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2020-2021 Academic Year

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1. Overview of the Year

A global pandemic and ongoing uncertainty marked the 2020-2021 academic year, the seventh year of existence for the Poorvu Center for Teaching and Learning. Emergency remote learning began in March 2020, followed by intentionally designed remote courses for the fall and spring terms, although a limited number of classes and labs met in person. The campus community made significant adjustments as we weathered a most unusual year.

The Poorvu Center staff rose to the challenge during this crisis and became an even more indispensable resource, providing expertise and supporting Yale communities. We managed strong continuation of student learning and writing programs in virtual formats, improving access for some in ways we hope to sustain. We continued to consult with faculty about technical and pedagogical topics, meeting individually, in workshops, and in ongoing learning communities. We provided leadership for the campus through committee service and consultations with deans and other leaders. We advised on pedagogical questions such as academic integrity and remote proctoring. We contributed to campus-wide Diversity, Equity, Inclusion, and Belonging (DEIB) work by leading the Global Division’s DEIB unit plan development. We disseminated best practices for remote teaching and learning, based on Yale faculty models and research-based methods. We partnered with other offices to design new programs, to respond to recommendations from students with disabilities, and to support the teaching and learning community. And finally, we connected to national and global networks to exchange ideas and address common challenges.

Through the hard work of our staff and many others across campus, the heart of a Yale education prevailed. Instructors and their students created communities through Zoom, extended care for one another’s well-being, and adapted pedagogically in a host of creative ways. [Faculty survey data from fall 2020](#) indicated that pedagogical priorities shifted as instructors got more comfortable with the technical elements of teaching online. 85% of instructors said their experience of remote instruction was “good” to “excellent” (52% said “very good” to “excellent”). Instructors revised their assessments to prioritize formative, incremental approaches. They experimented with lesson plans that intentionally designed asynchronous and synchronous learning activities. Zoom features such as breakout rooms, chat, and polling facilitated student engagement, while instructors relied more heavily on Canvas to organize course materials and support remote collaboration. Class discussions were frequently enriched by experts from around the world who could join virtual classrooms. Perhaps most importantly, instructors deepened their awareness of individual circumstances and found ways to express holistic care for student well-being.

In a typical year, the Poorvu Center is an active central campus hub. Open workspace areas are adjacent to community touchdown zones and flexible rooms for classes and workshops. We’ve always viewed our space as a physical representation of our philosophy, the pillars of which include flexibility, community, transparency, and incubation of new ideas. Serving campus with most of the staff at home put our collaborative organization to the test; we passed and very likely set a new bar for ourselves.

An ongoing Poorvu Center initiative strengthened our ability to work collaboratively and effectively in any format. Since 2019, we have committed to a mission shift where we more assertively recommend excellent pedagogical practices that promote long-term learning. We conceived the “Common Ground Initiative” as a cross-cutting intellectual collaboration, to identify 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:** Aligning 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.

This work we did to understand and leverage expertise across the Poorvu Center teams provided a solid foundation for the all-hands collaboration required of us during the pandemic.

In addition to facing the challenges of supporting remote teaching and learning during the pandemic, the Poorvu Center engaged in calls for social and racial justice. Staff members exercised relevant disciplinary training, organized reading groups to educate ourselves, and participated in professional development on antiracist pedagogy. We developed new programs, often in partnership with faculty experts and campus partners, and integrated these topics into our training programs. Internally, we formed an Antiracism Taskforce. This group contributed to a climate survey for the staff and designed all-staff meetings to raise awareness of antiracism concerns and help build a shared vocabulary. The presence of the task force sent a signal that we are open to examining and improving our workplace culture.

What remote teaching practices proved effective, and should be sustained when we return to in-person classrooms? The Poorvu Center’s support for approaches listed below pre-dates the pandemic, but each theme took on new significance in the context of a global pandemic and this country’s reckoning with structural racism and identity-based violence.

1. **Emphasis on well-being:** Recognizing the importance of checking in with students, allowing for breaks, and integrating informal conversations.
2. **Small groups:** Designing group activities to enhance discussion and student-to-student interactions, and equalize opportunities for participation.
3. **Asynchronous approaches:** Providing elements of course content asynchronously, which increases discussion time in class and allows students to review at their own pace.
4. **Modified assessments:** Using formative and incremental assessment rather than higher-stake timed exams; using intermittent polling; using Canvas Quizzes and Gradescope tools for efficient grading.
5. **Accessible course materials:** Anticipating and addressing accessibility challenges during the course design process; building flexibility into courses as a way to embrace student diversity without altering learning objectives or class rigor; using technological tools (such as ALLY) that can alert instructors to accessibility obstacles and facilitate improvements to their course materials.
6. **Virtual office hours:** Providing opportunities for students to connect with instructors through office hours held on Zoom as well as in person.
7. **Lecture recordings for review:** Recording lectures can be a valuable review tool for students, as well as a way to increase accessibility of course content. The Poorvu Center can work with instructors to implement tactics to help ensure in-person attendance provides additional benefit over lecture recordings.

Recognition for the Poorvu Center’s efforts came in many forms. We received many positive comments from instructors who relied on our help to realize their teaching goals in a new format. Comments in the faculty survey praised the Poorvu Center for our central role in academic continuity. A few examples:

“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.”
“Support from CTL has been outstanding. Any issues have been addressed by them promptly and professionally.”

Members of our Broadcast Studio team received the Linda Lorimer Award for Distinguished Service for producing accessible, virtual ceremonies for both Commencement and Opening Assembly, ensuring the continuity of hundreds of years of Yale tradition, despite the challenges presented by the pandemic. In addition, Pilar Abuin, Director of the Educational Technology team, won the Yale Working Women’s Network Visionary Award. Beyond these examples of public recognition, the Poorvu Center staff supported one another collaboratively with grace and gratitude. Internally, we developed a mechanism to recognize essential efforts of those whose work was less visible.

In fall 2021, we returned to campus recharged and ready to consider teaching and learning in fresh ways. We are also better able to address the ongoing need for flexibility and patience as COVID-related challenges continue. Informed by the many lessons from the pandemic, we will support Yale as we return to new forms of residential education.
Our Impact On Campus and Beyond
2020-2021

1,577 Faculty Consultations
61 Faculty Workshops + Communities
4,905 Active Course Sites Supported on Canvas
46 Faculty Participants in Course (Re)Design
3,540 Faculty Canvas Inquiries

109 Graduate & Postdoc Teaching Consultations and Observations
2,375 Grad. & Prof. School Student/Postdoc Teaching Workshop Participants
6,086 Grad. & Prof. School Student Writing Program Visits
1,454 Graduate Student Peer-Review Group Attendances

10,001 Undergraduate Writing Tutoring Sessions
1865 Undergraduate Participants in Writing Programs
2,707 Undergraduate Academic Strategies Consultations
946 Undergraduate Participants in Academic Strategies Programs
more than 42,000 Undergraduate Science & QR Tutoring Sessions

214,288 Coursera Learners that Completed a Yale MOOC
1,110,000 Subscribers on Yale Courses YouTube Channel
56,700 Views on Yale YouTube Channel of Virtual Commencement 2020
219 Course Welcome Videos Captioned to Improve Accessibility
10,800,000 External Funding from Gifts and Pledge Payments since FY18

41 Yale University Committees with Poorvu Center representation
4 Publications with Poorvu Center Author(s)
18 Conferences and External Events with Poorvu Center Presenters
Table 1: Staff numbers in 2020-2021

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time professional staff (updated June 2021)</td>
<td>51</td>
</tr>
<tr>
<td>Residential College Writing Tutors</td>
<td>14</td>
</tr>
<tr>
<td>Graduate/Professional School Student Fellows &amp; Consultants</td>
<td>54</td>
</tr>
<tr>
<td>Undergraduate Writing Partners &amp; Tutors</td>
<td>360</td>
</tr>
<tr>
<td>Interns &amp; Student Workers (includes Pedagogical Partners)</td>
<td>17</td>
</tr>
<tr>
<td>Remote Proctors(^1)</td>
<td>57</td>
</tr>
<tr>
<td>Undergraduate Technology Assistants</td>
<td>256</td>
</tr>
</tbody>
</table>

We manage a general appropriations budget of $5.8 million and gift accounts totaling $6 million. Many of our collaborations provide funds directly to departments or schools to support teaching and learning initiatives in areas that include Computer Science, Math, School of the Environment, Nursing, Public Health, Yale College, the Graduate School, Divinity, and Law, as well as in various diversity and inclusion programs. Our funding distributions included the following:

- We distributed $5985 in Instructional Enhancement Grants to support experience-based class opportunities. This year most of the awards supported expert guests in remote courses.
- In collaboration with the program on Race, Indigeneity, and Transnational Migration (RITM), we managed the transfer of $2900 in Belonging at Yale grants to support faculty projects aimed at improving classroom climate or curricular diversity (Theater Studies and Nursing).
- We managed the transfer of $11,800 in Inclusive & Equitable Teaching Seminar (IETS) funds to faculty participants in a yearlong program designed to promote learning and reflection on inclusive and equitable teaching. Faculty from Comparative Literature, English, Epidemiology, Psychology, School of Drama, School of Management, School of Nursing, School of Public Health, Sociology & Statistics were each awarded $800 for completing the seminar.

Since Fiscal Year 2018, the Poorvu Center has received $10.8 million in gifts and pledge payments to support undergraduate writing and tutoring, online education initiatives, faculty teaching programs, science and quantitative reasoning course support, and general operations. The spendable portion of our gifts is $5.8 million; many of these gifts are endowed with specific restrictions.

Table 2: Gifts and pledge payments since Fiscal Year 2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY18</td>
<td>2.5</td>
</tr>
<tr>
<td>FY19</td>
<td>1.2</td>
</tr>
<tr>
<td>FY20</td>
<td>3.7</td>
</tr>
<tr>
<td>FY21</td>
<td>3.4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10.8</td>
</tr>
</tbody>
</table>

This year’s programs and services largely took place online through Zoom meetings, while our 24,000-square-foot facility in Sterling Memorial Library remained closed throughout the pandemic. However, members of our Broadcast Studio team maintained a physical presence in their production facility during the year to distribute critical messages from Yale faculty and leaders. We look forward to returning to campus and welcoming faculty and students in fall 2021.

\(^1\) Remote proctors and Undergraduate Technology Assistants (UTAs) were new part-time student roles created to support remote instruction. As campus returns to in-person teaching, we expect these roles to diminish or disappear.
3. Programs for Faculty

The global pandemic presented challenges and opportunities for faculty programs during 2020-2021. The Poorvu Center’s three teams that tackle faculty programs include the Faculty Teaching Initiatives team, the Educational Technology team, and the Accessibility team.

**Faculty Teaching Initiatives Team**

With Yale courses conducted in remote, hyflex\(^2\), or face-to-face formats, the Faculty Teaching Initiatives (FTI) team emphasized evidence-based pedagogical practice through instructor reflection on their specific context and student experiences. The team often worked in collaboration with others in the Poorvu Center, adapting existing programs or creating new ones to proactively and responsively support teaching in this context.

The FTI team recorded 528 unique instructor engagements via consultations, observations, workshops, events, learning communities, and instructional grant awards. Of these instructors, we served 200 ladder faculty (38%), 266 instructional faculty (50%), and 102 instructors in other categories (19%; e.g., postdoctoral fellows, staff with teaching assignments, or library staff). Overall, there were 953 total engagements with FTI offerings (including consultations, programs, events and grant awards) – an increase of approximately 300 engagements from last academic year. Three-hundred-sixty-seven of these engagements were with ladder faculty (39%, nearly doubled from last year’s estimated fraction).

Table 3 shows a breakdown of faculty participation by school. The total number of engagements (953) does not accurately represent engagements that entailed more than a single event or meeting; for example, learning communities met six times each semester and consultations often included multiple follow-up sessions. The overall number of engagements provides a general sense of reach, but masks nuances of depth and impact.

*Table 3: FTI unique engagements (including consultations, programs, events, and grant awards) with instructors by Yale school, 2020-2021*

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Engagements</th>
<th>Unique Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty of Arts &amp; Sciences</td>
<td>529</td>
<td>272</td>
</tr>
<tr>
<td>Medicine</td>
<td>73</td>
<td>49</td>
</tr>
<tr>
<td>Public Health</td>
<td>41</td>
<td>18</td>
</tr>
<tr>
<td>Drama</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Engineering</td>
<td>31</td>
<td>18</td>
</tr>
<tr>
<td>Environment</td>
<td>31</td>
<td>16</td>
</tr>
<tr>
<td>Nursing</td>
<td>31</td>
<td>16</td>
</tr>
<tr>
<td>Management</td>
<td>22</td>
<td>17</td>
</tr>
<tr>
<td>Divinity</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>Law</td>
<td>21</td>
<td>15</td>
</tr>
<tr>
<td>Music</td>
<td>25</td>
<td>14</td>
</tr>
<tr>
<td>Jackson Institute</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Yale-NUS</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Art</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

\(^2\) Hyflex indicates classes where the instructor simultaneously teaches remote and in-person students.
The FTI team provided 210 unique instructional consultations during the 2020-2021 academic year as instructors transitioned from emergency remote teaching to a full year of planned remote instruction. These consultations included individual conversations, debrief meetings after mid-semester feedback data collection, and pre- and post-meetings for classroom observations. Consultations often began with technology-related questions and then delved into pedagogical concerns such as fostering a learning community online, supporting student well-being through the pandemic while maintaining rigor, and effectively engaging students in synchronous and asynchronous learning. At least 17% of the consultations resulted in multiple follow-up conversations that created an ongoing dialogue between instructors and the FTI team.

In addition to the 210 consultations, there were 807 total engagements with Yale instructors at FTI-hosted programs and events (including 59 engagements with graduate student instructors). These programs include annual offerings such as New Faculty Orientation, Course (Re)Design Institute, and the Teaching and Learning Discussion series (a virtual version of our “Teaching and Learning Lunch” series). Many of our programs were created responsively to meet current needs. Notably, a growing fraction of our programs directly address elements of inclusive pedagogy, such as antiracist approaches and facilitating difficult classroom conversations. In 2020-21, the number of programs and the number of engagements with our programming nearly doubled from last year. This increase reflects the capacity of a fully staffed team as well as our responsive approach during an uncertain academic year.

Table 4: Attendance at FTI programs and events in 2020-2021

<table>
<thead>
<tr>
<th>Series, as applicable</th>
<th>Semester</th>
<th>Number &amp; Frequency of Events</th>
<th>Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Continuity Workshop*</td>
<td>Fall 2020 &amp; Spring 2021</td>
<td>6 individual events - 3 per semester</td>
<td>92</td>
</tr>
<tr>
<td>Course (Re)Calibrate</td>
<td>Fall 2020 &amp; Spring 2021</td>
<td>2 individual events - 1 per semester</td>
<td>12</td>
</tr>
<tr>
<td>Course (Re)Design</td>
<td>Spring 2021</td>
<td>Weeklong institute with 4 core events and 9 elective events</td>
<td>46</td>
</tr>
<tr>
<td>Faculty in Conversation: Antiracist Pedagogy*</td>
<td>Spring 2021</td>
<td>3 individual events</td>
<td>68</td>
</tr>
<tr>
<td>Faculty Teaching Academy</td>
<td>Spring 2021</td>
<td>Program completion and portfolio submission by instructor</td>
<td>8</td>
</tr>
<tr>
<td>Inclusive &amp; Equitable Teaching Seminar*</td>
<td>Fall 2020 &amp; Spring 2021</td>
<td>9 monthly events (year-long continuous cohort)</td>
<td>13</td>
</tr>
<tr>
<td>Learning Community: Science &amp; Labs</td>
<td>Fall 2020 &amp; Spring 2021</td>
<td>6 events (semester-long continuous cohort)</td>
<td>16</td>
</tr>
<tr>
<td>Learning Community: Remote Large Lecture*</td>
<td>Fall 2020 &amp; Spring 2021</td>
<td>6 events (semester-long continuous cohort)</td>
<td>14</td>
</tr>
<tr>
<td>Learning Community: Remote Teaching*</td>
<td>Fall 2020 &amp; Spring 2021</td>
<td>6 events (semester-long continuous cohort)</td>
<td>23</td>
</tr>
<tr>
<td>New Faculty Orientation</td>
<td>Fall 2020</td>
<td>1 event offered twice</td>
<td>30</td>
</tr>
<tr>
<td>Pedagogical Partners</td>
<td>Fall 2020 &amp; Spring 2021</td>
<td>Weekly meetings per semester between faculty and student pedagogical partner</td>
<td>17</td>
</tr>
</tbody>
</table>
The FTI team experimented with several new programs. To promote antiracist pedagogy, we launched a Faculty in Conversation Series, in which pairs of faculty described their practices and discussed questions and ideas with participants. This series drew 68 attendees across three sessions. The Inclusive and Equitable Teaching Seminar met monthly during the academic year. Thirteen faculty across Yale schools discussed readings and topics related to diversity, equity, inclusion, and belonging (DEIB) in teaching and mentoring.

In response to remote teaching challenges, the FTI team collaborated with other Poorvu Center teams to offer the Academic Continuity Workshop Series for 92 attendees. Topics such as “Synchronous and Asynchronous Group Work” and “Using Breakout Rooms Effectively” framed demonstrations and discussion of pedagogy, evidence-based practices, and teaching tools for remote and hyflex scenarios. To support instructors considering contextual influences of a contentious presidential election, incidents of racial violence and corresponding media coverage and trials, we facilitated faculty discussions to help integrate considerations of these events in their teaching.

The FTI team also worked with departments to offer workshops that support their specific disciplines and teaching context. These workshops included a belonging workshop with the Theater Studies Department, an accessibility workshop with the Education Studies Department, and an inclusive teaching workshop with the Math Department. In a collaboration with the Educational Technology and Media team, we also developed a Zoom security workshop for the Advisory Committee on Student Life.
We were invited to provide curricular support for specific courses or departments. For example, the team worked with the HUMS 411 “Life Worth Living” course as it expands beyond Yale through instructor orientations and workshops. We also worked with the Psychology Department as it considers antiracist approaches to its teaching and curriculum, and the School of Public Health with an initial conversation about its new online master’s program.

In addition to programming and consultations, the FTI team administers several instructional grant programs, including:

- The Instructional Enhancement Fund (IEF) provided awards of up to $500 to instructors to support pedagogical opportunities and experiments.
- The Rosenkranz Awards provided up to $10,000 support for significant teaching interventions that enhance student learning (on hold for 2020-2021).
- The Belonging at Yale grants awarded up to $2000, through a new Poorvu Center collaboration with the Center for the Study of Race, Indigeneity, and Transnational Migration (RITM) 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.

In 2020-2021, 19 Yale instructors received an IEF award, totaling $5185. Two Belonging at Yale grants were awarded, one of which supported pedagogical change through facilitated conversations about antiracism and curriculum in the Theater Studies program. As we consider how teaching efforts are valued at Yale, we experimented with offering faculty stipends or book purchases for participation in select programming.

**Educational Technology Team**

The Educational Technology team works alongside and often directly with the Faculty Teaching Initiatives team to 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, a role that was even more critical as Canvas reliance increased during remote teaching.

The overall number of Canvas course sites increased by 223 in 2020-2021 compared to last year, despite lower overall student enrollments due to pandemic-related leaves and deferrals. We saw dramatic increases in the use of specific Canvas components. For example, files uploaded increased by 13% compared to 2019-2020, assignments created rose by 32% over the same period, and media recordings jumped by 46% this year (see Table 4; percentages cited above exclude summer terms). In 2020-2021, we directly supported 962 unique individuals (up 53% compared to 2019-2020) through 3540 inquiries (up 67% compared to last year). We increased the size of this team to keep pace with increasing demand for their expertise.

The following table tracks the usage and changes in Canvas usage since Fall 2018.
### Table 5. Canvas Usage update

<table>
<thead>
<tr>
<th>Term</th>
<th>Courses</th>
<th>Teachers</th>
<th>Students</th>
<th>Assignments</th>
<th>Files Uploaded</th>
<th>Media Recordings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer 2021*</td>
<td>178</td>
<td>216</td>
<td>2,558</td>
<td>2,051</td>
<td>13,120</td>
<td>86</td>
</tr>
<tr>
<td>Spring 2021</td>
<td>2,518</td>
<td>2,315</td>
<td>11,640</td>
<td>20,901</td>
<td>122,423</td>
<td>3,639</td>
</tr>
<tr>
<td>Fall 2020</td>
<td>2,387</td>
<td>2,213</td>
<td>11,625</td>
<td>23,301</td>
<td>131,722</td>
<td>13,330</td>
</tr>
<tr>
<td>Summer 2020</td>
<td>207</td>
<td>365</td>
<td>5,247</td>
<td>2,316</td>
<td>12,740</td>
<td>283</td>
</tr>
<tr>
<td>Spring 2020</td>
<td>2349</td>
<td>2,169</td>
<td>12,506</td>
<td>16,737</td>
<td>115,967</td>
<td>5,175</td>
</tr>
<tr>
<td>Fall 2019</td>
<td>2,333</td>
<td>1,995</td>
<td>12,345</td>
<td>16,764</td>
<td>108,507</td>
<td>6,447</td>
</tr>
<tr>
<td>Summer 2019</td>
<td>212</td>
<td>299</td>
<td>2,453</td>
<td>2,257</td>
<td>10,454</td>
<td>268</td>
</tr>
<tr>
<td>Spring 2019</td>
<td>2,237</td>
<td>2,033</td>
<td>12,458</td>
<td>14,439</td>
<td>100,581</td>
<td>2,819</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>2,257</td>
<td>1,915</td>
<td>12,561</td>
<td>16,042</td>
<td>103,787</td>
<td>3,789</td>
</tr>
</tbody>
</table>

*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). Media Recordings include media uploaded into Canvas directly, not through Media Library (Panopto).*

In addition to the native Canvas functionalities reported above, we have a growing list of external applications integrated into the platform to expand its capabilities. Analytics associated with these applications track usage in various ways, confounding straightforward comparison. The Canvas team monitors usage over time to ensure that supported applications comply with relevant policies and provide valuable functionality. For example, use of the Perusall annotation tool declined when Hypothesis was introduced with expanded functionality and improved integration with the Canvas gradebook. Tools with the most significant increases in 2020-2021 were Gradescope, a tool that improves grading efficiency and validity, and Turnitin, a text comparison software that provides originality reports for written documents. Gradescope was used in 93 courses this year, up 48% from 63 courses last year. Over the same period, Turnitin usage increased by 120%, from 149 last year to 329 courses in 2020-2021.

We also saw major increases in the use of Canvas for project sites associated with Yale programs and initiatives. These sites included support for First-year Scholars at Yale (FSY) and other incoming class orientations, return-to-campus compliance, and new placement exam sites for Chemistry and Language courses. Yale Young Global Scholars also continued their use of Canvas following a successful pilot, now enrolling over 1,500 students from all over the world. Many professional school programs also rely on Canvas sites, such as the Global Health Leadership Initiative (GHLI) at the Yale School of Public Health, the Environmental Leadership & Training Initiative at the Yale School of the Environment, and the Summer Bioethics Institute at the Yale Interdisciplinary Center for Bioethics.

While remote teaching increased reliance on Canvas during the pandemic, increased usage has been trending up for the past several years. Each year, this team administers a student survey through Canvas to collect voluntary, confidential input about well-designed courses. We found significant overlap...
between courses recognized by students as well-designed and instructor participation in Poorvu Center support programs. Most notably, 50% of the instructors served by our high-touch support in 2020 taught courses that students identified as well-designed. We also ask faculty if Canvas is meeting their needs, and 86% of instructors responded affirmatively (chose “yes” for a yes/no question). The fraction of respondents with positive answers is up 4% from last year’s already healthy percentage of 82%.

As expected, faculty use of media-related educational technology skyrocketed during a year of predominantly remote teaching. We logged over 300 consultations in response to over 800 inquiries, and led 21 workshops on tools including PollEverywhere, Panopto, and Zoom. In addition, the Educational Technology and Media team handled over 150 support requests for staff computers and often provide expert advice to colleagues across the Poorvu Center and in other offices. Our on-campus studio spaces were not in use during 2020-21.

**Figure 1: Yale University Zoom meetings from July 31, 2020 – June 30, 2021, including classes and non-instructional meetings**

![Zoom Meetings Chart](image)

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. Our data on Zoom and Panopto usage for 2020-2021 reflect striking increases that exceed the abrupt usage jumps we observed in March 2020 when Yale implemented emergency remote instruction. Peak Panopto usage more than doubled from the last half of spring 2020 to the comparable time period in spring 2021.

**Figure 2: Yale University Panopto views and downloads in 2020-2021**

![Panopto Views and Downloads Chart](image)

**Accessibility Team**

The Poorvu Center also works with faculty to improve the accessibility of learning materials and activities. Historically, accessibility had been a technological or student support matter at Yale and many other universities. By incorporating accessibility resources within the Poorvu Center, we elevated accessibility as a standard consideration for effective and inclusive teaching. We hope to encourage
expanded thinking, beyond individual accommodations as special cases, to course design practices that benefit many learners.

In 2020-2021, the Accessibility Team helped educate and equip all members of the Poorvu Center to incorporate accessibility as a core component of inclusive teaching. They also engaged student workers to extend capacity to provide document remediation services to faculty, and continued education and outreach efforts across campus. Counter to our expectations for low engagement due to challenges of remote teaching, significantly more instructors engaged with us to improve course accessibility in 2020-2021.

The following consultation and workshop metrics provide an overview of this team’s accessibility achievements for 2020-2021:

- Consultations with over 65 instructors from 30 FAS departments on accessibility inquiries (more than double the number of consultations recorded last year), and 40 professional school instructors or staff members.
- Consultations with 14 graduate students and at least 6 undergraduates.
- Integration of accessibility topics into core Poorvu Center programming, such as Guided Support workshops in summer 2020 and Course (Re)Design Institute sessions in spring 2021.
- Total workshop attendance of approximately 118 instructors, a significant increase from last year.
- Increased participation by professional school instructors.
- Support for students interested in learning about accessible communications and adaptive technologies.

The Accessibility Team offered comprehensive remediation services for many Yale courses in 2020-21. The goal of this service is to improve accessibility of digital course materials (including Word and PDF documents, PPT presentations, Canvas course sites, and associated video). In summer 2020, this team collaborated with Poorvu Center colleagues as part of tactical teams supporting high-enrollment courses as they prepared for remote instruction. Twelve such courses received remediation support, along with 23 additional courses. In addition to proactive remediation approaches, this service also improved materials for several dozen courses with enrolled students who registered a documented disability with Student Accessibility Services. To introduce students to Yale College courses without in-person shopping and on a new pre-registration timeline, instructors created short welcome videos to provide students a concrete sense of the instructor’s approach to the class. This team worked closely with other Poorvu Center units to establish a process for captioning these welcome videos. We captioned approximately 108 videos in fall 2020 and 111 in videos spring 2021 as part of this effort.

This team partnered with university administrators and groups across campus on four initiatives to advance accessibility at Yale:

1. **Integration of live transcription with Zoom:** We worked closely with ITS partners to test, integrate, and train instructors on a new live transcription service for Zoom meetings. This functionality allows students who are deaf or hard of hearing, as well as many others who learn best by reading text rather than listening, to participate in live remote class sessions without always relying on a dedicated human live transcriber.

2. **Response to DEFY recommendations:** In fall 2020, Yale College’s student affinity group Disability Empowerment for Yale (DEFY) submitted a list of recommendations to Dean Marvin Chun and Elizabeth Conklin, Associate Vice President for Institutional Equity, Access, and Belonging. The Poorvu Center was asked to contribute to a response, since many requests
pertained to teaching and learning needs. This team developed specific responses that Executive Director Frederick discussed in a follow-up meeting with the students. These responses will help guide the Poorvu Center’s continuing commitment to accessible education at Yale.

3. **Recommendations to the Provost Advisory Committee on Accessible Resources:** This team chaired the Education, Awareness, and Publicity subcommittee of the Provost Advisory Committee on Accessible Resources. The subcommittee summarized concerns of the disability community at Yale and worked with colleagues from the Office of Institutional Equity, Access, and Belonging to develop recommendations for university-wide educational initiatives. The report and recommendations were shared with leaders of the Advisory Committee and will be discussed in summer 2021.

4. **Professional development opportunity for FAS instructors:** For several years, our course remediation service has relied on faculty volunteers. As a result, many high-enrollment courses do not have fully accessible materials. In spring 2021, the Poorvu Center worked with colleagues in the FAS and Yale College to incentivize course remediation and present such efforts as a valuable professional development opportunity. Faculty participants will identify at least two courses which the Accessibility team will review and remediate for improvements in accessibility (together with student workers). They are expected to attend an accessible pedagogy workshop and upload improved materials to Canvas, and each participant will receive professional development or research funds to recognize their work.

Many have observed publicly that a silver lining of remote learning during the pandemic was an increased focus on inclusivity and accessibility. The Poorvu Center’s efforts to support remote learning have been deeply informed by a commitment to inclusive teaching practices in general and intentional introduction of accessibility more specifically into our programming at large. By embedding accessibility guidance into core Poorvu Center offerings, we have made a significant impact on raising campus awareness and knowledge regarding accessible education. Since time and technical skills to remediate documents pose obstacles even to instructors with the best intentions, the Poorvu Center has shifted to training student workers to do much of the technical process. By pairing this support with integrated educational opportunities across Poorvu Center programming, instructors will be equipped to design and teach courses that are accessible to all students.
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.

The 2020-2021 school year matured and deepened our skills in online teaching, while bringing a challenging new dimension of work through antiracism research and training. We built on remote teaching skills developed in the intense first months of the pandemic to expand our reach in online teaching and share teaching-adjacent online skills, including moving pedagogy workshop and conferences online. Our team of McDougal Fellows showed resilience as they took up the challenge of running workshops and observing classes online. We also saw an expansion of our expertise through calls for antiracism training, particularly in teaching, and through working with departments on faculty- and student-led initiatives to create more inclusive cultures. As part of that greater care for department culture, programs are increasingly turning to us for mentor training. All teaching development programs were offered virtually, largely in synchronous Zoom meetings. We saw strong participation in all of our programs, evidence that graduate students and postdoctoral scholars continued to attend to teaching development despite significant pandemic disruptions.

**Graduate and Postdoctoral Teaching and Development Team**

Training for graduate student instructors begins with the Teaching at Yale Day program, required for GSAS students prior to their first teaching assignment. The fall 2020 program, which combined synchronous and asynchronous elements, served 480 participants, compared to 350 in 2019-2020 (see Figure 3). The increase reflects participation by returning Teaching Fellows eager to learn how to teach online. We offered our 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 87 workshops for graduate students and postdocs. We recorded 1,334 participants in the 2020-2021 workshops (363 unique participants). We offered 66 consultations and 43 peer teaching observations this year. We awarded 38 Certificates of College Teaching Preparation (32 graduate students, 6 postdocs) in 2020-2021.
Alongside significant learning and professional development to increase skills in online teaching, this team developed an ever-growing set of guides for running workshops and doing observations online. In particular, the presence of a visually impaired graduate student prompted fresh attention to Universal Design for Learning principles and a specialized guide for Fellows. A newly designed course, The Theory and Practice of Online Teaching, was offered twice to a total of over 150 participants. The course format addressed why and how to engage students online, while providing opportunities to apply this knowledge through extensive structured activities. As universities nationwide responded to racial violence with new or augmented emphasis on antiracism, this team integrated antiracism principles in training and programming in several ways. They curated research resources and shared them internally and externally, and led an antiracism reading group for graduate students. In response to requests from departments and schools, they also designed and led new workshops, including antiracism learning communities and sessions on antiracism syllabus design.

In addition to standard programming on effective mentoring in the lab, this team responded to a marked increase in requests for mentoring workshops for graduate students and postdocs in particular departments. As part of broader DEIB initiatives, departments and programs recognize that mentoring can help new members to belong and thrive in new settings. Increases were also related to preparation for summer undergraduate research students. In addition to training 72 participants in our peer mentoring workshop, 190 graduate students and postdocs participated in customized departmental workshops on mentoring.

We continue to be active in 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. Typically, the online format benefits postdocs pursuing the CCTP, maximizing flexibility and limiting time away from their research labs. This year, we restarted the Teaching as Research (TAR) program with a project for the Biology 101 sequence. A graduate student is partnering with one of the lead instructors to explore new ways to mark progress in the course beyond the traditional grading system. We are revising the website to promote CIRTL more visibly and looking at ways it can help us to fill gaps in our programming, notably summer offerings. Professor Paula Kavathas continued her role as Institutional
Leader for Yale. She co-taught a summer CIRTL course on online teaching in summer 2020, drawing on ideas from our “Theory and Practice of Online Teaching” short course. Our team either helped organize or attended both fall and spring CIRTL meetings, continuing to contribute to this national community.

Our work often extended beyond the standard target audience of graduate and professional students and postdoctoral scholars. As the academic year approached in summer 2020, the professional staff made significant contributions to our all-hands initiatives to prepare faculty for a fully remote semester. We collaborated with colleagues across the Poorvu Center to help lead our campus-wide faculty workshops, consulted with individual faculty, and served on a tactical team supporting high-enrollment courses. In addition, we worked with the Faculty Teaching Initiatives team to facilitate the Large Lecture faculty learning community and the spring 2021 Course (Re)Design Institute. Recognizing that working with faculty on their teaching often directly impacts graduate student teaching fellows, there are many benefits of regularly partnering with FTI. During the year, we provided expertise by coaching others in online teaching and workshop leading, and consulting on a few cases of departments moving a conference online. The annual Spring Teaching Forum was a fitting conclusion to the year, bringing together 73 people from 68 unique departments to reflect on successes and challenges, and to look ahead to how lessons learned might be applied in the face-to-face classroom.

Graduate Writing Lab Team

The Graduate Writing Lab (GWL) supports GSAS and professional school students in all aspects of writing and communication. This support is offered through five types of programming: individual writing consultations, workshops and panels, peer review groups, writing retreats and study halls, and public communications programs. While the GWL’s three full-time staff members lead some programming, most programs are administered by Yale graduate students serving on a team of 34 Graduate Writing Lab Fellows.

Despite shifts in leadership throughout the year as our director departed and a new one was appointed, the GWL maintained a steady focus on meeting Yale graduate students’ changing needs during remote learning. To this end, we expanded community-oriented programming like peer review groups and writing retreats to address isolation. Most other programming was adapted to the online format and was offered (and utilized) in a similar volume as previous semesters. While the number of unique users fell slightly across most programs, this year’s GWL users participated at a higher rate on average than users in previous years. The addition of two Alumni Fellows allowed us to expand professional development programming by adding a new workshop series for humanities and social science students. Predictably, programs tied most closely to the Poorvu Center space—the PitchVantage studio and writing study halls—were most heavily affected by remote learning.

Usage of GWL consultations remained steady in AY2020-21. There was a 0.8% increase in total consultations (2781 to 2803) and a nearly identical drop in unique users (686 to 680). The drop in unique users was due to changes in the way GWL consultations are reported. According to the report, consultations can be reserved for 30, 60, or 90 minutes (with permission). Because they are reserved in half-hour time blocks, the previous director reported each half-hour as an individual consultation (e.g. a 60-minute appointment was reported as two consultations; a 90-minute appointment as three). The new director has chosen to count each appointment—whether 30, 60, or 90 minutes—as one consultation. Total time of GWL consultations tracks closely with the number of appointments, as users attended 2077.5 total hours of consultations in AY 2020-21.
users is likely attributable to a drop in enrollment due to leaves of absence and restrictions on visiting students during the pandemic.

Figure 4: GWL Individual Consultations, Total and Unique Users, 2018-2021

The most notable changes were shifts in the graduate student populations who attended individual consultations. While GSAS students continued as the highest volume users of, they booked 16% fewer individual consultations in AY 2020-21 (1573 to 1329), while professional school students attended 22% more consultations than they did the previous academic year (997 to 1217). When considering unique users, there was only a 6% decline in unique GSAS students who attended individual consultations and a 2% increase in unique users from professional schools. This analysis suggests increased individual consultations booked per professional school student. Postdoc usage remained relatively low, although unique postdocs who attended individual consultation increased 36% (from 28 to 38). Consultations booked by faculty and staff jumped 62% (from 74 to 120), with only a small increase in unique users (from 17 to 20).
Among professional schools, users from the Divinity School and the Law School—the two professional schools supported by the GWL’s writing specialist—comprised the highest number total appointments (243 and 123, respectively) and unique users (63 and 41, respectively).
The GWL offered 119 workshops and panels in AY 2020-21, including nine that fulfilled special requests by departments and programs. Each event was adapted for the online format, with the goal of keeping these sessions as engaging and interactive as they are in their in-person format. Programs requesting workshops for their students included: the School of Public Health; School of Nursing; School of Art; Medical School; mathematics department; the Postdoctoral Association; the Dissertation Writing-in-Residence Program; and the Center for the Study of Race, Indigeneity, and Transnational Migration.

Though overall workshop attendance decreased slightly (-2%), usage increased among the GWL’s target populations: GSAS students (+6%) and professional school students (+8%). These increases may reflect the increased ease of accessing online programming. Decreased usage among other groups of users—visiting students, most notably—accounts for the small decline in overall usage.

Figure 7: GWL Workshops & Panels, 2016-2021

Unlike most other GWL services, attendance at GWL workshops and panels is not restricted to graduate students (and others granted permission by the director). As a result, non-graduate students—postdocs, most notably—comprise a higher percentage of overall attendees (17%).

Figure 8: GWL Event Attendance by Role, 2020-2021
As with individual consultations, students from the Divinity and Law Schools supported by our GWL Writing Specialist attended the highest number of workshops among users from professional schools (114 and 124, respectively). The highest users from the remaining schools—Environment (62), Public Health (59), Management (53)—attended about half as many workshop attendees as Divinity and Law, which have GWL workshop series designed specifically for their students.

**Figure 9: GWL Workshop and Panel Attendance, Professional School Student, 2020-2021**

During remote learning, the GWL sought to maintain supportive writing communities by creating additional peer review groups. Facilitated by a GWL fellow, these small groups of 4–6 writers meet regularly throughout the term to share their writing with one another and exchange feedback. The Center for the Study of Race, Indigeneity, and Transnational Migration (RITM) sponsored a GWL fellow and allowed us to offer two fall and three spring peer review groups exclusively for students affiliated with their interdisciplinary program.

During 2020–21, 136 unique students participated in one or more of the GWL’s 39 semester-long peer review groups, attending a total of 1454 peer review group meetings. This represents a 61% increase from the previous year (and a 31% increase in unique users).
The GWL’s writing retreats and study halls have traditionally been opportunities for graduate students to reduce distraction by writing in the company of others. Though remote learning eliminated some of the most attractive features of these events—quiet, distraction-free space, food—the GWL continued offering retreats and study halls on Zoom to support students seeking the structure and community of prescheduled writing groups. Rebranded “Online Writing Together” sessions, the GWL offered multiday retreats throughout the year. The convenience of online programming led to a slight expansion in the number of 3-hour study halls scheduled during the fall and spring terms.

In 2020-21 students participated in a total of 1050 3-hour Online Writing Together sessions (3150 hours of writing time). This was a 21% drop in participation from the mostly in-person writing groups offered in 2019-20. However, this year’s participants attended more online sessions on average than attendees of last year’s in-person sessions, in which enrollment was limited by space constraints.

The biggest decline was seen in usage by professional school students (-51%), while GSAS participation declined about half as much (-23%). The online format increased capacity. As a result, participation by postdocs rose from 16 sessions to 104 (+550%).
The GWL offers two programs that support graduate students with public communication: the PitchVantage Studio and the Poorvu Center Public Communications Certificate. Remote learning made the physical PitchVantage studio inaccessible for users. However, the GWL acquired a limited number of software licenses that we distributed to twenty students (17 GSAS PhD, 1 professional school, 1 visiting scholar, 1 postdoc), most of whom participated in the Poorvu Center Public Communication Certificate program. For comparison, ~55 unique students booked appointments in the PitchVantage studio space during each of the previous two years.

Following a successful pilot in 2019-20, the Poorvu Center Public Communication Certificate was offered as a full-fledged program this academic year. The Certificate is a professional development program for GSAS PhD students participating in the Office of Career Strategy’s “3-Minute Thesis” (3MT) competition. In 2020-2021, 17 participants completed the Certificate, an 89% increase from pilot year (9 to 17). While the 3MT competition is restricted to GSAS PhD students, we allowed an MPH student and a visiting scholar to participate in the competition as a valuable learning opportunity. We also allowed two 3MT participants from previous terms to complete the certificate requirements this year. Five of the six 3MT awards went to participants who completed the Poorvu Center Public Communication Certificate.
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. The Undergraduate Writing and Tutoring team is connected to many other offices and groups, especially in Yale College, through program collaborations and committee service. The following selection of data presents an in-depth look at the reach of our virtual undergraduate writing and tutoring programs during 2020-2021.

A strong theme running through this year’s programs is increased access. In the Academic Strategies Program (ASP), the increases are visible in much higher student participation as well as expansion of services to new audiences. In writing tutoring, increased access was a factor in several successful innovations to tutoring format. In STEM tutoring, we gathered more feedback and prompted reflection from the tutors themselves, largely to ensure that they felt supported through the continued use of online tutoring formats (which they did).

A second theme is a deeper commitment to DEIB work this year, efforts that will increase in 2021-22. All three sub-teams increased training and education for student staff-members. ASP also offered new direct programming for students, and began a substantial new initiative for students with learning differences—broadening the usual DEIB approach to another axis. The writing team has revised tutor recruitment to attract a more diverse pool, one step in an ongoing project to make our programming more welcoming.

The undergraduate tutoring team continues to increase the number of Yale students served each year. Over 42,000 total appointments were held, a staggering increase recorded during a year where most courses were fully remote. Last year, our total number of appointments was 17,777. Unique students served by the Academic Strategies program nearly doubled, while writing support held steady when compared to last year. At the time of completion for this report, we did not analyze unique student records for STEM tutoring programs for 2020-2021. We estimate that all programs (ASP, STEM, Writing) together served well over half of the Yale College student population.

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 means that our STEM learning support records are missing ULA use, and the comprehensive total may be much greater.

Academic Strategies Program Team

A signal innovation this year was increased programming to support course registration. In the fall, especially, first-years flocked to new workshops on course selection and pathways, setting the tone for higher visibility and attendance throughout the academic year. This programming met an urgent need for better advising as Yale College simultaneously (a) radically revised its course selection period, and (b)

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4 Due to the volume of student appointments in the STEM tutoring services, we will not conduct a full analysis for this report. We will separately report on some targeted analyses that help us understand who is being served by our programs.
required fall deadlines that arrived before first-years were even informed of their advisors’ names. These programs will continue next year. Among many highlights, we also:

- Increased participation in virtual workshops and 1-1 meetings, up 100% from last year.
- Expanded FGLI Peer Mentorship Groups (in partnership with FGLI Community Initiative/Yale College Dean’s Office), doubling the number of students participating in first-year groups (from 60 to 120), creating new sophomore groups with 70 participants, and adding programming, including social events and a workshop on imposter stress.
- Increased academic support for students with disabilities, both through individual consultations with the Learning Specialist and a pilot ADHD support group for 12 students.
- Established groundwork to institutionalize the Disability Peer Mentorship Program under the Academic Strategies umbrella, in response to a request from Dean Marvin Chun.
- Collaborated with the Yale Undergraduate Research Association (YURA) and their new Graduate-Undergraduate Mentorship Initiative (GUMI) to provide training and workshops.

Writing Tutoring Team

Fully remote tutoring by Residential College Writing Tutors remained as busy as ever, with 3819 total appointments, 119 more appointments than 2019-20. After a dip in spring 2020 following the rapid shift to remote learning, Writing Partner (WP) tutoring was back up to 2018-19 totals, with more than 3,600 appointments. 1,000 of the WP total were organized as course-based tutoring, where a single writing partner was available to work with all of the students in a given course. We designed this system to make students more likely to attend remote tutoring. Roughly half of the courses served by course-based tutoring were ones that, previously, seldom sent students for tutoring at all. This observation may lead to more targeted work with courses in the future, although the standard drop-in model will return.

This increased outreach was even more visible in asynchronous tutoring, a new service for 2020-21 that offered written feedback on nearly 300 papers across 20 courses. We generally privilege synchronous tutoring, which helps students retain authority over their papers. In a summer 2020 pilot, we offered students the chance to get written feedback within 24 hours without having to be present for a tutorial. With positive feedback in the summer, asynchronous tutoring was offered to roughly seven courses each in fall and spring. Nearly all of the courses were in science or social science courses (many larger courses with fewer teaching fellows). Since we seldom get writing clients from these lecture courses, almost none of these 300 papers would, in a usual year, end up getting writing center support. Some form of this support will continue next year, if only because having a beachhead in these departments can help us reach out more effectively to students who don’t usually come for help.

During spring 2021, we conducted focus groups with current writing partners to learn what they perceived as unmet needs. Several topics are already being addressed, including:

- A need to recruit more tutors with BIPOC backgrounds, which is happening through expanded nomination requests and a solicitation that emphasizes the goal of a diverse staff with character and leadership potential (more than writing excellence, which may be received as exclusionary by some students). These innovations doubled the number of nominations, which will be assessed in detail based on hiring for next year.
- A desire for more professional training for writing partners, currently being addressed by expanding training topics to better equip Writing Partners to work with the whole student and instill a sense of belonging that will foster learning and respect. For example, there was a new
spring 2021 training in emotional responsiveness designed to help staff directly, as well as to teach them about how to help students who report anxiety and stress.

- A desire for more individualized feedback on their tutoring, addressed by revising the feedback form to include the name of the Writing Partner they worked with. Since March 2021, most writing partners have received some direct student feedback about how their tutoring was helpful.

STEM Tutoring Team

In 2020-2021, the Poorvu Center provided more tutors to more courses than ever before, continuing a multi-year upward trend. Even as some courses begin to hire ULAs directly, positive word-of-mouth and factors like instructors teaching new courses has meant an increased demand for tutoring support. In alignment with our efforts to diversify student workers, the demographics of this tutor population will be monitored with available data. Tutors were oriented in smaller groups this year, allowing for more discussion about online tutoring formats. Feedback collected midyear indicated that overall, tutors felt that their work remained satisfying and achievable despite working remotely.

Table 6: Total appointments across undergraduate tutoring from 2016-2021

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<tr>
<th>Programs</th>
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Table 7: Unique participants across undergraduate tutoring from 2016-2021

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<td>STEM (not including ULAs)</td>
<td></td>
<td>1518</td>
<td>2052</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SQR</td>
<td>218</td>
<td>131</td>
<td>112</td>
<td>59</td>
<td></td>
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</tr>
<tr>
<td>RCMST</td>
<td>276</td>
<td>215</td>
<td>157</td>
<td>114</td>
<td></td>
<td></td>
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<tr>
<td>CBPT</td>
<td>751</td>
<td>1193</td>
<td>1383</td>
<td>1879</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td></td>
<td></td>
<td>1948</td>
<td>1845</td>
<td>1865</td>
<td></td>
</tr>
<tr>
<td>WC Drop-In</td>
<td>954</td>
<td>1086</td>
<td>1241</td>
<td>1091</td>
<td>746</td>
<td></td>
</tr>
<tr>
<td>WC Weekly</td>
<td>133</td>
<td>168</td>
<td>188</td>
<td>159</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Residential Writing Tutors</td>
<td>988</td>
<td>1089</td>
<td>1125</td>
<td>1052</td>
<td>935</td>
<td></td>
</tr>
<tr>
<td>Course Writing Partners</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>444</td>
<td></td>
</tr>
<tr>
<td>Asynchronous</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>148</td>
<td></td>
</tr>
<tr>
<td>Directed Studies</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>FSY Drop-In</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>FSY Scheduled</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>

For the past few years, overall participation in tutoring has generally matched the demographic profile of Yale College students. For example, in 2019-20, first-generation students comprised 17% of Yale College, while 36% of the students helped by Academic Strategies were first-generation; underrepresented minority students were 29% of Yale College students, but made up 36% of students seeking STEM tutoring. In a few programs, participation lags slightly (only 13% of students seeking writing help are first-generation). The sheer volume of appointments has delayed demographic analysis for 2020-21; going forward, we will analyze and report this information separately and selectively.
6. Programs Beyond Yale

The Poorvu Center continues to build upon the momentum of new and existing digital content, offered beyond the walls of the Yale campus. Three of our teams focus on reaching beyond Yale to this audience, the Broadcast Studio Team, the Digital Education Team, and the STEM Education Team, which runs the Summer Institute on Course (Re)Design. This grant-funded organization has now transformed into an independent non-profit entity named the National Institute on Scientific Teaching (NIST).

The Broadcast Studio is the primary locus for on-camera live and taped interviews and radio or podcast outreach, while 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 Yale, yet Yale instructors who work with our Broadcast and Digital Education teams are consistently inspired to integrate new approaches into their residential teaching. A third team, our externally-funded STEM Education group, leads a national faculty development program for a community of over 5,000 college science instructors. This team has now ended Yale-based operations and transitioned to an independent non-profit organization. All of these teams collaborate within the Poorvu Center and with other Yale offices.

Broadcast Studio Team

The physical studio remained operational for most of 2020-2021, serving as a key asset for the University’s transition to remote operations. High-impact accomplishments of the Broadcast Studio include the following:

- Connected Yale to the world on pressing global matters. For example, Dr. Marcella Nunez-Smith (School of Public Health) co-chairs President Biden’s COVID-19 advisory board and leads a White House task force dedicated to health equity. Dr. Nunez-Smith engaged remotely with the White House and other board members from the Yale Broadcast Studio.
- Produced video content for the catalogue of open online courses led by the Digital Education team, which enrolled 2.1 million global learners since July 1, 2020.
- Added 41,000 subscribers to the Yale University channel on YouTube, to bring the total number of subscribers to 235,000. This channel shares on-campus intellectual events, like lecture series and appearances from guest speakers, with a global audience. Uploaded over 200 new lectures to YouTube.
- Increased the percentage of videos on Yale’s YouTube channel that are compliant with ADA closed caption standards from approximately 50% to 100%.
- Produced 250 new podcast episodes for 33 podcasts series. This work involved transitioning 20 existing Yale Podcasts to ‘recording at home’ and helped 13 new podcaster launch shows. New podcasts include “Inside the Yale Admissions Office” and “Navigating Law School Admissions” (each with approximately 5,000 listeners per episode). A new 6-episode mini-series called “Pricing Nature” from the Yale Carbon Charge was downloaded 10,000 times. The “Addy Hour” is a new combined videocast and podcast series on brain science, mental health, and related topics.
- Built a new, flexible green-screen production studio in compliance with COVID-19 restrictions and in response to increased demand for studio-based lecture recordings. Significant cost savings were achieved by utilizing in-house design plans and construction services.
• Shared expertise through training and workshops for a variety of campus audiences on topics such as presenting online and hosting large virtual events on Zoom.

The Broadcast Studio also supports many Yale University 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 grateful for the full impact of the Broadcast Studio as they connect the University community to the broader world.

Digital Education Team

In 2020-2021, high-impact projects led by our Digital Education team include the School of Public Health Online Executive Degree Program, Health Informatics MasterTrack, Yale Center for Emotional Intelligence, Arthur M. Blank Foundation Grant, Global Quality Maternal & Newborn Care, and new directions for The Science of Well-Being course by Professor Laurie Santos. We also have a number of Coursera projects in production.

Following official approval in summer 2020, the Digital Education team and other groups in the Poorvu Center have been engaged in nearly every committee and task required to create Yale School of Public Health’s first online degree program. Through this team’s effort with YSPH and their marketing group, 44 students enrolled in year one of the program (surpassing the target of 40). The other efforts made alongside YSPH staff include but are not limited to:

• Serving as instructional designers on a course-by-course basis, working with faculty to produce digital materials and plan live sessions to deliver their fully online courses.
• Consulting with YSPH on programmatic decisions, such as student orientation, faculty development, evaluations, and assessments.
• Running weekly team operations meetings with YSPH staff.
• Managing a project-tracking document for the operations team and YSPH administration to stay abreast of the latest updates and escalating issues.
• Guiding YSPH on best practices for student community building, which includes a student profile page and executive summary to be shared across YSPH.

Yale School of Public Health has also created new content for two introductory courses, a python course and a theory course, for the inaugural offering of credit-eligible Yale content on Coursera, called the Health Informatics MasterTrack. Thirty-seven learners are enrolled into the program, just shy of the 40-student target, with completion set for October 2021.

In July 2020, the Yale Center for Emotional Intelligence asked for Poorvu Center guidance on selecting a dissemination platform for their now-virtual trainings. The YCEI decided to utilize the Coursera for Campus platform to launch an invitation only, 10-hour prep course on Social Emotional Learning. We assisted with IRB approvals, platform training, enrollment, troubleshooting, and provided an escalation path to raise issues with Coursera. Approximately 55,000 teachers and staff from K-12 schools in CT enrolled in the program. Of those, roughly 19,000 completed the course, and feedback on the virtual format has been stellar. Two positive outcomes occurred as a result of the success of this experiment:

• YCEI extracted content and launched a free public course on the regular Coursera platform in December of 2020.
• YCEI plans more work on online courses, leveraging this foundation for new pathways to provide content at a lower price point. Furthermore, while verified data is not yet readily available,
several new school districts have inquired about YCEI’s high touch, high-cost programming that would have otherwise not engaged.

The Global Quality Maternal & Newborn Care course was launched by the School of Nursing in October 2020. Our team provided feedback on lesson scripts, established consistent learning objectives, encouraged interactivity, and reduced overlap between various instructors and guest speakers. We revised all references for consistent APA formatting and found open-access links. We also trained teachers on best practices for engaging application questions for in-video quizzes and module-end quizzes.

Finally, we assisted with the Arthur M. Blank Foundation Grant and new directions for The Science of Well-Being course by Professor Laurie Santos. The Digital Education team has collaborated with Professor Santos to translate the Science of Well-Being for younger audiences. In year one of a new award from the Arthur M. Blank Foundation, the Poorvu Center played a critical role in the following areas:

- Building surveys for program evaluation.
- Drafting IRB proposals and documentation.
- Managing registration logistics and communications for live events.
- Developing and streamlining orientation processes.
- Conducting feedback sessions.
- Managing a credit-bearing synchronous online course with several stakeholders (National Education Equity Lab, University of Connecticut, Yale Teaching Fellows, teachers and administrators from participating schools, and hundreds of students).

Course development involved reconfiguring existing classroom footage for an online format, transforming and creating assessments, running all course operations on Blackboard, training Teaching Fellows, and responding to teacher and student feedback in real-time. A summary of each demonstrates the success of this effort:

- CT DoE Webinar had 12K live views.
- Private Cohort for Educators included 1,000+ invited.
- Mental Health Day YouTube Video had 240,690 views.
- NEEL High School Cohort included 705 students enrolled.
- Teaching well-being at scale: An intervention study was published in PLOS ONE on April 14, 2021.

We also have a number of Coursera courses in production, including:

- A new 5-course specialization on Religion and Ecology, taught by Mary Evelyn Tucker and John Grim, is currently in the post-production phase of development.
- The Human Anatomy specialization is nearly complete. Throughout FY21, the team has supported assessment creation and final video assets for the course.
- Narrative Economics has completed initial production. The team is working with Professor Robert Shiller and an undergraduate teaching fellow for editing.
- Emeritus Professor Craig Wright is collaborating with the team on a Exploring the Nature of Genius Coursera course (working title). FY21 included the process of writing and proofing scripts and drafting a rough syllabus.
- We engaged in planning meetings to determine consistent structure and look and feel for Mastering Influence and Persuasion. We planned a timeline for course production along with a system to collect learner testimonials and beta test feedback.
• We engaged in planning meetings to determine target audience, consistent structure, and tone and delivery for *Purposes of College Education*.

The Digital Education team continues to support residential faculty requests for consultation about digital content in Yale classrooms. In addition to contributing to our Guided Support and Tactical Team work prior to the academic year, this team handled over 100 additional faculty consultations.

**Table 8: Yale University course enrollments and completions for Coursera learners in fiscal year 2020 and 2021**

<table>
<thead>
<tr>
<th></th>
<th>FY19</th>
<th>FY20</th>
<th>FY21</th>
<th>Cumulative total recorded by June 30, 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Course Enrollments</td>
<td>478,342</td>
<td>3,600,756</td>
<td>2,093,262</td>
<td>6,172,378</td>
</tr>
<tr>
<td>Total Course Completions</td>
<td>19,184</td>
<td>134,762</td>
<td>208,337</td>
<td>362,284</td>
</tr>
<tr>
<td>Completion rate</td>
<td>4.01%</td>
<td>3.74%</td>
<td>9.95%</td>
<td>5.87%</td>
</tr>
</tbody>
</table>

*Note that FY21 has the highest completion rate to date since Yale launched content onto Coursera.*

The Yale Alumni Academy (YAA) continued in 2021, bolstered by the universal surge in online education. The Poorvu Center provided guidance on the design and creation of Coursera-hosted course sites as well as technical training of YAA staff and faculty. In addition, participating alumni were offered training on Zoom and Canvas use. Most recently, six new courses for summer 2021 sold out, serving a total of 155 alumni-students.

The Poorvu Center offers Yale professional schools an initial investment to support experiments with online delivery of non-degree programs, or certificate programs. Two such initiatives concluded their first cohorts in spring 2020, and welcomed new cohorts in the fall of 2020.

• Center for Business and the Environment at Yale (CBEY) launched *Financing and Deploying Clean Energy*, a year-long non-degree program with four online courses in project finance, technology, innovation, and policy. The program has now surpassed its goal to double in size; with a target of 150 learners, the incoming cohort includes 161 people from around the world and will net over $1M in revenue.

• The Environmental Leadership and Training Institute (ELTI) launched *Tropical Forest Landscapes: Conservation, Restoration, and Sustainable Use*, a year-long program with unique engagement opportunities. The FY21 year proved exemplary; the program admitted the same number of students as previous years, but yielded 25 matriculants over the target (target 60, matriculated 85). In addition, two alumni from the year one program have enrolled as full-time residential students at the Yale School of the Environment.

As Yale University returns to campus-based teaching and learning, the integrated expertise of the Digital Education team will be more valuable than ever. Poorvu Center professionals from all teams will benefit from online education expertise as we support instructors considering how to sustain innovative practices developed for remote teaching during the pandemic.

**STEM Education Team**

Since the Poorvu Center was created, we have housed the *Summer Institutes on Scientific Teaching*, a grant-funded STEM Education team dedicated to supporting a national faculty development
program. Jennifer Frederick was the principal investigator for several multimillion-dollar grants from the Helmsley Charitable Trust and the Howard Hughes Medical Institute (HHMI). Nationwide, over 5000 STEM instructors have participated in a Summer Institute, the organization’s signature training program. 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**, over 210 Yale faculty have participated in this annual program since 2013.

COVID-19 upended most 2020-2021 SI programs, yet paved the way for creative innovations. We canceled planned in-person programs and rapidly designed online alternatives, offering two online SIs in their place, with a total of 40 participants through collaborations with CIRTL and Macmillan Learning. Three institution-based Mobile SIs (SUNY Binghamton, UC Davis, and the University of Montana) adapted to a virtual format with a total of approximately 50 participants. We launched weekly “SI Happy Hours” each Friday afternoon to provide the STEM community with advice and resources for teaching in a new world, in addition to building a virtual community. These groups continued throughout the academic year, hosting 40-100+ participants at each interactive session. We held leaders meetings online instead of in person, and the email newsletter and monthly webinars continued on schedule.

Our grant funding ended in December 2020, and Frederick led the organization’s transformation to an independent non-profit entity named the **National Institute on Scientific Teaching** (NIST). Throughout the year, Frederick served as Past President on the NIST Executive Committee. This group created by-laws, elected officers, and incorporated the organization as a non-profit in the state of New York. In addition, we applied for federal tax-exempt status in March 2021, which will allow us to pursue grant funding and seek donations.

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. The STEM Education team achieved a smooth transition of SI operations to NIST, exhaustively archiving documents and evaluation materials with how-to guides and training for central functions such as communication. The three remaining team members transitioned to new professional engagements.
7. Educational Program Assessment

The Poorvu Center is increasingly visible as an expert resource for assessment activities across campus, with the overall aim of enhancing the culture of assessment at Yale. Course-based assessments of student learning are routinely handled by various teams through faculty and graduate student consultations. Our Educational Program Assessment (EPA) team provides expertise and support in the development and implementation of assessment for educational programs led or supported by the Poorvu Center and partners. This team also supports internal assessment of Center activities, collaborating to develop assessments aligned with each team’s objectives. As this team takes on an expanding portfolio program or school-level assessment projects, they are contributing to more intentional use of assessment to inform teaching and learning efforts. Figure 13 shows a representation of principles that inform the EPA team approach: 1) alignment, 2) actionable data, 3) inclusive design, and 4) sustainable assessment models.

Figure 13: Principles of effective assessment developed by the EPA team

In addition to the types of assessment collaboration described below, the EPA team provides consultations and workshops for departments and faculty interested in assessment. Along with all Poorvu Center teams, this group was part of our all-hands support for remote teaching in 2020-2021. We were instrumental in collecting survey input from faculty, which produced a set of themes that will guide our understanding of sustainable innovations during pandemic teaching. As campus units began to develop DEIB unit plans in 2021, the EPA team was increasingly called upon to provide assessment expertise. This role is expected to increase as the plans are implemented over the next five years. The major categories of work overseen by this team are summarized below, with project details in the accompanying tables.

This team also provides assessment for recurring programs. These engagements typically include design and implementation of a methodological approach, and analysis and reporting of the data collected (Table 12). Reports are shared with administration and directly influence iterative program design. Major examples include undergraduate science and math support, such as Online Experiences for Yale Scholars.
(ONEXYS) and the Science, Technology, and Research Scholars (STARS) program. Collaborating with the Office of Institutional Research (OIR) and ITS, we also support annual analysis of Poorvu Center data from the Undergraduate Tutoring team (writing programming, Academic Strategy Program, Course-Based Peer Tutoring, Math & QR tutoring) and Graduate Writing Lab program participation.

Table 9: Annual assessment projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Division</th>
<th>Audience</th>
<th>DEIB</th>
<th>EPA’s role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry Placement</td>
<td>Science</td>
<td>Undergrad</td>
<td>Implicit</td>
<td>Review, refine, and apply process to place first-year students in Chemistry courses</td>
</tr>
<tr>
<td>Graduate Writing Lab</td>
<td>GSAS, Professional Schools</td>
<td>Graduate</td>
<td>Implicit</td>
<td>Synthesize existing data and coordinate with ITS to identify patterns in participation</td>
</tr>
<tr>
<td>Online Experiences for Yale Scholars (ONEXYS)</td>
<td>Science</td>
<td>Undergrad</td>
<td>Implicit</td>
<td>Design, administer, analyze, report on assessment data</td>
</tr>
<tr>
<td>Science Technology and Research Scholars (STARS)</td>
<td>Science</td>
<td>Undergrad</td>
<td>Yes</td>
<td>Design, administer, analyze, report on assessment data</td>
</tr>
<tr>
<td>Undergraduate Tutoring</td>
<td>Yale College</td>
<td>Undergrad</td>
<td>Implicit</td>
<td>Synthesize existing data and coordinate with OIR to identify patterns in tutoring use</td>
</tr>
</tbody>
</table>

This year we took on new projects across Yale College and the professional schools; several pursued the goal of understanding how remote learning experiences unique to the COVID-19 era (see Table 13 fall 2020 faculty teaching survey and Undergraduate Technology Assistant impact). Additional examples of this year’s projects include working with a number of professional schools (e.g., YSE, YSoA, YSPH) to analyze the impact of their educational programs, and serving as an evaluator on the Infectious Disease Diversity and Anti-Racism (ID2EA) curriculum at the Medical School.

Table 10: 2020-2021 Educational program assessment projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Division</th>
<th>Audience</th>
<th>DEIB</th>
<th>EPA’s role</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 Feedback: Faculty Teaching Survey &amp; related student data</td>
<td>University-wide</td>
<td>Faculty; Students</td>
<td></td>
<td>Helped design, coordinate, analyze, and report on faculty and student feedback on remote instruction support</td>
</tr>
<tr>
<td>GSAS Faculty Feedback on Admission Requirements</td>
<td>GSAS</td>
<td>Faculty</td>
<td>Yes</td>
<td>Coded and provided a report on faculty feedback</td>
</tr>
<tr>
<td>Infectious Disease Diversity Equity and Anti-Racism group (ID2EA)</td>
<td>Med School</td>
<td>Infectious Disease Section</td>
<td>Yes</td>
<td>Served as curriculum evaluator</td>
</tr>
<tr>
<td>Undergraduate Teaching Assistant Feedback</td>
<td>University-wide (who had UTA)</td>
<td>Faculty provided UTA</td>
<td></td>
<td>Analyzed and reported on faculty feedback on the impact of UTAs in their instruction</td>
</tr>
<tr>
<td>YSE End-of-year Survey</td>
<td>YSE</td>
<td>Professional students</td>
<td>Yes</td>
<td>Guided redesigned survey development and analysis</td>
</tr>
</tbody>
</table>
As the University launched the planning phase of our Belonging at Yale initiative, EPA provided guidance for developing assessments as part of unit DEIB plans (Table 14). This work includes providing feedback on culture and climate surveys, analyzing data from faculty, staff, and students, meeting with FAS Science & SEAS chairs and DEIB committee chairs, and collaborating with OIR and Title IX representatives to maintain strong data integrity. This is likely to be a growing area of need and our team is working with units across campus to streamline approaches while allowing customization to meet needs of each department.

Table 11: DEIB action plan assessment

<table>
<thead>
<tr>
<th>Project</th>
<th>Division</th>
<th>Audience</th>
<th>EPA’s role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry Graduate School Climate Assessment</td>
<td>Science</td>
<td>Graduate, Staff, Faculty</td>
<td>Provide guidance in developing survey; De-identify &amp; aggregate results</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Science</td>
<td>Graduate, Undergraduate</td>
<td>Provide guidance on assessment to DEIB subcommittee</td>
</tr>
<tr>
<td>DEIB Global Division Survey</td>
<td>Global Division</td>
<td>Global Division</td>
<td>Code and report on data for the unit plan pre-assessment</td>
</tr>
<tr>
<td>FAS Science &amp; SEAS – General collaboration</td>
<td>Science &amp; SEAS</td>
<td>Varies</td>
<td>Join FAS Science &amp; SEAS chairs’ meetings to discuss action plan assessment</td>
</tr>
<tr>
<td>MCDB Culture and Climate Survey</td>
<td>Science</td>
<td>Department level</td>
<td>Design, administer, analyze, report on assessment data</td>
</tr>
</tbody>
</table>

Our team continues to support assessment elements of externally funded projects, providing robust evaluation with local institutional knowledge (typically more economical than hiring external evaluators). Table 15 lists a variety of funded projects supported by the National Science Foundation, National Institutes of Health, American Medical Association, The Carpentries, and Sustainable Agriculture Research and Education. The educational aim of such grants generally addresses development of particular skills to fill an educational gap, often within Yale curricula, but occasionally reaching external networked communities.

Table 12: Grant specific initiatives

<table>
<thead>
<tr>
<th>Project</th>
<th>Division</th>
<th>Audience</th>
<th>DEIB Focus</th>
<th>EPA’s role</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMA Leadership Grant</td>
<td>Med School</td>
<td>Medical students, physicians</td>
<td></td>
<td>Serving as evaluator on grant</td>
</tr>
<tr>
<td>Data CuRe: Carpentries Grant</td>
<td>External workshops</td>
<td>Faculty; Staff</td>
<td></td>
<td>Serving as evaluator on grant</td>
</tr>
</tbody>
</table>
NIH FIRST Proposal Submission | Med School | School-wide | Yes | Bathgate serves as member on Evaluation Core
---|---|---|---|---
NSF Grant: Chemistry of Food and Cooking | Science | Students, Tutors | Yes | Serving as evaluator on grant
NSF: NRT in Quantum Materials Science and Engineering | Science & SEAS | Graduate students; Faculty | Yes | Serving as evaluator on grant
SARE Grant: Northeast Forest Farmer Coalition | YSE | External network | | Serving as evaluation support for grant

This year, the team’s research and scholarship activities included conference presentations (POD Network), invited talks (American Society of Microbiology; Howard Hughes Medical Institute BioInteractive initiative), and peer-reviewed articles (PLOS-One publication with Dr. Laurie Santos; Journal of Chemical Engineering led by Yale graduate student). A full list of our research and scholarship is included in section 8.

Additional activities performed by the EPA team members included regular contributions to Poorvu Center programming, such as the Course (Re)Design Institute and Guided Support workshops in summer 2020, as well as consult with Yale faculty and staff (Table 13). Members of this team also provide student advising, serve as graduate course instructors, and guide IRB submissions for educational work. One member of the team, Jennifer Claydon, serves in a dual reporting role, also working for the Biological and Biophysical Sciences division of the graduate school. Her shared position benefits both offices and lends valuable insight to processes occurring across both locations.

Table 13: Additional activities by the EPA team

<table>
<thead>
<tr>
<th>Project</th>
<th>Division</th>
<th>Audience</th>
<th>DEIB Focus</th>
<th>EPA’s role</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 Guided Support Workshops</td>
<td>University-wide</td>
<td>Faculty</td>
<td>Implicit</td>
<td>Collaborate on core workshop as part of curriculum</td>
</tr>
<tr>
<td>BBS Partnership</td>
<td>BBS</td>
<td>Graduate students; Faculty</td>
<td>Implicit</td>
<td>Jen Claydon has dual role in BBS and Poorvu Center; guides evaluation of multiple grants (NSF, NIAID, NIGMS)</td>
</tr>
<tr>
<td>Co-instructor, PHYS 530/BBS 879; Graduate Course in Scientific Teaching</td>
<td>Science</td>
<td>Graduate students; Postdocs</td>
<td>Yes</td>
<td>Meghan Bathgate is co-instructor with Beth Luoma for this non-credit graduate course</td>
</tr>
<tr>
<td>Course (Re)Design Institute</td>
<td>University-wide</td>
<td>Faculty</td>
<td>Yes</td>
<td>Provide core workshop on assessment</td>
</tr>
<tr>
<td>General Assessment Consults</td>
<td>University-wide</td>
<td>Faculty &amp; Staff</td>
<td></td>
<td>Provide guidance for assessment-related consults</td>
</tr>
<tr>
<td>IRB Advising</td>
<td>University-wide</td>
<td>University-wide</td>
<td></td>
<td>Provide general guidance for submitting IRB proposals related to educational work</td>
</tr>
<tr>
<td>Student advising</td>
<td>Yale College</td>
<td>Undergraduates</td>
<td></td>
<td>Serve as a residential college fellow and meet with advisees throughout academic year</td>
</tr>
</tbody>
</table>
8. Service and Leadership

The Poorvu Center’s record of service to both the university and our professions remains strong. Our staff members served on the following Yale committees in 2020-2021:

1. Academic Continuity Committee
2. Ad Hoc Educational Policy Committee
3. Advisory Committee on Community Policing
4. Advisory Committee on Investment Responsibility
5. Advisory Committee on Library Policy
6. Center for Language Study Promotion/Renewal Committee
7. Center for International and Professional Experience Writing Awards Committee
8. Computer Science Lecturer Hiring Committee
9. DiversAbility Steering Committee
10. Executive Committee for the Biological and Biomedical Sciences
11. Faculty of Arts and Sciences (FAS) Academic Policy Committee
12. FAS Language Study Committee
13. Faculty Website Support in the Humanities Committee
14. FAS Teaching Resource Allocation Committee
15. Future Leaders of Yale Steering Committee
16. Global Division Diversity, Equity, Inclusion, and Belonging Unit Planning Committee
17. Kline Tower Planning Committee
18. Learning Analytics Sub-Committee
19. Marshall Mitchell Rhodes Campus Interview Committee
20. Operational Reporting Steering Committee
21. Pathways to Science Steering Committee
22. President’s Committee on Diversity, Inclusion, and Belonging (subcommittees on Assessment, Intersectionality)
23. Provost Advisory Committee on Accessibility Resources
24. Rosenfeld/Yale College Dean’s Research Fellowship Selection Committee
25. School of Medicine Infectious Disease Diversity, Equity, and Antiracism Curriculum Committee
26. Technology Accessibility Working Group (Office of the Provost)
27. Three-Minute-Thesis Judging Committee
28. University Health and Safety Leaders Committee
29. University-Wide Committee on Sexual Misconduct
30. Working Women's Network Steering Committee
31. Yale Childcare Consultative Committee
32. Yale College Admissions Committees
33. Yale College First-Year Scholars at Yale Committee
34. Yale College Science, Technology, and Research Scholars Advisory and Selection Committees
35. Yale College Teaching and Learning Committee
36. Yale College Writing Committee
37. Yale Information Technology Leadership Council
38. Yale Lactation Working Group
39. Yale Library Reference, Instruction, and Outreach (RIO) Committee
40. Yale-United Way Core Committee
41. Zoom Governance Committee
Poorvu Center staff members also gave the following presentations at conferences or by invitation to outside organizations:

- Bringing actionable change through big ideas and small steps, American Society of Microbiology, April 2021.
- Helping Graduate Writers Negotiate Disruption, Consortium for Graduate Communication, June 2021.
- Inclusive Mentoring Workshops for Hanna Gray Fellows Program Mentors, HHMI, April & September 2021.
- Mentor Training Workshops for Howard Hughes Medical Institute (HHMI) Hanna Gray Fellows, summer 2020.
- Organizing a Student Writing Center, Darien High School, July 2020.
- Peer Review Groups for Law Students Writing Research Papers: Community, Constructive Feedback, and Accountability, South Florida Regional ASP Conference, January 2021.
- Reimagining Writing Center-Developed Resources, Roundtable, Conference on College Composition and Communication, April, 2021.
- Review of FitVid Prototype, Korea Advanced Institute of Science and Technology KIXLAB, September 2020.
- Rigor as Inclusive Practice: Improving Equitable Outcomes in Teaching, University of the Sciences, August 2020.
- Scientific Teaching, Yale Ciencia Initiative, October 2020.
- Taking Mentoring to the Next Level, Harvard Medical School Neuroscience Department, April 2021.
- Tips for Engaging MOOCs, Coursera Conference, April 2021.
- Translational Research for Untapped Science Talent (TRUST) Mentoring Workshop, Harvard Medical School at Brigham and Women's Hospital, Pathology Department, January 2021.

Publications in 2020-2021 with Poorvu Center staff members as authors include:

9. Poorvu Center Staff Employed Between July 1, 2020 and June 30, 2021 (listed by team affiliation)

**Leadership Team**
Jenny Frederick, Executive Director
Lucas Swineford, Executive Director for Digital Education

**Communications**
Patrick O’Brien, Communications Officer (departed in June 2021)

**Business Operations**
Meg O’Brien, Director, Finance and Administration
Mamta Agarwal, Program Coordinator
Matthew Anderson, Financial Analyst
Ronice Awudu, Supervisor
Julie Byron, Senior Administrative Assistant
Claire Kerrigan, Program Coordinator
Kimberly Kuzina, Senior Administrative Assistant

**Faculty Teaching Initiatives**
Julie McGurk, Director, Faculty Teaching Initiatives
Victoria Hallinan, Associate Director, Faculty Teaching Initiatives
Elizabeth Luoma, Assistant Director, Faculty Teaching Initiatives
Melissa Scheve, Associate Director, Faculty Teaching Initiatives (arrived July 2020)

**Assessment**
Meghan Bathgate, Associate Director, Educational Program Assessment
Jennifer Claydon, Assistant Director, BBS Training Program Assessment
Jonathan Waterhouse, Project Manager, Evaluation and Technology (started January 2021, transferred within Poorvu Center)

**Graduate and Postdoctoral Teaching**
Suzanne Young, Director, Graduate and Postdoctoral Teaching Development
Gina Hurley, Assistant Director, Graduate and Postdoctoral Teaching Development

**Graduate Writing Lab**
Ryan Wepler, Director, Graduate Writing Lab (started January 2021, transferred within Poorvu Center)
Julia Istominina, Assistant Director, Graduate Writing Lab
Elena Kallestinova, Director, Graduate and Postdoctoral Writing (departed August 2020)
Patricia Trainor, Writing Specialist, Graduate Writing Lab

**Undergraduate Writing and Tutoring**
Alfred E Guy, Director, Undergraduate Writing and Tutoring
Jorge Anaya, Woodbridge Fellow
Sarah Cussler, Assistant Director, Undergraduate Writing Center
Karin Gosselink, Associate Director, Undergraduate Writing and Academic Strategies
Lynda Paul, Tutor, Undergraduate Writing Center
Lynda Paul, Assistant Director, Undergraduate Writing and Academic Strategies (arrived July 2020)
Kailasnath Purushothaman, Director, Residential College Science/Math Tutoring
Paula Rawlins, Assistant Director, Undergraduate Writing and Tutoring (arrived February 2021)
Ryan Wepler, Associate Director, Undergraduate Writing and Tutoring (Ended December 2020, transferred within Poorvu Center to GWL director position)

**Educational Technology**
Pilar Abuin, Director, Educational Technology
Clare Ankawi, Assistant Director, Educational Technology
Timberley Barber-Marini, Associate Director, Educational Technology
Kristina Sanchez-Dini, Assistant Director, Educational Technology

**Educational Technology and Media**
John Harford, Director, Educational Technology and Media
Joseph Florentino, Assistant Director, Technical Operations
Brian Pauze, Assistant Director, Educational Technology and Media

**Digital Education**
Sara Epperson, Director, Digital Education
Belinda Platt, Online Education Coordinator
Matthew Reynolds, Associate Director, Digital Education
Abigail Titus, Project Manager, Digital Education (arrived June 2021)

**Broadcast Studio and Media**
Patrick Leone, Director, Yale Broadcast Studio
Jude Breidenbach, Associate Producer, Broadcast and Media Center
Daniel Cody, Assistant Manager, Broadcast and Media Center
Douglas Forbush, Associate Director, Broadcast and Media Center
Andrew Koss, Production Assistant, Broadcast and Media Center
Ryan McEvoy, Podcast and Video Producer/Editor, Yale Broadcast Studio
Jack Neiswanger, Audio-Visual Producer/Editor, Broadcast and Media Center
Guy Ortoleva, Video Producer/Editor, Yale Broadcast Studio
Craig Tomlin, Field Operations Manager, Yale Broadcast Studio

**Media Production**
Thom Styinski, Senior Creative Producer

**Academic IT Strategy and Accessibility**
David Hirsch, Director, Academic IT Strategy
Michelle Morgan, Digital Accessibility Specialist

**STEM Education**
Glen Davenport, STEM Education Evaluator (departed in December 2020)
Gabriella Kirkley, STEM Program Manager (departed in December 2020)
Jonathan Waterhouse, Evaluation and Data Project Manager (transferred within Poorvu Center to the Educational Program Assessment team)