



HARVARD
UNIVERSITY

HARVARD AND THE
MASSACHUSETTS
ECONOMY





“The University community learns, teaches, and innovates in Massachusetts, harnessing the power of new ideas and discovery as we contribute to education initiatives, job creation, local spending, and civic partnerships. We are proud of our strong connections to the state’s knowledge-based economy and the cities Harvard calls home.”

LAWRENCE S. BACOW
PRESIDENT OF HARVARD UNIVERSITY

HARVARD AND THE MASSACHUSETTS ECONOMY

Harvard is a global institution that is rooted in Massachusetts. Through the University's educational and research mission, the Harvard community expands knowledge, provides employment, attracts industry, and engages in local partnerships—supporting the well-being of the Commonwealth and our neighborhoods.



—> HOW DOES HARVARD CONTRIBUTE?



Education 2

Expanding access to education. Supporting students with generous financial aid.



Research 4

Attracting hundreds of millions of dollars in research funding to Massachusetts. Fueling science, medical discoveries, and spending in the local economy.



Innovation 6

Driving discoveries that attract private investment and launch new ventures. Sparking the region's entrepreneurial spirit.



Employment 8

Operating as one of the largest employers in the state. Providing jobs that empower employees to grow and advance in their careers.



Impact 10

Supporting local businesses through purchasing. Attracting tourism to the region. Contributing to the vitality of companies and nonprofits.



Engagement 12

Stewarding initiatives and partnerships that expand opportunities for neighbors, promote well-being, and build upon shared visions of community.



Education

Expanding access to education. Supporting students with generous financial aid.

STUDENT POPULATION

2018–19 ACADEMIC YEAR

36,505

TOTAL STUDENTS AT HARVARD

13,564

PROFESSIONAL AND GRADUATE STUDENTS

Harvard University is home to **12 professional and graduate schools** and the Radcliffe Institute for Advanced Study. Every year, these schools confer **more than 5,000 master's and doctoral degrees** in a wide range of academic disciplines:

- Harvard Business School
- Harvard Divinity School
- Harvard Division of Continuing Education
- Harvard Graduate School of Arts and Sciences
- Harvard Graduate School of Design
- Harvard Graduate School of Education
- Harvard John A. Paulson School of Engineering and Applied Sciences
- Harvard Kennedy School
- Harvard Law School
- Harvard Medical School
- Harvard School of Dental Medicine
- Harvard T.H. Chan School of Public Health

6,722

HARVARD COLLEGE STUDENTS

16,219

HARVARD EXTENSION SCHOOL STUDENTS

With **more than 900 courses** in a variety of study fields, Harvard Extension School extends access to education for students and adult learners seeking to advance their career, pursue a degree, or explore an academic passion. The School's offerings include a blend of online and on-campus classes that can be taken at the undergraduate and graduate level.

HARVARD STUDENTS FROM MASSACHUSETTS

11,293

TOTAL STUDENTS FROM MASSACHUSETTS AT HARVARD

STUDENTS BY COUNTY

Barnstable, Dukes, Nantucket	70	Hampshire	25
Berkshire	15	Middlesex	6,293
Bristol	103	Norfolk	1,052
Essex	414	Plymouth	190
Franklin	12	Suffolk	2,885
Hampden	52	Worcester	182



"Growing up in Western Massachusetts, I knew Harvard University was a short ride away, but I rarely—if ever—considered attending. When I learned about the Harvard Financial Aid Initiative, suddenly going to Harvard didn't seem impossible. I submitted my application and hoped for the best. When I saw 'Congratulations!' in my admissions portal and read my financial aid award letter, I was overjoyed. The opportunity to pursue my education free of financial burden is a gift that my parents and I never saw coming, and I am thankful for it every day that I wake up and walk to class."

ALLISON SCHARMANN
HARVARD COLLEGE, CLASS OF 2021
SOUTHWICK, MA

FINANCIAL AID

Building on the University's tradition of expanding access to an affordable college education, the Harvard Financial Aid Initiative (HFAI) ensures students can attend Harvard College regardless of economic obstacles. Families with an annual income of less than \$65,000 **pay nothing** toward the total cost of their child's education, while families with incomes between \$65,000 and \$150,000 contribute **from zero to 10 percent** of their income. **55 percent** of all undergraduates receive need-based grant aid, and **100 percent** of students can graduate debt free. Since launching the HFAI in 2004, Harvard has awarded **over \$2 billion** in grant aid to undergraduates.

2018–19 ACADEMIC YEAR

\$49,200

average award to Massachusetts students enrolled in Harvard College receiving aid

1,041

Massachusetts students enrolled in Harvard College

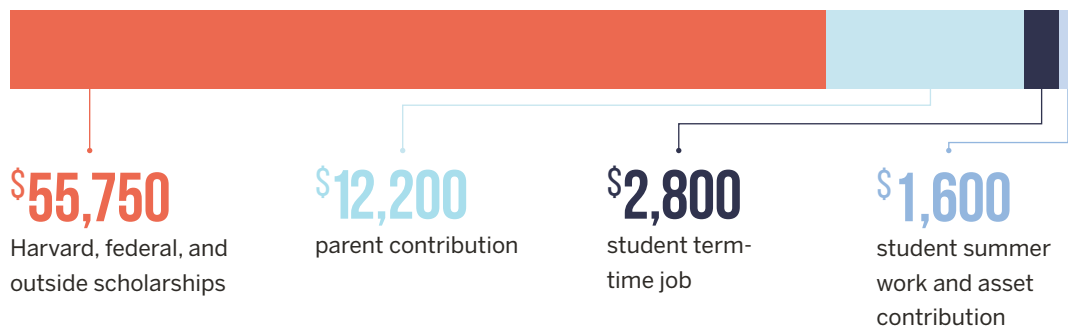
435

Massachusetts students enrolled in Harvard College received need-based scholarship assistance

\$199.6M

in institutional need-based grant aid provided to Harvard College students

TYPICAL AID PACKAGE FOR HARVARD COLLEGE STUDENTS



EDX AND HARVARDX

Seven years ago, Harvard and MIT founded edX, a global nonprofit online platform that has become a trusted source for education and learning. With more than **120** institutional partners offering **2,400+** open courses, edX has expanded access to education, supporting learners worldwide and at every stage, whether they are entering the job market or exploring new interests. More than **100** of the courses available on the platform are offered by Harvard through HarvardX, a university-wide strategic partnership.

HarvardX

Founded in tandem with edX, HarvardX is the University's faculty-driven online platform, providing research and learning opportunities on campus and beyond.

BY THE NUMBERS*

4M+

unique global course participants of which

80,000+ were in Massachusetts
17,500+ were in Boston
13,800+ were in Cambridge



Research

Attracting hundreds of millions of dollars in research funding to Massachusetts. Fueling science, medical discoveries, and spending in the local economy.

FUNDING

\$887M

RESEARCH FUNDING: EXPANDING KNOWLEDGE, BENEFITING MASSACHUSETTS (FY18)

\$622M

CONTRIBUTED BY FEDERAL SOURCES

\$265M

CONTRIBUTED BY NONFEDERAL SOURCES

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

\$442M

from NIH GRANTS

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

\$181M

from NSF, DOD, DHHS, DOE, NASA, and others

30 percent of Harvard's research funding came from nonfederal sources including corporations, research institutes, and foundations.



FEDERAL RESEARCH FUNDING AT WORK

As a leading research institution, Harvard University actively partners with the federal government—through agencies like the National Institutes of Health (NIH), National Science Foundation (NSF), and others—to conduct cutting-edge research and further innovation. In addition to federal research funding's direct impact on the Massachusetts economy, these longstanding partnerships serve as the foundation for the successful advancement of new cures and technologies, undertaken for the benefit of society as a whole.

Enabled by NIH funding, Allon Klein, Assistant Professor of Systems Biology at Harvard Medical School, has built a microscale device to analyze single cells affected by disease, adding new precision to understanding how cancer causes things to go wrong in the human body. The device has been licensed to industry partners, making the leap from campus to the medical field where there is a greater potential to help patients.

"Harvard's quality and culture of science is truly energizing," said Klein. "There's such a strong spirit of collaboration. Funding is being spent right at the place where value is being created – driving completely new concepts which will empower the next generation of drugs, or cures of disease."

LOCAL SUPPORT, LOCAL HIRES, LOCAL PURCHASING

See how Harvard's research funding
supports local jobs and businesses.

\$353.8M

of the research dollars received were spent on
purchases and salaries in Massachusetts (FY18)

\$324.4M

supported researchers and staff

\$29.4M

were used to purchase goods and
services from companies located
in Massachusetts



\$17.5M

supported companies
in Boston



\$4.6M

supported companies
in Cambridge





Innovation

Driving discoveries that attract private investment and launch new ventures. Sparking the region's entrepreneurial spirit.

AN ENGINE OF INNOVATION

Harvard's research enterprise yields discoveries with the potential to improve lives, transform industries, and create significant social and economic value. Through the Office of Technology Development, the University promotes the public good by advancing science, fostering innovation, and translating new inventions into useful products and services for the benefit of society.

442

innovations reported by
Harvard researchers (FY18)

234

new patent applications
filed by Harvard (FY18)

3,463

total patents held by
Harvard as of July 2019

120+

startups launched
around Harvard
research innovations
during the past decade

791

technology licenses are
active with **494** industry
partners as of July 2019

ACCELERATOR PROGRAMS

To help technology breakthroughs make the leap from the lab to the commercial sphere, Harvard operates two accelerator programs that combine funding strategies, technical support, and business expertise.

Blavatnik Biomedical Accelerator

Advancing innovations to improve health care and medicine

\$19.5 million in grants have been awarded to **108 projects** over the past 12 years. These projects have, in turn, attracted an additional **\$36 million** in industry-sponsored research funding and resulted in new Massachusetts-based companies such as Mellitus, Magenta Therapeutics, Macrolide Pharmaceuticals, FogPharma, Nocion Therapeutics, and Elevian.

Physical Sciences & Engineering Accelerator

Advancing innovation in robotics, quantum computing, energy storage, and more

\$2.2 million in grants have been awarded to **24 projects** over the past six years. So far these projects have resulted in **10 Harvard-launched** startups that have collectively raised more than **\$54 million** in follow-on financing.



Harvard
innovation labs

Harvard i-lab | Launch Lab X | Pagliuca Harvard Life Lab

As part of the University's research enterprise, the Harvard Innovation Labs work to transform ideas into new startups and businesses. The Innovation Labs extend programming to the public by partnering with local organizations and opening workshops and events to members of the community.

200

Harvard ventures
in residence at any
given time

159

Experts-in-Residence
mentor and advise Harvard
student entrepreneurs

1,300

community partner-
sponsored events
held at the i-lab*

7,000+

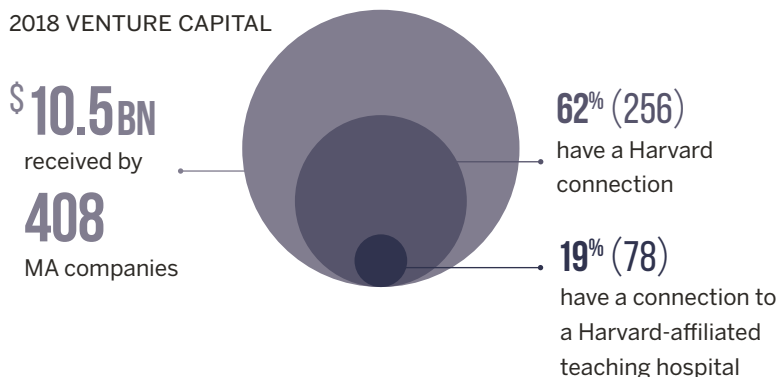
events have been held*

* AS OF AUGUST 2019

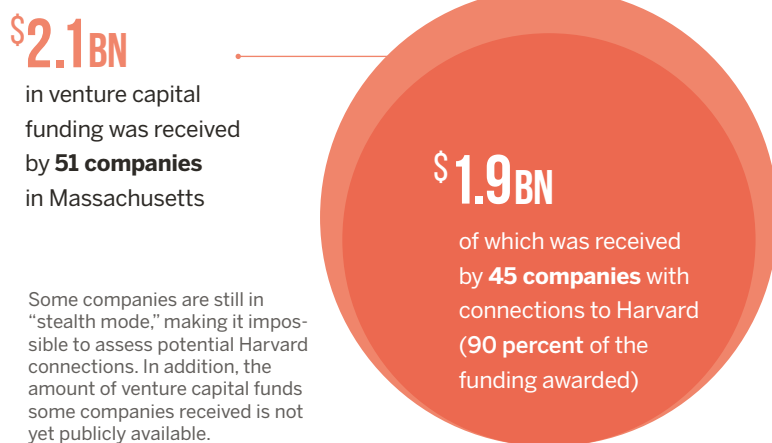
AT THE HEART OF MASSACHUSETTS' INNOVATION ECONOMY

In 2018, Massachusetts companies received **more than \$10.5 billion** in venture capital funding and more than half of them have a strong connection to Harvard.

2018 VENTURE CAPITAL



2018 BIOTECH DEALS



SELECTED MASSACHUSETTS-BASED COMPANIES LAUNCHED AROUND HARVARD TECHNOLOGIES



"Two decades of lab research and experiments have led us to a breakthrough in understanding the foundational mechanism of nerve cell damage. This work is consequential for the development of therapies and treatment of neurodegenerative diseases like ALS and Alzheimer's. The technology we developed on campus, with significant administrative and financial support by Harvard University, has been licensed to industry partners who are carrying out the next phase of development: clinical trials in humans, with the goal of developing new drugs for these devastating diseases that currently lack any treatment. We've thus been greatly rewarded by Harvard's entrepreneurial spirit in making an important scientific contribution to society."

JUNYING YUAN
ELIZABETH D. HAY PROFESSOR OF CELL BIOLOGY
HARVARD MEDICAL SCHOOL



Employment

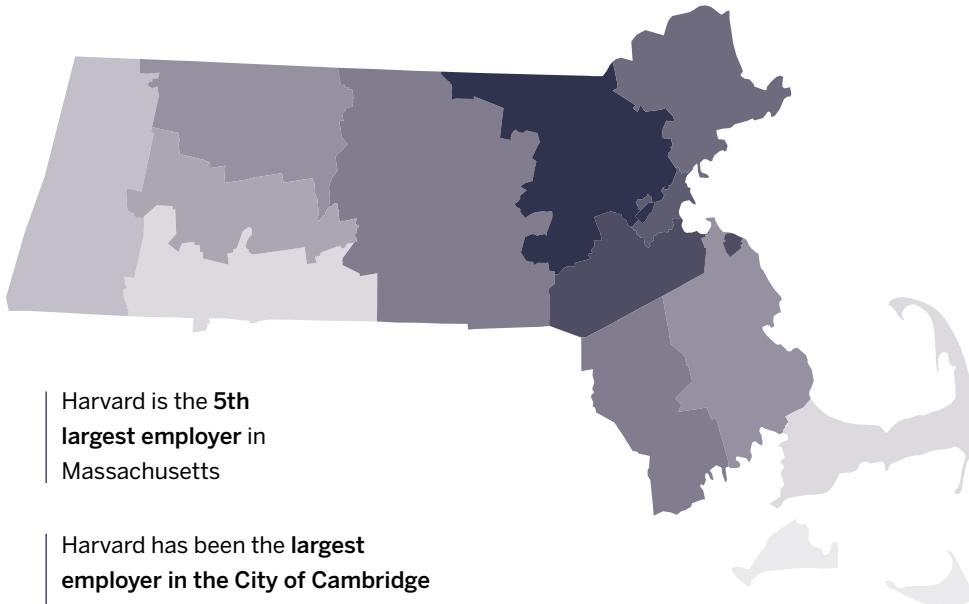
Operating as one of the largest employers in the state.
Providing jobs that empower employees to grow and
advance in their careers.

19,068

TOTAL PEOPLE IN MASSACHUSETTS DIRECTLY EMPLOYED BY HARVARD*

ACADEMIC		NON-ACADEMIC
5,663		13,405
3,394 faculty	2,269 postdocs	Includes research and faculty assistants, lab technicians, student services workers, staff members, and administrators responsible for carrying out the University's operations

HARVARD EMPLOYEES:
WHERE ARE THEY FROM?



Harvard is the **5th largest employer** in
Massachusetts

Harvard has been the **largest employer in the City of Cambridge**
for 20 consecutive years

MA COUNTIES*

Barnstable	40
Berkshire/Dukes/Hampden	9
Bristol	164
Essex	743
Franklin	12
Hampshire	20
Middlesex	11,214
Norfolk	2,290
Plymouth	389
Suffolk	3,891
Worcester	294

Outside of MA 981

Boston 3,411
Cambridge 3,674

* AS OF SEPTEMBER 2019

PROFESSIONAL DEVELOPMENT

CENTER FOR WORKPLACE DEVELOPMENT

Through the Center for Workplace Development, Harvard provides programs, tools, coaching, and consulting to employees to help them succeed and advance in their careers.

3,220

employees completed **185** leadership, management, and career and professional development courses at the Center for Workplace Development (FY19)

TUITION ASSISTANCE PROGRAMS

Harvard supports employees with a tuition assistance program that allows them to earn an undergraduate or graduate degree for a fraction of the tuition cost. These benefits include:

- **\$40** per class at the Harvard Extension School
- **10%** of tuition cost at other eligible Harvard schools
- **up to 75%** reimbursement for classes taken at other institutions

2018–19 ACADEMIC YEAR

2,054

employees used Tuition Assistance benefits to take courses at the Harvard Extension School



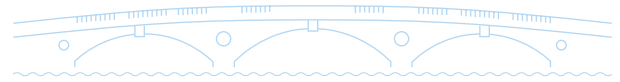
79

graduated as part of the Harvard Class of 2019



LEARNING

- ⊕ Harvard provides employees free access to LinkedIn Learning, an online video training resource offering 2,000+ skills-based courses in more than 140 specialties.



HARVARD BRIDGE CLASSES

Harvard Bridge classes extend training to employees in academic and business writing, college preparation, career exploration, computer skills, English for speakers of other languages, high school diploma preparation, U.S. citizenship test preparation, and more.

262

employees have become U.S. citizens through the citizenship test preparation class to date



“Participating in the Bridge Program was one of the best experiences I have had here at Harvard. I’ve found professors and colleagues willing to help, the knowledge to develop new skills, and a lot of support to reach my goals.”

ANDY URBINA
ACCOUNTING ASSISTANT
HARVARD GRADUATE SCHOOL OF EDUCATION

SUMMER YOUTH EMPLOYMENT PROGRAM

Harvard partners with its host communities to provide meaningful internships to local high school youth, supporting their participation in a valuable learning and work experience.

700+

high school students have worked in various office and lab positions across Harvard in the past 5 years



Impact

Supporting local businesses through purchasing.
Attracting tourism to the region. Contributing to
the vitality of companies and nonprofits.



"Y2Y was shaped by our formative experiences as student volunteers of Phillips Brooks House Association's Harvard Square Homeless Shelter, where we found a community dedicated to social justice. We launched our shelter with the tremendous and invaluable support of Harvard faculty, students, and administrative professionals, as well as the advice and guidance of local nonprofits that welcomed us in the community. The work and spirit of Y2Y is woven into these foundational community partnerships."

SAM GREENBERG, HARVARD COLLEGE '14
CO-FOUNDER, Y2Y HARVARD SQUARE

ALUMNI

Harvard alumni are deeply engaged in their communities, making an economic and social impact by dedicating their careers to public service, serving as board volunteers, and developing their ideas into new businesses and startups.

51,229

estimated Harvard
alumni living in
Massachusetts

55

Harvard alumni are members
of the 116th United States
Congress

22

Harvard alumni are members
of the 191st General Court
of the Commonwealth of
Massachusetts

A Harvard alumni or faculty
member serves on the board
or on the management team of
22 of the 25 largest nonprofit
organizations and **21 of the 25
largest** life science companies
in Massachusetts.

TOURISM

55,618

people visited the Harvard University
Visitor Center in 2018

As America's oldest university, Harvard remains one of the top tourist destinations in Massachusetts. Harvard's museums attract more than **650,000 local, national, and international visitors** each year. In addition, as an anchor of Harvard Square, the University's historic campus helps to draw more than **8 million visitors** each year, further stimulating the local economy and cultural life.

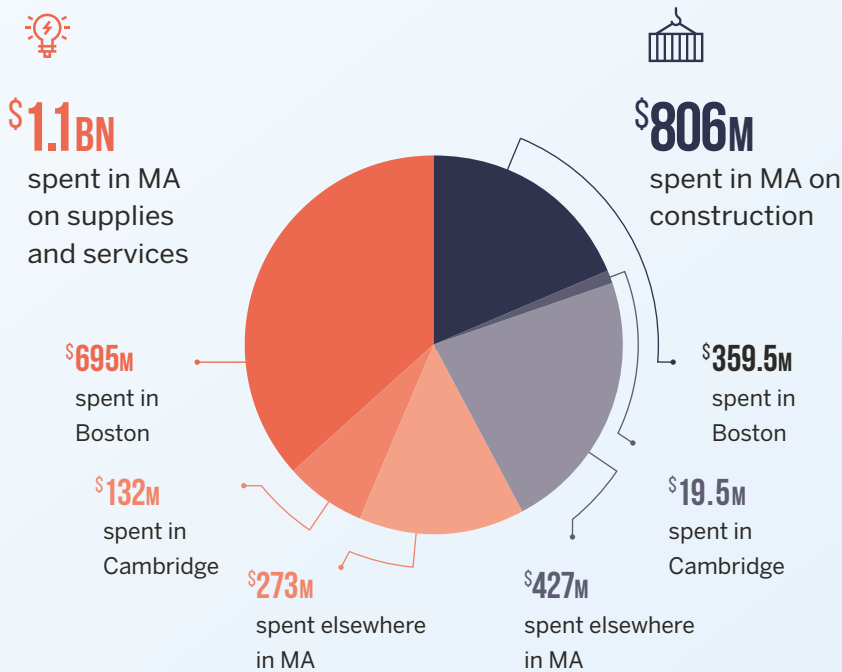
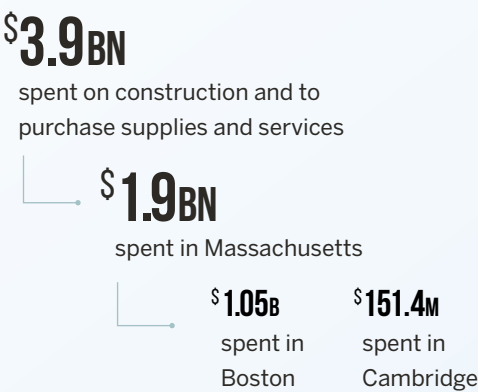
HARVARD-AFFILIATED TEACHING HOSPITALS

10,000+ doctors and researchers work at Harvard's **14** affiliated hospitals and have a Harvard Medical School appointment, bringing the specialized knowledge needed to attract research funding and translate discoveries into treatments. In 2018, these hospitals attracted **\$1.4 billion** in NIH funding to Massachusetts.

- Beth Israel Deaconess Medical Center
- Boston Children's Hospital
- Brigham and Women's Hospital
- Cambridge Health Alliance
- Dana-Farber Cancer Institute
- Hebrew SeniorLife
- Joslin Diabetes Center
- Judge Baker Children's Center
- Massachusetts Eye and Ear Infirmary
- Massachusetts General Hospital
- McLean Hospital
- Mount Auburn Hospital
- Spaulding Rehabilitation Hospital
- VA Boston Healthcare System

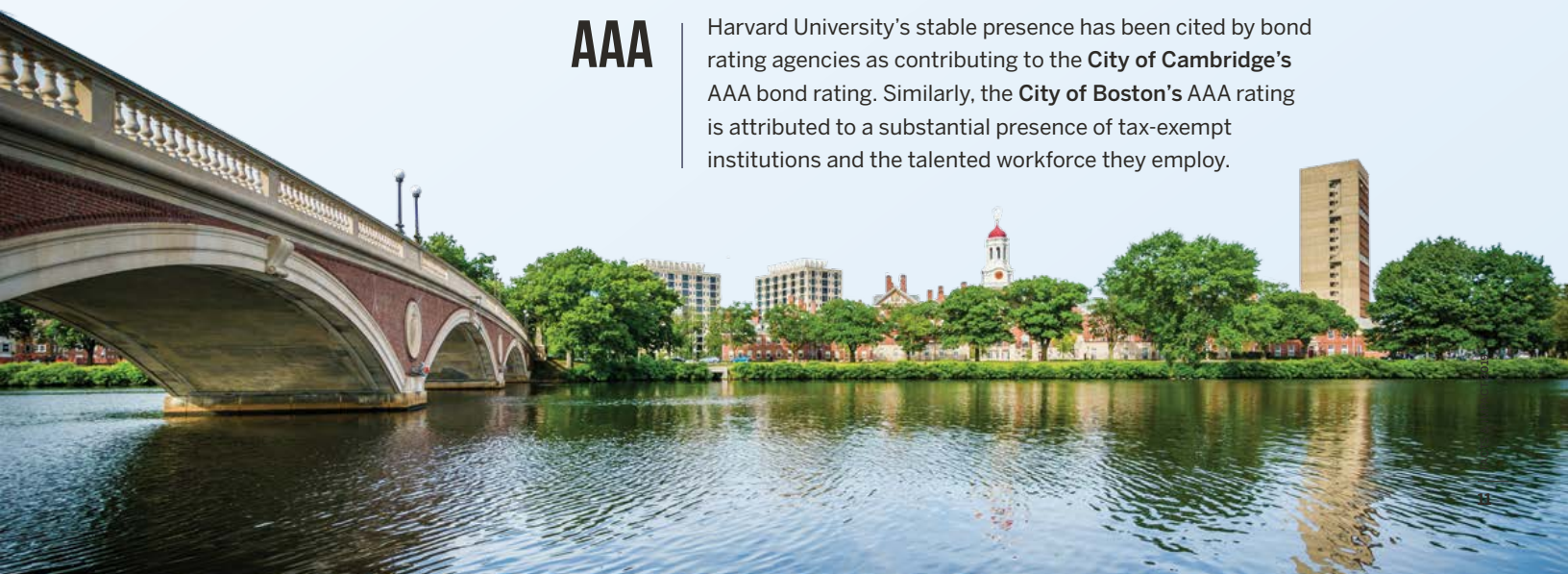
IMPACT OF LOCAL SPENDING

In FY18, Harvard spending totaled \$6.4 billion. Harvard personnel expenses totaled \$2.5 billion. The majority of Harvard spending went to purchase supplies, maintain and expand the physical plant, and run the University. These activities cost \$3.9 billion.



AAA

Harvard University's stable presence has been cited by bond rating agencies as contributing to the City of Cambridge's AAA bond rating. Similarly, the City of Boston's AAA rating is attributed to a substantial presence of tax-exempt institutions and the talented workforce they employ.





Engagement

Stewarding initiatives and partnerships that expand opportunities for neighbors, promote well-being, and build upon shared visions of community.

PARTNERING FOR AFFORDABLE HOUSING SOLUTIONS



In 2000, Harvard launched a first-of-its-kind initiative across Boston and Cambridge to support access to affordable housing through a \$20 million, low-interest, flexible loan program. The program is a collaboration between the University and three nonprofit community development lenders — Local Initiatives Support Corporation (LISC), BlueHub Capital, and the Cambridge Affordable Housing Trust — aimed at creating and preserving quality affordable housing for low- and middle-income residents of Boston and Cambridge. In 2019, Harvard announced the recommitment of the fund as the Harvard Local Housing Collaborative, ensuring the program continues for at least the next two decades.

IMPACT

Over the past two decades, the Harvard Local Housing Collaborative has played a significant role in the creation and preservation of thousands of units of affordable housing and in strengthening the cities that Harvard calls home.

**7,000+ affordable housing units across
180 projects since 2000**

5,500+ in Boston **1,600+** in Cambridge

including

1,300+ homeownership opportunities—
many for first-time homeowners

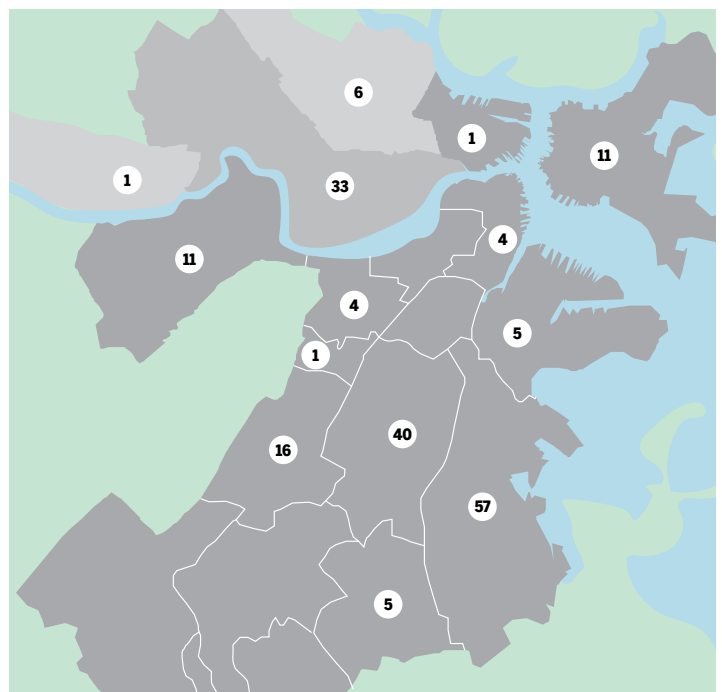
NONPROFIT HOUSING PARTNERS



“Harvard has been a supportive housing partner to LISC for two decades, and we are thrilled to renew our partnership through the Harvard Local Housing Collaborative. It takes a civic partner who is invested in our communities to make flexible funds available at low cost on a long-term basis to drive housing affordability. We need the engagement and investment of anchor institutions like Harvard to take our response to the housing crisis to another level.”

KAREN KELLEHER
EXECUTIVE DIRECTOR
LOCAL INITIATIVES SUPPORT CORPORATION, BOSTON

Harvard-supported Housing Projects: Boston and Cambridge



Data provided by LISC, BlueHub Capital, and Cambridge Affordable Housing Trust

COLLABORATING FOR STUDENT SUCCESS

PROJECT TEACH

Harvard's Official College & Career Awareness Program

Project Teach aims to demystify post-secondary options for 7th grade students enrolled in Boston Public Schools and Cambridge Public Schools to demonstrate that college can be an affordable and attainable goal for everyone. This program, based on the research of Dr. Mandy Savitz-Romer from the Harvard Graduate School of Education, aims to support students in developing a "college-going identity" using a three-pronged approach that focuses on communicating college and career goals, sharing resources, developing partnerships between students and colleges, and involving families. During a visit to Harvard University, students participate in a class taught by Harvard faculty and graduate students, attend a college panel facilitated by Harvard College Crimson Key Society students, eat lunch at Harvard's freshman dining hall, and take an historical tour of Harvard's campus.

 [Learn more harvard.edu/ProjectTeach](https://harvard.edu/ProjectTeach)

600+

students participated in Project Teach during the 2018-19 academic year

6,800+

students have been reached through the program since 2001

"I was thinking about not going to college because school was hard, but now I know if I study as hard as anybody else, I can still get into college and maybe even go to Harvard."

STEVEN NOEL
FORMER PROJECT TEACH PARTICIPANT

"They see students who look like them at Harvard. They can find themselves. They realize, 'This is a possibility; I can do this.'"

MARIA CORDON
PRINCIPAL
JAMES W. HENNIGAN K-8 SCHOOL
BOSTON PUBLIC SCHOOLS

"The Project Teach program is a critical component of our district's efforts to prepare our students for post-secondary success. The annual trip to Harvard is a highlight of the year – we are fortunate that every seventh grade student has the opportunity to see first-hand and up close what it's like to be on a college campus. We're incredibly lucky to have Harvard in our backyard, and this program is another meaningful experience for our students."

DR. KENNETH SALIM, HGSE '11
SUPERINTENDENT
CAMBRIDGE PUBLIC SCHOOLS





HARVARD
UNIVERSITY

For more information about facts and figures included in this report, please visit community.harvard.edu/sources

Each year, the Harvard Museum of Natural History (HMNH) welcomes thousands of visitors from across Massachusetts and around the world. Through its exhibits, HMNH enhances public understanding and appreciation of the natural world and the human place in it. —→

