

# Harvard and the Massachusetts Economy

## FACTS & IMPACT



**HARVARD**  
UNIVERSITY

Community  
Connections

[www.community.harvard.edu](http://www.community.harvard.edu)

271,000

\$1,300,000,000

323,000

17,668

19%

1,710

\$607,400,000

206

725

49,600

343

33,083

\$182,000,000

\$38,403

700

\$821.2M

\$27.5M

872

# Harvard and the Massachusetts Economy

## FACTS & IMPACT

Harvard University takes pride in being part of the Massachusetts community. Through our teaching, research and operations, we seek to contribute to the region's innovation ecosystem and to help create jobs, businesses and economic growth.

How does Harvard contribute?



### EDUCATION

Supporting traditional and nontraditional students with generous financial aid, making education available to the most talented students, regardless of their ability to pay.



### RESEARCH

Attracting nearly \$1 billion in research funding to Massachusetts, fueling science, medical discoveries, health improvements, and spending in our local economy.



### INNOVATION

Making discoveries that attract private investment and launch small businesses, sparking our region's entrepreneurial spirit.



### EMPLOYMENT

Serving as one of the largest employers in the state, creating good jobs that help employees grow and advance their careers.



### IMPACT

Spending more than \$1.3 billion in Massachusetts to fund operations and maintain facilities.



*“One of the most significant things about our research universities is that they are engines that also produce the fuel — the scientists, physicians, and engineers, the thinkers and ideas that spur the new products, new jobs, and new companies that will help renew our economy.”*

— Harvard President Drew Faust



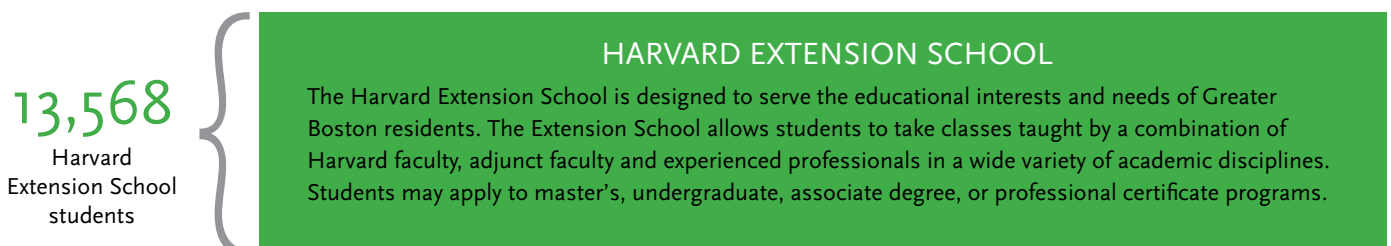
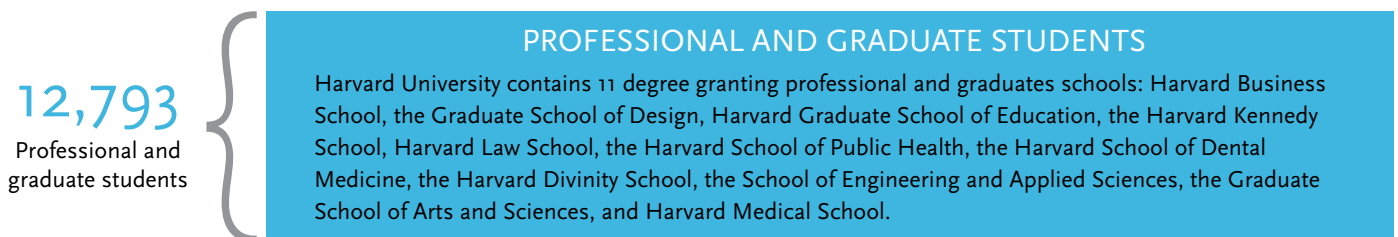
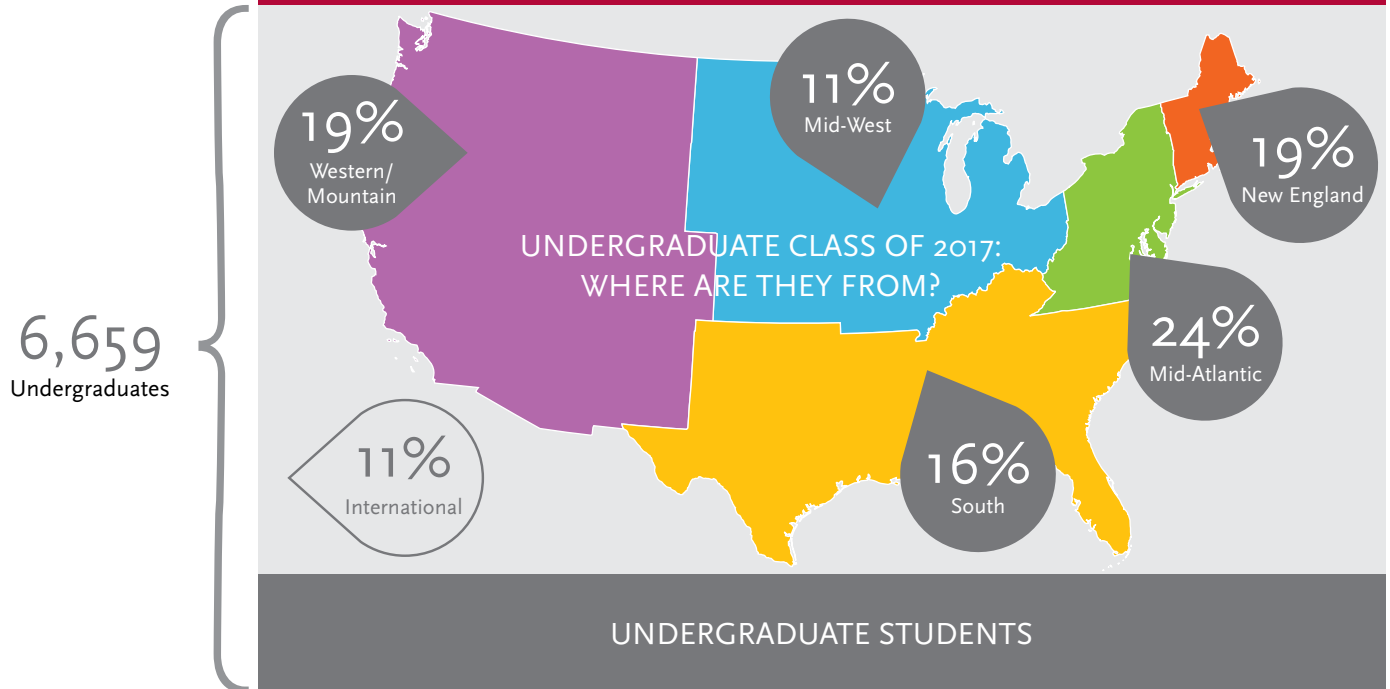
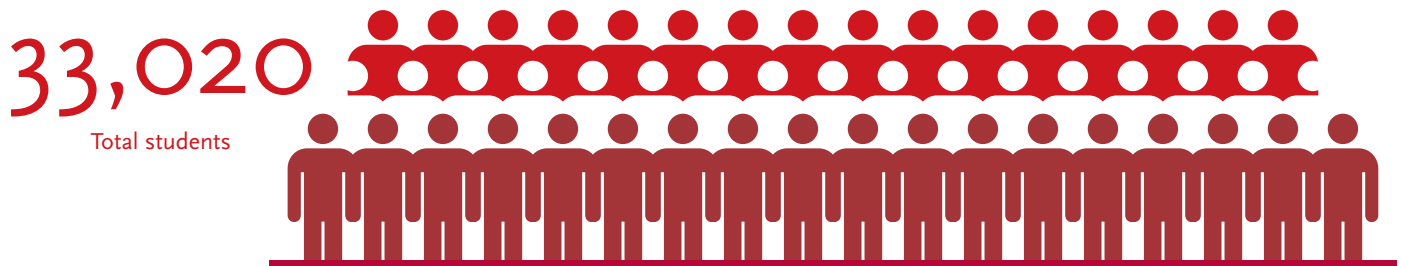
**HARVARD**  
UNIVERSITY

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# EDUCATION

Supporting traditional and nontraditional students with generous financial aid, making education available to the most talented students, regardless of their ability to pay.

## TOTAL STUDENT POPULATION



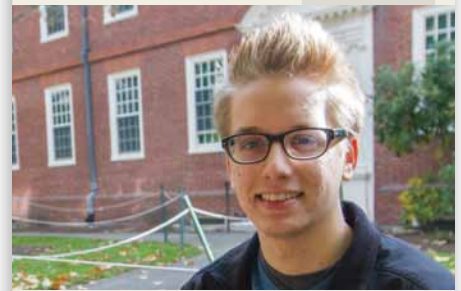
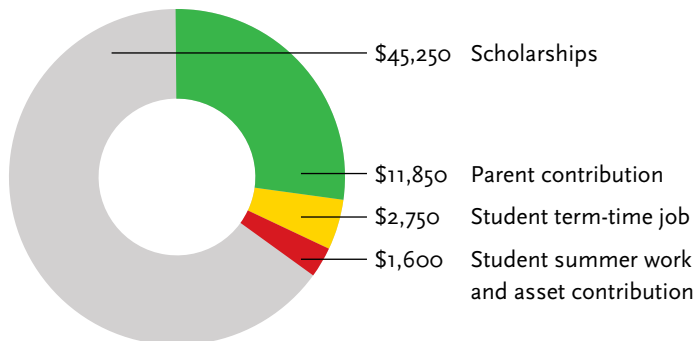
## FINANCIAL AID

Approximately 60 percent of undergraduates receive need-based Harvard scholarship aid, and 100 percent of Harvard College students can graduate debt-free.



## TYPICAL UNDERGRADUATE AID PACKAGE (Class of 2017)

A total of  
**\$172M**  
in institutional  
need-based  
scholarship support  
was budgeted for  
use by Harvard  
College students.

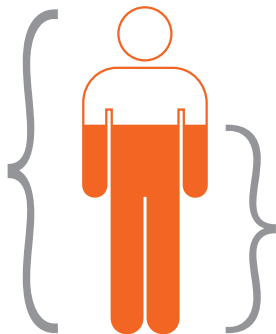


*"I assumed that I wouldn't be able to afford college, regardless of location or prestige. My parents wouldn't be able to help me out with tuition, and I didn't have much money of my own. I knew about Harvard's financial aid program, and it is one of the main reasons that I applied."*

— Austin Mueller  
Harvard College Class of 2017

## MASSACHUSETTS FINANCIAL AID INFORMATION

**872**  
Total number of  
Massachusetts  
students at Harvard  
College in FY13.



**558**  
Number of Massachusetts  
students enrolled at  
Harvard College receiving  
need-based scholarship  
assistance in FY13.

**\$38,403**

The average award  
to a Massachusetts  
student receiving  
aid in FY13.



## EDX AND HARVARDX

In May 2012, Harvard joined forces with MIT to form edX, a not-for-profit enterprise that features learning designed specifically for interactive study via the Web. Backed by a shared \$60 million commitment, edX allows universities to distribute course content and other academic materials. The goals of edX are to expand access to education worldwide, improve teaching and learning on campuses and beyond, and advance teaching and learning through educational research.



**\$60M**

Shared commitment  
from both institutions



# HarvardX

HarvardX is Harvard's contribution to the edX platform.

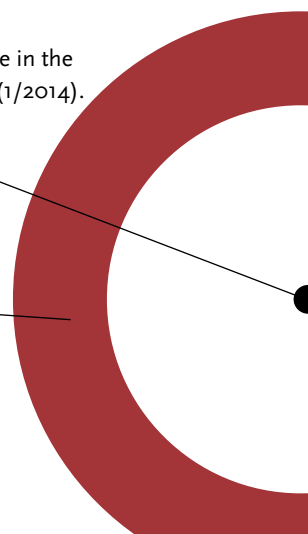
To date, 30 universities are in the X University Consortium (1/2014).

**33,000**

Total on-campus  
student population.

**700,000**

Registrant enrollments  
for HarvardX courses,  
as of January 2014.



# RESEARCH

Attracting nearly \$1 billion in research funding to Massachusetts, fueling science, medical discoveries, health improvements, and spending in our local economy.

## TOTAL HARVARD RESEARCH FUNDING BENEFITING MASSACHUSETTS

In FY13, Harvard attracted \$821.2 million in research funding to Massachusetts.

**\$821.2M**

Between FY12 and FY13, research funding from non-federal sources increased by 9 percent.

**+9%**

**\$639M**  
TOTAL  
FEDERAL  
SOURCES

**\$187.3M**  
FROM  
NSF, DOD,  
HHS, DOE,  
NASA and  
OTHERS

**AND**  
**\$451.7M**  
FROM  
NIH  
GRANTS

**\$639**  
MILLION IN  
RESEARCH FUNDING  
CONTRIBUTED BY  
FEDERAL SOURCES

Nearly 80 percent of Harvard's research activities in FY13 were funded by federal research dollars.

**\$451.7**  
MILLION IN  
NIH GRANTS

The single largest source of research dollars is the National Institutes of Health (NIH). Harvard received \$451.7 million in NIH grants in FY13.

**\$182.2**  
MILLION IN  
RESEARCH FUNDING  
CONTRIBUTED BY  
NONFEDERAL  
SOURCES

In FY13, 22 percent of Harvard's research funding came from nonfederal sources including industry and foundations such as the Bill & Melinda Gates Foundation, GlaxoSmithKline USA and the National Multiple Sclerosis Foundation.

FY12

FY13

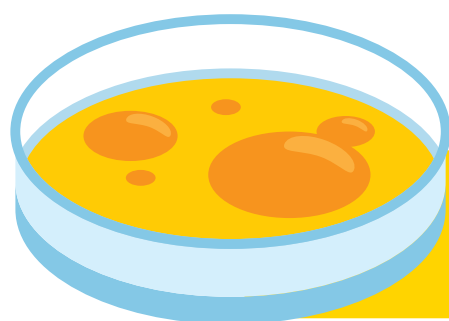
FY13



## LOCAL SUPPORT, LOCAL HIRES, LOCAL PURCHASES

\$311.1M

In FY13, Harvard spent \$311.1 million in research dollars on purchasing and salaries in Massachusetts.



\$283.6M

supports researchers and staff.



MASSACHUSETTS  
MARKET

In FY13 Harvard purchased \$27.5 million of goods and services from companies located in Massachusetts with the research funding it received.

\$27.5M

PAID

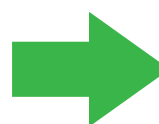


\$6.1M

supported companies  
in Cambridge.

\$11.2M

supported companies in Boston.



*“Our research seeks to reduce human suffering through innovative solutions based on a mechanistic understanding of disease processes. Through the development of novel therapies for infectious diseases, we contribute to improved public health and provide jobs for skilled workers in our communities. Our work has shortened both the time and expense for the development of vaccine candidates that have the potential to positively impact millions of people worldwide. With multiple vaccines under investigation and two in clinical testing, this work is an example of basic research evolving into therapies in the clinic that have the promise of improving public health and fostering jobs here at home.”*

– Darren Higgins  
Professor of Microbiology and Immunobiology, Department of Microbiology and Immunobiology, Harvard Medical School

# INNOVATION

Making discoveries that attract private investment and launch small businesses, sparking our region's entrepreneurial spirit.

## AN ENGINE OF INNOVATION

The Office of Technology Development is charged with protecting, supporting, and advancing the development of new discoveries and inventions arising from Harvard's research enterprise.

In 2013, the Office of Technology Development received disclosure from the Harvard community of ...

As of Jan. 1, 2014, Harvard held approximately 1,710 U.S. and international patents, combined.

As of Jan. 1, 2014, Harvard had executed 573 licenses with 343 industry partners to develop scientific intellectual property

**414**  
INVENTIONS

... and filed

**231**  
PATENT  
APPLICATIONS



**1,710**  
PATENTS  
HELD



**573**  
LICENSES

... active with

**343**  
INDUSTRY  
PARTNERS

## THE HARVARD INNOVATION LAB (i-lab)

The Harvard Innovation Lab is a new and innovative initiative fostering team-based and entrepreneurial activities and deepening interactions among Harvard students, faculty, entrepreneurs and members of the Allston and Greater Boston community. Between the i-lab's opening in November 2011 through winter 2014:

The i-lab has had more than  
**100,000**  
visits since opening.

**8,000** local community  
members have participated in more  
than 400 programs held at the i-lab  
since 2011.

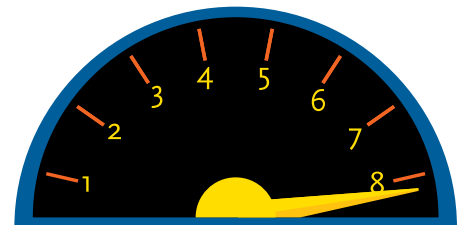


Harvard Innovation Lab

The i-lab hosts **70-100**  
Harvard Ventures in Residence  
at any given time.

More than **2,400** events  
have been held at the i-lab.

## BLAVATNIK BIOMEDICAL ACCELERATOR



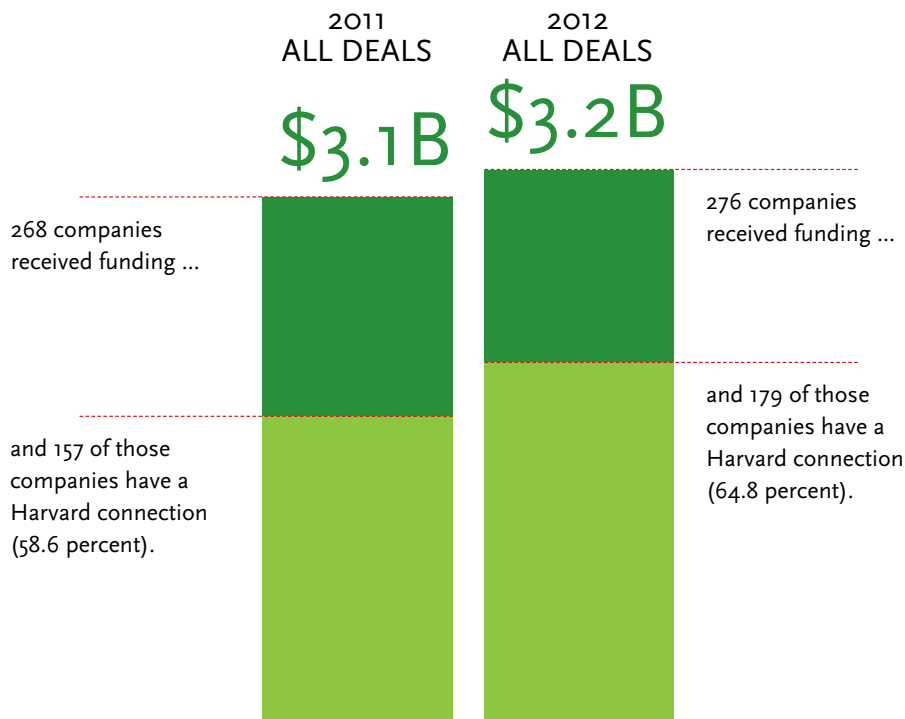
**\$8.2** MILLION IN  
GRANTS TO **45** PROJECTS

The Blavatnik Biomedical Accelerator bridges the gap between innovative, early-stage life science research and successful development of high-impact biomedical products. Between 2006 and 2013, \$8.3 million in grants were awarded to 45 separate projects.



## VENTURE CAPITAL AWARDS

In 2011 and 2012, young Massachusetts companies received more than \$6.3 billion in venture capital funding, and more than half of those companies have a strong connection to Harvard.



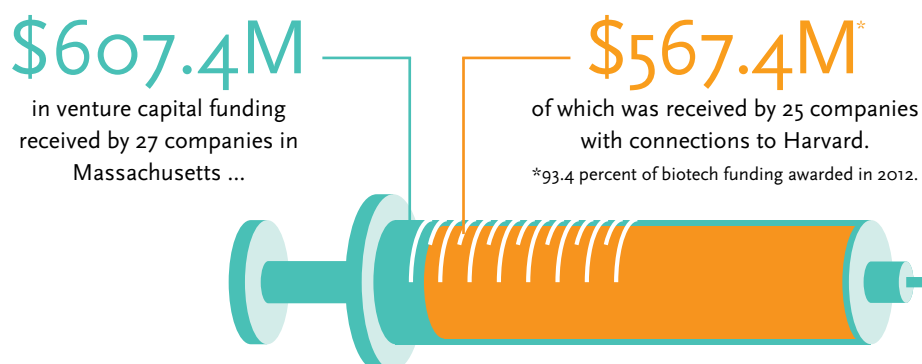
Some companies are still in "stealth mode," making it impossible to assess possible Harvard connections. In addition, the amount of venture capital funds some companies received is not yet publicly available.



*"Great innovation clusters colocate near strong research institutions because the interaction between breakthrough academic researchers and bold entrepreneurs is a critical ingredient in the formation of innovative enterprise. The Massachusetts innovation economy is a great exemplification of this: world class research universities in an investment-oriented community."*

– Vicki Sato  
Professor of the Practice of Molecular and Cellular Biology, Department of Molecular and Cellular Biology, Faculty of Arts and Sciences, and Professor of Management Practice, Harvard Business School

## VENTURE CAPITAL DATA 2012 BIOTECH DEALS



## SELECTED MASSACHUSETTS COMPANIES FOUNDED BASED ON HARVARD DISCOVERIES



# EMPLOYMENT

Serving as one of the largest employers in the state, Harvard creates good jobs that help employees grow and advance their careers.

## PEOPLE IN MASSACHUSETTS DIRECTLY EMPLOYED BY HARVARD

### ACADEMIC



5,218

Roughly 5,218 academics work across the University.

### NON-ACADEMIC



12,450

Approximately 12,450 staff are responsible for the day-to-day needs of the University.

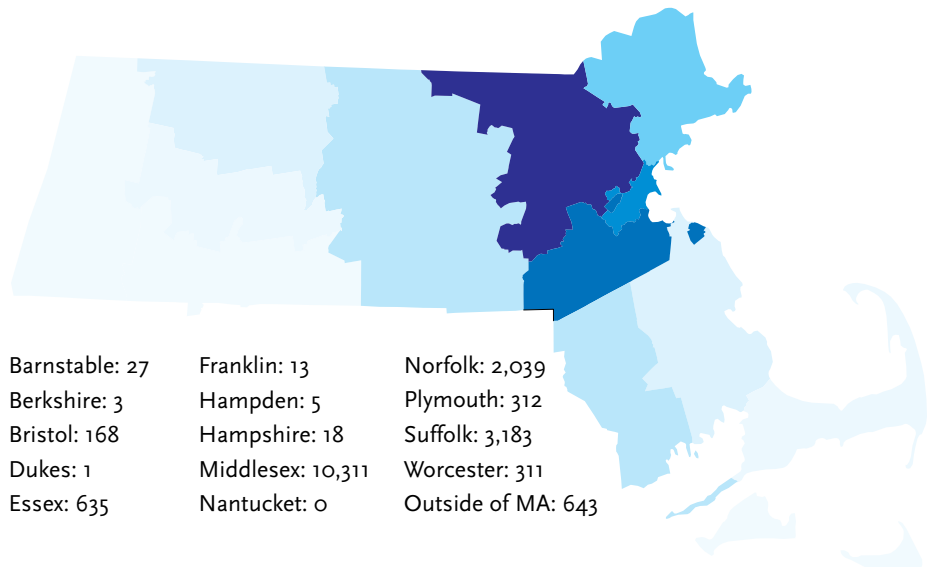
17,668

Total people in Massachusetts directly employed by Harvard as of Dec. 31, 2013.

5<sup>th</sup>

In 2012, Harvard was the fifth-largest employer in Massachusetts, according to the *Boston Business Journal*.

## HARVARD EMPLOYEES RESIDENCES BY COUNTY (AS OF FEBRUARY 2014)



Barnstable: 27	Franklin: 13	Norfolk: 2,039
Berkshire: 3	Hampden: 5	Plymouth: 312
Bristol: 168	Hampshire: 18	Suffolk: 3,183
Dukes: 1	Middlesex: 10,311	Worcester: 311
Essex: 635	Nantucket: 0	Outside of MA: 643



*"Harvard continues to be our most important partner in providing quality work opportunities to Cambridge youth, hiring more teens than any other employer/organization in the city."*

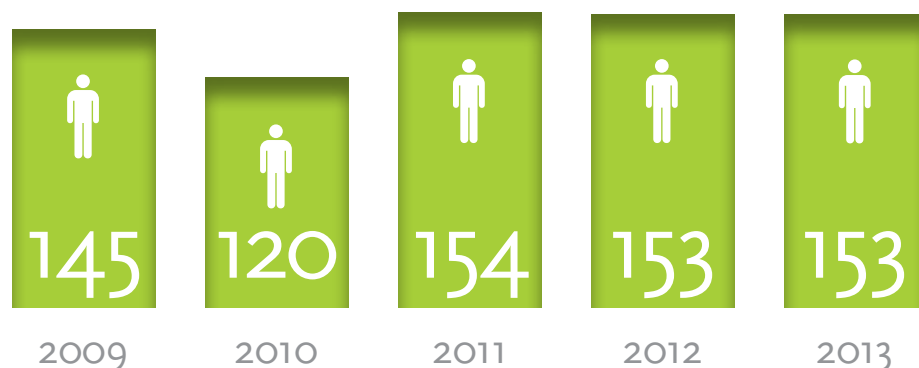
– Sue Walsh  
Director of the Cambridge Office of Workforce Development

Harvard offers its employees – nearly 50 percent of whom are represented by a union – an array of professional development opportunities, and it partners with its host communities to establish strong internship programs for high school students.

## SUMMER JOB PLACEMENT – HIGH SCHOOL STUDENTS

725

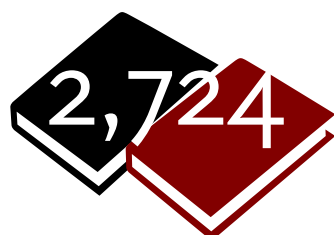
Over the past five years, Harvard has provided 725 jobs for Cambridge and Boston high school students.



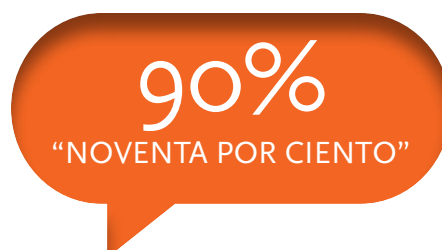
## THE HARVARD BRIDGE PROGRAM

An education and training program open to all Harvard staff and faculty, the Bridge Program offers classes including academic writing, business writing, college preparation, career exploration, computer skills, English for speakers of other languages (ESOL), high school diploma preparation, office skills, TOEFL preparation, advanced pronunciation, and more.

Bridge students may also request one-on-one tutorial sessions, including citizenship preparation. Career development services include individual counseling, professional internships and job shadowing opportunities. The following information about the Harvard Bridge Program is current as of February 2014.



Number of students who have enrolled in classes through the Bridge Program since 2000.



Percentage of students who have earned a high school diploma in a non-native language through the Bridge Program.



In spring 2014, the Harvard Bridge Program offered 52 classes, including two classes from 10pm to midnight – specifically for overnight custodians.

206



The number of Harvard employees who have become US citizens through the Bridge Program since 2007.

# IMPACT

Harvard's economic, health and social impacts are felt around the globe and in our backyard. In Massachusetts, Harvard's 50,000 alumni are playing leading roles at world-renowned teaching hospitals, cultural centers and research institutions.



Harvard affiliates include the Wyss Institute, the American Repertory Theater, and the Arnold Arboretum.



49,600

The approximate number of alumni currently living in Massachusetts.



271,000

The estimated number of alumni living in the United States.



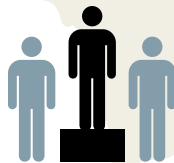
323,000

The approximate number of living Harvard alumni in more than 201 countries.



102,373

In 2013, more than 102,000 people visited the Harvard Information Center.



2,430

Estimated number of alumni who hold senior leadership positions in or were the founders of Massachusetts companies.



10,000

Number of doctors at Boston-area hospitals holding academic appointments at Harvard Medical School.



Harvard alumni have a presence on nearly every major nonprofit board in eastern Massachusetts.



42

Forty-two Harvard alumni are members of the 113th Congress.

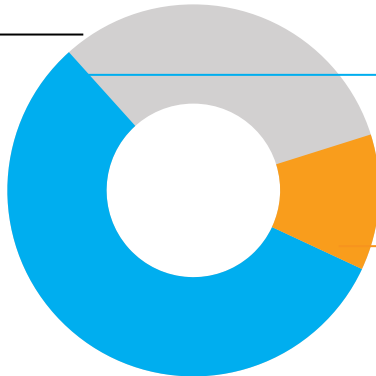
Harvard is spending more than \$1.3 billion in Massachusetts to fund operations and maintain facilities.

## HARVARD'S SPENDING ON PROPERTY IMPROVEMENTS AND MAINTENANCE

In FY13, Harvard spending totaled almost \$4.5 billion; Harvard personnel expenses totaled \$2.1 billion. The majority of Harvard spending went to purchase supplies, maintain and expand the physical plant, and run the University. These activities cost \$2.4 billion.

**\$1.3B**

In FY13, Harvard spent \$2.4 billion on construction and to purchase supplies and services ... of that, \$1.3 billion was spent in Massachusetts.



Of the \$1.3 billion, \$709.3 million was spent in Boston.

Of the \$1.3 billion, \$125.1 million was spent in Cambridge.



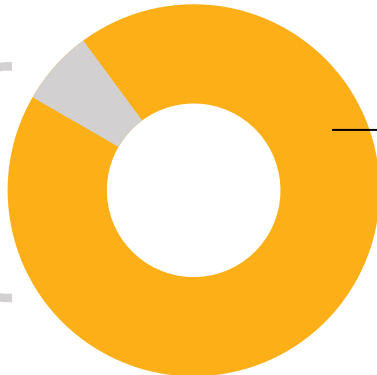
*"Our regional economy is knowledge-based and our life blood is research, education and training. Institutions like Harvard are important engines that create the foundation of innovation upon which our economic vitality depends."*

— Paul Guzzi  
President and CEO, Greater Boston Chamber of Commerce

## CONSTRUCTION SPENDING

**\$383.8M**

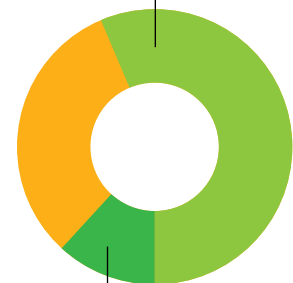
In FY13, Harvard spent millions on construction ...



**\$327.1M**

... of that, \$327.1 million was spent across Massachusetts.

Of that \$327.1 million, \$159 million was spent in Boston ...

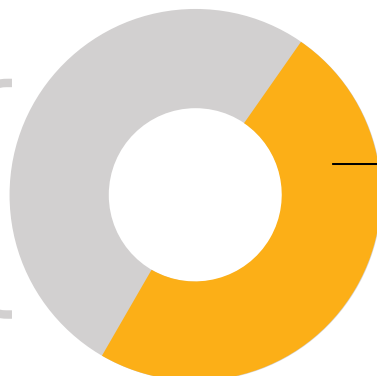


and \$17.1 million was spent in Cambridge.

## SUPPLIES AND SERVICES SPENDING

**\$2.0B**

In FY13 Harvard spent \$2.0 billion to purchase supplies and services ...



**\$943.4M**

... of that, \$943.4 million was spent in Massachusetts.

Of that \$943.4 million, \$550.2 million was spent in Boston ...



...and \$108 million was spent in Cambridge.









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