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 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

HARVARD STUDENTS FROM MASSACHUSETTS

11,293
TOTAL STUDENTS FROM MASSACHUSETTS 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.

“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
SOUTHWICH, 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

TYPICAL AID PACKAGE FOR HARVARD COLLEGE STUDENTS

$199.6M in institutional need-based grant aid provided to Harvard College students

$55,750 Harvard, federal, and outside scholarships

$12,200 parent contribution

$2,800 student term-time job

$1,600 student summer work and asset contribution

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

* AS OF JUNE 2019
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)

<table>
<thead>
<tr>
<th>$622M</th>
<th>$265M</th>
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</thead>
<tbody>
<tr>
<td>CONTRIBUTED BY FEDERAL SOURCES</td>
<td>CONTRIBUTED BY NONFEDERAL SOURCES</td>
</tr>
</tbody>
</table>

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 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

$10.5BN

received by
408 MA companies

62% (256) have a Harvard connection

19% (78) have a connection to a Harvard-affiliated teaching hospital

2018 BIOTECH DEALS

$2.1BN

in venture capital funding was received by 51 companies in Massachusetts

$1.9BN

of which was received by 45 companies with connections to Harvard (90 percent of the funding awarded)

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

“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*

<table>
<thead>
<tr>
<th>ACADEMIC</th>
<th>NON-ACADEMIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,663</td>
<td>13,405</td>
</tr>
<tr>
<td>3,394 faculty</td>
<td>2,269 postdocs</td>
</tr>
</tbody>
</table>

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*

<table>
<thead>
<tr>
<th>County</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnstable</td>
<td>40</td>
</tr>
<tr>
<td>Berkshire/Dukes/Hampden</td>
<td>9</td>
</tr>
<tr>
<td>Bristol</td>
<td>164</td>
</tr>
<tr>
<td>Essex</td>
<td>743</td>
</tr>
<tr>
<td>Franklin</td>
<td>12</td>
</tr>
<tr>
<td>Hampshire</td>
<td>20</td>
</tr>
<tr>
<td>Middlesex</td>
<td>11,214</td>
</tr>
<tr>
<td>Norfolk</td>
<td>2,290</td>
</tr>
<tr>
<td>Plymouth</td>
<td>389</td>
</tr>
<tr>
<td>Suffolk</td>
<td>3,891</td>
</tr>
<tr>
<td>Worcester</td>
<td>294</td>
</tr>
<tr>
<td>Outside of MA</td>
<td>981</td>
</tr>
<tr>
<td>Boston</td>
<td>3,411</td>
</tr>
<tr>
<td>Cambridge</td>
<td>3,674</td>
</tr>
</tbody>
</table>

* 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)

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

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

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

LinkedIn 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.
Impact

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

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 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

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

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.
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.

$3.9BN spent on construction and to purchase supplies and services

$1.9BN spent in Massachusetts

$1.05B spent in Boston

$151.4M spent in Cambridge

$1.1BN spent in MA on supplies and services

$695M spent in Boston

$132M spent in Cambridge

$273M spent elsewhere in MA

$427M spent elsewhere in MA

$806M spent in MA on construction

$359.5M spent in Boston

$19.5M spent in Cambridge

$132M spent in Cambridge

$151.4M spent in Cambridge

$695M spent in Boston

$132M spent in Cambridge

$273M spent elsewhere in MA

$427M spent elsewhere in MA

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.

“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

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

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

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

Learn more harvard.edu/ProjectTeach
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.

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