

2015

Harvard and the Massachusetts Economy

FACTS & IMPACT



HARVARD
UNIVERSITY

Community
Connections

www.community.harvard.edu

Harvard and the Massachusetts Economy

FACTS & IMPACT 2015

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.



“Harvard pushes the boundaries of knowledge, drives discovery, and changes lives—and there is no better home for our revolutionary efforts than Massachusetts. Research undertaken here sparks innovation and fuels the local economy, and partnerships rooted in Massachusetts enable the University to attract talented individuals who are helping to build a better future for all.”

— Harvard President Drew Faust



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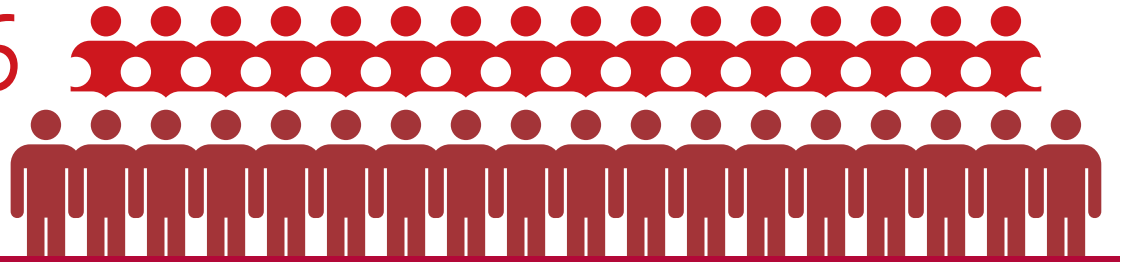
EDUCATION

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

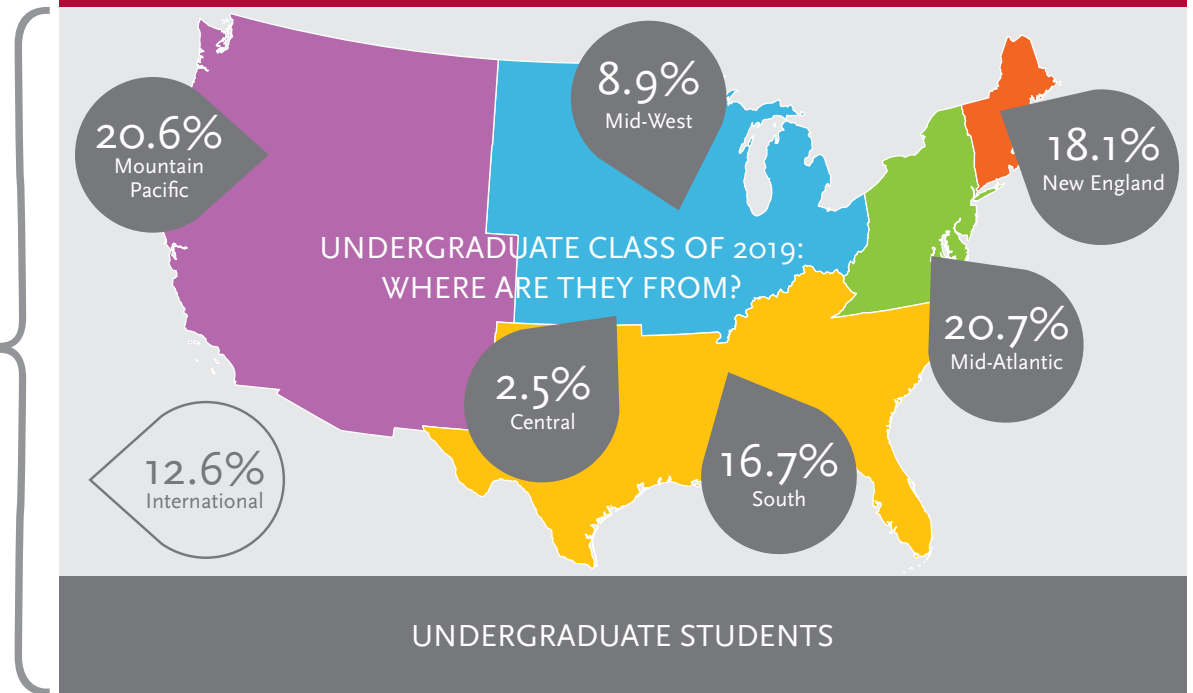
33,716

Total students



6,636

Undergraduates



12,905

Professional and graduate students

PROFESSIONAL AND GRADUATE STUDENTS

Harvard University contains 11 degree granting professional and graduates schools: Harvard Business School, the Graduate School of Design, Harvard Graduate School of Education, the Harvard Kennedy School, Harvard Law School, the Harvard School of Public Health, the Harvard School of Dental Medicine, the Harvard Divinity School, the School of Engineering and Applied Sciences, the Graduate School of Arts and Sciences, and Harvard Medical School.

14,175

Harvard Extension School students

HARVARD EXTENSION SCHOOL

The Harvard Extension School is designed to serve the educational interests and needs of Greater Boston residents. The Extension School allows students to take classes taught by a combination of Harvard faculty, adjunct faculty and experienced professionals in a wide variety of academic disciplines. Students may apply to master's, undergraduate, associate degree, or professional certificate programs.

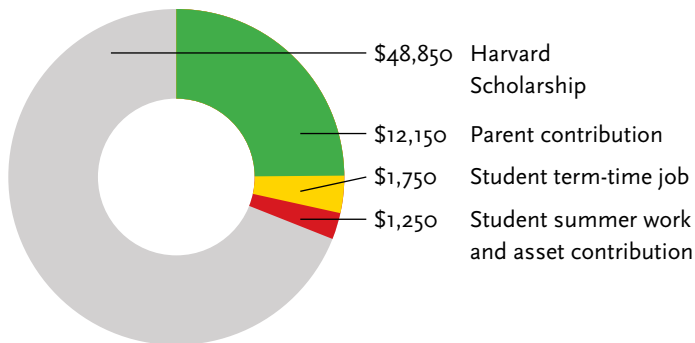
FINANCIAL AID

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 2018)

A total of
\$175M
in institutional
need-based
scholarship support
was budgeted for
use by Harvard
College students.

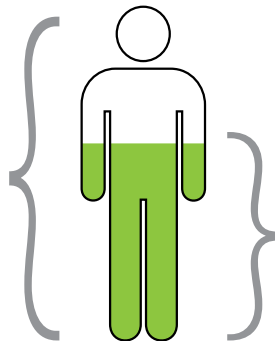


"I was able to embrace Harvard immediately, knowing that the Financial Aid Office was going to have my back, and they have been incredible. Harvard gives you everything you need to become the person you want to be."

— Gabriela Ruiz-Colon
Harvard College Class of 2016

FINANCIAL AID TO MASSACHUSETTS STUDENTS

913
Total number of
Massachusetts students
at Harvard College
during the 2014-2015
academic year.



535
Number of Massachusetts
students enrolled at
Harvard College receiving
need-based scholarship
assistance during the
2014-2015 academic year.

\$42,797

The average award
to a Massachusetts
student receiving
aid in the 2014-2015
academic year.



EDX AND HARVARDX

In May 2012, Harvard joined forces with MIT to form edX, a not-for-profit, open source online learning platform that features interactive and innovative tools for teaching and studying 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.

To date, 69 educational partners have joined the X University Consortium (5/2015).



\$60M

Shared commitment
from both institutions



HarvardX

Founded in tandem with edX, HarvardX enables faculty to build and create open online learning experiences for residential and online use, and advances research in the learning sciences.

3.09M+

Course registrations
as of summer 2015

Over **75** open courses



1.38M+

Learners



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 FY14, Harvard attracted \$811.9 million in research funding to Massachusetts.

\$811.9M

Between FY13 and FY14, research funding from non-federal sources increased by nearly 12 percent.

+11.7%

\$608.4M
TOTAL
FEDERAL
SOURCES

\$187.2M
FROM
NSF, DOD,
HHS, DOE,
NASA and
OTHERS

AND
\$421.2M
FROM
NIH
GRANTS

\$608.4
MILLION IN
RESEARCH FUNDING
CONTRIBUTED BY
FEDERAL SOURCES

Nearly 75 percent of Harvard's research activities in FY14 were funded by federal research dollars.

\$421.2
MILLION IN
NIH GRANTS

The single largest source of research dollars is the National Institutes of Health (NIH). Harvard received \$421.2 million in NIH grants in FY14.

\$203.5
MILLION IN
RESEARCH FUNDING
CONTRIBUTED BY
NONFEDERAL
SOURCES

In FY14, appropriately 25 percent of Harvard's research funding came from nonfederal sources including industry and foundations such as the Bill & Melinda Gates Foundation.

FY13

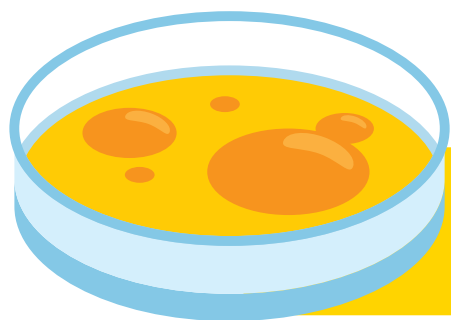
FY14

FY14

LOCAL SUPPORT, LOCAL HIRES, LOCAL PURCHASES

\$317.7M

In FY14, Harvard spent \$317.7 million in research dollars on purchasing and salaries in Massachusetts.



\$283.4M

supports researchers and staff.

MASSACHUSETTS MARKET

In FY14 Harvard purchased \$34.3 million of goods and services from companies located in Massachusetts with the research funding it received.

\$34.3M

PAID



\$8.9M

supported companies in Boston.



READ MORE ▶



"My lab is interested in understanding how the information encoded in your DNA is read out by your cell. And, we are particularly interested in and understanding how...the right gene is turned on at the right time. When the wrong gene is turned on at the wrong time all kinds of bad things can happen. Cancer is a really good example of that. What my lab is trying to understand is why is it that the wrong gene is turned on and what could we do to reverse that."

— Stirling Churchman
Assistant Professor of Genetics,
Department of Genetics, Harvard
Medical School

\$5.4M

supported companies
in Cambridge.



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 2014, the Office of Technology Development received disclosure from the Harvard community of ...

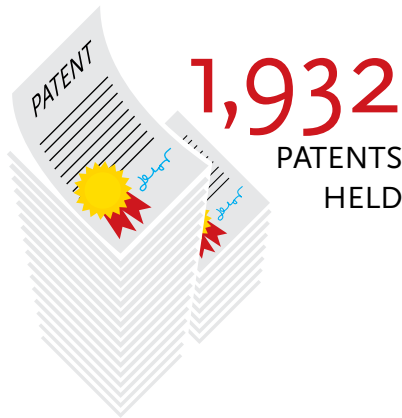
452
INVENTIONS

... and filed

246
PATENT
APPLICATIONS

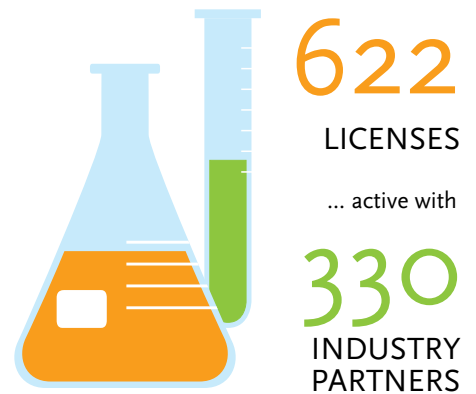


As of Jan. 1, 2015, Harvard held approximately 1,932 U.S. and international patents, combined.



1,932
PATENTS
HELD

As of Jan. 1, 2015, Harvard had executed 622 licenses with 330 industry partners to develop scientific intellectual property



THE HARVARD INNOVATION LAB (i-lab)

The Harvard Innovation Lab is a new and innovative initiative fostering cross-disciplinary entrepreneurial activities, while also 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 2015:

The i-lab has had more than
200,000
visits since opening.

In the past 4 years, local community members have participated in
660
community-partner sponsored events held at the i-lab.



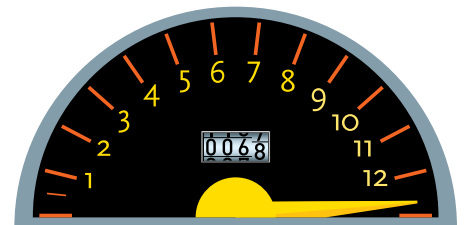
Harvard Innovation Lab

The i-lab's **67** Experts in Residence hold regular office hours to mentor and advise entrepreneurs.

More than **3,595** events have been held at the i-lab.

The i-lab hosts **70-135** Harvard Ventures in Residence at any given time.

BLAVATNIK BIOMEDICAL ACCELERATOR



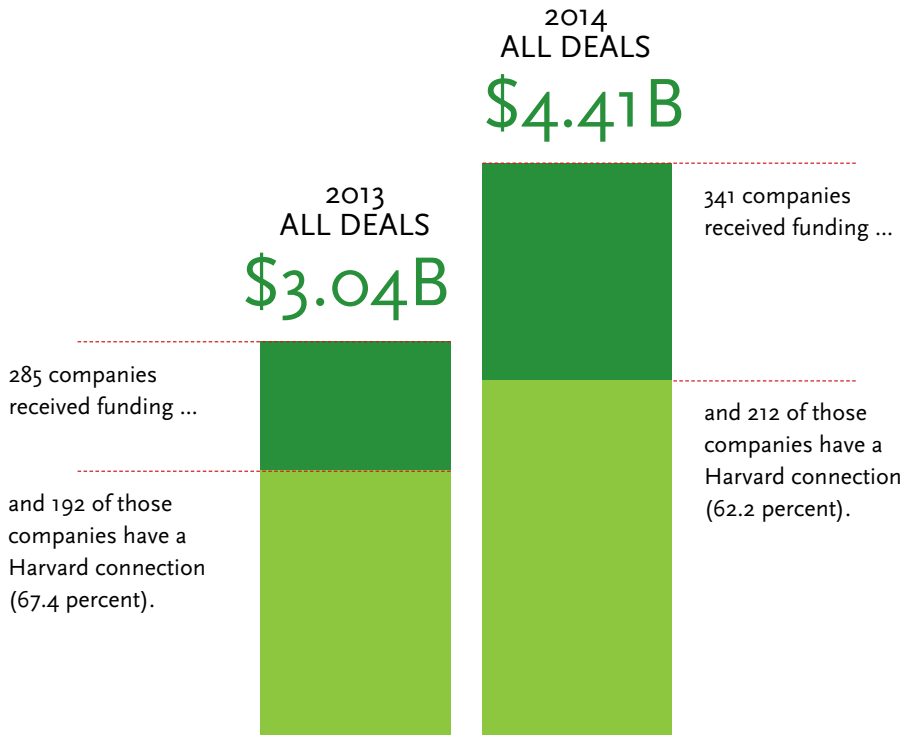
\$12.5

MILLION IN GRANTS TO
68 PROJECTS

Between 2006 and 2015, \$12.5 million in grants were awarded to 68 separate projects.

VENTURE CAPITAL AWARDS

In 2013 and 2014, young Massachusetts companies received more than \$7.45 billion in venture capital funding, and more than half of those companies have a strong connection to Harvard.

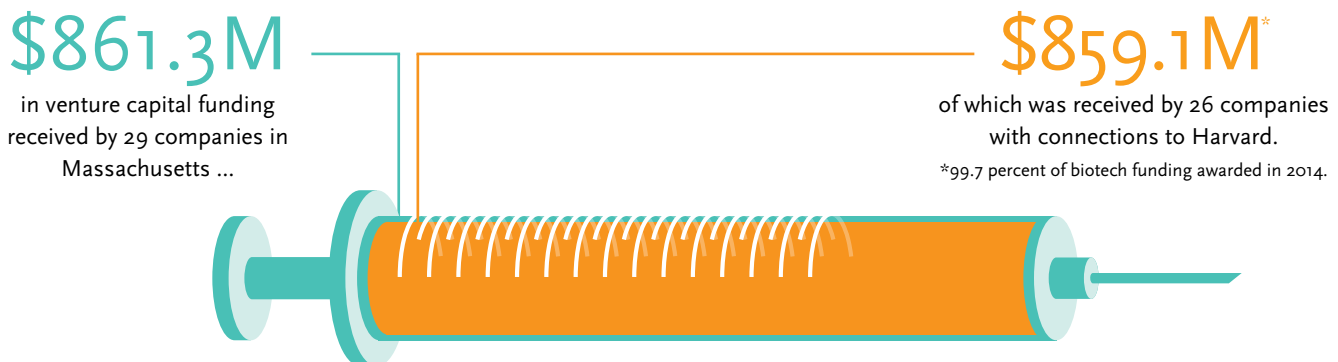


"Harvard has a deep impact in this [the life science] industry... Harvard people have been independent entrepreneurs and they have sparked lots of startup activity."

— Alexis Borisy
Partner, Third Rock Ventures

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.

VENTURE CAPITAL DATA 2014 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



5,289

Harvard employs 3,314 faculty members and 1,975 post-docs in academic positions.

NON-ACADEMIC



12,928

Approximately 12,928 staff members are responsible for the day-to-day needs of the University.

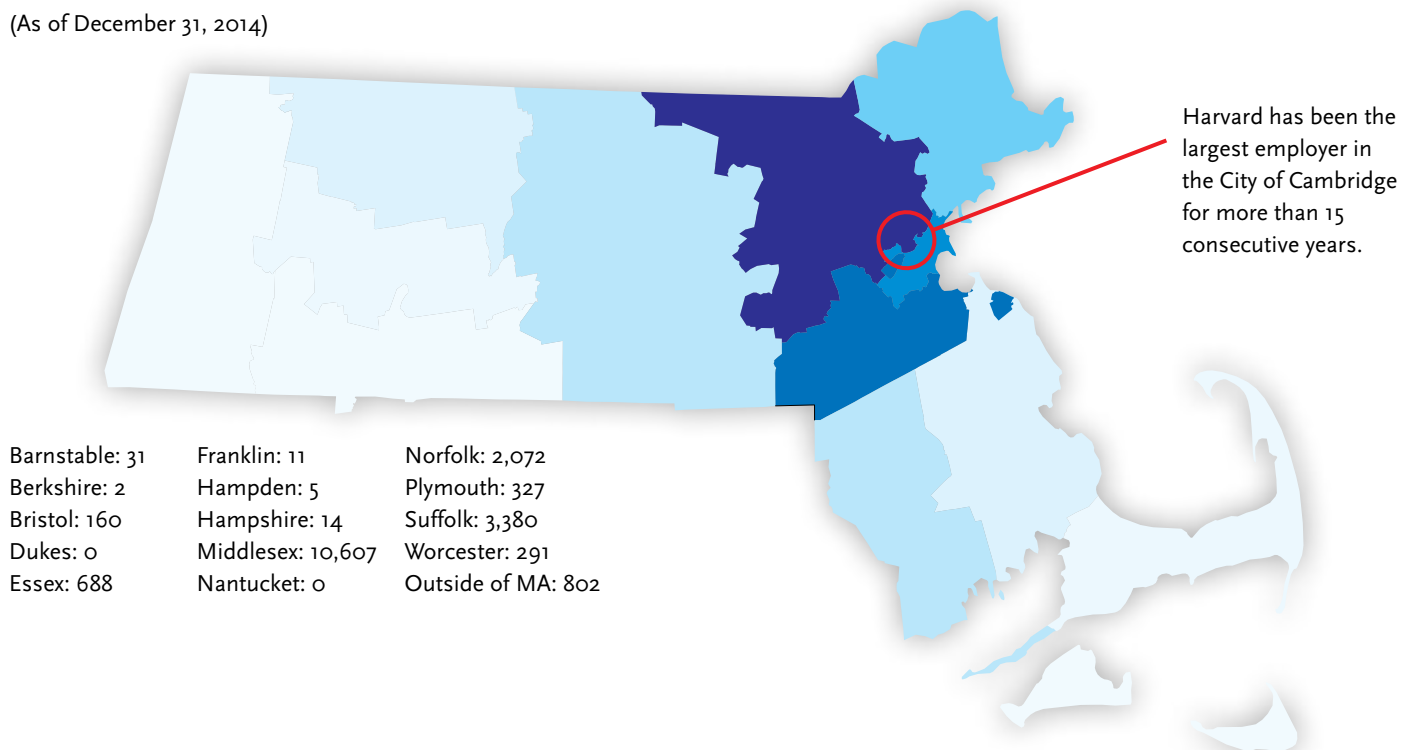
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18,217

Total people in Massachusetts directly employed by Harvard as of Dec. 31, 2014.

HARVARD EMPLOYEES RESIDENCES BY COUNTY

(As of December 31, 2014)

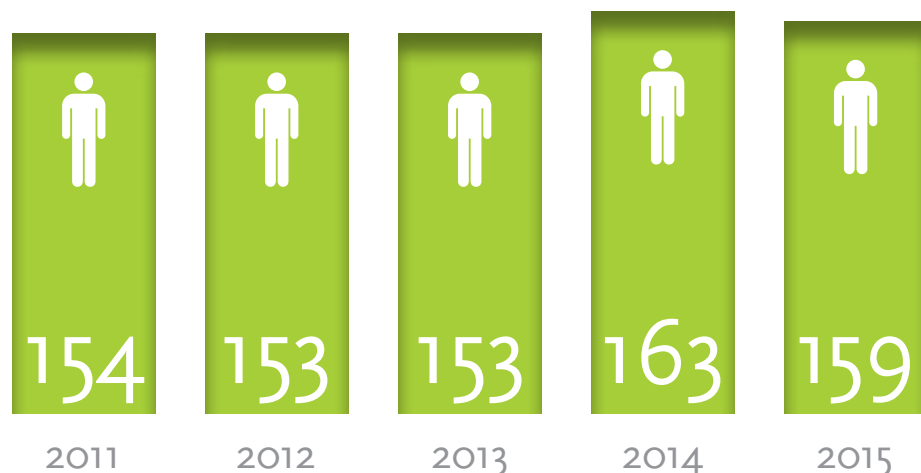


Harvard offers its employees – nearly 50 percent of whom are represented by a union – an array of professional development opportunities, and it partners with its host communities to establish strong internship programs for high school students.

SUMMER JOB PLACEMENT – HIGH SCHOOL STUDENTS

782

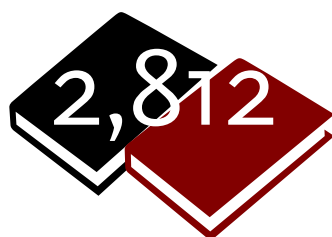
Over the past five years, Harvard has provided 782 jobs for Cambridge and Boston high school students.



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, 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 May 2015.



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



In 2014, 71 members of the Harvard community were trained by the Bridge Program staff to become volunteer tutors helping Bridge students become US Citizens, receive a high school diploma in a second language, learn computer skills, and continue to develop personally and professionally.

READ MORE ▶



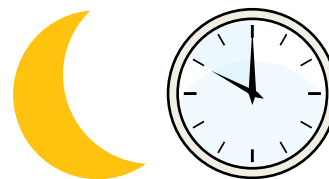
"[The Summer Youth Employment Program at Harvard was] a great way for me to expand my work experience. It has allowed me to gain more knowledge and skills – both professionally and personally. I've been able to attend helpful educational workshops that will help guide me through many life choices... I'm grateful for my time spent at Harvard and know that the skills I learned here this summer will only help me when I go out and conquer the world!"

– Vanessa Bellony
Cambridge Resident and 2014
Summer Youth Employment
Participant

229



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



In 2014, 368 Harvard services employees received computer training. This training allows these employees to continue to develop professionally and personally.

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.

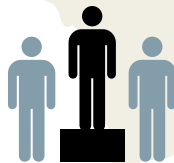
AAA

Harvard's stable presence has been cited by bond rating agencies as contributing to Cambridge's triple-A bond ratings.



87,372

In 2014, more than 87,372 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.



47

Forty-seven Harvard alumni are members of the 114th Congress.



95

Ninety-five Nobel Laureates and Pulitzer Prize winners have been members of the Harvard faculty.

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 FY14, Harvard spending totaled almost \$4.7 billion; Harvard personnel expenses totaled \$2.2 billion. The majority of Harvard spending went to purchase supplies, maintain and expand the physical plant, and run the University. These activities cost \$2.5 billion.



In FY14, Harvard spent \$2.5 billion on construction and to purchase supplies and services, of that...

\$1.3B

was spent in Massachusetts.

Of the \$1.3 billion, \$730.5 million was spent in Boston and...

... \$136.9 million was spent in Cambridge.

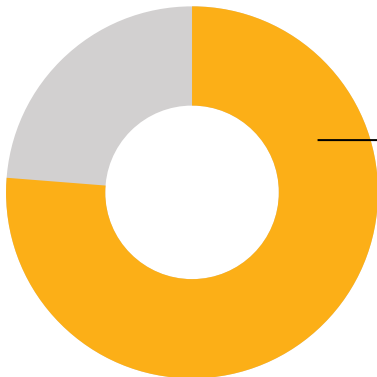


"The role of any university, but especially an institution like Harvard, can be broad in the sense that it can go from the highest level of research to teaching students, and reaching out to the greater community members who are interested in a variety of subjects. That's what it's all about"

— Federico Cortese
Senior Lecturer on Music,
Department of Music and Director
of the Harvard-Radcliffe Orchestra,
Harvard University

CONSTRUCTION SPENDING

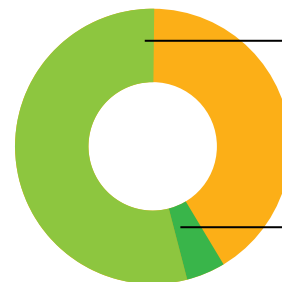
In FY14, Harvard spent \$459 million on construction, of that ...



Of the \$459 million,

\$350M

was spent across Massachusetts and ...



\$160.2M

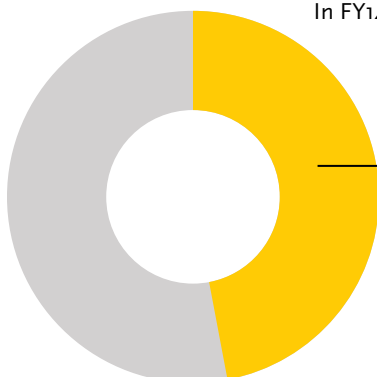
of that \$350 million, was spent in Boston while ...

\$16M

was spent in Cambridge.

SUPPLIES AND SERVICES SPENDING

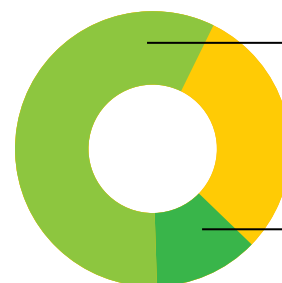
In FY14 Harvard spent \$2.1 billion to purchase supplies and services, of that ...



Of the \$2.1 billion,

\$987.6M

was spent in Massachusetts and ...



\$570M

of that \$987.6 million, was spent in Boston while ...

\$121M

was spent in Cambridge.





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