



2020 Harvard University Town Gown Report

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ince the onset of the pandemic, Harvard students, faculty and staff have remained deeply committed to the University's host communities. Whether it be through cuttingedge research, support for healthcare workers, or resources for neighbors, local businesses and nonprofits, Harvard continues to work alongside state, local and community partners in Cambridge and beyond to respond to critical needs in the face of COVID-19.

Similar to institutions across the city, region and state, Harvard has experienced challenges as direct result of the pandemic – challenges that have impacted all aspects of University life. As such, this year's Town Gown report acknowledges the broad effects the pandemic has had on our institution, while also recognizing Harvard's ongoing commitment to academic and research excellence, and to being a good neighbor.

RISING TO THE CHALLENGE

Throughout the pandemic, Harvard's planning has been guided by a consistent and core set of principles which include prioritizing the health and safety of students, faculty, staff, and local residents; and protecting and advancing its mission of teaching, learning, and research.

Early Actions

Harvard was among the first institutions of higher learning in the country to move to remote learning and to reduce the density of people on campus to avoid a widespread outbreak and capacity issues for local health care providers.

The same conservative approach continues to shape the Harvard's planning which prioritizes the health and safety of students and staff as well as Cambridge residents. All of the University's plans are consistent with the latest health guidance from the Commonwealth of Massachusetts and the Centers for Disease Control (CDC).

Sharing Resources

- \$250,000 to the City for an emergency shelter for homeless individuals constructed at the War Memorial Facility.
- Use of the Harvard Square Hotel to house health care workers and first responders
- \$100,000 to maintain services for the Harvard Square Youth Homeless Shelter (Y2Y)
- Use of land to enable the City to provide a shower facility for the area's homeless population.
- Tens of thousands of pieces of PPE to the Commonwealth and area hospitals.
- Rent relief for retail/restaurant tenants to assist in City efforts to support Cambridge businesses
- Professional development for Cambridge Public School personnel and teachers to assist the transition to teaching remotely
- Significant financial support for local non-profits that are on the front lines of responding to the crisis, including Food for Free and the Cambridge Community Center



Rose Lincoln/ Harvard University

Ongoing Collaboration

In order to help inform decision-making and develop guidance, Harvard continues to provide City leaders with subject matter expertise in areas ranging from infectious diseases, social distancing protocols, health care worker wellness, crisis management, economic impact, and public-school educational support. Highlights include:

- Harvard has two experts serving on the City of Cambridge's COVID Expert
 Advisory Committee. Harvard and MIT subject matter experts serve as
 Chairs of the Committee.
- The Broad Institute of Harvard and MIT is working with the City of Cambridge Public Health Department to offer COVID testing for residents and workers in all of Cambridge's elder care facilities. The Broad Institute also processes tests administered to Cambridge residents by the Cambridge Health Alliance.
- Harvard remains in regular contact with the Cambridge Public Health Department.
- Harvard also maintains a website that details information about various resources of interest to the community. That website can be found at https://community.harvard.edu/covid-19-community-resources



Stephanie Mitchell/ Harvard University

Fighting the Pandemic

Since the beginning of the pandemic, Harvard faculty, students, researchers, and staff worked alongside hospitals, first responders, state and city leaders, and many more across Greater Boston to support responses to the coronavirus pandemic. Beyond its campus, Harvard is part of efforts to combat the pandemic directly on both a local, national and global scale. A sampling of those efforts include:

- Researchers across the University are studying the novel coronavirus and its wide-ranging public health and societal impacts. Two of the first vaccines to enter clinical trials have ties to Harvard researchers.
- Harvard students rapidly formed volunteer response teams to provide critical support and resources to physicians and nurses on the front lines, as well as to patients and the general public.
- Faculty across Harvard's affiliated hospitals convened to share best practices on topics ranging from critical- and intensive-care management to diagnostic testing, emergency response, and disaster management.
- Experts have deployed virtually across the country and around the
 world to provide essential research, information, advice, assistance, and
 public education on the coronavirus outbreak, including the public health
 implications and the public policy response.
- The Massachusetts Consortium on Pathogen Readiness (MassPCR), a multi-institution partnership convened by Harvard Medical School, has competitively selected 62 research projects at 15 institutions and provided funding to spur efforts to prevent and treat COVID-19.



Stephanie Mitchell/ Harvard University

Key Health and Safety Protocols

Harvard has maintained a rigorous public health and safety program, requiring those on campus to get tested frequently, and to follow a variety of rules and guidelines. Students, staff and subcontractors are asked to comply with these guidelines, including testing protocols, face coverings, and physical distancing and daily attestations of symptoms by using the Crimson Clear app. Participation is a mandatory condition of residence on campus.

All of the guidelines and information found above, as well as current federal, state, and municipal guidance are communicated frequently with all student, faculty, and staff communities. Harvard maintains a vigorous public health campaign, including a robust COVID-19 homepage featuring University-wide plans, current and historical testing data, best practices, testing and tracing protocols and other relevant information for the community. It also features a public-facing COVID-19 Testing Dashboard, which is updated frequently with the latest testing data and results as part of our continued commitment to awareness and transparency.



Rose Lincoln/ Harvard University

A Return to Campus

Throughout the fall of 2020, a majority of faculty and staff continued to work remotely, and many students continued to learn remotely. However, Harvard was able to safely bring a limited number of students back to campus.

Because of strict adherence to key health and safety protocols referenced above, Harvard was able to maintain a positivity rate well below that of the greater Boston community. There was no evidence of any transmission among members of the undergraduate residential population. Harvard College's total cumulative positive cases among its residential community was 38, far fewer than planned for or anticipated.



Rose Lincoln/ Harvard University

Looking ahead

Promising news regarding the development of multiple COVID-19 vaccines has encouraged Harvard to begin to imagine a post-pandemic world. The University continues to work towards a goal of being able to bring all of its students and affiliates back to campus as soon as conditions allow, so that the Cambridge campus is once again a vibrant part of the University's academic and research community.

arvard's Cambridge campus has a population that includes over 26,000 students who are enrolled in undergraduate, graduate and Extension School programs. The University also has over 12,000 FTE Cambridge-based faculty, staff and post-doctoral scholars, making it the largest employer in the City of Cambridge.





HARVARD EXTENSION SCHOOL

The Harvard Extension School is part of the Harvard Division of Continuing Education and offers Undergraduate and Graduate degrees, Graduate Certificates, online courses and nonresidential academic programs primarily serving adult learners. The typical Extension School student has previously completed one or two years of college and works full time.

The average age of Extension School students is 38 years old and approximately 85% of students are over the age of 25. Recent high school graduates (students 17, 18 and 19 years old) make up approximately 4% of Extension School enrollment.

Above: University-wide Commencement Choir sang "Fair Harvard" at Harvard's 369th Commencement which was held remotely on May 28, 2020.

FACULTY AND STAFF 1	2016	2017	2018	2019	2020	2025
Cambridge Based Staff						
Head Count	12,695	12,781	12,999	12,991	13,293	12,600 - 13,700
FTEs	10,434	10,404	10,698	10,636	10,938	10,300 - 11,700
Postdoctoral Scholars ²	1,193	1,093	1,176	1,162	1,052	900 - 1,200
Cambridge Based Faculty						
Head Count	2,102	2,100	2,123	2,117	2,128	2,000 - 2,200
FTEs	1,870	1,884	1,898	1,929	1,919	1,800 - 2,100
Cambridge Residents Employed at Cambridge Facilities	4,146	4,190	4,243	4,104	3,769	
Cambridge Residents Employed at Boston Facilities	806	793	791	707	743	

STUDENTS ³	2016	2017	2018	2019	2020	2025
Total Undergraduate Degree Students	7,333	7,447	7,544	7,587	7,557	7,400 - 7,600
Day	6,634	6,645	6,699	6,722	6,716	
Evening	[699]	[802]	[845]	[865]	[841]	
Full-Time	6,893	6,391	6,950	6,982	6,987	•••••••••••
ruii-Tiitie	[259]	[286]	[251]	[260]	[289]	
Part-Time	440	516	594	605	570	
rait-tillie	[440]	[516]	[594]	[605]	[570]	
Total Graduate Degree Students	10,487	10,948	11,444	11,824	12,238	10,700 - 12,500
Day	9,015	9,231	9,372	9,480	9,661	
Evening	[1,472]	[1,717]	[2,072]	[2,344]	[2.577]	
Full-Time	9,200	9,470	9,816	9,915	10,135	
Full-Tittle	[290]	[366]	[569]	[557]	[615]	
Part-Time	1,287	1,478	1,628	1,909	2,103	
r ait-fillie	[1,182]	[1,351]	[1,503]	[1,787]	[1,962]	
Total Non-degree Students	7,727	7,417	7,621	8,065	7,707	7,400 - 8,400
Day	349	351	363	396	378	
Evening	[7,378]	[7,066]	[7,258]	[7,669]	[7,329]	
Total Number of Students in Cambridge- Based Schools	25,547	25,821	26,609	27,476	27,502	25,500 - 28,500

Employment figures are as of May 31, 2020 and June 30, 2020 and include teaching assistants, graduate students, postdoctoral scholars, interns and other staff.

Postdoctoral scholars are included in staff totals reported in Cambridge Based Staff.

Counts as of October 15, 2019 for 2020. Numbers in brackets represent students at the Extension School and are a subset of the total number of Full and Part Time students indicated.



arvard's academic programs and support services occupy over 16 million square feet of space in nearly 400 buildings located across the Cambridge campus. These facilities include classroom, laboratory, and library buildings that support core academic programs; dormitories and other residential buildings that house students and affiliates; and key infrastructure facilities which support the campus' day-to-day operations.

FACILITIES AND LAND OWNED 1

	2016	2017	2018	2019	2020	2025
Acres (Tax Exempt)	191.8	191.8	191.8	191.8	191.8	191.8
Acres (Taxable)	22.1	22.1	22.4	22.4	22.4	22.4
Number of Buildings	391	391	392	393	394	394
Dormitories						
Number of Buildings	75	75	75	75	75	75
Number of Beds	7,954	8,099	8,106	8,107	8,238 ²	8,000 - 8,300
Size of Buildings (SF)	16.0M	16.0M	16.1M	16.1M	16.1M	16.1 - 16.3M
Assembly/Museum	1,026,278	1,026,278	1,026,278	1,026,278	1,026,278	
Athletic	210,780	210,780	210,780	210,780	210,780	••••••
Classroom	877,524	877,524	958,214	958,214	958,214	
Commercial	185,453	185,453	185,453	185,453	185,453	
Healthcare	77,155	77,155	77,155	77,155	77,155	
Laboratory	2,587,479	2,587,479	2,587,479	2,587,479	2,587,479	
Library	1,097,644	1,097,644	1,097,644	1,097,644	1,097,644	
Office	3,164,256	3,164,256	3,164,256	3,164,256	3,164,256	••••••
Residential	5,908,866	5,908,866	5,913,443	5,914,261	5,914,261	
Support	915,070	915,070	915,070	914,550	914,550	•••••

PROPERTY TRANSFERS

Since the filing of the previous Town Gown Report, Harvard has not acquired or sold any properties, and there are presently no planned dispositions or acquisitions. The residential property at 13 Kirkland Place was previously subject to a life estate, and with the passing of the grantor in 2020, the property is now treated as solely Harvard-owned.

PARKING FACILITIES

Harvard University owns and maintains 4,585 non-commercial parking spaces in the City of Cambridge. These spaces constitute the University's parking inventory and are used to support institutional operations and accommodate faculty, staff, student, and visitor parking. The inventory is updated and approved each December as part of Harvard's annual PTDM Progress Report.

All space data as of June 30, 2020.

Increase reflects updated accounting of beds, not an actual increase.





LEASED SPACE 1

Real Estate Leased by Harvard	Sq. Feet	Use
One Bow Street	27,461	Office
One Brattle Square	75,576	Office
One Story Street	12,251	Classroom
8 Holyoke Street	4,700	Restaurant
10 Ware Street	3,738	Office
100 Edwin H. Land Blvd.	3,365	Office/greenhouse
104 Mt. Auburn Street	34,187	Office
114 Mt. Auburn Street	65,104	Office /Healthcare
125 Mt. Auburn Street	36,564	Office
129 Mt. Auburn Street	789	Office
1100 Massachusetts Avenue	22,399	Office
1280 Massachusetts Avenue	18,285	Office
1408-1414 Massachusetts Avenue	49,522	Office
1430 Massachusetts Avenue	11,265	Office
155 Fawcett Street	37,500	Warehouse
160 Concord Avenue	5,131	Office
20 University Road	30,265	Office
25 Mt. Auburn Street	8,729	Office
44R Brattle Street	8,417	Office
50 Church Street	9,295	Office
625 Massachusetts Avenue	35,660	Office
784 Memorial Drive	61,000	Office
TOTAL	561,203	

¹ Data as of Spring 2020.

HARVARD RETAIL TENANTS

The past year has presented new challenges for retailers as the response to the COVID-19 pandemic has resulted in operating restrictions and far fewer customers. Harvard's retail tenants, located primarily in the commercial areas of Harvard Square, are striving to operate successfully during these difficult times.

Harvard shares the community's interest in maintaining a unique retail environment in Harvard Square. When retail spaces become available, Harvard seeks tenants that will have active ground floor uses, offer goods or services that complement the surrounding retail mix, and are compatible with other University uses in the building. Harvard's ongoing commitment to maintaining a vibrant Harvard Square is illustrated by its leases with more than 30 businesses in the square, including long-time independent retailers such as the Grolier Poetry Book Shop, Leavitt & Peirce, and Harvard Book Store.

More recent leases include the restaurants at the Richard A. and Susan F. Smith Campus Center. Currently the vendors are Pavement Coffeehouse, Bon Me, Saloniki, WholeHeart Provisions, Blackbird Donuts and Oggi Gourmet. All are experienced and locally-based food operators that complement each other and work well in the context of Harvard Square.

The ground floor retail space at the Harvard Law School's building at 1607-1611 Massachusetts Avenue will soon be home to the Stoked Pizza Co. The fit-out of the new retail space has begun and the restaurant is expected to open in early 2021.

HARVARD STREETS

Harvard University owns several streets and private ways on its Cambridge campus (see map below). These streets are maintained in good condition, and the University has made ongoing improvements to streets and sidewalks as part of multiple construction projects that have been undertaken on adjoining properties.

In recent years, Mill Street and portions of Holyoke Street have been upgraded through the installation of new sidewalks, repaving and new or rebuilt curbing as part of House renewal projects in the vicinity. Harvard Campus Services performs maintenance, repairs and snow removal on Harvard-owned streets, or subcontracts out this work as necessary. Temporary street closures (for maintenance or

other activities including student move-In/out or commencement events) are coordinated with Cambridge DPW through the Harvard Parking Office

Harvard also contributes to the ongoing maintenance and improvement of both private and public streets and sidewalks adjacent to Harvard properties across the Cambridge campus, and closely coordinates this work with Cambridge DPW. When feasible, Harvard provides the city's contractors with laydown areas to facilitate public realm construction projects. During winter snow events, Harvard makes off-street parking available to residents and has also provided space for the City to unload plowed snow.



HOUSING





Photos: Peter Vanderwarker

Ranging from dormitories to fully furnished apartments, the University's housing portfolio contains over 13,000 beds in 8,000 units. In fact, half of the buildings on Harvard's Cambridge campus are devoted to housing, comprising approximately 37% of all campus space. Harvard is continuing the system-wide renewal of its undergraduate houses and making ongoing improvements across the affiliate housing portfolio.

Undergraduate Student Housing

Harvard has been a residential campus since its founding nearly four centuries ago and continues as such today. The University promotes a living/learning environment by offering on-campus housing for undergraduate and graduate students.

Under normal operations, the College houses more than 98% of its undergraduate population on campus, promoting a residential campus as part of its core educational mission. The House system, which fosters small academic and social community within the larger context of the College, represents one of the most distinctive and important features of a Harvard College education. In the late 1920s, President A. Lawrence Lowell envisioned that it would serve students of different backgrounds, resulting in learning that extended beyond the classroom.



This strong culture of undergraduate housing is firmly established, with guaranteed housing for all undergraduates and an expectation that students will live on campus. The House system is central to the College, and the University continues to modernize and improve undergraduate housing through the House Renewal program.

Graduate Student and Affiliate Housing

While undergraduates are expected to live on campus, graduate students and other affiliates have a choice to live either on- or off-campus and they often have personal, professional, lifestyle and other reasons for requiring more flexibility in their housing options. Harvard manages thousands of graduate student and affiliate beds, both in dormitories and apartments, and has the capacity to house approximately 50% of its graduate students. This expansive housing portfolio is usually at or near full occupancy at the beginning of each academic year. The University remains committed to maintaining and expanding its residential portfolio. The provision of graduate student and affiliate housing not only supports the University's academic mission, but also relieves some pressure on the local housing market. HUH Faculty Real Estate Services supports the University's efforts to recruit prospective faculty and administrators by helping candidates find the community and home that meets their housing needs at a price they can afford.

Housing Demand/Supply and Affordability

Demand for housing and affordable housing is a regional issue impacting residents across the Commonwealth. Harvard University leaders have worked collaboratively with the City of Cambridge to address this issue in multiple ways. Examples of these efforts include:

- Housing 98% of its undergraduate students for four years, which relieves pressure on the local housing market.
- Working with the City to create and preserve thousands of affordable housing units, as well as in supporting efforts to eliminate homelessness in the city.

- Increasing the total number of Harvard units. Since 2005, Harvard's housing initiatives have added nearly 1,000 beds on its campuses in both Cambridge and Boston.
- Implementing leasing practices that encourage apartment sharing to increase the efficient utilization of housing inventory.
- Ensuring that the University's housing stock is more attractive to graduate students than private housing by modernizing and improving existing stock and providing desired programmatic amenities.
- Maintaining rent levels that are amenable to graduate student budgets. The rents for Harvard housing units are set at prevailing market rates which is consistent with the University's affiliated housing rent policy. This policy was established in 1983, after an internal review determined market rate pricing was the most equitable method of allocating and pricing rental units. Below market rents for HUH would be a form of financial aid, which is determined by each individual school, not the rent-setting process. Therefore, the cost of housing is considered when financial aid is determined by each academic unit.

In addition, in a typical year approximately 1,900 students from across the University, mainly doctoral candidates or graduate students involved in research initiatives based in other parts of the world, live outside of Massachusetts, and therefore, do not contribute to the demand for campus housing or impact the local housing market.

Commitment to Affordable Housing Initiatives

Harvard's commitment to create housing opportunities extends beyond the campus into the community. Together, the City of Cambridge and Harvard have enjoyed a long and successful record of working together to create more than 1,600 units of affordable housing in the City, spanning every neighborhood. Nearly 50 units of Harvard's housing are occupied by non-Harvard affiliates that are former rent control tenants, who benefit from rent levels consistent with the rent control program.

In 2019 Harvard recommitted \$20 million to the Harvard Local Housing Collaborative, an initiative aimed at increasing the amount of affordable housing in Greater Boston. Harvard has partnered with three with local nonprofit communitydevelopment lenders to create and preserve affordable housing, build and revitalize healthy communities, and create economic opportunities for low- and middle-income residents throughout the region. The financing provided through this initiative is flexible, low-cost, and available at the critical, early-stages of development - such as during land acquisition and predevelopment, making it a

particularly attractive — and oftentimes crucial element for developers.

Harvard launched its program, formerly known as 20/20/2000, in 2000, initially committing \$20 million in low-interest, flexible loans. Since then, the fund has revolved more than two times, leveraging more than \$1.3 billion in housing development and creating more than 7,000 units of affordable housing regionally, and including more than 1,600 affordable units in Cambridge. The program's impact is felt throughout the region, and Harvard's recommitment ensures that funding that will continue for at least the next two decades.

STUDENT AND AFFILIATE HOUSING 1	2016	2017	2018	2019	2020	2025
Number of Undergraduate Students Residing in Cambri	dge					
In dormitories	6,368	6,023	6,020	5,969	6,136	6,000 - 6,400
With cars garaged in Cambridge	5	6	3	8	11	
In Harvard affiliate housing ²	304	650	648	655	528	400 - 700
In non-affiliate housing	68	99	115	188	159	
Number of Graduate Students Residing in Cambridge						
In dormitories	1,390	1,338	1,348	1,337	1,186	1,100 - 1,400
With cars garaged in Cambridge	139	99	94	84	87	
In Harvard affiliate housing	1,367	1,355	1,305	1,221	1,462	1,200 -1,600
In non-affiliate housing	3,326	3,290	3,225	3,206	3,149	
Affiliate Housing - Tax Exempt						
Number of Units:	1,037	1,036	1,035	1,036	1,036	
Number of Buildings:	12	12	12	12	12	
Affiliate Housing - Taxable						
Number of Units:	892	889	889	889	889	
Number of Buildings:	55	54	54	54	54	

Housing data as of February 2020, and does not reflect changes made for the remainder of spring semester.

The number of undergraduate students residing in Harvard affiliate housing includes 10-20 DeWolfe Street and students temporarily residing in "swing housing" to accommodate the House Renewal program.

HOUSE RENEWAL UPDATE

Harvard continues its multi-year effort to renovate and rehabilitate the undergraduate Houses as part of a broader system-wide renewal. The intent of the House Renewal program is to preserve the historic character of these buildings and to sustain the original vision of the Houses, while transforming them to meet the needs of today's students. Planning for this program began over 10 years ago.

The House Renewal program is being undertaken in phases. The current focus is on the neo-Georgian River Houses set along the Charles River, most of which were constructed in the 1920s and 30s and have had only modest upgrades over the ensuing years. The Houses were also built at a time when building standards and the needs of the student body were very different.

Throughout the House Renewal process, Harvard is striving to maintain the same or greater bed capacity within the Houses while accommodating the many building upgrades that require the allocation of additional space. The long-term vision for undergraduate housing at Harvard remains centered on the First Year dorms in Harvard Yard and the Harvard Houses along the Charles River and the Radcliffe Quadrangle.

To facilitate renewal activities, Harvard is continuing to use existing University-owned buildings in and around Harvard Square to provide temporary accommodations to students displaced by House Renewal construction. The former Inn at Harvard (1201 Massachusetts Avenue) continues to serve as the central hub of the "swing house" and



Photo: Peter Vanderwarker

accommodates the dining, meeting, social, academic and a portion of the residential spaces for the House undergoing renewal. This is supplemented by several Harvard-owned residential buildings in the area: 8 Plympton Street and 1306 Massachusetts Avenue, which are currently in use for the Adams House Renewal, as well as 20- 20A and 22-24 Prescott Street and 65 Mt. Auburn Street, which are available to provide additional residential space for displaced students as needed. The Faculty Dean's temporary accommodations are located at 8 Prescott Street. Together these properties meet the program needs of all the Houses, even those with the largest student populations. During academic years when these buildings are not needed for swing use, they are used as residences for other Harvard affiliates.

Upon completion of the House Renewal program, the five Harvard-owned residential buildings will continue their long-standing role in providing housing to Harvard's graduate students and other affiliates. The long-term use of 1201 Massachusetts Avenue has not yet been determined, but it is anticipated to remain in institutional use.

Five renewal projects are fully completed – Stone Hall, McKinlock Hall, Dunster House, Winthrop House, and Lowell House. Renovation work at Adams House, the sixth House undergoing renewal, began its early phases at Claverly Hall and Apthorp House. The subsequent phases will take place at Randolph Hall, Russell Hall, Library-Commons, and Westmorly Court. The pace and sequence of House Renewal is subject to periodic review.



Photo: Peter Vanderwarker



arvard's planning and development activities on the Cambridge campus are informed by several key considerations including programmatic drivers, a distinct physical planning context and key campus planning principles.

PROGRAMMATIC DRIVERS

Harvard's short-term planning and development priorities have necessarily shifted to address the immediate issues related to the COVID-19 pandemic, such as ensuring the health and safety of our students and affiliates. Over the longer term, several key programmatic drivers and objectives will continue to influence how the University meets its diverse facility and space needs.

Fostering Inclusion and Belonging

Harvard's core values of diversity, inclusion, and belonging inform all aspects of University life, including campus planning and development. These activities seek to involve a broad range of campus constituencies with diverse backgrounds.

Advancing Research and Scholarship

As a modern research university in the 21st century, Harvard must continually strengthen its core academic and research mission through initiatives that support cross-disciplinary research, respond to changing pedagogies and technological innovations, and foster collaborative teaching and learning.

Investing in Science and Engineering

Recognizing the increasingly integrated and collaborative nature of scientific research, Harvard continues to support a wide array of interdisciplinary initiatives. The University's ongoing investment in capital projects supporting the sciences includes both new construction and the renovation of existing facilities to respond to new initiatives in scientific research.

Supporting the Arts and Humanities

Harvard remains committed to a strong liberal arts education which goes beyond delivering a body of knowledge but seeks to cultivate a deeper intellectual transformation of each student. This commitment is demonstrated across a range of academic programs which support art-making, performance and media-based disciplines.

Housing Harvard's Affiliates

Harvard was founded as a residential campus and continues to be a living/learning academic environment today. In addition to the ongoing effort to revitalize the Harvard Houses, the University also remains committed to maintaining and improving its affiliate housing by addressing deferred maintenance, enhancing life safety and upgrading living units.

Enhancing the Campus Experience

Harvard recognizes that the experience of campus life is greatly enhanced by its common spaces, landscape, and cultural amenities. Recent projects such as the Richard A. and Susan F. Smith Campus Center have created new campus spaces that bring the diverse Harvard community together. Harvard will continue to identify additional opportunities to enhance the quality of campus life through future planning and development projects.

PHYSICAL CONTEXT

To support the University's academic mission, Harvard seeks to preserve its strong sense of place and provide a welcoming environment through campus-level planning strategies that respect the existing physical context while acknowledging the need for flexibility and adaptability to accommodate future change.

These strategies include the coordination of campus systems and networks (such as connectivity, open space, infrastructure and sustainability); the balance of renewal and deferred maintenance priorities (facility condition assessments); and the careful study of existing conditions (urban design guidelines and site-specific planning principles) which ensure that future development continues to produce a coherent, attractive, sustainable and well-maintained campus.



CAMPUS PLANNING PRINCIPLES

The University implements its plans through development that strives to meet the following planning principles in a balanced way.

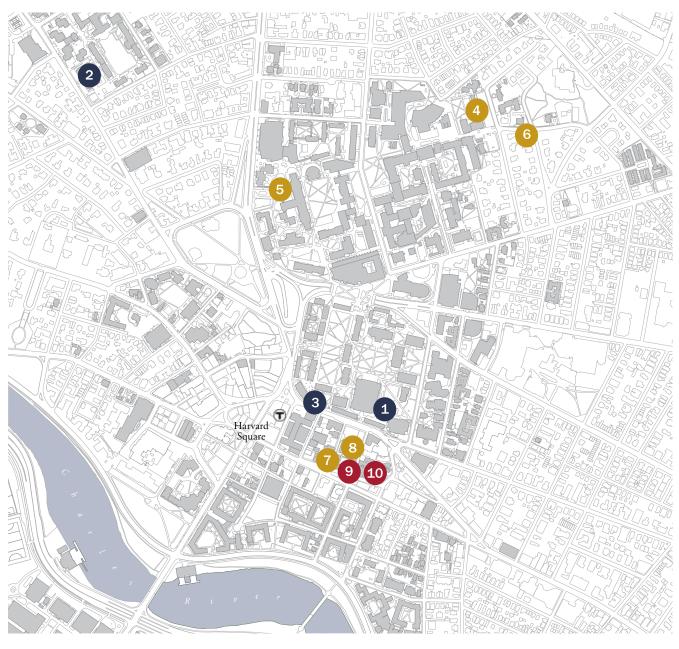
- Create a sustainable campus
- · Respect community context
- Support ongoing facility renewal
- · Maximize the utilization of existing facilities
- · Enhance campus connectivity
- Preserve Harvard's historic character

- · Demonstrate a commitment to design excellence
- Maintain and enhance campus open space
- Promote built form in the context of existing campus character
- Create campus environments that promote inclusivity, diversity, and interaction



HARVARD CAPITAL PROJECTS

Harvard's programmatic drivers, physical context, and planning principles help shape the University's capital projects outlined on the following pages.





Recently Completed

- 1. Houghton Library
- 2. Hilles Cinema
- 3. Wadsworth House

Currently i

Currently in Construction

- 4. Swartz Hall
- 5. Lewis International Law Center
- 6. 109 Irving Street
- 7. Claverly Hall
- 8. Apthorp House

Projects in Planning

- 9. Randolph Hall
- 10. Russell Hall/Westmorly Court

PROJECT LIST

Project		Programmatic Goal	Sustainability Features ¹		
Re	cently Completed				
1.	Houghton Library	Improve accessibility and building functionality; enhance library presence in Harvard Yard	Harvard Green Building Standards and sustainability priorities		
2.	Hilles Cinema	Facility renewal	Salvage of teak paneling for project reuse		
3.	Wadsworth House	Facility renewal	Restoration of historic windows		
Cu	rrently in Construction				
4.	Swartz Hall	Facility renewal	Targeting LEED CI v4 Gold; Harvard Green Building Standards; and a Harvard Healthier Building Materials Academy pilot with extensive healthier building materials goals		
5.	Lewis International Law Center	Facility renewal, accommodate growth in research programs and improve accessibility.	Targeting LEED NC v4 Gold; Harvard Green Building Standards; and a Harvard Healthier Building Materials Academy pilot		
6.	109 Irving Street	Renovate for continued residential use	Targeting LEED Homes certification; Harvard Green Building Standards		
7.	Claverly Hall	Renew undergraduate House life	Targeting LEED CI v4 Gold; Harvard Green Building Standards; and a Harvard Healthier Building Materials Academy pilot		
8.	Apthorp House	Renew undergraduate House life	Harvard Green Building Standards; Harvard Healthier Building Materials Academy pilot		
Pro	ojects in Planning				
9.	Randolph Hall	Renew undergraduate House life	Targeting LEED CI v4 Gold; Harvard Green Building Standards		
10.	Russell Hall / Westmorly Court	Renew undergraduate House life	Targeting LEED CI v4 Gold; Harvard Green Building Standards		

Harvard Green Building Standards include process-oriented requirements to ensure that all sustainable design and operations opportunities are vetted and that performance requirements are achieved in a cost-effective manner. They apply to all capital projects (new construction and major renovations) over \$100,000. For more information, see: https://green.harvard.edu/sites/green.harvard.edu/files/HarvardGreenBuildingStandards2017.pdf



COVID-19 IMPACTS ON PLANNING & DEVELOPMENT

As with all aspects of Harvard's operations, the pandemic has impacted the University's planning and development activities. Necessary construction moratoriums enacted in Cambridge and Boston halted progress on projects that were already underway at the beginning of the year, resulting in delayed project completion dates. On the Cambridge campus work resumed on several significant projects including Adams House Renewal, renovation of Swartz Hall at Harvard Divinity School, the Houghton Library renovation, and the Lewis International Law Center renovation and addition project at Harvard Law School.

Many critical projects across the University are continuing. This includes life safety improvements, addressing deferred maintenance and lab renovations that support essential research. Many other projects have been paused until there is greater certainty on the course of the pandemic and its impacts on the University's capital spending capacity.

The ongoing health emergency has also required that Harvard focus some of its planning and development resources on addressing its direct impacts; this has included the development of physical space planning guidelines for safely returning Harvard affiliates to the campus, retrofitting existing facilities and spaces to ensure occupant safety, and creating new on-site viral testing facilities to allow the continued on-campus presence of students and other affiliates.

Going forward, the COVID-19 pandemic will likely have continued ramifications for Harvard's planning and development activities including how institutions of higher education operate in a post-pandemic world.



HOUGHTON LIBRARY Recently Completed

Renovation

Architect

Ann Beha Architects

Landscape Architect

Michael Van Valkenburg & Associates

Total Square Feet

4,564 GSF (renovation)

Programmatic Driver

Enhance library presence in Harvard Yard, improve library functionality and accessibility.

Sustainability Features

Harvard Green Building Standards and sustainability priorities The Faculty of Arts and Sciences recently completed a renovation project at Houghton Library that significantly improves accessibility for persons with disabilities and enhances the library's overall functionality and access to its collections and exhibition space. The project included a reorganization of first floor spaces to improve circulation, enhance lobby exhibition space, and add visitor amenities. Significant accessibility improvements were made throughout the building and included site and landscape modifications that for the first time, make the front entrance accessible to persons with disabilities via a sloped walkway. Other improvements included the installation of a new passenger elevator serving all public floors of the building and renovated toilet rooms.

The Houghton Library was completed in 1942 and was designed by Perry, Shaw and Hepburn. The library is a premier example of the mid-twentieth century Georgian Revival style and features several finely detailed interior spaces. The building is Harvard's principal repository for rare books and manuscripts, literary and performing arts archives, and other special collections. In addition to its collections, which make it a destination for students and scholars, the Houghton Library hosts exhibitions and events that are open to the public. The completed project improves both physical and programmatic accessibility to the Library's outstanding collections.

In conjunction with the library renovation, the project's donor also supported the creation of a new gate at Quincy Street near the Lamont Library. Designed by Höweler + Yoon, the new gate is a creative contemporary interpretation of

HOUGHTON LIBRARY (CONT'D)

Harvard's traditional Yard gates. Featuring wrought iron set in sculpted stone piers, the new gate also incorporates several subtle visual references to the Houghton Library's collection of Beatrix Potter and Lewis Carroll children's manuscripts.







HILLES CINEMA Recently Completed

Renovation

Architect

EYP Architecture & Engineering

Total Square Feet N/A

Programmatic Driver

Facility repair, accessibility, and conversion of space for new academic uses

Sustainability Features

Salvage of teak paneling for project reuse

The Faculty of Arts and Sciences recently completed a renovation project at Hilles Cinema that addressed water infiltration at the building's inner courtyard, made significant accessibility improvements, and converted an existing cinema into an innovative space for video production.

At the inner courtyard, the installation of a new waterproofing and drainage system and the replacement of insulation and pavers has addressed a long-standing water infiltration issue that impacted the cinema space located directly beneath the courtyard.

The cinema space was renovated to make it fully accessible to persons with disabilities, including a new accessible path of travel to upper and lower level seating areas, elimination of the raised stage, and the construction of an accessible gender-inclusive toilet room. The renovated cinema provides a state-of-the-art studio space for video production and film screenings. The new video production space will support CS50, one of Harvard's most popular courses, as well as other academic departments including Theatre, Dance & Media and Art, Film and Visual Studies.

Designed by the architectural firm of Harrison & Abramovitz in the mid 1960's, the Hilles cinema space features fine teak wall paneling with a curved face profile. As part of the renovation, the paneling had to be removed for abatement due to the type of adhesive originally used. After careful removal and restoration, the paneling was re-installed. Teak paneling was also salvaged for reuse in areas where interior modifications were required.



Recently Completed WADSWORTH HOUSE

Renovation

Consultant

WS Aiken Roofing M&A Architectural Preservation

Total Square Feet N/A

Programmatic Driver

Preservation and renewal of the historic building envelope

Sustainability Features

Restoration of historic windows

Harvard Real Estate recently completed a preservation project at Wadsworth House, the University's second oldest building (circa 1726). The project included the installation of a new cedar shingle roof, a new copper gutter system, chimney reconstruction and the repair and the restoration of seven (7) original dormer windows.

During the window restoration process, the project team discovered what is believed to be the original counterbalance system for the sash. This discovery is notable for 18th century windows, as typical weight and pulley counterbalancing was not in common use until the mid-19th century. This significant historical building component was photographed and restored as part of the project.



SWARTZ HALL

Renovation and Addition

Architect Ann Beha Architects

Total Square Feet

53,327 GSF (renovation) 3,723 GSF (addition net new)

> **Programmatic Driver** Renew building

Sustainability Features

Targeting LEED CI v4 Gold; Harvard Green Building Standards; and a Harvard Healthier Building Materials Academy pilot with extensive healthier building materials goals

Harvard Divinity School is continuing the renovation of Swartz Hall (previously Andover Hall), which serves as the school's center of academic, administrative and student life. The project will renew the building overall and includes long needed repairs to the exterior envelope, upgrades to mechanical systems and improvements to physical accessibility. In addition, the project includes the creation of new spaces that will accommodate school gatherings, teaching and instruction, and multifaith worship. Existing classrooms will be renovated and will have added multimedia capacity.

Swartz Hall was constructed in 1911 and is part of a complex that also includes the Harvard-Andover Theological Library, constructed in 1961. The project improves the connections and functional relationships between these elements. A new two-story addition linking these buildings will contain student common space on the ground level and a multi-purpose classroom and convening space at the first level to accommodate symposia and speakers. The south wing of Swartz Hall will be reconfigured, creating the new multifaith worship space and offices for student services.

The renovation project is anticipated to be completed in spring 2021.



LEWIS INTERNATIONAL LAW CENTER

Renovation and Addition

Architect

Deborah Berke Partners

Total Square Feet

37,959 GSF (renovation) 12,489 GSF (addition)

Programmatic Driver

Reprogram spaces in the building, address deferred maintenance, accommodate growing research programs and improve accessibility.

Sustainability Features

Targeting LEED NC v4; Harvard Green Building Standards; and a Harvard Healthier Building Materials Academy pilot Harvard Law School is renovating the Lewis International Law Center to renew and expand the building for new office and academic uses. An addition on the west facade will provide an improved building entrance while also adding new academic space on the 2nd, 3rd, and 4th floors. The new 5th floor will be a light and glassy addition, emphasizing transparency and views to the campus. Its painted metal facade will be complimentary but distinct from the building's original limestone facade. The project will also address deferred maintenance, including repair of the exterior envelope, improvement to major building systems, and upgrading of all utility infrastructure.

The Lewis International Law Center was built in 1957 and designed by Shepley Bulfinch Richardson & Abbott. The building is linked to Areeda Hall via a bridge, which connects to Langdell Library and Griswold Hall.



109 IRVING STREET

Renovation

Architect Austin Architects

Total Square Feet 7,440 GSF (renovation)

Programmatic Driver

Renovation of historic house for continued residential use

Sustainability Features

Targeting LEED Homes certification; Harvard Green Building Standards Harvard is renovating 109 Irving Street for continued single-family residential use for the Harvard Law School. The project includes restoration and renovation of the interior spaces; installation of new utility services; restoration of the building's exterior and roof; and replacement of the rear addition with a one-story porch.

109 Irving Street was designed by William Pitt Wentworth and constructed in 1893.



CLAVERLY HALL, ADAMS HOUSE

Renovation

Architect

Beyer Blinder Belle

Total Square Feet

Approximately 59,000 GSF (renovation)

Programmatic Driver

Renew undergraduate House life

Sustainability Features

Targeting LEED CI v4 Gold; Harvard Green Building Standards; Harvard Healthier Building Materials Academy pilot Harvard commenced the renewal of Adams House with a full renovation of Claverly Hall, which was originally constructed in 1892 as off-campus student housing. The project involves a comprehensive renovation of the interior spaces and a restoration of the exterior, with entrances sensitively altered for accessibility. Updates will include new residential layouts, a secondary entrance on Linden Street, and new common spaces for students. Two new elevators and one lift will provide accessibility to all levels. Significant historic interiors, such as Claverly's main entry lobby and main stair hall, will be carefully preserved and restored. The sustainability goals for the project include an energy efficient envelope and windows, new MEP systems, and LEED certification.

Work at Claverly Hall has received public approvals from the Cambridge Historical Commission and the Cambridge Board of Zoning Appeal. The project is anticipated for completion in 2021.



APTHORP HOUSE, ADAMS HOUSE

Renovation

Architect Beyer Blinder Belle

Total Square Feet Approximately 11,000 GSF

(renovation)

Programmatic Driver Renew undergraduate House life

Sustainability Features

Harvard Green Building Standards: Harvard Healthier Building Materials Academy pilot

Harvard is currently restoring and renovating Apthorp House as part of the second phase of Adams House Renewal. This significant example of high-style Georgian architecture was built in 1760 as the private residence of Reverend East Apthorp, the first Anglican missionary to Cambridge. This Colonial era house notably served as lodging for troops and the headquarters of American General Putnam during the Revolutionary War. Its use as a private residence transitioned to student renters in 1902, until its current use as the Adams House Faculty Deans' Residence was established in the 1930s.

The renovation includes the repair and restoration of the building's historic exterior including windows, envelope, chimneys, slate roof, and copper gutters and downspouts. A new accessible entrance will be added to the north (rear) elevation. The landscaped pathways will be modified to improve accessibility through the courtyard shared with Randolph Hall.

Work at Apthorp House has received a Certificate of Appropriateness from the Cambridge Historical Commission. The project is anticipated for completion in 2021.



Projects in Planning

RANDOLPH HALL, ADAMS HOUSE

Renovation

Architect Beyer Blinder Belle

Total Square Feet Approximately 66,000 GSF (renovation)

Programmatic Driver Renew undergraduate House life

Sustainability Features Targeting LEED CI v4 Gold; Harvard Green Building Standards Adams House Renewal includes a comprehensive renovation of Randolph Hall, which was constructed in 1897 as a Gold Coast private student residence before it was incorporated into Harvard's Adams House in the 1930s. This eclectic 5-story brick and granite Jacobean Revival building is distinguished by its bays, shaped gables, turrets, and chimneys.

Renewal at Randolph Hall will fully restore the building's exterior envelope while making targeted modifications to create accessible entries. A new mid-block entrance on Plympton Street will also be introduced. The interior renovation will include new residential layouts and student common spaces, enhanced circulation, and restoration of traditional interior spaces.

The Cambridge Historical Commission granted a Certificate of Appropriateness for the work at Randolph Hall. Work is anticipated to begin on the project in 2021 as part of the second phase of renewal activities at Adams House.



Projects in Planning

RUSSELL HALL - WESTMORLY COURT, ADAMS HOUSE

Renovation

Architect

Beyer Blinder Belle

Total Square Feet

Approximately 106,000 GSF

(renovation)

Programmatic Driver

Renew undergraduate House life

Sustainability Features

Targeting LEED CI v4 Gold; Harvard Green Building Standards Harvard is planning for the third and final phase of its Adam House Renewal project which will address the east block located between Plympton and Bow Streets. Three connected buildings - Russell Hall (1931), the Library-Commons Building (1930), and Westmorly Court (1898 - 1902) provide residential and common spaces for the Adams House community. The project scope will include a comprehensive renovation of the interior spaces and a restoration of the exteriors in a manner that respects the buildings' historic character, improves their overall accessibility, and supports a twenty-first century educational experience.

This project will require approval from the Cambridge Historical Commission. Construction is anticipated to begin sometime after the Randolph Hall renovation is completed.

ALLSTON UPDATE

Project and Planning Updates

Science and Engineering Complex (SEC)



The Harvard John A. Paulson School of Engineering and Applied Sciences will soon begin moving into the Science and Engineering Complex in Allston. The delayed move-in process will continue into February 2021. Though work on the complex paused in the spring as a result of the coronavirus pandemic, the SEC is now projected to open for undergraduate student access in time for the 2021-2022 academic year.

The building will include academic programs in computer science, materials and mechanical engineering, biomedical engineering, robotics, and electrical engineering. Slightly more than half of the faculty of the Harvard John A. Paulson School of Engineering and Applied Sciences will relocate to the Allston campus. In all, the new Allston complex will support more than 1,800 researchers, students, faculty, and staff. The move will free up space on the Cambridge campus, for which the University is examining alternatives for future institutional use.

Allston District Energy Facility (DEF)

The 55,000 SF Allston District Energy Facility is complete and operational. It houses energy production, energy conversion, and energy distribution equipment. The building was constructed with equipment and distribution infrastructure installed in phases to coordinate with future Harvard institutional development projects. The new facility has combined heat and power systems that generate hot water and electricity, and a 1.3-million-gallon tank for storing chilled water, which allows the time-shifting of electric consumption associated with cooling buildings. The new facility has been designed to incorporate resiliency measures to address the regional impacts from future climate change. The building is screened by a wrapper of metal fins set at varying degrees of openness to reveal or conceal the various equipment areas within. On the public face of the building, the fins are raised above the ground so passersby can see the main equipment.

Enterprise Research Campus

The Harvard Allston Land Company (HALC) has designated Tishman Speyer as the preferred developer for the initial phase of Harvard University's Enterprise Research Campus (ERC) in Allston. Tishman Speyer is a global developer of large, complex, mixed-use projects and is best known for innovative approaches to architecture, placemaking, interior design, sustainability, healthy live-work environments, and leading-edge tenant amenities. The initial phase of development focuses on the 14-acre portion of the ERC on Western Avenue, adjacent to the new Science and Engineering Complex, and across the street from Harvard Business School.

Harvard envisions an ERC that will complement the cutting-edge institutional research taking place on its campus and throughout the region. It will seamlessly integrate into the emerging corridor of creativity along Western Avenue and will contribute to a thriving community in a neighborhood that combines academia and education, engaging public and community spaces, and the arts and sciences, in ways that drive economic growth and innovation.

Planned as a mixed-use development — including office, lab, research, residential, retail, hotel and conference center, enhanced public realm, publicly accessible open spaces, and public art projects — the ERC will be a cornerstone of Harvard's commitment to enhance the area in support of its teaching and

research mission. It will increase the interconnectivity between the Harvard campus, the neighborhood, and the Greater Boston region.

American Repertory Theater

Fundraising and design continue for the new American Repertory Theater, on North Harvard Street. The new building - to be located adjacent to the athletic facilities on North Harvard Street in Allston - will anchor the University's arts presence on its developing Allston campus. The new state-of- the-art research and performance center will complement existing arts programming offered through the Harvard Allston Ed Portal, the Office for the Arts' ceramics studio on Western Avenue, and the recently opened ArtLab, and will enhance the arts community at Harvard as well as in Greater Boston.

Transportation Links

Harvard Transportation Services is implementing a flexible and responsive shuttle solution to expand its service to the Allston campus. This system will provide the ability to adjust shuttle capacity to meet heavy demands such as those experienced during peak transit times. Harvard will closely monitor usage and capacity data to determine whether additional adjustments are needed. The University is committed to providing safe and accessible bike and pedestrian pathways between the Cambridge and Allston campuses. As part of this effort, Harvard has installed additional campus wayfinding signage to facilitate pedestrian access to the Allston campus.

I-90 Allston Interchange Project

The Massachusetts Department of Transportation's (MassDOT) I-90 Interchange project is now undergoing state and federal-level environmental review processes. In November, the Baker Administration indicated that it would extend until mid-2021 its decision regarding the design for a section of the project known as the "throat," where multiple road lanes, rail lines, and a bike path must be located within a narrow strip of land between the Charles River and the Boston University campus.

The project is a generational opportunity to transform and modernize neighborhood circulation, create an urban street grid, introduce new urban and regional rail service, remove obstacles that have divided communities for decades, and create new mixed-use development. Harvard continues to work closely with the Baker Administration, along with dozens of stakeholders, through participation in I-90 Task Force meetings and through meetings with MassDOT, the City of Boston and other stakeholders to help maximize the potential benefits the project may deliver.

Among the many important elements of the project, Harvard maintains that West Station is a critical element to the Interchange project, supports its inclusion in the MassDOT plan, and has committed financial support to help ensure its implementation.

Private Partnership Development

From time to time, Harvard works with private real estate firms to develop certain of its properties in Allston. This year Berkeley Investments filed plans with the city for a three-building campus of life science office space, housing, retail and open space on the Harvard-owned site of an unfinished warehouse that has sat empty on 176 Lincoln Street since it was built two decades ago. The project, encompassing just over 800,000 square feet, would serve as a connection between the Boston Landing complex across the Pike and the rapidly developing Western Avenue corridor to the north. In addition, the firm of Samuels and Associates plans to build a 7-story, 270-unit residential building at a Harvard-owned site at 180 Western Avenue in Allston, directly across the street from Continuum, a luxury apartment complex with Trader Joe's grocery store it developed in 2015. Samuels intends to file formal plans with the City of Boston before the end of 2020.

CONSTRUCTION MITIGATION

Harvard recognizes the interconnectedness of its Cambridge campus with Harvard Square and its surrounding neighborhoods and seeks to minimize potential construction impacts resulting from University projects by developing comprehensive construction mitigation programs. Harvard has a robust construction mitigation office that works closely with local businesses, and neighborhood representatives, as well as the City of Cambridge, to help minimize any disruptions on each project across campus. Depending on the nature of the construction project and its location, the mitigation measures for projects may include the following:

- Relocating existing retail and commercial tenants impacted by construction in Harvard owned buildings to other Harvard Square locations so they can continue operating during construction.
- Minimizing impacts to retail businesses that remain in Harvard buildings during construction.
- Maintaining access to Harvard owned commercial parking areas as much as possible to continue to provide parking for visitors to the University and Harvard Square.
- Maintaining existing loading zones wherever possible and working with local businesses to accommodate deliveries during scheduled street closures.
- Ensuring compliance with the City of Cambridge noise ordinance's provisions pertaining to

- construction sites and developing additional noise mitigation measures as may be necessary.
- Installing perimeter protection and ample directional signage to facilitate continued pedestrian access to adjacent sidewalks and local business.
- Keeping street and sidewalk closures to a minimum to ensure that vehicular and pedestrian access is maintained on streets surrounding the project site.
- Installing signage or banners at the perimeter of project sites impacting commercial areas to highlight that local businesses remain open during construction.
- Working with Harvard's Office of Environmental Health and Safety to develop appropriate pest control programs that may be necessary.

The Harvard Mitigation Office implements these measures and serves as the key liaison to those potentially affected by University construction projects. The office communicates on a regular basis with project abutters about any expected construction impacts and serves as the point of contact for registering complaints or concerns. The office addresses abutter concerns promptly and to the best of its ability.

In addition to the mitigation measures designed to minimize impacts to local business, Harvard projects support commercial areas by bringing many construction workers to Harvard Square and its vicinity on a daily basis who frequent local restaurants, stores and services.



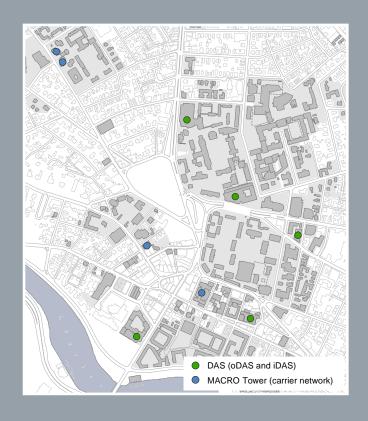
ANTENNA INSTALLATIONS

The use of wireless, web-based, and remote platforms for instruction and collaborative research continues to increase demand for cellular and wireless services, resulting in the need for improved coverage, signal strength and capacity. To meet this technological demand, the University must continue to coordinate system improvements across multiple cellular and wireless service provider platforms.

DISTRIBUTED ANTENNA SYSTEM (DAS)

Harvard continues to implement its neutral host Distributed Antenna System or DAS that enables the University to provide better coverage within its buildings and campus, and which facilitates the coordination of antenna system improvements across multiple service providers. Because the DAS network can serve multiple carriers, it allows the University to significantly reduce the number of antenna installations typically required to provide high-quality coverage across multiple providers' systems.

The DAS network is comprised of strategically located antenna nodes connected to a common signal source accommodating multiple service providers. Each antenna node distributes carrier signals to clusters of campus buildings, providing high quality micro level coverage to the University's end users. To date Harvard has completed five DAS installations in Cambridge, with additional potential sites under consideration.



MINIMIZING VISUAL IMPACTS

Where exterior antenna and equipment installations are required, the University works with its DAS consultants to minimize their visual impacts to the greatest extent possible. Harvard has generally sought to exclude exterior antenna installations from its most architecturally significant and iconic campus buildings. Where possible, antennas are mounted on mechanical penthouses, chimneys, vents or other existing building rooftop elements that can help to conceal or minimize the visibility of exterior equipment.

In some instances, antennas and other required equipment can be camouflaged to visually blend in better with its surroundings. This can

include creating the appearance of brick or other building materials on antenna panels; enclosing equipment in false chimneys, vents or other roof top elements that simulate existing building features; or screening the equipment in extensions of existing mechanical penthouses.

In meeting its regulatory obligations, Harvard and its consultants work with City of Cambridge planning and design staff to review proposed installations to identify appropriate locations and visual treatment options. Installations proposed within historic districts or neighborhood conservation districts are also reviewed with the staff of the Cambridge Historical Commission.

he day-to-day function of Harvard's campus requires a high degree of connectivity which encompasses pedestrian networks, public transportation, bicycle networks and the accommodation of vehicles. Harvard seeks to enhance and improve connectivity through projects that incorporate a multi-modal approach to connecting the people, places and activities on its campus.



COVID-19 TRANSPORTATION IMPACTS

Like all aspects of the University's operations, the pandemic has significantly impacted campus transportation. Most notably, remote instruction and working have dramatically changed commuting modes to Harvard's Cambridge campus, resulting in major reductions in transit and driving commutes. and a marked increase in telecommuting (see table below).

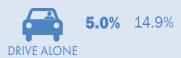
Harvard's shuttle system also experienced steep declines in ridership as students left the campus in March. With a limited number of students and other affiliates returning to the campus for the fall semester, the shuttle system resumed operating with a reduced number of routes and with less frequency of service.

To provide an alternative to shared commuting modes for those affiliates required to be on campus, the University temporarily stopped charging for on-campus parking during the spring and summer. Parking charges were re-introduced prior to the fall semester, but at substantially lower rates that will continue through the 2021 spring semester.

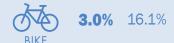
COMMUTING MODES 2020 & 2019

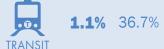
2020 2019

85.4% 5.1% TELECOMMUTE/ FLEX

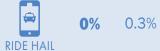














PTDM PLAN

Harvard's proactive Parking and Transportation Demand Management (PTDM) Plan, which was first approved by the City of Cambridge in 2003, includes programs and incentives offered through the University's CommuterChoice Program that encourage alternatives to private automobile trips to campus. A copy of Harvard University's PTDM Plan is available at: https://home.planningoffice.harvard.edu/pages/reports.

COMMUTERCHOICE PROGRAM

The CommuterChoice Program provides Harvard's affiliates with commuter information and resources across multiple transportation modes including public transit, cycling, walking and ride share programs.

Program offerings include:

- **Transit** 50% subsidy for MBTA monthly pass and private transit users
- **Carpools** 50-75% annual parking discount
- Vanpools free annual parking and 50% subsidy of vanpool costs
- BlueBikes and Zipcar discounted annual memberships

- **Bike Benefit** up to \$360 annually for bike expenses for bicycle commuters
- **Guaranteed Ride Home** for eligible transit or other green commuters.
- **Conversation Board** internal discussion board around various topics related to commuting and transportation

CAMPUS WAYFINDING

Pedestrian and Shuttle Signage





Harvard recently completed the installation of 23 pedestrian wayfinding signs on its Cambridge and Allston campuses. With the planned opening of the new Science and Engineering Complex in Allston, the project addresses the need to provide improved navigation, campus orientation, and pedestrian-oriented directional signage between the Cambridge and Allston campuses. The new signs, which feature campus maps, braille content, and QR codes for additional information, not only facilitate easier pedestrian navigation across the river, but also support the wayfinding recommendations made in the 2018 Presidential Task Force

on Inclusion and Belonging (see page 59). The campus signage effort also included the installation of 17 new Harvard Shuttle signs which feature stop names, maps of all shuttle routes and information on how to access Harvard's live shuttle tracker.

Interactive Campus Map

In January 2021 Harvard will introduce a new interactive campus map. The user-friendly web-based map is designed to be compatible with current browsers and devices. In addition to providing detailed wayfinding information for navigating Harvard's campuses, the new map also has several interactive features allowing users to customize the map to meet their individual needs. Features include interactive pedestrian routing for shortest walking routes on campus, links to real time information on events, the Harvard Shuttle and Blue Bike availability. https://map.harvard.edu/

SHUTTLES SERVING THE HARVARD CAMPUS

Harvard Transit operates shuttle and van services that offer safe, reliable and convenient transportation across Harvard's Cambridge and Allston campuses. Harvard's Shuttle fleet includes seven 35-foot buses and five 29-foot buses, each with a capacity of 37 passengers. During the academic year, two buses provide service for the River Houses area: three buses serve the Radcliffe Quad area; and two buses operate between Cambridge and Allston. Harvard Transit also operates five, ten-seat passenger vans providing on-call service to individuals with special mobility needs, and a late evening weeknight van service which transports faculty, staff and students safely around campus as a supplement to the shuttle bus system.

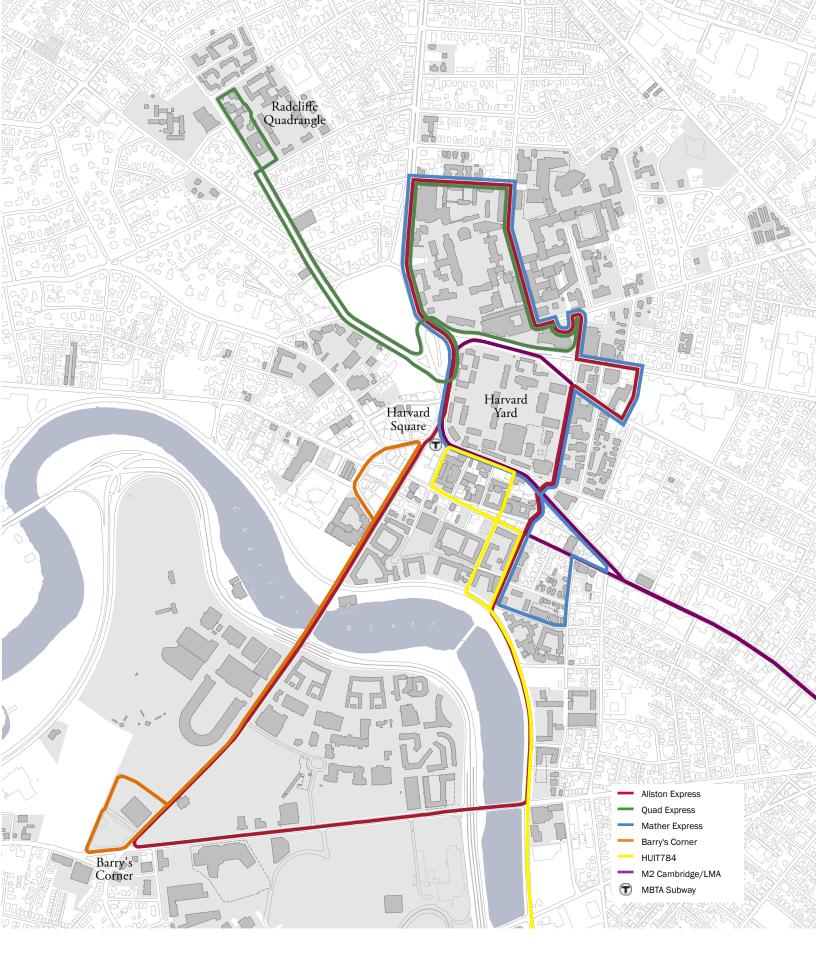
Total shuttle and van ridership is approximately 657,000 passengers annually. Ridership is continually tracked on all routes in order to maximize efficiency and align ridership with the

size of shuttle vehicles used, and the frequency of service during different times of the day. In 2018 Harvard launched a new Evening Van app to provide a more efficient and convenient rider experience. The University is currently exploring how similar apps can be utilized to maximize the efficiency of peak time shuttle services.

The University continues to partner with MASCO in providing the M2 shuttle bus, linking Cambridge and the Longwood Medical Area in Boston. In addition to serving Harvard affiliates, this shuttle is available to others, including members of the public, with the pre-purchase of a ticket.

www.masco.org/directions/m2-cambridgeharvard-shuttle

Harvard University Information and Technology offices at 784 Memorial Drive are also served by a landlord-operated shuttle service (HUIT784) that provides building tenants with frequent service to Harvard Square.



HARVARD CAMPUS SHUTTLE ROUTES SCHEDULE (Normal operations)

Route Name	Description	Frequency	Hours of Operation	
WEEKDAY SERVICE - DAY	TIME			
Radcliffe Quad (Stadium)	Quad, Square, River Houses, Allston Campus	30 minutes	5:30am – 7:15pm	
Mather Express	River Houses through Square to Kirkland St.	10 minutes	7:30am – 4:30pm	
Quad Express	Quad, Square, to Kirkland St.	10 minutes	7:30am – 5pm	
Allston Campus Express	Allston Campus, Square, Mass. Ave., Oxford St., Square, Allston Campus	15 minutes	7am – 4pm	
Barry's Corner (AM)	Square, JFK St., North Harvard St., Barry's Corner	20 minutes	7am – 10am	
WEEKDAY SERVICE - EVE	NING			
Extended Overnight	River Houses through Square, up Garden St. to Kirkland St. to River Houses	30 minutes	7:30pm – 4am	
Radcliffe Quad- Yard Express	Quad, Square, Quad (up Garden St.)	25 minutes	4:15pm – 1am	
River Houses A, B, & C	River Houses through Square, up Garden St., to Kirkland St., to River Houses	35 minutes	4:15pm – 1am	
Allston Campus Express	Allston Campus, Square, Mass. Ave., Oxford St., Square, Allston Campus	15 minutes	4pm – 12:30am	
Barry's Corner (PM)	Square, JFK St., North Harvard St., Barry's Corner	20 minutes	4:30pm – 7:30pm	
WEEKEND SERVICE				
Crimson Campus Cruiser	River Houses through Square, up Garden St., to Kirkland St. to River Houses	35 minutes	8:30am – 4:30pm	
1636'er	River Houses through Square, up Garden St., to Kirkland St., to River Houses	20 minutes	4pm – 1am	
Allston Campus Weekend Express	Allston campus, Square, Quad, Square, Allston Campus	30 minutes	5pm – 8pm	
Extended Overnight	River Houses thru Square, up Garden St., to Kirkland St., to River Houses	30 minutes	12am – 5am	

BICYCLING

Cycling is a significant part of Harvard's campus transportation system and the University supports a range of programs that encourage cycling as a healthy and sustainable transportation choice. Harvard also continues to make investments in its bicycle facilities on campus and to participate in collaborative planning efforts for local and regional cycling initiatives. Ongoing efforts include the following:

Bicycle Facilities

Harvard continues to improve existing facilities through upgrade and replacement of racks and to identify opportunities to add additional cycling amenities to the Cambridge campus.

- Bicycle Parking Harvard's recently updated parking inventory now has approximately 5,700 outdoor rack spaces and 1,300 secure spaces (located inside buildings or bike lockers) serving the Cambridge campus.
- Repair Stations Eleven bicycle repair stations are located across the campus.
- Bike Facility Map An updated interactive map
 of Harvard's bicycle facilities is available on the
 CommuterChoice website (www.commuterchoice.
 harvard.edu). The map provides locational
 information on bike routes, parking areas, and
 key attributes such as rack type, number of
 spaces and whether parking is sheltered.

Bicycle Programs

The CommuterChoice Program offers a range of programs to promote cycling on campus:

- Events special events such as workshops on visibility and safety; bike maintenance and winter cycling; and community gatherings during Bike Week that celebrate cyclists and cycling.
 During the pandemic CommuterChoice hosted a series of virtual biking events on topics such as Bike Maintenance, Bike Commuting, Fixing a Flat Tire, and Bike Advocacy. Recordings of the sessions can be accessed here: https://www.transportation.harvard.edu/commuterchoice/bike/bike-education-library
- Safety and Repair Classes employee reimbursement of expenses associated with taking bicycle safety or repair classes at local bike shops.
- Cycling Gear discounts on cycling helmets and bike light sets through the Campus Service Center.





Rose Lincoln/ Harvard University

BlueBikes

Harvard continues to collaborate closely with the cities of Cambridge and Boston to support the regional bike-sharing program, BlueBikes. The University currently supports seven Cambridge stations. Harvard offers its affiliates a 30% discount on annual membership. As of September 2020, Harvard has 810 active BlueBikes members who have taken almost 65,000 trips this year.

Planning for Cycling Networks

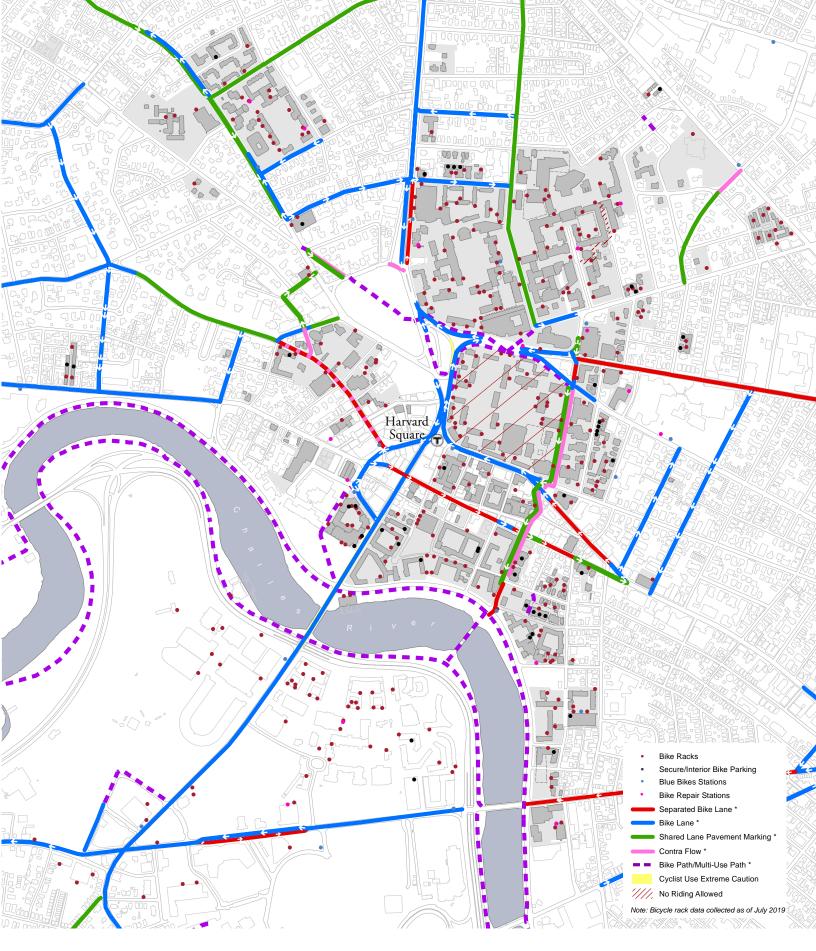
Harvard is committed to improving its existing campus bicycle network and to identifying opportunities to work with local and state governments to strengthen regional networks. These efforts include:

- Campus networks Examining Harvard's existing bicycle network on the central campus and identifying areas for potential improvements.
- Municipal efforts Harvard provided financial and technical support to the City of Cambridge in establishing a new bicycle corridor connecting Quincy Street, Bow Street, and DeWolfe Street. The new corridor, completed in November 2020, provides a safer cycling route between the Cambridge and Allston campus.
- State Projects Working with MassDOT to plan for new bike facilities as part of the Allston Interchange project and advocating for inclusion of new bike lanes as part of bridge renovation and other state projects.



Kevin Bonanno/ Harvard Planning Office





HARVARD CAMPUS BICYCLE FACILITIES



arvard continues to be a leader in advancing campus sustainability, seeking to transform the University into a healthy, thriving, sustainable community that contributes positive social, economic, and environmental benefits both locally and globally. The University's vision is rooted in a shared responsibility to build and operate a campus that contributes to the well-being of our community—and ultimately to the health of the planet.

HARVARD UNIVERSITY PRESIDENTIAL COMMITTEE ON SUSTAINABILITY

Harvard University created a Presidential Committee on Sustainability (PCS) to advise President Larry Bacow and the University's leadership on the University's sustainability vision, goals, strategy, and partnerships. The committee will continue the practice of viewing Harvard's campus as a testbed for initiatives and will lead the work toward reaching Harvard's sustainability goals, including being fossil fuel-neutral by 2026 and fossil fuel-free by 2050, while leveraging University strengths to catalyze solutions that have meaningful benefits beyond the campus. Various PCS subcommittees, which include additional faculty and student members, will focus on reducing Scope 3 emissions, advancing Harvard's Climate Action Plan, and creating Harvard's second-generation Sustainability Plan. The committee is chaired by Rebecca Henderson, the John and Natty McArthur University Professor at Harvard Business School; John Holdren, the Teresa and John Heinz Professor of Environmental Policy at Harvard Kennedy School; and Katie Lapp, **Executive Vice President** of Harvard University.

A FOSSIL FUEL-FREE FUTURE

In 2016, Harvard achieved its first-generation climate goal to reduce absolute greenhouse gas emissions by 30%, even as square footage increased 12% (3 million square feet). This equated to an overall reduction of emissions in Harvard's existing buildings by 40% without factoring in growth. Of the 30% net reduction, 6% was met through the purchase of offsite renewable energy purchases.



In February 2018, Harvard set a second-generation, science-based climate goal to be fossil fuel-free by 2050 and fossil fuel-neutral by 2026. To achieve these 2050 goals the University needs its district energy systems to be free from using any fossil fuels, all electricity needs to come from renewable

sources, and Harvard's vehicle fleet must be free of fossil fuels. With these new goals, the University continues to track greenhouse gas emissions against the original 2006 baseline and maintain the 30% net reduction achieved in its first-generation goal. Harvard's emissions inventory was one of the first in higher education to be third-party verified by The Climate Registry.

These science-based climate action goals - along with Harvard's Universitywide Sustainability Plan released in 2015 - provide the framework for collective action. These commitments provide a unique opportunity to use the campus to directly engage faculty, students, staff and community in addressing the difficult and unanswered questions and pressing challenges posed by climate change and sustainable development. This work can serve as a model for others to learn from, including the University's local partners, as it continues to work together for a brighter future.

BUILDING FOR HEALTH AND CLIMATE CHANGE

Translating Research into Practice

Harvard is partnering with its researchers, businesses, manufacturers, and nonprofit organizations to reduce exposure to harmful chemicals found in everyday products by making it easier to identify and purchase healthier building products. Harvard's Healthier Building Academy (HBA) is focused on optimizing for longterm health in the built environment and throughout supply chains. HBA has



also completed several pilot projects related to enhanced indoor air quality and circadian rhythm lighting. HBA was an inaugural recipient of the Harvard President's Administrative Innovation Fund in 2016.

CAMPUS SERVICES COLLABORATION AND SUCCESS:

Transition to Hybrid Vehicles and Cleaner Fuel Sources

Harvard was awarded a Clean Vehicle Program grant from the Massachusetts Department of Energy Resources in August of 2019 to retrofit two transit vans with Hybrid XL Drive Systems. Governor Charlie Baker thanked Harvard for its "commitment to improving access to clean and efficient fuel transportation necessary for the Commonwealth's emissions reduction goals." In 2019, Harvard Transit also upgraded two additional vans with Hybrid XL Drive Systems. 30% of Harvard Mail & Delivery Services vehicles are equipped with XL Hybrid technology that provides a 25% MPG improvement on average and a 20% CO2 reduction. Harvard Transportation & Parking Services employed their first Hyundai Kona Electric Vehicle in September 2019. This 100% electric vehicle will be used by parking monitors throughout the campus garages and lots. Fleet Management has supplied Harvard's 80 + diesel fleet vehicles with over 1.2 million gallons of B20 Biodiesel since 2004. In September 2019, Harvard's 15-yearold fuel dispensary was upgraded with improved user interface, faster gallons per minute, and improved reporting on fuel usage.

HARVARD'S CAMPUS AS A LIVING LAB

Translating Research into Practice

Harvard is using its campus as a living lab to serve as a model for how organizations can help accelerate the transition to a healthier, fossil fuel-free future. Faculty and students are collaborating with staff to translate research into practice on-campus, in the local community, and in the built environment by piloting and proving exciting new solutions that can be scaled up on the local, regional, and global levels.

Climate Change Solutions Fund (CCSF)

The Harvard University Climate Change Solutions Fund was established in 2014 to propel scientific, technological, legal, behavioral, policy, and artistic innovations needed to accelerate progress toward cleaner energy, improved human and planetary health. Funded projects in 2020 included a new approach for removing atmospheric carbon dioxide, assessing climate change mitigation potential for tropical forests, and building a better air conditioner that can cool buildings without heating the planet.

Campus Sustainability Innovation Fund (CSIF)

Established in 2016, this \$700,000 donor-supported fund supports research projects that tackle challenges faced directly on-campus or in the community, and that lead to the application of new strategies to address global sustainability challenges. To date, 16 projects have been funded – leading to new start-ups, peer-reviewed papers, and new knowledge.

Climate Solutions Living Lab Course

Formed in partnership with the Office for Sustainability, this multi-disciplinary course led and designed by HLS faculty brings together students from seven graduate schools. Interdisciplinary teams apply their legal, business, public policy, public health, medical, engineering, and design training to propose innovative renewable energy and other impactful climate mitigation strategies that can help expedite the transition to a fossil fuel-free future economy.



CONTINUED SUSTAINABILITY PLAN PROGRESS

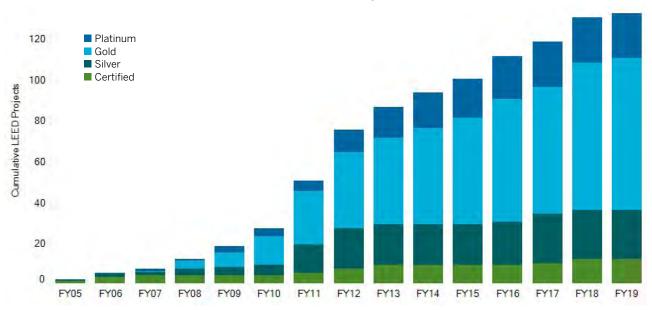
Harvard's 2019 Sustainability Report details the progress made toward the goals, standards, and commitments in the University's Sustainability Plan adopted in 2015. Harvard is committed to transparency in its sustainability reporting. The Harvard Office for Sustainability employs interactive graphs with cutting-edge data analytics and visualization software. A public,

interactive dashboard aggregates internal data sets to visualize and track Harvard's sustainability progress. The underlying robust datasets are available to students, staff, and faculty for use in research projects and benchmarking, and to inform decision-making and drive continual improvements in campus operations.

Interactive Sustainability Dashboard



Harvard LEED Projects



GREENER FACILITIES AND OPERATIONS

Harvard continues to make its buildings and operations more sustainable through the continued Universitywide application of its Green Building Standards and Sustainability Guidelines. Significant achievements include the following:

LEED Projects

134 LEED-certified spaces across campus (over 100 in Cambridge), including the first and second LEED v4 commercial interiors projects in Massachusetts. Harvard has had its own Green Building Standards since 2009.

Solar Power

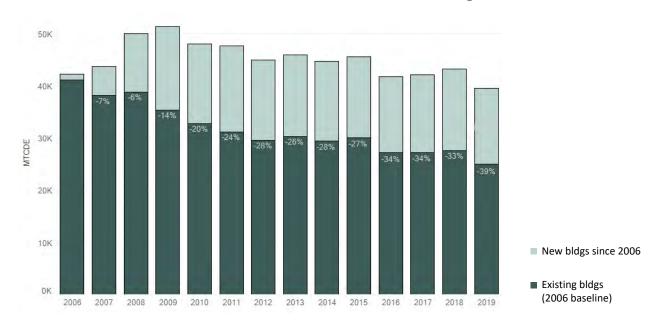
Nearly 2.1 MW of on-site solar projects have been installed on Harvard's rooftops (0.8 MW in Cambridge), including 0.45 MW installed storage. In addition to on-campus solar installations, Harvard implemented other types of on campus renewable energy sources including co-generation (a.k.a. combined heat and power), roof-mounted wind turbines, geothermal energy (ground-source heat pumps), solar hot water, and energy storage.

Reducing Lab Energy Use

Harvard's Office for Sustainability continues to further advance lab sustainability efforts through its Green Lab Program established in 2008. This year, Harvard Faculty of Arts and Sciences, Office for Sustainability, Environmental Health & Safety, and Energy & Facilities created the Lab Inhalation Risk Assessment (LIRA), to right-size laboratory ventilation using equipment that measures and analyzes chemical exposure. With this information, Harvard developed the innovative Laboratory Ventilation Management Plan (LVMP), which saves energy through optimizing air change rates and keeping researchers safe during hazardous experiments. This innovative collaboration is on track to show a 10-20% reduction in annual energy use in the pilot lab building and are being implemented in the new Harvard Science and Engineering Complex in Boston.

The graph below tracks emissions reductions (33%) in Harvard's existing lab buildings, which have helped to neutralize the impact of growth in research, lab, and teaching spaces.

GHG Emissions Trends in Harvard Lab Buildings



TRANSFORMING HOW WE WORK AND LIVE

A multi-disciplinary Harvard faculty committee, together with the Office for Sustainability, the Council of Student Sustainability Leaders, and experts in the field, developed and launched Harvard's innovative Sustainable and Healthful Food Standards in April 2019.

The standards are designed as a model to:

- measurably increase access to sustainable and healthful food offerings;
- reduce wasted food:
- enhance food literacy;
- optimize the impacts of food choices on people, animals, and the planet.

Harvard signed onto the global Cool Food Pledge, a global coalition committed to reducing food-related greenhouse gas emissions collectively by 25 percent by 2030. The Cool Food Pledge, launched by the World Resources Institute (WRI) at the 2019 United Nations Climate Action Summit, includes diverse organizations such as major cities (e.g., the City of Milan), global companies (e.g., IKEA, Hilton), and the World Bank. Together, the Cool Food Pledge signatories serve over 940 million meals annually – and the coalition continues to grow.

BUILDING A MORE RESILIENT CAMPUS

Harvard's Resiliency Working Group is developing a process for continual assessment and planning for risks and vulnerabilities associated with future climate changes such as extreme heat, stormwater surge from increased rainfall events, and sea-level rise. This work is being closely coordinated with local, state, and federal agencies.

Climate resiliency planning has been integrated into business continuity planning as well as major capital projects on-campus, most notably in the Harvard Kennedy School expansion, House Renewal initiative, and Allston development.



CREATING TRANSFORMATIONAL OPPORTUNITIES

A few examples of Harvard's collaboration with the City of Cambridge on sustainability include:

- Harvard artists contributed to the City of Cambridge's art exhibit "Untold Possibilities at the Last Minute," which was on display through 2020.
- Harvard's Public Schools Partnerships Program and the Office for Sustainability worked with science teachers who are leading the Cambridge Rindge and Latin School's Climate Justice Program. Students from Harvard's Council of Student Sustainability Leaders and Climate Leaders Program met with CRLS teachers on innovative ways to integrate climate and sustainability examples into the classroom.
- Cambridge Compact for a Sustainable Future: The Harvard Office for Sustainability continues to serve
 as Vice Co-Chair leading the Cambridge Compact for a Sustainable Future, as well as serving on the
 Board and Executive Committee. The committee includes 20 members from the business and higher
 education sectors.
- Net Zero: The Office for Sustainability continued to chair the Cambridge Net Zero Labs Working Group.
 This year, the group is working on the second round of an innovative corporate and higher education lab benchmarking study to assess energy use and help generate solutions for lab operations.
- Harvard staff actively participate in many sustainability related stakeholder groups and meetings through the year, including:
 - Cambridge Net Zero Task Force/Action Plan 5-Year Review Process
 - Building Energy Use Disclosure Ordinance stakeholder sessions
 - Cambridge Climate Resiliency Zoning Task Force
 - Renewable Energy Pathways stakeholder sessions and interviews
 - Urban Forest Master Plan Task Force



On the Harvard campus, students creatively and collaboratively advanced sustainability in service to the community:

- Students worked with the FAS Office of Physical Resources & Planning, the First-Year Experience Office, and Harvard Landscaping Services as part of the Green Think Initiative to develop rain gardens on campus. The gardens, which were designed and built with funding from the Office for Sustainability and the Harvard Council on Business and the Environment, create a beautiful, sustainable way to improve water quality and prevent site flooding. The gardens were installed in the Leverett House and Mather House courtyards as part of a pilot in June 2019. Additional rain gardens are planned for installation in 2021.
- Seeded with funding from the Office for Sustainability's Student Grant Program, Harvard launched a Climate Leaders Program for Professional Students to help students engage across the University around the topic of climate change. This student-led, faculty-advised program was developed in partnership with the Harvard University Center for the Environment.

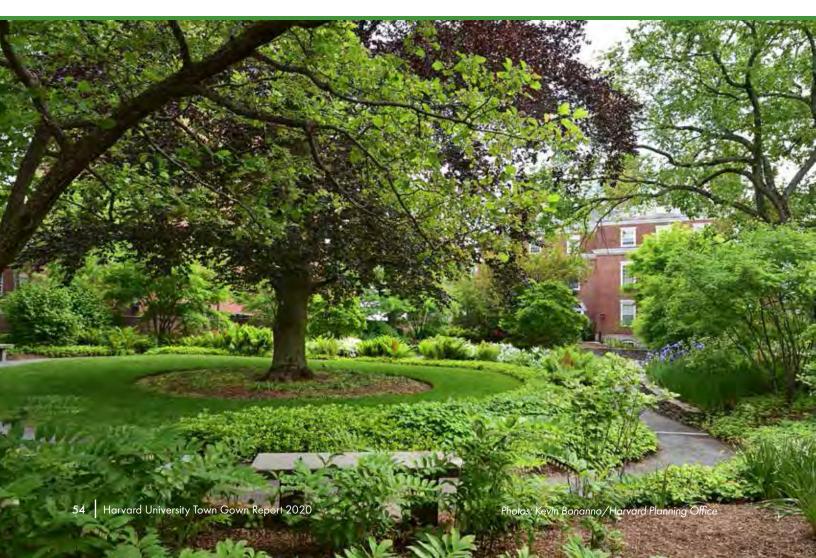


CAMPUS TREE RESOURCES

A key element of Harvard's Cambridge campus is the diversity of trees woven into the campus landscape that creates a unique space within the urban context of Cambridge. The type and placement of trees help to define campus spaces through their canopy, spatial structure, and visual characteristics. Harvard has long recognized the importance of its tree resources not only as a character-defining element but for its critical role in ensuring the broader liveability and resiliency of the campus and City of Cambridge.

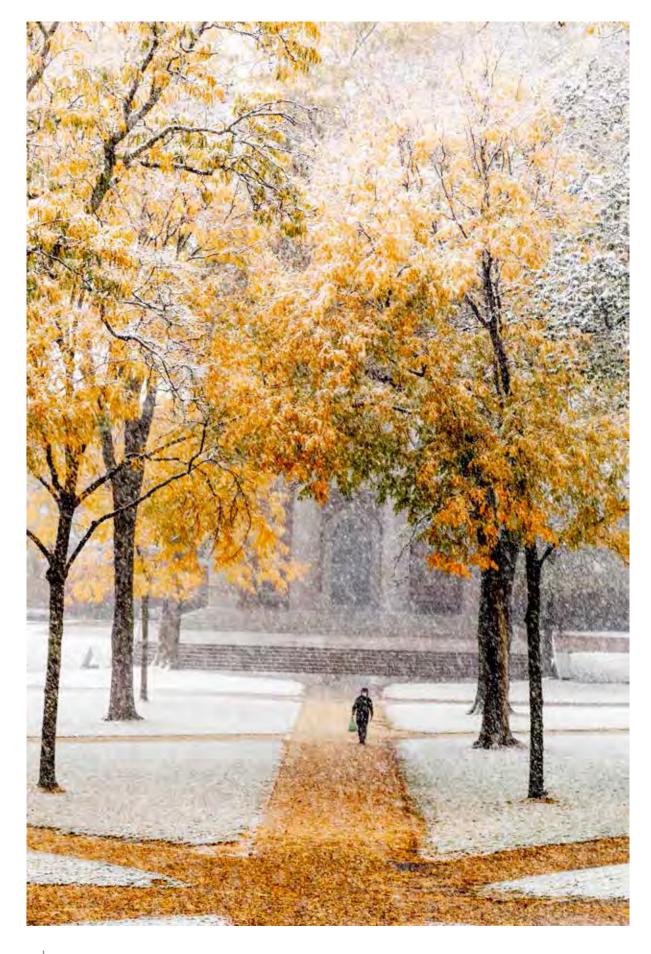


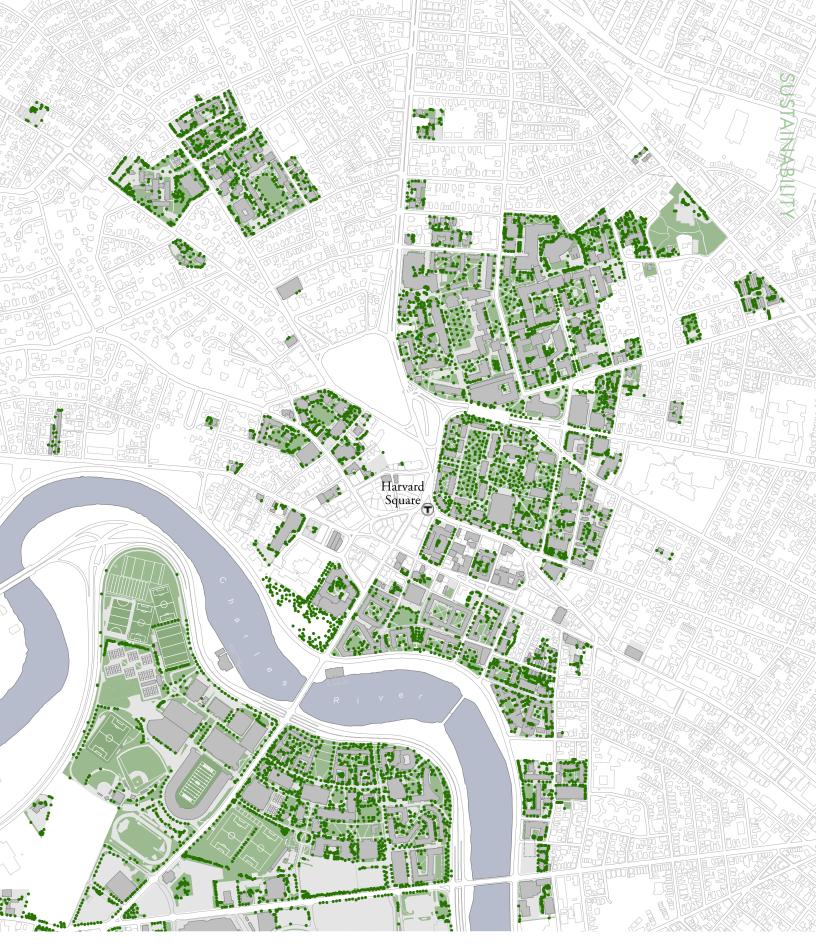
Harvard is the steward of nearly 23,000 local trees, approximately 5,000 of which are on the Cambridge campus. The University maintains an inventory of tree resources, which contains information on the 8,000+ trees which are located on our campuses in Cambridge and Boston. (Trees at the Arnold Arboretum are separately managed). This comprehensive inventory, completed in 2019, tracks a range of information including tree location, species, general condition, approximate age, height, and diameter at breast height (DBH). Harvard also maintains a tree data layer as part of its GIS system.



The University's tree inventory confirms that Harvard meets the industry best practices for managing tree resources.

BEST PRACTICES	HARVARD'S TREES
50%+ trees on an urban campus should be in good condition	More than 60% of Harvard's trees in Cambridge are in good health.
Remove trees that pose unacceptable risk or are beyond remediation	In the instance of a tree that poses a high risk, Harvard will remove the tree, and carefully plan for replacement trees that will contribute to the overall landscape design and are well suited to the environment.
Promote diversity of age and climate appropriate species	Harvard's trees have a distribution of ages. A balance between young and mature trees helps to ensure future succession. Harvard's campus has 126 species of trees. This diversity helps to minimize the impacts of disease, pests, and the effects of climate change. Of note, many species of oak, Chinese elm, Japanese maple, and gingko are doing very well on campus, while others, such as sugar maple, white ash, flowering dogwoods, and black cherry, are faring less well.
Have a prioritized plan for the care of each tree	Harvard's Landscape Services department works with a team of professional arborists and horticulturists who maintain campus trees, shrubs and other plantings. Their work, and those of Harvard's landscape contractors, includes scheduled pruning and other maintenance, ongoing assessment of tree condition, health, and recommended care.
Have a long-term strategy for tree management	The long-term viability of Harvard's trees relies on careful maintenance of existing trees and planning for the future. In addition to maintaining its existing tree resources, the University seeks to increase the number of trees on its campus through ongoing landscape maintenance and as part of capital projects. For example, the many new trees that were recently planted in Harvard Yard represent succession planting to ensure a mature tree canopy in the Yard well into the future. Harvard evaluates new landscape designs to ensure that they advance the University's sustainability goals by incorporating tree and plant species that are more adaptive to future environmental change, foster biodiversity, assist with stormwater management, and contribute to the reduction of the urban heat island effect.





HARVARD CAMPUS TREE LOCATIONS



arvard University is committed to fostering a campus culture where everyone can thrive, a key to which is ensuring that we each experience a profound sense of inclusion and belonging.

In 2018, the Harvard University Presidential Task Force on Inclusion and Belonging issued its final report, Pursuing Excellence on a Foundation of Inclusion. Recognizing that every member of the Harvard community has the opportunity — and the responsibility — to create an inclusive and hospitable culture, the report served as a call to action to create greater diversity, inclusion and belonging throughout Harvard's campus communities.

The University has since created an Office for Diversity, Inclusion & Belonging (ODIB), and in August 2020, appointed Sherri Charleston, one of the nation's leading experts in diversity and higher education, as its chief diversity and inclusion officer.

Efforts to create greater diversity, inclusion and belonging are taking place in schools, departments, and organizations all across the University. These efforts include re-affirming Harvard's foundational values and developing new and engaging initiatives for fostering equity and diversity. The policies and programs presented on the following pages are not exhaustive, but are intended to represent the broad spectrum of actions that Harvard is undertaking to create a campus culture where everyone can thrive.

HARVARD'S CORE VALUES

All members of the Harvard community are encouraged to embrace five core values that provide a framework for organizing actions to create an inclusive and hospitable University culture.

- 1. Respect the rights, differences, and dignity of others
- 2. Demonstrate honesty and integrity in all dealings
- 3. Pursue excellence conscientiously in one's work
- 4. Be accountable for actions and conduct in the community
- 5. Cultivate bonds and bridges that enable all to grow with and learn from one another

INCLUSIVE EXCELLENCE

A central tenet of the 2018 Task Force report is guiding Harvard's culture toward sustainable inclusive excellence. This means creating a community that draws on the widest possible pool of talent to unify excellence and diversity - one that fully embraces individuals from varied backgrounds, cultures, races, identities, life experiences, perspectives, beliefs, and values.

The aspiration to achieve inclusive excellence moves beyond the goal of nondiscrimination and toward an embrace of the value that flows from bringing diversity of experience and thought to campus, and the rich and varied forms of excellence that can emerge from that diversity.



OFFICE FOR DIVERSITY, INCLUSION & BELONGING (ODIB)

ODIB is the University's central office for diversity, inclusion, and belonging tasked with helping set the strategy and steer Harvard towards a culture of sustainable inclusive excellence. This effort involves convening stakeholders, serving as a catalyst for strategic efforts, analyzing University-level progress, optimizing investments, building community, and facilitating University-wide coordination.

Goals

In addition to its overarching role, ODIB has established the following specific goals for the University:

- Recruitment, Retention, and Development Practices for Excellence
- Union of Academic Freedom and a Culture of Mutual Respect and Concern
- Academic, Professional, and Social Integration
- Inclusive Values, Symbols, and Spaces

DIVERSITY INCLUSION & BELONGING (DIB) LEADERSHIP COUNCIL

The Harvard University Diversity, Inclusion, and Belonging Leadership Council consists of leaders across the University that are dedicated to advancing diversity, equity, inclusion, and belonging work across campus. The Council has a shared goal of developing strategies that will drive constant improvement and identify implementation tools that can be replicated across Harvard and beyond.

ADMINISTRATIVE FELLOWS PROGRAM

Harvard University's Administrative Fellowship Program is a cornerstone of its talent acquisition, diversity and inclusion efforts. The program seeks to attract talented professionals, in particular members of historically underrepresented groups, to promote leadership opportunities and careers in higher education.

UNIVERSITY-WIDE RESOURCES & INITIATIVES

- Harvard operates many specific issue-based offices to assist faculty, staff and students. Offices such as the Office for Dispute Resolution (ODR), Office of Sexual Assault Prevention and Response (OSAPR), University Disability Resources (UDR), and the Title IX Office are able to answer questions and help faculty, staff, and students address their particular concerns.
- The University has also put forth various initiatives and resources, such as gender inclusive restroom mapping, new campus wayfinding, employee resources groups, comfortable community spaces, and a third-party operated anonymous reporting hotline.
- It has also formed a Committee to Articulate Principles on Renaming to create general principles to help determine when the names of historical figures should or should not continue to be associated with structures, spaces, and other namesakes at Harvard.

SCHOOL-BASED PROGRAMS AND INITIATIVES

Schools and units across Harvard also have dedicated offices and teams that advance the University's goals for diversity, inclusion, and belonging, and which offer a wide range of programs and initiatives.

https://dib.harvard.edu/schools-units



ambridge is the historic heart of Harvard University, and we are proud to be part of this community, and to contribute in ways that make Cambridge a stronger, more vital and vibrant city. To this end, Harvard has developed extensive and ongoing community partnerships that advance educational opportunities, support economic development, and address a range of community needs in Cambridge.

HARVARD AND THE CAMBRIDGE PUBLIC SCHOOLS

Harvard is committed to partnerships and programs designed to ensure that all Cambridge Public School (CPS) students have opportunities to achieve academic success.

Throughout the past year, in a time of unprecedented challenges, this commitment has not wavered. Harvard faculty, staff and students remain deeply dedicated to their work with CPS. Whether through innovative research, or programming and professional development for CPS educators, administration, staff and students, or Out-of-School-Time learning and engagement opportunities for families and caregivers. Harvard is grateful to work alongside school leaders in Cambridge to respond to critical and changing needs in the face of COVID-19, as well as to continue supporting and engaging in thoughtful partnerships that demonstrate what it means to be a good neighbor.

Harvard's ongoing commitment to education and creating opportunities that encourage lifelong learning continues amid the pandemic. Harvard continues to work with Cambridge Public Schools to identify responsive, innovative, and meaningful opportunities to connect Harvard students, faculty, staff, researchers, to youth, families, and teachers, especially as much programming has been brought online.

The University's Public School Partnerships team continues to develop and deliver programs. academic and cultural enrichment opportunities, and meaningful family engagement initiatives. It has also created and gathered digital resources that students, families and educators can use to support online learning. These robust, meaningful new ways of engagement will continue, adapt and grow throughout the coming year to meet the changing needs of CPS and the community.

The following provides a non-exhaustive list of examples of the University's continually evolving engagement with the Cambridge Public Schools during a typical, in-person year.

HARVARD AND CPS PROGRAMS

Harvard programs are available in every CPS school in Cambridge, including elementary schools, upper schools, and the Cambridge Rindge and Latin School (CRLS). University programming ranges from curriculum-based programs, to summer school, to enrichment programs for all grade levels and interests. In addition to student programs, Harvard also seeks to leverage University-wide resources and create opportunities for CPS educators to access professional development, academic coursework, and workshops.

Elementary Schools

Mind Matters: Families Make a Difference

Developed by Harvard University, Mind Matters is a 20-hour hands-on learning series that equips Cambridge parents and families of 3- to 8-year-olds with practical tools to build their child's social. emotional, and intellectual skills.

Alewife Stormwater Wetland Field Study

As part of this CPS field study program, 5th graders use mobile devices to deepen their understanding of scientific concepts they are simultaneously learning in the classroom. Harvard Graduate School of Education (HGSE) researchers collaborate with the CPS Maynard Ecology Center to develop virtual science experiences for students. This new technology allows students to explore an engineered wetland designed to address polluted stormwater in Cambridge.

Upper Schools

EcoMUV

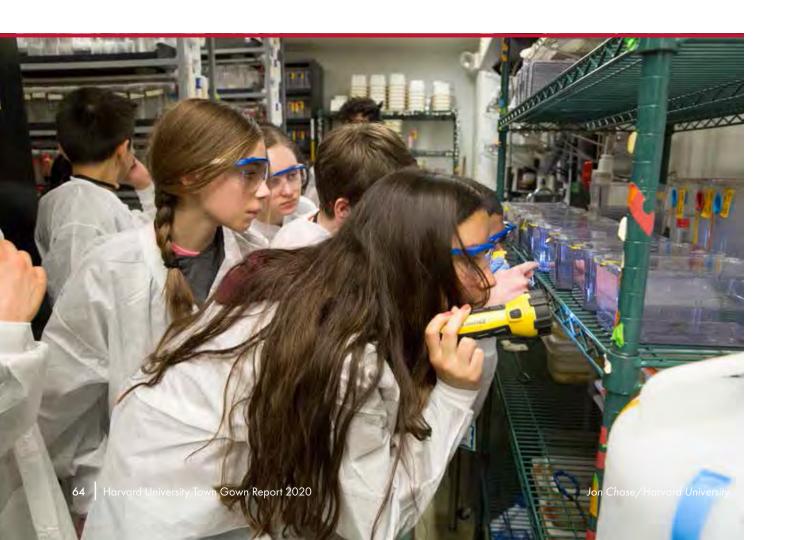
The EcoMUV curriculum, developed by researchers at the HGSE, is utilized as part of the CPS 6th grade science studies and uses immersive virtual environments to teach students about ecosystems and causal patterns.

Harvard Museums of Science & Culture

CPS 6th graders attend the "Foragers to Farmers" school program at Harvard's Peabody Museum of Archaeology & Ethnology where they learn about the rise of agriculture.

Project Teach: Harvard's Official College and Career Program

Students begin making decisions about their college and career aspirations as early as middle school. Project Teach provides resources and support for CPS students that help them make informed decisions about their post-secondary options and develop a college-going identity. Program activities have included the following:



6th Grade

Students have an opportunity to attend Harvard Athletics Education Day where they participate in conversations with student athletes about playing sports and being a student.

7th Grade

A key component of Cambridge's college awareness curriculum includes a day-long visit to the Harvard campus for all 7th graders where they participate in programs tailored to their academic interests. Additionally, the Project Teach website provides teachers access to pre- and post-visit activities to use in the classroom.

8th Grade

Level-Up: How to Succeed in High School and Beyond, a component of the Project Teach program, helps students in transitioning to high school. Harvard College students visit local schools and discuss identity, self-advocacy, study skills and strategies for next steps on their pathway to success.

8th Grade Science and Engineering Showcase

In a program co-developed by the CPS Science Department and Harvard John A. Paulson School of Engineering and Applied Sciences (SEAS), all CPS 8th grade students develop a science project during a semester long class which culminates in a spring showcase hosted on Harvard's campus.

Cambridge Rindge and Latin School

Crimson Summer Academy

The Crimson Summer Academy is a rigorous enrichment program that provides academically talented, but financially challenged, high school students with the skills and financial support to thrive and excel in college.



Cambridge Harvard Summer Academy

Launched in 2001, the Cambridge Harvard Summer Academy (CHSA) is a free six-week program that serves as Cambridge's official summer school for high school students. CHSA offers students both enrichment and remedial classes to address achievement and opportunity gaps, as well as to help prevent summer learning loss.

Reimagining Identity, Self, and Excellence (RISE)

The RISE program, a component of Project Teach for high schoolers, works with CRLS students to discuss what life after high school might mean for them. They discuss racial identity, securing financial aid, and how to handle adversity.

Harvard Marine Science Internships

CRLS Marine Biology students can apply to be placed in Harvard research labs as interns.

Harvard Life Sciences Outreach Program

In partnership with Harvard's Life Sciences
Outreach Program, nearly 500 CRLS students visit
Harvard teaching labs each year. CRLS biology
teachers utilize Harvard laboratories, equipment
and expertise to lead students through the wet
lab portion of the Mitochondrial DNA PCR lab.
The program is supported by the Amgen Biotech
Experience (ABE) ProgramLife Science Lab
Apprenticeship Program

Life Science Lab Apprenticeship Program

This program introduces students to laboratory work and possible career opportunities associated with biotechnology and research science. Students learn laboratory and workplace skills, and are then placed in paid, six-week summer apprenticeships where they experience a laboratory workplace and the responsibilities of a technician.

Harvard Smithsonian Center for Astrophysics (CfA)

CfA partners with CPS in developing programs for a variety of grade levels. Programs include:

ThinkSpace (Thinking Spatially about the Universe), a program which blends the use

of hands-on and computer-based tools in the classroom.

Harvard-MIT Science Research Mentoring Program (SRMP), a mentoring program providing opportunities for high school juniors and seniors to work on independent research projects in astrophysics under the guidance of a CfA astrophysicist.

Harvard Extension School Scholarships

Harvard offers CRLS students fully-funded scholarships to the Harvard Extension School for advanced courses that are not available at CRLS, or that help them earn future college credit. In addition, students can access funding for 50% of the cost of one class a semester through the Lowell Scholarship.

Summer Youth Employment Program

The Summer Youth Employment Program (SYEP) provides valuable work experiences to local youth from Cambridge and Boston. SYEP offers a unique six-week experience which assists local youth in developing positive work habits, gaining professional experience, and increasing their motivation to further their education and pursue career options.

Project Zero Professional Learning Programs

Project Zero, a research center at HGSE, hosts professional development workshops for educators to explore ways to deepen student engagement, encourage learners to think critically and creatively, and make learning and thinking visible.



John Chase/Harvard University

Internships for High School Students

Every year, SEAS hosts seven to nine studentinterns from CRLS as part of its Science & Engineering Research course.

Design Discovery: Young Adult

This intensive four-week summer architecture and design program at the Graduate School of Design immerses local high school students in the world of design.

District Wide Engagement & Professional Development

Cambridge Students Attending Harvard

Sixteen students from Cambridge, including 8 from CRLS, were accepted to Harvard College for this past academic year. Cambridge schools have historically been pipelines to Harvard, as 107 Cambridge residents, 70 of them CRLS graduates, were admitted during the last five years.

Professional Development for Classroom Educators

HGSE supports CPS educators in identifying and accessing various professional development classes on campus.

James Bryant Conant Fellowship

Through the HGSE's James Bryant Conant Fellowship, CPS teachers and administrators admitted to HGSE receive full-funding for a master's degree.

Out-of-School Time Learning Community (OSTLC)

The OSTLC program provides a series of workshops for Cambridge out-of-school time educators that highlight promising practices and tools for engaging students and families. Workshop topics include supporting social, emotional and intellectual growth, immigration, race and equity, and project management.

Supporting the Superintendent

Harvard makes funding available for a doctoral student from HGSE to work in the office of Cambridge Superintendent Kenneth Salim to assist him with advancing district goals and priorities.

Harvard Museums of Science & Culture

Each year, thousands of CPS students and teachers visit the Harvard Museums of Science & Culture, and all CPS schools have access to free programing. Educators from the museums routinely work with members of the CPS Department of Science on ways to best align museum programs with curriculum standards.

Harvard Art Museums

In partnership with CRLS, students at HGSE are hired every year as graduate student teachers at the Harvard Art Museums for a year-long museum education training and teaching program. As a reminder, all Cambridge residents always receive free admission to the Harvard Art Museums

American Repertory Theater (A.R.T.)

Every year, hundreds of CPS students attend performances at the A.R.T. free of charge.

Creative Computing Lab, ScratchEd Meetup

The Creative Computing Lab at the Harvard Graduate School of Education supports K-12 teachers in designing computer science learning experiences that highlight creativity, self-expression, and problem solving, including through the program's ScratchEd Meetup component, a creative approach to professional learning for educators who are interested in teaching with Scratch.

ECONOMIC IMPACT

Harvard helps attract hundreds of millions of dollars in research funding to Massachusetts, fueling science, medical discoveries and spending in the local economy.

- \$915M in research funding attracted by Harvard
 - \$369M of research funding received was spent on purchases and salaries in Massachusetts
 - \$334M supported researchers and staff
 - \$35M was used to purchase goods and services from companies located in Massachusetts.
 - \$4.5M supported companies in Cambridge
- In FY19, Harvard spending totaled \$6.5 billion and Harvard personnel expenses totaled \$2.6 billion
 - \$1.7B was spent on construction and to purchase supplies and services in Massachusetts
 - \$156M was spent on construction and to purchase supplies and services in Cambridge
- Last year Harvard recommitted \$20 million to the Harvard Local Housing Collaborative. Since 2000, this initiative has leveraged over \$1.3 billion for affordable housing development in the Greater Boston area.
- Harvard University's stable presence has been cited by bond rating agencies as contributing to the City
 of Cambridge's AAA bond rating
- In 2020 Harvard employed 4,512 Cambridge residents
- Harvard is the 5th highest tax payer in the City of Cambridge.
- As America's oldest university, Harvard remains one of the top tourist destinations in Massachusetts, stimulating the local economy and cultural life.
- As an anchor of Harvard Square, the University's historic campus helps to draw more than 8 million visitors each year.
- Harvard's museums attract more than 650,000 local, national, and international visitors.

PAYMENTS TO CITY OF CAMBRIDGE 1

	2016	2017	2018	2019	2020
Total Payments	\$18,472,321	\$18,677,526	\$16,899,350	\$23,338,790	\$19,964,349
Real Estate Taxes Paid	\$5,672,860	\$5,834,926	\$6,010,184	\$6,179,991	\$6,497,715
Payment in Lieu of Taxes (PILOT)	\$3,850,071	\$3,955,056	\$4,131,391	\$4,274,476	\$4,345,647
Water & Sewer Fees Paid	\$5,078,739	\$6,157,131	\$5,620,934	\$6,595,420	\$6,774,658
Other Fees & Permits Paid ²	\$3,870,651	\$2,730,413	\$1,136,841	\$6,288,904	\$2,346,329

¹ Payments made FY2019 (July 1, 2018 to June 30, 2019).

² Amounts reported include some but not all building permit and other construction related fees paid by Harvard to the City of Cambridge.

COMMUNITY ENGAGEMENT

Clinical and Pro Bono Legal Programs

Harvard Law School (HLS) serves the community through 18 in-house clinics and 11 student-run volunteer groups (known as student practice organizations). HLS students provide free legal help to residents on issues ranging from housing, family law, domestic violence, taxes, consumer protection, government benefits, criminal defense, special education, immigration, and bankruptcy. Nearly 700 low-income Cambridge residents received pro bono legal assistance in 2019.

Science and Cooking for Kids

This two-week day camp offered by SEAS is built on the idea that time in the kitchen and the laboratory is a great opportunity for children to explore their natural curiosity and to learn science, math, and healthy habits.

Science and Cooking Public Lecture Series

Through this program, also offered by SEAS, members of the public learn about the scientific side of the culinary arts. This popular lecture series pairs Harvard professors with celebrated food experts and renowned chefs to showcase the science behind different culinary techniques.

Cambridge Senior Luncheon

Every summer, Harvard welcomes hundreds of senior citizens to Harvard Yard for the annual Harvard Cambridge Senior Luncheon. Guests enjoy dancing and mingling with friends in Harvard's historic Tercentenary Theatre.

Food for Free and Harvard University

Harvard partners with Cambridge nonprofit Food for Free to address chronic hunger in the Greater Boston area. Through the Harvard Food Donation Program and the Harvard Family Meals Program, any untouched, surplus food is given to Food for Free, which distributes it to local families. In a typical week during the academic year, Harvard may donate up to 1,200 pounds of food that was never served. Each week, around 1,000 nutritious meals are donated to families in need.



ACCESSING HARVARD RESOURCES

As one of the world's pre-eminent institutions of higher-education and research, Harvard has a vast constellation of resources that are available to the larger community. To help navigate the myriad opportunities for accessing the University, the following web-sites provide great starting points for exploring all that Harvard University has to offer!

Event Calendars

Harvard University – Events

Highlighting upcoming events across the University with links to Events Calendars at Harvard's schools, research centers and academic departments.

www.harvard.edu/events

Harvard in the Community – Events

View upcoming events on Harvard's campus that are open to the public. Use the filters to search by location, event type, interest, and free or paid admission.

www.community.harvard.edu/events



The Harvard Gazette – Events

Featured events, links to dozens of other event calendars across the University, and an interactive Events Calendar to search by date and specific areas of interest.

www.news.harvard.edu/gazette/harvard-events/events-calendar

• Common Spaces - Events

Harvard's Common Spaces program coordinates events and activities that invite people to feel alive, at home, and part of the larger fabric of the University.

https://commonspaces.harvard.edu/events

Museums

Harvard Art Museums



Free to
Cambridge
residents, the
outstanding
collections and
public programs
of the Harvard
Art Museums—
the Fogg

Museum, Busch-Reisinger Museum, and Arthur M. Sackler Museum—are dedicated to advancing the understanding and appreciation of art. www.harvardartmuseums.org

Harvard Museums of Science and Culture

Four museums (Peabody Museum of Anthropology & Ethnology, Harvard Museum of Natural History, Semitic Museum, and Collection of Historical Scientific Instruments) provide interdisciplinary exhibitions, events and lectures, and educational programs on the natural world, science, and human cultures.

www.hmsc.harvard.edu

Digital Collections

Several University museums have on-line digital collections. Browse and explore Harvard's diverse and extensive collections in art, science and human culture.

- Harvard Art Museums
 <u>www.harvardartmuseums.org/collections</u>
- Peabody Museum of Anthropology & Ethnology https://pmem.unix.fas.harvard.edu:8443/
 peabody
- Collection of Historical Scientific Instruments www.chsi.harvard.edu/waywiser

Arts and Culture

Harvard in the Community - Arts & Culture

Spanning museum exhibitions to live performances and hands-on art-making activities, Harvard regularly brings arts and culture opportunities—from across the country and around the world—to its neighbors in Cambridge, Boston, and across Massachusetts www.community.harvard.edu/arts-culture

Office for the Arts at Harvard - Events

Upcoming arts events across the University plus links to the Harvard Box Office and other campus box offices.

www.ofa.fas.harvard.edu/events

Libraries

Harvard University Library - Visitor Access

Not a Harvard affiliate but interested in using Harvard's libraries? There are plenty of opportunities for visitors to experience our collections. Discover what you can do. https://library.harvard.edu/visitor-access



Harvard University Library - Public Events and **Exhibits**

Harvard's libraries host numerous public events and exhibits throughout the year that tell the unique stories associated with their diverse collections.

https://library.harvard.edu/events https://library.harvard.edu/collections-exhibits/ exhibits

Distance Learning

HarvardX - Free Online Courses

Explore new interests and career opportunities with courses in computer science, biology, engineering, architecture, data science and more.

www.edx.org/school/harvardx

Athletics

Harvard Athletics - Ticketed Events Cheer on the Harvard Crimson football. basketball, hockey and Lacrosse teams! https://tickets.gocrimson.com

Tours

Harvard University Visitor Center -Student Led Walking Tours

Learn about Harvard University and its history in a free walking tour of Harvard Yard. Student guides also provide a unique insight into



individual experiences at Harvard.

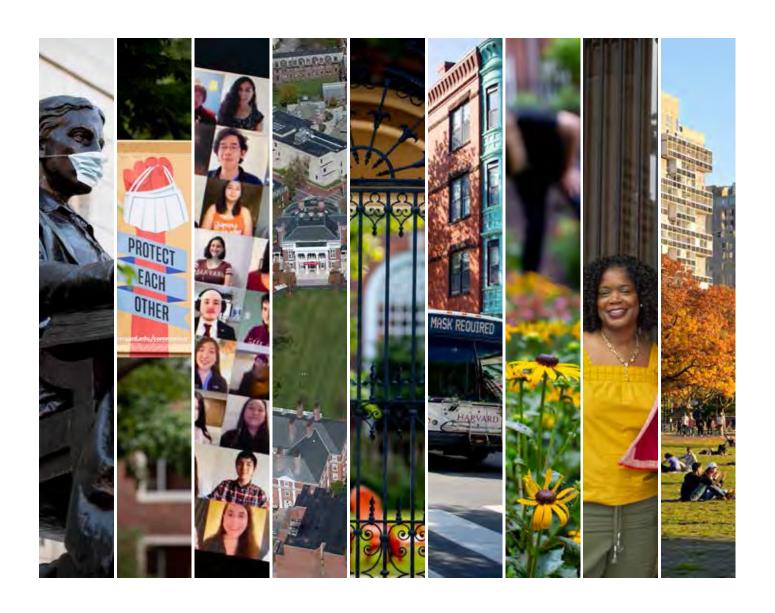
https://www.harvard.edu/on-campus/visitharvard/tours

Harvard Women's History Tour - Virtual Tour

A new student-created and led virtual tour, offered through the Harvard Visitor Center, explores the contributions of women in all corners of the institution and how they helped shape the College into the University it is today. https://www.harvard.edu/on-campus/visitharvard/tours

Harvard College Admissions – Virtual Tour

This Virtual Tour allows you to discover spaces that aren't even available on an in-person campus tour, such as classrooms, laboratories, residence halls, and more. Even better, it's available 24 hours a day, seven days a week. https://college.harvard.edu/admissions/ explore-harvard/virtual-tour



2020 Town Gown Report

for the City of Cambridge



Submitted by Harvard Planning Office

