

PROGRESS REPORT

FY 2013



Universities have a special role and a special responsibility to address the global challenges of climate change and sustainability. A university community must not only carry out research, but also translate the findings of that research into action.

-President Drew Gilpin Faust

ENERGY AND EMISSIONS

Goal: 30% reduction in Greenhouse Gas emissions, from a 2006 baseline, by 2016, including growth

21%

reduction in greenhouse gases including growth and renovation (FY06-FY13)



31% excluding growth



Over **1,300** energy conservation measures implemented (FY06-March 2014) saving an estimated

\$8-9 million

annually

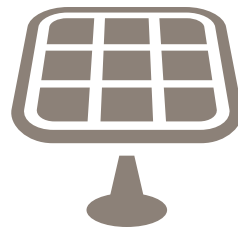
5%

energy reduction including growth and renovation (FY06-FY13)



18%

excluding growth



17%

electricity from renewable energy sources including 1MW on-campus installed solar

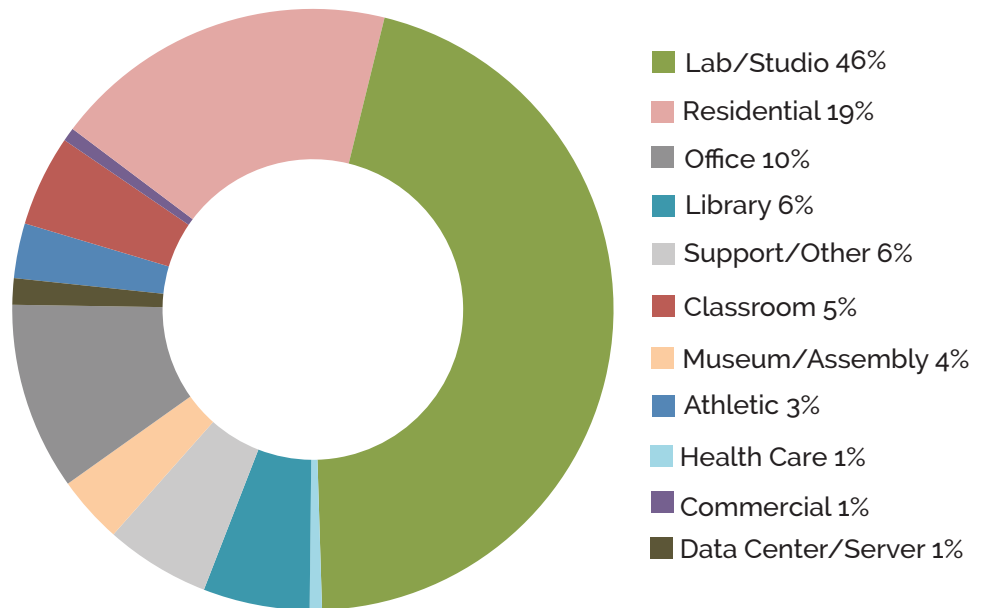
116 total LEED projects

89 certified; 27 registered as of March 2014



Green Building Standards ensure all capital projects and renovations incorporate long-term impacts and costs into decision-making

Energy Use by Space Type



Approximately **200 NPV+**

projects funded by Harvard's award-winning \$12 million Green Revolving Fund (2002-2013) with nearly:

\$5.4 million

projected in annual utility savings and:

14,000

annual metric tons of carbon dioxide equivalent reduction



LIVING LAB

Students in the ES96 Engineering Design Seminar regularly conduct in-depth analysis of on campus energy challenges, including expansion of geothermal heating at Radcliffe Institute for Advanced Study. Graduate School of Design students designed two award-winning houses that use little or no energy, and provide universal lessons in sustainability.

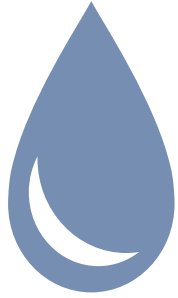
OPERATIONS AND MAINTENANCE



53% of total university waste was recycled or composted

34% reduction of waste per capita (FY06-FY13)

54% decrease in food waste in dining halls over 2005 averages thanks to student led campaigns



23%
reduction in water use (FY06-FY13)

Organic landscaping on over
90 acres
including Harvard Yard



Certified green cleaning on more than
10 million
square feet of campus

100%

of landscape waste composted by Campus Services (500 tons)

4

Schools compost campus wide

590

tons (equal to 3,000 couches!) of material donated for reuse during move-out, freecycles, and other programs



LIVING LAB

Each year at least half a dozen students tackle a sustainability-related challenge when developing their final project for the computer science class CS50. Professor David Malan also created energy.cs50.net to show students how to visualize energy and emissions usage in undergraduate houses to influence student behavior and to support the undergraduate Resource Efficiency Program.

HEALTH AND WELL-BEING

4

community gardens



7

podcasts from the HMS Countway Garden

200

lbs of food grown at the HDS garden

100

lbs donated to local food pantry

LIVING LAB

Environmental health PhD candidates and faculty from the Harvard School of Public Health worked with the Faculty of Arts and Sciences and the Office for Sustainability to integrate Harvard's river houses into a National Science Foundation-funded study looking at environmental factors, including impacts from climate change, that influence comfort, health, and sleep in buildings.

LIVING LAB

HUDS partnered with National Geographic fellow and Harvard Center for Health and the Global Environment program director Barton Seaver to create a model institutional seafood purchasing program that balances cost, sustainability, and health.

More than **32%**

of HUDS food budget dedicated to locally grown or organic food



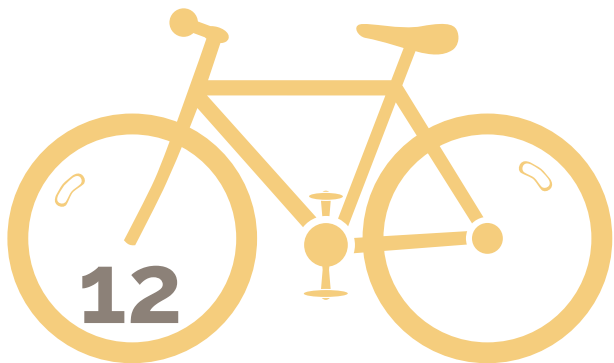
Weekly runs through **Harvard on the Move**
340 employees engaged in mindfulness workshops through **Healthy Harvard**

Cambridge Commuters (2012):

43% bike or walk
37% take transit
3% carpool

Longwood Commuters (2012):

25% bike or walk
52% take transit
4% carpool



12

**Hubway
stations**

56,000 trips on the Hubway Bike system

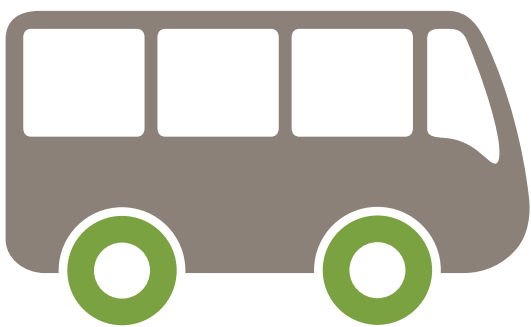
= 60,000 miles



All Harvard Police Department patrol cars are Hybrids

77 vehicles

including all shuttle buses, fueled by biodiesel



LIVING LAB

Professor of Urban Planning Ann Forsyth has asked her students to conduct a detailed Environmental Health Impact Assessment of the Harvard Graduate School of Design campus, giving students an opportunity to apply the theory they learn in class to their own environment, understanding the real-world challenge of this type of assessment framework.

CULTURE CHANGE AND COMMUNITY



More than **2,000** reusable mugs or water bottles distributed to first-year undergraduate students and graduate students

Over **3,000** super-efficient LED bulbs handed out to all first-year students and Harvard University Housing and Harvard Real Estate tenants.



45 Student sustainability grants funded from 2010-2013 for on campus energy reduction and sustainability projects



9 out of 49 Harvard Heroes recognized for sustainability efforts

183 on-campus sustainability innovators recognized with Green Carpet Awards (since 2010)

40 undergraduate and graduate students running peer-to-peer energy reduction campaigns

56 members of the Green Team Leaders Network



All new employees learn about Harvard's environmental sustainability commitment in HR orientation.

34 members on the Sustainability and Energy Management Council

LIVING LAB

The Office for Sustainability brings faculty, students, and staff together with a goal of creating a sustainable community that supports Harvard's research and teaching mission.

For example, the Council of Student Sustainability Leaders, a group of more than 20 student environmental leaders, representing all Schools provides input to the University on how best to evolve its sustainability programming.



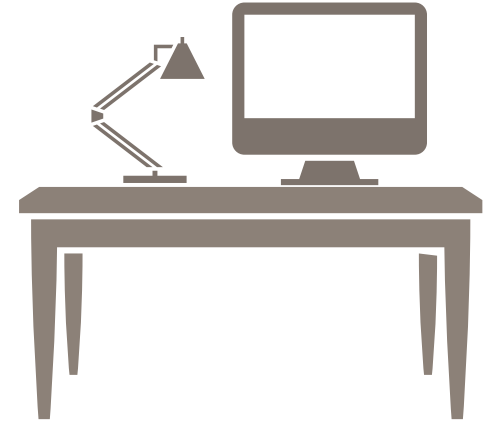
\$240,00

saved through the Shut the Sash competition in the Chemistry Department alone

222 Green Offices

3,542 Staff engaged

as of March 2014



HARVARD
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| Sustainability

www.green.harvard.edu

Harvard University is committed to developing and maintaining an environment that enhances human health and fosters a transition toward sustainability.