

Xavier University
Yale University
Yeshiva University

FY15 Analysis

Champlain College

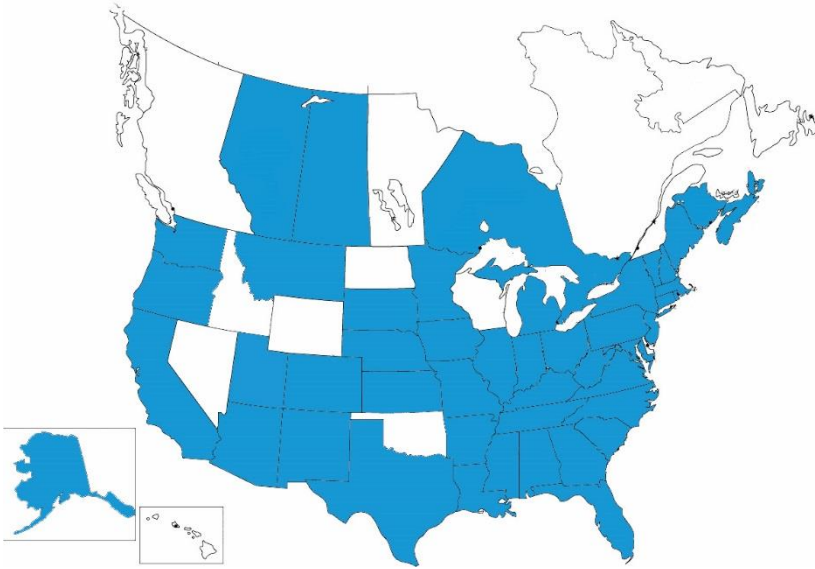
Presented by: Dan Willman and Josh Vidro



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***
- **34 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 2015 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 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

Defining Champlain's Carbon Footprint



Scope 1 – Direct GHGs

- On-Campus Stationary Combustion (Natural Gas)
- Vehicle Fleet Fuel
- Refrigerants

Scope 2 – Upstream GHGs

- Purchased Electricity

Scope 3 – Indirect GHGs

- Faculty/Staff/ Student Commuting
- Directly Financed Air Travel
- Study Abroad
- Solid Waste
- Paper
- Transmission & Distribution Losses

Increasingly Difficult to Control and/or Mitigate

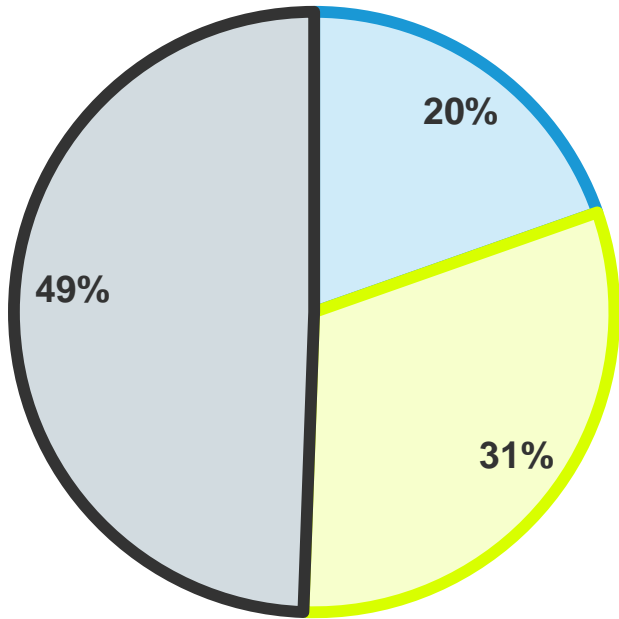
Emissions sources are only for institutionally owned facilities and does not include leased space like Spinner, Sears Lane, etc.

Distribution of GHGs by Scope and Source



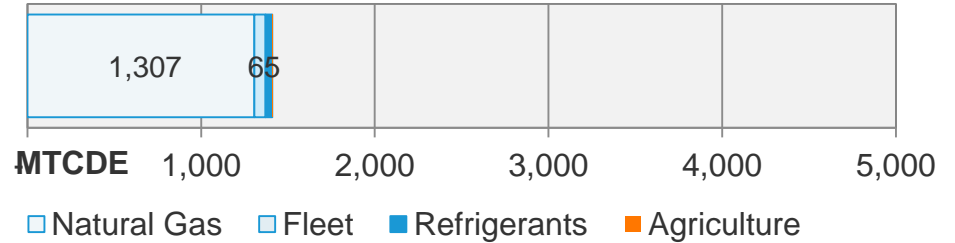
Challenging profile given lack of direct control over most GHGs sources

Champlain's FY15 Emissions by Scope

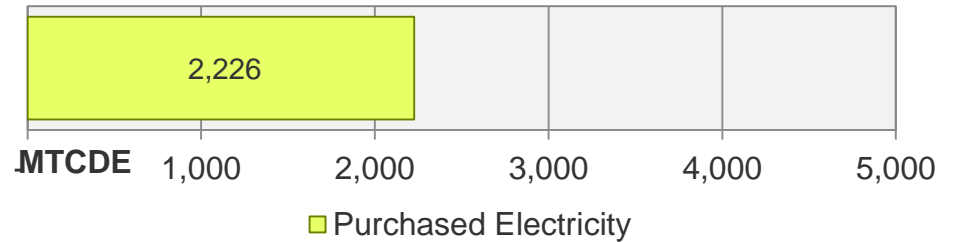


■ Scope 1
 ■ Scope 2
 ■ Scope 3

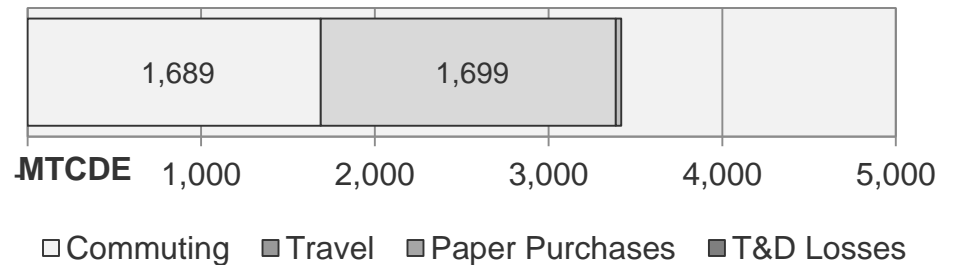
Scope 1 Sources



Scope 2 Sources



Scope 3 Sources

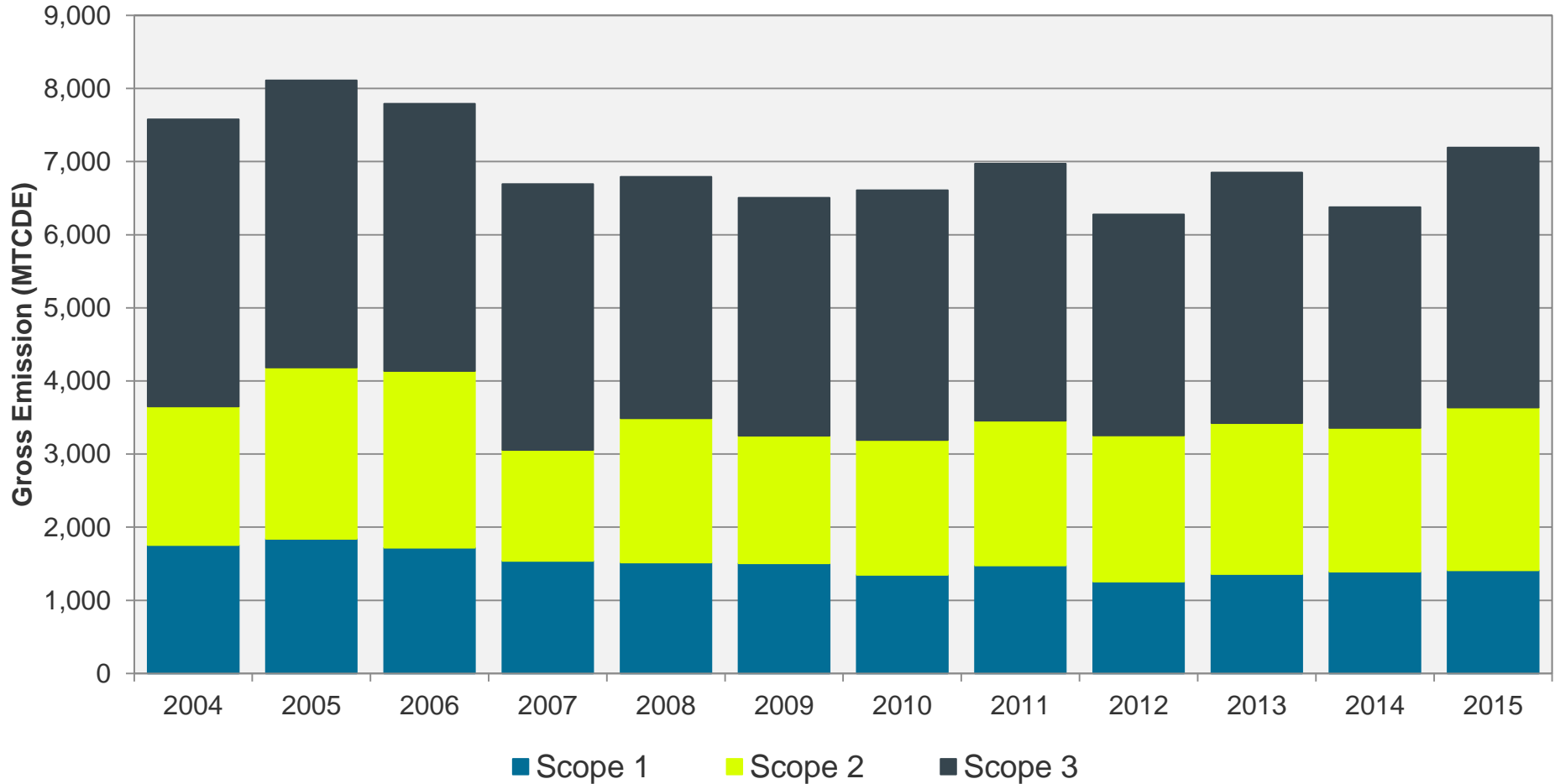


Emissions totals are only for institutionally owned facilities and do not include leased space like Spinner, Quarry Hill, Sears St., etc.

Champlain's GHG Inventory 2004-2015



Champlain's Gross Emissions



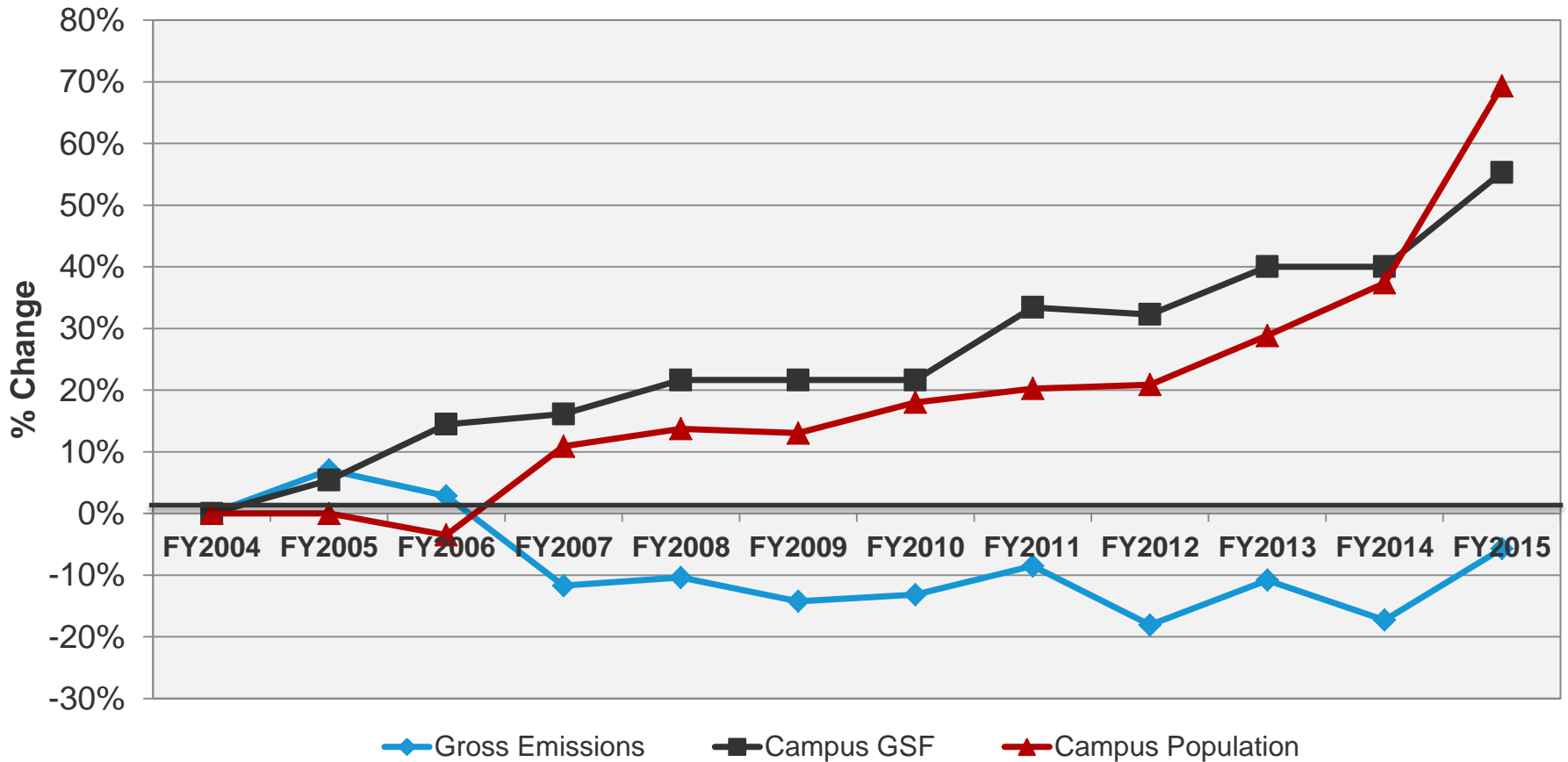
Emissions totals are only for institutionally owned facilities and do not include leased space like Spinner, Sears Lane, etc.

Change in GHGs Relative to Campus Growth



Champlain's performance is quite impressive in context of growth

Change in Emissions vs. Change in Campus Size and Population Indexed to FY2004

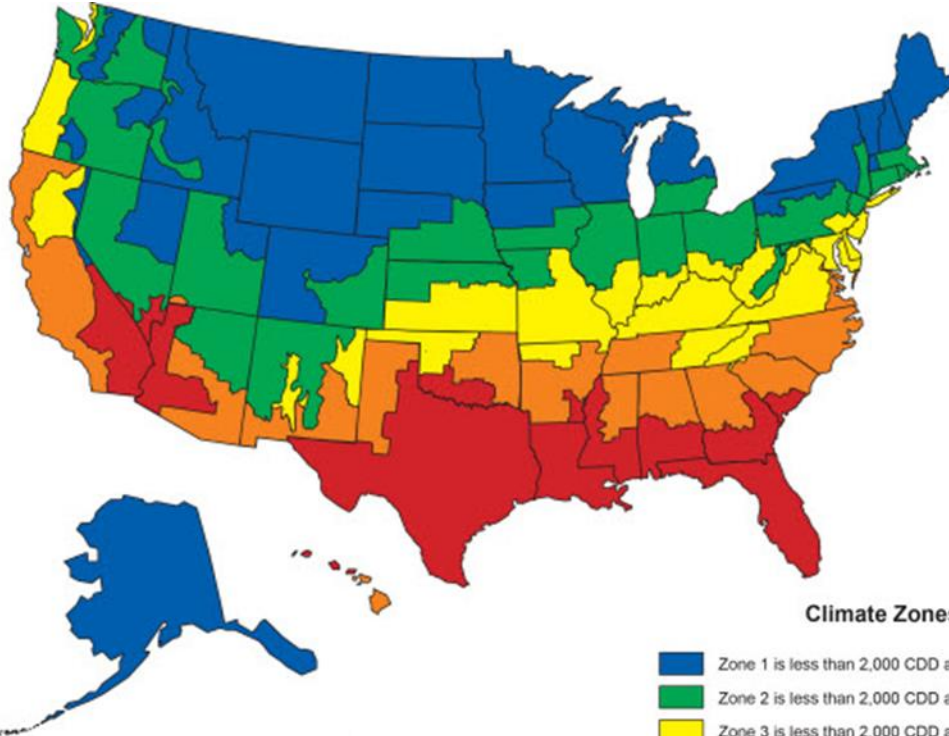


Emissions totals are only for institutionally owned facilities and do not include leased space like Spinner, Sears Lane, etc.

Peer institutions for Champlain



Using the same peer group as FY2014 analysis



Climate Zones

- Zone 1 is less than 2,000 CDD and greater than 7,000 HDD.
- Zone 2 is less than 2,000 CDD and 5,500-7,000 HDD.
- Zone 3 is less than 2,000 CDD and 4,000-5,499 HDD.
- Zone 4 is less than 2,000 CDD and less than 4,000 HDD.
- Zone 5 is 2,000 CDD or more and less than 4,000 HDD.

Go-Green Peer Institutions

Babson College

Bentley University

Boston College

Carleton College

Hamilton College

Hampshire College

Siena College

University of Vermont

Wesleyan University

Peer Group Based On

- Size
- Technical Complexity
- Climate Zone

Two ways to benchmark against peers



Per student and per 1k GSF normalization show emissions differently

GHG Emissions per Student



Stresses efficient use of space.

$$\frac{\text{Gross GHG Emissions}}{\text{Total Student FTE}}$$

GHG Emissions per 1,000 GSF



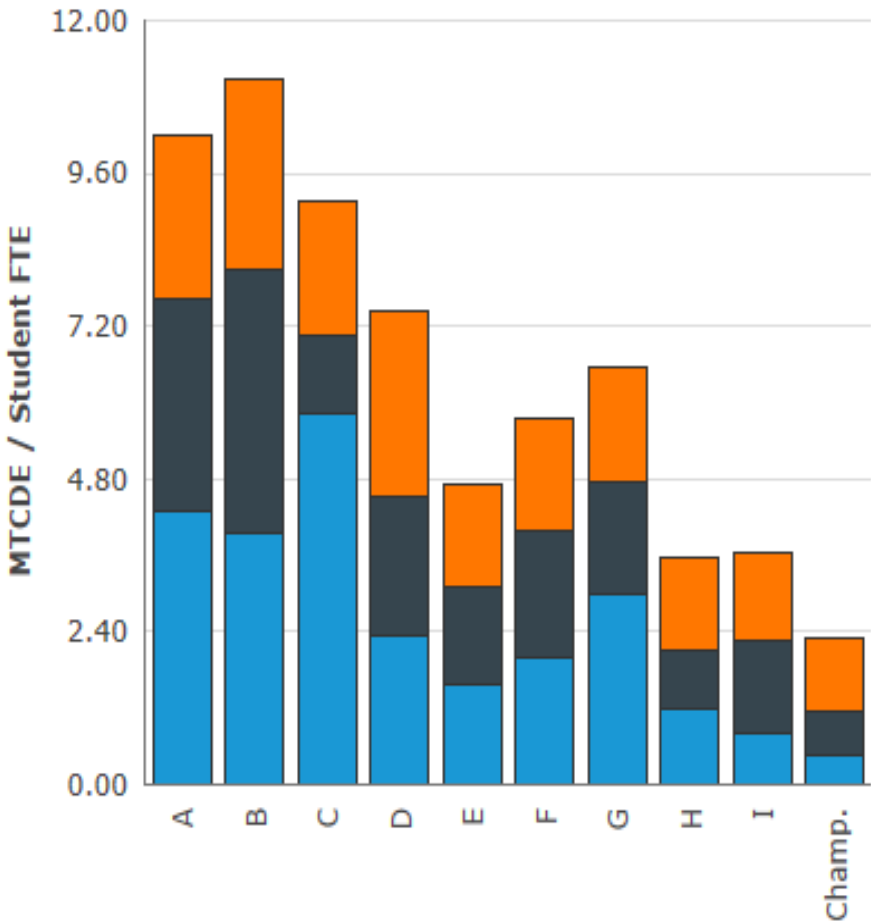
Stresses intensity of operations and commuting.

$$\frac{\text{Gross GHG Emissions}}{\text{Total GSF in Footprint}} \times 1,000$$

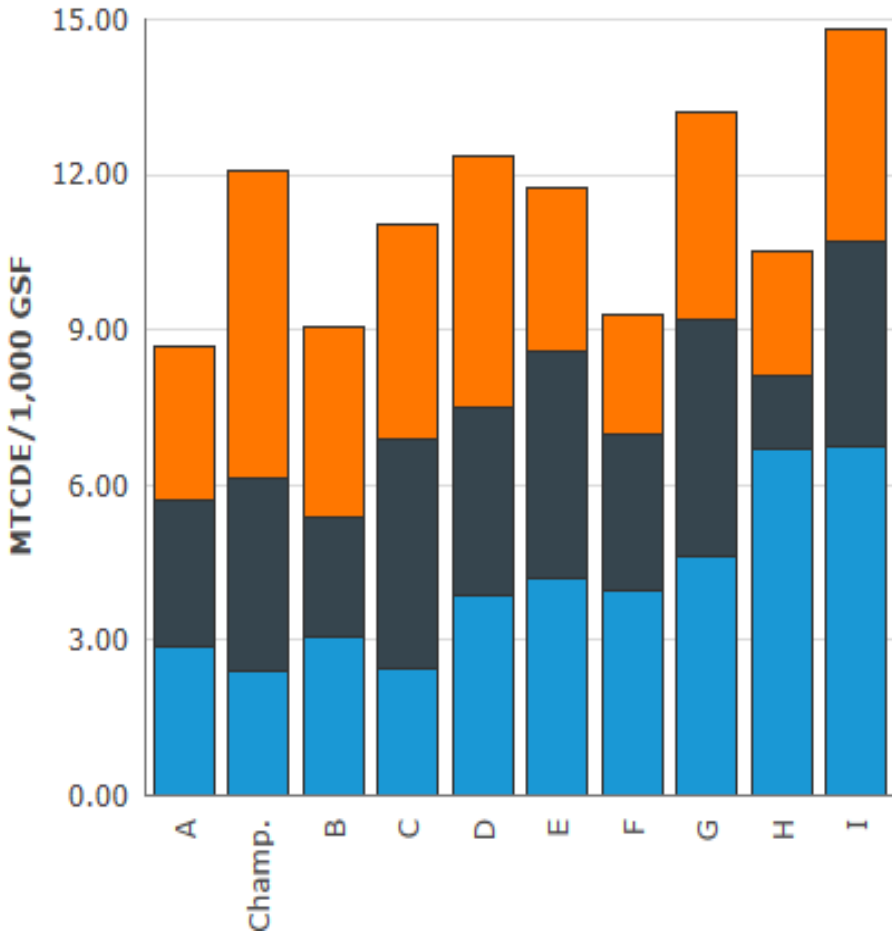
Comparing Champlain to Other Institutions



Gross Emissions
(per Student FTE)



Gross Emissions
(per 1,000 GSF)



- Scope 1 Emissions
- Scope 2 Emissions
- Scope 3 Emissions

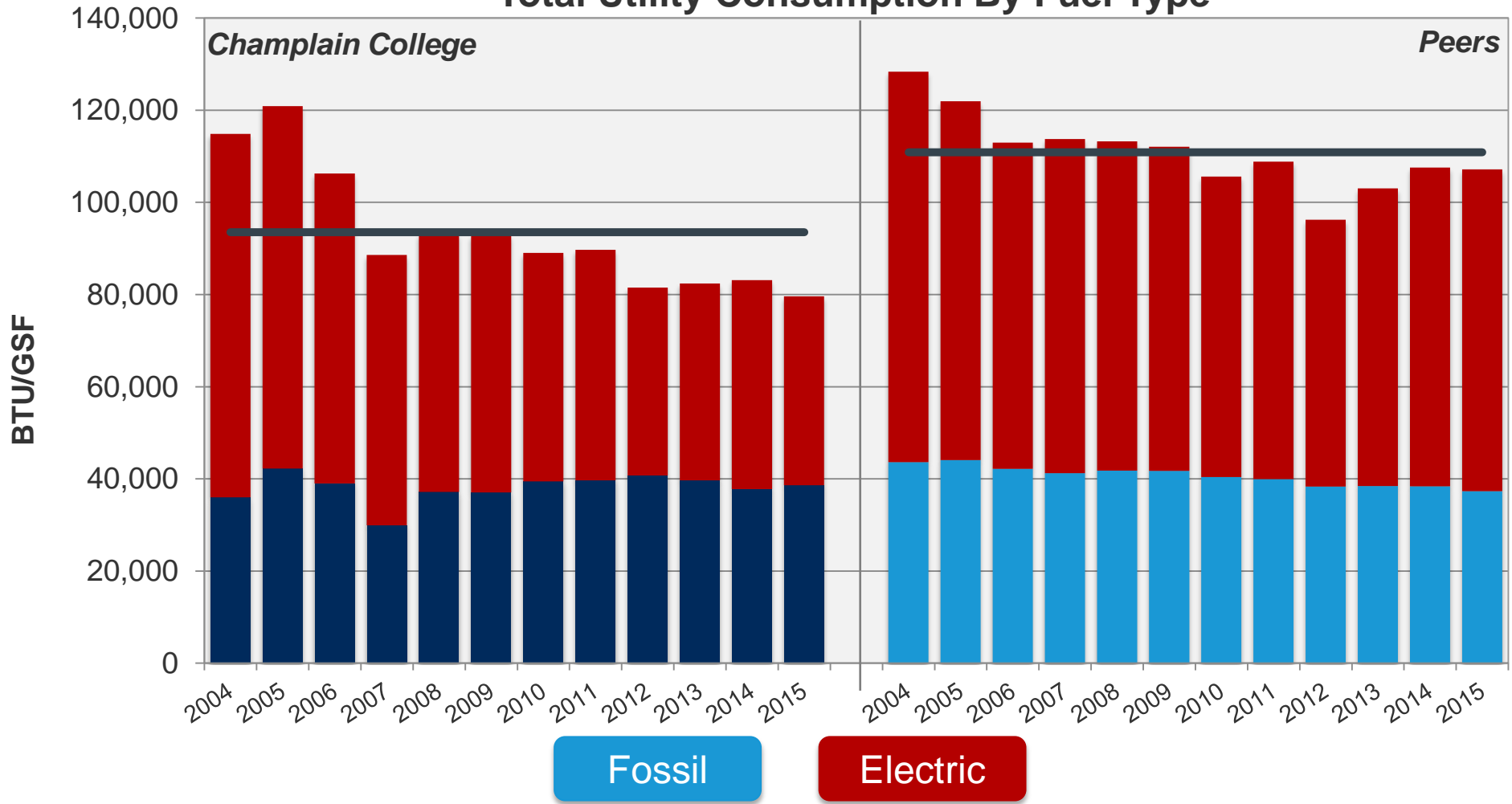
Energy Trends

Energy Consumption vs. Peers



Major strides made over the last 10 years

Total Utility Consumption By Fuel Type



Fossil

Electric

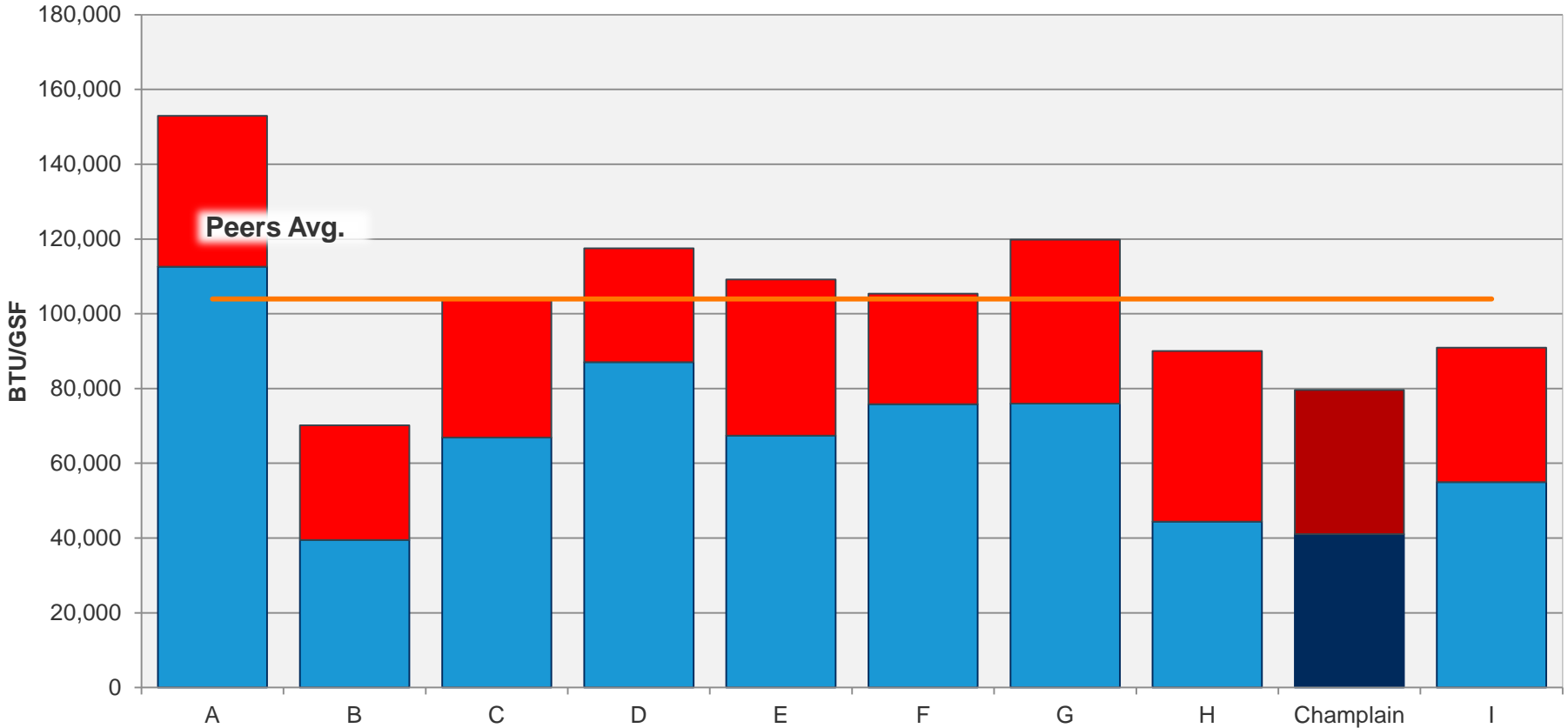
Sustainability Peers: Bentley University, University of Vermont, Boston College, Babson College, Siena College, Wesleyan University, Carleton College, Hamilton College, Hampshire College



Energy Consumption Lower Than Peers



Energy Consumption
Sustainability Peers – BTU/GSF



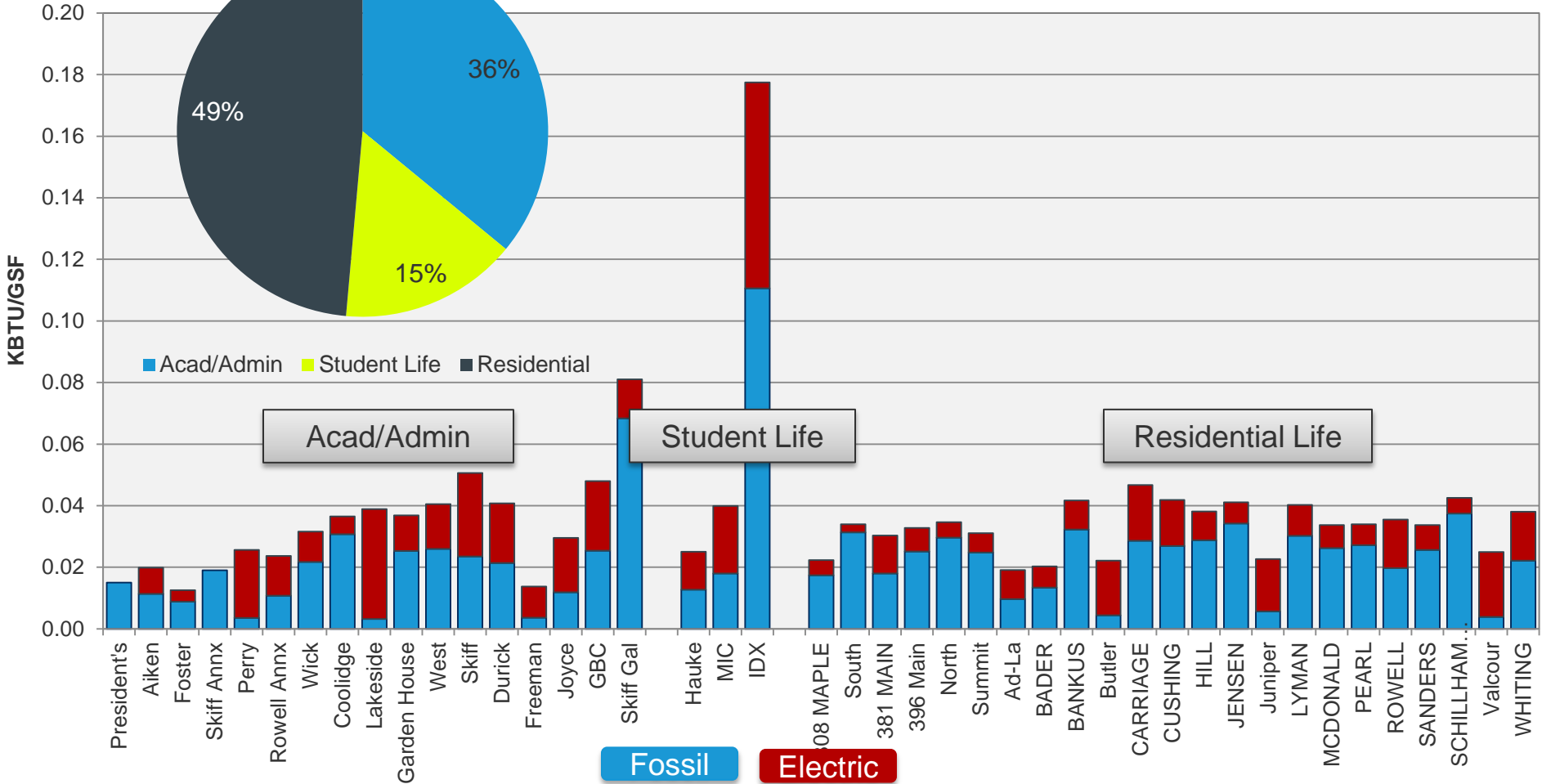
Fossil

Electric

Energy Consumption by Building



Energy Consumption
By Building



Questions & Discussion