Final Report

The Evaluation of Remote Teaching and Learning Committee

(A Subcommittee of the Faculty Council)

May 3, 2021

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1. Committee Charge and Composition

The Evaluation of Remote Teaching and Learning Committee (ERTLC) is a subcommittee that was established by motion of the Faculty Council of UMass Boston on September 14, 2020. The committee was charged as follows:

> The Evaluation of Remote Teaching and Learning Subcommittee of the UMass Boston Faculty Council will develop and execute an internal evaluation of remote teaching and learning during the fall 2020 semester. The goal is to develop an understanding of what works well in remote instruction for supporting UMass Boston students to succeed in their courses. This knowledge would have two beneficial outcomes: (1) it can inform the planning and operation of courses in the spring 2021 semester in the event that remote instruction continues due to the COVID-19 pandemic, and (2) it can support the transfer of what is learned about effective teaching and learning in remote operation for the future of UMass Boston, since some aspects of remote teaching and learning may benefit student success even when the university returns to on-campus operation. A tentative report for faculty will be developed by early January, before the spring semester begins. A more comprehensive report will be finalized at the end of AY 20-21.

The committee established a two-part structure consisting of a core team of six individuals who carried out the primary work and an advisory group that broadly represented the university with members who had substantial responsibilities with more flexible time commitments. Both components were comprised equally of faculty and students to recognize and represent that the responsibilities of teaching and learning are a shared endeavor. The core team included two undergraduate students, one graduate student, and three members of the Faculty Council: Esteban da Cruz, MA Student (Mental Health Counseling)[1] Faith Koroma-Coker, BS Student and President of Student Nurses Association (Nursing), Tessa Lyman, BA Student and Academic Office of Undergraduate Student Government (Social Psychology), Andrea Molina Palacios, MA Student (School Psychology), Andrew Perumal, Associate Professor and Co-Chair (Economics), Jessie Quintero Johnson, Associate Professor and Co-Chair (Communication), Hannah Sevian, Professor, Associate Provost and Co-Chair (Chemistry)[2]. The advisory group included 18 members, including undergraduate and graduate students as well as non-tenured and tenured faculty of all ranks. Together, the advisory group and core team included faculty and students from every college (see Appendix A for the list of advisory committee members).

[1] Esteban da Cruz served on the ERTLC until January, 2021, when he resigned and Andrea Molina Palacios volunteered to serve on the committee.

[2] Professor Sevian served as the co-chair of the ERTLC until her move to the position of Associate Provost in January, 2021, after which Professor Perumal assumed the co-chair role.

2. Evaluation Principles and Questions

The work of the ERTLC committee was guided by a commitment to social justice in the context of the COVID-19 health pandemic and the larger underlying pandemics of structural racism and economic disparity, with the goal of building more just, equitable, and humane education at UMass Boston by learning from the current challenges. The following principles guided the committee's directions and priorities, informed decision making that prioritizes usefulness, centralized the values of the university to inspire the work, ensured that the evaluation was appropriately contextualized in the complexities of students' and faculty experiences with remote learning and teaching, and aimed to generate both qualitative and quantitative data with methods of analysis to lead to sound interpretation and recommendations.

Guiding Principles

1. ***Empathy and support***: To care for wellbeing by providing hope, dignity, and resources for success.
2. ***Communication***: To create social, administrative, and technological structures that promote connection, clarity, and responsiveness.
3. ***Advocacy, responsibility, and accountability***: To put in place structures and systems of equity for all to thrive.
4. ***Dynamic adaptability***: To generate continuous feedback and revisions to respond flexibly to changing situations.

Evaluation Questions

The evaluation focused on studying remote teaching and learning on two levels: practical and systems. It considered two timescales as identified in the committee's charge: immediate on-the-ground and preparation for continuity. The evaluation addressed questions under three primary foci:

Focus 1: Teaching and learning processes

1. In a remote setting, what fosters and/or hinders instructional/learning engagement among students and instructors both in the virtual classroom and beyond, both technical and tactical?
2. In a remote setting, what fosters and/or hinders student-student, student-instructor, student-university, and instructor-university relationships related to teaching and learning both in the virtual classroom and beyond?

Focus 2: Teaching and learning effectiveness and outcomes

1. What makes teaching and learning work in a remote setting? Are there things that work better in large vs. small courses, undergrad vs. grad courses, labs vs. lectures, etc.?
2. For whom do teaching and learning work? For whom do they not work?
3. What do effective teaching and learning look like?

Focus 3: Support for teaching and learning

1. What support is promoting equity in educational experiences for students?
2. What support is needed to promote equity in educational experiences for students?
3. What support is needed to care for faculty to: a) teach effectively, and b) be able to effectively support students in remote instruction?
4. What challenges are faculty facing, and what support is needed for faculty (academic and beyond)?

3. Evaluation Method

Work Process

The conceptual and practical work of the ERTLC was led by the core team (i.e., the six committee members), which developed ideas and products that were then reviewed by the advisory group (i.e., the 18 faculty and student advisors). The work proceeded through several phases, including the development of: (1) guiding principles and articulation of the evaluation questions; (2) evaluation constructs to include in data collection instruments; (3) initial versions of the surveys and pilot testing of the surveys (at this stage, the faculty survey was additionally reviewed by the FSU President); (4) themes/key recommendations to include in the executive summary, which was written and presented to the Faculty Council in January, 2021; and (5) final report generated for campus community and presented to Faculty Council in May, 2021.

Survey Instrument Development

A total of four surveys were developed, one for each of four target groups: undergraduate student remote learning, graduate student remote learning, faculty remote teaching, and graduate student remote teaching. The faculty survey included 26 questions about remote teaching, both forced choice and open response, and 17 questions about demographics or course type details. The undergraduate student survey included 27 questions about remote learning, both forced choice and open response, and 21 questions about demographics or course types. Individuals reported that the survey took between 20 and 45 minutes to fill. All questions in the survey were optional, but most respondents completed a majority of the questions[3].

Survey Distribution

Surveys were administered via anonymous Qualtrics links, between the dates of November 23, 2020, and December 17, 2020.

The faculty survey was distributed to faculty via email from the Faculty Council.

Collecting data from undergraduate and graduate students proved to be more challenging and required utilizing using a variety of avenues to distribute the student surveys. The mix of approaches was necessary given that not all requests for assistance with distribution resulted in full or even partial distribution to all students in a coordinated manner. After an initial request was sent to the Provost, a subsequent call was made for advisors to send the undergraduate survey to students through the Advising Collaborative distribution list; this includes academic advising staff in different colleges and some department chairs. A similar request was also sent to the President of the Department Chairs Union to ask department chairs to distribute the survey to undergraduates in their programs. Faculty Council members and advisory group faculty

[3] Surveys are available upon request.

were encouraged to distribute the survey to their students and faculty were asked to consider using class time to start the survey or to offer extra credit.

The two graduate surveys were distributed to graduate students who are members of the GEO union via the GEO newsletter. A request to distribute the survey was sent to the Graduate Student Assembly leaders and to all graduate program directors. Because the two graduate surveys had very low response rates, only the findings from the faculty and undergraduate surveys are reported in this document.

Data Analysis

All survey data were analyzed by the core committee members. Both quantitative and qualitative analytic methods were used to examine data and answer the evaluation questions.

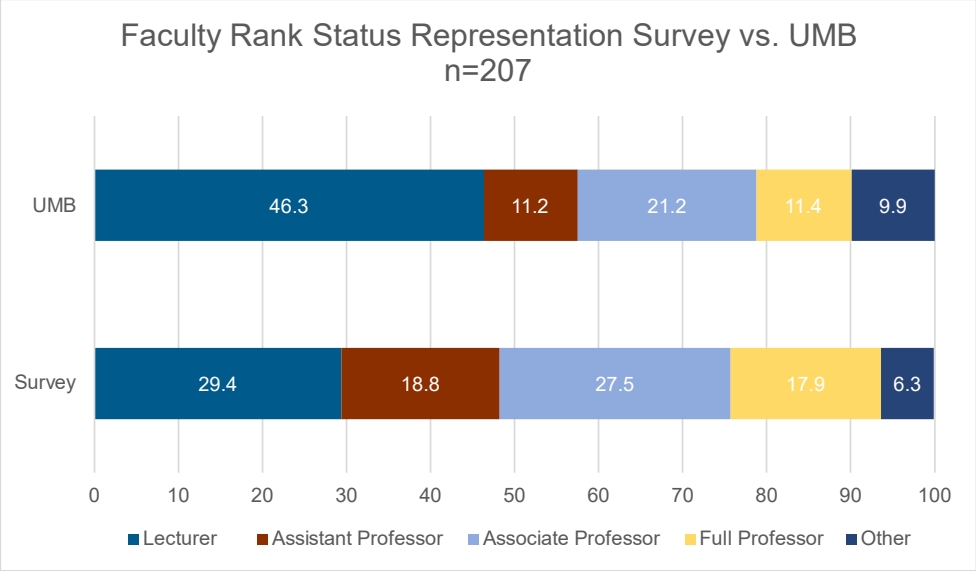
4. Findings – Faculty Survey

A total of 340 faculty respondents participated in the survey. Below, we detail the demographic characteristics of the faculty respondents in addition to comparing the demographic composition of survey respondents to the demographic composition of all faculty at UMass Boston where possible, based on data from UMB Office of Institutional Research, Assessment, and Planning.

4.1 Sample Characteristics

Faculty Rank/Status

Of the 60.9% respondents who reported faculty rank/status (n = 207), 1.9% were associate lecturers (n = 4), 14% had the rank of Lecturer 1 (n = 29), 13.5% had the rank of Lecturer II (n = 28), 18.8% had the rank of Assistant Professor (n = 39), 27.5% had the rank of Associate Professor (n = 57), 17.9% had the rank of Full Professor (n = 37), and 6.3% reported some “other” rank/status (n = 13). There were fewer survey respondents at all lecturer ranks than there are in the general faculty population at UMass Boston (see graphs below). A total of 133 faculty did not respond to faculty rank questions.



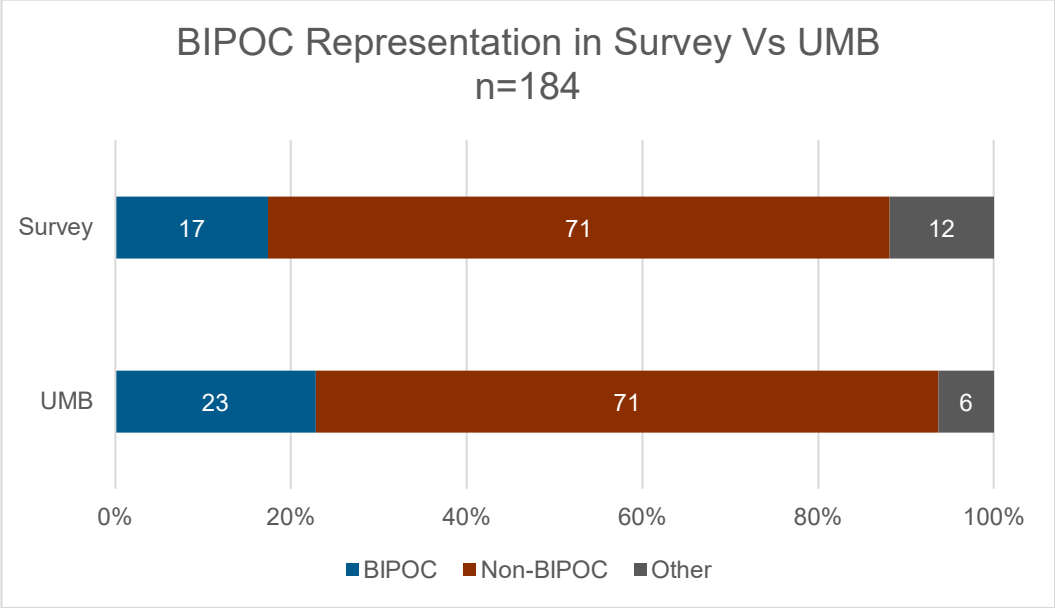
College Affiliation

Of the 44% of faculty respondents who reported college affiliation (n = 152), The majority of survey respondents, 30.6%, reported affiliation with the College of Liberal Arts (n = 104), followed by 5.6% from the College of Management (n = 19), 5.6% from the College of Sciences and Mathematics (n = 19), 4.1% from the College of Education and Human Development (n = 14), 3.8% from the College of Nursing and Health Sciences (n = 13), 1.5% from the School for the Environment (n = 5), 1.5% from the

McCormack Graduate School (n = 5), and less than 1% from other units on campus (e.g., Advancing and Professional Studies, Honors College, etc.). A total of 188 faculty did not report college affiliation.

Racial/Ethnic Identity

Of the 54.1% of faculty respondents who reported racial/ethnic identity (n = 184), the majority of faculty respondents, 73.9%, self-identified at White (n = 136), 7.6% identified as Asian (n = 12), 5.5% identified as Hispanic/Latinx (n = 9), 4.9% identified as Black/African American (n = 9), 1.1% identified as Native American (n = 2), 7.6% chose not to self-identify (n = 14), and 5.9% chose to self-describe (n = 11). The 17.4% of faculty respondents who self-identified as Black, Indigenous, People of Color (BIPOC) was slightly lower than the 22.8% of faculty who identified as BIPOC at UMB (see chart below). A total of 156 faculty chose not to report racial/ethnic identity.



Age

Of the 54.1% of faculty respondents who reported age (n=184), the majority of faculty (28.9%) were in the 40-50 years-old-range (n=53), followed by 25% of respondents in the 51-60 range (n=46) and 24% in the 61-70 range (n=44), 16.3% of the faculty reported to be in the 31-39 range (n=30), 4.8% of the faculty reported to be 70 or older (n=9), and 1% of the faculty reported to be in the 25-30 range (n=2). A total of 156 faculty chose not to answer questions related to age.

Gender Identity

Of the 54.4% of faculty respondents who reported gender identity (n = 185), 56.8% of respondents self-identifies as female (n=105), 34.6% identified as male (n=64), 2.7% identified as genderqueer (n=5); 0.5% identified as non-binary/third gender (n=1); 0.5%

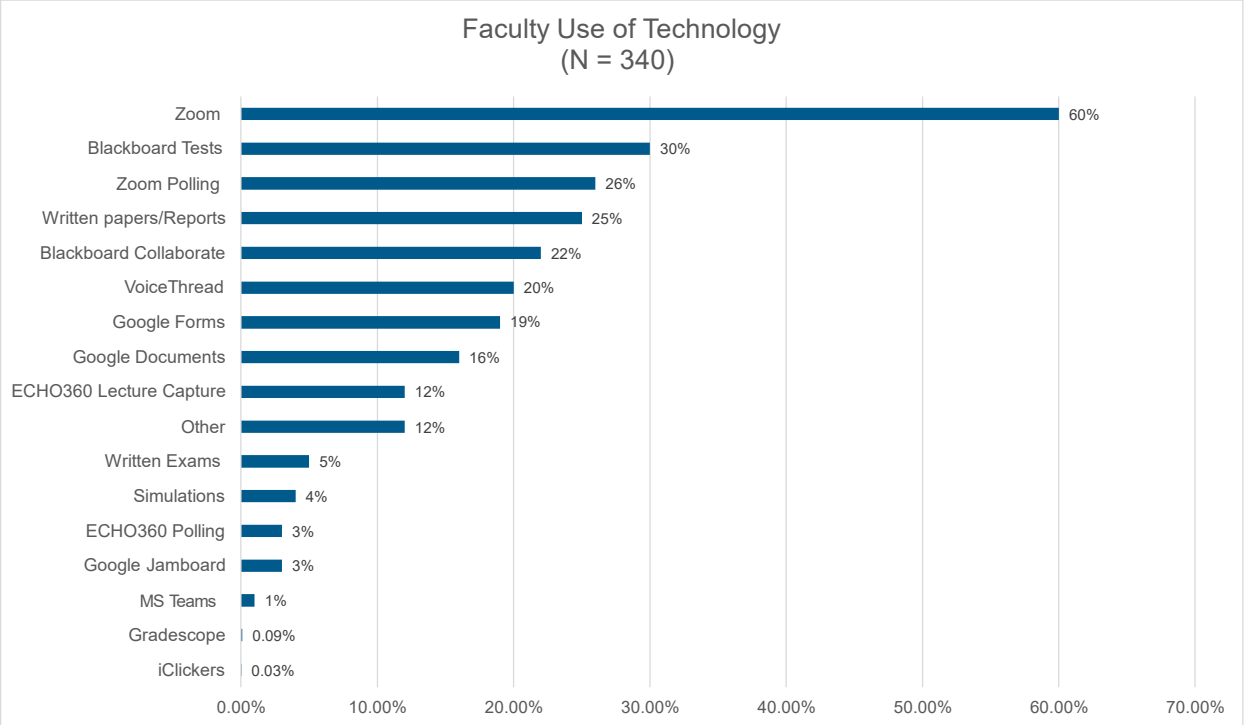
identified as cisgender (n=1); 0.5% identified as a gender not listed (n=1), 0.5% chose to self-describe (n=1), and 3.8% chose not to answer (n=7). The 34.6% of male faculty respondents was lower than the 45.2% male faculty at UMB. UMB only reports binary gender identity. A total of 155 faculty did not respond to questions about gender identity.

Caregiver Status

Of the 50.9% of faculty respondents who reported whether they were caregivers for children and/or adults (n=173), 52% indicated being a caregiver (n=90), and 48% reported not being a caregiver (n=83). A total of 167 faculty did not respond to caregiver status questions.

4.2 Use and Evaluation of Teaching Technologies

Faculty respondents answered questions about their use of various technological tools. Respondents reported using Zoom, Blackboard tests, and written papers/reports (that students have to scan and upload online) most frequently (see chart below).

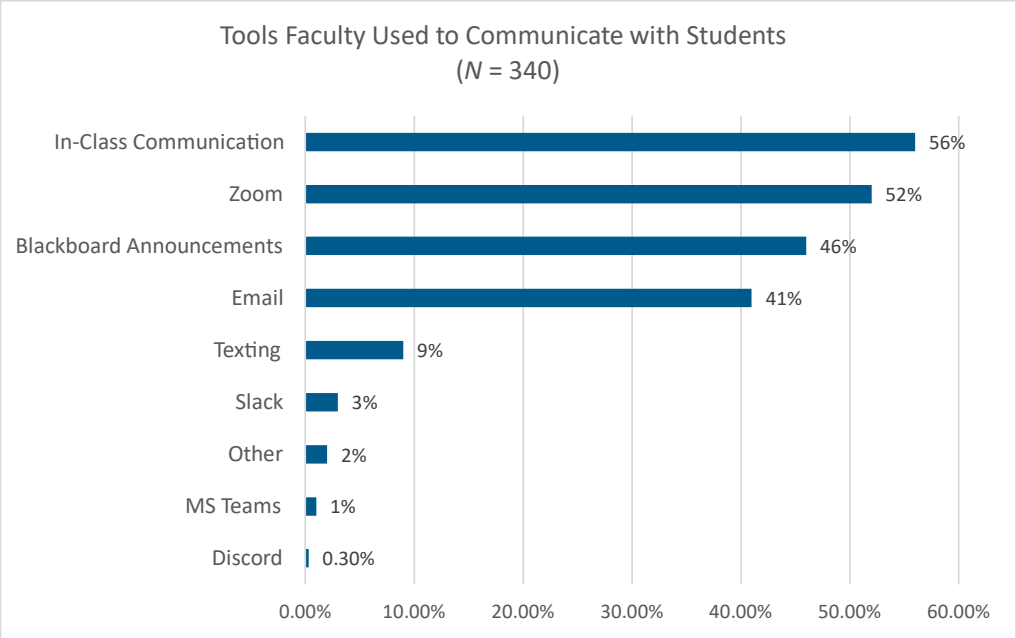


Faculty rated most teaching technologies as “effective” or “somewhat effective.” Blackboard tests and Blackboard Collaborate were most frequently rated as “not effective.”

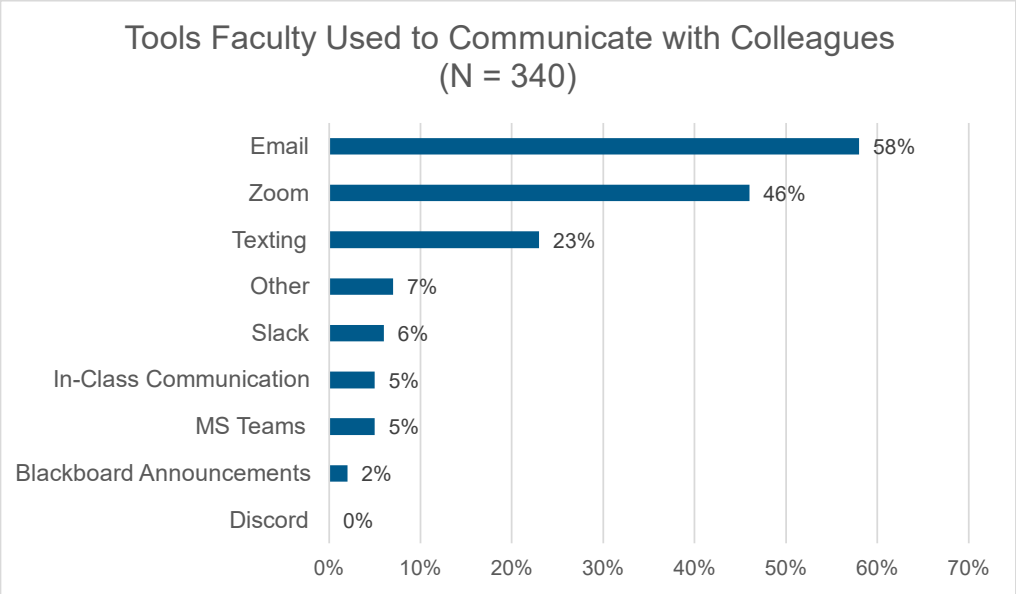
4.3 Use and Evaluation of Communication Tools and Practices

Faculty respondents answered questions about their use of various technological tools to communicate with both students and colleagues and the extent to which those

communication tools were effective. Faculty used a variety of tools to communicate with students; the use of Zoom, the use of in-class communication, Blackboard announcements, and emails were most frequently reported by respondents (see chart below).

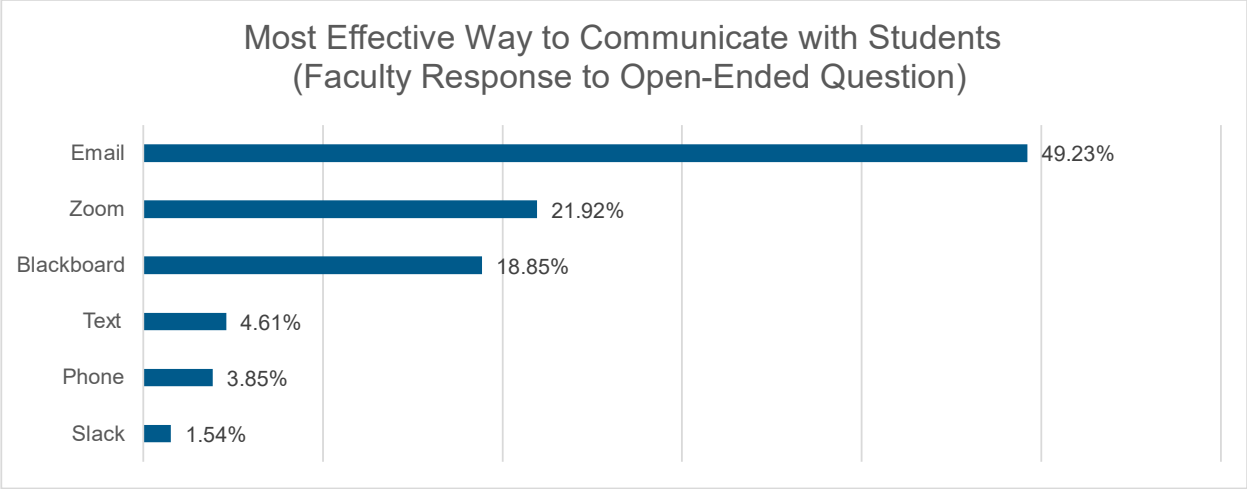


Faculty also used a variety of tools to communicate with colleagues; the use of email, Zoom, and text were most frequently reported by respondents (see chart below).

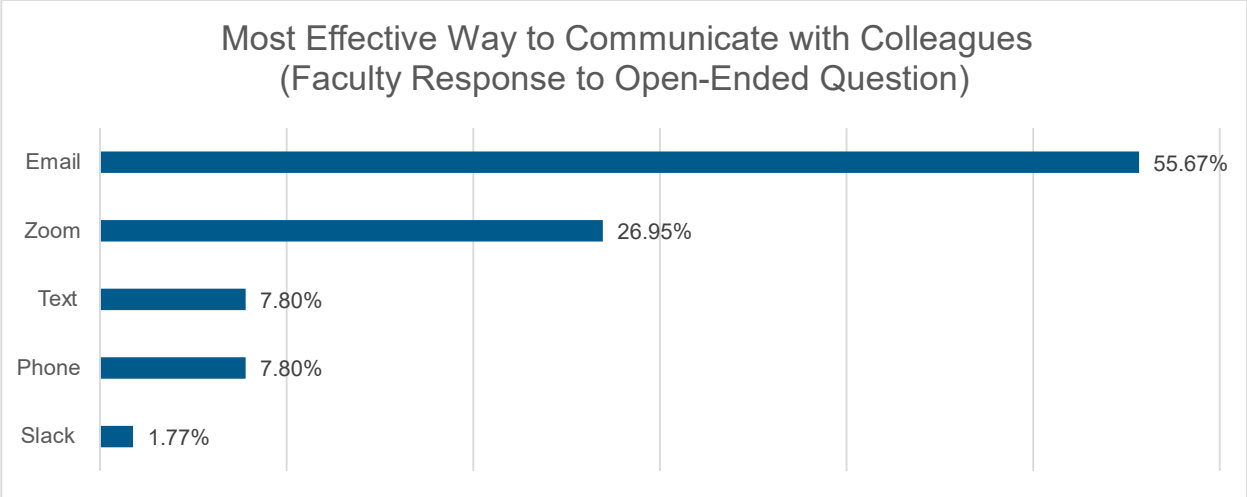


Faculty respondents answered an open-ended question about their perception about the most effective way to communicate with students; email, Zoom, and Blackboard

announcements were described as the most effective way to communicate with students (see chart below).



Faculty reported that email and Zoom are the most effective way to communicate with colleagues (see chart below).

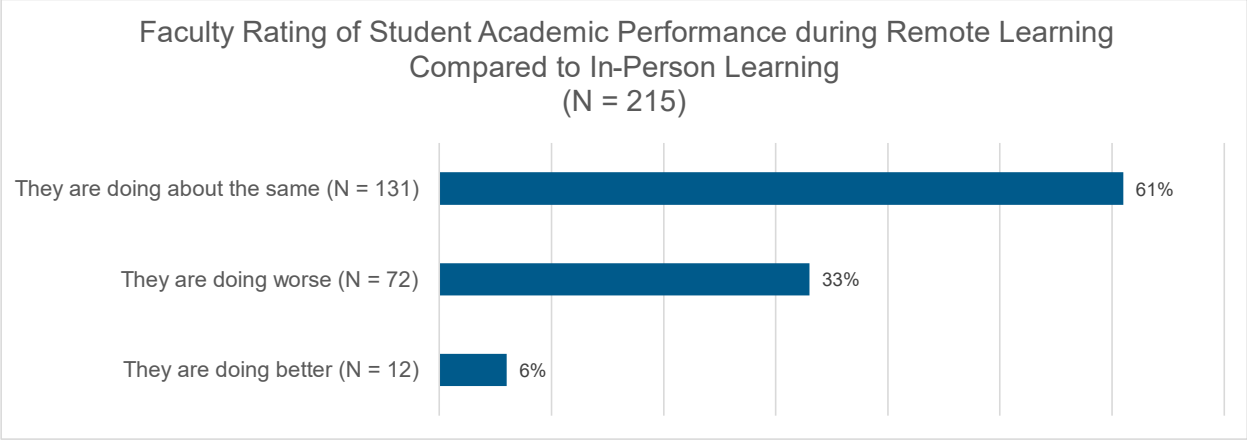


4.4 Remote Teaching Evaluation, Practices, and Challenges

Next, faculty respondents answered questions about their evaluation of pedagogical practices, and challenges related to remote teaching.

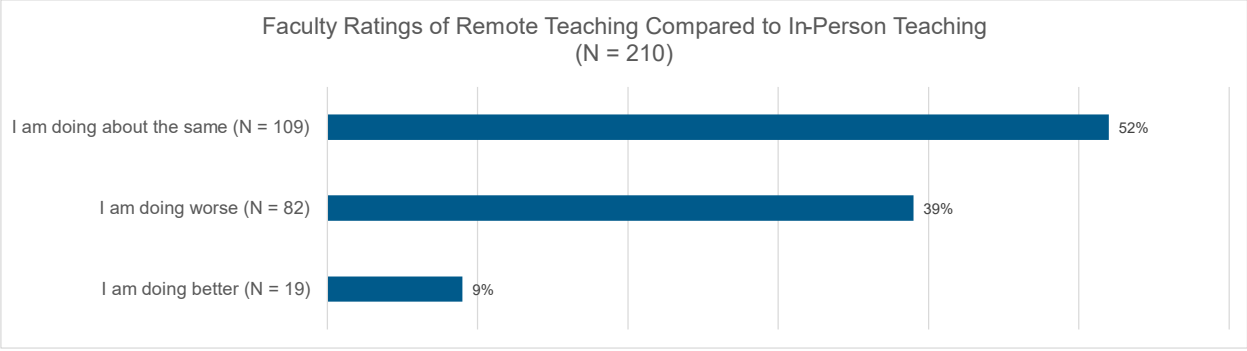
Evaluation of Students' Academic Performance during Remote Learning

A total of 63% of faculty respondents answered a question that asked them to compare students' academic performance during remote learning during the fall semester to in-person learning during previous semesters (n = 215) (see chart below).



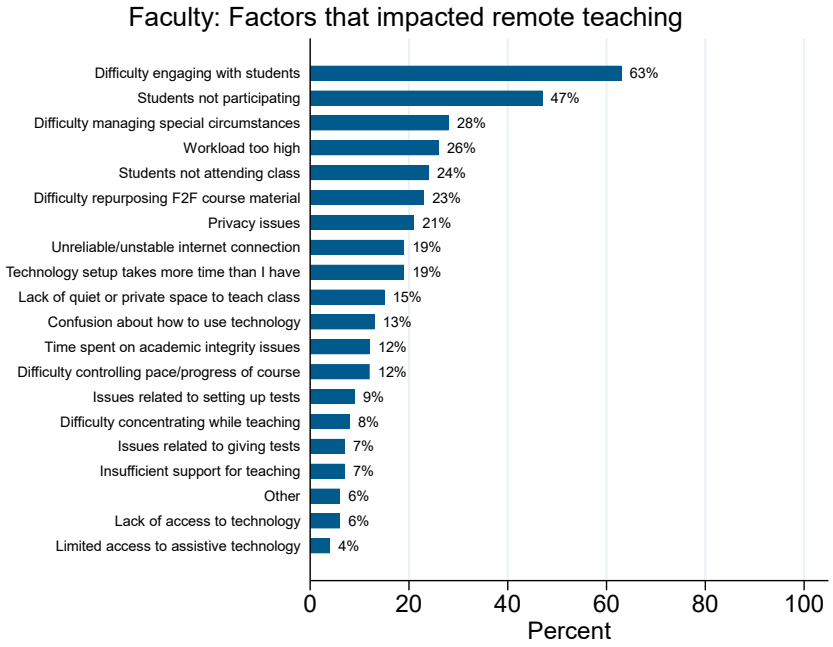
Evaluation of Faculty Teaching Performance during Remote Learning

A total of 62% of faculty respondents answered a question that asked them to compare their remote teaching during the fall semester to in-person teaching during previous semesters (n = 210) (see chart below).



Challenges Related to Remote Teaching

Faculty were asked both closed- and open-ended questions about teaching-related challenges during remote teaching. When given the option to select from a list of teaching challenges, faculty respondents most frequently selected challenges related to difficulty engaging with students, lack of student participation, difficulty managing special circumstances, and workload (see chart below).



A total of 56% faculty responded (n = 190) answered an open-ended question about the "top three challenges" that affected remote teaching. Responses were substantial in length, the average length of a response was 279 characters. The faculty responses were coded according to what faculty described experiencing as challenges. Most descriptions explained what faculty considered to be the causes of these challenges, and when there were brief answers, the challenges an individual described nearly always related to a common root cause. Therefore, the codes were afterward grouped into categories reflecting faculty views on the underlying origins of the challenges they faced. The coding proceeded in three rounds, updating the code book at each cycle. The final coding round included inter-rater reliability on the complete data set, which resulted in small modifications of the codebook which were mutually agreed upon. Eight main themes emerged as stable, with various sub-themes that remained consistent. These major themes are summarized below. Instances in the table below are reported out of the 190 responses, and percent is what fraction of the 190 responses included that theme.

Theme 1: Challenges related to difficulties with students. This was the most prevalent theme, expressed in some form by 68.9% of faculty respondents (n = 131) who answered the open-ended question.

The dominant category of subthemes within this theme was about the challenges of engaging with students in learning during remote instruction. The most prevalent challenge expressed by faculty (n = 57, or 30% of respondents) was that many students choose to keep their cameras off during Zoom (or other virtual) calls. This subtheme was unusual in that it usually was not accompanied by any explanation of the challenge, e.g., most faculty simply wrote "Cameras off!" However, insights that help to unpack this challenge can be drawn from cross-correlations among variables, presented after the

main findings about challenges. The second most prevalent challenge expressed by faculty (n = 44, or 23% of respondents) was the lack of participation in remote classes by students. Faculty were concerned about student engagement, particularly noting that students tend not to ask questions and that they are reluctant to participate in discussions.

A second type of subtheme concentrated on faculty's concerns for students' welfare. Many faculty (n = 37, or 19% of respondents) discussed students' situations quite substantially. Common occurrences were concerns for non-ideal home environments for students to join remote classes, noticing that students feel overwhelmed and cannot keep up, and referring to students' Zoom fatigue, stress from being quarantined, mental health challenges, and the fact that many students and their families have suffered from COVID in the context of the pervasive political upheaval. A few faculty were also concerned about the challenges of time zone differences for some students, difficulties with timeliness or non-responsiveness of students to email communications from faculty, and low attendance at office hours.

Theme 2: Challenges related to shortcomings of remote teaching. A total of 57.9% of faculty respondents expressed challenges related to the shortcomings of remote teaching (n = 110).This was the second most prevalent theme and encompassed many challenges related to a wide variety of teaching aspects, shared by 110 different faculty.

The largest number of faculty with challenges under this theme (39 faculty, or 20.5% of all respondents) found engagement and participation by students, particularly faculty's own frustration with the difficulty of engaging students in remote instruction, to be challenging enough to report in this question. These faculty expressed that remote instruction makes asking students questions more difficult to do, and that their teaching styles did not fit well with what remote instruction seems to demand or constrain. Some faculty also expressed tensions between wanting to respect student privacy but not having any way of telling if their students were engaged when they could not see students' faces. A related concern (expressed by 31 faculty) was frustration associated with not being able to gauge learning. Common to this subtheme was that faculty referenced in-person teaching. Some lamented the loss of being able to "read" the class or pick up cues about how well students were learning from body language visible in the classroom. Others discussed concern with only being able to visit a few breakout rooms instead of being able to get a full view of the entire classroom with small groups of students working; for example, one respondent expressed frustration with "not being able to 'eavesdrop' on group work in order to shape my teaching in the same way."

Smaller numbers of faculty reported other challenges associated with remote learning. Building student-instructor relationships was reported as challenging (n = 22), and faculty also mentioned time-related challenges (n = 20), including pacing lessons in remote, time lags when discussing readings, not having enough time for student questions, and the ineffectiveness and inefficiencies in orchestrating class discussions. Some faculty also reported specific challenges with particular content not being well matched to the processes to which remote instruction constrains the learning environment. Specific content was noted by some faculty (n = 15) as being very difficult

to teach remotely: labs, the writing process, fieldwork, and projects. Frustrations were also expressed by some faculty (n = 16) around particular content or processes being difficult to assess remotely, in particular, math or science answers on exams being able to be looked up in Chegg during exams, and faculty wondering whether attendance being counted when students were “black boxes” could be inaccurately representing whether the students were actually present.

Theme 3: Challenges related to technology*.* A total of 38.9% of faculty respondents described challenges related to technology (n = 74). Faculty described challenges with internet reliability and either hardware (primarily their computers, but sometimes other devices) and software, including platforms (e.g., Zoom, Blackboard Collaborate) and tools (e.g., polling, lecture recording tools).

Almost one-third (58, or 30.5%) of all faculty who responded to this question experienced hardware or software issues, or problems related to wifi/internet connections. Some faculty (n = 19) reported that they found platforms like Blackboard ‘very clunky.’ For them, such platforms complicated their work more than needed and increased the time it took to complete said work. A representative concern expressed was: “It [Blackboard] has various non-obvious features in non-obvious places, the support - while it is by people who intend to be helpful - takes an hour of my time to get an answer for anything, such as "where is the button to make the test accessible." I am a sophisticated computer user, and I waste several hours per week doing things that should be nearly instantaneous. […] Furthermore, many activities on Blackboard require hours of time scanning the screen for the right place to enter a number, the right button to click, etc.” Other challenges instructors faced was access to high-bandwidth internet. Instructors with younger children and working partners had issues connecting into classes. For instance, “Limited bandwidth that required an increase in internet capacity to accommodate 2 adults working remotely as well as a school-age child with some remote learning a computer that did not have the capacity to show the max of 49 students on one screen.”

Two related, but separate, issues were technology content for both faculty and students (n = 19) and pedagogy training for faculty (n = 6). Faculty expressed frustration with having to spend time in class explaining to students how to do the work rather than teaching the course content. Several faculty noted that a lot of instruction time could be saved if students were provided with technology related training by the IT department. Faculty also wished for pedagogical support for themselves to learn how to use technology in remote instruction in pedagogically sound ways, particularly for the specific content that they teach. A representative example of this was: “UMB was so focused on teaching people how to use things like Blackboard that it didn't offer any real guidance on effective online *pedagogy*. I didn't want orientation on the mechanisms; I wanted support moving graduate seminars into online format from a substantive, not a technical, perspective.”

Theme 4: Challenges related to personal difficulties experienced by faculty. A total of 24.7% of faculty respondents reported challenges that they were experiencing themselves (n = 47). Top among these were home environments that are not ideal for

teaching and difficulties creating a workspace (17, or 8.9% of respondents) and young children as a more important priority (16, or 8.4% of respondents), either trying to simultaneously manage children's remote schooling or difficulties working when daycares were closed. These two challenges overlapped for 4 respondents.

Faculty also reported major stressors, including work-life balance (11 or 5.8% of respondents), e.g., "Too little down time" and "No personal time", and Zoom fatigue (9 or 4.7% of respondents). Additional stresses were also reported by faculty (6 or 3.2% of respondents), including trauma related to the COVID pandemic and the political situation, mental health concerns, and isolation from other faculty.

Theme 5: Challenges related to planning for teaching. A total of 21.6% of faculty respondents expressed challenges with revising or planning lessons so that they would function well in remote instruction (n = 41). Common to all of these challenges was an underlying motivation to make learning accessible to all students across many situations in which they were learning. Faculty described how making new materials for remote can take inordinate amounts of time and they expressed frustration with the time spent on duplicating pieces in order to make learning more inclusive. Common examples of this were making synchronous classes also available asynchronously, and having discussions in class alongside asynchronous discussion boards. To a lesser extent (10 of the 41 in this theme), faculty expressed challenges with designing equitable learning experiences particularly concerning assessment. They described trying to figure out test implementation that is dishonesty-resistant but not an undue burden for students, and difficulty balancing student privacy rights and creating community in remote instruction.

Theme 6: Challenges related to feelings about remote instruction. For about 21.1% of faculty respondents, the primary expression was how they felt about remote instruction (n = 40). Three major feelings surfaced and were mutually exclusive (no faculty expressed more than one). The most common emotion expressed by faculty was frustration (20, or 10.5% of respondents). Characteristic statements included: "I hate teaching to black boxes," "Not all students understand that I might need an extra week to grade 30 activities," and "Having high expectations but also the flexibility students need right now." The next most prevalent emotion expressed was sympathy or empathy for students (15, or 7.9% of faculty). Faculty descriptions here were lengthy, focusing for example on students being under great stress and the importance of faculty flexibility, and wanting to accommodate the time zones in which students are located so that students will not need to attend class in the middle of the night. A third feeling, expressed by 10 faculty (5.3% of respondents), was satisfaction with how remote instruction was working. These faculty reported student learning as positive and appreciated how well Zoom worked.

Theme 7: Challenges related to teaching work other than planning. A total of 18.4% of faculty respondents described challenges associated with aspects of teaching other than planning (n = 35). The largest of these challenges (21 of the 35 in this theme, or 11% of all respondents) were related to providing feedback or access to it, e.g., grading work, or arranging assignments in ways that would work for students who require special accommodations. Some faculty (13 respondents) reported that following

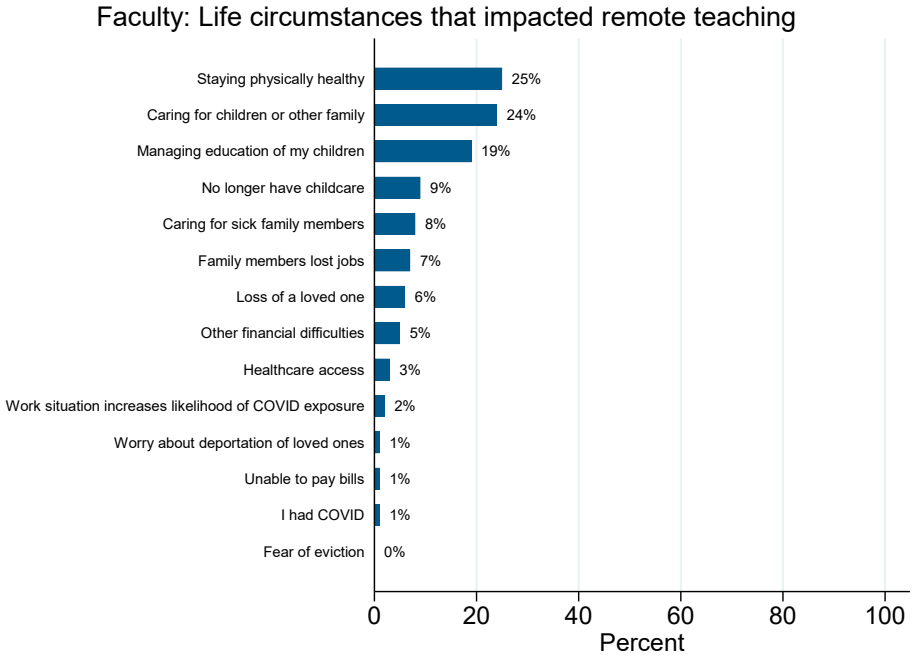
up with students remotely was time consuming. Other faculty (n = 9) discussed increased administrative burdens associated with teaching, such as additional demands from the Ross Center in order to meet student accommodations. Some faculty (n = 10) also spoke about special challenges specific to teaching large lecture classes. Common to the challenges with large classes was a frustration with the many tradeoffs that inevitably made learning inequitable for some students, e.g., waiting for more students to arrive vs. losing class time by not starting on schedule, the same fraction as all classes but larger quantities of students need individualized support and follow-up vs. time that cannot then be put into providing more substantial feedback to all students.

Theme 8: Challenges related to difficulties with institutional support. A small number of faculty, 6.8%, reported challenges related to support from the university (n = 13). One challenge reported by 8 faculty (4.2% of respondents) centered on remote-related demands associated with teaching that have increased, primarily more meetings. Another challenge, reported by 7 faculty (3.7% of respondents) referred to a wish for greater support by university administration. These two challenges overlapped for 2 respondents.

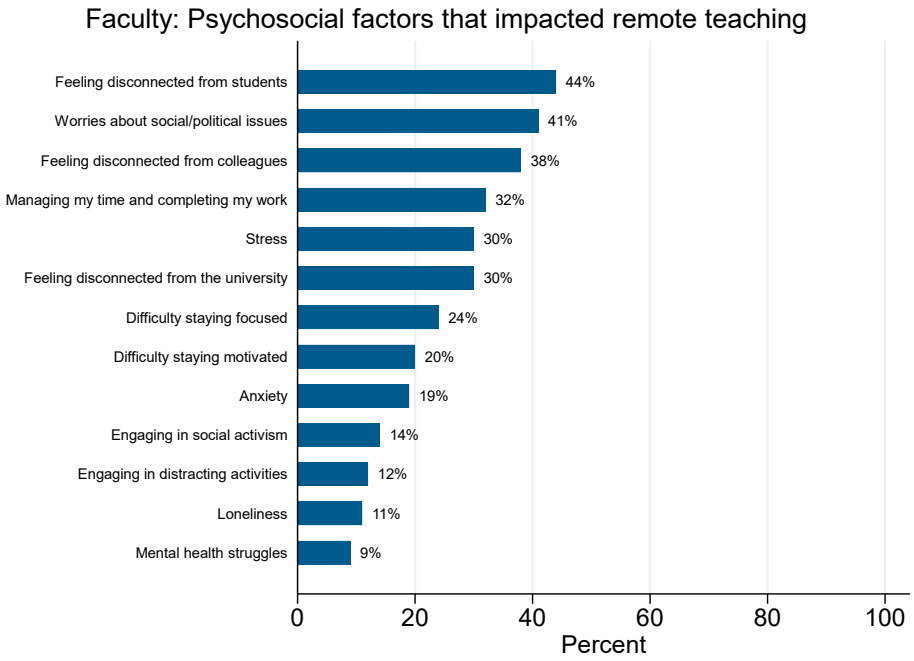
4.5 Challenges Related to Life Circumstances and Psychosocial Wellbeing

Next, Faculty respondents answered questions about the challenges related to life circumstances and psychosocial wellbeing that influenced remote-teaching experiences.

Faculty reported a number of challenges related to life circumstances; the most frequently reported challenges were staying healthy physically, caring for children or other family members, and managing the education of children (see chart below).



Faculty also reported a number of psychosocial wellbeing challenges; the most frequently reported psychosocial issues were feeling disconnected from students, worries about social/political issues, and feeling disconnected from colleagues (see chart below).



4.6 Work Demands During Remote Teaching

Faculty respondents answered questions about teaching-related work demands during remote-teaching.

A total of 63% of faculty (n = 217) responded to a question that asked them to compare teaching-related work during the fall remote-only semester to in-person teaching; of those who responded, 77.9% reported that they have *more teaching-related work* (n = 169), 19.8% reported that they have the *same amount of teaching-related work* (n = 43), and 2.3% reported that they have *less teaching-related* work (n = 5).

A total of 65% of faculty (n = 220) responded to a question that asked them to report the ratio of their teaching-related work compared to non-teaching related work; of those who responded, 49.7%, reported that the ratio of their teaching-related work compared to non-teaching related worked as a faculty member was *greater* than it was during on-campus instruction (n = 169), 13.5% reported that the ratio of teaching to non-teaching-related work was *the same* (n = 46), and 1.5% reported that ratio of teaching to non-teaching-related work was *less* (n = 5).

4.7 Factors that Exacerbate Faculty Vulnerabilities to Remote Teaching Challenges

Central to the purpose of this evaluation is our concern about the experiences of faculty who may be particularly vulnerable experiencing teaching, life, and psychosocial challenges associated with remote teaching.

Faculty Caregivers Experience More Challenges

We explored whether the faculty who identified as caregivers of children and/or other family members (n = 99) reported significantly more teaching-related, life, and psychosocial challenges during this period of remote operation. The data revealed that faculty caregivers at Umass Boston were indeed more likely to experience a range of challenges.

Caregiving faculty reported more teaching-related challenges. The findings from simple t-tests exploring differences between caregiving and non-caregiving faculty revealed that *faculty caregivers reported significantly more teaching-related challenges* in 16 of the 19 the teaching-related challenges categories. *Caregiving faculty also reported significantly more challenges related to life circumstances*. Compared to non-caregiving faculty, f*aculty caregivers reported significantly more challenges related to life circumstances* in 8 of the 15 categories. *Caregiving faculty reported significantly more challenges related to psychosocial wellbeing* in 12 of the 14 categories.

BIPOC Faculty Experience More Challenges

Our data revealed that faculty who identified as Black, Indigenous, and/or People of Color (BIPOC) (n = 32) were also more likely to experience a range of challenges. The findings from simple t-tests exploring the differences between non-BIPOC and BIPOC revealed that *BIPOC faculty reported significantly more teaching-related challenges* in 10 of the 19 categories. *BIPOC faculty also reported significantly more challenges related to life circumstances* in 5 of the 15 categories. *BIPOC faculty reported significantly more challenges related to psychosocial wellbeing* in 11 of the 14 categories.

5: Findings – Undergraduate Student Survey

A total of 825 undergraduate student respondents participated in the survey. Below, we detail the demographic characteristics of the student respondents in addition to comparing the demographic composition of survey respondents to the demographic composition of all undergraduate students at UMass Boston where possible, based on data from UMB Office of Institutional Research, Assessment, and Planning.

5.1 Sample Characteristics

Age

Of the 97.82% of undergraduate students respondents who reported age (n=807), the majority of students (65.06%) were in the 16-21 years-old-range (n=525), followed by 19.45% of respondents in the 22-25 range (n=157), 6.82% in the 26-30 range (n=55), 3.10% in the 31-35 range (n=25), 3.10% in the 36-45 range (n=25),

1.73% in the 46-55 range (n=14), 0.50% in the 56-65 range (n=4), and 0.25% of the students reported to be 65+ (n=2). A total of 18 students chose not to answer questions related to age.

Gender Identity

Of the 97.33% of students respondents who reported gender identity (n = 803), 69.61% of respondents self-identifies as female (n=559), 25.78% identified as male (n=207), 1% identified as non-binary (n=8), 0.62% identified as transgender male (n=5); 0.5% identified as genderqueer (n=4), 0.75% chose to self-describe (n=6), and 1.74% chose not to answer (n=14). The 25.78% of male student respondents is lower than the 43.25% of male undergraduate students at UMass Boston. UMass Boston only reports binary gender identity. A total of 22 students did not respond to questions about gender identity.

Caregiver Status

Of the 90.55% of student respondents who reported whether they were caregivers for children and/or adults (n=747), 11.65% indicated being a caregiver for children (n=87), 6.69% indicated being a caregiver for other adults (n=50), and 81.66% reported not being a caregiver (n=610). A total of 78 students did not respond to caregiver status questions.

Racial/Ethnic Identity

Of the 94.7% student respondents who reported racial and ethinic identity (n = 781), 49%, self-identified at White (n = 383), 16.8% identified as Asian (n = 131), 15.9% identified as Black/African American (n = 124), 6.7% identified as two or more races (n

= 52), 0.3% identified as Native American (n = 2), 5.1% chose to self-describe (n = 40), and 6.3% chose not to answer (n = 49). 32.7% of student respondents identified as hispanic, lation/a/x, or of spanish origin (n = 255). 44.7% of student respondents self-identified as Black, Indigenous, People of Color (BIPOC). 44 students did not respond to questions about race and ethnicity.

Class Standing

Of the 96.85% respondents who reported class standing (n = 799), 20.65% were freshman (n = 165), 28.54% were sophomores (n = 228), 29.16% were juniors (n = 233), and 21.65% were seniors (n = 173). 26 students did not respond to class standing questions.

Full/Part time

Of the 97.58% respondents who reported their student status (n = 805), 91.68% were full-time students (n = 738), and 8.32% were part time (n = 67). 20 students did not respond to student status questions.

First Generation

Of the 96.36% respondents who reported first generation status (n = 795), 47.17% were first generation students (n = 375), and 52.83% were not (n = 420). 30 students did not respond to first generation status questions.

Work status

Of the 96.97% respondents who reported their work status (n = 800), 53.63% were working part time (n = 429), 34.25% were not employed (n=274), and 12.13% were working full time (n = 97). 25 students did not respond to student status questions.

Disability status

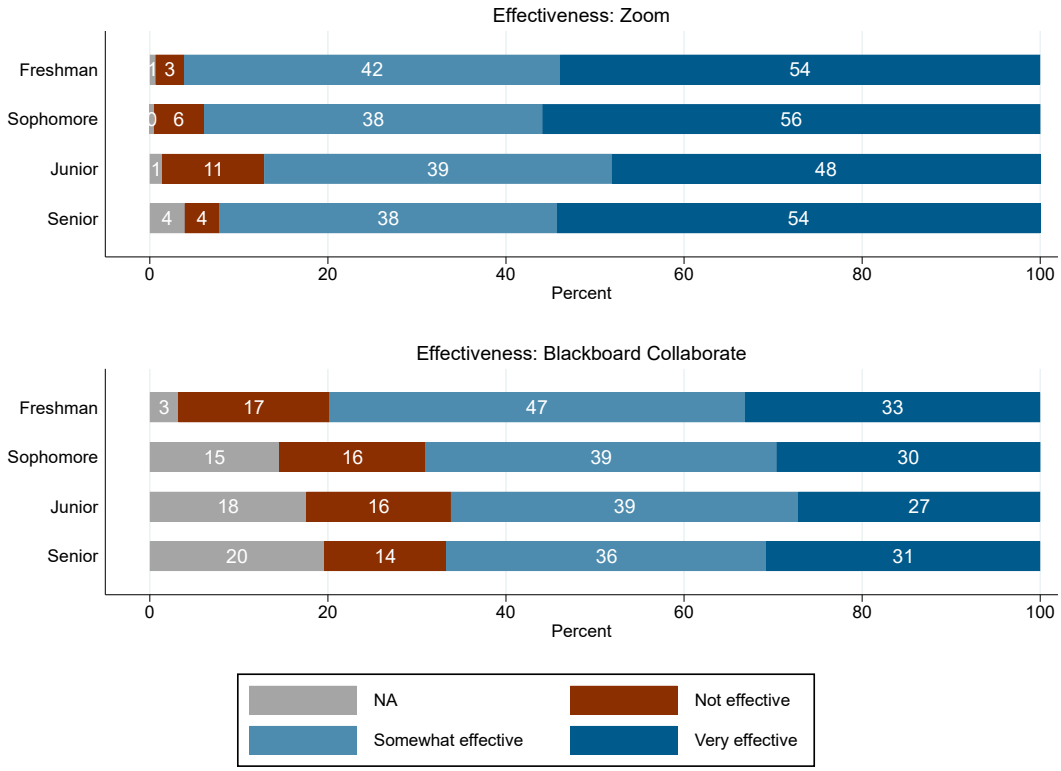
Of the 96.24% respondents who reported their disability status (n = 794), 9.57% have been diagnosed with a disability or impairment (n = 76), 8.31% preferred not to respond (n=66), and 82.12% have not been diagnosed with a disability or impairment (n=652). 31 students did not respond to disability status questions.

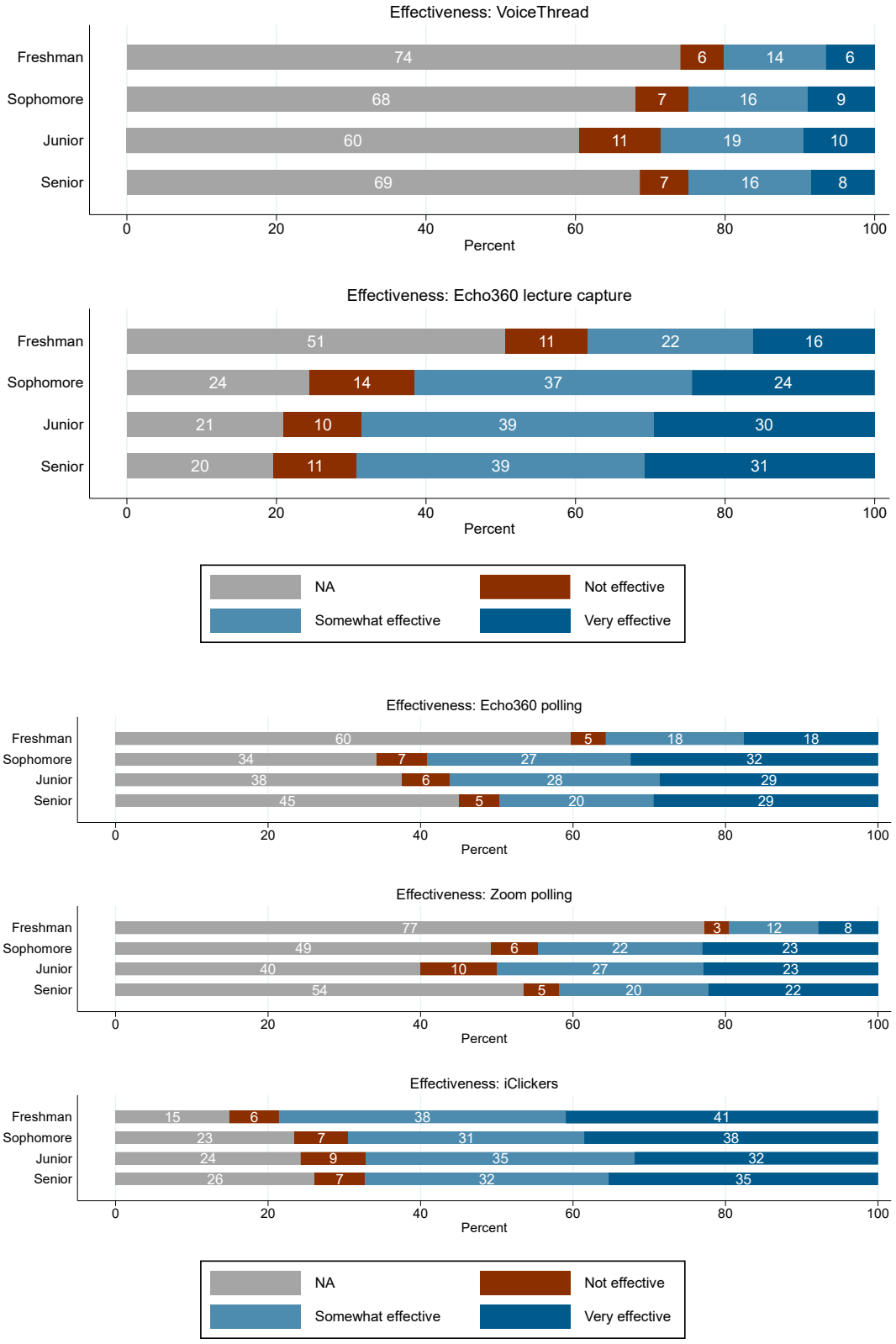
Immigration status

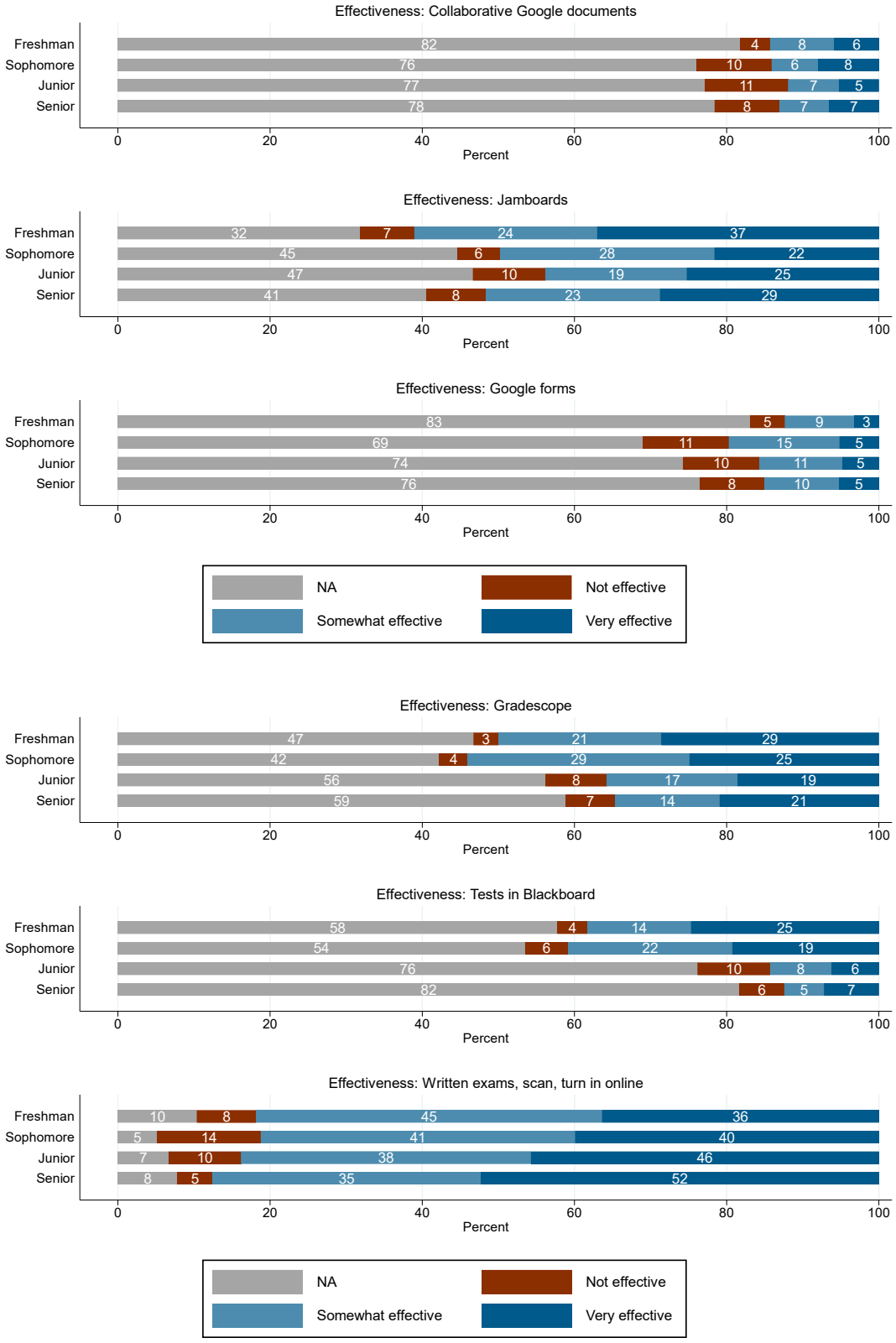
Of the 97.45% students respondents who reported their immigration status (n = 804), 87.06% are US citizens (n=700), 3.48% are naturalized citizens (n=28), 3.86% are international students on temporary student and work visas (n=31), 0.50% indicated their immigration status as DACA (n=4), and 5.10% listed their immigration status as other (n=41). 21 students did not respond to immigration status questions.

5.2 Use and Evaluation of Learning Technologies

Students were asked to rate the effectiveness of learning technologies used in the remote modality. 89.82% of students (n=741) responded to all of the questions on the relative effectiveness of these technologies. Noteworthy are the differences across class standing, wherein we see freshman and sophomores typically displaying significantly different preferences compared to juniors and seniors. Both Zoom and Blackboard Collaborate were ubiquitous in the fall, with Zoom being the clear preference in terms of effectiveness from the students' perspective. Students had much more exposure to Echo360 lecture capture than VoiceThread, and generally found it to be more effective. Of the G-Suite tools used in the fall, Google Jamboards were a clear favorite. Regarding the effectiveness of testing platforms, nearly all of the student respondents had experience with written exams that they had to scan and submit online. Students found these to be particularly effective. Students also found Gradescope and Blackboard to be effective, though to a lesser extent.




Effectiveness: VoiceThread
Freshman
Sophomore
Junior
Senior
74
6
14
6
68
7
16
9
60
11
19
10
69
7
16
8
0
20
40
60
80
100
Percent
Effectiveness: Echo360 lecture capture
Freshman
Sophomore
Junior
Senior
51
11
22
16
24
14
37
24
21
10
39
30
20
11
39
31
0
20
40
60
80
100
Percent
NA
Not effective
Somewhat effective
Very effective
Effectiveness: Echo360 polling
Freshman
Sophomore
Junior
Senior
60
5
18
18
34
7
27
32
38
6
28
29
45
5
20
29
0
20
40
60
80
100
Percent
Effectiveness: Zoom polling
Freshman
Sophomore
Junior
Senior
77
3
12
8
49
6
22
23
40
10
27
23
54
5
20
22
0
20
40
60
80
100
Percent
Effectiveness: iClickers
Freshman
Sophomore
Junior
Senior
15
6
38
41
23
7
31
38
24
9
35
32
26
7
32
35
0
20
40
60
80
100
Percent
NA
Not effective
Somewhat effective
Very effective


Effectiveness: Collaborative Google documents
Freshman 82 4 8 6
Sophomore 76 10 6 8
Junior 77 11 7 5
Senior 78 8 7 7
0 20 40 60 80 100
Percent
Effectiveness: Jamboards
Freshman 32 7 24 37
Sophomore 45 6 28 22
Junior 47 10 19 25
Senior 41 8 23 29
0 20 40 60 80 100
Percent
Effectiveness: Google forms
Freshman 83 5 9 3
Sophomore 69 11 15 5
Junior 74 10 11 5
Senior 76 8 10 5
0 20 40 60 80 100
Percent
NA
Not effective
Somewhat effective
Very effective
Effectiveness: Gradescope
Freshman 47 3 21 29
Sophomore 42 4 29 25
Junior 56 8 17 19
Senior 59 7 14 21
0 20 40 60 80 100
Percent
Effectiveness: Tests in Blackboard
Freshman 58 4 14 25
Sophomore 54 6 22 19
Junior 76 10 8 6
Senior 82 6 5 7
0 20 40 60 80 100
Percent
Effectiveness: Written exams, scan, turn in online
Freshman 10 8 45 36
Sophomore 5 14 41 40
Junior 7 10 38 46
Senior 8 5 35 52
0 20 40 60 80 100
Percent
NA
Not effective
Somewhat effective
Very effective

Approximately 18% of student respondents offered comments to the open-ended prompt, “If you would like to add any comments on what is or is not especially effective about any of these forms of technology, please add your comments here.” The major themes in these comments are summarized below the table, which details the number of instances and percentage of each category that appeared in the comments, out of the 151 responses.

Code category	**Overall counts**	**Percent**
Dislikes current exam method (timed, written then scanned, Lockdown browser)	38	25.2%
Dislikes proctored exams (causes anxiety, privacy concern)	23	15.2%
Difficulty with using technology	23	15.2%
Specific platform malfunctions	21	13.9%
Other (Wants a back option on BB, learning preferences)	18	11.9%
Comments on other platforms	16	10.6%
Likes/prefers Zoom	15	9.9%
Dislikes Blackboard Collaborate	14	9.3%
Internet connection issues (professor or student)	13	8.6%
Likes recorded lectures	10	6.6%
Staff need more training	9	6.0%
Dislikes/finds remote learning difficult	9	6.0%
Wants communication with peers/professors (ex. chat function)	8	5.3%
Dislikes Zoom	7	4.6%
Likes current exam method	7	4.6%
Issues with scientific interactive learning (polling in nursing, biology labs)	6	4.0%
Too many platforms	5	3.3%
Likes proctored exams	5	3.3%
Proctoring softwares malfunctions	5	3.3%
Faculty not accommodating students’ technological challenges	5	3.3%
Too many lectures/lectures are too long	5	3.3%
Dislikes remote group projects	4	2.6%
Likes/prefers Blackboard Collaborate	4	2.6%

Theme 1: Difficulty with exams. There are a multitude of formats for exams and students are unhappy with many of them. Specifically, written then scanned exams, timed exams, and exams using the Lockdown Browser often caused complications for students, resulting in worse testing performance. Students often advocated for their preferred method of testing rather than the method their professor was currently using.

Respondents in this category pointed out the issues with a type of exam itself, not proctored exams as a whole (or both). Students found that proctored exams were invasive to their privacy and also caused added anxiety or stress. Students felt like this measure was not needed at a time when students are already struggling in a pandemic. Others also experienced malfunctioning in the proctoring software during an exam, creating more stress.

Theme 2: Difficulty with Blackboard Collaborate. Blackboard Collaborate is frequently used and can be effective, however, it was noted that this platform especially had performance issues. Students mentioned that the Blackboard Collaborate slowed down their computer, used more Wi-Fi bandwidth, and was overall less effective than Zoom. Voicethread was difficult to use according to students, but they liked the ability to watch lectures.

Theme 3: Difficulty with internet connectivty. Students with poor internet connectivity struggled to use certain platforms. Attendance and participation grades were negatively affected by the struggle to get into class and stay connected. Connection issues and inability to attend class in general were eased by the use of pre-recorded/recorded lectures.

Theme 4: Difficulty with ineffective use of technology. Respondents noted that technology was often ineffective due to the professor not knowing how to use it effectively. Both faculty and students found technology difficult to use at times. Some recommended further staff training. A few students have poor experiences with professors refusing to help them through technological difficulties.

Theme 5: Preferences for the use of certain technologies.

Students prefer Zoom for synchronous meetings and Blackboard for the asynchronous submission of assignments. Blackboard exams also seemed to be the most effective form of exams mentioned.

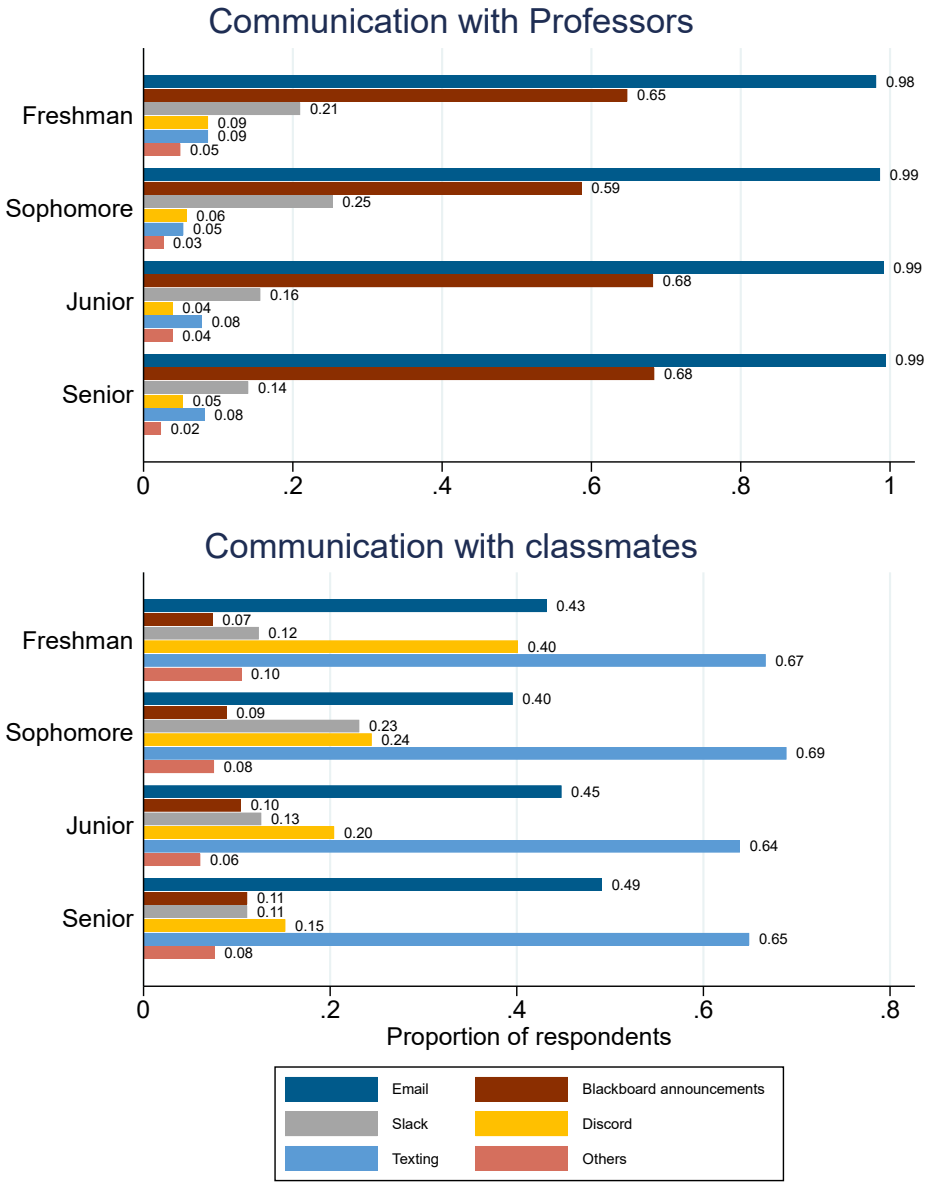
The chat function made students bond with peers and be able to ask questions to the professor. Students disliked when this function was disabled or limited as it terminated any method of communication between classmates. Group projects have become much harder for students remotely and several wished this would be excluded from the remote teaching format.

Students feel disorganized when professors use multiple platforms and want this to be standardized. Some platforms are not free to students, such as the iClicker platform, and students dislike this.

Different methods of polling, the difficulty of nursing programs, and how to best run remote biology labs were discussed.

5.3 Use and Evaluation of Communication Tools and Practices

97.09% of student respondents answered questions about their use of various technological tools to communicate with both faculty and their classmates (n=801). We disaggregate these findings by class standing to highlight the differences in use of communication tools among these groups. As expected, students of all class standings primarily communicate with their professors by email. Freshman and sophomores indicated a higher usage of Slack in communicating with their professors than juniors and seniors. However, in their communication with their peers, students indicated significantly less use of email, and significantly more use of Discord and text messaging. We also note that freshmen indicated the highest use of Discord to communicate with their peers, while students in higher class standings used Discord to a lesser degree at each level.



5.4 Remote Learning Evaluation, Practices, and Challenges

Evaluation of Remote Learning Experiences and Practices

A total of 479 student respondents (58%) responded to an open-ended question that asked them to describe what is "most different to you when you think about how remote learning is going compared to on-campus learning?" As before, the open-ended responses were coded by two independent coders who established reliability agreement and categorized the responses into various categories. The frequency of comments occurring in each category, and the relative percent of the total number of responses to this question, are presented in the table below, which is followed by a description of the general themes related to these categories.

Code category	Overall counts	Percent
Feeling disconnected in general (lack of interactions, primarily social)	145	30.3%
Relationships with peers (difficulty socializing, meeting friends, and forming study groups)	123	25.7%
Relationships with faculty (difficulties with office hours, asking questions, forming professional connections)	102	21.3%
Individual learning experiences (understanding material, self-teaching, different learning process)	92	19.2%
Physical learning environment	66	13.8%
Motivation and focus (distractions, less productivity)	66	13.8%
Class experiences (less engagement, communication, class atmosphere)	63	13.2%
Support (advising, tutoring, other resources)	45	9.4%
Time (free time, misses time between classes)	45	9.4%
Increased workload (school and other obligations)	34	7.1%
Other (everything, nothing, NA, labs)	33	6.9%
Class format (lectures, exams, teaching styles)	31	6.5%
Technology (burnout, reliance)	23	4.8%
Never leaving home (no change in setting, less physical activity, no separation between school and free time)	22	4.6%
Mental health struggles	18	3.8%
No commute	16	3.3%
Sense of community (less school spirit, connection to university)	15	3.1%

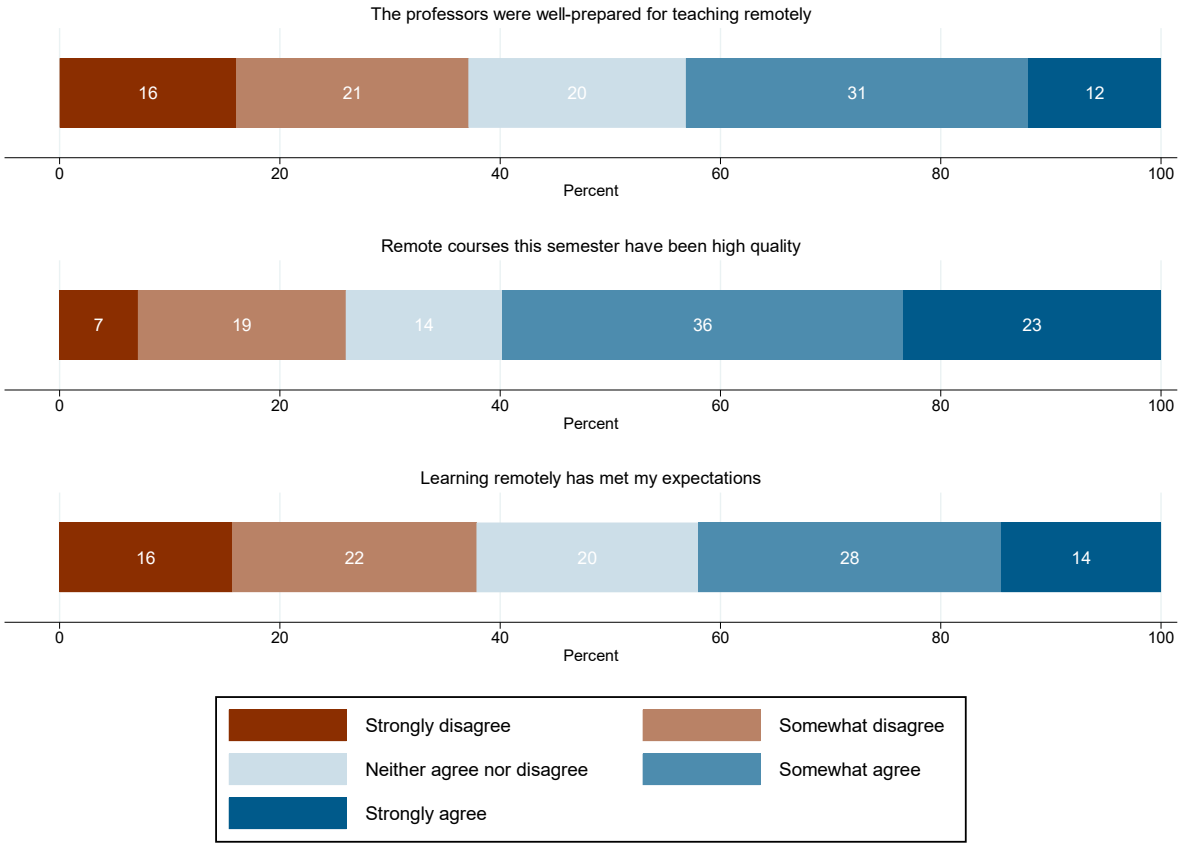
Theme 1: Challenges related to social disconnection. Students noted the overall isolation and disconnect they feel with remote learning. This included the lack of social interactions they experienced. Specifically, students reported struggling to make friends and socialize with their peers. Students also reported that it was much harder to connect with their professors virtually. Students noted that they felt more discouraged to attend office hours. The efficiency of asking quick questions in class is also limited in the remote setting, causing students to remain confused. Finally, students reported that they felt like professional relationships were hard to develop in the remote learning environment.

Theme 2: Challenges related to academic support. Students reported that remote learning makes them feel like they have to teach themselves material. Some respondents attributed feeling a lack of academic support because of confusion about class material while others noted that they were not reaching out for help from faculty. Some noted difficulty related to not being with peers (i.e., in class) who could help to aid learning. Students noted that remote teaching was less effective in enabling their understanding of the class. Students reported that they felt that academic support services were unavailable and out of reach. When they needed help, students felt like they had no one to reach out to.

Theme 3: Challenges related to the learning environment and time management. Student respondents described the reasons for their preferences for the in-person learning environment. Some students described a preference for the on-campus environment and access to quiet spaces (e.g., the library) for studying and group work. Students overwhelmingly felt more distracted and less motivated at home. Even when students were productive, they remarked that school did not feel “real” anymore. Students reported feeling less engaged, more confused, and noted that communication about classes (both in and outside of the virtual classroom setting) seemed disorganized. Some students noted that when cameras were turned off it led to less engagement and participation in class. Students also noted that remote-learning made it difficult to separate their schoolwork from their home life; in-person classes provide structure which helps students to feel more organized.

Remote Learning Challenges

99.15% of student respondents answered questions about their overall remote learning experience (n=818). On average, students found faculty to be better prepared than not: 43% selected *somewhat agree* and *strongly agree*, vs 37% who selected *somewhat disagree* and *strongly disagree*. On average, students found courses to be of high quality: 59% selected *somewhat agree* and *strongly agree*, vs 26% who selected *somewhat disagree* and *strongly disagree*. However, students were nearly perfectly split on whether remote learning met their expectations.



Out of the 825 students who responded to the survey, 78.7% answered the open-ended question about the top three challenges they faced during remote learning (n = 650). The average number of characters per response was 159.

The student responses were coded according to what students described experiencing as challenges. The coding proceeded in three rounds, updating the code book at each cycle. Following the third cycle, inter-rater reliability checks were performed with two individuals. Each coder re-coded a different 5% of the responses using the third-round code book, resulting in 96.0% and 95.9% agreement. One code accounted for imperfect results, and it was found that this code overlapped substantially with another code, so the two codes were combined. Descriptions and examples of the final codes, and their frequencies, are detailed below.

Theme 1: Challenges related to mental health and concentration challenges. The most frequent challenge, described by nearly half of all student respondents (44.8%), was decreased motivation to learn (n = 291). Students reported ADHD being harder to manage, a lack of ability to stay focused, difficulty concentrating and being easily distracted, difficulty waking up in time for early classes, loss of interest in taking part in classes, and struggles with time management. Illustrative examples of student responses:

- “Not interested or engaged in lectures”
- “It’s hard to focus when everything is online”
- “Being motivated to attend class”
- “I have faced struggles in is time management, it can be difficult to determine how much time and effort you should put into certain materials because there are times where they are never discussed again”

Almost one-fifth of students (18.8%) reported workload-induced stresses or anxieties (n = 122). They noted that their workload in courses was substantially higher than before. Students reported feeling severe pressure from the increased workload, and they observed and felt it very unfair that instructors seemed to think students have a lot more time so the instructors can assign more work. Some students reported that they were thinking about dropping out. Illustrative examples of student responses:

- “Heightened anxiety about grades, graduation, pandemic precautions, and unemployment”
- “Remote learning has increased my anxiety level to the point where I've had panic attacks because of the pressure”
- “Being assigned an absurd workload for every class”
- “Teachers overloading students with more work because they think we are home and all we do is sit here and do school all day so we don't have time to workout or go to work”

A little more than one-tenth of students (10.8%) experienced mental health challenges caused by remote learning (n = 70). In particular, they described experiencing depression, stress, or high anxiety. Illustrative examples of student responses:

- “The overwhelming workload put on students during a pandemic. I am a nursing student who also works in a hospital. I can not even schedule to see my primary care physician let alone someone to talk to about what I have gone through with the death at work but now my main concern is not failing my classes and losing all the progress I have put into my education for the past 4 years. What other generation of students have had to literally survive and adapt in such a way in order to get this same degree?”
- “Browsers that record or have someone watch me taking a quiz or test make my anxiety extremely bad and i genuinely feel as though they have made my scores lower because i’m so focused on being accused of cheating when i am not”

Students (7.5%) referred to mental exhaustion as a challenge of learning remotely (n = 49). In particular, they referred to Zoom fatigue, burnout, headaches from too much computer time, and exhaustion from 10 hours/day staring at a laptop. Illustrative examples of student responses:

- “Focus- online school can be very draining, and staring at a computer screen all day severely strains my eyes”
- “Overwhelmed from amount of information”
- “Looking at a computer screen all day”

Theme 2: Challenges related to learning and student-student interactions. The second-most frequent challenge, expressed by approximately 28.8% of student respondents (n = 187), was related to difficulty with adapting to and valuing the learning they were doing remotely. Students listed what they found difficult about remote learning (e.g., students talking over one another, no one talks in breakout rooms, true discussion doesn't happen, tests are harder online, class is too fast). Students noted that remote labs were especially difficult or hard to understand because they were not hands-on. They lamented not being able to go to tutoring sessions and office hours the way they used to do. They reported that it is more difficult to learn complex things remotely, and that it is hard to manage learning when in a disruptive class. Some students reported having to teach themselves the material because they could not follow what was going on in class. They also expressed difficulty keeping track of due dates. Illustrative examples of student responses:

- "I am a hands on learner so learning on zoom is virtually impossible"
- "Dates and content were difficult to cover without seeing materials in person"
- "Trying to relearn the material after classes"
- "IT WAS CONFUSING. I had to learn physics online and it was not easy nor did I succeed"
- "Lab was very difficult and tedious at times. Due to not having the same resources that are offered on campus, my experience suffered as I felt that we were simply being shown information and expected to learn despite not being taught"
- "Many students with their cameras off, very little participation, and when called upon them not answering...It gets distracting, and frustrating"
- "Having the tests be 1000x harder than normal because they are online"
- "Not have access to UMB resources"
- "Don't feel comfortable to show my face and talk"

About one-fifth of students (21.2%) reported missing peer interactions and social connections; many students referred to this as the "academic environment" (n = 138). In particular, students missed going to campus and/or studying on campus. They noted that they wish that classes could be on campus because it is difficult to make new friends in Zoom, it is hard to talk to peers, they were not able to talk to other students or their professor in person, and they wished it were possible to socialize with friends (on campus). Illustrative examples of student responses:

- "Lack of social connection to both professors and students"
- "lack of ability to interact with classmates and new people"
- "On campus teaching is more effective"
- "Remote learning made it very difficult to make new relationships with classmates and took away from the communal learning experience"

Related to peer interactions, some students (4.5%) expressed challenges associated particularly with collaborating on group projects or studying in groups (n = 29). They found it difficult to organize study groups and reported difficulties with coordinating times

remotely when students could work together in Zoom. Illustrative examples of student responses:

- “I have struggled with group projects because it is difficult to find times that work with other group members or get into contact with them”
- “Group work is harder and seems meaningless because the only group work that happens seem to be busy work now”
- “Not being able to meet with study groups in person (more than 2 people studying over zoom or facetime is a nightmare)”

Theme 3: Challenges related to internet and technology difficulties. A total of 28.3% of student respondents reported experiencing internet difficulties (n = 184). Students reported internet connection outages or reliability problems, sometimes for extended periods of time. They expressed frustration with having to pay for upgraded internet, and with platforms or software that did not function properly on their computers. They described bandwidth issues when multiple people in their homes were using internet simultaneously, which sometimes resulted in them getting disconnected from class or while taking tests. Some students were also frustrated when their instructors required webcams when the student did not have one. Illustrative examples of student responses:

- “Technical difficulties (bad wifi/old device issues)”
- “I can't afford a nice laptop that doesn't give me technical difficulties”
- “My low quality laptop, my low quality internet”
- “Technology issues”
- “Internet reliability: my mom, sister, and myself are all functioning remotely at home and our wi-fi bandwidth is not able to handle that smoothly”
- “My internet connection to be in class. I have been down for a couple weeks”

Theme 4: Challenges related to home, family, and life situations. About one-fifth of students (20.2%) reported being in home situations in which learning was challenging (n = 131). Students described difficulties in finding a quiet place to study at home, noted that other family members were distracting or interrupted their learning, and reported that they lacked privacy at home to be able to talk or have their videos on during class. Some students observed that participating in class while in bed was not ideal for learning but it was their only option. Other students simply wrote that they had difficult home situations. Illustrative examples of student responses:

- “Inability to focus at home, Family or roommates trying to all do classes at same time”
- “Living at home difficult”
- “Uninterrupted privacy for lectures and coursework”
- “Everyone at home on zoom little house”

A particular area in which some students (8.6%) found challenges with accommodations by faculty was students’ work obligations (n = 56). Students referred to family, especially young children, and jobs as challenges during remote learning, especially difficulty with

balancing work with school. Many of these students referred to essential worker roles. Illustrative examples of student responses:

- “Balancing work/family/school”
- “Working around family and work obligations”
- “Job”
- “A lot of work outside of class time that I am unable to complete given how much I am working for my jobs”
- “Having to work full time as an essential worker while maintaining full time school”

Students expressed several conditions in their lives that made remote learning challenging. For some students (6.2%) these were financial challenges (n = 40). Students referred to financial instability, noted having family members who were unemployed, remarked on not being able to afford tuition or extra hidden costs (such as boosted internet) that were necessary for remote learning. Some students noted what they had to go without in order to do remote learning. Some students (5.7%) described challenges associated with caring for others, either their own children or younger siblings (n = 37). Others were caring for family members with COVID. In addition, some students (4.5%) expressed concerns about the pandemic at their doorstep, intensely fearing getting COVID, while others spoke about not being able to go to the doctor or having other health concerns that went untreated. Illustrative examples of student responses (n = 29):

- “I lost my job bartending & financial stress has played a key role”
- “I was not able to get my money back once I realized how the school was operating during the semester”
- “Finances (I can't afford a nice laptop that doesn't give me technical difficulties)”
- “Increased utility bills”
- “Heightened anxiety about… unemployment”
- “I have siblings (3), in which I'm basically their second mother, so making sure they go to their classes and do their homework making me time very limited for studying and hw and always having to help them with everything”
- “Caregiving”
- “My son and I are both in school and the wifi connection wasn’t great”
- “Loosing a family member”
- “Covid was serious in the family and was kinda hard to stay on top of class work”
- “Health related issues getting in the way of learning”
- “My physical health affects other aspects of my life and makes it so i have less energy and desire to learn”

Theme 5: Challenges related to professors. About one-eighth of student respondents (12.9%) experienced challenges with their professors not responding to emails (n =84). Some referred to professors not responding at all to questions or to emails, others reported a lack of communication from their instructors about course expectations, and some had difficulty understanding what their professors communicated or experienced a

lack of congruence between different instructors in the course. Illustrative examples of student responses:

- “They refuse to answer their email”
- “These labs are a complete joke. The TA's aren't matching what the professors say.”
- “Not feeling connected to my professor, in a way that I feel comfortable asking questions or help or just talking to them”
- “No clear or specific instructions about the important assignment through lecture on zoom.”
- “Less one on one student-teacher time”

One tenth of students (10.0%) found their professors not to be sufficiently accommodating or flexible with students’ challenges (n = 65). Students referred to what they considered to be under the professor’s control, either in something that the professor could be doing but was not, or the way that the professor set up the course that made it difficult for students to learn. Students referred to how much time it took to do assigned work outside of class (much more than in-person learning), the scheduling of due dates for course components, and lack of provision of asynchronous makeup options when students could not attend class for legitimate reasons (e.g., work obligations, childcare, translating for parents at doctor appointments). Students also expressed frustration with the delivery of the courses as set up by their instructors; a number of students expressed frustration with professors turning off the chat so that students could not communicate during class. Some students felt strongly that professors should have adapted their class structures and teaching approaches to meet remote instruction, and they expressed frustration when they pointed out teaching practices that functioned poorly in remote (e.g., assignments, tests) and no attention was given to it. A frequent refrain from students was that professors teach as if there are no differences between on-campus and remote learning. Illustrative examples of student responses:

- “Assignments due on the weekend. Too many classes had work due on Saturday or Sunday. It made it difficult to ration my time appropriately.”
- “Professors taking away points from students for not always having their camera on felt uncomfortable and unfair when the camera does not necessarily prove class engagement”
- “Professors inability or unwillingness to change their teaching styles due to not being used to technology themselves. Professors not showing leniency when it comes to remote learning. Professors assigning work expecting students to not have jobs or children during a pandemic when its actually not true.”
- “Inability to ask questions as if in class”
- “Professors assigning exams not during class times. Everyone has different work schedules and class schedules so this was tricky.”
- “Insensitive to those who don't comprehend the online navigating system”

Some students (8.2%) expressed challenges with communication in and around learning (n = 53). Students indicated having questions and not being able to ask them.

Sometimes students explained why they considered that this happened or what would have made it better and/or the effect that it has on the student. Students also described challenges in how or why asking questions did not function properly, e.g., referring to where questions should have been able to be asked, and they wished they had better mechanisms for being able to communicate with classmates. As noted earlier, sometimes students described what the professor did to limit or prevent this (e.g., turning off chat in Zoom). Illustrative examples of student responses:

- “Lots of questions especially in labs, nothing was actually explained well”
- “Not a uniform policy on how to handle questions”
- “Lack of access to easy tutoring”
- “Questions cut short”
- “Not being able to easily communicate face to face with other students, not be able to hold study groups”

Some students (7.8%) found some of their professors to be disorganized at times (n = 51). Usually students pointed to one specific aspect of a course as being disorganized, and they spoke of the effects that issued from it or how learning would have been better if there were better organization in relation to that aspect. Illustrative examples of student responses:

- “Organization of material from professors”
- “information was easier to miss (deadlines, etc)”
- “Professor's lack of understanding of the technology lead to a disorganized experience”
- “The only thing I would ask is that professors try to open up the course a few weeks ahead of time or even just provide the whole course in the beginning of the semester. I like to get things done early just in case life takes over and tries to mess with school and when professors gave me the information like what chapters I would be expected to read throughout the semester is was useful for me and assisted in my success.”
- “Lack of recording lectures or material distribution”
- “I always wonder why it was so hard for professors or even teachers to teach so that would not make me need any extra help outside class hours. If they taught in that way, at least I could adjust myself and teach myself some materials, but how could I when they are rushing to get a lesson a day or two before an exam. How is that fair?”

Another challenge for students (6.3%) was the proliferation of platforms or sometimes faculty’s lack of tech savvy with platforms (n = 41). Students expressed frustration that some professors did not use, apply, or set up remote instruction in effective ways for students. They were also frustrated by the use of too many different platforms or software being used across all of their classes. Some students described professors as not knowing how to set norms for effective learning to happen remotely, or not providing adequate information in the context of the technology (e.g., telling students aloud in class what assignments were without writing the information anywhere). Sometimes

instructors' lack of internet reliability was disruptive to learning. Illustrative examples of student responses:

- "Prof not knowing how to use zoom"
- "Professors not providing enough explanation/instructions for material and then not being reachable to ask for clarification"
- "Many different learning platforms"
- "Not a uniform policy on how to handle questions. Some professors accept raised hands and in some classes students speak over the professor. In classes with 140-100 students it is extremely disruptive"
- "Learning material just by hearing and not visually"
- "Bad internet that the professors had"
- "Adaption to new technology, there is a lot of function blackboard and other new tech offer but many teachers don't know about or don't utilize."

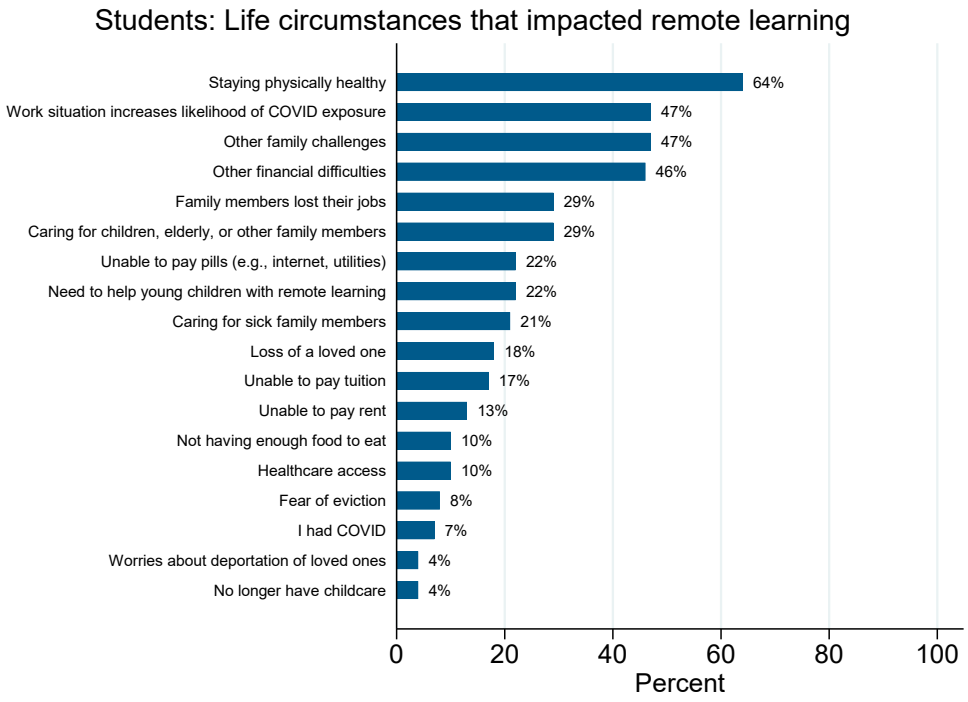
A small fraction of students (1.7%) described unique and intense challenges associated with proctored exams and professors requiring cameras to be on (n = 11). They disliked how lockdown browsers froze their computers and they expressed privacy concerns both during exams and also during classes when they did not want to be seen in their situations. Illustrative examples of student responses:

- "Professors taking away points from students for not always having their camera on felt uncomfortable and unfair when the camera does not necessarily prove class engagement"
- "Technology and privacy concerns. A lot of students including me can't afford a webcam and a pc monitor compatible with one and have to use their phone to use a camera."
- "Proctored exams. It is a nightmare. It's better if an in-person exam is scheduled"
- "Browsers that record or have someone watch me taking a quiz or test make my anxiety extremely bad and i genuinely feel as though they have made my scores lower because i'm so focused on being accused of cheating when I am not"

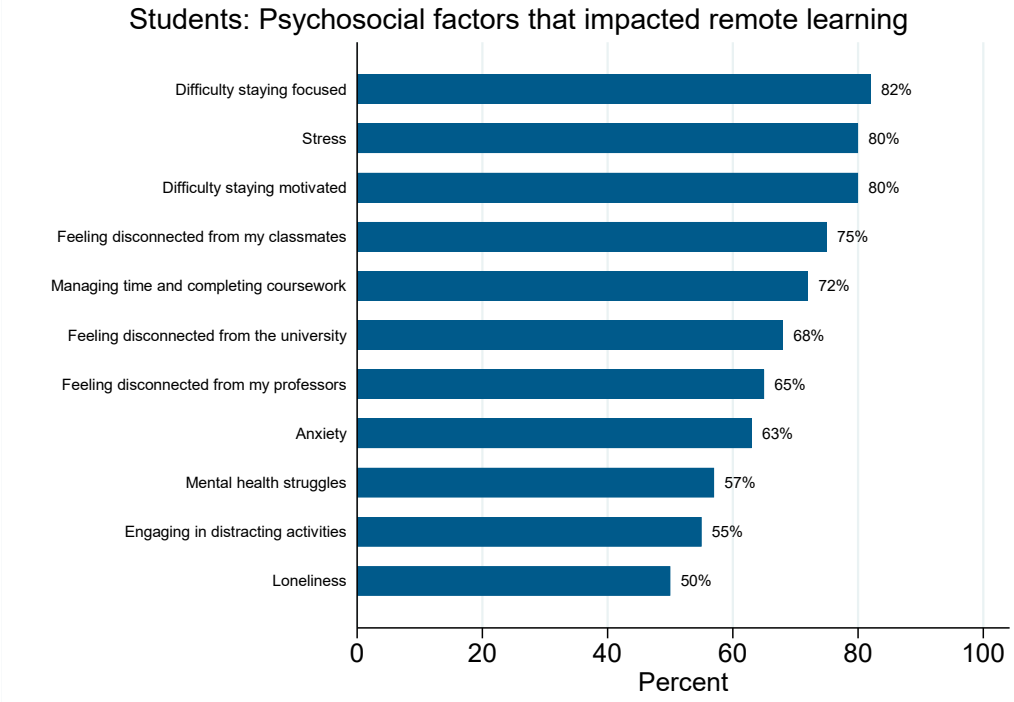
5.5 Challenges Related to Life Circumstances and Psychosocial Wellbeing

Student respondents also answered questions about the challenges related to life circumstances and psychosocial wellbeing that influenced remote-teaching experiences.

Students reported a number of challenges related to life circumstances; the most frequently reported challenges were staying healthy physically, work increasing the likelihood of COVID exposure, family members having lost their jobs, caring for children or other family members, and other family and financial difficulties (see chart below).



Students also reported a number of psychosocial wellbeing challenges; worth noting, students indicated the prevalence of these challenges at much higher levels than faculty. All of the listed challenges were selected by at least 50% of the student respondents. Of those, the most frequently reported psychosocial issues were difficulty staying focused, feeling stressed, and difficulty stay motivated (see chart below).



5.6 Factors that Exacerbate Student Vulnerabilities to Remote Learning Challenges

Central to the purpose of this evaluation is our concern about the experiences of students who may be particularly vulnerable experiencing learning, life, and psychosocial challenges associated with remote learning.

Student Caregivers Experience More Challenges

We explored whether the students who identified as caregivers of children and/or other family members (n = 137) reported significantly more learning-related, life, and psychosocial challenges during this period of remote operation. The data revealed that student caregivers at UMass Boston were indeed more likely to experience a range of challenges.

Caregiving students reported more learning-related challenges. The findings from t-tests exploring differences between caregiving and non-caregiving students revealed that student caregivers reported significantly more learning-related challenges across a range of technology access and use issues, and privacy concerns related to the use of cameras during remote learning. Caregiving students also reported significantly more challenges related to life circumstances across issues of inability to pay rent and utilities, and other financial difficulties. Caregiving students did not report significantly more psychosocial wellbeing challenges.

BIPOC Students Seem to Experience Fewer Challenges

Our data reveal that students who identify as Black, Indigenous, and/or People of Color (BIPOC) (n = 346) potentially demonstrated higher levels of resiliency during remote learning. We find that BIPOC students are significantly less likely to experience challenges associated with remote learning. Across nearly all the remote learning challenges presented in the question, BIPOC students were significantly less likely than non-BIPOC students to indicate that the factor was a challenge. For life circumstances, BIPOC students were significantly more likely to indicate challenges with not having enough food to eat and needing to help young children with remote learning. For the psychosocial challenges, BIPOC students were not significantly more likely to indicate any of the factors listed.

International Students Seem to Experience Fewer Challenges

Our data reveal that international students (n = 76) are significantly more likely to experience remote learning challenges associated with accessing technology and assistive technology. Regarding life challenges, international students are also significantly more likely to indicate that they are experiencing fear of eviction and challenges in healthcare access. For the psychosocial challenges, international students were not significantly more likely to indicate any of the challenges listed.

6: Recommendations

Patterns in the data confirm anecdotal and scientific evidence about the challenges of remote learning and teaching. Nonetheless, we want to highlight what seems to be true for our campus and our student body, based on our findings, and propose the following recommendations.

Recommendation 1: Addressing Equity in Teaching and Learning Experiences

Central to the mission of UMass Boston is the goal of making higher education accessible and equitable for all members of our community. The findings detailed in this report illustrate the need to engage in an ongoing evaluation of how teaching and learning must adapt to promote equity experiences promote and/or impede equity. Efforts to reshape the university as an anti-racist and health-promoting institution necessitate a commitment from our university community to understand and address the factors that compromise this mission. The findings in this report offer clear, though preliminary, evidence of inequities in both teaching and learning experiences during this period of remote operation. In particular, faculty and students who identify as BIPOC and/or caregivers of children and other family members, are more likely to encounter teaching/learning, life, and psychosocial well-being challenges. We expect that these findings extend well beyond the confines of remote teaching and learning.

More attention to the effects of teaching and learning on vulnerable students in our community is necessary to identify and implement structural changes that will make higher education more equitable for our students. Addressing issues of equity in faculty teaching experiences is also necessary to make UMass Boston an equitable and supportive workplace for all faculty. We recommend that the Faculty Council initiates an ongoing assessment of equity in teaching and learning processes and outcomes. Such an endeavor will work to carefully align our day-to-day activities with that of our university's mission and commitment to our community.

Recommendation 2: Increasing Opportunities for Relational Connections

Students are feeling exceptionally disconnected from the university, their classmates, and professors. To address the toll of disconnection and isolation, we encourage professors to *build connections among students* through the use of technologies, like breakout rooms and the chat function in Zoom, whenever possible. These technologies allow students to have discussions with their peers and facilitate engaged learning opportunities while building community and peers support.

We also encourage faculty to *build connections with students* through the use of technologies, like chat-based apps (e.g., Pronto/Discord/MS Teams), which can be used in addition to the typical channels used to communicate with students. Professional development workshops that support faculty development of tactical uses of these technologies will be a helpful complement to events in which faculty share best practices.

Recommendation 3: Reducing Work Demand and Time Stressors

Students and faculty are experiencing high levels of stress and work-life balance challenges that are proving difficult to manage and which contribute to mental health tolls. We recommend *reducing and delaying other stresses or demands on time* for faculty and *reducing course-related workloads* for students wherever possible. In particular, reducing amounts of work assigned in courses and structuring course expectations in ways that can streamline organization for students, many of whom are struggling to keep track of remote classes delivered in a variety of ways, through different platforms. Efforts to reduce workload and streamline course organization will help to reduce grading and course management stresses for faculty and relieve time management stresses.

Recommendation 4: Increasing Training for and Uses of Technologies

During remote operation, faculty have had to work to help students learn how to use various technologies to participate in remote learning. We recommend *additional IT support services and training opportunities* in order to help to mitigate the burden of using instructional time to teach students how to use technologies.

The data from this report suggest that students and faculty alike prefer Zoom. Even as we understand that there are workflow issues associated with group work and attendance-taking challenges, we recommend that faculty *use Zoom* if they are not already doing so. Standardizing the platform (Zoom) and location for course materials (Blackboard) among faculty would decrease stress for students, especially for students who had to keep track of unique platforms and course material locations for as many as 5 to 7 different courses. This would also make it possible for technical support for faculty to have greater reach to more faculty.

We also recommend that faculty *utilize the common calendar in Blackboard* for posting assignment deadlines and exam dates and that various university structures aid in facilitating its use and highlighting its usefulness; this will help students find and keep track of deadlines in a single location.

Recommendation 5: Increasing Awareness of and Access to Support Services

Students are likely to benefit from *support, training and/or tutoring*, both in and beyond the classroom, related to strengthening study and time management skills. Finding ways to increase awareness of and access to existing academic support services will help students engage with supports designed to strengthen academic success.

Fundamental to the work of a health-promoting institution is the need to address the psychosocial wellbeing of its community members. Students and faculty alike will benefit from *increased awareness of and access to other university support services,* like University Health Services, the Counseling Center, U-ACCESS, ComPsych Guidance Resources, and the Interfaith Campus Ministry. Of course, more awareness

of these important campus services is likely to increase demand; strategic efforts to predict and meet such demands is essential to the wellbeing of all UMass Boston community members.

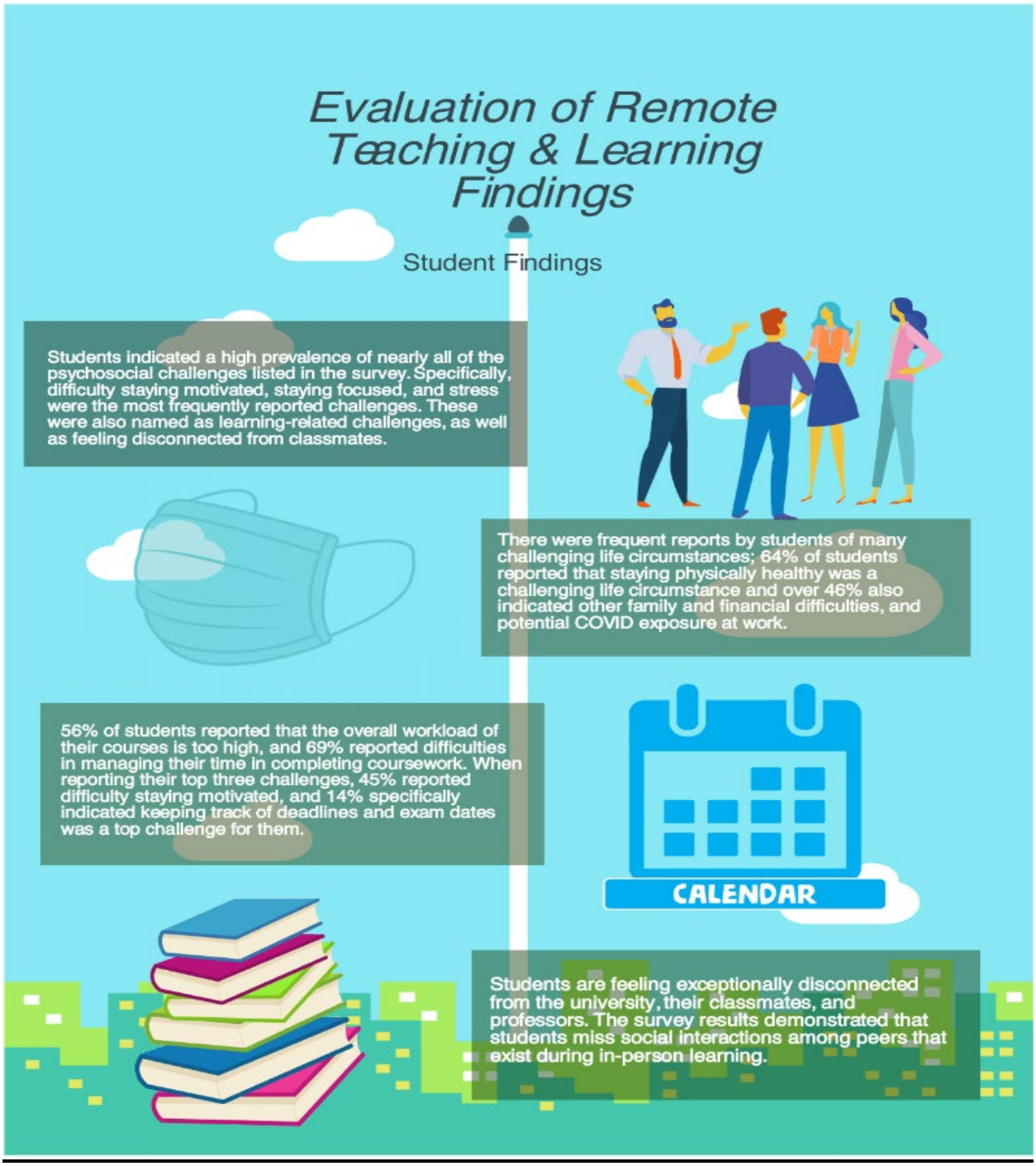
In Appendices B through E, we provide a draft of a series of infographics intended to provide students with easy access key report findings and information about the many support services available to them. These infographics will be disseminated to students through multiple channels.

7. Appendices

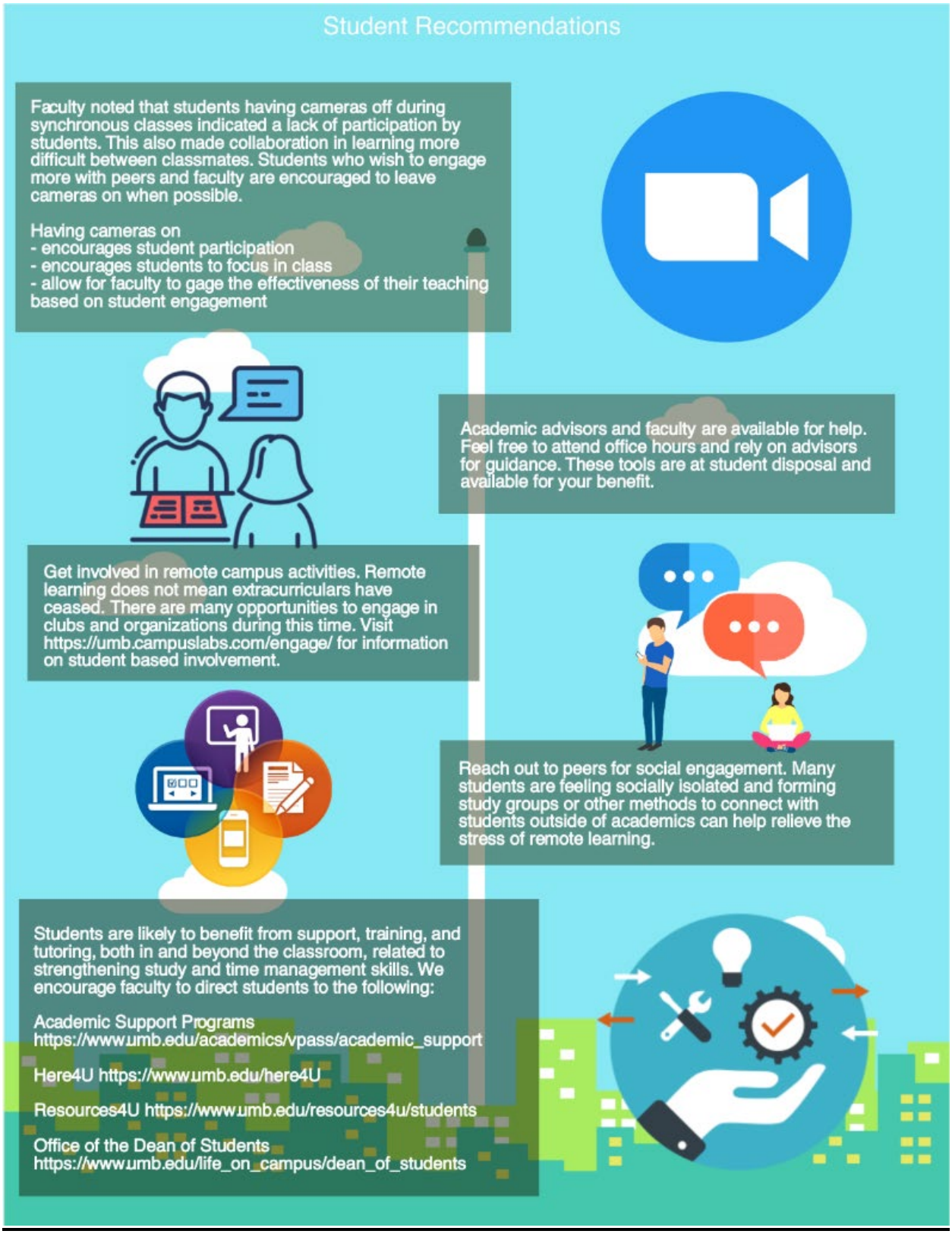
Appendix A – ERTLC Advisory Group Members

1. Suha Ballout, Assistant Professor, Department of Nursing, College of Nursing and Health Sciences
2. Gabriel Cunningham, Lecturer, Department of Mathematics, College of Science and Mathematics
3. Dlynzee Damas, BS Environmental Science Student (4th year), School for the Environment
4. Shannon Davis, PhD Student (5th year), Marine Science & Technology, School for the Environment
5. Ellen Douglas, Professor, School for the Environment
6. Kristine Guo, BS Nursing Student (4thyear), College of Nursing and Health Sciences and Honors College
7. Juan David Gutierrez, PhD Applied Linguistics (4th year), College of Liberal Arts
8. Tyler Hull, Assistant Professor, Accounting and Finance Program, College of Management
9. Janrey Javier, President of Undergraduate Student Government, BS Information Technology (4thyear), College of Science and Mathematics and Honors College
10. Lusa Lo, Associate Professor, Department of Curriculum and Instruction, College of Education and Human Development
11. Aroon Manoharan, Associate Professor, Department of Public Policy and Public Affairs, McCormack Graduate School
12. Tara Mooney, PhD Chemistry (3rd year), College of Science and Mathematics
13. Jennifer Petze, BS Biology (4th year), College of Science and Mathematics, Communication minor, College of Liberal Arts
14. Jaely Pereira, Vice President of Undergraduate Student Government, BS Biology (4th year), College of Science and Mathematics, and Asian American Studies (minor), College of Education and Human Development
15. Ashleigh Shelton, Lecturer, Department of Communication, College of Liberal Arts
16. Vincent Xie, Associate Professor, Marketing Program, College of Management
17. Wei Zhang, Professor, Management Science and Information Systems, College of Management

Appendix B – Student Findings Infographic



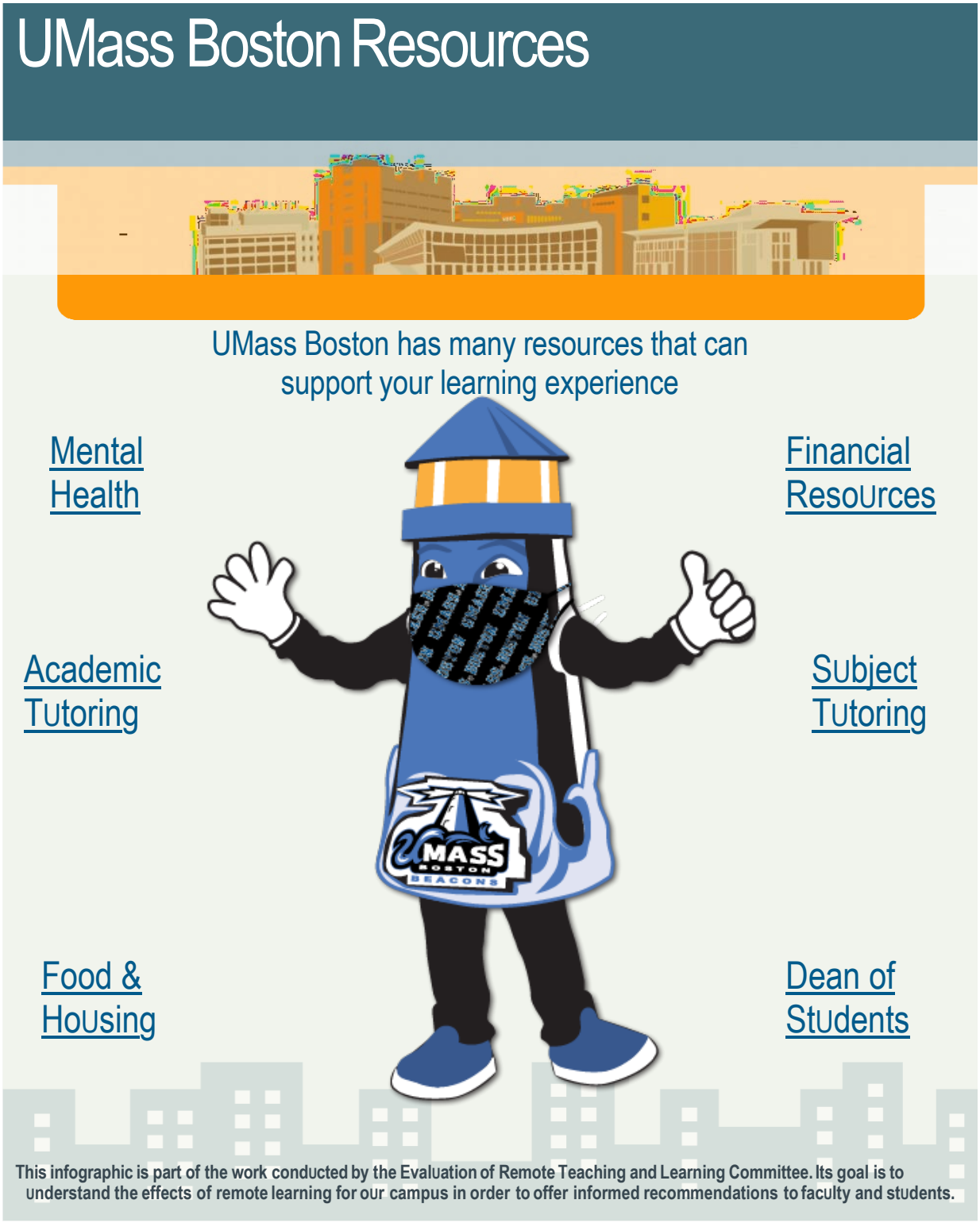
Appendix C – Student Recommendation Infographic



Appendix D – Student Challenges Infographic

Appendix E – Student Resources Infographic

The ERTLC prepared an infographic summarizing some of the UMass Boston resources students can utilize to support their learning experience.



Appendix F – Executive Summary of Preliminary Findings

The following Executive Summary of Preliminary Findings and Recommendations was submitted to the Faculty Council in January, 2021.

EVALUATION OF REMOTE TEACHING AND LEARNING COMMITTEE
Executive Summary of Preliminary Findings and Recommendations
January 2021

Committee Charge

In September of 2020, the Faculty Council established a subcommittee charged with evaluating remote teaching and learning during the Fall 2020 semester, during which the university was in nearly full remote operation because of the COVID-19 pandemic. The primary charge of the Evaluation of Remote Teaching and Learning Committee (ERTLC) is to develop an understanding of what worked well in remote instruction for supporting students to succeed in their courses at UMass Boston. The ERTLC comprises a core team of six individuals, including two undergraduate students, one graduate student, and three members of the Faculty Council, and an advisory group of 18 members, including undergraduate and graduate students as well as non-tenure and tenure stream faculty of all ranks. Together, the advisory group and core team include faculty and students from every college.

What follows is a snapshot of preliminary findings that we hope will help faculty and students continue to find ways to effectively engage in remote teaching and learning in the Spring 2021 semester and help the campus community support student success. This is the interim report specified in the charge of the subcommittee. ERTLC will continue to examine the data collected in Fall 2020 and submit a comprehensive report of our findings in the Spring 2021 semester. The comprehensive report will focus on supporting the transference of what we learn about effective teaching and learning in remote operation for the future of UMass Boston; we expect that some aspects of remote teaching and learning may benefit student success even when the university returns to on-campus operation.

Data Collection

Findings from the evaluation of remote teaching and learning are based on data from anonymous surveys administered to faculty and students, via Qualtrics, between November 23, 2020 and December 18, 2020. The summary of preliminary findings is based on responses to a range of closed- and open-ended survey questions from undergraduate survey (N = 825) and faculty survey (N = 340) respondents.

Summary of Recommendations

In much of the preliminary findings highlighted below, patterns in the data confirm anecdotal and scientific evidence about the challenges of remote teaching and learning. Nonetheless, we highlight what seems to be true for our campus and our student body. Based on the findings that follow, we propose the following recommendations:

- Students and faculty are experiencing high levels of stress and work-life balance challenges that are difficult to manage and contribute to mental health tolls that are more prevalent for students who experience financial duress and for faculty who are caregivers. We recommend *reducing and delaying other stresses or demands on time* for faculty and *reducing course-related workloads* for students wherever possible. Reducing amounts of work assigned in courses and structuring course expectations to streamline organization for students will relieve time management stresses that students are experiencing. This will also help to reduce grading and course management stresses for faculty.
- We recommend that faculty *utilize the common calendar in Blackboard* for posting assignment deadlines and exam dates and that various university structures aid in facilitating its use and highlighting its usefulness; this will help students find and keep track of deadlines in a single location.
- Students are feeling exceptionally disconnected from the university, their classmates, and professors. To address the toll of disconnection and isolation, we encourage professors to *build connections among students* through the use of breakout rooms whenever possible. The chat function of Zoom should be enabled to allow students to have discussions with their peers. We also encourage faculty to *build connections with students* through the use of chat-based apps (e.g., Discord), in addition to the typical channels used to communicate with students. Additional professional development workshops that support faculty development of tactical uses of breakout rooms and chat functionalities would complement events in which faculty share best practices.
- Students and faculty alike prefer Zoom. Even as we understand that there are workflow issues associated with group work and attendance-taking challenges, we recommend that faculty *use Zoom* instead of Blackboard Collaborate. Standardizing the platform (Zoom) and location for course materials (Blackboard) among faculty would decrease stress for students, especially for students who had to keep track of unique platforms and course material locations for as many as 5 to 7 different courses. This would also make it possible for technical support for faculty to have greater reach to more faculty.
- Students are likely to benefit from *support, training, and tutoring*, both in and beyond the classroom, related to strengthening study and time management skills. We encourage faculty to direct students to the following: Academic Support Programs https://www.umb.edu/academics/vpass/academic_support; Here4U https://www.umb.edu/here4U; Resources4U

https://www.umb.edu/resources4u/students; and, the Office of the Dean of Students https://www.umb.edu/life_on_campus/dean_of_students.

- More attention to the effects of remote teaching and learning on *vulnerable students and faculty* in our community is necessary to identify and implement structural changes that will make higher education more equitable for students.

Preliminary Findings

The following preliminary findings are organized into six categories, which reflect the goal to understand and evaluate factors that influence teaching and learning processes and effectiveness.

Theme 1: Access to and Use of Teaching and Learning Technologies

- Students and faculty highlighted many technology-related factors that impeded their ability to succeed in a remote setting. For students, the primary difficulty was in having a reliable/stable internet connection, reported by 56% of the respondents to questions about technology usage.
- For both students and faculty, Zoom is the preferred learning and teaching platform. Although faculty used a variety of technological tools to teach and rated various kinds of technology as “effective” or “somewhat effective,” Blackboard tests and Blackboard Collaborate were rated as “ineffective” most often by faculty.
- Regarding test-taking platforms, students preferred Gradescope over Blackboard tests. Students also rated hand-written exams that were scanned and submitted online as somewhat effective and very effective to a higher degree. However, students requested more time to take written exams due to the added stress of uploading the exam during the time constraint. Challenges related to access to printers and scanners should not be overlooked by faculty who employ the latter test-taking and assignment submission strategies.
- Students advocated against the use of proctored exams due to privacy concerns and increased anxiety that makes test performance less accurate. Specifically, unreliable home environments were cited as an obstacle for taking proctored exams, as background noise and people caused students to be wrongfully flagged for cheating. Students were also concerned about the invasive nature of these exams.
- The use of some tools and platforms, like Google Jamboards, were rated highly by students, even though a small number of faculty report using those tools. Students and faculty appear willing and able to try and adopt a variety of technologies to aid remote learning and teaching (assuming they have necessary resources, like access to a reliable internet connection, to do so).

Theme 2: Access to and Use of Communication Tools and Practices

- Students repeatedly indicated the need for more consistent and timely communication with faculty.
- Students and faculty favored different tools as most effective for communication. Faculty use a variety of tools to communicate with students and reported that email, Zoom, and Blackboard announcements are the most effective methods of communication. Meanwhile, students indicate that their preferred mode of communication is text messaging.
- Faculty highlighted difficulties they faced in engaging with students in remote teaching. We posit that communicating with students in formats within which they are most comfortable may help bridge the communication divide.
- Faculty can also take into consideration how different student groups prefer to communicate. For example, 40% of freshman respondents, compared to only 15% of senior respondents, reported that they are more likely to use message apps to communicate.

Theme 3: Effective Remote Teaching and Learning Practices

- Faculty perceive students as faring better academically than students perceive themselves faring. Many faculty respondents (62%) feel that their students' academic performance during remote learning compared to in-person learning is "about the same," but 33% reported that students are doing "worse" with remote learning. Nearly 49% of students, on the other hand, indicated that they are doing "about the same" and 39% indicated that they are doing "worse."
- Although 52% of faculty reported that they feel they are doing "about the same" with remote teaching compared to in-person teaching, 39% reported that they feel they are doing "worse."
- Faculty reported that every type of class format is "less effective" for remote-only instruction; large lectures, field experiences, and studio style class formats were the class types most frequently rated as "less effective." Student perspective on the effectiveness of small, medium, and large classes roughly matched that of faculty.
- For faculty, the most frequently reported teaching-related challenges are difficulty engaging with students, lack of student participation, difficulty managing special circumstances, and workload concerns. Faculty reported frustrations about students' lack of use of webcams, even as they also recognize the privacy and other challenges associated with consistent webcam use.
- For students, a lack of motivation and focus, difficulty concentrating in class, and feeling disconnected from classmates are the most frequently reported learning-related challenges (see Appendix A for comparison of teaching and learning challenges reported by faculty and students).

Theme 4: Psychosocial Wellbeing

- Faculty and students alike reported a number of psychosocial challenges. For faculty, feeling disconnected from students, worries about social/political issues, and feeling disconnected from colleagues were the most frequently reported challenges.
- Students indicated a high prevalence of nearly *all* the psychosocial challenges listed in the survey, although difficulty staying motivated, staying focused, and stress were the most frequently reported challenges (see Appendix B for comparison of psychosocial challenges reported by faculty and students).
- For faculty, the most frequently reported challenging life circumstances are staying healthy physically, caring for children or other family members, and managing the education of children.
- Students also frequently reported many challenging life circumstances; 64% of students reported that staying physically healthy was a challenging life circumstance and over 46% also indicated other family and financial difficulties, and potential COVID exposure at work (see Appendix C for comparison of challenging life circumstances reported by faculty and students).

Theme 5: Workload Demands

- Faculty and students alike are struggling with workload pressures. 77% of faculty feel that they are doing more teaching-related work during remote-teaching and that the ratio of teaching-related work compared to non-teaching-related professional work is greater during this period of remote operation. Faculty expressed various ideas for ways to reduce these pressures, including reducing the frequency of standing committee meetings that are not essential to remote operation and increasing eLearning for students so that faculty can spend less time teaching students to use remote learning technologies.
- 56% of students reported that the overall workload of their courses is too high, and 69% reported difficulties in managing their time in completing coursework. When reporting their top three challenges, 45% reported difficulty staying motivated, and 14% specifically indicated keeping track of deadlines and exam dates was a top challenge for them.

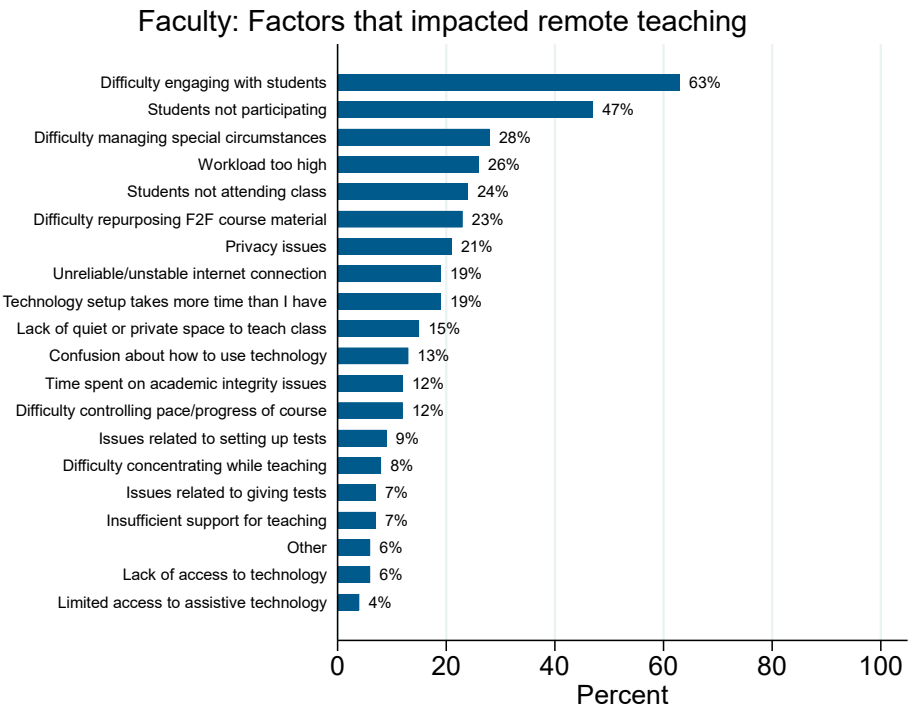
Theme 6: Vulnerable Students and Faculty

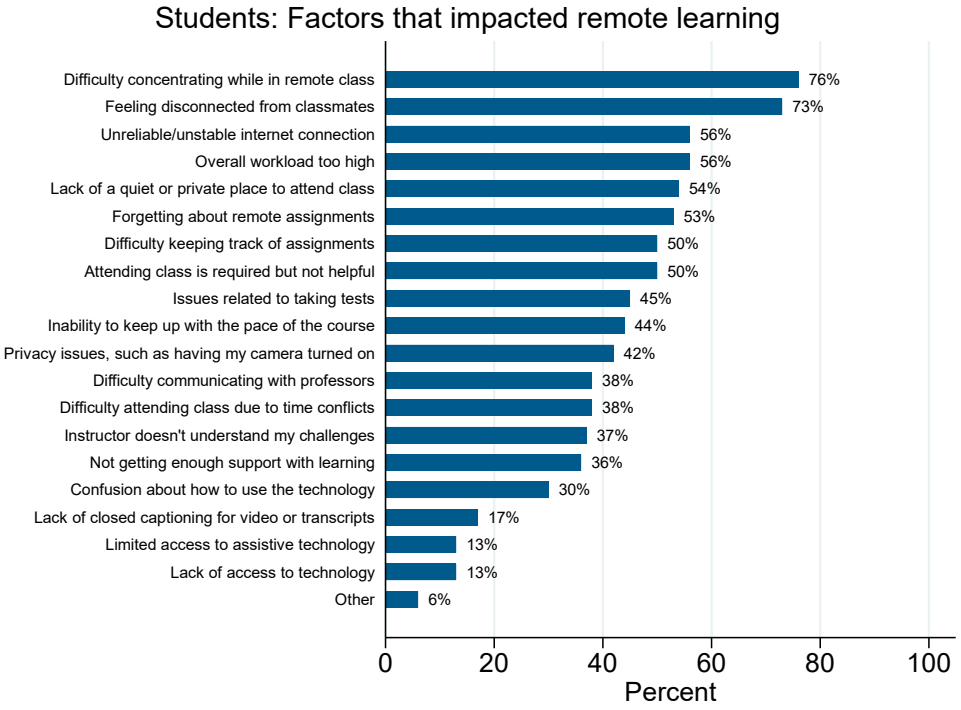
- Some groups of faculty and students are more vulnerable to challenges related to teaching and learning, psychosocial, and life circumstances. We intend to explore these vulnerabilities to better understand and make recommendations about how to make teaching and learning more equitable for our community members in the full report. Our preliminary analysis reveals that faculty caregivers and students who have precarious immigration status themselves, or are members of mixed-status families, are especially vulnerable during this period of remote operation. In particular, students with precarious status report three times higher levels of financial duress, experience two times higher mental

health challenges, and have levels of concern about contracting COVID that are twice as high as their peers who are US citizens or naturalized citizens.

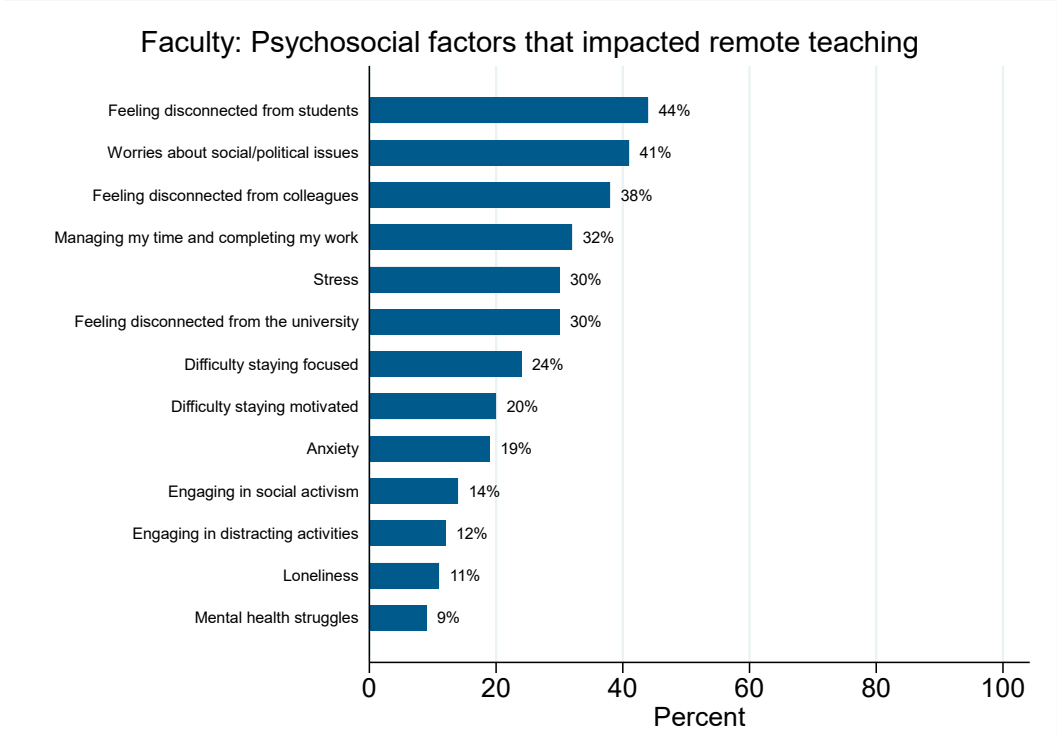
- A simple comparison between faculty respondents who reported that they are the caregivers of children or other adults and those who are not caregivers revealed significant differences in reports of nearly every kind of teaching-related and many of the psychosocial and life circumstances challenges.

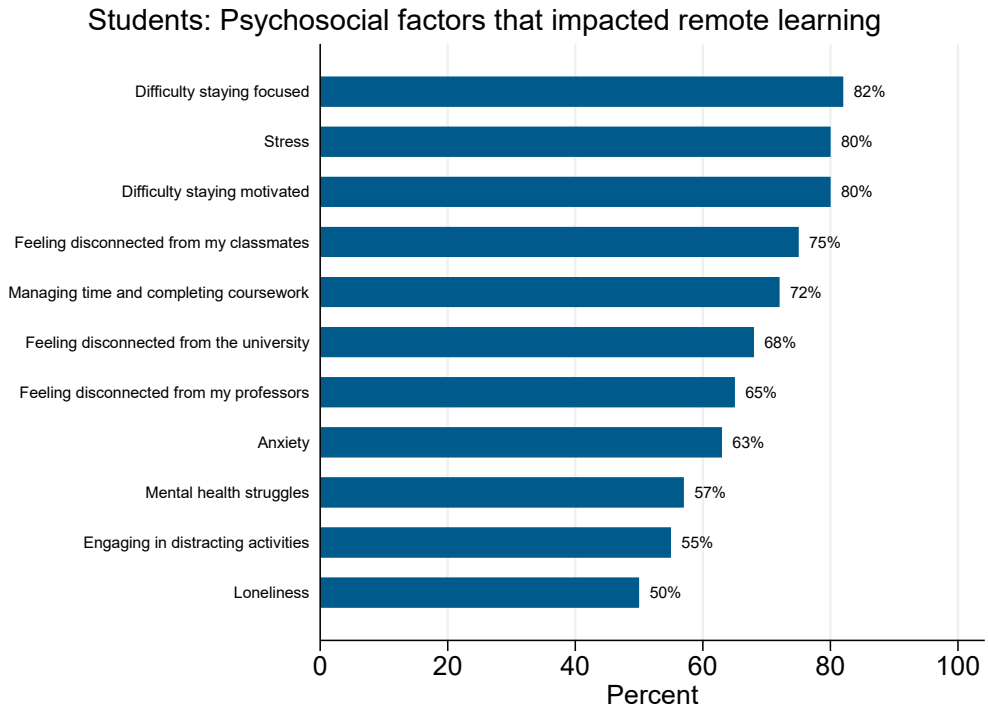
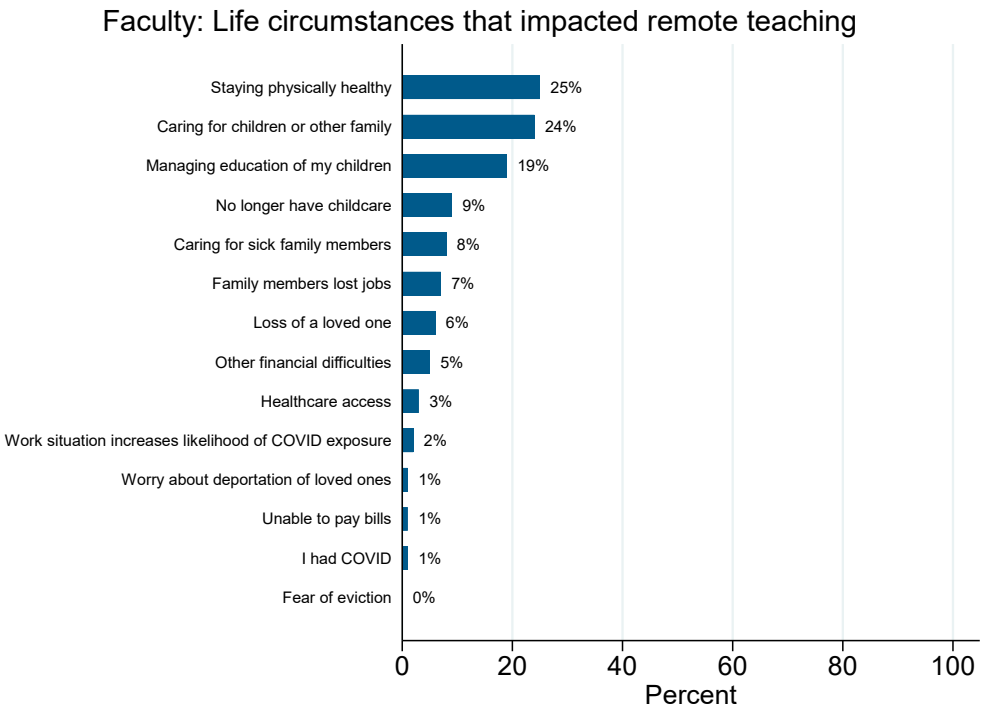
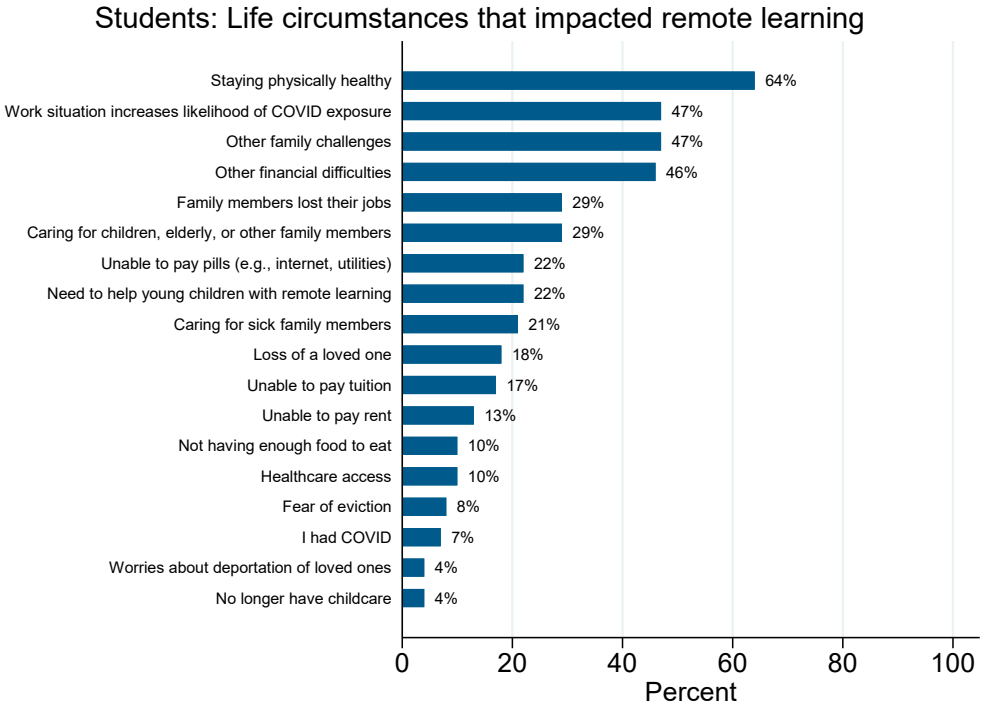
Appendix A: Frequency of Faculty and Student Reports of Teaching and Learning Challenges





Appendix B: Frequency of Faculty and Student Reports of Psychosocial Challenges





Appendix C: Frequency of Faculty and Student Reports of Challenging Life Circumstances