

COLGATE UNIVERSITY



Environmental Studies Program
and Sustainability Initiatives

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SASS Conference on ESD in Higher Education | (January 23, 2025)



Colgate: Key Facts

- ~3,200 undergraduates
- ~50 majors and minors
- 88 buildings
- ~500 hectares
- situated in Hamilton, NY (population ~ 6,500)
- acceptance rate: 12%
- full tuition: ~\$70,000
- tuition varies by income



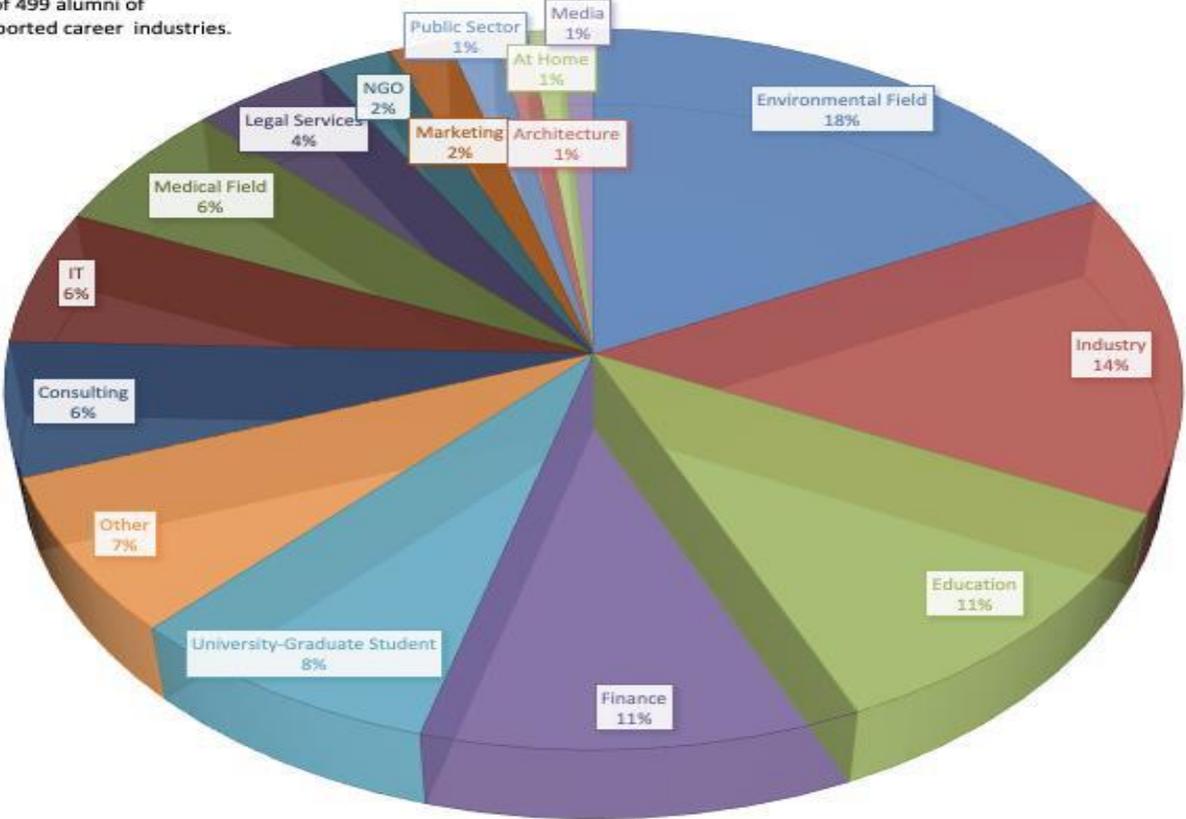
Credit: Mark DiOrio

Colgate's Environmental Studies Program

- 30-40 majors per class year from ~800 students
 - Environmental Studies major and minor
 - Cognate Majors:
 - Environmental Economics
 - Environmental Biology
 - Environmental Geology
 - Environmental Geography
 - ~12 faculty include full and joint appointments
 - Directors serve 3-year terms in rotation
 - Graduates go into graduate and professional schools, consulting, finance, energy, and many other sectors
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Career Paths of ENxx Graduates (1997-2019)

Distribution of 499 alumni of ENST with reported career industries.



Environmental Studies Curriculum

- Environmental Ethics
- Environmental Justice or Global Environmental Justice
- Environmental Science: Challenges and Solutions (intermediate level; includes lab)
- Geographic Information Systems (includes lab)
- **Community-based Study of Environmental Issues (senior seminar; includes lab)**
- Environmental Economics or Environmental Policy Analysis or U.S. Environmental Politics
- One of seven environmental science electives
- Three additional electives, including environmental arts and humanities, sciences, geography, etc.

Senior seminar: ENST 450

(Community-based Study of Environmental Issues)

- Course curriculum
 - Co-teaching
 - Lab component
 - First month: concepts and methodologies
 - Example: What is Sustainable Development?
 - Example: how to conduct surveys, interviews, focus groups
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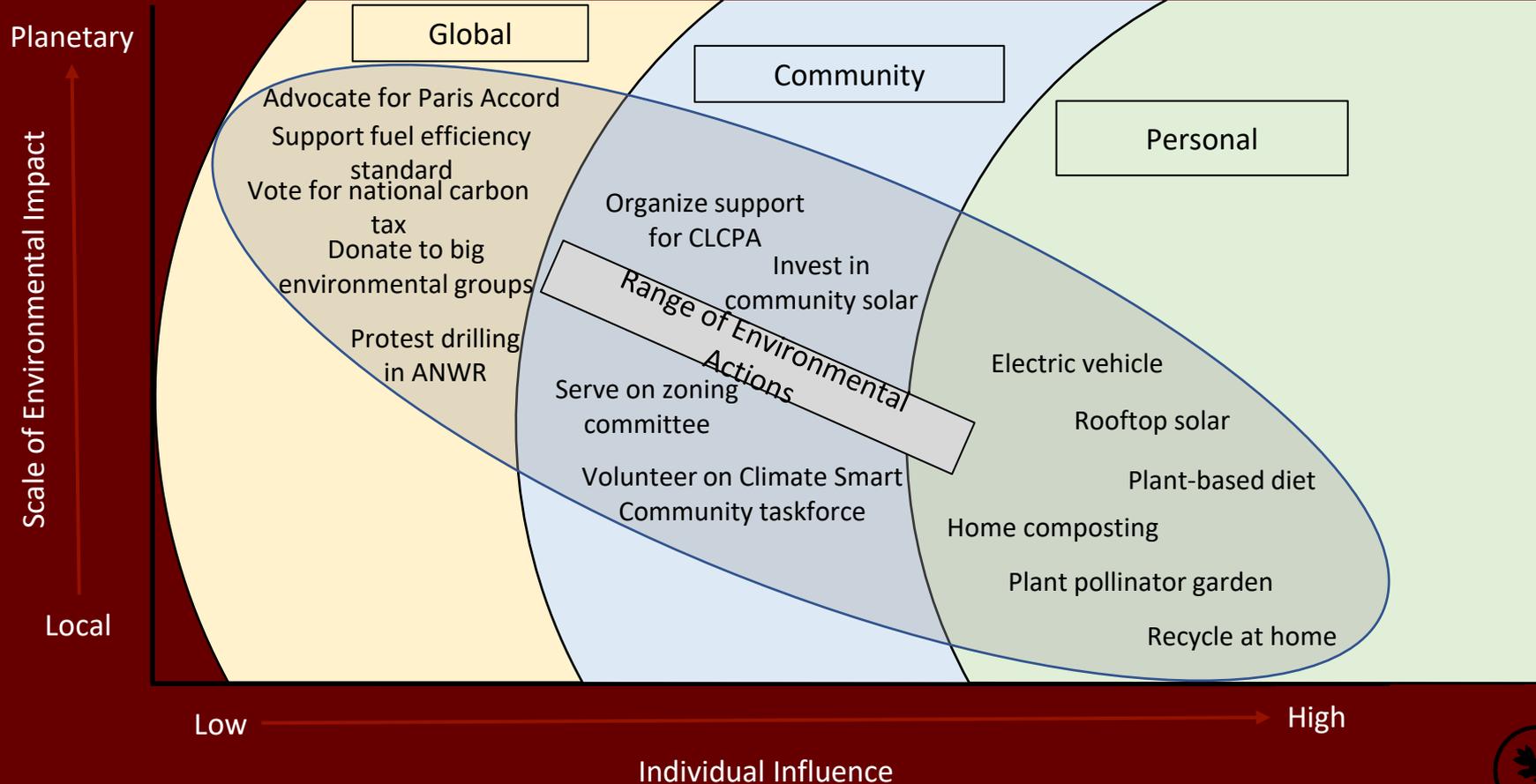
ENST 450: Projects for Spring 2025

- Micromobility devices and policy on campus (Partner: Colgate University)
 - Campus pesticide use (Partner: Colgate University)
 - Climate Smart Communities Recertification (Partner: Town and Village of Hamilton)
 - Stewardship plan for 40 acres on Bonney Hill/Mason Road (Partner: Private landowner)
 - Beaver management guidelines for landowners in New York (Partner: Madison Lane Apartments)
 - Sustainability of small-scale maple syrup production (Rogers Environmental Education Center)
 - New 100-hectare conservation reserve (Partner: Cazenovia Preservation Foundation, Inc.)
 - Development of new 100 km trail system in central NY (Partner: Chenango Greenway Conservancy)
 - Evaluation of forest carbon offset programs for landowners (Partner: NY Forest Owners' Association)
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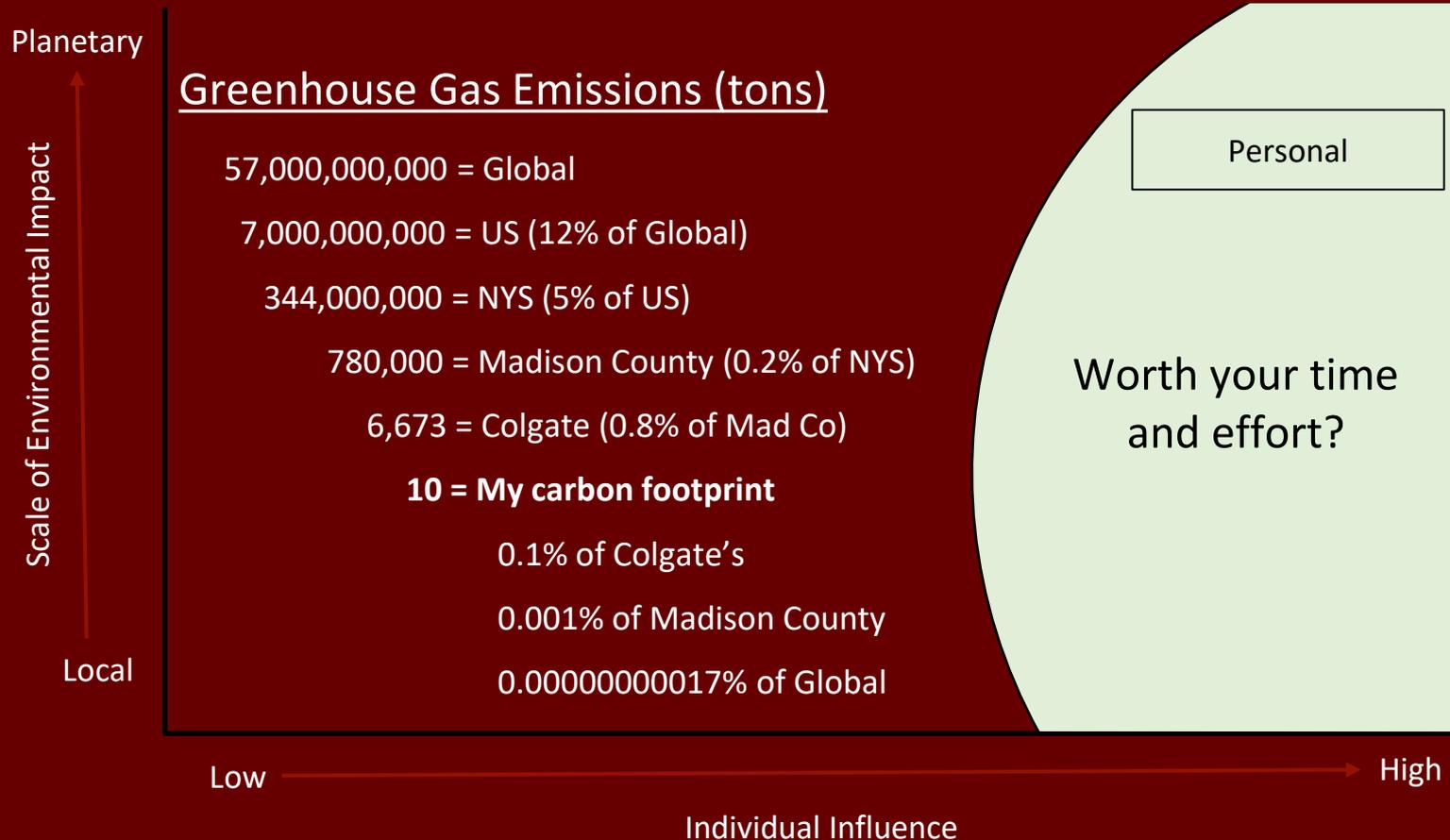
ENST 450: Examples of Previous Projects

- Increasing Access to and Awareness of Energy Programs for Low-Income Residents of Madison County
 - Connecting Higher Education and Community-Based Climate Change Planning in New York State
 - Carbon Offset Choices for Colgate University
 - Town of Hamilton Vulnerability Assessment
 - Colgate Local Food Purchasing Policies and Practices
 - Resilience Communication Plan for Hamilton
 - A Food Hub in Hamilton
 - Sustainability among New York Colleges and Universities
 - Biomass Facility Upgrade Study
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ENVIRONMENTAL ACTION (Influence vs Impact)



ENVIRONMENTAL ACTION (Influence vs Impact)



Colgate's Sustainability Timeline

2005	2008	2009	2010	2011	2017
Environmental Council Established	Colgate Signs Carbon Commitment	First Campus Greenhouse Gas Inventory	Community Garden Begins	First Climate Action Plan	Release of Bicentennial Plan
Presidentially appointed group made up of stakeholders across campus	Signed in October by President Rebecca Chopp	Environmental Council becomes Sustainability Council Colgate hires Sustainability Director	Campus plan focused on integrating sustainability into campus functions and operations	Prescriptive plan to drawdown campus carbon footprint. Establish 2019 Carbon Neutrality Goal	Campus plan focused on integrating sustainability into campus functions and operations

Colgate's Sustainability Timeline

2019	2021	2022	2024	2025	2030?
<p>Carbon Neutrality Year</p> <p>Reduced on-campus campus carbon footprint by 46%.</p> <p>Engaged the campus in carbon offset process.</p>	<p>Colgate Signs Climate Resilience Pledge</p> <p>Signed in April by President Brian Casey</p>	<p>Sustainability Plan</p> <p>Becomes Foundational Plan to Colgate's Third-Century Plan</p>	<p>Complete Climate Resilience Assessment</p> <p>Using the information from the 2022-23 focus groups</p>	<p>Climate Adaptation Plan</p> <p>Using the information from the 2022-23 resilience assessment</p>	<p>Decarbonization Plan</p> <p>Zero-Waste Plan</p> <p>Assessments and discussion in progress</p>

Examples of projects implemented

(GHGs reduced)

- Forest Sequestration (~3,700 tons)
- HVAC Upgrades in Buildings (~1,500 tons)
- Heating Plant & Boiler Upgrades (~1,500 tons)
- Lighting Upgrades (STARR, Cotterell): (~500 tons)
- Behavior Change (~500 tons)
- Townhouse Natural Gas (~200 tons)
- Low-flow Showerheads (~150 tons)
- Geothermal Energy Chapel House (~50 tons)
- Seven Oaks Clubhouse Heat Pumps (~40 tons)
- Fume Hood Monitoring: (~35 tons)
- Reduced Mowing of 30 acres (~20 tons)
- Green Bike Program (~10 tons)
- Washer & Dryer Upgrades (~10 tons)
- Solar Thermal Energy 100 Broad St (~9 tons)
- Electric & Hybrid Vehicles (~5 tons)
- Trayless Dining in Frank Dining Hall (~5 tons)
- Reduced Paper Purchasing (~3 tons)
- Golf Carts All-Electric (~40 tons)



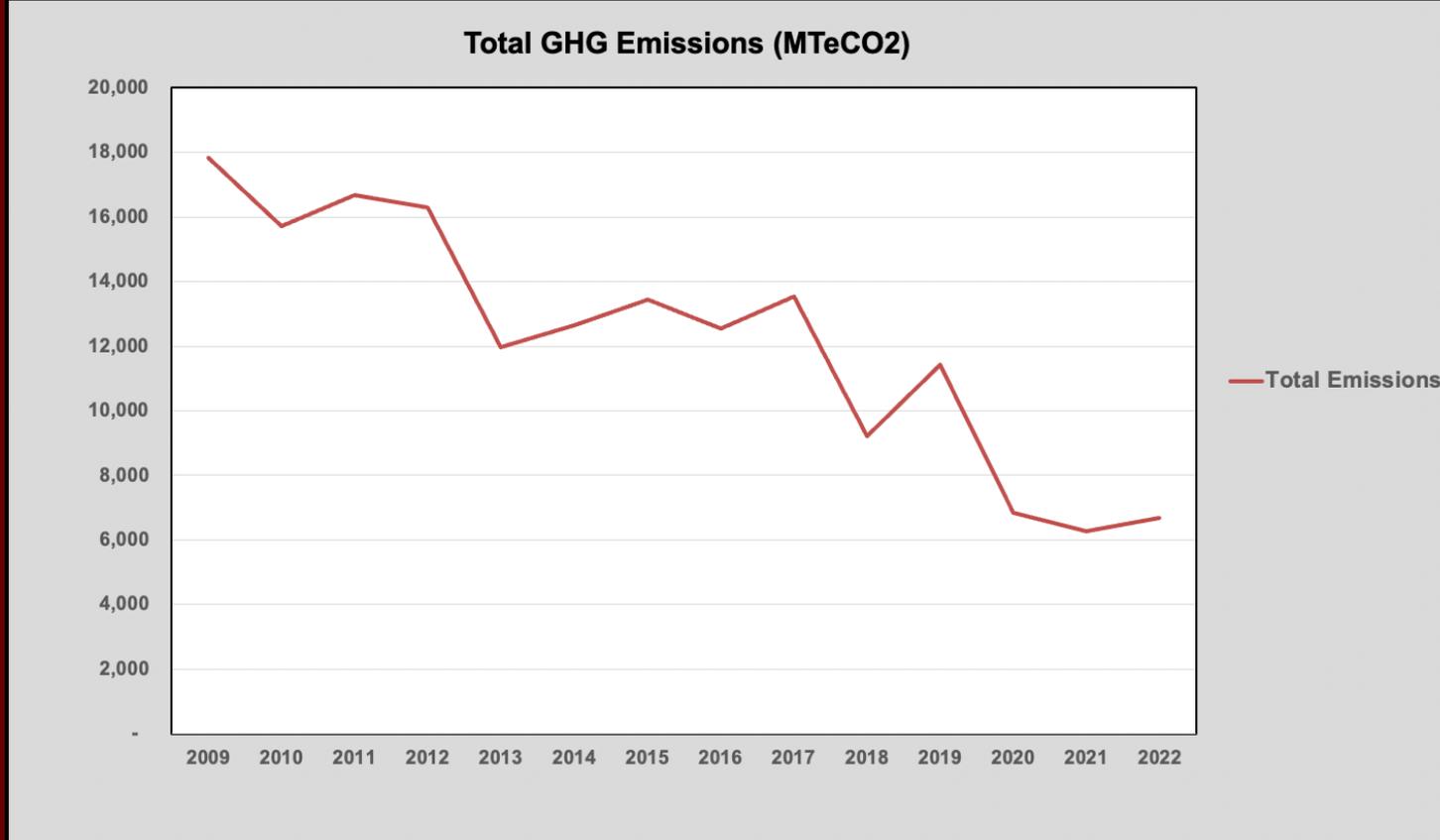
Colgate University's Certified Green Buildings

- Trudy Fitness Center, 2011 (LEED Gold)
- Lathrop Hall, 2015 (LEED)
- Class of '65 Arena, 2016 (LEED Gold)
- **Benton Hall, 2018 (LEED Platinum)***
- Burke Hall, 2019 (LEED Gold)
- Pinchin Hall, 2019 (LEED Gold)

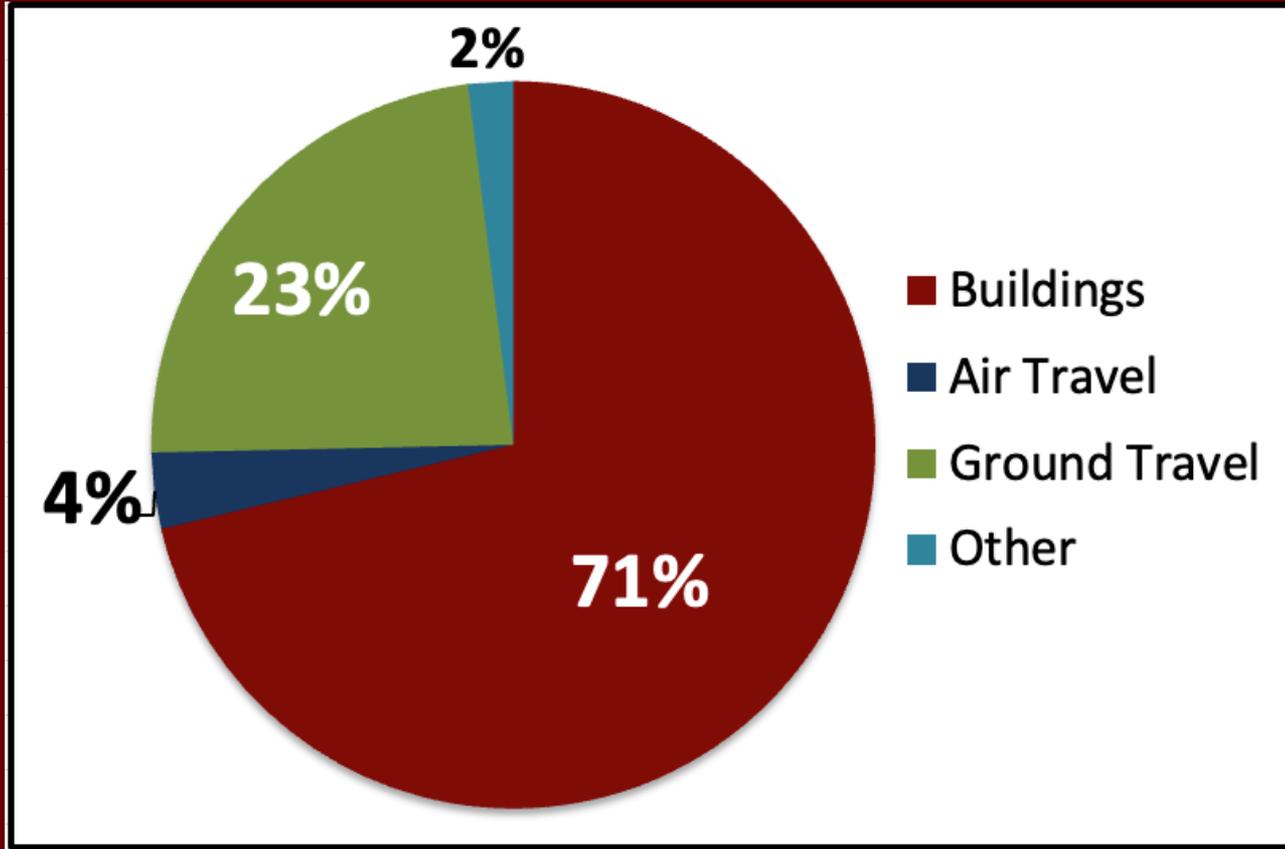
***NYS Green Building of the Year**



Colgate's GHG emissions



Colgate's GHG emissions (FY 2022)



Buildings are the largest source of greenhouse gas emissions

