

Yale Poorvu Center for Teaching and Learning



**Annual
Report**

2019 - 20



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1. Introduction

The Poorvu Center marked its sixth year of existence in the summer of 2020. Since our establishment in 2014, we have gained visibility and credibility as we serve an increasing number of instructors and students each year. Our total size has increased slightly over the years, and we have effectively redistributed staff positions to build up high priority areas. In particular, the Academic Strategies Program and the Faculty Teaching Initiatives team did not exist prior to 2014. Compared to 43 full-time equivalents (FTEs) in 2014, we currently have 52 full-time staff (see Table 1). Five of those positions receive funding from other units at Yale, so the true growth relative to impact is minimal. A longer-term goal of the Poorvu Center has been to “future-proof” the unit by becoming an essential resource for faculty and students. We had a solid start toward achieving this goal, and the spring 2020 pandemic accelerated the process in unanticipated ways. In this overview of 2019-2020, we reflect on our impact on teaching and learning at Yale.

We began the year by marking a mission shift. In our early days, we focused on building trust and forming relationships with faculty. Our approach was intentionally responsive, and we emphasized meeting faculty where they were. We worked on branding and raising awareness of our many programs and services, especially for the newest areas. As the center matured, we steadily gained a respected role across campus as students, faculty, departments, and schools sought our expertise. The two executive directors serve campus in a number of leadership roles, and our staff are widely recognized for their knowledge and contributions to teaching and learning at Yale, as noted by their service on 30 committees across the University. Early in 2019, we committed to explicitly shifting our mission to take a proactive stance. We intend to leverage our credibility to more assertively recommend excellent pedagogical practices that promote long-term learning.

This subtle mission shift, in direct response to signals received from faculty and other campus partners, posed a unique internal challenge. With a staff of over 50 professionals with a diverse array of skills and expertise, how might we activate our intention in a set of practices and approaches that would be legible across Poorvu Center teams? Our answer to this challenge was an experiment we call the “Common Ground initiative.” We conceived the idea as a cross-cutting intellectual collaboration, to complement the various functional collaborations that originally required thoughtful engineering and have become a natural facet of our work. An ad hoc committee identified four teaching principles that connect to the work of all Poorvu Center teams:

- **Learning objectives:** describing the skills, knowledge, and abilities students will gain
- **Assessments:** aligned to the objectives demonstrating what students have gained
- **Reflection:** allowing instructors and students to deepen their learning and build on effective work
- **Diversity, equity, and inclusion:** allowing all students to maximize their learning potential

We developed the Common Ground initiative as an internal project, using the four-principle framework as a guide for examination within and across teams. We devoted time at all-staff retreats and meetings for teams to identify existing practices aligned with Common Ground ideals, to share across teams, and to brainstorm new approaches that would promote one or more of the ideals. Teams set goals for the year and consulted relevant education research, with attention to anticipated challenges and metrics that would demonstrate the extent to which these goals were achieved. In addition to surfacing ongoing attention to the four principles in many areas, the initiative spawned a number of new or newly emphasized actions. For example, we launched a Course (Re)Calibrate mid-semester program to provide faculty with an opportunity for reflection on their courses, and to develop interventions if needed to stay on track. We strengthened our recommendations for embedding content-based questions in course videos to promote formative assessment. We revised feedback surveys to gain deeper insight into the impact of peer writing consultations. Over the year, we found that conversations anchored in Common Ground ideals deepened understanding of work across the Center and opened new routes for productive collaboration. By early March of 2020, we had collected significant evidence that the Common Ground initiative was strengthening the collaborative nature of our Center on an intellectual level, and thus achieving its goal.

As we all know, rapid changes to ensure the health and safety of the Yale community resulted in a shift to all-remote instruction following spring break in March 2020. We had nearly two weeks to coordinate support for instructors at scale, to compile and create resources about effective remote instruction, and to move all our student learning and writing support online. Thanks to a dedicated staff, a network of supportive collaborators, and the creative can-do attitude of Yale instructors, this process went far better than we expected. We worked directly with 78% of faculty teaching courses in spring 2020, through a spectrum of engagement ranging from multiple consultations to clicking through email links for teaching resources. Another 9% of faculty were supported by professional school partners. The remaining 12%, along with many in the supported groups, may have accessed our [Academic Continuity website](#) resources. After the first week of remote instruction, the Dean of Yale College surveyed faculty and found that more than 80% reported that it was going well or very well.

The 2019-2020 academic year closed in the midst of continued uncertain circumstances. In anticipation of a predominantly remote fall term, the Poorvu Center launched three tiers of faculty support and began plans for online student-facing programs. We analyzed student and faculty surveys and other data sources to inform our programming. The executive directors contributed to university committees and FAS academic continuity task forces to craft recommendations and guidelines for the fall. While none of us could have predicted the scale of disruption, we identified silver linings in a dark time. Acutely aware of students' home environments, faculty deepened their consideration of student circumstances and expressed concern about helping them overcome challenges. The disruption to a planned semester brought opportunities for many instructors to rethink their pedagogical priorities, and design new approaches that may endure past the pandemic.

In hindsight, the Common Ground initiative played a key role in preparing the Poorvu Center to meet the challenges of the COVID-19 pandemic. Uniting across central pedagogical principles enhanced our understanding and respect for the range of expertise represented in the Center. Our many discussions gave us a shared language and improved our understanding of the work of each team. Taken together, the internal strength of the Poorvu Center's organization was a factor that enabled our swift response. We needed to collaborate across teams with an unprecedented level of communication and trust. We exchanged feedback and implemented changes and updates in real time. We built a new [academic continuity website](#), handled a massive uptick in support requests, and referred queries to appropriate experts, not to mention the amount we all learned in the process. Most importantly, we maintained a high level of support for teaching and learning at Yale during an unprecedented time.

2. Overview: Poorvu Center by the Numbers

Our Impact on Campus and Beyond 2019-2020

- 600 Faculty Consultations
- 74 Faculty Workshops
- 4,889 Active Course Sites Supported on Canvas
- 29 Faculty Participants in Course (Re)Design
- 2,116 Faculty Canvas Inquiries

- 193 Grad. & Prof. Student/ Postdoc Consultations
- 1,117 Grad. & Prof. Student/ Postdoc Teaching Workshop Participants
- 8,752 Grad. & Prof. School Student Writing Program Visits
- 903 Graduate Student Peer-Review Group Attendances

- 8,149 Undergraduate Writing Tutoring Sessions
- 2,302 Undergraduate Participants in Writing Programs
- 1,300 Undergraduate Academic Strategies Consultations
- 673 Undergraduate Participants in Academic Strategies Programs
- 8,328 Undergraduate Science & QR Tutoring Sessions

- 134,762 Coursera Learners that Completed a Yale MOOC
- 930,000 Subscribers on Yale Courses YouTube Channel
- 1,619 Videos on Yale Courses YouTube Channel
- 35,200 Podcast Downloads across five Yale Podcasts
- \$7,400,000 External Funding from Gifts and Pledge Payments since FY18

- 32 Yale University Committees with Poorvu Center representation
- 12 Publications with Poorvu Center Author(s)
- 26 National Conferences and External Events with Poorvu Center Presenters



Table 1: Staff numbers in 2019-2020

Category	Total
Full-time professional staff (updated Nov. 2020)	52
Residential College Writing Tutors	14
Graduate/Professional School Student Fellows & Consultants	58
Undergraduate Writing Partners & Tutors	450
Interns & Student Workers	8

- We manage a general appropriations budget of \$5.8 million and gift accounts totaling \$5.6 million.
- Many of [our collaborations](#) provide funds directly to departments or schools to support teaching and learning initiatives in diverse areas including Computer Science, Chemistry, German, diversity and inclusion programs, New Faculty Orientation, postdoc symposiums, and online education initiatives.
 - In 2019-2020, we distributed \$13,983 in Instructional Enhancement Grants to support experience-based class opportunities. These grants ranged from \$100 - \$500 and supported courses in a wide variety of departments and schools.
 - In 2019-2020, we awarded \$60,557 as Rosenkranz Awards for Pedagogical Advancement. Out of 27 applicants, we selected 7 proposals for grants ranging from \$4,200 to \$10,000. These projects are identified based on their potential for high-impact and alignment with Yale priorities, such as increasing access to a Yale education.

Since Fiscal Year 2018, the Poorvu Center has received \$7.4 million in gifts and pledge payments to support a variety of endeavors including undergraduate writing and tutoring, online education initiatives, faculty teaching programs, science and quantitative reasoning course support, and general department operations. The \$5.6 million number above is the spendable portion of our gifts, many of which are endowed with specific restrictions.

Table 2: Gifts and pledge payments since Fiscal Year 2018

Year	Amount
FY18	\$ 2.5
FY19	\$ 1.2
FY20	\$ 3.7
TOTAL	\$ 7.4

Our 24,000-square foot facility within Sterling Memorial Library serves as a vibrant hub of resources within the heart of campus. We manage a [room reservation process](#) for teaching and learning events such as semester-long classes, sections, office hours, workshops, and special events. We collaborate with the Office of the Registrar to approve early assignment of instructors in Poorvu Center classrooms and in specialized active learning spaces throughout campus. In 2019-20, we received 263 requests, 124 of which we accommodated. Each day, we average 13-18 reservations for use of our space by students, faculty, and other campus groups and offices. Visitors walking through the Poorvu Center find a bright and welcoming environment where teaching and learning are made public.

3. Programs for Faculty

Evidence-based [pedagogical principles](#) serve as the foundation for all of our work, and our emphasis on cross-team collaboration ensures that our recommendations are consistent with teaching excellence. During the 2019-2020 academic year, the Poorvu Center worked with over 600 unique instructors throughout Yale via [consultations](#), workshops, events, and awarding instructional grants. More than 12 Poorvu Center staff members focus on pedagogical and instructional technology support for faculty.

The following table provides an overview of the number of individuals who worked specifically on pedagogical consultations with our [Faculty Teaching Initiatives](#) (FTI) team, shown by school. Not including the period when teaching was shifted online, this team worked with roughly a fifth of Yale faculty who taught in 2019-2020 (412 faculty out of nearly 2,000; 21%). The FTI team conducted approximately 250 consultations with Yale instructors during the 2019-2020 year. These numbers were trending upward before the pandemic, and the FTI team was understaffed for most of the year.

The FTI team engaged in several curricular consultations, an area we intend to emphasize more in the future. The School of Architecture asked for assistance in identifying ways to address teaching and learning criteria for their upcoming accreditation review. The School of the Environment invited FTI team members to facilitate working sessions where faculty aligned their required pre-semester intensive courses. Both of these engagements were preceded by prior work, such as individual course consultations or participation in our spring [Course \(Re\)Design Institute](#).

Table 3: Engagements (including consultations, programs, and events) with instructors by school in 2019-2020

School	Number of Engagements	Unique Number of Participants
Faculty of Arts & Sciences	421	251
Medicine	33	27
Public Health	19	19
Environment	24	18
Management	19	17
Yale College	16	16
Divinity	25	13
Nursing	19	12
MacMillan Center	14	10
Drama	11	9
Law	11	9
Architecture	6	6
Art	9	6
Jackson Institute	3	3

Note: An additional 47 staff members, 3 postdocs, 39 GSAS students, and 7 postgraduates participated in an additional 149 engagements with the FTI team.

In addition to consultations, there were 481 engagements by 354 unique instructors in FTI programs and events. Some of these programs have become annual offerings, such as New Faculty Orientation teaching track and our [Course \(Re\)Design Institute](#). As faculty increasingly seek our guidance on pedagogical issues, we design stand-alone events in response to requests from faculty, departments, or schools. For example, the FTI team collaborated with the Yale University Art Gallery (YUAG) to lead a gallery talk, teaching demonstration, and workshop focused on “Addressing Trauma with Object-Based Learning” and connected to a YUAG exhibition of “Reckoning with ‘The Incident’: John Wilson’s Studies for a

Lynching Mural.” The Divinity School invited the team to lead a workshop to help their faculty design intensive courses as a new curricular element. We collaborated with a Theater Studies professor on a well-attended “Theater of the Classroom” workshop, and planned to offer a second part that we postponed due to the pandemic.

The FTI team created several new programs, including [Course \(Re\)Calibrate](#) and Pedagogical Partners. Course (Re)Calibrate provides an opportunity to extend work and community for faculty participants in our [Course \(Re\)Design Institute](#). This new program emphasizes the “reflection” Common Ground principle by providing a structured mid-semester opportunity for instructors to reflect on their teaching thus far. Pedagogical Partners establishes a semester-long partnership between a student and an instructor in which the student serves as a pedagogical consultant in the classroom. The student partner joins every class session and meets regularly with the instructor. The goal of the program is to create a dialogue about teaching and learning to facilitate reflective teaching practices. We piloted the program with two student-faculty pairs, and expanded the program for the 2020-2021 academic year.

Table 4: FTI workshops and faculty attendance in 2019-2020

Series, as applicable	Semester	Workshop	Attendees
Teaching and Learning Lunch	Fall 2019	Teaching with Cases: Discussion and Facilitation with Rodrigo Canales	21
Teaching and Learning Lunch	Fall 2019	Using Poll Everywhere in the Classroom with Jutta Joormann	20
Teaching and Learning Lunch	Fall 2019	Recording Dynamic Lecture Content with Jonathan Reuning-Scherer	9
Teaching and Learning Lunch	Spring 2020	Bringing Students to the Sources	13
Continuity Community*	Spring 2020	Lessons Learned from Week 1	10
Continuity Community*	Spring 2020	Labs	24
Continuity Community*	Spring 2020	Labs Revisited	7
Continuity Community*	Spring 2020	The Final Labs	9
Continuity Community*	Spring 2020	Adjusting Assessments	11
Continuity Community*	Spring 2020	Developing Final Assessments	14
New Faculty Orientation	Fall 2019	New Faculty Orientation	46
New Faculty Orientation	Spring 2020	New Faculty Orientation	8
Course (Re)Calibrate	Fall 2019	Course (Re)Calibrate, I	4
Course (Re)Calibrate	Fall 2019	Course (Re)Calibrate, II	14
Course (Re)Calibrate	Spring 2020	Course (Re)Calibrate, III	9
Faculty Teaching Academy	Spring 2020	Faculty Teaching Academy	15
Single event	Fall 2019	S. Keynes Women in Economics	82
Single event*	Spring 2020	Engaging Students through Zoom Workshop	52
Single event*	Spring 2020	Reflection Workshop	49
Single event	Spring 2020	Addressing Trauma with Object Based Learning	27
Single event*	Spring 2020	Teaching Through Pandemic Workshop	22
Single event*	Spring 2020	Fostering Student Motivation Workshop	15

*Note: * indicates events developed in response to remote instruction and COVID-19*

The Poorvu Center awards three types of instructional grants to Yale faculty:

- The [Instructional Enhancement Fund](#) (IEF), which awards funds of up to \$500 to instructors to support pedagogical opportunities and experiments.
- The [Rosenkranz Awards](#), with up to \$10,000 support for significant teaching interventions that enhance student learning, are designed to promote sustainable, scalable ideas that cultivate effective student engagement in the classroom.
- The [Belonging at Yale grants](#), awarding up to \$2,000, are a new Poorvu Center initiative that grew out of our Diversity and Education Seminar Series. These grants support ambitious efforts from faculty to engage questions of diversity, equity, inclusion, and belonging in scholarship and pedagogy. The supported events—featuring invited scholars or practitioners—might include academic conferences, speaker series, film screenings, seminars, colloquia, or roundtables.

During the 2019-2020 year, 40 Yale instructors received one of the above grants. The Rosenkranz and IEF grants, as well-established programs, have impact across multiple schools and disciplines. The Belonging at Yale grant is an opportunity for growth, given the newness of the grant and relatively small number of applications during its first year. Formerly structured as our Diversity and Education Seminar Series, we collaborated with [Belonging at Yale](#) leaders and the Center for the Study of [Race, Indigeneity, and Transnational Migration](#) (RITM) to transform our program into a collaborative call for proposals. We estimate that approximately half of grant recipients interacted with the Poorvu Center solely through their awarded grant during the 2019-2020 year. A future goal is to increase meaningful engagement with all faculty grant recipients.

Following the pandemic disruption, the Poorvu Center created a new event series called Continuity Communities. These virtual gatherings emphasized community-building among instructors and leveraged instructor expertise across disciplines. The series ultimately included seven topical discussions, three of which fostered a community for Yale lab instructors, which remained active for the 2020-2021 academic year. The FTI team also led one-off events such as “Lessons Learned from Week 1 [of emergency remote teaching]” and “Teaching Through Pandemic,” and collaborated with the Educational Technology and Media team to offer “Engaging Students Through Zoom.” These ten workshops (including seven Continuity Communities) garnered 244 total attendees and 154 unique participants.

These numbers reflect our expanding reach, as well as a deeper practice of collaboration among Poorvu Center colleagues. We believe this enhanced collaboration and integration across our center will lead to future impacts beyond the era of [Academic Continuity](#).

The Educational Technology team works alongside and often directly with the Faculty Teaching Initiatives team. They help instructors incorporate digital tools to support teaching and learning. Faculty have access to applications integrated into [Canvas, our Learning Management System \(LMS\)](#). The Poorvu Center manages tool integrations to ensure privacy and compliance, in collaboration with the Registrar, the Office of General Counsel, and ITS. We also provide support for nearly 400 delegated Canvas administrators around the university.

Canvas tools include the following:

- 27 tools and [external applications](#) supported by the Poorvu Center
- 10 external applications supported by professional school and individual program partners

We support approximately 5,000 Canvas courses a year. In 2019-2020, we directly supported 962 unique faculty and staff through 2,116 inquiries. Year-over-year statistics are slightly increased from last year, with a notable increase in media recordings uploaded to Canvas. The use of some Canvas features rose during the spring and summer 2020 terms as a result of the disruption to in-person teaching, as demonstrated by the 15% increase in the number of uploaded files during the Spring 2020 term (see Table 5).

Table 5: Supported courses, faculty, and students for Canvas @ Yale in 2019-2020

	Courses	Teachers	Students	Assignments	Files Uploaded
Summer 2020	207	365	5,247	2,316	12,740
Spring 2020	2,349	2,169	12,506	16,737	115,967
Fall 2019	2,333	1,995	12,345	16,764	108,507
Summer 2019	212	299	2,453	2,257	10,454
Spring 2019	2,237	2,033	12,458	14,439	100,581
Fall 2018	2,257	1,915	12,561	16,042	103,787

Summer terms include Summer Online, Yale Summer Session A and Yale Summer Session B. Student counts are total number of students enrolled in individual courses in a term, not unique users. Teacher and Student counts include all enrollments of custom roles based on those terms (Teacher, Instructor, Guest Instructor and Student, Guest Student, Auditor)

To support faculty using media-related educational technology, we logged 320 consultations and led 32 workshops on tools including [PollEverywhere](#), [Panopto](#), and [Zoom](#). We also supported increased use of our [Poorvu Center media studio, Studio C](#). We worked with 18 instructors and 32 students on studio projects including podcasting, video lecture recording (for residential and online courses), live Zoom sessions, and educational applications of virtual reality.

Known as the [Media Library](#) in Canvas, Panopto provides video capabilities for the Yale community. Instructors use Panopto to record, upload, and share content with essentially unlimited file storage. In addition to videos recorded by faculty or sourced elsewhere, Panopto links to the lecture capture system installed in select Yale classrooms. We collaborate with ITS and professional schools to manage these classrooms. Our data on Zoom and Panopto usage for 2019-2020 reflect striking increases beginning in March when Yale implemented emergency remote instruction.

Figure 1: Yale University Zoom meetings from January 1 – June 30, 2020, including classes and non-instructional meetings

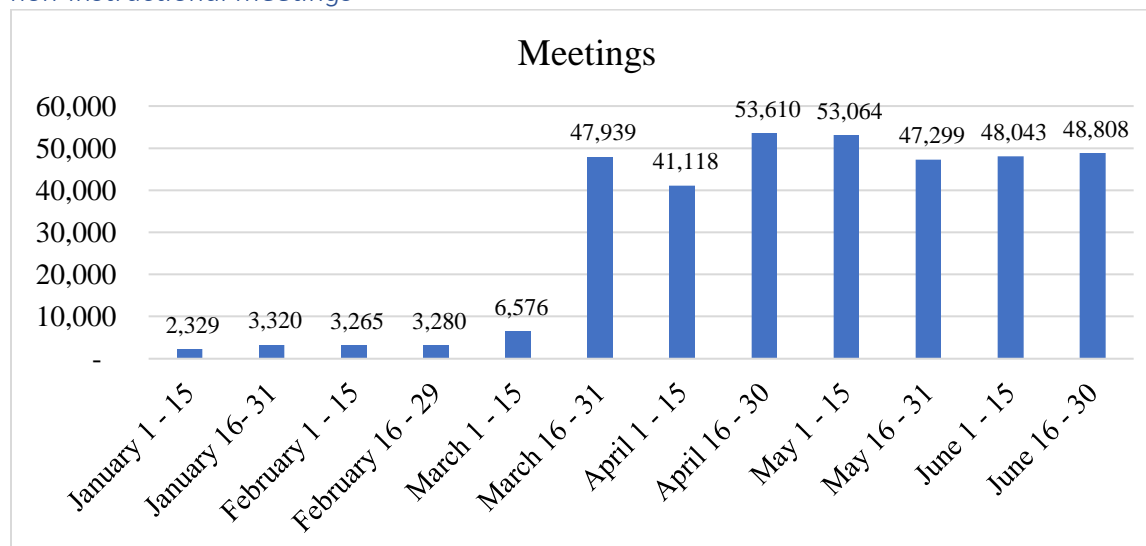
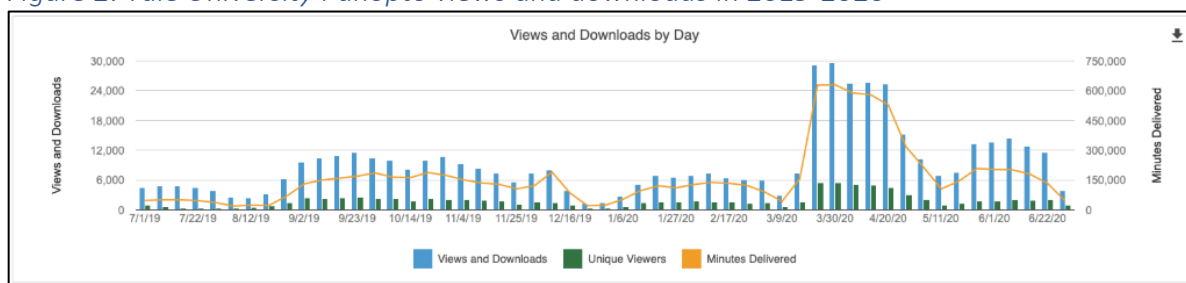


Figure 2: Yale University Panopto views and downloads in 2019-2020



The Poorvu Center also works with faculty to [improve the accessibility of learning materials and activities](#). As in many universities, accessibility historically had been a technological or student support matter at Yale. By incorporating accessibility resources within the Center, we elevated accessibility as a standard consideration for effective and [inclusive teaching](#), not just an individual accommodation service.

In 2019-2020, we broadened our accessibility work in the following ways:

- We consulted with more than 30 faculty members from nearly 20 FAS departments on accessibility inquiries, a significant increase over last year.
- We facilitated accessibility workshops for over 50 faculty and teaching support staff in Nursing, Public Health, and Law; and for School of the Environment’s first-year teaching fellow training.
- We presented on course accessibility during five FAS department faculty meetings: American Studies, Anthropology, History of Science/History of Medicine, Political Science, and Psychology. We worked with Political Science and Religious Studies chairs to identify high-enrollment/high-impact courses for dedicated remediation work during the summer 2020 term.
- Five libraries requested consultations, workshops, and ongoing collaboration about accessibility: Bass, Sterling, Music, Cushing-Whitney, and the Marx Science/Social Science Library.
- We provided accessibility workshops for the Registrar’s Office in 2019 and 2020 (123 participants total, roughly double the 2019 total).

A few examples of course adaptations emphasizing accessibility:

- Anthropology faculty audited course materials for accessibility using Ally, a Canvas-integrated tool that helps identify documents with inaccessible features.
- STEM departments with large introductory enrollments are increasingly proactive about accessibility: Math is captioning videos; Astronomy and other departments are inquiring about accessible formulas, and Professors Parr and Ganapathi in Chemistry were named accessibility heroes by ITS’s Digital Accessibility Team for their work creating accessible tests in Canvas.

We learned three important lessons about accessibility support in 2019-2020:

1. Embedding accessibility guidance within the full spectrum of Poorvu Center offerings may have a greater impact than individual presentations and events. In June 2020, more faculty attended the accessibility sessions within our academic continuity support programming than attended individual workshops held throughout the rest of the academic year.
2. Dedicated resources enable faculty to develop accessible course materials despite time and technological constraints. The Divinity School hired two student workers devoted to faculty assistance. The Poorvu Center hired three student workers to remediate course materials, particularly for high-enrollment introductory courses.
3. Elevating voices of students with disabilities serves as a powerful mechanism to raise faculty awareness about accessibility practices. In addition to specific cases where departments work with students who have self-identified disabilities, events such as a student panel hosted by the Poorvu Center in fall 2019 can influence instructor priorities. We actively collaborate with groups such as the DiversAbility staff affinity group and will continue to sponsor educational events.

Response to COVID-19: Faculty

The arrival of the novel coronavirus in Connecticut in early March 2020 required a coordinated rapid response by the Yale community. In the space of a few days, we went from normal to fully remote operations. On March 10, early in the first week of spring break, [President Salovey announced that students would not return to campus after the break and classes would shift online](#). The Poorvu Center quickly organized workshops, drop-in sessions, and individual consultations to help instructors prepare for emergency remote teaching (distinguished from intentionally planned and designed online courses). At the same time, our student-facing programs adjusted offerings to continue support virtually. By March 14, in-person gatherings were deemed unsafe and our support was virtual-only from that point forward. We had less than two weeks to prepare, and the Poorvu Center staff worked tirelessly with hundreds of instructors to answer questions, lead workshops, build a new academic continuity website, and address a host of issues presented by the need to teach remotely. Classes resumed on March 23, with faculty and students mostly connected via Zoom.

Engagement by the numbers:

In spring 2020, there were 1,945 unique faculty members who taught six or more students. 78% of this group worked with the Center through engagements ranging from multiple consultations and workshop attendance to clicking through emails. Approximately 9% were supported by local professional school resources or other offices, such as the Center for Language Study. 12% did not actively seek support, although they may have used our Academic Continuity web resources. We launched the new website in just four days and continued to add content and link to resources during the spring and summer. We relied on collaboration with campus partners, including Library and ITS staff, many of whom provided front-line support to instructors and students. Professional schools organized local workshops and often included Poorvu Center representatives.

Figure 3: Overall consultations and faculty workshop participation, March 5 – March 30, 2020

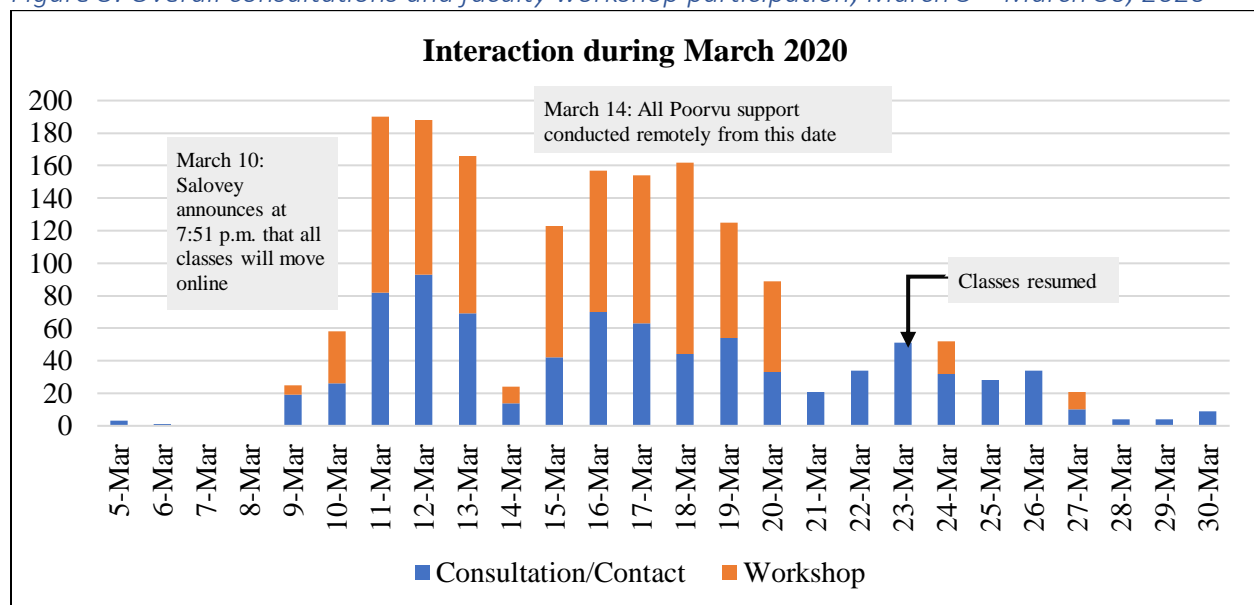
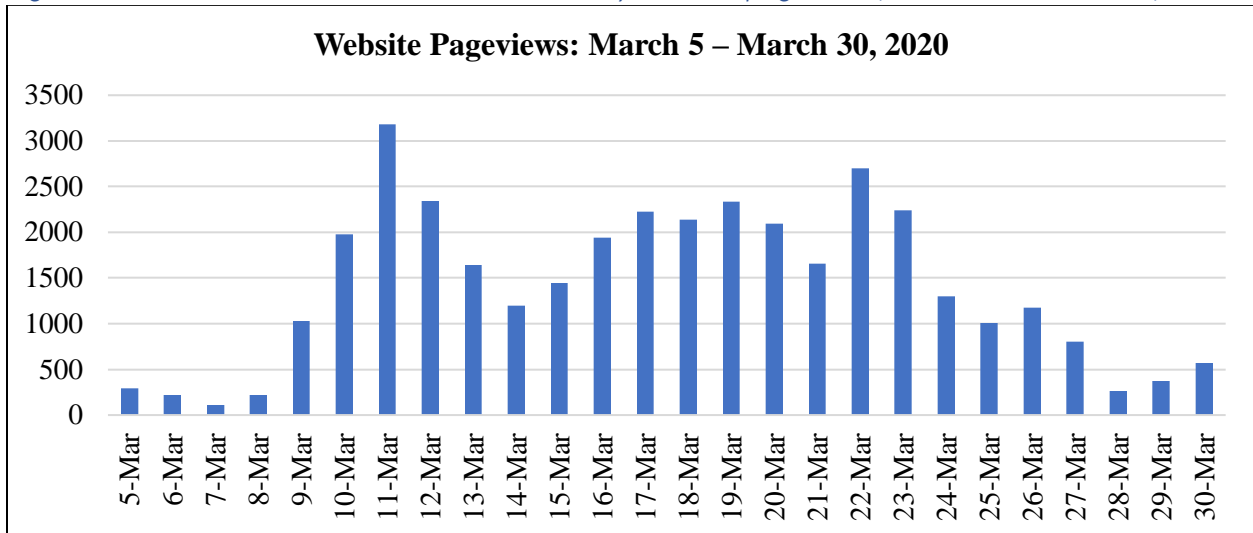
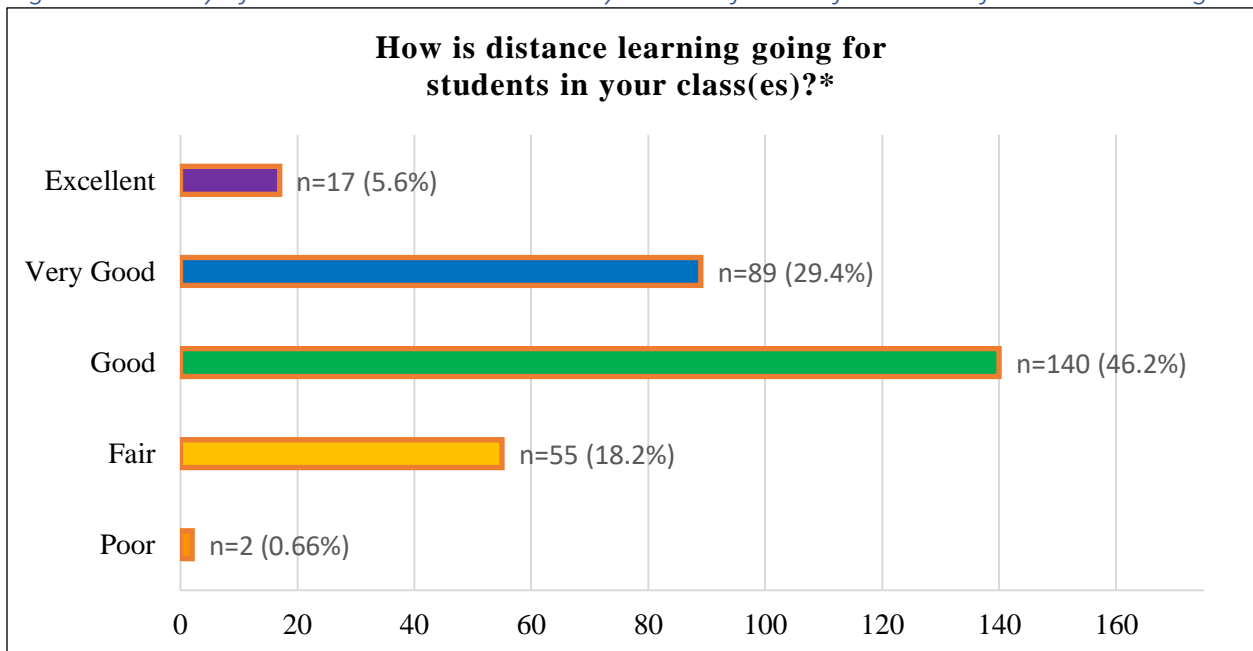


Figure 4: Poorvu Center and Academic Continuity website pageviews, March 5 – March 30, 2020



To monitor remote teaching early in the process, FAS faculty were surveyed after the first week of remote teaching. Responses indicated that the Center’s initial response with resources and services developed into a smooth first week of instruction and learning after spring recess (see Figure 5).

Figure 5: Faculty of the Arts and Sciences survey results after the first week of remote teaching



Sample Instructor Comments:

“The staff in the Poorvu Center is doing an amazing job, and I’m grateful for the ways that they have worked around the clock to be supportive of all of us teachers.” – *Instructor, Religious Studies*

“I have had great success in making individual students ‘co-host’ of part of the session so that they can lead and moderate a discussion among their peers using the hand-raising function.” – *Instructor, English*

“It’s just hard, teaching into a screen, not being with the students, keeping their attention while they’re looking at a screen, engaging with students (especially those who have video off).” –
Instructor, Math

As it became apparent that remote learning would continue, the Poorvu Center took steps to learn as much as possible from this unprecedented situation. We collaborated to redesign the end-of-term online course evaluation questions for Yale College and develop a faculty survey for all except Medicine and Law (who completed their own surveys). We coded faculty support requests to identify priority areas for support and resources. In addition, we analyzed several years of data from a survey about effective Canvas use to inform student-centered recommendations. With permission from [Yale Summer Session](#), we analyzed five years of course feedback from online summer courses. Data from these sources helped us develop evidence-based guidance as the pandemic went on to disrupt plans for fall instruction.

In response to COVID-19, our Educational Program Assessment team contributed expertise to help instructors navigate specific challenges to assessment during remote teaching. In addition to consultations and workshop collaborations, we developed new web resources to provide guidance for designing assessments and promoting academic integrity.

These resources included [data-driven suggestions from Yale](#) faculty and students for effective online learning:

- Consider a course structure with synchronous and asynchronous components
- Organize and use Canvas to effectively share course content, grades, and messages
- Establish a preferred communication strategy and set of tools for the course
- Promote equity in pedagogical design and language by prioritizing students’ learning needs
- Build community and engagement using a variety of tools, and acknowledge the current climate

By the end of the spring term, we acknowledged the likelihood of relying on continued online instruction for fall 2020. As the Faculty of Arts and Sciences, Yale College, and the professional schools considered scenarios and policies for educational continuity, we developed three tiers of support to help instructors prepare for the 2020-2021 academic year:

High-touch support: Tactical teams representing pedagogical and technological expertise were assigned to instructors of large introductory courses and other high-enrollment or particularly challenging courses (such as labs). The instructors worked with teams to redesign their courses for online delivery, setting goals and defining milestones to be ready for the fall. About 50 courses were supported by this model.

Guided support: We offered five two-week cohorts with a repeating set of core workshops on topics such as online engagement, inclusivity, and assessment. Core topics were supplemented by elective workshops focused on Zoom and Canvas specifics as well as sessions led by library and collections colleagues. Instructors were assigned to a Poorvu Center staff member, who served as their go-to consultant. A total of 335 instructors participated in this program.

Self-guided support: Instructors who preferred to work independently, perhaps due to prior experience with online teaching, were invited to a self-guided model. We organized resource modules in Canvas (aligned to the guided support themes and structure). More than 210 faculty members accessed the materials in the self-directed support portal.

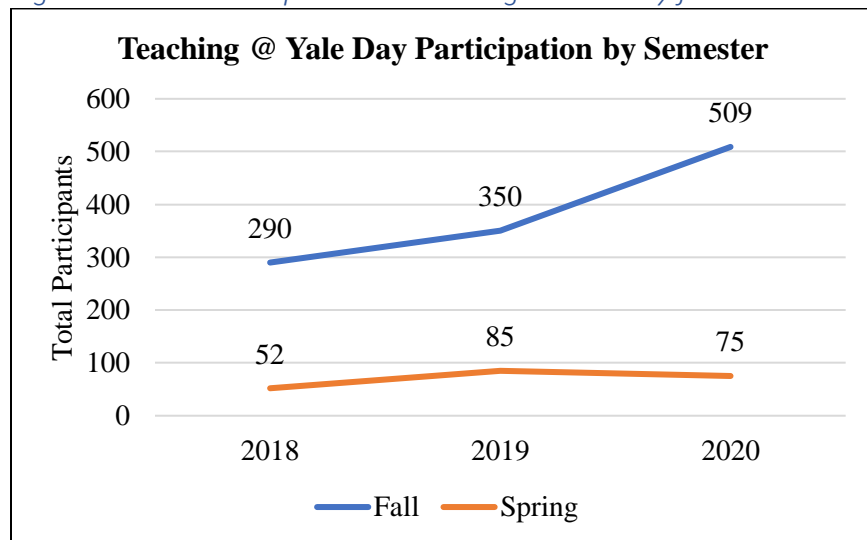
Lastly, the executive directors served on educational continuity committees chaired by [Pericles Lewis](#), and met with academic deans to describe support options and, in some cases, design custom programs. Yale College revised processes and timelines to establish early course registration. To help instructors share information about their courses, we developed a brief course description template in Canvas. We also created a process and instructions to encourage instructors to make short video “trailers” for their courses. Throughout the summer, we worked closely with the [Library](#) and the [Registrar’s Office](#) to align technical infrastructure with the demands of preparing campus for a predominantly online academic year.

4. Programs for Graduate Students and Postdoctoral Scholars

The Poorvu Center provides graduate students, professional school students, and postdoctoral scholars with programs and resources in two broad areas: [teaching development](#), and [academic writing and communication skills](#).

Training for graduate student instructors begins with the [Teaching at Yale Day](#) program, required for GSAS students prior to their first teaching assignment. We had 425 participants for 2019-2020, compared to 375 in 2018-2019, see Figure 6. We offer a full suite of [teaching development programs](#), many of which are peer-led by [our team of Teaching Fellows](#). In the [Certificate of College Teaching Program \(CCTP\)](#), we offered over 100 workshops for graduate students and postdocs in 2019-2020, including eight workshops offered online after the March break. We had 1,117 participants in the 2019-2020 workshops (405 unique participants). We offered 135 consultations and 58 peer teaching observations this year, all but four of which were before the March break. We awarded 40 Certificates of College Teaching Preparation (27 graduate students, 13 postdocs) in 2019-2020. This number was slightly down from 45 completions in 2018-2019, likely due to pandemic disruptions.

Figure 6: Total Participation in Teaching at Yale Day from 2018 to 2020



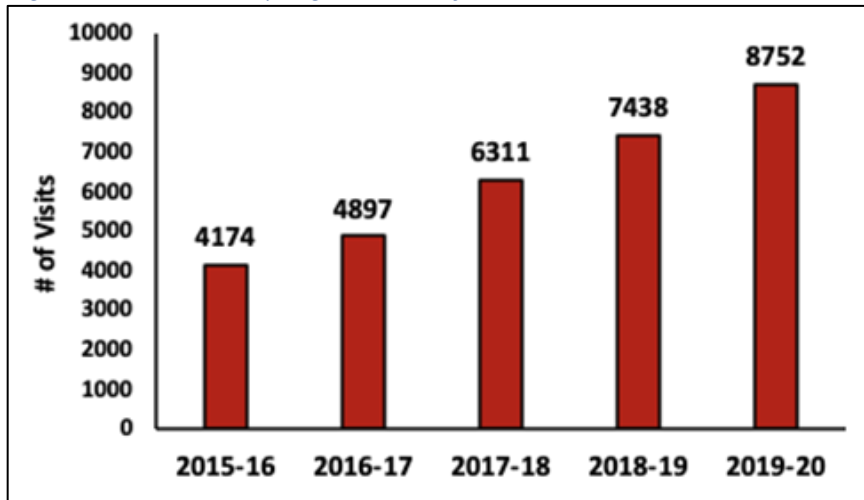
We continue to work with departments to tailor programming to specific disciplinary needs. We offer the [Fundamentals of Teaching](#) for the following departments: Chemistry, Physics, and Music. These ongoing offerings, led by our Fellows from these departments, are well-integrated into the departments' own orientation and training programs, and they allow us to build connections to departmental Directors of Graduate Studies. We have also begun engaging with large lecture classes to foster effective teaching by and with graduate student Teaching Fellows. We target high enrollment courses to maximize the benefits for student learning across Yale. This engagement entails three to four meetings over the course of the semester to work with graduate students and the lead instructor on best practices such as leading class discussions. Courses we worked with in 2019-2020 were: HIST 228 (Vikings), HIST 101 (The Year 1000), ASTR 130 (Origins & The Search for Life in the Universe), and MBB/MCDB 105 (Biology, the World, and Us).

To further support teaching development, Yale belongs to a national network called the [Center for the Integration of Research, Teaching, and Learning](#) (CIRTL). Membership gives Yale graduate students and postdocs access to a rich array of online workshops, courses, and mentoring opportunities to complement on-campus programs. In particular, the online format benefits postdocs pursuing the CCTP, maximizing flexibility and limiting time away from their research labs. Our Graduate and Postdoctoral Teaching Development staff regularly contribute to the network by leading workshops and serving on committees. Professor Paula Kavathas, Immunobiology, serves as our Institutional Leader for CIRTL at Yale. She

helps us connect with STEM departments to advertise CIRTl opportunities and also leads workshops with a national audience. The CIRTl network is undergoing an organizational transition, and the future of our involvement will be reviewed in the context of the new organizational structure and expectations for members.

The [Graduate Writing Lab](#) (GWL) has significantly expanded its reach since it was integrated into the center in 2014. The mission expanded beyond GSAS students to include writing support for professional school students. Despite COVID-19 disruption, the number of visits to the GWL this year more than doubled (110% increase) compared to 2015-16 and increased by 17.7% compared to the previous year, as shown in Figure 7.

Figure 7: Total GWL program visits from 2015-2020



During 2019-2020, the number of GSAS students using GWL programs increased by 70.3% compared to 2015-16 and by 29.1% compared to the previous year, as illustrated in Figure 8.

Figure 8: GSAS student visits to the GWL, 2015-2020

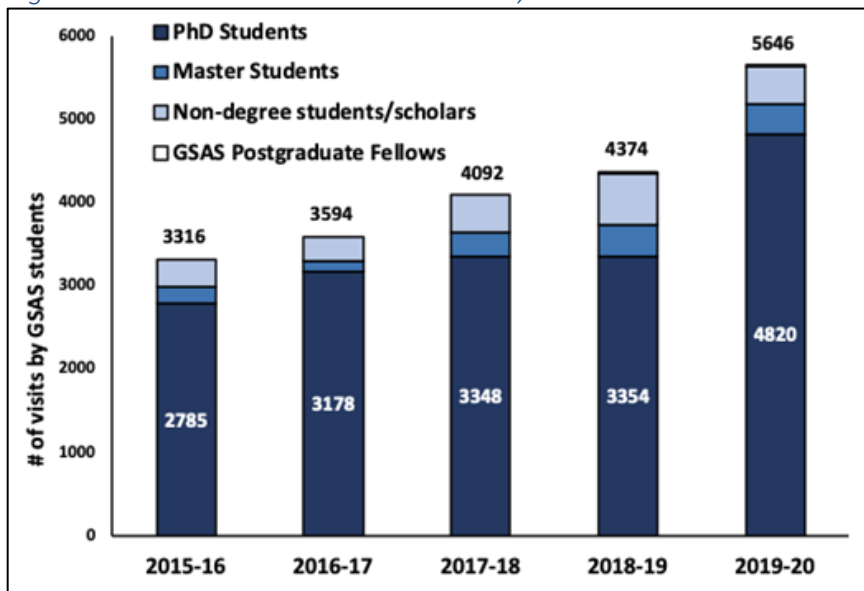


Figure 8 illustrates a very high growth of PhD student users: 73.1% increase compared to 2015-16 and 43.7% compared to the previous year. Figure 9 shows significant growth in use by professional school

students, which has been a strategic growth area. Figure 10 provides a breakdown of these figures by school.

Figure 9: Visits to the GWL by professional school students during 2015-2020

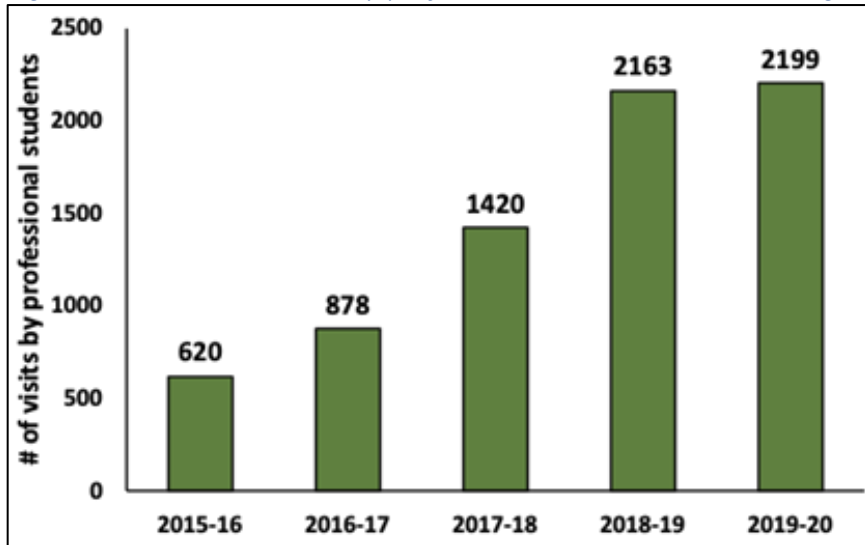
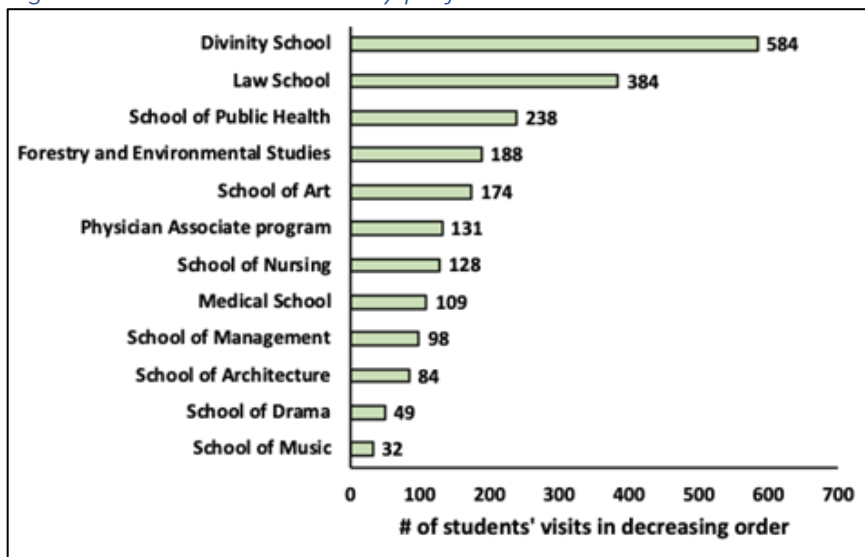


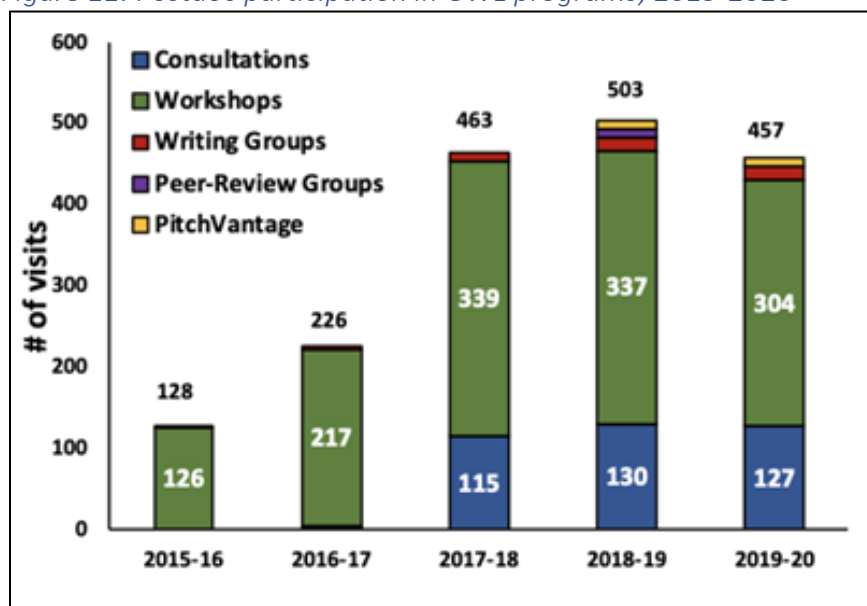
Figure 10: Visits to the GWL by professional school students in 2019-2020



The most active professional school users of the GWL, Divinity School and Law School students, are part of a pilot program where they fund a percentage of our [Writing Specialist's](#) effort. In this pilot, the Poorvu Center funds the specialist's effort for year one, and the professional school funds the effort for years two and three. After three years, we evaluate the impact and the professional school can opt to continue the arrangement. The Law School completed year two in 2019-2020, and the Divinity School completed its first year in 2019-2020.

Postdoctoral scholars have increasingly participated in GWL programming over the last five years, see Figure 11. We do not actively advertise these programs to postdocs, and funding limits our ability to provide individual writing consultations despite a high need and strong demand.

Figure 11: Postdoc participation in GWL programs, 2015-2020



Despite the COVID-19 disruption, the GWL continued offering programs online and finished the year with increased numbers compared to 2018-2019 in most areas:

- [Consultations](#) increased by 14.3%, and by 8.8% for unique consultees
- [Workshop](#) attendance increased by 14.9%, and by 12.6% for unique attendees
- [Writing retreat](#) participation increased by 2.6%. and by 6.7% for unique attendees
- [Peer-review group](#) participation increased by 108.1% (more than doubled), and by 100% (doubled) for unique students enrolled in this program

Numbers remained the same for [PitchVantage appointments](#), which had to temporarily suspend operations due to the closure of the Poorvu Center’s physical space. PitchVantage is a licensed service that allows users to practice public speaking and receive structured feedback from a simulated audience.

Throughout the academic year, the GWL provides workshops and events that cover various aspects of writing and communication skill development. [Workshop topics include Writing in Academic Genres, Oral Communication, and Writing for Publication.](#) In 2019-2020, we offered 117 workshops, nearly double the number offered in 2015-16, and up from 105 in 2018-2019. GWL [Writing Retreats](#) usually consist of eight full-day and fifteen half-day (“Study Hall”) writing sessions to provide support, structure, and accountability for Yale graduate and professional school students. We cancelled four of the full-day retreats and converted Writing Study Halls into a novel “Writing Together Online” program. Based on the success of this approach, we added an eight-day/sixteen-session program “Writing Together Online Challenge” in May, which attracted 449 attendances by 88 unique students.

[Peer-Review Groups](#) are offered each semester and facilitated by GWL Fellows. In 2019-2020, we revamped the training materials for peer-review groups, revised the guide for group leaders, and significantly increased the number of groups and participations. Attendance soared from 11 groups enrolling 52 students and 413 total attendances in 2018-2019 to 25 groups enrolling 104 students making 903 attendances. 93.3% of all participants were GSAS doctoral students. We are gradually expanding this model to professional schools. In 2019-2020, our Writing Specialist piloted a group with Law School students working on their research paper writing projects.

In 2019-2020, we revised several programs targeting GSAS doctoral students, such as a seven-part workshop series for “All But Dissertation” students. To increase the attendance and improve retention, this program was advertised as a two-part series. The revised program emphasized elements of the writing process and overcoming writing blocks. Attendance increased from 86 visits in the previous year to 130 this year. We enhanced the content of our six-part Research and Writing in Humanities and Social

Sciences Series, with an increase in attendance from 61 visits in the previous year to 84 this year. Peer-review groups were expanded to address needs of GSAS students writing NSF proposals and dissertation chapters. As a result of this initiative, the number of groups, students, and participations doubled.

In 2019-2020, the GWL successfully expanded [GWL resources](#) on oral communication. We developed and implemented a specialized training program for writing consultants who facilitate sessions on oral projects with graduate and professional school students. The GWL offered 180 consultations addressing conference presentations and PowerPoint slides during this academic year. We also expanded and professionalized our oral communication workshop series, increasing the number of workshops from 16 in 2018-2019 to 20 in 2019-2020. We organized a special event with an outside expert, Konstanza Popova, and piloted a series of public speaking clinics with Robert Bazell (Adjunct Professor, MCDB, former Chief Scientific Correspondent for NBC) and offered four sessions in the fall (with 17 participants) and three sessions in the spring (also with 17 participants). This year we also launched the new Certificate Program in Public Communication. This program leveraged existing workshops and clinics on oral and visual communication. Ten participants (All GSAS students) completed the Certificate Program out of 22 who registered (40.9% completion rate).

Response to COVID-19: Graduate Students and Postdoctoral Scholars

With the transition to online teaching in March 2020, our Graduate and Postdoctoral Teaching Development team moved eight workshops online, trained the team of Fellows to teach online, and helped graduate and postdoc participants to further their professional development as teachers. The eight online workshops had a total of 258 participants. We revised the technology workshops to focus on “engaging students on Zoom” and explicitly modeled good teaching practices online. During March, we ran two weeks of daily online office hours to help graduate students transition to online teaching. Since that time, we have continued to support graduate students in their online teaching through one-on-one consulting and support for special projects. We developed a four-part short course on “The Theory and Practice of Online Teaching” and ran it twice, engaging a total of 106 participants.

Similarly, the GWL trained Fellows to efficiently run consultations and peer-review groups virtually, discussed the effective practices of online tutoring, and revised consultation regulations. The GWL staff trained Fellows and worked individually with them to adapt all planned workshops for online teaching. The numeric and narrative evaluations from workshops and events offered online exceeded our expectations. Some users, especially those who work remotely, expressed a strong interest to see online formats continue past 2020. Based on the positive response to our newly developed Writing Together Online program, we expect to offer it again next year.

5. Programs for Undergraduate Students

Poorvu Center initiatives to support student learning are closely aligned with the Yale College priority to increase access to [first-generation, low-income](#), and other student groups historically underrepresented at elite institutions. Here we present a detailed data section for an in-depth look at the current reach of our undergraduate writing and tutoring programs. Throughout the first semester and second semester until spring break, our undergraduate writing and tutoring appointments were on track to match or exceed last year's record high numbers. As we steadily improve the precision of our record-keeping, we can monitor which students are accessing these services. In the time since the Center launched in 2014, we have reported annual outcomes demonstrating the effectiveness of our strategies to target students who will most benefit from academic support.

Table 6: Total appointments and unique participants for undergraduate students in 2019-2020

Programs	Total Appointments	Unique Participants
<u>Academic Strategies Program (ASP)</u>	1300	673
ASP Mentoring	195	119
ASP Workshops	551	398
ASP First-Year Essentials	24	12
ASP FGLI	458	72
ASP First-year Scholars at Yale	72	72
<u>STEM (not including ULAs)</u>	8328	2052
Science and QR Tutoring	183	59
Residential College Math and Science Tutoring	251	114
Course-Based Peer Tutoring	7894	1879
<u>Writing Center (WC)</u>	8149	2302
WC Drop-In	2906	1091
WC Weekly	1543	159
Residential Writing Tutors	3700	1052
Total Appointments	17,777	

- The undergraduate tutoring team continues to increase the number of Yale students served each year. 17,777 appointments were held, which is a conservative estimate given a small amount of missing data.¹ Last year, our total number of appointments was 16,967.
- There is an estimated total of 3,472 unique student records across all tutoring programs.² This number represents 57% of undergraduate students.
- [All programs \(ASP, STEM, Writing\)](#) increased substantially in the number of unique students accessing their services

¹ Two of the 18 Course-Based Peer Tutors did not provide tutoring session data from their course, resulting in a small amount of missing data for this category. Additionally, attendance frequency from ~70 writing students was missing. For the writing programs, reporting each student as visiting only once is very likely an underreporting, since the average was between 6-7 times per semester. As such, we used informed estimation to gauge these numbers. For these ~70 students, we estimated their visits in the following way: The average number of visits for the semester in which the data was missing (fall/spring), minus one visit (e.g., average fall semester – 1). This allowed for a more accurate count of visits and took a slightly conservative estimate in case there was some systematic bias in missing data.

² We do not have a precise number of unique users because our records include roughly 570 students with missing identification. These 570 students are likely a mix of unique students and students that are already recorded in the data.

- Total number of appointments grew notably for ASP, given their additional programmatic offerings. STEM tutoring also grew by over 2,000 appointments from last year. Writing tutoring decreased slightly, which is at least partially associated with the transition to emergency remote learning. Drop-in hours were most affected, suggesting the change in physical space may have prevented students from accessing this resource. Weekly writing clients did not show as much of a drop, perhaps due to ongoing relationships between students and tutors. As noted above, writing services did see an increase in unique students participating in their services, although the overall number of appointments decreased.
- First-generation students are strongly represented in [Academic Strategies Programs](#), above the percentage in the [Yale College student population](#). The fraction of first-generation students using STEM tutoring is also greater than the percentage in Yale College. First-generation students are slightly less represented in the writing support programs.³
- Note that the data reported here do not include [Undergraduate Learning Assistant](#) (ULA) appointments, an increasingly popular support format. ULAs are associated with many Computer Science and quantitative courses. They are hired by departments, paid for by the [FAS Dean's Office](#), and trained by the Poorvu Center. Because we have limited interaction with this important learning support category, we don't have records of use by undergraduates. This point is important because it means that our STEM learning support records are missing ULA use, and the comprehensive total may be much greater.

Student contact trends for writing and tutoring programs

September to March 15

[Writing tutoring](#) was running very close to 2018-2019 record-high totals.

[Course-based STEM tutoring](#) had logged 10% more appointments than in 2018-2019.

[Academic Strategies Program \(ASP\) 1-1 mentoring](#) was down slightly, but combined with contact through FGLI peer mentoring, our overall support to help students thrive was higher than 2018-2019.

From March 16-May 8

[Writing tutoring](#): "Drop-in" tutoring (which switched to an appointment model) was down, pushing our total writing support numbers for the year below 2018-2019. Residential College tutoring was down slightly. Weekly tutoring remained steady.

[Course-based STEM tutoring](#): Usage was down slightly from the same period in 2018-2019, but the first period was so strong that our yearly totals are still higher than last year.⁴

[ASP 1-1 mentoring](#) also dropped, although workshop attendance was up from the comparable period in 2018-2019. FGLI peer mentoring remained strong.

Analysis: Tutoring based on previous relationships (weekly writing tutoring), or a specific course (course-based STEM tutoring), was more resistant to decline during the pandemic.⁵

3 Demographic data was available for 2,902 of the 3,472 student entries (84%). The vast majority (>80%) of this data is missing from Course-Based Peer Tutoring, as record-keeping relied on peer tutors' hand-entry of NetIDs.

4 Record keeping for course-based peer tutoring was not as consistent during the disruption, underlining a relative weakness of our systems for this service compared to others in our suite.

5 Drop-in writing tutoring also suffered a change in procedures, which may also have depressed turnout.

Table 7: Total appointments across undergraduate tutoring from 2016-2020

Programs	2016-17	2017-18	2018-19	2019-20
Academic Strategies Program	391	522	826	1300
ASP Mentoring	77	153	197	195
ASP Workshops	314	369	629	551
ASP FYE				24
ASP FGLI				458
ASP FSU				72
STEM (not including ULAs)	3627	6736	6203	8328
SQR	259	275	241	183
RCMST	987	806	502	251
CBPT	2381	5655	5460	7894
Writing	7388	8951	9938	8149
WC Drop-In	2405	3167	3997	2906
WC Weekly	1242	1755	1773	1543
Residential Writing Tutors	3741	4029	4168	3700
Total Appointments	11,406	16,209	16,967	17,777

Table 8: Unique participants across undergraduate tutoring from 2016-2020

Programs	2016-17	2017-18	2018-19	2019-20
Academic Strategies Program	192	443	547	673
ASP Mentoring	51	101	125	119
ASP Workshops	155	369	458	398
ASP FYE				12
ASP FGLI				72
ASP FSU				72
STEM (not including ULAs)			1518	2052
SQR	218	131	112	59
RCMST	276	215	157	114
CBPT	751	1193	1383	1879
Writing			1948	2302
WC Drop-In	954	1086	1241	1091
WC Weekly	133	168	188	159
Residential Writing Tutors	988	1089	1125	1052

Each year, we closely monitor who is using Poorvu Center learning services. Table 9 below shows demographic data, where available, for our programs in comparison to Yale College statistics. In most of our learning support programs, participation is greater than or proportional to the [Yale College profile](#). For example, First-Generation students are about 17% of Yale College students but represent over 36% of Academic Strategies Program participants. However, several of our programs are undersubscribed by specific groups, such as the percentage of underrepresented minority students using our writing services (24.1% participation, but 28.8% of Yale College) and first-generation students using writing services (12.9% participation, but 16.6% of Yale College).

Table 9: Demographic information across undergraduate tutoring programs

Programs	Female	URM	Inter-national	First Generation	Eli Whitney
Academic Strategies Program	57.8%	36.6%	7.9%	36.1%	1.0%
ASP Mentoring	67.0%	36.9%	11.7%	26.2%	2.9%
ASP Workshops	54.0%	32.4%	11.0%	19.7%	2.0%
ASP FYE	58.3%	25.0%	16.7%	8.3%	0.0%
ASP FGLI	58.3%	45.8%	0.0%	61.1%	0.0%
ASP FSU	51.4%	43.1%	0.0%	65.3%	0.0%
STEM (not including ULAs)	62.7%	36.3%	10.1%	20.2%	0.8%
SQR	63.2%	45.6%	10.5%	17.5%	1.8%
RCMST	70.0%	35.0%	9.0%	24.0%	0.0%
CBPT	54.9%	28.4%	10.7%	19.1%	0.6%
Writing	61.8%	24.1%	23.9%	12.9%	0.9%
WC Drop-In	63.0%	23.4%	8.0%	14.7%	0.1%
WC Weekly	58.5%	22.0%	51.6%	10.1%	1.9%
Residential Writing Tutors	63.9%	26.8%	12.2%	13.8%	0.8%
Yale College %	50.8%	28.8%	10.2%	16.6%	0.4%

Additional demographic data:

Table 10 below shows an example of usage data over time for first-generation Yale College undergraduates, a demographic that has recently grown significantly. Some of the categories below represent small numbers of students, so minor changes on the level of student numbers can have a large effect on overall percentages. The 2019-2020 numbers are likely influenced by the COVID-19 disruption. First-generation low-income students often faced additional challenges to remote learning, which could explain some of the reduced help-seeking behaviors recorded for this group last year.

Table 10: Percent of first-generation students accessing undergraduate tutoring programs from 2016-2020

Programs	2016-17	2017-18	2018-19	2019-20
Academic Strategies Program	19.7%		20.2%	17.7%
ASP Mentoring		24.8%	22.3%	22.7%
ASP Workshops		22.2%	18.9%	8.3%
ASP FYE				61.1%
ASP FGLI				65.3%
ASP FSU				17.1%
STEM (not including ULAs)			18.6%	14.8%
SQR	24.8%	19.8%	25.0%	16.9%
RCMST	17.0%	20.9%	19.7%	21.1%
CBPT	12.7%	16.8%	18.5%	14.4%
Writing			17.1%	16.0%
WC Drop-In	15.0%	15.9%	18.3%	19.2%
WC Weekly			18.6%	10.1%
Residential Writing Tutors	13.7%	14.4%	15.8%	13.6%

Table 11: Percent of under-represented minority students accessing undergraduate tutoring programs from 2016-2020

Programs	2016-17	2017-18	2018-19	2019-20
Academic Strategies Program	29.5%		29.7%	28%
ASP Mentoring		39.3%	41.3%	32%
ASP Workshops		32.9%	26.6%	25%
ASP FYE				21%
ASP FGLI				26%
ASP FSY				28%
STEM (not including ULAs)			28.9%	23%
SQR	40.4%	44.4%	43.7%	44%
RCMST	27.9%	39.1%	31.2%	31%
CBPT	23.0%	31.2%	28.9%	21%
Writing			27.3%	29%
WC Drop-In	26.7%	32.5%	28.0%	32%
WC Weekly			21.3%	22%
Residential Writing Tutors	23.8%	29.5%	26.1%	26%

Response to COVID-19: Undergraduate Students

With the transition to online teaching in March 2020, our Academic Strategies staff moved ten workshops online, trained the mentors to facilitate online, and revised communications with students to offer support with remote learning. Workshop attendance increased during the emergency remote learning period, although 1-1 mentoring decreased. The STEM team reached out to faculty to coach them on ways to make online tutoring more efficient and productive. The Writing staff moved our formerly drop-in tutoring to an appointment-based system, incorporated asynchronous time for tutors to read drafts, trained tutors in working remotely via Zoom, phone, or with shared Google documents. Reformatted tutoring was available the day that students returned to class after spring break. We continued to meet with tutor and mentor staffs to gather feedback about revised procedures and add additional training where needed. We also developed two new modes of writing tutoring: course-based and asynchronous, to further lower barriers to students seeking feedback when learning remotely. Both of these approaches proved popular and successful during Yale Summer Session, and will be continued in Fall 2020.

6. Programs Beyond Yale

This is a critical time to share Yale's expertise with the world, in particular within the scientific community and on timely political issues. Three Poorvu Center teams focus on reaching beyond Yale's campus. The [Broadcast Studio](#) is the primary locus for on-camera live and taped interviews and radio or podcast outreach. The Digital Education team supports Yale's efforts to create online initiatives for a variety of audiences. Our services are utilized by professional schools, departments, or faculty to meet their goals for residential learning, broad public dissemination, or non-degree and degree offerings for professional advancement. These efforts reach far beyond the Yale campus, yet the Yale instructors who work with our Broadcast and Digital Education teams are consistently inspired to integrate new approaches into their residential teaching. In addition, our externally-funded STEM Education team leads a national faculty development program for a community of nearly 5,000 college science instructors. All of these teams collaborate with other Poorvu Center colleagues as well as other Yale offices.

In 2019-2020, high-impact accomplishments of the Broadcast Studio include the following:

- Produced all video content for the online courses led by the Digital Education team, which have reached millions of learners around the world.
- "Guidelines for PowerPoint Slides in Video" have been adopted in many areas, with notable updates in medical programs.
- Updated best practices for faculty and administrators to optimize on-camera presentations for visual and sound clarity, based on professional expertise and ongoing client feedback.
- Assisted approximately 12 instructors in the Yale Summer Session Online program and others transitioning to emergency remote teaching by recording classroom lectures for online delivery.
- Added 60,000 subscribers to the Yale University channel on YouTube, to bring the total number of subscribers to 194,000. This channel shares on-campus intellectual events, like lecture series and appearances from guest speakers, with a global audience.
- Supported the University during the sudden shift to remote operations. One especially high-profile and challenging assignment was to produce the traditional Class Day and Commencement celebrations as remote events with contributors located around the world. The Broadcast Studio was a key partner to the Offices of the President, Vice President for University Life, and Vice President for Communications and Public Affairs in delivering a successful weekend of remote events.

Please note that the Broadcast Studio supports Yale University with projects outside of the Poorvu Center's teaching and learning mission. This report focuses only on the work related to teaching and learning, however, we are extremely grateful for the full impact the Broadcast Studio has on the University community.

In 2019-2020, high-impact accomplishments by our Digital Education team include the following:

- Launched one [three-course specialization for the School of Public Health](#) and three [new Coursera courses](#)
 - Dr. Robert Dubrow, School of Public Health, led the creation of a non-degree program for the [SPH Climate Change and Health Initiative](#). To extend the reach of this resource-intensive project, SPH partnered with Digital Education team to create a Coursera Specialization. Launched in September 2019, this slightly higher-cost experience includes three courses teaching foundations of climate change and how public health officials and clinicians can use mitigation communication strategies to benefit society.
 - [Addiction Treatment: Clinical Skills for Healthcare Providers](#) by Dr. Ellen Edens and an interdisciplinary faculty team from the Schools of Medicine, Nursing, Public Health, and the Physician Associate Program; launched to the public in December 2019, also delivered to private cohorts at over 37 institutions educating medical trainees (part of a Substance Abuse and Mental Health Services Administration (SAMHSA) grant awarded to Yale in partnership with the American Association of Addiction Psychiatry). The

- course aims to fill a gap in medical curricula by providing foundational knowledge on how to prevent, identify, and treat substance use disorders.
- [Health Behavior Change](#) by Professor Marney White, School of Public Health; initially developed for a residential experiment, the YSPH team worked with us to translate existing material to Coursera for public dissemination. Launched in late March 2020, this course teaches best practices for changing health behaviors.
 - [Understanding Medical Research](#) by Dr. F. Perry Wilson, School of Medicine; teaches how medical research works, how to make sense of report statistics, common types of medical research, bias, and other issues with medical research. This course launched in April 2020 to an audience that grew exponentially over just two weeks.
 - Continued growth and new directions for [The Science of Well-Being](#) by Professor Laurie Santos
 - Learners in the course examine research about what makes people happy, and put these strategies into practice. We developed high-tech (mobile app developed by a Yale student) and low-tech (printable worksheets) opportunities for learners to track progress.
 - As the most popular course in Yale’s Coursera portfolio, and among the top five most popular courses on Coursera, this course launched in March 2018 and has enrolled more than 2.7 million learners.
 - 2.1 million of these learners joined after March 1, 2020, during the global pandemic.
 - The course’s average user rating is 4.9 out of 5, with 92% of 14,000+ reviews rating the course at 5. *The Science of Well-Being* was selected as the recipient of Coursera’s 2019 Learner’s First Award.
 - We are measuring the course’s impact by an IRB-approved study to compare happiness scores before and after the course, compared to Professor Paul Bloom’s [Introduction to Psychology](#). Preliminary analysis shows that every dimension on the happiness questionnaire significantly improved from pre-test to post-test in both classes, with greater differences for students enrolled in *The Science of Well-Being*. A manuscript of the findings has been drafted for publication.

Table 12: Yale University course enrollments and completions for Coursera learners in fiscal year 2019 and 2020

	FY19	FY20	Cumulative total – recorded by June 30, 2020	*Pandemic data (March 1 - June 30, 2020)
Total Course Enrollments	478,342	3,600,756	5,694,700	3,193,379
Total Course Completions	19,184	134,762	215,159	118,744

- We provided design and technical expertise for courses in a new Yale Alumni Association (YAA) program called the [Yale Alumni Academy](#).
 - Created in spring 2020 as alternatives to staple Alumni Association offerings (Yale Alumni College, Yale Educational Travel, and Yale for Life), YAA courses are taught by current and emeritus Yale faculty and offer a variety of commitment levels and topics ranging from Italian Film to Eurasian Politics.
 - Since they launched in June 2020, YAA courses have enrolled 181 alumni in 8 courses. Eight more courses are planned for fall 2020 as part of expansion to a year-round virtual opportunity.
- The Poorvu Center offers an initial investment to allow professional schools to experiment with online delivery of non-degree programs, or certificate programs. Two such investments concluded their first cohorts in spring 2020.

- Center for Business and the Environment at Yale (CBEY) - [Financing and Deploying Clean Energy](#) is a year-long non-degree program with four online courses in project finance, technology, innovation, and policy. The program's goal is to accelerate the deployment of clean energy worldwide and mitigate climate change by training working professionals in the industry. The first cohort began in June 2019; 71 of 75 enrollees received certificates upon completion in May 2020.
- Environmental Leadership and Training Institute (ELTI) - [Tropical Forest Landscapes: Conservation, Restoration, and Sustainable Use](#) is also a year-long program with unique engagement opportunities. Participants viewed over **130** different presentations by 76 speakers, representing 50 organizations; submitted over **60** assignments (including reflections, quizzes, skill-building activities, and project proposals); joined **40** live Zoom sessions from time zones reaching from Colorado (US) to Fiji; and developed **38** capstone projects designed as action plans for their local countries and communities. Despite COVID-19 disruptions, 90% of participants met requirements to fully complete the program. Most (89%) articulated how they have changed practices or their approach to conservation, restoration, and sustainable use based on their experience with the program.

Poorvu Center Leadership for National STEM Education Transformation

The Poorvu Center houses a grant-funded STEM Education Team dedicated to supporting a national faculty development program, the [Summer Institutes on Scientific Teaching](#). Jennifer Frederick has been the PI for several multimillion-dollar grants from the Helmsley Charitable Trust and the Howard Hughes Medical Institute (HHMI). We are currently in the last year of HHMI funding, and this year we are transforming the organization to an independent non-profit entity named the National Institute on Scientific Teaching. Nationwide, over 3,500 STEM instructors have attended a Summer Institute, hailing from around 400 institutions. Most of the initiative is external to Yale, although 17 Yale faculty have participated in Summer Institutes (SI). In addition, we have institutionalized a version of the intensive evidence-based teaching workshop. Now called the [Summer Institute on Course \(Re\)Design](#), approximately 175 Yale faculty have participated in this annual program since 2013.

The SI program features regional institutes, with four regional SIs in 2019 welcoming over 150 college STEM faculty. The [Mobile Summer Institutes](#) (MoSI) program flips the model to bring experienced workshop leaders to offer intensive training for a single campus community. Host institutions agree to a three-year cycle where they take ownership and engage local administrators to prioritize strategic institutional changes. We ran 26 MoSIs in 2019, reaching over 560 instructors. To broaden the program's reach, we piloted an online Summer Institute in 2019 through a partnership with the [CIRTL Network](#). The pilot had 20 participants, and its success yielded a model we didn't foresee would be so valuable in 2020. We also designed a new in-person model targeting community college instructors. These Pillars of Scientific Teaching (PoST) programs distribute the curriculum into one-day units that are offered over several months. The 2019 pilot began at Pima Community College with 36 faculty participants.

Informed by Meghan Bathgate's research showing that faculty who perceive greater support are more likely to implement evidence-based teaching, we developed a number of supportive programs for the national SI community. Bathgate was formerly the HHMI Postdoc for STEM Education, and is now our Associate Director for Educational Program Assessment. The SI monthly newsletter reaches nearly 5,000 subscribers. It contains updates on program offerings, STEM education news, and relevant job listings. We produce a monthly webinar featuring a faculty expert addressing topics with high impact in STEM classrooms. Webinar attendance increased even before the pandemic, with 70-110 attendees at each of seven webinars offered in 2019. Typically, half of webinar participants have never attended a Summer Institute, so this program significantly extends the community's reach. We formalized partnerships with [CourseSource](#), an online peer-reviewed journal for teaching articles with roots in the SI, and [Macmillan Learning](#), a publishing company with a long history of SI support and an aligned mission.

Our STEM Education Seminar Series, funded by HHMI or other grants, is for the Yale community. Dating back to 2011 when the Yale Center for Scientific Teaching began this series, we continue to bring expert guests to campus to lead workshops on teaching topics and meet with faculty and students. This year, we collaborated with University of Bridgeport Assistant Professor of Physics Marco Bonett-Matiz to jointly host these visitors. By sharing resources, we provided academic exposure and access to role models for students and faculty who would not otherwise have access. In 2019-2020, we organized four seminars with attendance ranging from 20-40 at each talk, in addition to informal engagement at meals and meetings across the Yale and Bridgeport campuses.

COVID-19 upended most 2020 SI programs, yet paved the way for creative innovations. We canceled plans for regional SIs, MoSIs, and PoST programs. We focused on online alternatives, offering two online SIs in their place, with a total of 40 participants through collaborations with CIRTL and Macmillan Learning. Three MoSIs (SUNY Binghamton, UC Davis, and the University of Montana) adapted to a virtual format with a total of approximately 50 participants. In June 2020, we offered a 2-hour online workshop hosted by the Summer Institutes using Macmillan's online learning platform. We held the spring leaders meeting online instead of in person, and the SI newsletter and monthly webinars continued on schedule.

In response to campus closures and the spring 2020 shift to online instruction, we launched weekly "SI Happy Hours" each Friday. The program's goal is to provide the STEM community with advice and resources for teaching in a new world, in addition to building a virtual community. We began the happy hours as an experiment, and the response exceeded expectations. Several hundred faculty have joined each week, and peer invitations have resulted in over a thousand new members of the SI community (measured by newsletter subscriptions). Happy hour conversations led to another new program, discipline-specific collaborative planning groups. Over 400 faculty have now organized into teams using the Slack workspace to communicate and share discipline-based teaching resources to prepare for fall online instruction. Most are from the U.S., but the groups include members from Europe, the Middle East, and Africa.

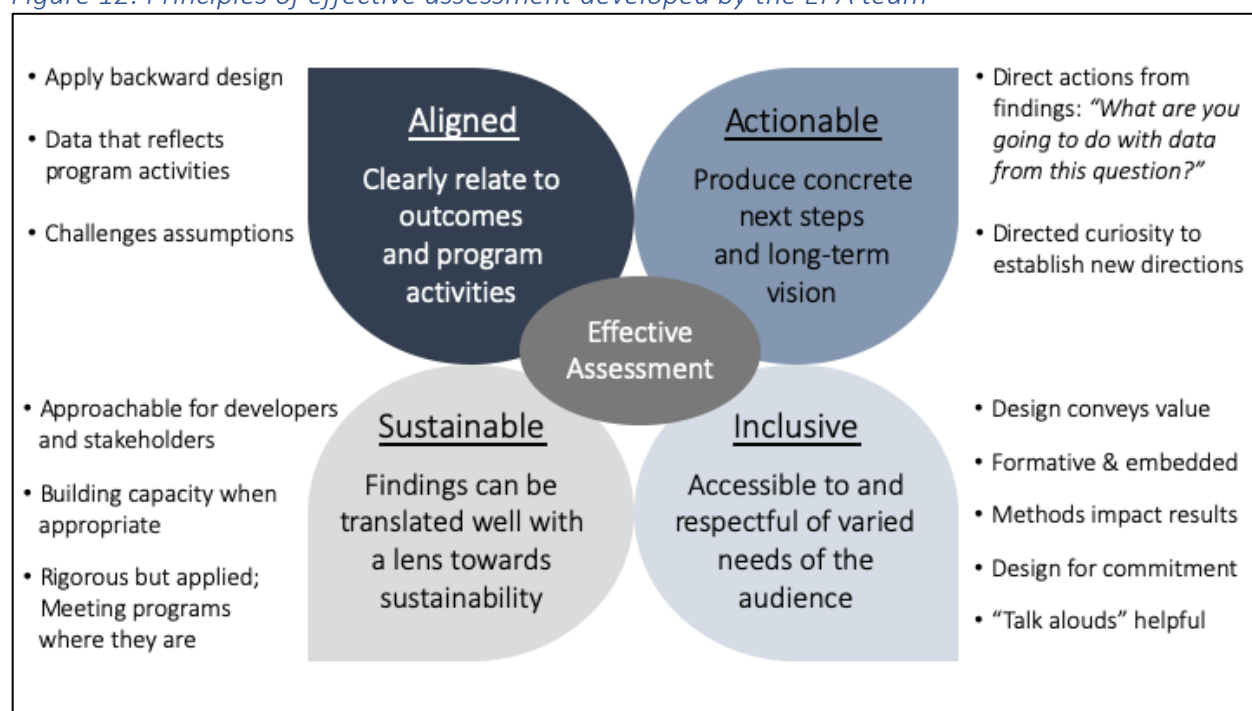
In preparation for the end of the grant-funded era, we have made significant progress toward launching the SI program as an independent entity. We are now incorporated in New York as a 501(c)(3) non-profit organization called the National Institute on Scientific Teaching (NIST). We developed by-laws and approved them, and the first elected slate of officers is now meeting regularly. Jennifer Frederick will serve as Past President through the end of 2022 to ensure a smooth transition. The STEM Education Team is preparing to fully transition SI operations to NIST, organizing and archiving documents and evaluation materials.

Although grant-funded, the STEM Education team joined the all-hands-on-deck efforts during the Poorvu Center's response to COVID-19. They consulted with faculty and contributed to survey analysis and other important data management projects.

7. Educational Program Assessment

The Poorvu Center continues to increase our impact on assessment activities across campus, with the overall aim of enhancing the culture of assessment at Yale. Several other Poorvu Center teams are equipped to support course-based assessments, which we routinely handle through faculty and graduate student consultations. Our [Educational Program Assessment \(EPA\)](#) team provides expertise and support in the development and implementation of assessment for programs led or supported by the Poorvu Center and our partner units on campus related to teaching and learning. The EPA team also supports internal assessment of Center activities, pairing with Center teams to help develop assessments aligned with each team's objectives. A steady increase in program or school level assessment requests provide evidence that our impact, paired with broader consideration for data-informed decision-making at Yale, is helping to increase intentional use of assessment to inform teaching and learning efforts. This year, we focused on building the Poorvu Center's culture of assessment by emphasizing principles of 1) alignment, 2) actionable data, 3) inclusive design, and 4) sustainable assessment models (Figure 12).

Figure 12: Principles of effective assessment developed by the EPA team



In addition to the categories of assessment collaboration listed below, we provide consultations and workshops for departments and faculty interested in thinking deeply about assessment. Examples from 2019-2020 include significant involvement in faculty programs such as the [Course \(Re\)Design Institute](#) and a session on the social science behind educational research for our Poorvu Graduate Teaching Fellows. Assessment experts have also offered workshops for Nursing faculty and consulted with faculty in Comparative Literature, Chemistry, the School of Management, and the School of the Environment.

Ongoing Program Assessment

We oversee assessment on a range of recurring programs, most of which involves the design and implementation of a methodological approach, and analysis and reporting of data collected. These reports are shared with administration and directly influence iterative program design. Major examples include:

- [ONEXYS \(Math, Physics, Economics\)](#): Working with Director John Hall, our team assesses the Online Experiences for Yale Scholars program, which provides tailored quantitative support for incoming Yale students. The ONEXYS program recently expanded from Math to Physics and included an Economics version in the Summer 2020 term.

- [STARS \(1, 2, Summer\)](#): Working with Sandy Chang, Associate Dean of Science and Quantitative Reasoning Education, we oversee assessment and analysis of the long-running Science, Technology, and Research Scholars (STARS) program at Yale by collecting student feedback on their experiences exploring STEM at Yale.
- [Foundational Biology Course Sequence](#): Our team works with BIOL 101-104 course coordinators and their faculty team to support data collection and analysis of student feedback.
- [Mellon Dissertation Writing Program](#): In the third and final year of Mellon funding for this program, our assessment identified areas of success and improvement to inform future institutionalized versions of this model.
- [Undergraduate Tutoring Services](#): Our team works closely with the Poorvu Center Undergraduate Tutoring Team and Office of Institutional Research to examine the scope and reach of student learning services, including writing partners, drop-in writing tutoring, residential college writing tutoring, FSY writing tutoring, Academic Strategy Programs, course-based peer tutoring, residential college math and science tutoring, and quantitative reasoning tutoring.

Departmental and School Assessment Support

We partner with departments and schools to support data collection and analysis for a variety of programs.

- [Chemistry Placement](#): We work with the Chemistry department using a data-driven algorithm to inform placement into Chemistry courses for incoming students each summer.
- School of Architecture [Accreditation](#): We are providing recommendations and review of the School of Architecture's reaccreditation process and reporting.
- [School of Architecture](#) Climate and Culture: The School of Architecture is launching an initiative to explore the climate and culture in its community. Data collection was put on hold due to COVID-19, yet these conversations have already produced meaningful avenues for identifying and building support for YSoA faculty, staff, and students.
- [School of the Environment non-degree certificate programs](#) (Center for Business and the Environment at Yale – CBEY; Environmental Leadership and Training Initiative – ELTI): We provide direction and review for assessment of CBEY and ELTI programs, including methodological design and item-level feedback.
- [School of the Environment](#) Graduation Survey: We are guiding the School of the Environment in redesigning their graduation survey to streamline the surveying method to be more student-centered and actionable.
- [School of Medicine Physician Assistant program](#): We are advising a team of researchers and faculty who are evaluating students' sense of collaboration and belonging within the PA program
- [Gruber Foundation Fellowship](#) assessment: We are providing guidance on the assessment of Gruber students' program experiences.
- [Institutional Review Board](#) advising: We provide support for IRB proposals to partners who may wish to publish data on their program.
- We also provide limited consultations or data collection expertise for various efforts, including working with the Committee for Teaching and Learning, providing feedback on FAS classroom assessment work, and evaluation of Math faculty workshops.
- To identify lessons learned during emergency remote instruction due to COVID-19, we helped launch and analyze data from faculty regarding experiences. These results produced recommendations for course design for Fall 2020.

Assessment Support for Externally Funded Programs

The EPA team partners with Yale faculty on grant funded projects, such as the following:

- [NSF Grant](#): Chemistry of Food and Cooking (PI Elsa Yan, Chemistry). We supported the development, launch, and analysis of data associated with an innovative Chemistry course using inclusive pedagogy for non-STEM majors. A manuscript about this project was accepted in August of 2020 into a special issue of the Journal of Chemical Education.
- [HHMI Summer Institutes on Scientific Teaching](#) (PI Jenny Frederick, Poorvu Center): The Educational Program Assessment team collaborates with the STEM Education team to conduct

and publish research on faculty adoption of evidence-based practices in higher education as part of a national faculty development initiative, the Summer Institutes on Scientific Teaching.

- [NSF Grant](#): Behavioral Ecology, Demography and Conservation of Primates in the Humid Chaco of Argentina (PI Eduardo Fernandez-Duque, Department of Anthropology). We provide feedback on evaluation goals and activities.
- [HHMI Inclusive Excellence](#) (PI Simon Mochrie, Physics): We collaborated on an evaluation plan and the proposal overall for this multi-department proposal, which was submitted in January. Review is delayed due to COVID-19.
- [BBS Partnership](#): Jennifer Claydon has a partial appointment in BBS, providing guidance for evaluation design of NIH T32 programs and the Interdepartmental Neuroscience Program NIH training grant.

Assessment for Poorvu Center Activities

The Poorvu Center is committed to internal assessment of our own work, and we regularly draw on staff expertise to develop assessments aligned with team objectives. We have developed a theory of change to inform our efforts to foster teaching and learning excellence at Yale. This overarching theory has guided strategic directions and deepened our focus on the ways that measurement and qualitative assessment can help us track our impact over time.

- **Poorvu impact**: A subset of Poorvu teams have engaged in a multi-year project to consider center impact and relate it to measurement for their programs.
- **Effective Canvas use**: Partnering with Poorvu's Canvas experts and STEM Education team, we coded eight semesters of data from students describing effective uses of Canvas in their Yale courses. This data will be used to provide recommendations for developing courses, particularly in remote education settings in Fall 2020.
- **GSAS Writing Survey**: We worked with the Director of the Graduate Writing Lab to design and launch a survey of students' writing experiences during COVID-19.
- **(Re)Design & (Re)Calibrate**: Pairing with the Faculty Teaching Initiatives team, EPA runs the assessment for some of the core initiatives, which is used to directly inform the subsequent year's offerings.
- **Undergraduate Tutoring Services**: Mentioned in Recurring Program Assessment.
- **General consulting**: EPA has worked with teams throughout the Center to advise various assessment designs and activities, such as course surveys, research project design, and initial review of program submissions (e.g., Rosenkrantz).

8. Service and Leadership

Poorvu Center staff members served on the following Yale committees in 2019-2020:

1. Academic Continuity Committee
2. Ad Hoc Educational Policy Committee
3. Advisory Committee on Community Policing
4. Advisory Committee on Library Policy
5. Beinecke Education Program Director Search Committee
6. Computer Science Lecturer Hiring Committee
7. DiversAbility Steering Committee
8. Executive Committee for the Biological and Biomedical Sciences
9. FAS Academic Policy Committee
10. FAS Language Study Committee
11. FAS Lecture Course Task Force
12. FAS Teaching Resource Allocation Committee (TRAC)
13. Future Leaders of Yale Steering Committee
14. Instructional Technologies Library Interest Group
15. Ivy Plus Directors of Educational Technology Group
16. NECHE Accreditation Core Committee, Yale College
17. Operational Reporting Steering Committee
18. President's Committee on Diversity, Inclusion, and Belonging (subcommittees on Assessment, Intersectionality)
19. Provost Advisory Committee on Accessibility Resources
20. Physician Assistant Online Advisory Committee
21. Standing Committee on Faculty Website Support in the Humanities
22. Summer Institutes Steering Committee (Subcommittee on Finance)
23. Sustainability Implementation Steering Committee (subcommittee on Inclusion & Justice)
24. Technology Accessibility Working Group (Office of the Provost)
25. University-Wide Committee on Sexual Misconduct
26. Yale Classroom Committee
27. Yale College Admissions Committees
28. Yale College Teaching and Learning Committee
29. Yale Information Technology Leadership Council
30. Yale Library Reference, Instruction, and Outreach (RIO) Committee
31. Yale University Librarian Search Committee
32. Yale-United Way Core Committee

Poorvu Center staff members gave the following presentations at conferences or by invitation to outside organizations:

- Best Practices: Mentoring in a Diverse Community for HHMI Hanna Gray Fellows
- Connecticut Center for Teaching: Pathways to Teaching Success
- Goldwater Scholar Podcast
- Gruber Scholars Reception
- HHMI BioInteractive's Educator Summer Conference
- Kixlab of Human-Computer Interaction of the KAIST School of Computing, Daejeon, South Korea
- Mentor Training Workshop for HHMI Hanna Gray Fellows
- Modern Language Association's Committee on the Status of Graduate Students in the Humanities
- Network of STEM Education Centers Annual Meeting
- NIH Training, Workforce Development, and Diversity Program Directors Annual Meeting
- Northeast Educational Research Association Annual Meeting
- Professional and Organizational Development Network Annual Conference Birds of a Feather Panel

- Professional and Organizational Development Network Annual Conference Presentation: “Creating new connections: Engaging tenured faculty at research institutions”
- Summer Institutes on Scientific Teaching Leaders Meetings (fall 2019, spring 2020)
- Summer Institutes on Scientific Teaching Weekly Happy Hour
- University of Bridgeport’s Faculty Development Day, Research-Based Tools for Student-Centered Pedagogy
- Yale Alumni Association Webinar
- Yale Ciencia Academy: "Scientific Teaching"
- YUAG Teaching Traumatic Themes: Art as an Entryway to Difficult Discussions Public Talk

Publications with Poorvu Center staff members as authors:

- Bathgate, M.E., Aragón, O.R., Cavanagh, A.J., Frederick, J., & Graham, M.J. (2019). Perceived supports: A key factor in faculty implementation of evidence-based teaching. *CBE—Life Sciences*.
- Bathgate, M.E., Aragón, O.R., Cavanagh, A.J., Waterhouse, J., Frederick, J., & Graham, M.J. (2019). Perceived Supports and Evidence-Based Teaching in College STEM. *International Journal of STEM Education* 6(11).
- Claydon, J.L., & Davenport, G. (Submitted 2020). Using Admissions Variables to Predict Graduate Student Outcomes in the Biological and Biomedical Sciences, *International Journal of STEM Education*.
- Davenport, G.A., Bathgate, M.E., Claydon, J.L., Chen L. (June 2020). *Instructors’ diverse and changing ideas about inclusive teaching*. Network of STEM Education Centers 2020 National Conference, Online-format during social distancing.
- Durham, M.F., Aragón, O.R., Bathgate, M.E., Bobrownicki, A., Cavanagh, A.J., Chen, X., Trochim, W.M., Waterhouse, J., Graham, M.J., & Couch, B.A. (In press). Benefits of a college STEM faculty development initiative: Instructors report increased and sustained implementation of research-based instructional strategies. *Journal of Microbiology and Biology Education*.
- Luoma, B., Bathgate, M.E., Frederick, J. et al. (in preparation). Leveraging Longitudinal Data to Enhance Program Impact: The Summer Institutes on Scientific Teaching.
- Perets, E.A, Chabeda, D., Gong, A.Z, Xin Huang, X., Fung, T.S., Ng, K.Y., Bathgate, M.E., & Elsa Yan, E.C.Y. (2020.) Data-driven analysis of the transition to emergency remote teaching in a non-STEM undergraduate chemistry lecture course in the time of COVID-19. *Journal of Chemical Education*.
- Reeves, P., Claydon, J.L., & Davenport, G. (Submitted 2020). Program evaluation practices and the training of PhD students in STEM fields, *Educational Research Review*.
- Yaden, D.B., Claydon, J., Bathgate, M.E., Platt, B., Santos, L.R. (Submitted 2020). Teaching well-being at scale: An intervention study.

Table 13: Poorvu Center Staff Employed Between July 1, 2019 and July 15, 2020

First Name	Last Name	Title	Note
Pilar	Abuin	Director, Educational Technology	
Mamta	Agarwal	Program Coordinator	Began Dec. '19
Jorge	Anaya	Woodbridge Fellow	
Matthew	Anderson	Financial Analyst	
Clare	Ankawi	Asst. Director, Educational Technology	
Ronice	Awudu	Business Operations & Administration Supervisor	
Timberley	Barber-Marini	Assc. Director, Educational Technology	
Meghan	Bathgate	Assc. Director, Educational Program Assessment	
Stacey	Bonet	Program Coordinator	Left Feb. '20
Jude	Breidenbach	Assc. Producer, Yale Broadcast Studio	
Julie	Byron	Senior Administrative Assistant	

Jennifer	Claydon	Asst. Director, BBS Training Program Assessment	
Dan	Cody	Producer, Yale Broadcast Studio	
Sarah	Cussler	Asst. Director, Undergrad Writing & Academic Strategies	Began Aug. '19
Glen	Davenport	STEM Education Evaluator	
Kristina	Dini	Asst. Director, Educational Technology	
Sara	Epperson	Director, Digital Education	
Melissa	Ference	Asst. Director, Digital Education	Left Oct. '19
Joseph	Florentino	Asst. Director, Technical Operations	
Doug	Forbush	Asst. Director, Yale Broadcast Studio	
Jennifer	Frederick	Executive Director	
Karin	Gosselink	Asst. Director, Undergrad Writing & Academic Strategies	
Alfred	Guy	Director, Undergrad Writing & Tutoring	
Victoria	Hallinan	Asst. Director, Faculty Teaching Initiatives	
John	Harford	Director, Educational Technology & Media	
David	Hirsch	Director, Academic IT Strategy	
Gina	Hurley	Asst. Director, Graduate & Postdoctoral Teaching Development	
Julia	Istomina	Asst. Director, Graduate & Postdoctoral Writing	
Elena	Kallestinova	Director, Graduate & Postdoctoral Writing	Left Aug. '20
Claire	Kerrigan	Program Coordinator	
Gabriella	Kirkley	STEM Program Manager	
Andy	Koss	Production Assistant	
Kim	Kuzina	Senior Administrative Assistant	
Rick	Leone	Director, Yale Broadcast Studio	
Elizabeth	Luoma	Asst. Director, Faculty Teaching Initiatives	Began Jan. '20
Ryan	McEvoy	Podcast and Video Producer, Yale Broadcast Studio	
Julie	McGurk	Director, Faculty Teaching Initiatives	Began Jun. '20
Michelle	Morgan	Digital Accessibility Specialist	
Jack	Neiswanger	Video Producer & Editor	
Meg	O'Brien	Director, Finance & Administration	
Patrick	O'Brien-Sevilla	Communications Officer	
Guy	Ortoleva	Video Producer & Editor	
Lynda	Paul	Asst. Director, Undergraduate Writing & Tutoring	
Brian	Pauze	Asst. Director, Educational Technology & Media	
Belinda	Platt	Asst. Director, Digital Education	
Kailas	Purushothaman	Director, Residential College Science & Math Tutoring	
Matt	Reynolds	Asst. Director, Digital Education	
Melissa	Scheve	Asst. Director, Faculty Teaching Initiatives	Began Jul. '19
Thom	Stylinski	Senior Creative Producer	
Lucas	Swineford	Executive Director, Digital Education	
Craig	Tomlin	Field Operations Manager, Yale Broadcast Studio	
Patricia	Trainor	Writing Specialist, Graduate Writing Lab	
Kyle	Vitale	Asst. Director, Faculty Teaching Initiatives	Left May '20
Jon	Waterhouse	Project Manager, Evaluation & Technology	
Ryan	Wepler	Asst. Director, Undergrad Writing	
Suzanne	Young	Director, Graduate & Postdoctoral Teaching Development	

9. A Look Ahead

As we conclude a year defined by remarkable success and unforeseen hardships, the Poorvu Center finds itself in a key position to support teaching and learning at Yale. We recognize that the year ahead will bring new opportunities and challenges. The 2020-2021 academic year will rely predominantly on remote teaching and learning for Yale College, with hybrid approaches planned for some professional schools. We will continue to contribute our expertise to promote effective, research-based pedagogical and technological approaches for instructors, and to adjust our student support formats to meet the needs of students near and far. The national climate poses additional challenge, with a renewed focus on racism and polarizing politics. This year demands that we amplify our efforts to serve the Yale community as a resource for equitable, inclusive, and antiracist pedagogy so that all students can thrive and feel that they belong at Yale.

The Poorvu Center remains committed to supporting instructors and students. We aim to foster teaching and learning excellence during these unprecedented times. With an eye to capturing long-term lessons, we will evaluate new approaches and collaborate with campus partners throughout the year and incorporate innovative practices. We intend to emphasize the connection between sound online pedagogies and excellent teaching in residential settings. We hope that revised practices that advance student learning will continue beyond the pandemic, with valuable lessons sustained for the benefit of current and future students.

In conclusion, the Poorvu Center will uphold its mission while assessing its programs and reflecting on the lessons we learned in 2019-2020. We will expend all efforts to create diverse, inclusive, and equitable environments in classrooms at Yale – online or in-person. As President Peter Salovey said, “Change begins within our own community.”