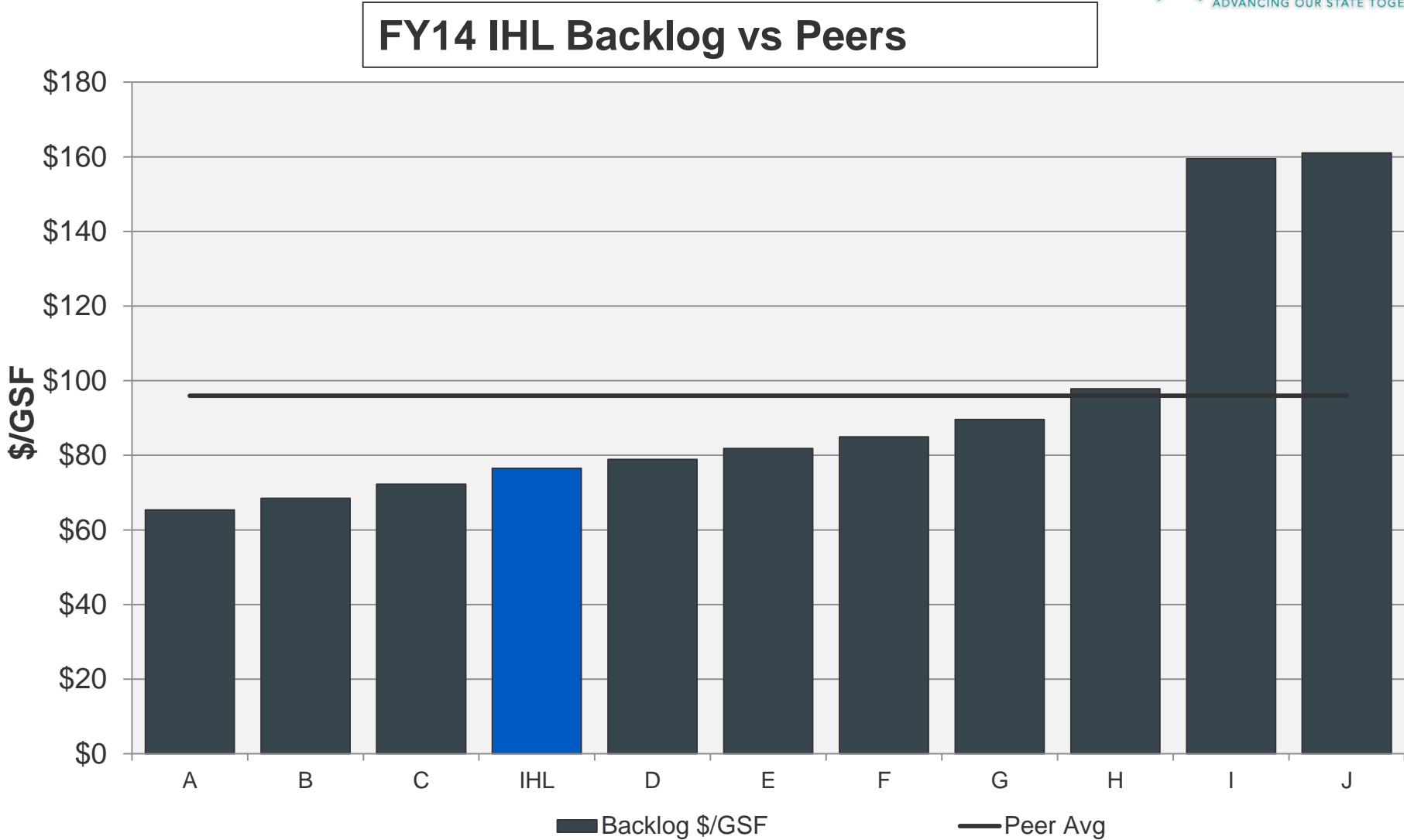
IHL E&G backlog over \$1 billion and is growing



\$/GSF	\$74	\$74	\$77	\$81	\$84	\$86	\$87	\$89
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\$60	\$64	\$67	\$64	\$68	\$75	\$75	\$81
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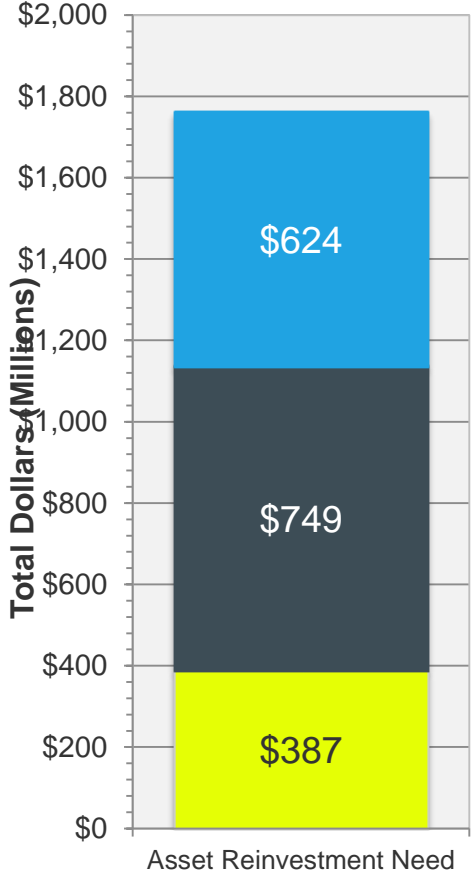
IHL backlog less than peers



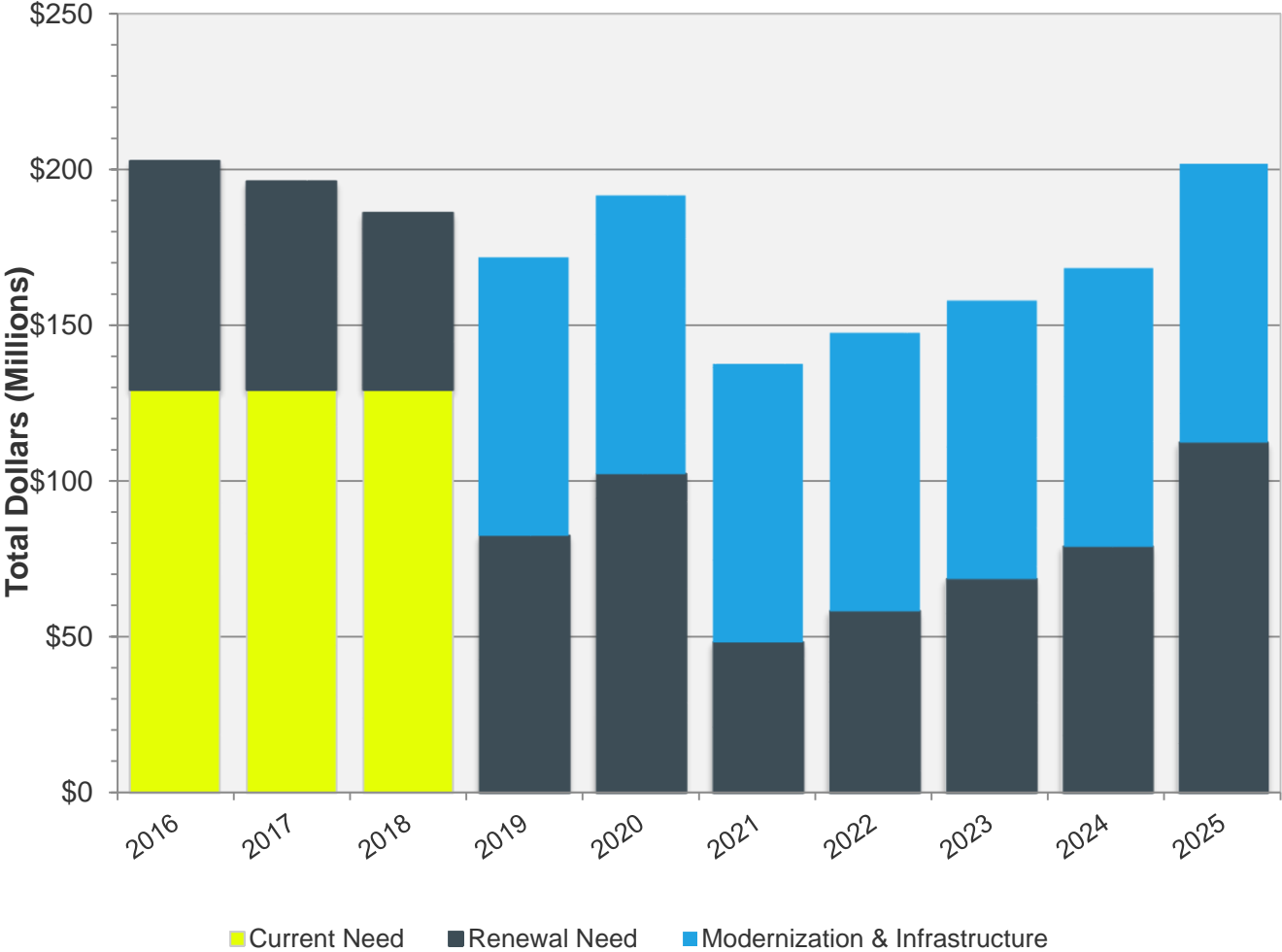
Appendix #3: Capital Renewal

Capital Renewal: Predictive Investment Model

Asset Reinvestment
Need



10 Year Capital Forecast

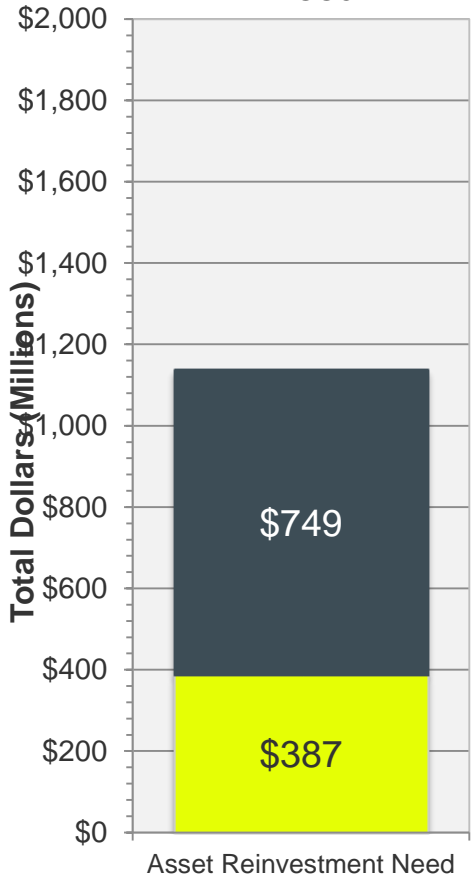


■ Current Need ■ Renewal Need ■ Modernization & Infrastructure

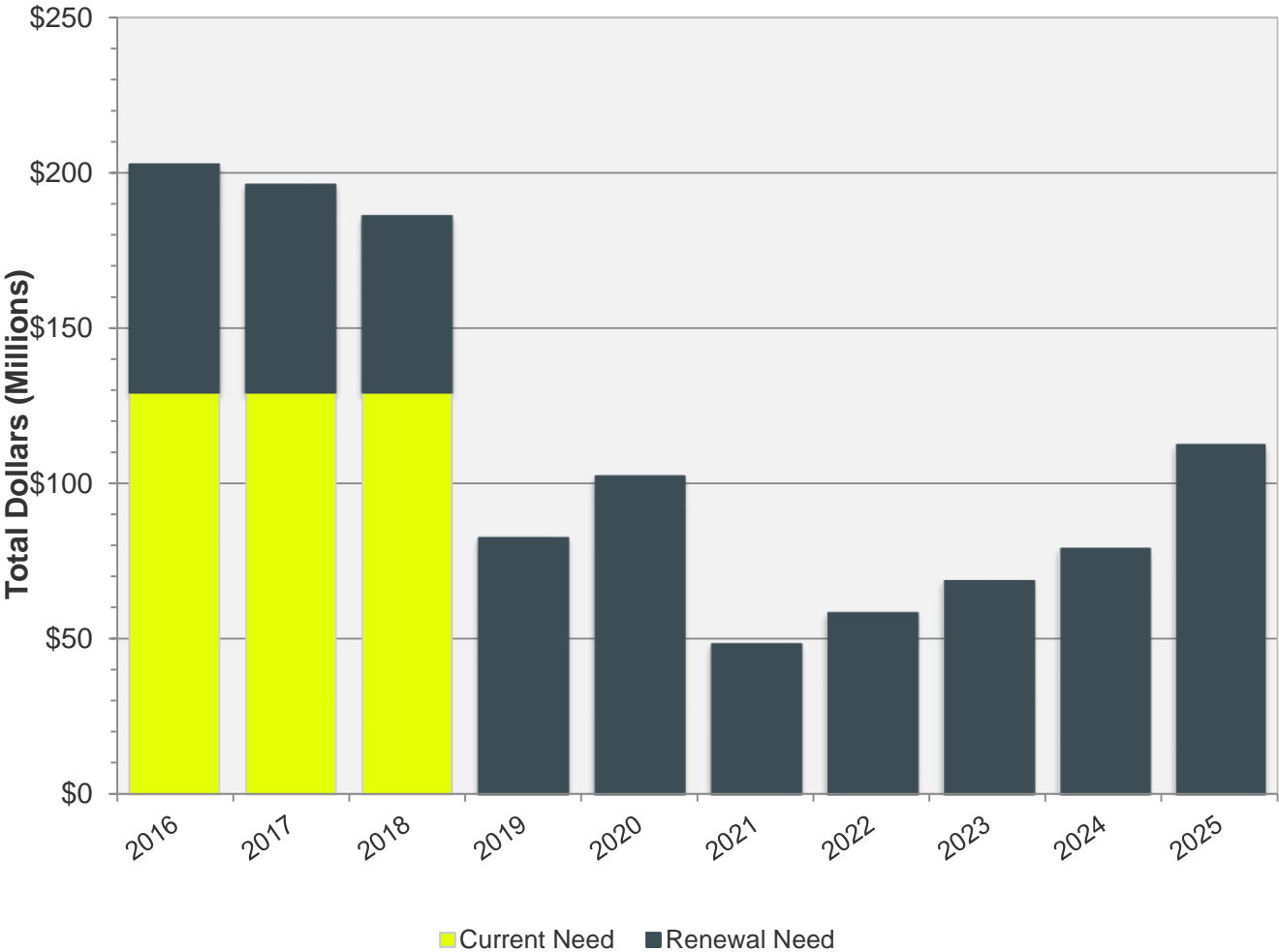
Capital Renewal: Predictive Investment Model



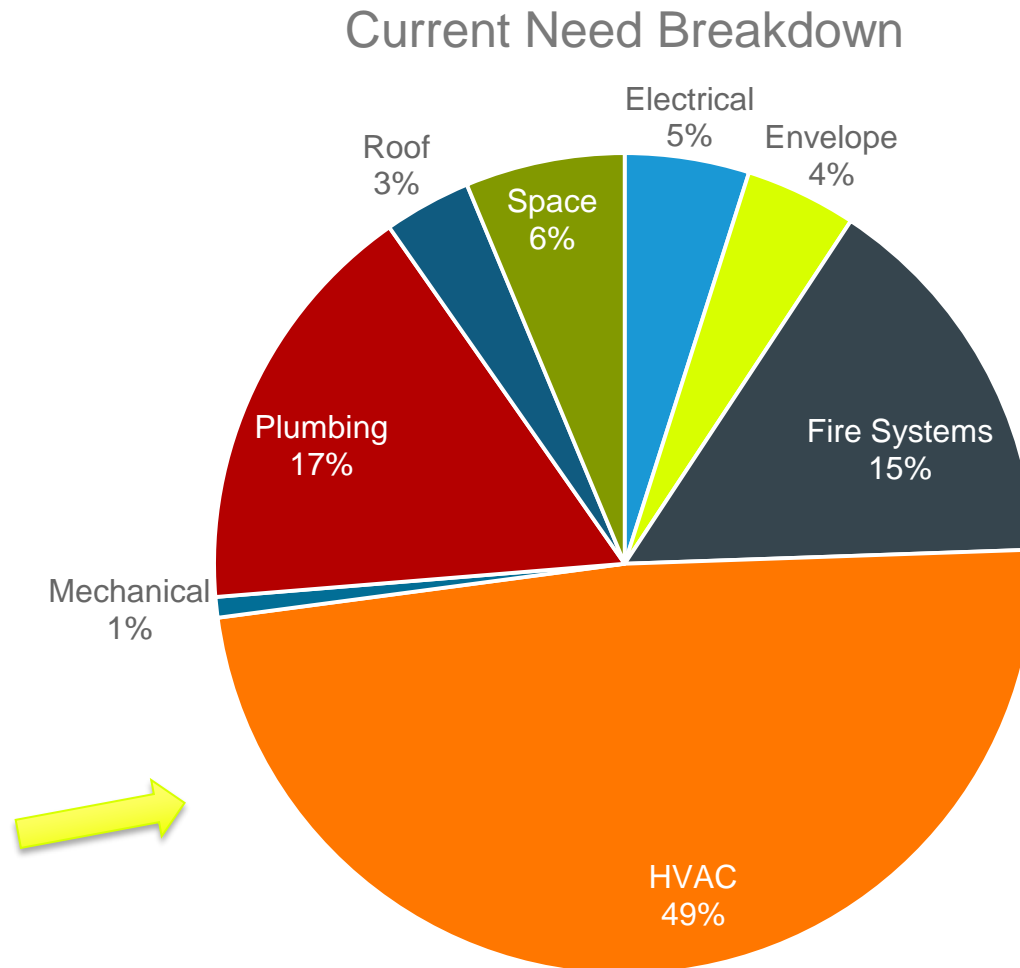
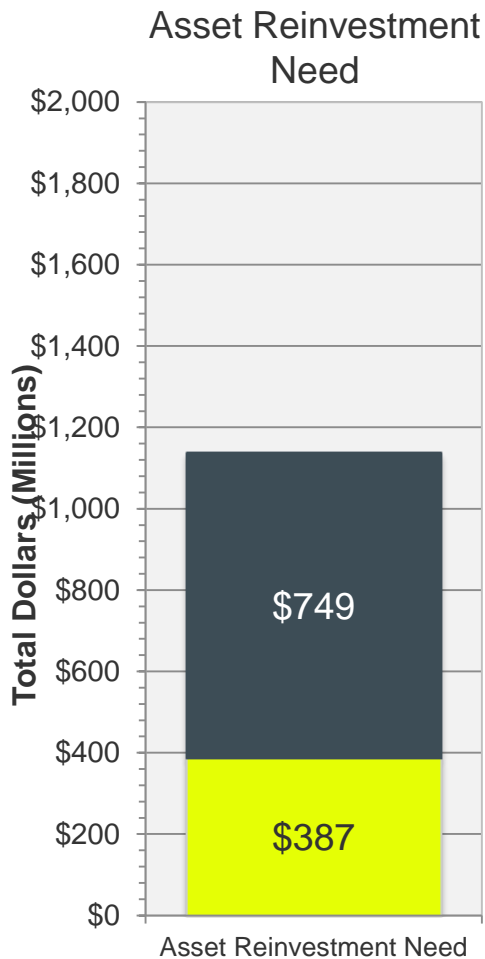
Asset Reinvestment
Need



10 Year Capital Forecast

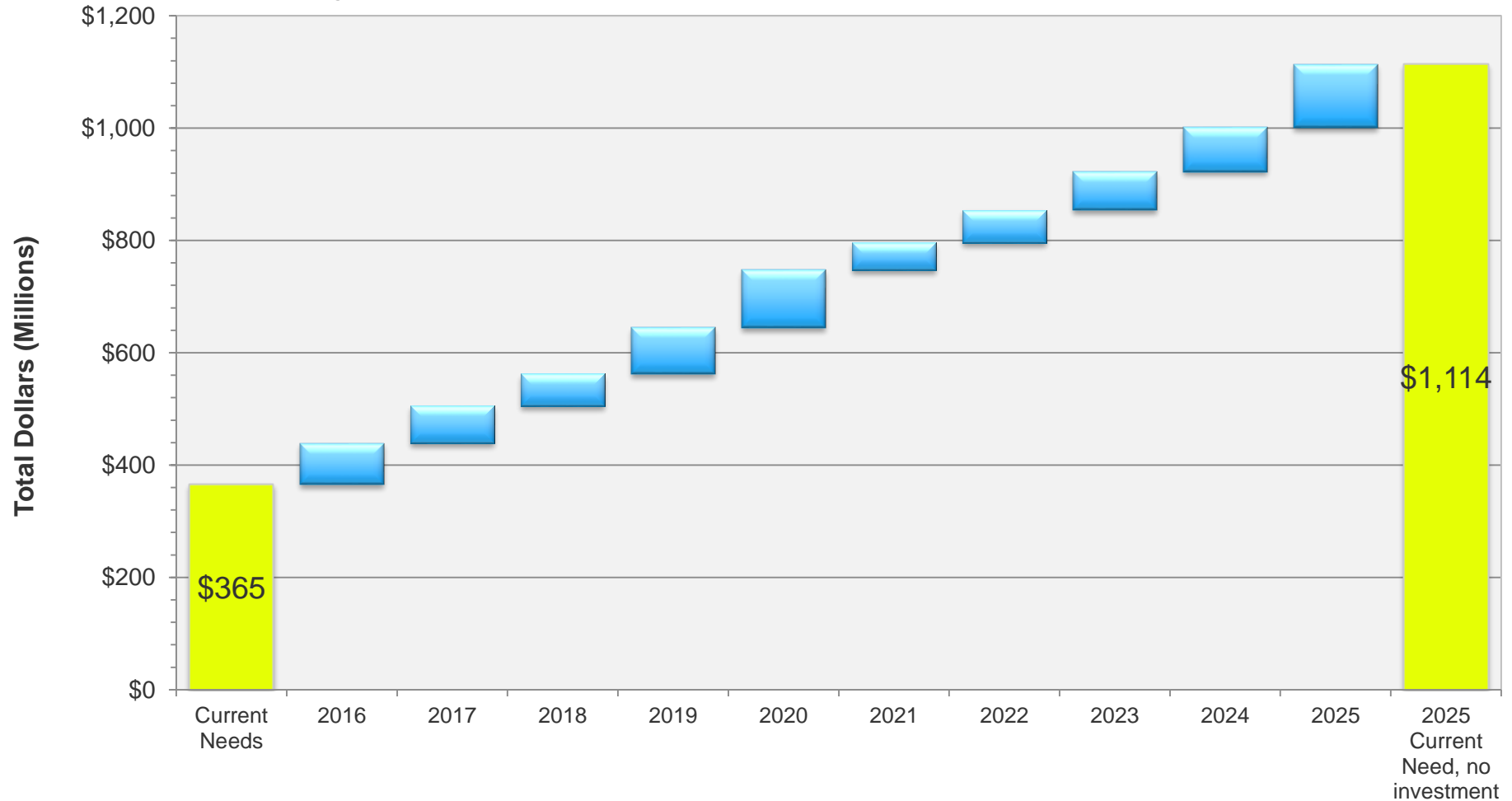


Capital Renewal: Predictive Investment Model



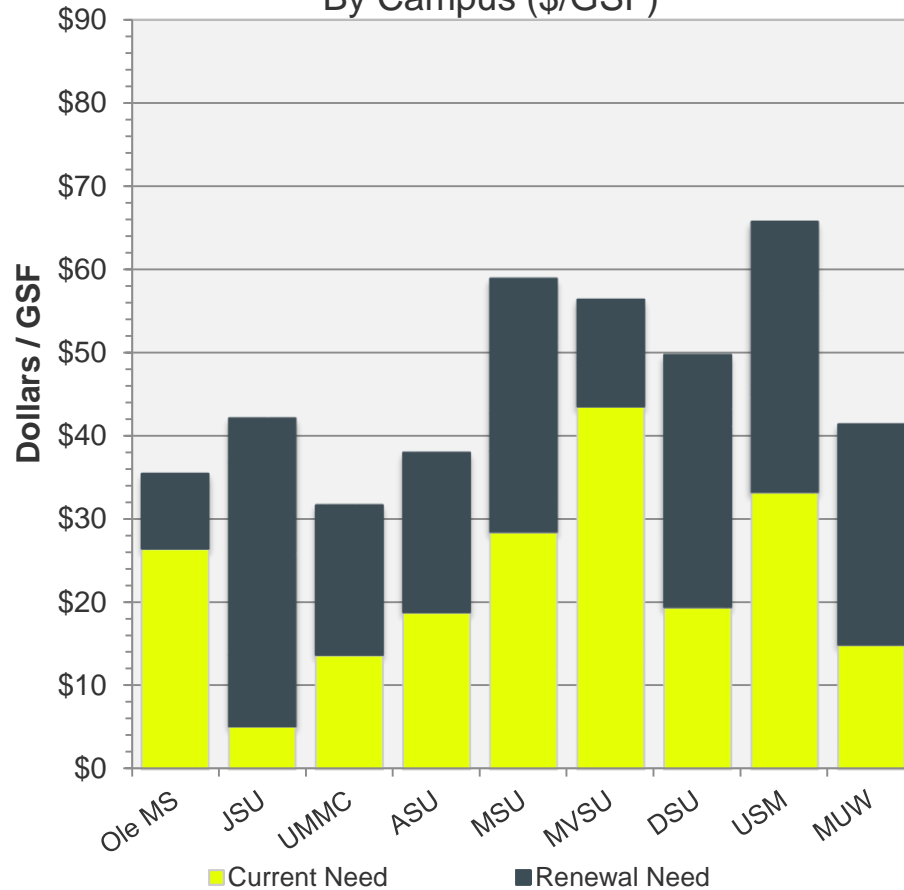
Potential for Significant Growth

Projected Growth of Current Need with No Investment

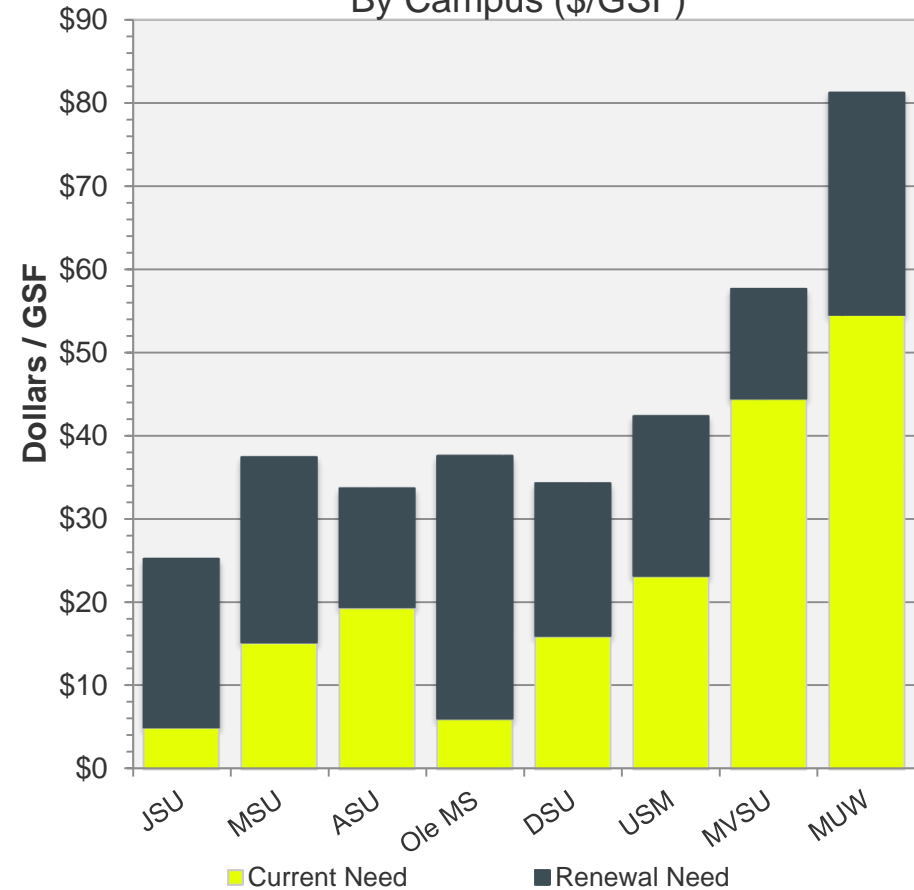


MS IHL 10 Year Needs By Campus

E&G 10 Year Investment Model
By Campus (\$/GSF)



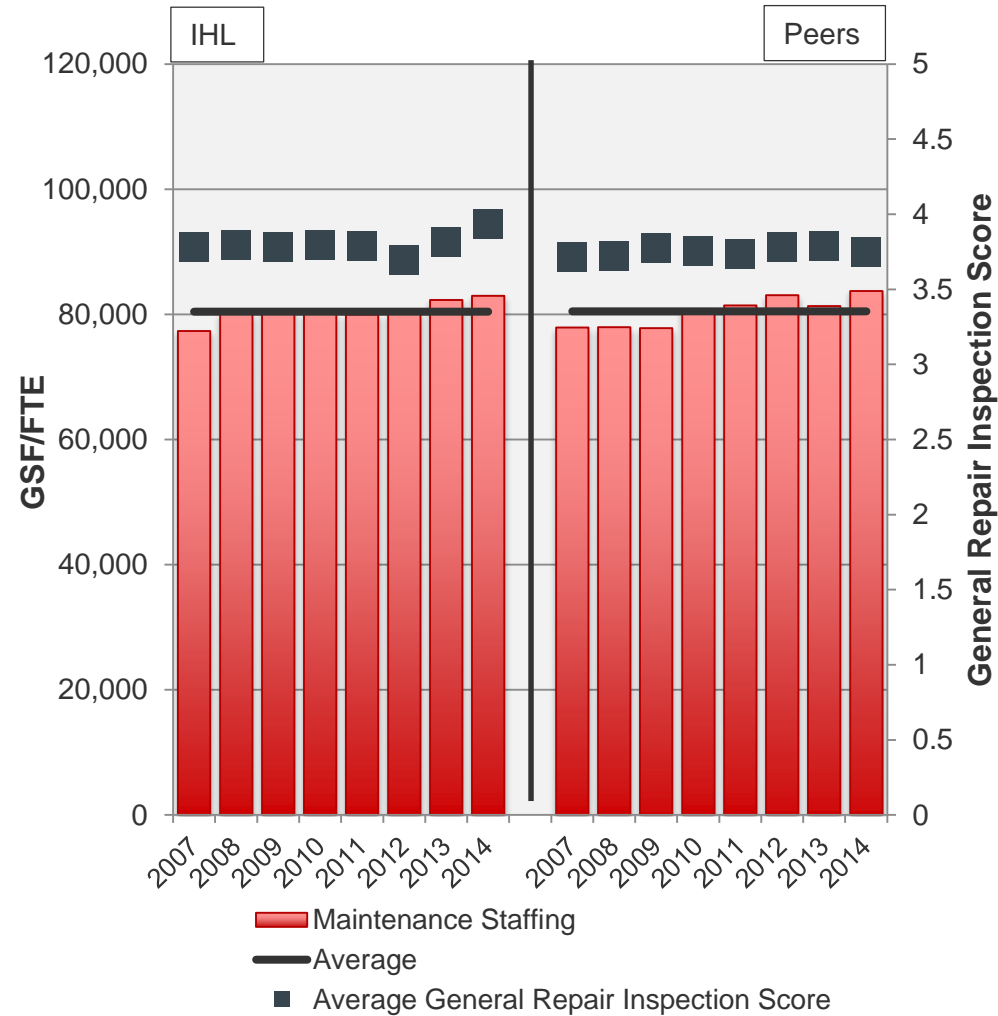
Housing 10 Year Investment Model
By Campus (\$/GSF)



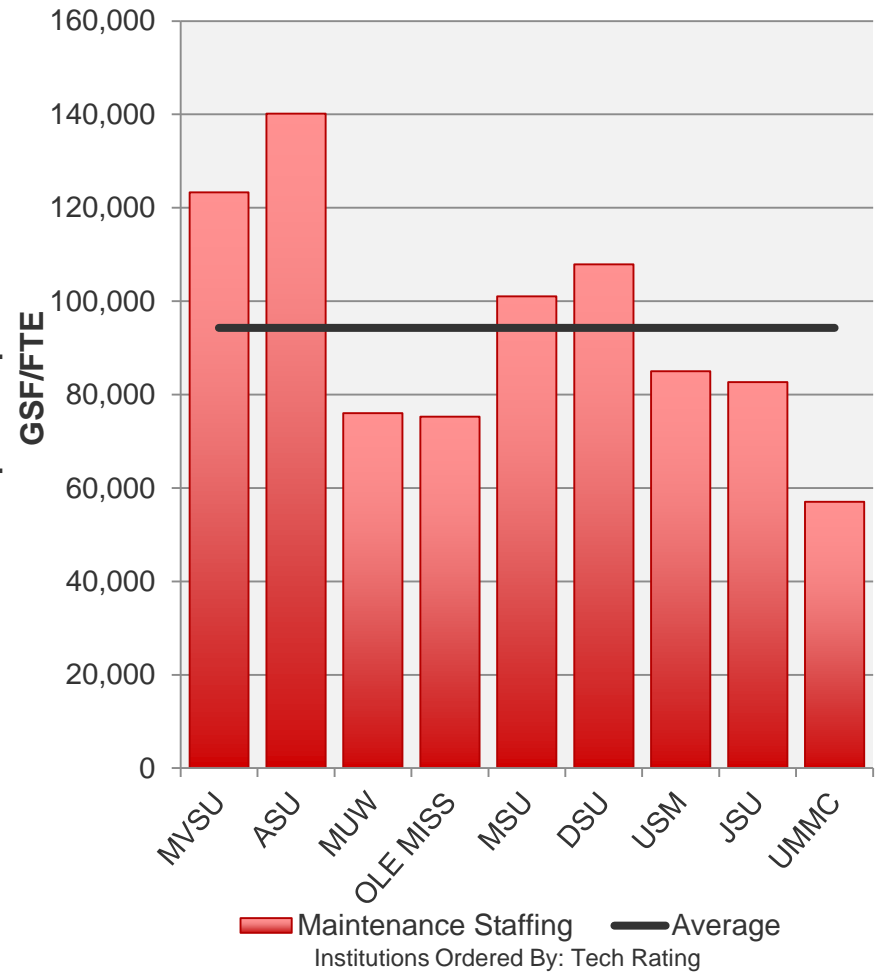
Arrayed in increasing age →

Appendix #4: Operations

Maintenance Staffing

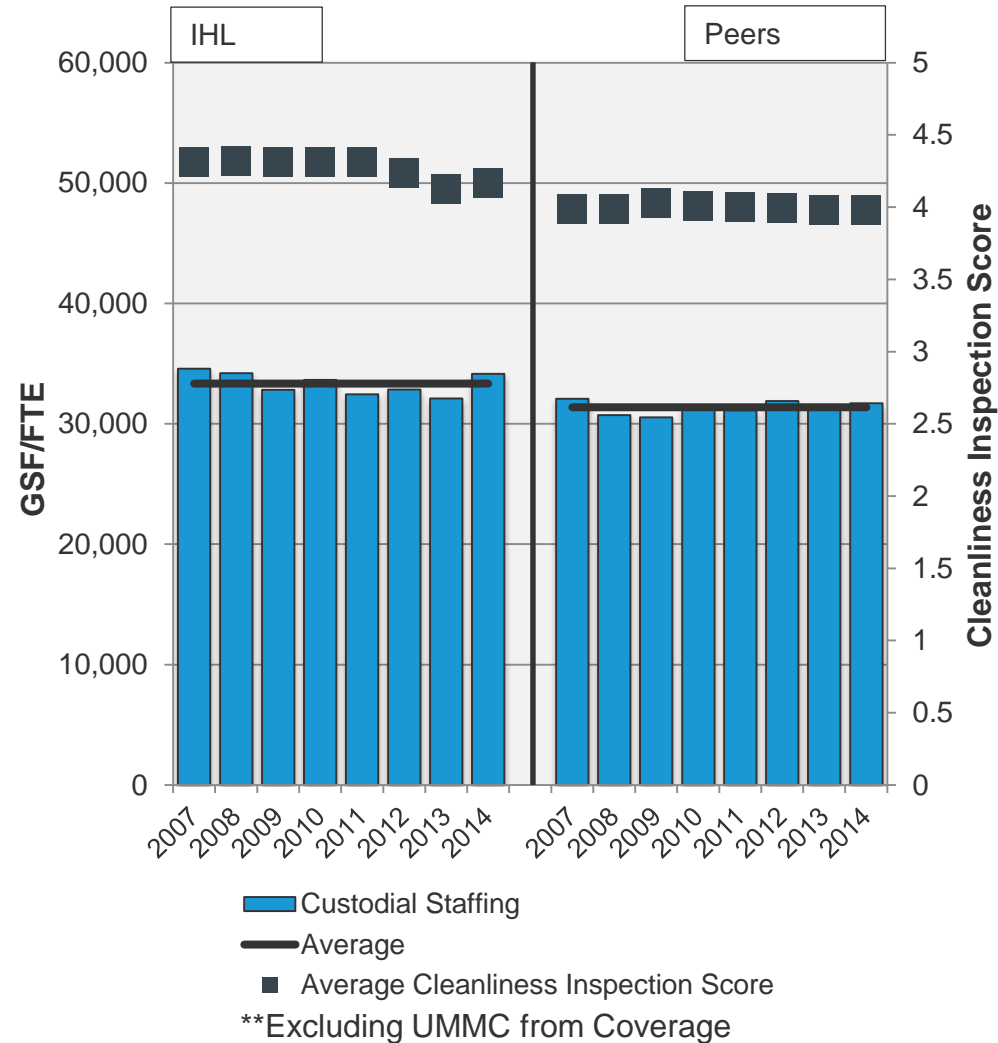


Maintenance Staffing FY14

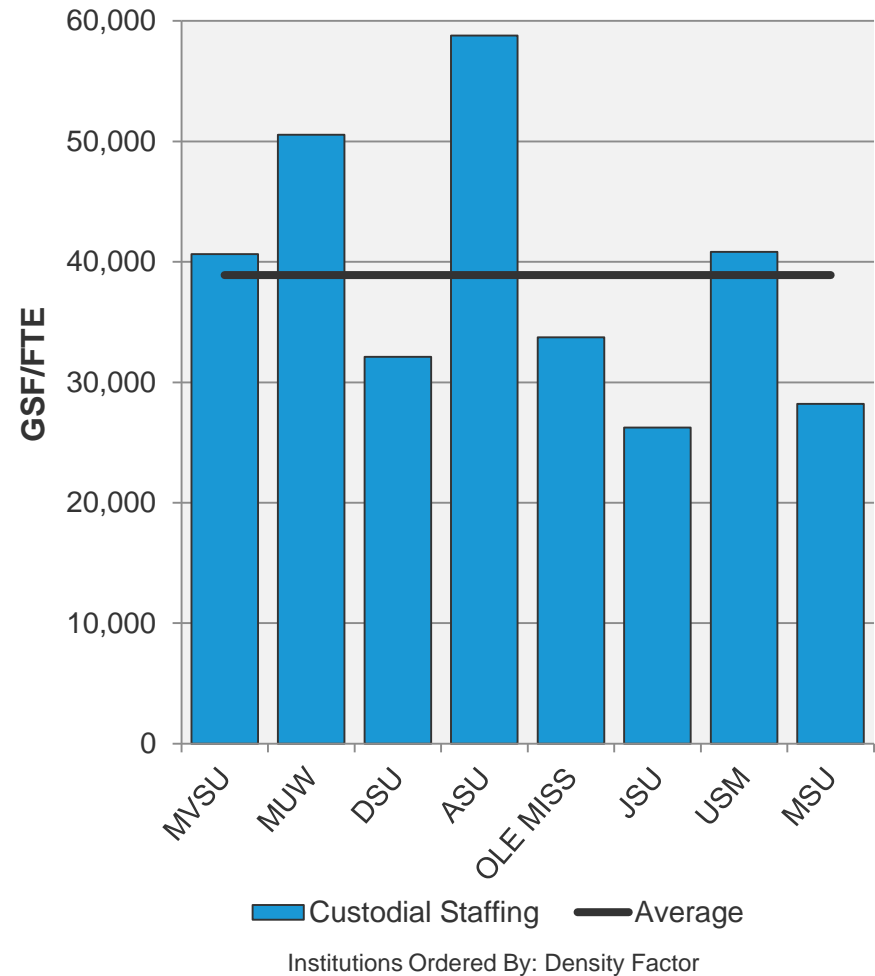


Custodial Coverage

Custodial Staffing

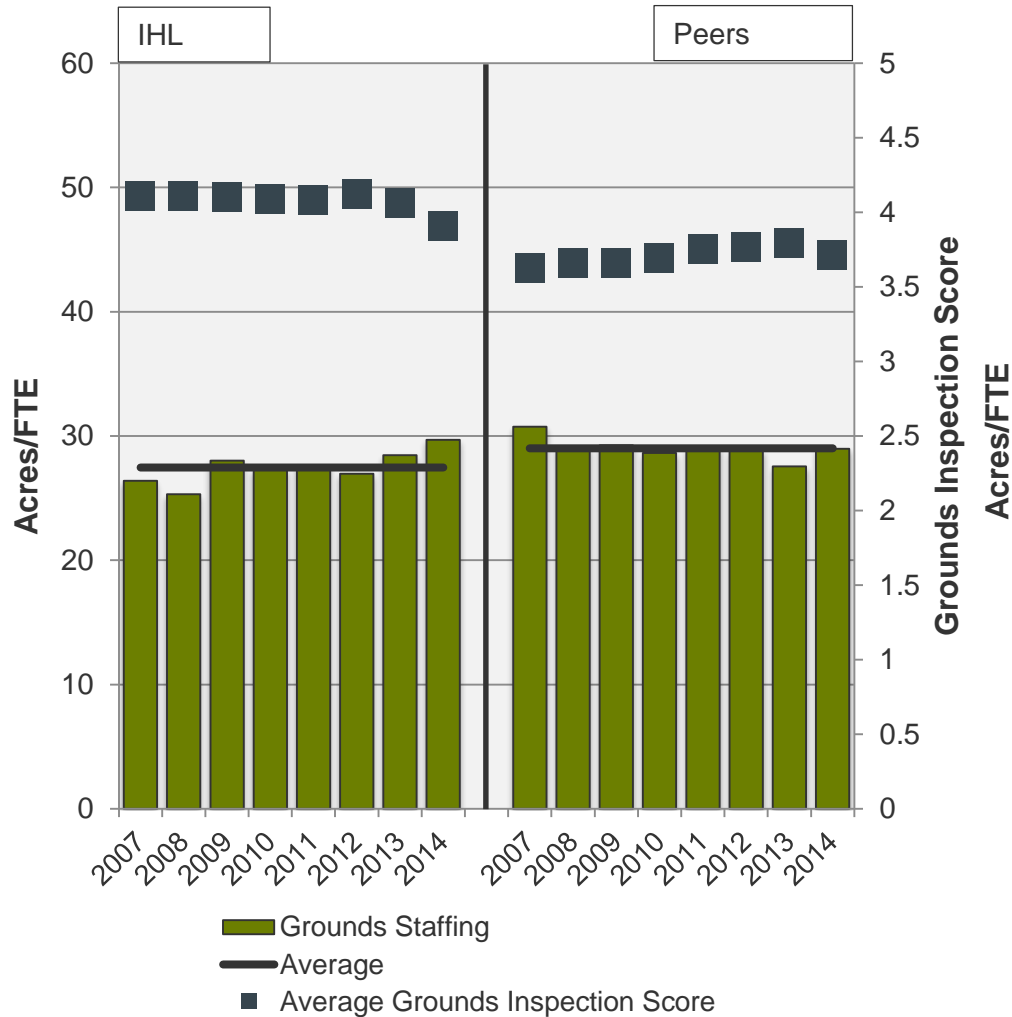


Custodial Staffing FY14

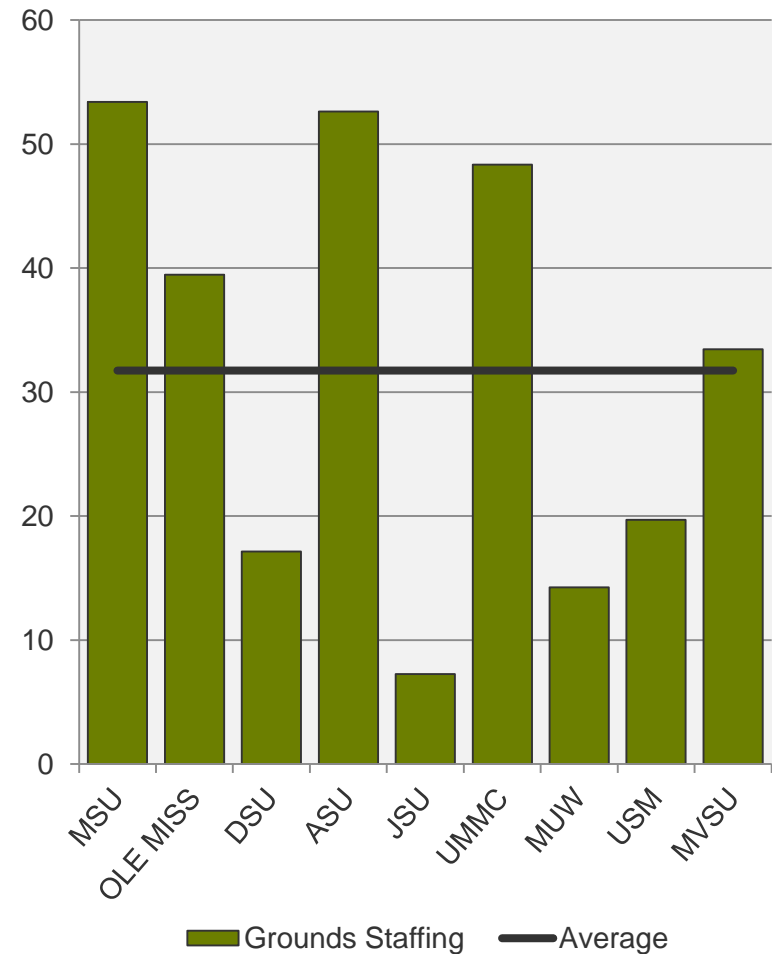


Grounds Coverage

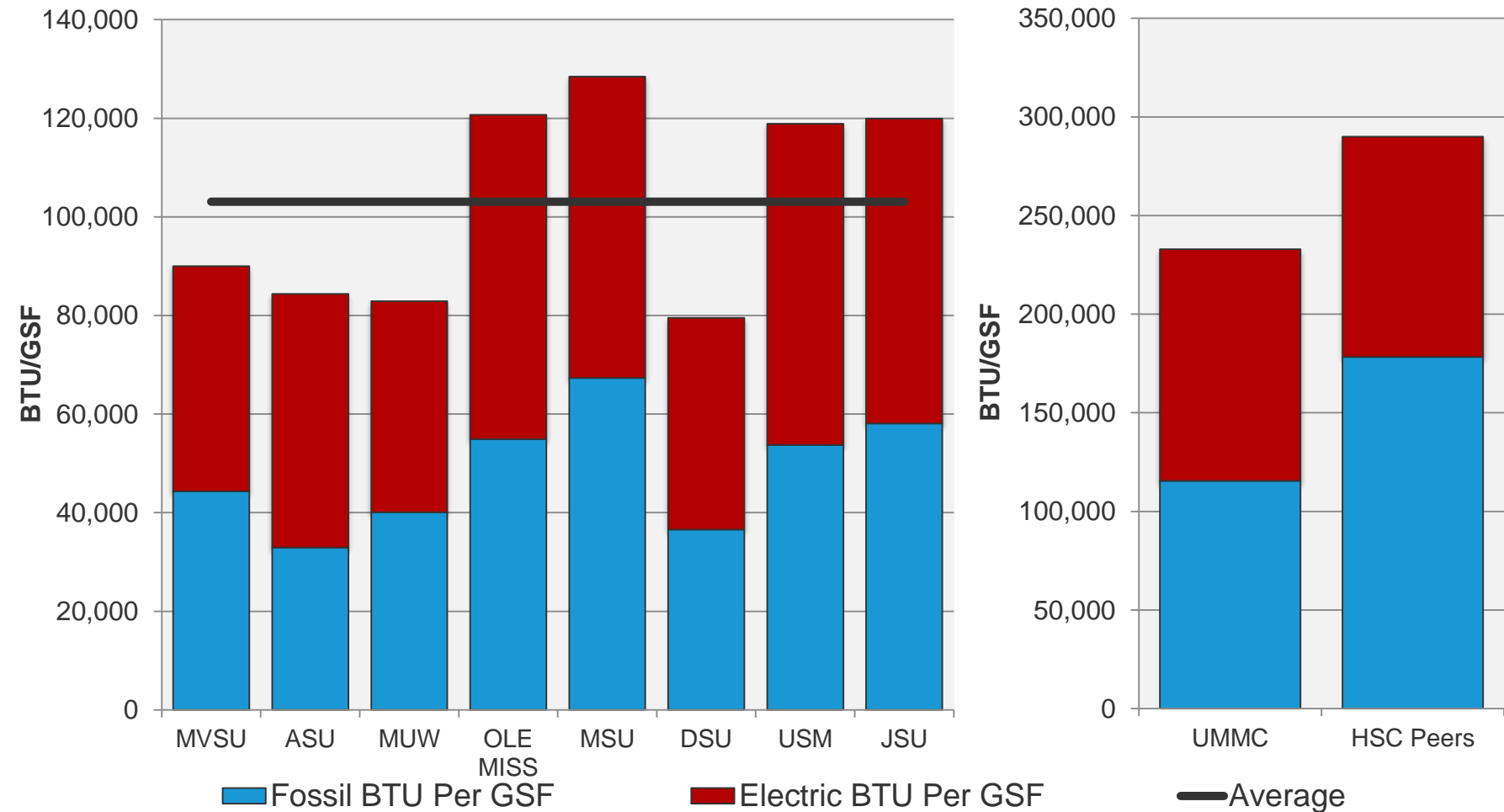
Grounds Staffing



Grounds Staffing FY14



Energy Consumption



**Ordered by Technical complexity