

# Campus Sustainability Report

**2018**  
Fiscal Year



**BENTLEY**  
UNIVERSITY

**Sustainability**

**At Bentley,  
sustainability  
is *everyone's*  
business.**



# CONTENTS

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## INTRODUCTION

Progress Overview

## CLIMATE ACTION

Carbon Footprint

Sustainable Construction - Building

## WASTE MINIMIZATION

Recycling

Composting

Food Rescue Program

Sustainable Move Out

## ENERGY

Energy Efficiency

## EDUCATION & ENGAGEMENT

Academics

Student Involvement

Co-Curricular Education

Awards





# Introduction

The Bentley University Office of Sustainability was established in 2010 after the university signed the American College and University Presidents' Climate Commitment (ACUPCC). Since then, Bentley has made significant, concrete strides towards becoming a more sustainable organization. The university's accomplishments for fiscal year 2018 are outlined in this first annual report.

**The Office of Sustainability's mission is to mobilize sustainable leadership in business by:**

1. Modeling sustainable operations through balancing environmental resource efficiency, financial stability and societal benefit.
2. Supporting sustainability teaching in the classroom with opportunities to apply this knowledge to real-world challenges; and
3. Partnering with the business community to expand career opportunities for Bentley graduates in emerging markets.

The Office of Sustainability is dedicated to supporting Bentley University's mission of providing a holistic business education which includes ensuring that graduates understand the imperative of considering environmental and social impacts as a part of sound business management practices.

In 2018, Bentley was particularly proud to have constructed its first LEED certified building—The Bentley Arena. The design and construction of the building exceeded expectations, achieving the highest level of sustainability certification from the United States Green Building Council: LEED Platinum. The Bentley Arena was the first ice arena in the country to achieve this level of certification, making it the most sustainable standalone ice arena in the U.S. The Bentley Arena is a hallmark of the university's ongoing understanding and implementation of sustainability on campus and serves as a living laboratory for Bentley students to explore the impacts of sustainable decision making on organizational performance.

This first annual report outlines more information about the Bentley Arena and many of Bentley's other sustainability achievements. We hope you are inspired by the progress that has been made to add your own voice to propelling Bentley towards a more sustainable future.

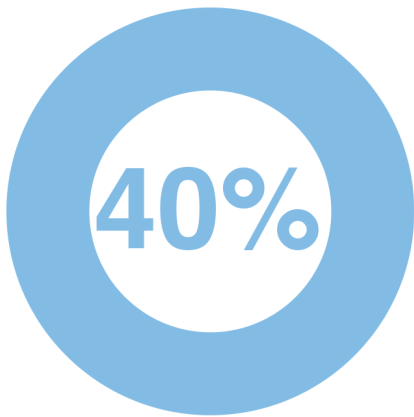
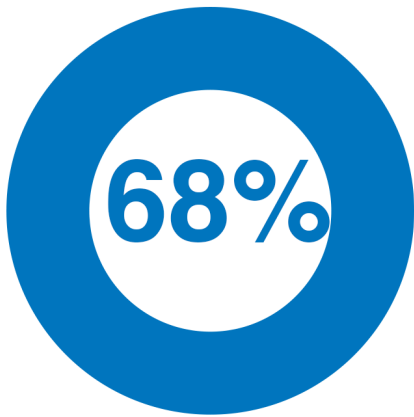


Amanda King  
Executive Director





# Progress Overview



## CARBON FOOTPRINT

**Goal:** 70% reduction in greenhouse gas emissions by 2020 (baseline year: 2008).

**2018:** Bentley University has achieved a 68% reduction in greenhouse gas emissions as compared to baseline year.

## WASTE DIVERSION

**Goal:** divert 60% of the university's waste through recycling and composting by 2020.

**2018:** Bentley University has achieved a 40% waste diversion rate.

## WATER USAGE

**Goal:** reduce water use by 5% (baseline year: 2013).

**2018:** Bentley University has maintained a 0% increase in water use, but has not reduced water use significantly as compared to 2013.

## DRIVE ALONE COMMUTES

**Goal:** 25% of employees and commuting students using low-carbon commuting methods (public transportation, carpooling,

**2018:** 22% of Bentley University employees and commuting students use low-carbon transportation options for the majority of their commutes.

# Climate Action

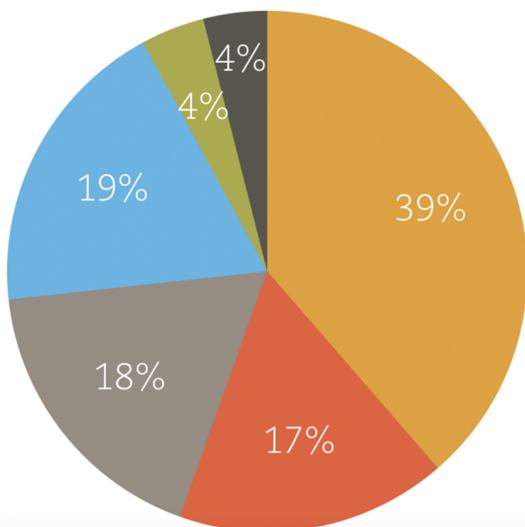
## Carbon Footprint

Bentley University's building square footage and population have grown by 3.49% and 4% respectively since 2008. Despite this increase, the university has reduced greenhouse gas emissions by 68% over the same time period.

The biggest contributors to the university's carbon footprint are greenhouse gas emissions from: grid electricity used to light and cool buildings, natural gas boilers used to make heat and hot water, daily commuting, and study abroad air travel.

## Bentley University's Greenhouse Gas Emissions Profile (2018)

- Grid Electricity
- Natural Gas Boilers
- Business Air Travel
- Study Abroad
- Commuting
- Deminimus Sources



## The campus' carbon footprint reduction success thus far is the result of a four-pronged approach:

1. Continuous energy efficiency upgrades to reduce electricity and natural gas use
  2. Investment in offsite renewable energy via Green-e certified Renewable Energy Certificates
  3. Investment in Verified Emissions Reductions Credits (VERCs) to offset emissions from air travel
  4. Investment in onsite renewable energy.
- The university will continue to invest in energy efficiency and renewable energy opportunities in its quest for carbon neutrality.

Bentley purchases Verified Emissions Reductions Credits from the New Bedford Landfill Gas-to-Energy Project which produces 3.3 megawatt hours (MWh) of clean electricity per year. The project produces power for the regional electricity grid and reduces the amount of methane released into our atmosphere. By purchasing VERs to support this project, Bentley is able to offset the greenhouse gas emissions and contributes to the "greening" of the local electricity grid.

Sophie Rodgers  
Sustainability Student Leader







## **Sustainable Construction**

### *Buildings*

In 2018 Bentley University constructed a 76,000 square-foot multi-purpose ice arena. The Bentley Arena achieved the United States Green Building Council's LEED Platinum Certification making it the most environmentally friendly sustainable stand-alone ice arena in the United States.

The Bentley Arena has half of the carbon footprint of peer buildings thanks to a combination of high efficiency heating, ventilation and air conditioning equipment; high efficiency ice making equipment; a state-of-the-art heat reclamation loop; smart LED lighting systems and a 504 kilowatt rooftop solar array. The solar array (consisting of 1,400 solar panels) provides the building with 40% of its annual electricity needs. The Bentley Arena also uses 50% less water than peers and provides the perfect venue for students to explore the impacts of various sustainable technologies on natural resource use and operating costs.





# Waste Minimization

## Recycling Program

In 2018, the recycling industry changed worldwide. More stringent regulations on acceptable contamination resulted in many U.S. organizations and municipalities receiving notices regarding rejected recycling loads. Bentley was not immune to this issue. In 2018, 98.74 tons of Bentley's waste was rejected from recycling facilities due to contamination (mostly from food and liquids).

The university reacted quickly to the change in contamination level policies, outfitting all recycling bins across campus with new signage and through education and outreach measures including student-to-student communication, email and social media. In 2018, the university's diversion rate – a key performance indicator in recycling analysis – was 40.5%. With the implementation of education and outreach efforts, the diversion rate is expected to rise in 2019.

## Compost Program

Bentley has been diverting food waste from the trash since 2014. Food scraps are collected for composting in the university's three main preparatory kitchens servicing the 921 Dining Hall, the LaCava Lower Café, Faculty Staff Dining Room, campus catering operations and the Dana Center Food Court.

Post-consumer (i.e. leftover) food from the 921 Dining Hall and catering operations is also collected in the university's compost program. In 2018, Bentley composted 167 tons of food waste, down slightly from compost collection in 2017 likely due to the Food Rescue Program implemented at the 921 Dining Hall.







## Food Rescue Program

In 2018, Bentley commenced a leftover food donation program in collaboration with Food for Free, a local non-profit food rescue organization. Through this program, leftover prepared food from the campus' 921 Dining Hall is collected and frozen by Bentley Dining staff. This frozen food is picked up by Food for Free several times per week and turned into meals for people in need in the Greater Boston Area. Bentley donated a total of 9,725 pounds of leftover prepared food in 2018.

In addition, all non-perishable food donated by residential students is given to the St. Vincent de Paul Society in Hudson, NH. In total, Bentley students donated 10.54 tons of reusable items to Goodwill and 948 pounds of food to the food bank during spring 2018 Move Out.

**10** **Tons Donated**



## Sustainable Move Out

Also contributing to the university's waste diversion rate has been Bentley's sustainable move out program, "Give 'N Go." This program encourages students to donate unwanted belongings as they move out of residence halls at the end of the academic year. Reusable goods like clothing, furniture and kitchen items are collected and donated to Goodwill Northern New England.





# Energy

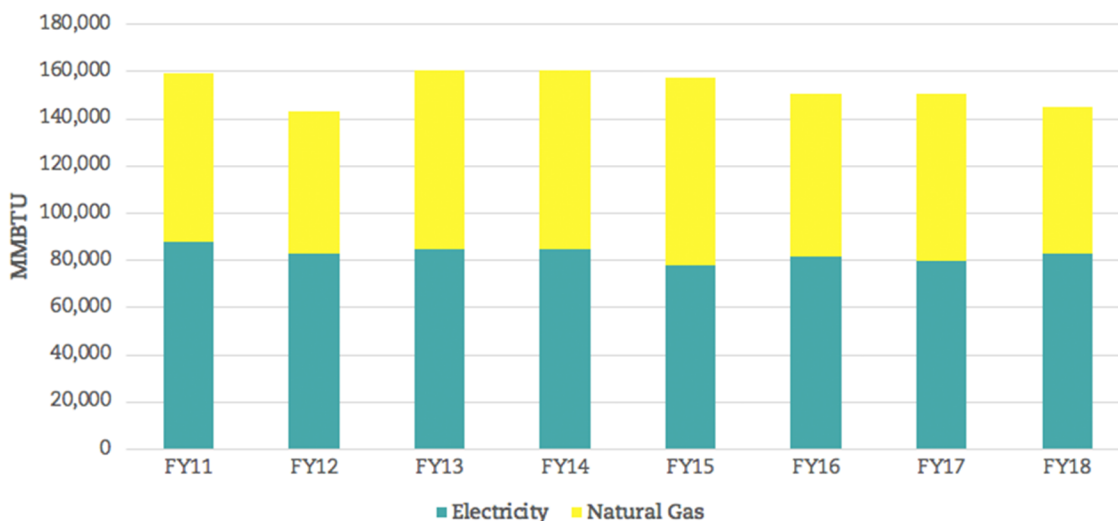
## Energy Efficiency

In 2018, Bentley’s electricity consumption increased by 4% compared to the previous year, likely due to the additional 76,000 square foot Bentley Arena. Despite this increase in built space and the accompanying conditioning, lighting and specialized mechanical equipment to maintain rink ice, campus-wide electricity consumption has decreased by 11% over the past ten years. In 2018, the university reduced natural gas consumption by 12.6%.

Bentley University continues to implement its energy efficiency strategy, committing to retrofit projects that reduce electricity and natural gas use.

These projects are a hallmark of the university’s Climate Action Plan – they decrease greenhouse gas emissions and reduce campus operating costs. In 2018, Facilities Management installed new high efficiency heating ventilation and air conditioning equipment, LED lighting and smart light systems in buildings across campus. The university’s Energy Task Force meets once per month to identify new energy efficiency projects and provides oversight for project implementation.

**Energy Consumption**







 11%

Campus-wide electricity consumption has decreased by 11% over the past ten years.

 12%

In 2018, the university reduced natural gas consumption by 12.6%.

### Green Revolving Fund

In 2018, the Office of Sustainability established the university's first **Green Revolving Fund** with a seed donation of \$250,000 from an alumnus and trustee of the university. The Bentley University Green Revolving Fund will serve as an ongoing mechanism for investing in campus energy efficiency and renewable energy projects. Savings from funded projects are tracked and used to replenish the fund for the next round of energy efficiency investments, thus establishing a sustainable funding cycle while cutting operating costs and reducing greenhouse gases.







# Education & Engagement

## Co-Curricular Education

**The Delongchamp Family Fund** was established in 2015 to support undergraduate professional and co-curricular activities associated with studying sustainability and exploring business' triple-bottom line: people, planet and profit. This year we had 7 recipients.

The fund was designed to allow students to explore co-curricular opportunities that might otherwise be out of reach due to cost. These include:

- Attending a conference
- Going to a networking event
- Taking an unpaid or a limited paid internship
- Pursuing a research project
- Creating a public awareness campaign around sustainability



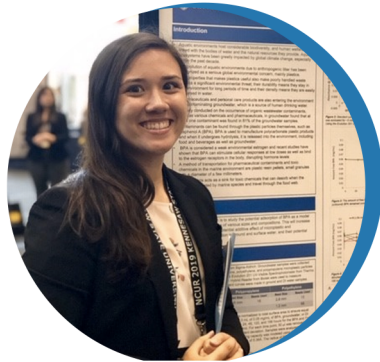
## Student Sustainability Leadership Program

The Office of Sustainability's Student Sustainability Leadership Program cultivates professional skills and provides students with hands-on learning opportunities. Each academic year, five paid interns and two summer interns receive formal leadership training, skills-based training and the opportunity to work hand-in-hand with Office of Sustainability staff on the most pressing sustainability challenges facing the university today.

Students explore renewable energy opportunities for the university, grapple with challenges of increasing waste diversion and create and implement marketing campaigns to increase education and engagement in sustainability topics.



Cyrus Woodman '17  
Annual Wall Street  
Green Summit



Tatiana Naclerio '21  
National Conference on  
Undergraduate Research





Elizabeth Stoner  
Natural and Applied Sciences

# Academics

# 2

Sustainable  
Business  
Majors

# 1

Concentration in  
Sustainable  
Investing

# 1

Minor in  
Sustainable  
Investing

## Student Engagement

Sustainability  
Film  
Series

# 7

Films Shown

Alternative  
Transportation  
Week

# 13

Student Activities

Fair  
Trade  
Fair

# 17

Vendors

Waste  
Awareness  
Week

# 5

Student Activities



## Co-Curricular

# 7

Delongchamp Family Fund  
Recipients in 2018

Sustainability Student  
Leadership Internships

## Awards



LEED PLATINUM  
MOST SUSTAINABLE  
MULTIPURPOSE  
HOCKEY ARENA



GOLD  
CERTIFICATION