



HARVARD AND THE MASSACHUSETTS ECONOMY

FACTS & IMPACT 2017



HARVARD
UNIVERSITY

The academic and research expertise of universities attracts talent from all over the globe and fuels Massachusetts' knowledge-based economy. As its students, faculty, and staff pursue ideas to improve the world, Harvard continues to strengthen the region through educational investment, innovation pipelines, job creation, and local spending.

—DREW GILPIN FAUST
PRESIDENT OF HARVARD UNIVERSITY
LINCOLN PROFESSOR OF HISTORY





HARVARD AND THE MASSACHUSETTS ECONOMY

FACTS & IMPACT 2017

Harvard University is proud to call Massachusetts home. The Harvard community teaches, learns, and lives in Massachusetts and the discoveries and knowledge it produces fuel the regional economy, providing jobs, generating purchasing, and attracting companies.

How does Harvard contribute?



EDUCATION | 2

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



RESEARCH | 4

Attracting more than three-quarters of a billion dollars in research funding to Massachusetts, fueling science, medical discoveries, health improvements, and spending in our local economy.



INNOVATION | 6

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



EMPLOYMENT | 8

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



IMPACT | 10

Purchasing from local vendors provides companies with stable work, and Harvard alumni invest locally through leadership of companies and nonprofits.



For more information about the facts and figures contained in this document, please visit community.harvard.edu/sources.



EDUCATION

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

STUDENT POPULATION

34,807

TOTAL STUDENTS

PROFESSIONAL AND GRADUATE SCHOOLS

Harvard University contains 12 degree-granting professional and graduate schools in addition to the Radcliffe Institute for Advanced Study: Harvard Business School, Graduate School of Design, Harvard Graduate School of Education, Harvard Extension School, Harvard Kennedy School of Government, Harvard Law School, Harvard T.H. Chan School of Public Health, Harvard School of Dental Medicine, Harvard Divinity School, Harvard John A. Paulson School of Engineering and Applied Sciences, Graduate School of Arts and Sciences, and Harvard Medical School.

HARVARD EXTENSION SCHOOL

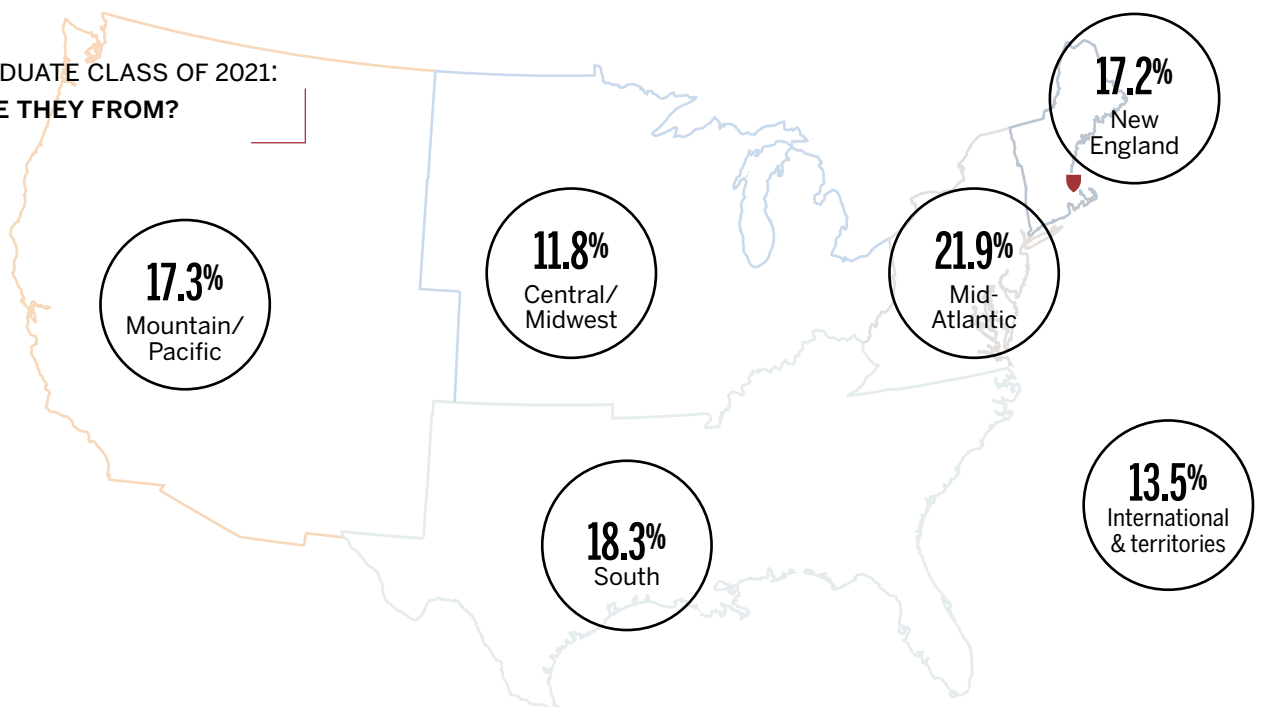
The Harvard Extension School is designed to serve the educational interests and needs of Greater Boston residents. The Extension School allows students to take classes taught by a combination of Harvard faculty, adjunct faculty, and experienced professionals in a wide variety of academic disciplines.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

6,876
undergraduates

13,929
professional and
graduate students

14,002
Extension School students

UNDERGRADUATE CLASS OF 2021:
WHERE ARE THEY FROM?



I can say that all of the opportunities I was able to take advantage of have been extremely valuable to me, and that Harvard's resources and financial support have made it possible for me to perform independent research, travel abroad, present at conferences, and afford tuition.

—SAHAR ASHRAFZADEH
HARVARD COLLEGE
CLASS OF 2017



FINANCIAL AID

One in five Harvard undergraduates is from a family with an annual income of **\$65,000 or less**. In fact, nearly **60 percent** of undergraduates receive need-based Harvard scholarship aid, and **100 percent** of Harvard College students can graduate debt-free.

\$179m

in institutional need-based scholarship support was budgeted for use by Harvard College students (2016–2017)

\$48,480

average award to Massachusetts students receiving aid in the 2016–2017 academic year

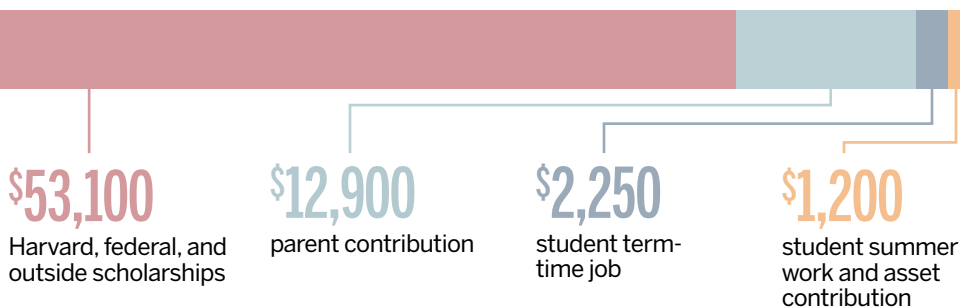
1,108

Massachusetts students enrolled in Harvard College (2016–2017)

501

Massachusetts students enrolled received need-based scholarship assistance

TYPICAL FRESHMAN UNDERGRADUATE AID PACKAGE



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 **95+ educational partners** to distribute course content and other academic materials through **80+ open courses**. 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.

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.

5.55m+

global course registrations*

of which

128,000+

were in Massachusetts*

3m+

global unique course participants*

of which

58,000+

were in Massachusetts*

* AS OF SUMMER 2017



RESEARCH

Attracting more than three quarters of a billion dollars in research funding to Massachusetts, fueling science, medical discoveries, health improvements, and spending in our local economy.

FUNDING

\$842.5m

RESEARCH FUNDING: EXPANDING KNOWLEDGE, BENEFITING MASSACHUSETTS (FY16)

\$593.4m

CONTRIBUTED BY FEDERAL SOURCES

\$249.1m

CONTRIBUTED BY NONFEDERAL SOURCES

Nearly **70 percent** of Harvard's research activities were funded by federal research dollars.

\$415m

from **NIH GRANTS**

The single largest source of research dollars is the National Institutes of Health (NIH).

\$178.4m

from **NSF, DOD, HHS, DOE, NASA, and others**

Nearly **30 percent** of Harvard's research funding came from nonfederal sources including corporations, research institutes, and foundations such as the Gates Foundation.

Between **FY15** and **FY16**, research funding from non-federal sources increased by more than **14 percent**.

FY15

FY16

+14.1%

We took a game-changing advance in microengineering made in our academic lab, and in just a handful of years, turned it into a technology that is now poised to have a major impact on society.

—DR. DON INGBER

WYSS INSTITUTE FOUNDING DIRECTOR, JUDAH FOLKMAN PROFESSOR OF VASCULAR BIOLOGY AT HARVARD MEDICAL SCHOOL AND THE VASCULAR BIOLOGY PROGRAM AT BOSTON CHILDREN'S HOSPITAL, AND PROFESSOR OF BIOENGINEERING AT THE HARVARD JOHN A. PAULSON SCHOOL OF ENGINEERING AND APPLIED SCIENCES



LOCAL SUPPORT, LOCAL HIRES, LOCAL PURCHASES

\$335.7m

of the research dollars received were spent on purchases and salaries in Massachusetts (FY16)

\$293.7m

supports researchers and staff

\$42m

of the research dollars received were used to purchase goods and services from companies located in Massachusetts



\$4.4m

supported companies in Cambridge



\$13m

supported companies in Boston

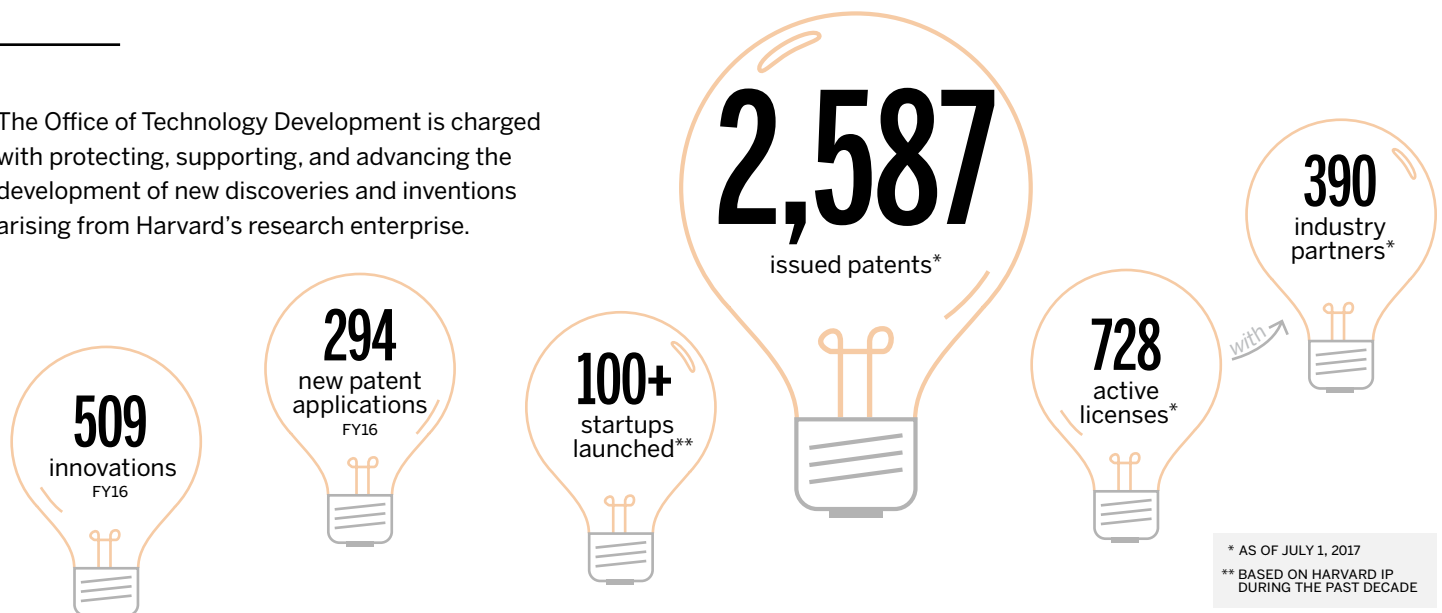


INNOVATION

Making discoveries that attract private investment and launch new ventures, 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.



THE HARVARD INNOVATION LABS

The Harvard Innovation Labs is a vibrant, cross-disciplinary ecosystem in which the Harvard community explores innovation and entrepreneurship. The Innovation Labs host public events and provide opportunities for innovators and entrepreneurs from across Greater Boston to interact. All numbers are as of summer 2017:

325,000+

visits since opening



Harvard
innovation labs

5,963+

events have been held

159

Experts-in-Residence hold regular office hours to mentor and advise Harvard student entrepreneurs

1,000

community-partner sponsored events held at the i-lab

70-100

Harvard Ventures in Residence at any given time

BLAVATNIK BIOMEDICAL ACCELERATOR

\$17m

in grants were awarded to **92 projects** between **2007 and 2017**. These projects have, in turn, attracted an additional **\$28 million** in industry-sponsored research funding and resulted in new Massachusetts based companies such as Magenta Therapeutics and Macrolide Pharmaceuticals.

PHYSICAL SCIENCES & ENGINEERING ACCELERATOR

\$1.7m

in grants were awarded to **19 projects** between **2014 and 2017**. These projects have so far resulted in eight Harvard-launched startups that have collectively raised more than **\$32 million** in follow-on financing.

At the NEVCA, we support, promote, and develop the entrepreneurial ecosystem. Our goal is to raise the profile of opportunities that already exist, improve upon the region's many strengths, and identify new vehicles for growth. Leveraging New England's unique blend of industry and academia is core to that mission, and Harvard is a tremendous driver of that synergy.

—JODY ROSE
EXECUTIVE DIRECTOR
NEW ENGLAND VENTURE
CAPITAL ASSOCIATION (NEVCA)



*To learn more about
Harvard's connections to
Massachusetts venture
funded companies visit:
harvard.edu/ecosystem*

VENTURE CAPITAL AWARDS

In 2015 and 2016, young Massachusetts companies received nearly **\$11 billion** in venture capital funding, and more than half of those companies have a strong connection to Harvard.

2016

\$5.6bn received by MA companies

306 companies received funding

71% (217) of those have a Harvard connection

14% (44) have a connection to a Harvard affiliated teaching hospital

2015

\$5.5bn received by MA companies

321 companies received funding

72% (232) of those have a Harvard connection

16% (59) have a connection to a Harvard affiliated teaching hospital

2016 BIOTECH DEALS

\$1.8bn

in venture capital
funding was received
by **41 companies**
in Massachusetts

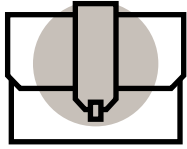
\$1.7bn

of which was received
by **37 companies** with
connections to Harvard
(**95%** of the funding awarded)

SELECTED HARVARD CONNECTIONS VENTURE CAPITAL BACKED MASSACHUSETTS COMPANIES THAT RECEIVED FUNDING IN 2016



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.



EMPLOYMENT

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

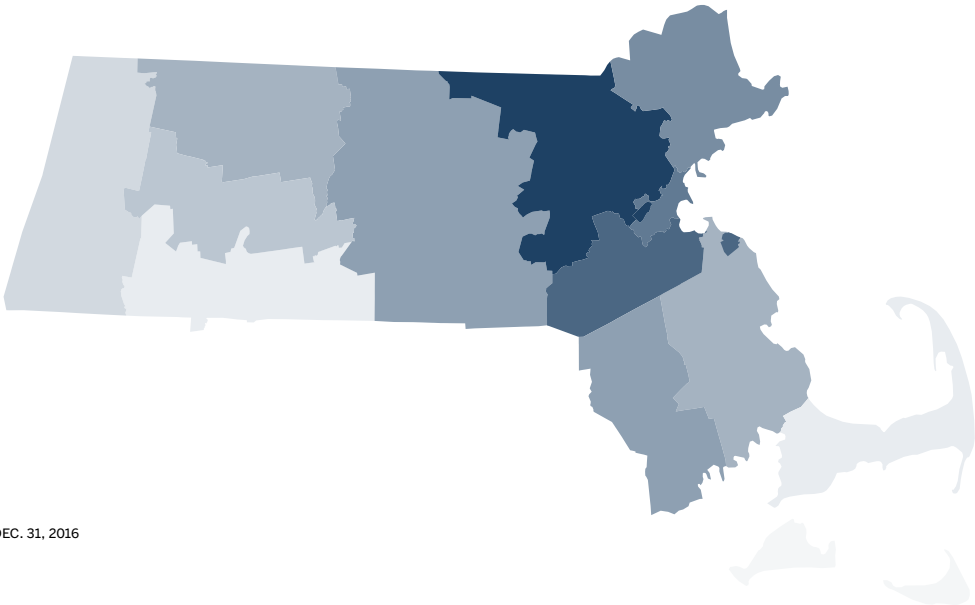
PEOPLE DIRECTLY EMPLOYED BY HARVARD IN MASSACHUSETTS

18,740

TOTAL PEOPLE IN MASSACHUSETTS DIRECTLY EMPLOYED BY HARVARD*		
ACADEMIC		NON-ACADEMIC
5,413		13,327
3,392 faculty	2,021 post-docs	Staff members, including faculty and research assistants, lab technicians, and student services workers, supporting Harvard's teaching, learning, and research mission, in addition to carrying out the day-to-day operations of the University

RESIDENCE OF HARVARD EMPLOYEES IN MASSACHUSETTS*

Harvard has been the largest employer in the city of Cambridge for 18 consecutive years.



Barnstable	33
Berkshire	2
Bristol	162
Dukes	2
Essex	713
Franklin	14
Hampden	2
Hampshire	18
Middlesex	10,883
Nantucket	0
Norfolk	2,111
Plymouth	353
Suffolk	3,542
Worcester	269
Outside of MA	636

*AS OF DEC. 31, 2016

What surprised me most is that Harvard has opportunities for people with all types of skills and backgrounds. I started at Harvard as a part-time evening custodian and today, after three promotions, I'm a manager that oversees nearly 50 people. The Bridge Program helped me improve my computer and communication skills. Furthermore, I gained the tools and confidence to pursue a college degree and seek out promotions within Harvard that have helped me to succeed.

ELSON CALLEJAS
MANAGER OF
FACILITIES
MAINTENANCE
OPERATIONS



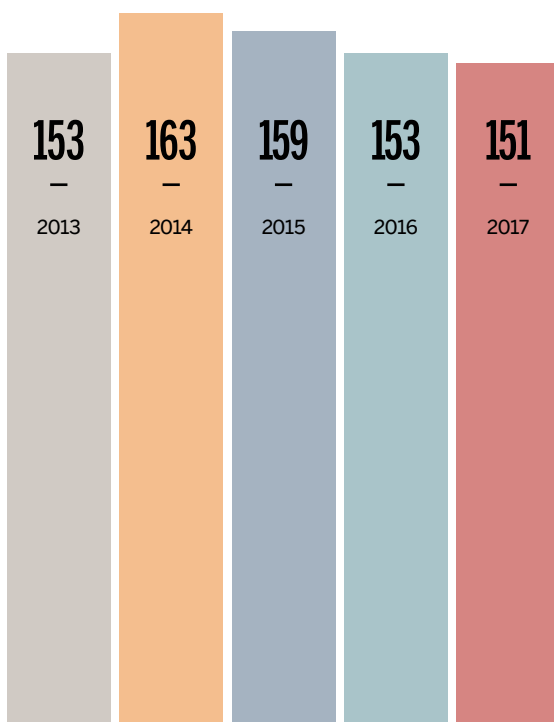
PROFESSIONAL DEVELOPMENT

Harvard offers its employees an array of professional development opportunities, and we partner with our host communities to establish strong internship programs for high school students.

SUMMER JOB PLACEMENT HIGH SCHOOL STUDENTS

779

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



CENTER FOR WORKPLACE DEVELOPMENT

In 2016, the Center for Workplace Development (CWD) offered numerous career and skill development classes and workshops to help employees at all levels grow and advance in their careers, at Harvard and beyond.

One of the best known CWD programs is the Harvard Bridge Program, which allows Harvard staff to take classes on the following topics: academic and business writing, college preparation, career exploration, computer skills, English for speakers of other languages (ESOL), high school diploma preparation, U.S. citizenship test preparation, and more.

2,200

employees participated in a workshop or program run by the Center for Workplace Development or Employee & Organization Development teams.

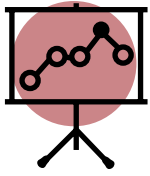
245

employees have become U.S. citizens through the Bridge Program since 2007.

16



employees participated in the inaugural **Harvard Bridge Career & Development Program**. The program equips hourly employees with the skills to advance in their careers and was launched based on responses to a University-wide employee engagement survey.



IMPACT

Purchasing from local vendors provides companies with stable work, and Harvard alumni invest locally through leadership of companies and nonprofits.

ALUMNI



A Harvard alumni or faculty member serves on the board or in management of **24 of the 25 largest nonprofits** in Massachusetts (as measured by total assets according to the Boston Business Journal).

279,000

estimated alumni living in the United States

2,430

alumni hold senior leadership positions in or were the founders of Massachusetts companies

50,300

estimated alumni currently living in Massachusetts

50

Harvard alumni are members of the 115th Congress

VISITORS



57,826

people visited the Harvard Information Center in 2016

EMPLOYEES



18,740

employees allowed Harvard to be ranked the fourth largest employer in Massachusetts in 2016

DOCTORS



10,400

doctors at Boston-area hospitals hold academic appointments at Harvard Medical School

AWARDS AND RECOGNITIONS



96

Nobel laureates and Pulitzer Prize winners have been members of the Harvard faculty

AAA

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

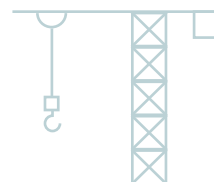
I think it's important for Harvard to be part of the lives of the young people in the community. To use our resources to help inspire the next generation of scientists, and also to inspire the next generation. It's not just to become a scientist or to become a doctor, it's to become the most effective adult you can be.

—DR. NANCY ORIOL
FACULTY ASSOCIATE DEAN FOR
COMMUNITY ENGAGEMENT IN
MEDICAL EDUCATION AND THE
FOUNDER OF THE MEDSCIENCE
PROGRAM HARVARD MEDICAL
SCHOOL



IMPACT OF LOCAL SPENDING

In FY16, Harvard spending totaled **\$5.3 billion**; Harvard personnel expenses totaled **\$2.3 billion**. The majority of Harvard spending went to purchase supplies, maintain and expand the physical plant, and run the University. These activities cost **\$3 billion**.



\$3bn

spent on construction and to purchase supplies and services

\$1.5bn

spent in Massachusetts

\$812m

spent in
Boston

\$146m

spent in
Cambridge

CONSTRUCTION SPENDING

\$484m

spent on construction

\$422m

spent in Massachusetts

\$159m

spent in
Boston

\$25m

spent in
Cambridge

SUPPLIES AND SERVICES SPENDING

\$2.5bn

spent on supplies and services

\$1.1bn

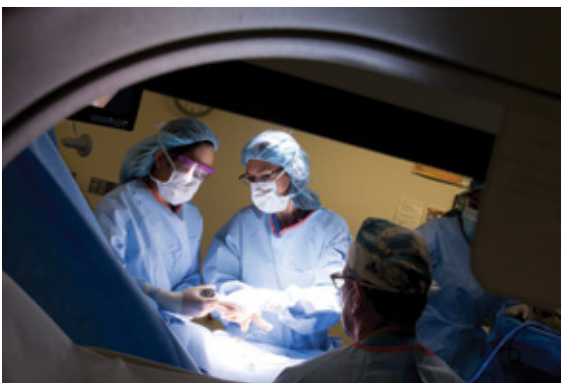
spent in Massachusetts

\$653m

spent in
Boston

\$121m

spent in
Cambridge







HARVARD
UNIVERSITY

[COMMUNITY.HARVARD.EDU](https://community.harvard.edu)