

- University of Hartford
- University of Idaho
- University of Illinois at Chicago
- University of Illinois at Urbana-Champaign
- The University of Maine
- University of Maine at Augusta
- University of Maine at Farmington
- University of Maine at Machias
- University of Maine at Presque Isle
- University of Maine at Fort Kent
- University of Maryland
- University of Massachusetts Amherst
- University of Massachusetts Dartmouth
- University of Massachusetts Lowell
- University of Michigan
- University of Minnesota
- University of Mississippi Medical Center
- University of Missouri
- University of Missouri - Kansas City
- University of Missouri - St. Louis
- University of New Hampshire
- University of New Haven
- University of North Texas
- University of Notre Dame
- University of Oregon
- University of Pennsylvania
- University of Portland
- University of Redlands
- The University of Rhode Island, Narragansett Bay
- The University of Rhode Island, Feinstein Providence
- The University of Rhode Island, Kingston
- University of Rochester
- University of San Diego
- University of San Francisco
- University of St. Thomas (TX)
- University of Southern Maine
- University of Southern Mississippi
- University of the Pacific
- University of the Sciences in Philadelphia
- University of Vermont
- Upper Iowa University
- Utica College
- Virginia Commonwealth University
- Virginia Department of General Services
- Washburn University

# Sightlines LLC

## FY11 Final Presentation

### Champlain College

*Date: February 14, 2012*  
*Presented by: Jeff Murphy and Josh Vidro*





## Reaching 95% Housing Participation

- Identifying the challenges to the 2020 goal
- Diversifying housing types and attributes increases upperclassman participation



## Modeling Impacts of New Construction

- Develop a comprehensive Annual Stewardship program to meet future building needs
- Additional GSF will stretch coverage ratios – impacting service levels



## Additional GSF Impacts Carbon Profile

- Increasing Champlain's GSF grows gross campus GHGs – Perry Hall to Res Tri
- Residential GSF shifts distribution of emissions away from Scope 3



## Scope 1 – Direct GHGs

- Natural Gas
- Vehicle Fleet
- Agriculture
- Refrigerants

## Scope 2 – Upstream GHGs

- Purchased Electricity

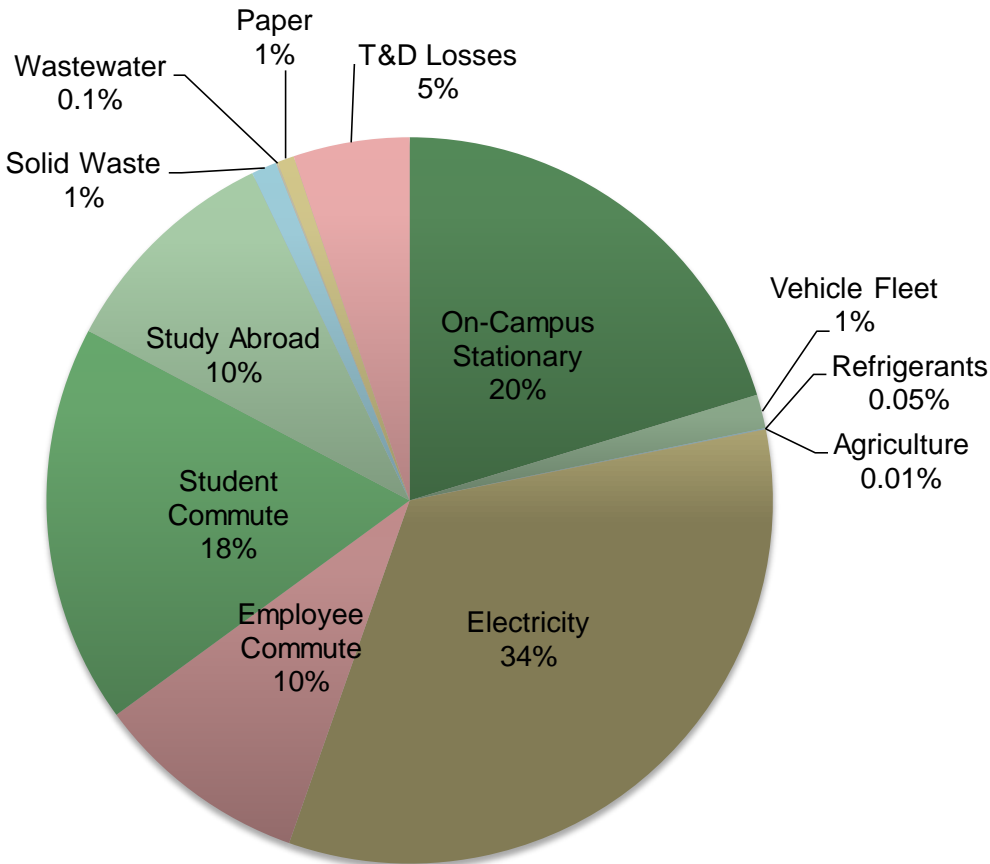
## Scope 3 – Indirect GHGs

- Employee/Student Commuting
- Study Abroad Travel
- Solid Waste
- Wastewater
- Transfer & Distribution Losses

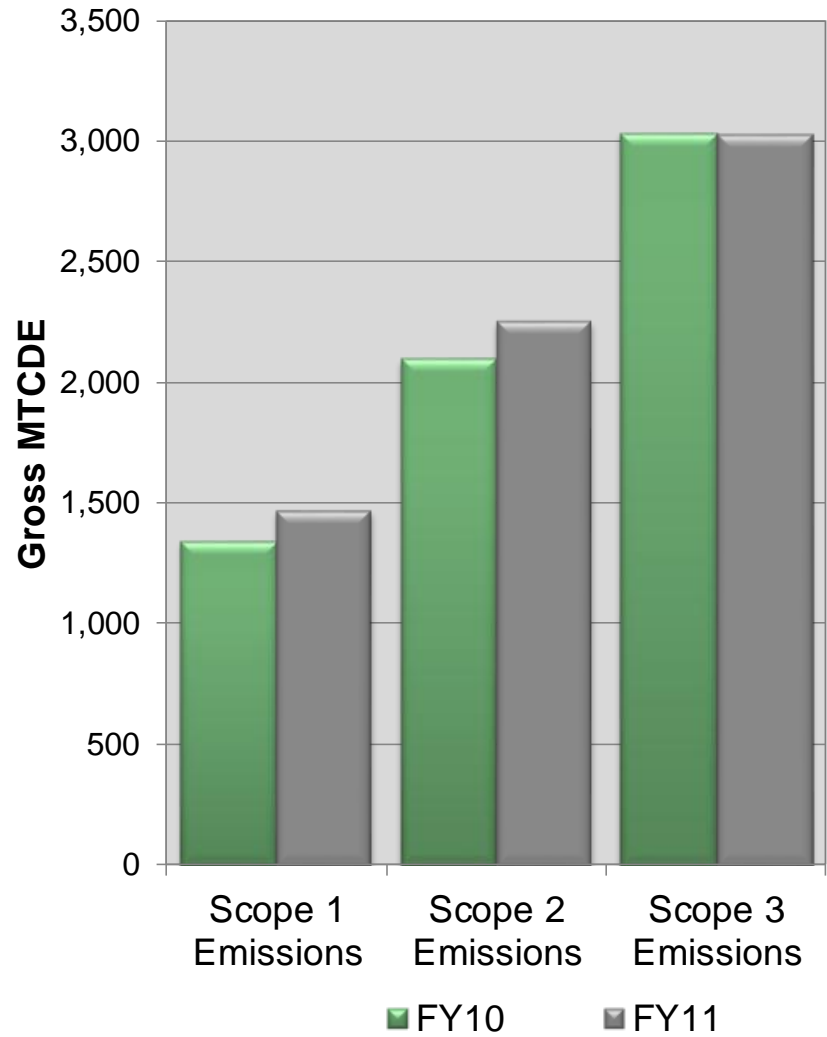
# Gross carbon emissions FY11: 6,743 MTCDE



### Carbon Emissions by Type

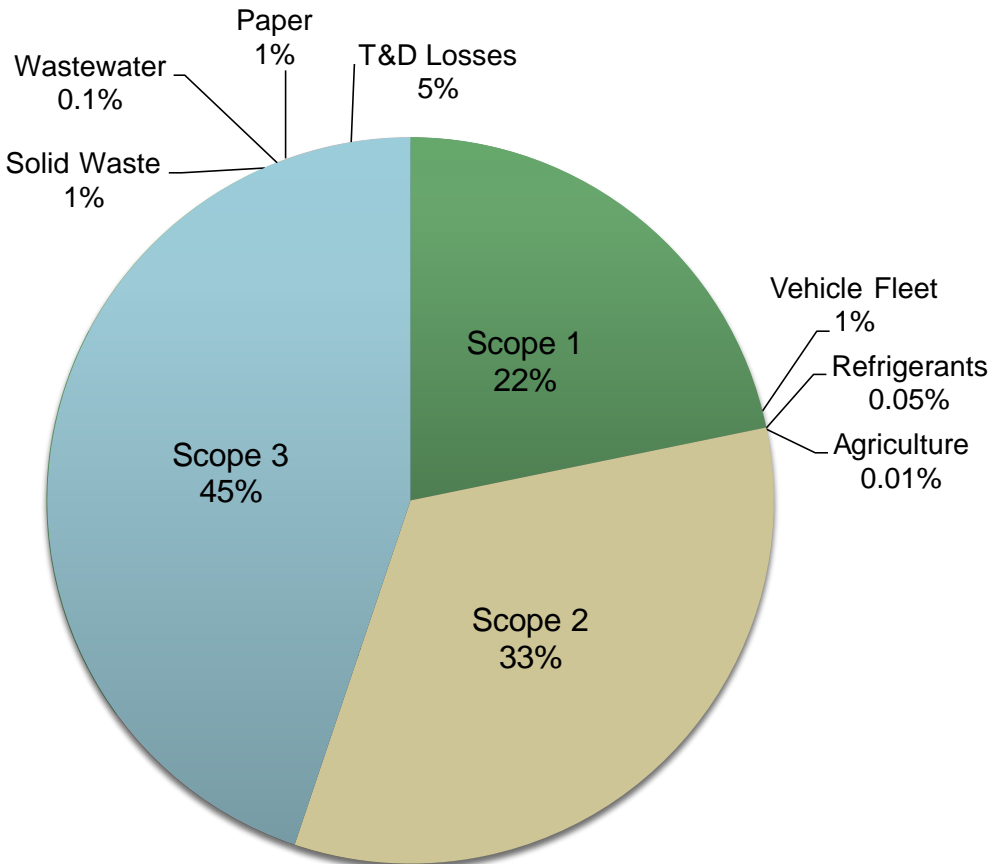


### Carbon Emissions by Scope

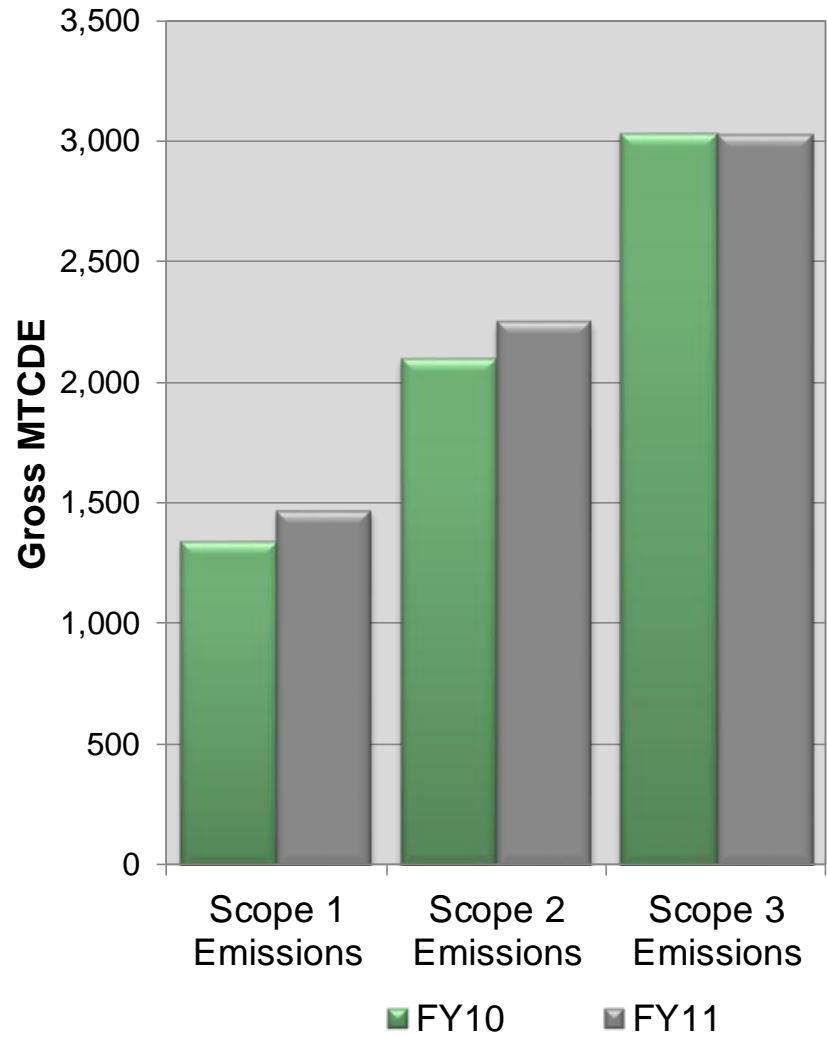




### Carbon Emissions by Type



### Carbon Emissions by Scope



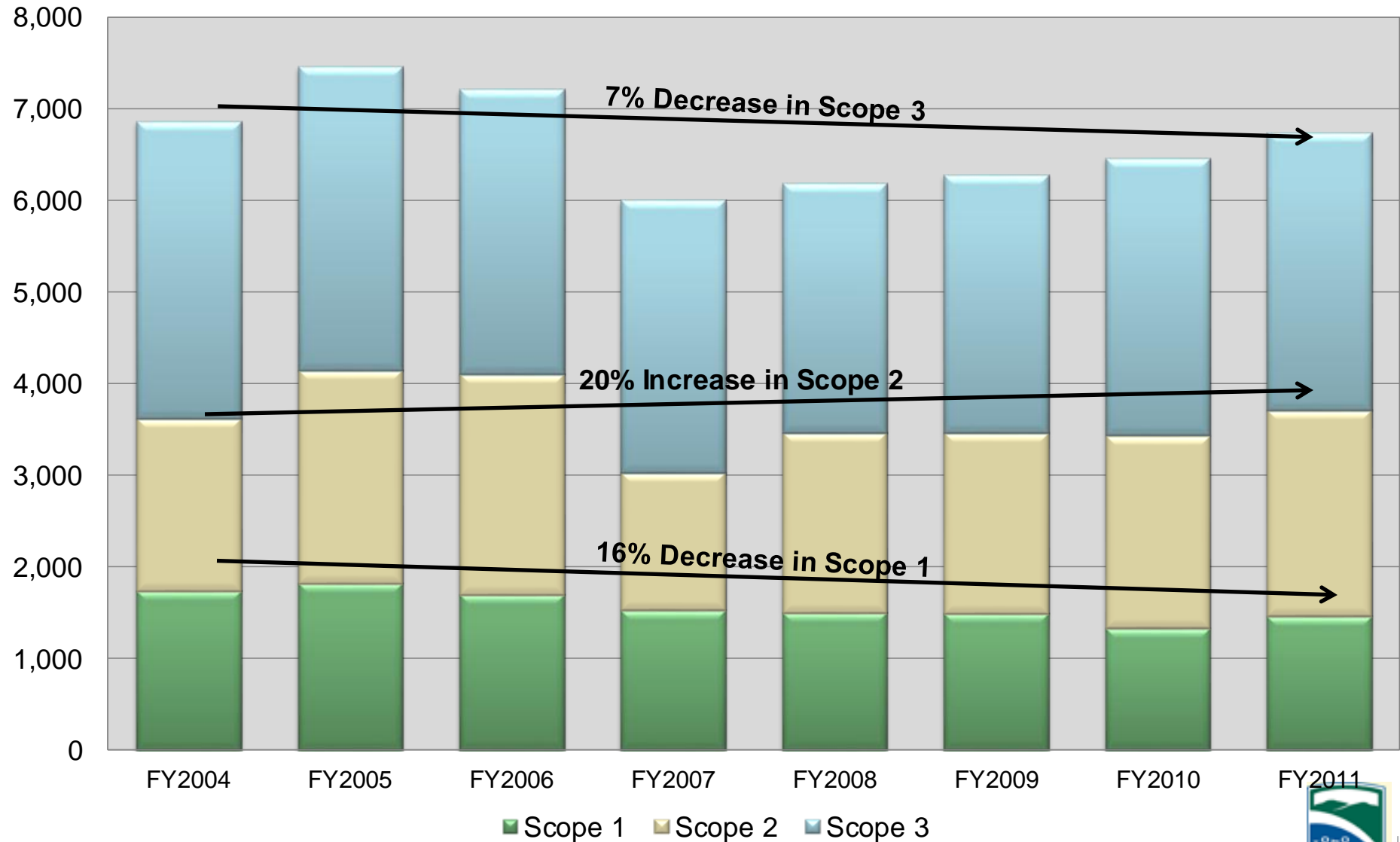
# Growth in electricity usage erases NG savings

Gross GHGs decreased by 2% even as owned GSF increased by 23%



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## Longitudinal Gross Emissions



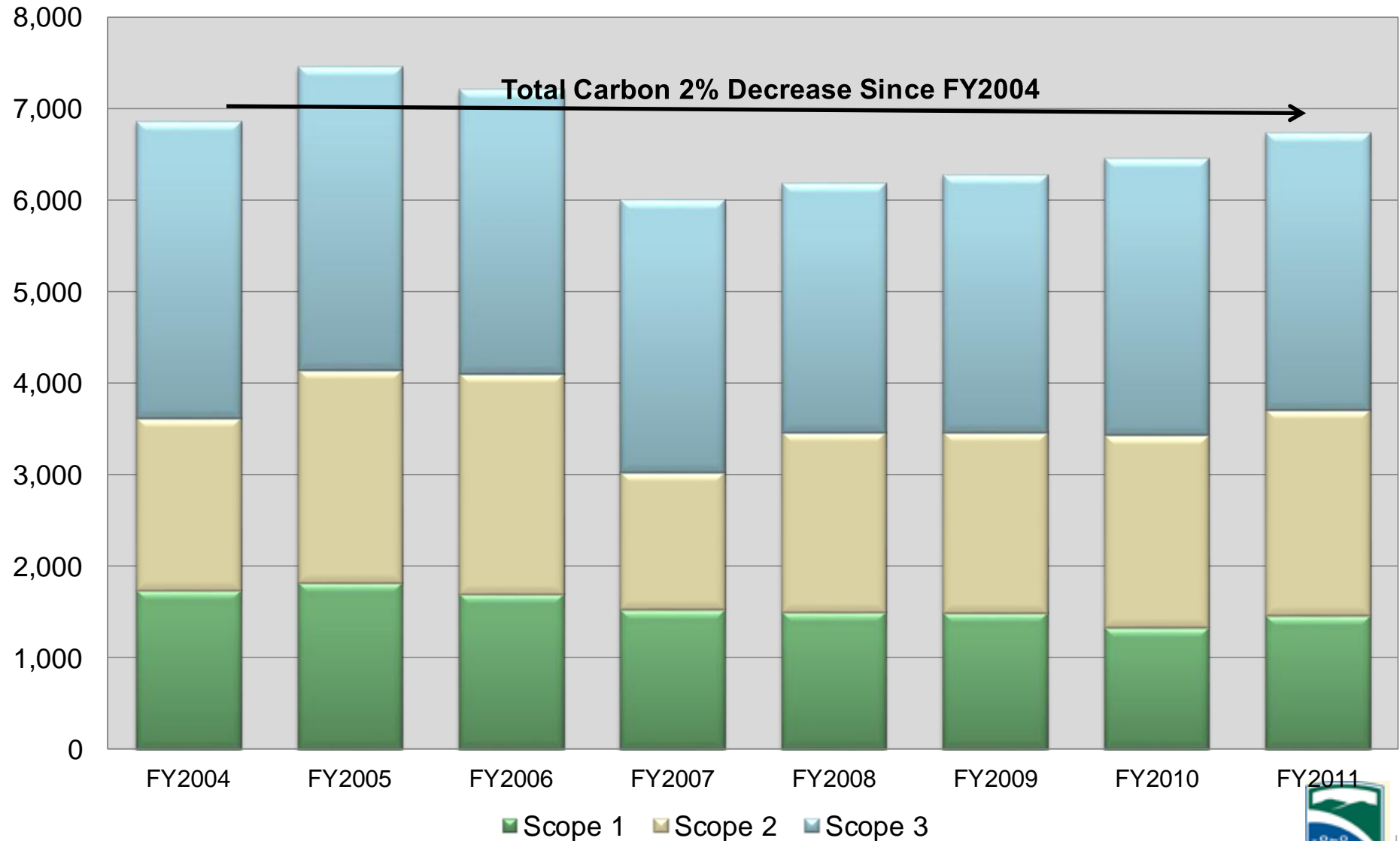
# Growth in electricity usage erases NG savings

Gross GHGs decreased by 2% even as owned GSF increased by 23%



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## Longitudinal Gross Emissions



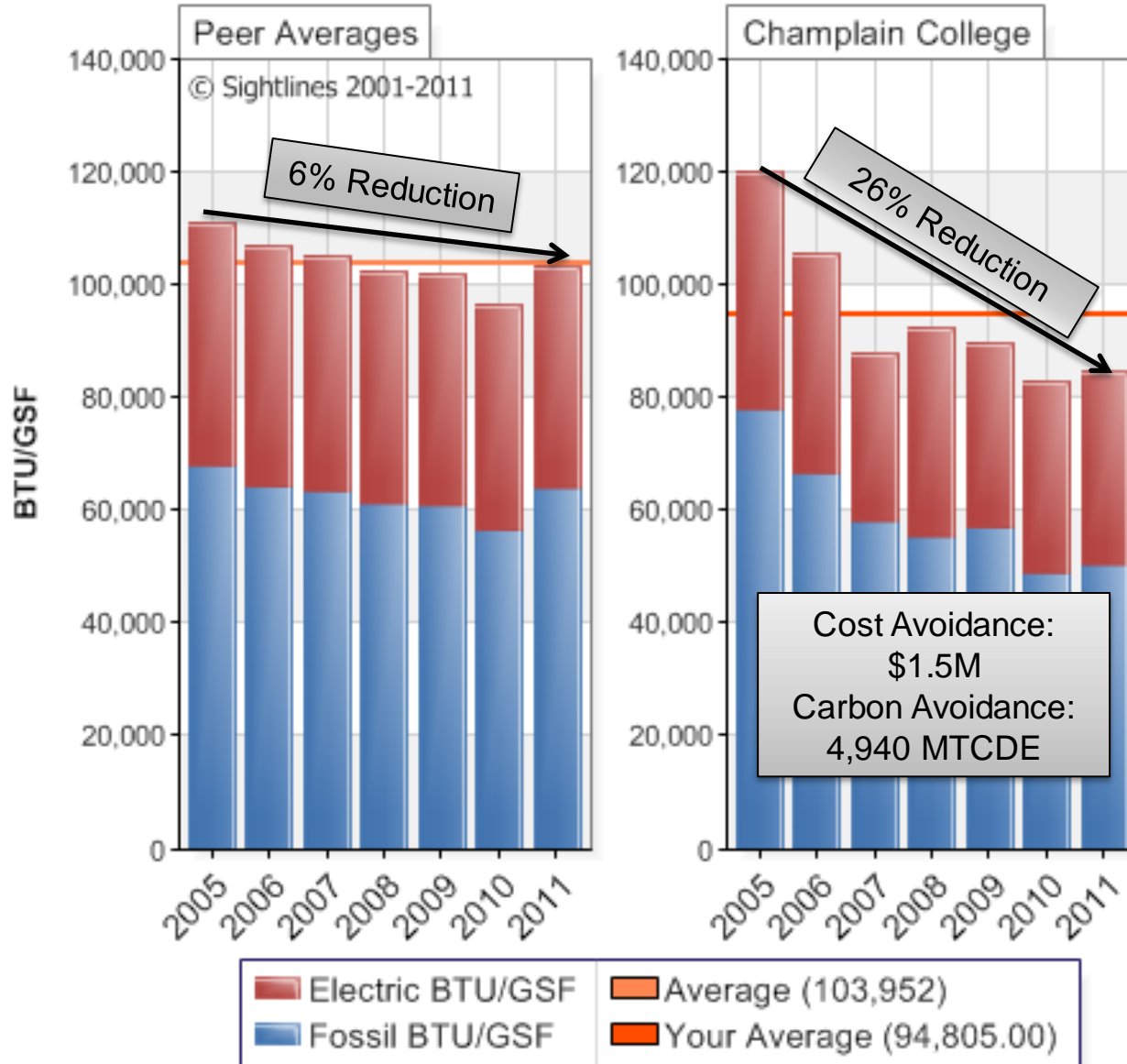
# Comparing progress on Scope 1 & 2 sources

Consuming less energy than peers due to significant campus reinvestment



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## Energy Consumption



### Go-Green Peer Institutions

- Babson College
- Bentley University
- Hamilton College
- Hamline University
- Hampshire College
- Le Moyne College
- Siena College
- University of Portland
- Wesleyan University





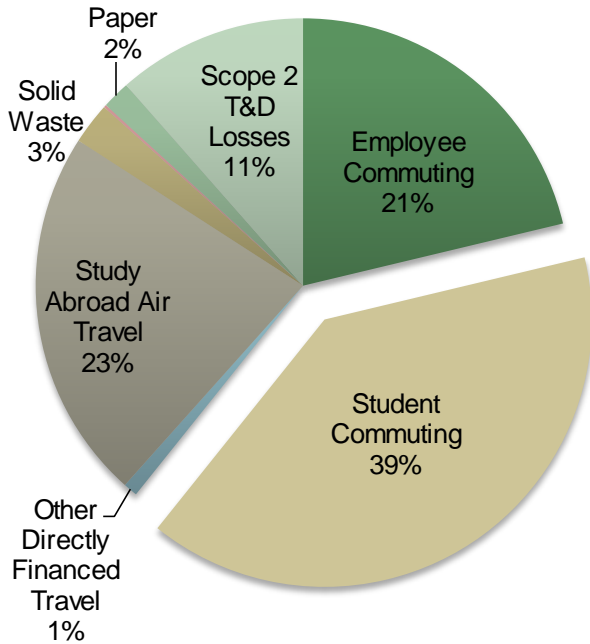
# Scope 3 - Measuring campus engagement

Commuters are utilizing alternative transportation options in Burlington

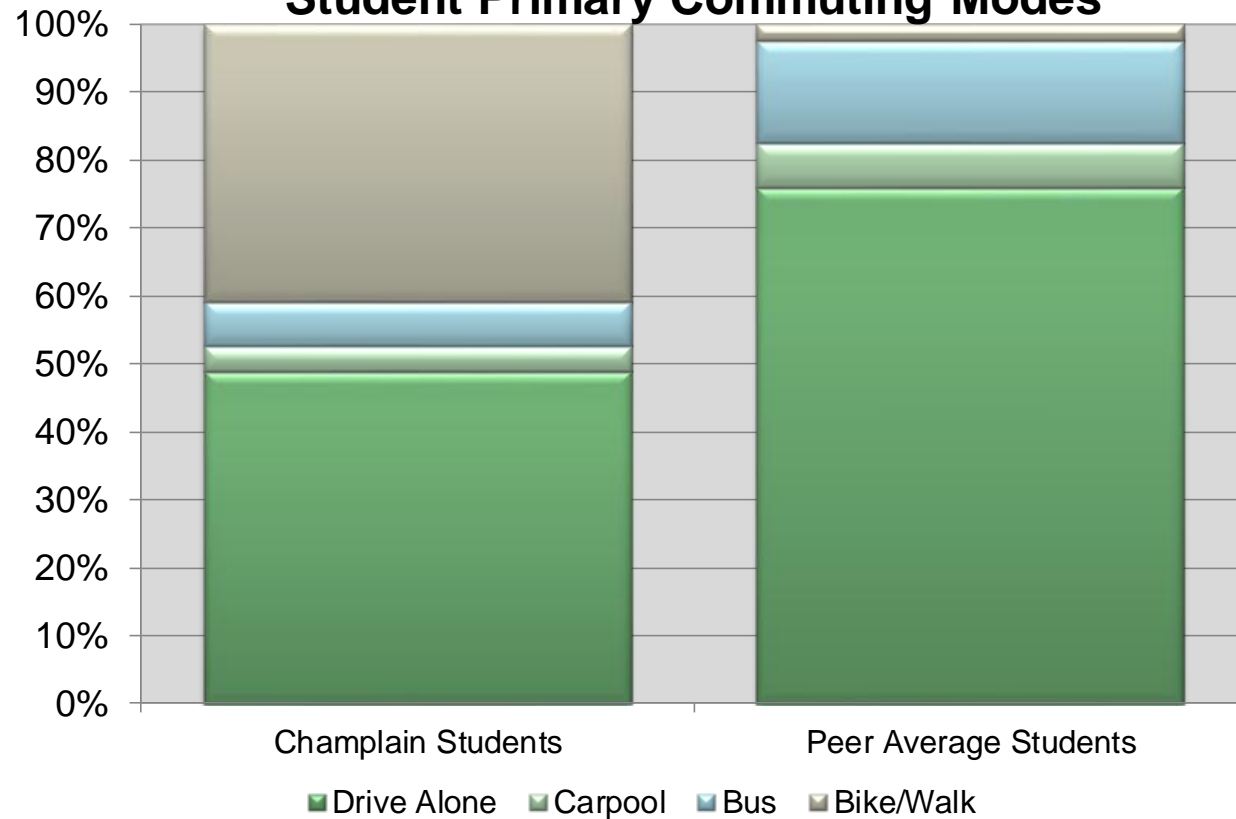


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## Scope 3 Sources



## Student Primary Commuting Modes

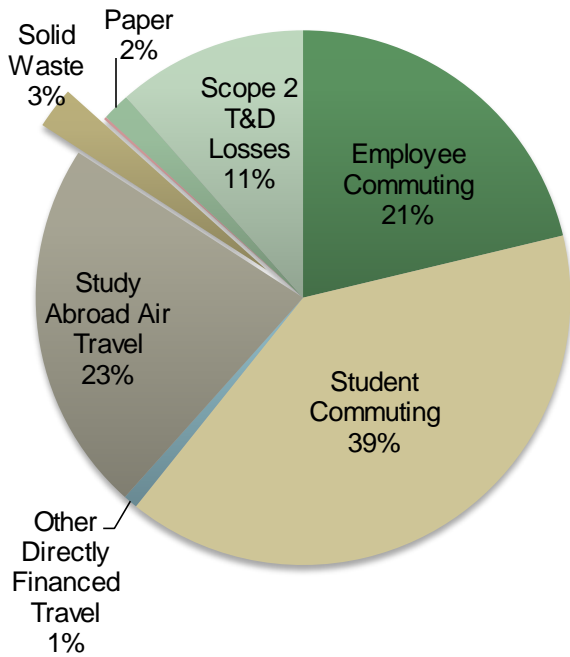


# Scope 3 - Measuring campus engagement

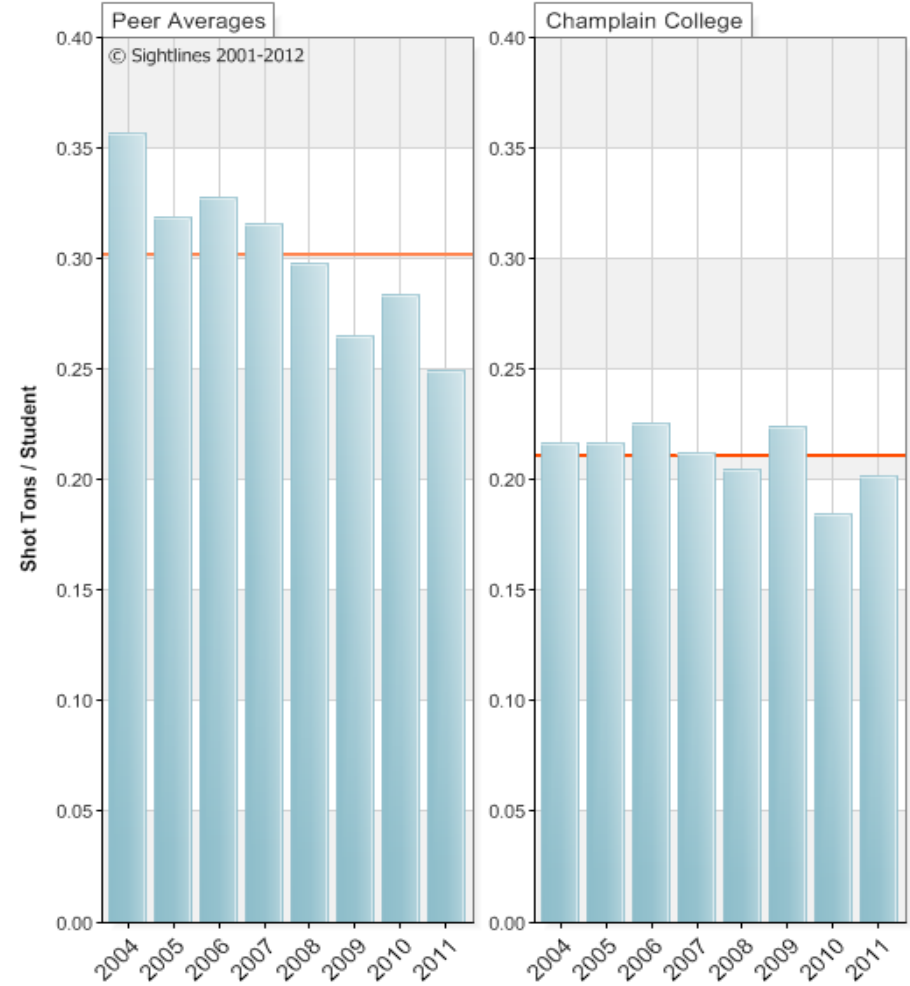
Diverting more material from the waste stream – leading our database



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### Solid Waste (per Student)



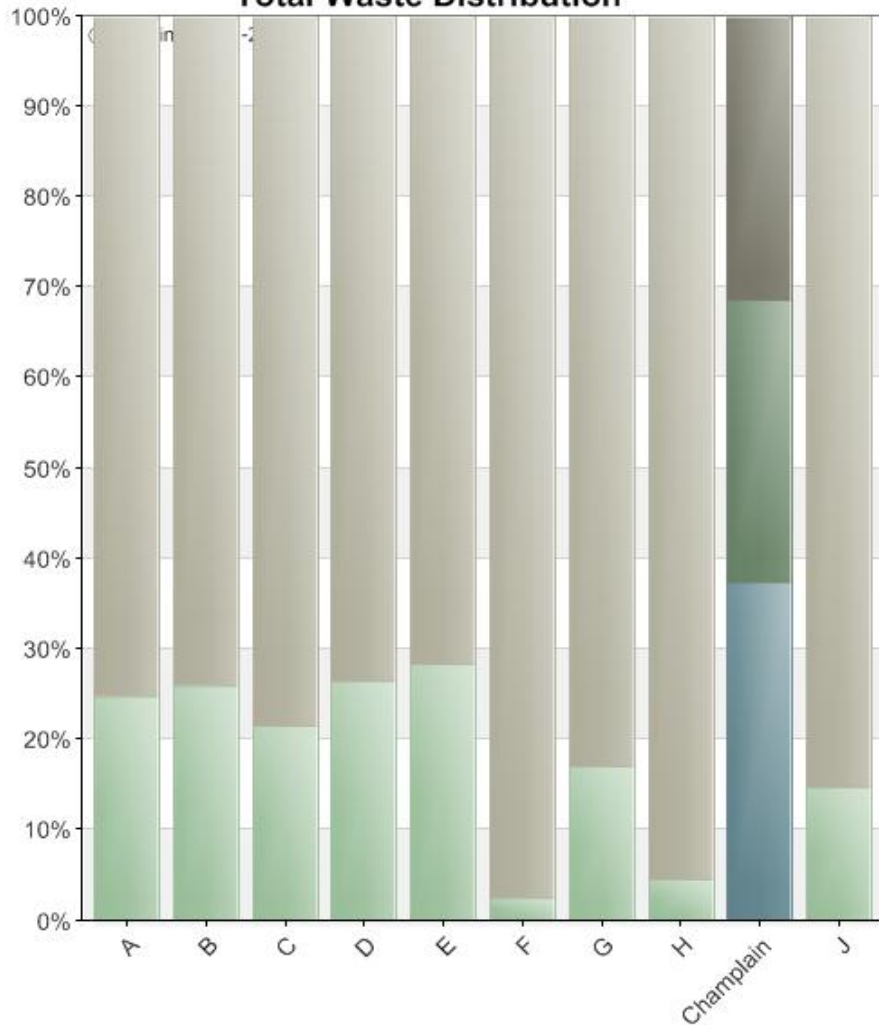
# Scope 3 - Measuring campus engagement

Diverting more material from the waste stream – leading our database

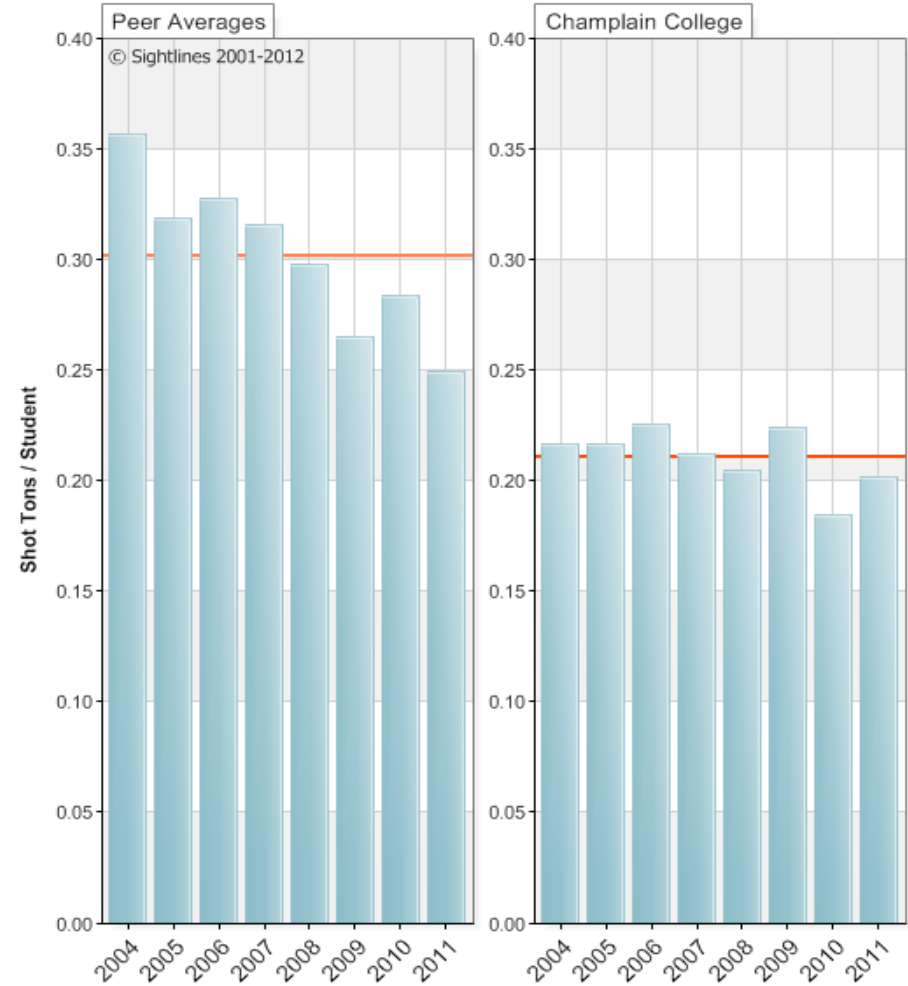


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### Total Waste Distribution



### Solid Waste (per Student)



Compost
  Recycling
  Landfill/Incinerated



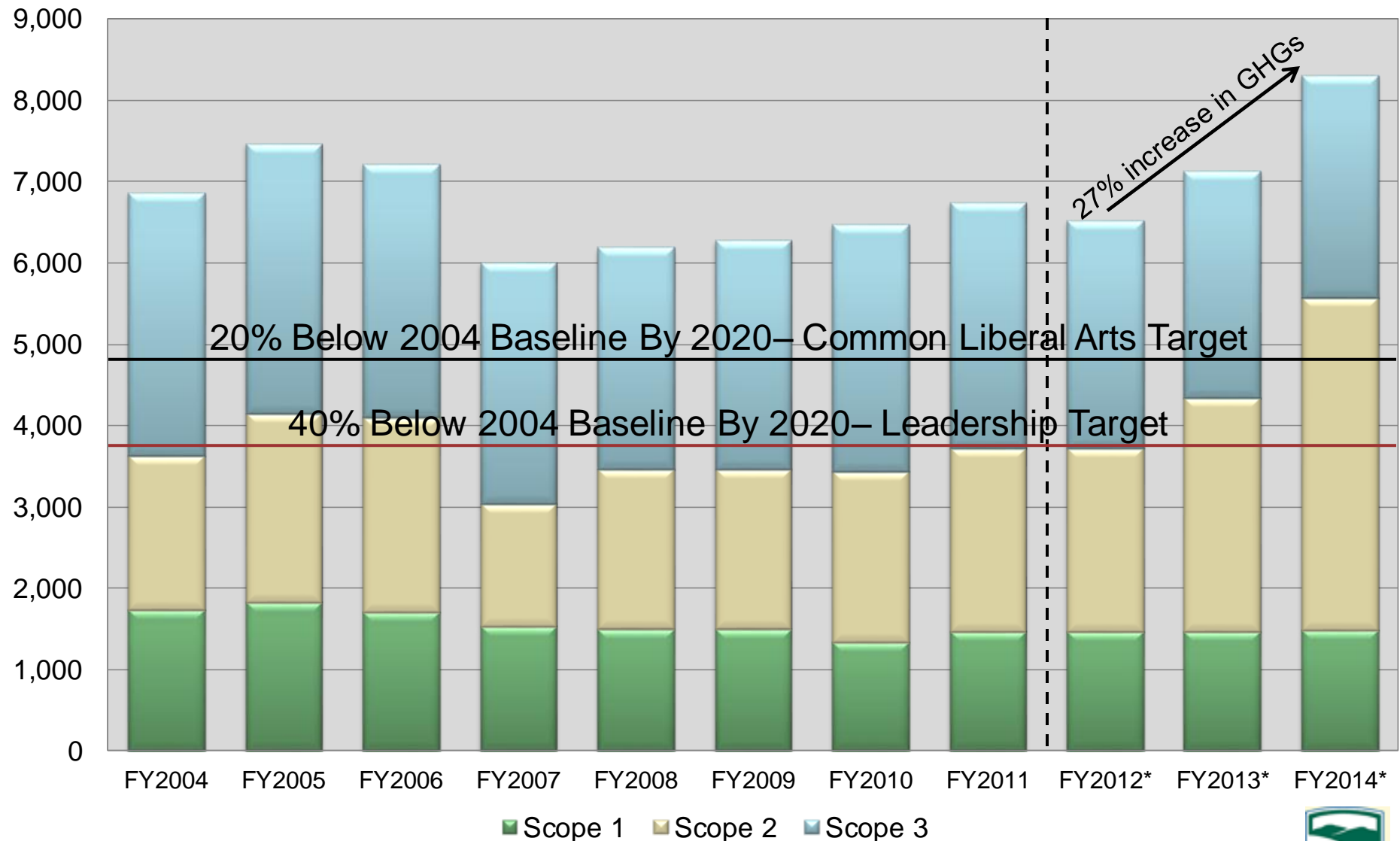
# Increasing residential students shifts GHG profile

Res Tri's will increase gross GHGs, but reduce Scope 3 sources



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## Longitudinal Gross Emissions



20% Below 2004 Baseline By 2020— Common Liberal Arts Target

40% Below 2004 Baseline By 2020— Leadership Target

27% increase in GHGs

■ Scope 1 ■ Scope 2 ■ Scope 3

\*Projected impact of Res Tri - 100% occupancy; current student commuting mode split & trip distance; 17,000 BTU/GSF electric use and 4,200 BTU/GSF natural gas use



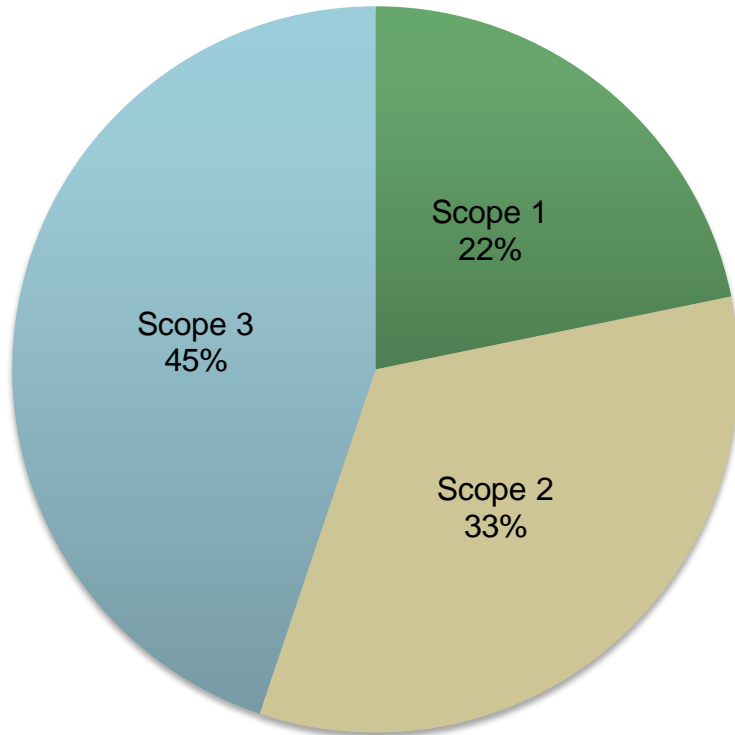
# Scope distribution of GHGs shifts after Res Tri

With fewer commuters, Champlain takes more control over its GHGs

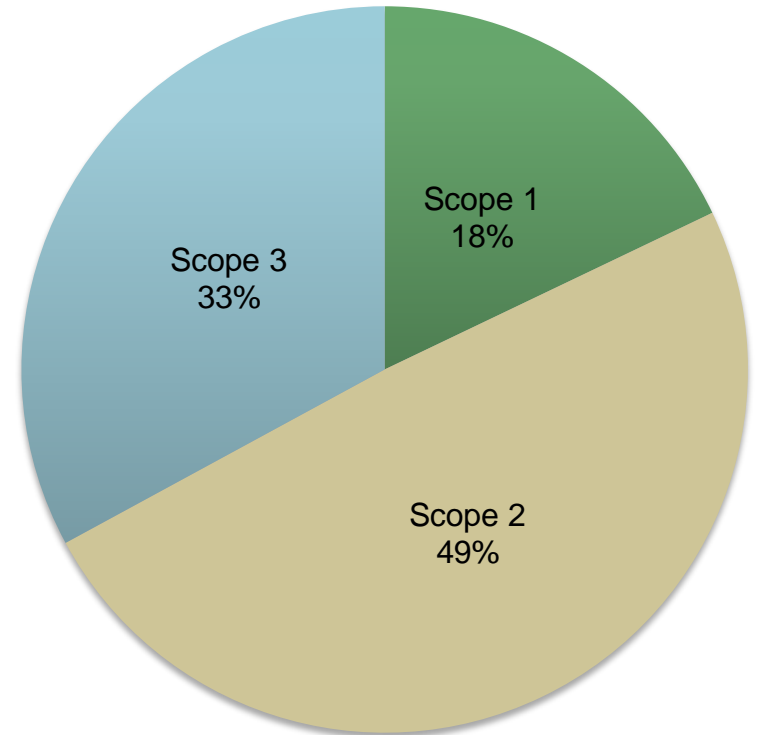


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## FY11 Emissions Distribution



## Projected FY14 Emissions Distribution





## Housing MB&A

- Projected housing capacity in 2016 still falls 20% short of the 2020 participation goal
- Target Sophomores for market research to better understand what they are looking for in a housing community
- Focus renovations to rejuvenate older spaces and increase attributes that attract upperclassman

## Facilities MB&A

- Develop a comprehensive Stewardship program to protect the value of new and recently renovated assets
- Manage maintenance staffing levels to maintain current coverage ratios (+1 FTE for Res Tri)
- Stretch custodial coverage ratios with new GSF in order to approach peer coverage levels

## Go-Green MB&A

- Continue to limit the carbon impact of new GSF by utilizing geothermal systems
- Create a framework for evaluating carbon offsets (or RECs) – project criteria, cost, applicability, funding source; or generate offsets locally
- **Industry Innovation:** Consider developing a “Cap & Trade” mechanism to halt energy consumption increases from new construction

