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Ohio State COVID-19 Teaching and Learning Survey Overall Report, Spring 2020

Contents

Executive Summary	3
Undergraduate Student Report	<i>6</i>
Faculty Instructor Report	25
Graduate/Professional Student Report	46

Ohio State COVID-19 Teaching and Learning Survey

Executive Summary

About the Survey

The Ohio State COVID-19 Teaching and Learning Survey was available to all the university's students and faculty from April 22 – May 15, 2020. The survey was designed to help understand the teaching and learning challenges instructors and students faced during the Spring 2020 semester, and to provide better support to both instructors and students as the university moves forward into the summer and autumn.

The survey was a joint effort of the Office of Student Academic Success (OSAS), the Drake Institute for Teaching and Learning, the Center for the Study of Student Life, and the Office of International Affairs. In appreciation of the students and faculty who responded to the survey, OSAS donated \$10,000 to the Margaret Herlan Busch Student Assistance Fund, which provides financial assistance for students who need urgent help to pay rent, buy groceries or purchase supplies for courses.

The survey instrument was initially developed as part of a UNIZIN Consortium effort led by Indiana University. Ohio State's instrument was shortened and revised to meet OSU needs; however, a core set of items overlap between universities, which will allow us to understand how different responses to COVID-19 affected student and faculty transitions to online learning.

COVID-19 and Survey Timeline

On March 9, 2020, on the first day of a week-long Spring Break, the university's Office of the President announced that "We are suspending face-to-face instruction in lectures, discussion sections, seminars and other similar classroom settings and moving to virtual instruction, effective immediately and through at least Monday, March 30." Three days later, the Office of the President announced that "We are suspending face-to-face classes and transitioning to virtual learning for the remainder of the semester — and will be facilitating a scheduled and orderly process for students to move out of the residence halls. To aid this process, we are extending spring break by one week through Sunday, March 22." Classes resumed virtually on March 23, with some instructors conducting live meetings through Zoom, some teaching asynchronously, and some using a combination of both methods. Classes ended on April 24, final exams were conducted through May 1, Commencement took place May 3, and a fully-online summer term began May 13. The survey was available from April 22 – May 15, thus covering the end of spring term through the beginning of summer term.

Survey Recruitment and Representation

The survey was open to all undergraduate students, graduate / professional students, and course instructors across all of Ohio State's campuses. Respondents were not individually recruited; rather, the university posted messages regarding the survey on websites, email newsletters, the university's mobile app, the learning management system ("Carmen Canvas"), the student online portal, and other electronic forums. Upon entering the survey, respondents chose to answer either

the "student" or "instructor" version. Graduate / professional students could select either or both, depending on their role at the university. The survey's consent form allowed researchers to match respondents with university-held data on demographic and academic background. Administrative data available to the research team were fairly detailed for undergraduates; less detailed for graduate and professional students; and quite basic for faculty. Thus the survey's representativeness is most readily ascertained for undergraduate respondents.

In terms of undergraduates, the survey was completed by N = 3,426 (7%). Respondents were fairly representative across campuses, class rank, race/ethnicity, on- vs. off-campus residents, first-generation status, and Ohio residency status. However, health-related majors were overrepresented, while international students, men, and academically at-risk students were underrepresented.

In terms of faculty, the survey was completed by N = 752 who taught courses in Spring 2020 (13% of tenure track faculty, 9% of associated faculty, and 3% of clinical faculty). All colleges and campuses were represented, although some had higher response rates than others. Lead instructors who happen to be graduate / professional students are classified as associated faculty, and thus are included in the count above.

In terms of graduate and professional students, N = 999 (9% of Graduate and 4% of Professional students) completed the Student version. These respondents were fairly representative of Ohio State's graduate / professional student population in terms of race/ethnicity, Ohio residency status, international student status, and gender. However, some health-related colleges were overrepresented, while several professional colleges were underrepresented. In addition, N = 116 Graduate Assistants who taught in SP2020 chose to complete the Instructor version of the survey. Given the administrative data available, researchers cannot distinguish Graduate Teaching Assistants from Graduate Research Assistants, and thus cannot compute response rates among the university's Graduate Teaching Assistants. However, among non-lead-instructor graduate / professional students who responded to the Instructor survey, most were appointed in Arts and Sciences (70%), followed by Education and Human Ecology (14%) and Engineering (7%).

Key Results

Undergraduate respondents struggled with both non-academic and academic factors, including food insecurity, hardware / internet inadequacy, an erosion of student identity, and challenges with coursework. Students expressed dissatisfaction with their online learning experience in the spring, but rated "live" online courses slightly less negatively than pre-recorded or asynchronous online courses. Almost all non-graduating students intended to return to the university in the autumn, but substantial proportions reported concerns about the future (12% indicated they would delay graduation or employment opportunities, and 18% believed they were no longer on pace to meet their academic goals on schedule).

In terms of faculty respondents, most (but not all) felt the university prepared them adequately during the unexpected pivot to online teaching. While they expressed some dissatisfaction with online learning, most rated the challenges of teaching and learning as similar or only moderately

increased, and most were willing to teach an online course again in the future. Instructors rated course changes somewhat less negatively if they taught their course live.

Graduate and professional students adapted to the stressors and challenges of the post-Spring Break transition more easily than undergraduates, but less easily than faculty instructors. For example, compared to undergraduates, graduate / professional students were more likely to report being prepared for the transition to remote learning, and being satisfied with online services and programming. But compared to faculty, GTAs were less likely to feel the university or their own department appropriately supported and prepared them for the transition to online teaching, and reported a deeper level of teaching/learning challenges for the courses they helped teach.

Despite adapting more readily to online learning than undergraduates, many graduate / professional students still experienced substantial levels of stress and challenge. Moreover, graduate / professional students were more pessimistic about the future than undergraduates: they were more likely to report being no longer on pace to meet academic goals (27%) or needing to delay graduation or employment opportunities (22%).

Key Recommendations for Summer / Autumn 2020

Undergraduate students will need as much personal interaction as possible in order to maintain their sense of connection to the university. Safe ways to maintain interpersonal connection may include: creating infrastructures to support departmental, individual faculty, and student organization of online student interest groups and networks, as well as safe and physically-distanced small-group face-to-face activities; and when face-to-face settings are not feasible, prioritizing "live" online courses and activities over "recorded" or asynchronous activities.

To help undergraduate and graduate / professional students manage multiple stressors, the university may need to: provide students with resources on how to be successful in live and asynchronous online courses; provide transparency to students regarding which courses or activities will be prioritized for face-to-face modalities, and how students can request accommodations or specific assistance in order to participate fully in learning across modalities; and provide a variety of "live" online group activities and supports, including workshops designed to support mental and physical health during times of stress. In order to support faculty and students with any further transitions in the Autumn, the university may need to encourage all faculty to use key Carmen features for every course regardless of its face-to-face or online modality, and to provide a variety of webinars and live-online instructional consultation sessions to instructors over the summer.

Undergraduate Student Report

Undergraduate Survey Representation

The survey was open to all undergraduates and was completed by N = 3,426 (7%). Respondents were fairly representative across campuses, class rank, race/ethnicity, on- vs. off-campus residents, first-generation status, and Ohio residency status. However:

- **Health-related majors** were overrepresented, while agricultural majors were underrepresented (e.g., 15% of undergraduate NUR students responded to the survey, while only 4% of AGR and 2% of ATI students responded).
- **International** students were underrepresented (only 4% responded, versus 7% of domestic students).
- **Men** were underrepresented (only 5% responded, versus 10% of women).
- **Academically at-risk** students were underrepresented (based on cumulative GPA at the beginning of SP2020, extent of GPA drop across SP2020, and SP2020 post-Spring Break class withdrawal and P/NP behavior). For example, among students with a prior cumulative GPA of 3.5-4.0, 10% responded, while among those with GPA < 2.5, 4% responded; among those who switched no courses to P/NP, 8% responded, while among those who switched any course to P/NP, 6% responded.

Key Takeaways from Undergraduates

Undergraduate students reported a **serious erosion in student identity** after Spring Break, and most struggled with academic and non-academic challenges related to their post-Spring Break online coursework. Students were **slightly less negative in their assessment of "live" online courses**, in comparison to "recorded" or asynchronous online courses. When asked whether their experiences this spring would increase their willingness to take future online courses, most students disagreed. Looking forward to the Autumn term, students will need as much personal interaction as possible in order to maintain their sense of connection to the university. Safe ways to maintain interpersonal connection may include:

- Creating infrastructures to support departmental, individual faculty, and student organization of safe **small-group face-to-face student activities** with appropriate physical distancing, including both academic and non-academic activities.
- Creating infrastructures to support departmental, individual faculty, and student organization of **online student interest groups and networks**, including for both academic and non-academic purposes.

Ohio State COVID-19 Teaching and Learning Survey – Report p. 6

¹ This report does not include Survey Representation tables; they are available upon request from OSAS Research & Program Assessment.

- When face-to-face settings are not feasible, **prioritizing "live" online courses** and activities over "recorded" or asynchronous activities, and providing **additional virtual tutoring and recitation** sections.
- Encouraging a default expectation that students will attend most courses via face-to-face or "live" online modalities, while providing accommodations (such as recorded versions of live-online sessions) for students who have documented barriers to such attendance.
- Providing students with **workshops on how to be successful in a "live" online course**, including how to communicate with family members or roommates about course-related needs (e.g., the need for dedicated time and quiet space to attend online courses).
- Providing **transparency to students this summer** regarding: Under what circumstances will which courses or activities be prioritized for face-to-face modalities? If students need accommodations or specific assistance in order to participate fully in learning, where and how can they submit those requests?

Undergraduate report tables begin on following page.

Undergraduate Respondents by Campus and College

Campus	Count	%
Columbus	2995	87
Lima	88	3
Mansfield	72	2
Marion	66	2
Newark	195	6
Wooster	10	0
Total	3426	100

Campus	Count	%
College of Food, Agriculture, and Environmental Science	66	2
Knowlton School of Architecture	42	1
College of Arts & Sciences	1322	39
Agricultural Technical Institute	10	0
Fisher College of Business	426	12
Division of Dental Hygiene	16	0
College of Education & Human Ecology	213	6
College of Engineering	603	18
School of Environment and Natural Resources	52	2
University Explorations	168	5
School of Health and Rehabilitation Sciences	215	6
John Glenn College of Public Affairs	29	1
College of Medicine	5	0
College of Nursing	150	4
College of Public Health	24	1
College of Pharmacy	26	1
College of Social Work	59	2
Total	3426	100

Undergraduate Respondents: Key Demographic and Academic Characteristics

Respondents consented to linkage of survey responses to administrative records data, allowing researchers to include only a few demographic questions on the survey itself. Among undergraduate respondents:

- Sex and Ethnicity: 66% of survey respondents were female. 70% were White, 8% Asian, 6% Black or African-American, 5% Hispanic, 4% Two or More Races, 4% international, and 3% other.
- **First-Generation**: 23% were first-generation college students.
- Year and Rank: 29% were first-year students, and 13% graduated in Spring 2020. 50% were part of a Digital Flagship cohort (entering in 2018 or 2019). In terms of rank, 9% were Rank 1, 22% Rank 2, 26% Rank 3, and 44% Rank 4.
- **Regional, Campus-Change, & Transfer:** 67% were admitted to Columbus campus as NFYS, 14% were admitted to Columbus campus as transfer students, 13% were current regional campus students, 5% were regional students who campus-changed to Columbus, and 1% were other/missing.
- **Residence:** 81% were in-state residents, 15% domestic out-of-state, and 4% international. 38% lived in residence halls.
- Online & hybrid course experience: 69% had ever taken an online course at OSU, and 40% were currently taking at least one online course in SP2020 prior to Spring Break. 53% had ever taken a hybrid-online course at OSU, and 18% were currently taking at least one hybrid course in SP2020 prior to Spring Break.
- **Enrolled credits:** 54% were enrolled for 12-15 credits in SP2020, 41% were enrolled in more than 15, and 5% were enrolled in less than 12.
- **Prior GPA & GPA drop:** 52% had a cumulative GPA of 3.5 or above at the beginning of SP2020, 27% had a GPA of 3.0 3.49, 12% had a GPA of 2.5 2.99, 7% had a GPA below 2.5, and 2% were other/missing. Most students did not suffer a substantial GPA drop in term-to-term GPA from AU2019 to SP2020: only 6% suffered a GPA drop of 0.5 or more.
- Course withdrawal & P/NP: Only 2% of respondents withdrew from a course after Spring Break, but 36% switched at least one course to a P/NP grade.
- Enrolled for AU2020: As of May 15, 2020 (the date of the administrative data pull), 81% of respondents were registered for classes in Autumn 2020.

Undergraduate Survey Responses: Demographic Information

Did you take classes during the Spring 2020 semester?		
	Count	Valid %
No	5	0
Yes	3421	100
Total	3426	100

Which best describes your primary area of study?			
	Count	Valid %	
Applied Health Science	488	14	
Arts & Humanities	347	10	
Business & Management	519	15	
Communication, Media, Journalism	119	3	
Education	159	5	
Science, Technology, Engineering, Math (STEM)	1405	41	
Social Science	386	11	
Total	3423	100	
<na></na>	3		

Which best describes your employment prior to Spring Break? Count Valid % Full-time employment 257 8 Part-time employment 1842 54 None (Not employed) 1324 39 Total 3423 100 <NA>3

What type of employment did you have prior to Spring Break? (choose all that apply) Table shows mutually exclusive responses. Students choosing multiple options are reported as "Chose multiple options."

	Count	Valid %
On-campus Federal Work-Study	131	4
On-campus employment (not Federal Work-Study)	876	26
Off-campus employment	908	27
Chose multiple options	148	4
None	1363	40
Total	3426	100

Students were now asked to indicate how many courses they took in Spring 2020, and how many of these courses were 100% online, hybrid, or face-to-face. This table summarizes students' pattern of responses.

Class Type before Spring Break		
	Count	Valid %
All courses 100% online	78	2
All courses face-to-face	1626	48
All courses hybrid	19	1
At least one course online/hybrid but not all	1695	50
Total	3418	100
<na></na>	8	

Undergraduate Survey Responses: Context for Learning after Spring Break

Which best describes your living situation after Spring Break?

	Count	Valid %
Live alone	234	7
Live with family	2495	73
Live with friends/roommates	576	17
Other, please specify	120	4
Total	3425	100
<na></na>	1	

Food Insecurity (from USDA Fo	d Insecurity 2-question Short Form)
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	Count	Valid %
No	2484	73
Yes	938	27
Total	3422	100
<na></na>	4	

Please rate your level of agreement with the statement. After Spring Break... Students rated their agreement on a 5-point scale. In the table below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree

Preparation for online learning		Valid %	
	Disagree	Neither	Agree
I had adequate access to the Internet connectivity necessary to participate in remote instruction.	13	3	84
I had adequate access to computer hardware necessary to participate fully in remote	9	3	88
I was prepared for remote instruction.	36	14	51

After Spring Break, my living situation made it difficult to attend remote classes due to... Students could select up to 3 options from a list of 11, plus an option of "None of the above. It was not difficult for me to attend remote classes." For this table, some options are combined for conciseness, and are ordered by frequency of selection.

Challenges to online learning	Valid %	
	Not selected	Selected
Noise/Too many people/No study space	35	65
Limited internet access	69	31
No challenges	75	25
Employment conflict	90	10
Care responsibilities	91	9
Lack of adequate hardware/devices	94	6
Housing instability	97	3
Personal illness	97	3

After the transition to remote instruction, what kind(s) of device(s) did you use to complete your online coursework? Students could select up to 3 options from a list of 10, plus an option of "I did/do not have any device(s)." For this table, some options are combined for conciseness, and are ordered by frequency of selection.

Devices for online learning	Valid %	
	Not Selected	Selected
Desktop/laptop	5	95
Mobile phone	50	50
University provided iPad	54	46
Non-University provided iPad/tablet	89	11
Borrowed device	93	7
None	100	0

After the transition to remote instruction, what was your primary method of connecting to the internet to complete your online coursework?

Internet connection for online learning	Count	Valid %
My residence's internet service (Cable, Fiber, DSL, etc.)	3087	90
A friend or neighbor's internet service	59	2
Mobile phone network data	233	7
Public WiFi	39	1
#Total	3418	100
<na></na>	8	

Undergraduate Survey Responses: Experiences after Spring Break

<u>Student Identity:</u> Compared with the first part of the semester, after courses transitioned to remote instruction... Students rated their agreement on a 5-point scale. In the table below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree

Student identity statements	<u>Valid %</u>		
	Disagree	Neither	Agree
I still found it easy to think of myself as a college student.	50	12	38
I became less concerned about what my classmates and instructors thought of me.	19	23	58
I felt like I lost touch with the Ohio State community.	9	9	82
My academic goals became less important to me.	37	13	50
I felt I was successful as a college student.	42	19	39
I encountered discrimination or racism in my remote instruction environment that had a negative impact on my learning.	91	7	2

The categories below are based on first-cut aggregation across the first 5 items above. These "first-look" calculations are preliminary and may shift slightly after further data cleaning (e.g., verification of inter-item reliability).

Identity Category		
	Count	Valid %
Maintained strong identity	518	15
Neutral identity	1146	33
Erosion of identity	1759	51
#Total	3423	100
<na></na>	3	

Virtual Connection: Did you participate in any of the following virtual offerings from Ohio State after Spring Break, outside of your courses? (Select all that apply) Options are ordered by frequency of selection

Type of virtual offering(s) used	<u>Valid %</u>	
	Not Selected	Selected
Student organization meeting	42	58
Student event (e.g., guest speaker, awards ceremony)	76	24
Wellness, fitness or recreational activity	81	19
Cohort group meeting	81	19
Workshop or educational offering	82	18
Other, please specify:	90	10

Number of virtual offerings selected above		
	Count	Valid %
1 type	1131	65
2 types	419	24
3 types	136	8
4 or more types	44	3
#Total	1730	100
<na></na>	1696	

Undergraduate Survey Responses: Focusing on One Course

When answering the following items, please consider only <u>one</u> of your Spring 2020 course enrollments. Select the course that, prior to the transition to remote instruction, was most representative of the other courses that you have taken.

What is the level of the course you have in mind?		
	Count	Valid %
1000	548	16
2000	992	29
3000/4000	1506	45
5000+	322	10
#Total	3368	100
<na></na>	58	

Prior to Spring Break, was this course Online, Hybrid, or Face-to-Face?		
	Count	Valid %
Face-to-Face	2789	90
Hybrid	186	6
Online	127	4
#Total	3102	100
<na></na>	324	

After Spring Break, did your instructor teach this course live (i.e., you were expected to log in at the scheduled class time)?

	Count	Valid %
No	1511	48
Yes	1615	52
#Total	3126	100
<na></na>	300	

Prior to Spring Break, how did your course instructor use CarmenCanvas? (Select all that apply) Valid %		<u>%</u>	
	Not Selected	Selected	
To post grades	8	92	
To indicate due dates for assignments	12	88	
To provide readings, videos, or other class assignments	25	75	
To conduct quizzes or tests	54	46	
To host online student discussion boards	71	29	
Other, please specify:	97	3	
None of these (instructor didn't use CarmenCanvas)	98	2	

Number of Carmen features student selected above		
	Count	Valid %
Carmen not used	75	2
Carmen 1-2 features	641	20
Carmen 3 or more features	2293	73
Already Fully Online	127	4
#Total	3136	100
<na></na>	290	

After Spring Break, how did your experience with this course change as the university transitioned to remote instruction?

		<u>Valid %</u>	
	Disagree	Neither	Agree
I found my coursework more challenging.	26	15	59
My instructors were more available for support.	23	32	45
I interacted with my classmates more.	83	9	9
I missed more course announcements than usual.	40	19	42
I earned lower grades than I expected.	43	19	39
It took more effort to complete my coursework.	18	11	71
It was harder to meet deadlines.	32	14	54
I had a better understanding of the course materials.	69	20	11
I spent more time on my schoolwork overall.	35	15	50
I think my classmates started to cheat more.	21	36	44
My instructor relaxed their standards (e.g., for grading, participation, deadlines, attendance, etc.).	36	19	45

The five dimensions below are based on first-cut aggregation across 11 items. These "first-look" calculations are preliminary and may shift slightly after further data cleaning (e.g., verification of factor structure).

	<u>Valid %</u>		
	Disagree	Felt Similar	Agree
Increased academic challenge	21	27	51
Increased interaction	42	42	16
Increased time challenge	26	35	39
Increased learning	69	20	11
Reduced integrity	16	37	46

A closer look at students' responses to "live" online courses suggests that students rated course changes slightly less negatively if the course was "live" (rather than "recorded" or asynchronous). Surprisingly, this trend was particularly true for students with inadequate computer/Internet access. For example, among students who reported having a high level of technology challenges for participating in online instruction (about 24% of respondents), results for the item "I had a better understanding of the course materials" (abbreviated here to "increased learning") differed between live-online versus asynchronous online courses.

Among students with high technology challenges		Valid %	
	Disagree	Felt Similar	Agree
Live-online courses: Increased learning?	66	20	14
Asynchronous courses: Increased learning?	75	17	8

Undergraduate Survey Responses: Looking Ahead

Is Spring 2020 your final semester of enrollment at Ohio State?			
	Count	Valid %	
No	2696	85	
Unsure	46	1	
Yes, I am leaving Ohio State but not graduating	5	0	
Yes, I will graduate	413	13	
Total	3160	100	
<na></na>	266		

Please rate your level of agreement with the statement. Students rated their agreement on a 5-point scale. In the table below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree"

"Looking Ahead" statements	Valid %		
	Disagree	Neutral	Agree
In terms of my academic progress, I feel that I am still on pace to meet my academic goals as scheduled.	18	6	76
I will be a better student than I was before the transition to remote instruction.	41	29	31
I am more likely to enroll in a 100% online course now than I was before the transition to remote instruction.	62	19	19
I will have to delay graduation or employment opportunities because I was not able to complete essential coursework or	68	20	12
practical experiences (e.g., student teaching, clinical rotations, recitals, etc.) during the spring 2020 semester.			

Undergraduate Survey Responses: Themes from Open-Ended Comments

Students had the opportunity to respond to the following open-ended questions.

- [For students in Digital Flagship cohorts:] Your university-provided iPad includes a "mobile suite" of support tools (like the Discover App, Wellness App, and OSU App). Please let us know if you have any strong positive or negative feedback on how your university iPad or its mobile tools have supported you in the past month
- [For students <u>not</u> in Digital Flagship cohorts:] The university's "mobile suite" of support tools includes the Discover App, Wellness App, and OSU App. Please let us know if you have any strong positive or negative feedback on how well these tools have supported you in the past month.
- What additional offerings and supports from Ohio State would have improved your experience after the transition to remote instruction?
- What could your instructors have done differently to improve your experience after the transition to remote instruction?
- Is there anything else you would like to share about the university's response to COVID-19 and its impact on you?

Regardless of the question, students' replies often centered on issues with technology, instructors, and university supports. Based on a **preliminary skim of the comments**, below we provide a sense of the clearest and most common themes, along with a few illustrative responses.

Technology and apps

Many students commented about inadequate Internet access and hardware. Some reported having no Internet or WiFi at home, and many said their access was unreliable, especially when multiple roommates or family members were also working from home. A couple of students reported needing to drive over 30 minutes to campus or business parking lots to access WiFi for coursework.

Everything transitioned to online-only and I was stuck living in an area that does not have high-speed internet. Every time I needed to turn something in, I had to borrow a family member's vehicle in order to drive half an hour to the parking lot of a business that had free WiFi. How is this considered acceptable?

Digital Flagship students frequently said their university-provided iPad was their primary or only method to complete coursework. These students particularly praised the iPad's Notability app, due to its notetaking capabilities and seamless integration with CarmenCanvas. However, some Digital Flagship students complained about incompatibilities between the iPad and applications which instructors required for coursework and assessments (e.g., Proctorio, Solid Works, Mastering Chemistry), or about peripheral malfunctions (the iPad keyboard and Apple Pencil).

The university iPad was much needed as it is my only computer-like device available right now with libraries closed and I am living at home with no computer access and no laptop. Its tools were therefore vital for me to be able to perform coursework, and very helpful in general

My university iPads keyboard stopped working. It was very hard for me to complete the course material because I had to borrow my sibling's laptop (which she had to use to get all of her work done). I felt as though I did not have time due to the iPad keyboard not working.

Students without a university-provided iPad commented on their decreased usage of the OSU app, indicating that they now used it only to check grades and complete SEIs. Few used the Discovery and Wellness apps, with many students commenting they had never heard of the apps. Of the dozen or so students who mentioned knowing about or using the apps, a few said the Wellness app was useful for learning about mental and physical health resources, while others reported the app's use was limited because recommended resources were often closed during the pandemic.

In general, students suggested that the university provide more robust access to basic (e.g., Adobe Suite) and more specialized (e.g., GIS) software, as well as training on virtual learning resources (i.e. Zoom, Carmen, Proctorio) for both students and instructors. Students suggested the university provide more streamlined access to these resources through a central webpage or sign-on function.

Feedback for instructors

While some students praised their instructors regarding the transition to remote instruction, many reported concerns with instructors lessening/stopping instruction, failing to respond to emails, and significantly increasing the amount of coursework after Spring Break. Students requested that instructors remain consistent in the amount of coursework assigned, regardless of whether instruction was in-person or remote.

I often found my amount of coursework per class increased in many classes as teachers tried to make sure we had the same level of education but in fact, my education still suffered and was made far worse by the fact that I was so so so overwhelmed by increased expectations all of a sudden at the end of the semester. That was so hard to cope with.

In terms of lectures, students complained about instructors extending lectures well past the course's allotted time, or about a complete lack of lectures after Spring Break. These practices frustrated students who were concerned about time lost, money spent, or a limited ability to learn material without proper instruction.

Several of my professors seemed to think that online learning and pass/no pass made things easier for us and severely ramped up their instruction and assignments. I would get hours and hours of recorded lectures each day, significantly longer than normal class time, and even several hours of lectures that would be posted on days we don't have lecture or on weekends! Then they assigned more homework which I had no time to do with all of the lectures. It broke me mentally and left me to pull several all-nighters, which I've never had to do normally at college.

One of my courses in particular, I felt that I was stiffed on my lectures and instruction. Instead of posting lectures, the instructor posted "how-to" videos from Khan Academy. I felt that the instructor and TA stopped teaching the class essentially. They were both great instructors prior to the transition but I was very disappointed in the way the class was taught afterwards.

Students also requested that instructors receive training regarding how to support students with the challenges of online coursework. In particular, student-parents and essential workers complained of instructors who did not offer leniency or express an understanding of difficult situations.

Professors [could have] been more understanding of students with young children who can't complete assignments and exams during the day. I had some professors barely work with me when I told them I was struggling completing assignments with small time windows during the day when I have to care for my child because daycares are closed.

Instructors do not understand that we are all not the same. Some have fewer resources than others and completely different lifestyles when they return home from school. Some have more responsibilities and the instructors did not care. We are supposed to respect and see them as humans and grant them grace when they are late or mess up, but we can't [be late or mess up] without a point deduction.

Students also wanted a way to report immediate concerns about courses and instructors to chairs or deans, rather than waiting to raise issues at the end of the term within their SEIs.

If an instructor is having difficulty keeping up with students and/or class workload, it would be helpful to have other outside resources as a student to contact in order to report instructor issues IN REAL TIME and not an afterthought when the class has concluded. An anonymous reporting system to a higher-up position or something similar that was in place at THE START of class. After-class evaluations don't really help students who are struggling with an unresponsive instructor who could potentially negatively impact their grades/performance.

A more open pipeline for feedback on courses that lacked adequate teaching material. [My course] for example became completely devoid of any interaction with my professor or TA beyond routine emails reminding us of quizzes and exams. Materials given instead of lectures or recitations were horrible and dated, designed to be used as supplemental instruction for tutoring by the MSLC website.

In terms of live-online versus asynchronous instruction, there were proponents of each. Synchronous advocates appreciated the ability to ask clarifying questions and the personal accountability of required live attendance. Asynchronous advocates appreciated the flexibility of watching lectures when feasible for their adjusted schedules, and the ability to use play/pause/repeat functions to review the material. Perhaps the "best of both worlds" seemed to be live-online courses which also provided recordings for students who needed them.

One professor did "live" classes and also recorded them, so I could maintain a schedule but also gave flexibility for when that wasn't a possibility.

Regardless of the delivery method, students preferred courses which most closely mirrored an inperson, instructor-engaged classroom experience. Unfortunately, some students reported that PowerPoint slides or lecture notes were the only method of instruction in some courses after Spring Break.

[Instructors] could've given an attempt to make online class an option. Instead only one class of mine continued to teach and the others just posted materials so you could teach yourself.

3/4 classes just uploaded PowerPoints and expected students to understand formulas and equations by memorizing the PowerPoints. What's more, we took the final exam based on said PowerPoints that I had no chance of comprehending. This semester was horrific.

Many students pointed out that instructors needed more consistency and proficiency in the use of CarmenCanvas and other learning tools. Students perceived their transition to online learning more positively when instructors used CarmenCanvas consistently and effectively.

Many of my instructors simply had never used Carmen to it's fullest potential before the coronavirus, so once everything went online, this made the class exponentially difficult for them to administer. The professor that I had who used Carmen's different elements to their fullest potential, and organized his syllabus to perfectly mirror the Carmen content, simply had to adjust a few due dates and was able to teach the course almost exactly the same way he did before the virus. The lack of consistency in a professor's expectations with Carmen has always been the most challenging part about taking different classes at OSU, and this difficulty was only highlighted when in-person instruction was eliminated.

When instructors did not use key features of CarmenCanvas, it was challenging for students to keep track of changes to assignments and assessments, or to know their current course grade. Students recommended that instructors post a clear outline of the course, use the syllabus and calendar functions, and consistently utilize CarmenCanvas messaging (or one singular method) to communicate course changes.

I do think most of my instructors did the best they could to make our lives easier while still maintaining the legitimacy of the course, but it seemed like there was just a lot of uncertainty about how the semester would continue in terms of grading schemes and assignment due dates. This made it hard to keep track of what I had to do and when. I think if instructors took time to outline their plans for the remainder of the semester right at the start of the transition to virtual learning, instead of adapting as time went on, it would have been easier on the students.

There is a To-Do List on Carmen that lets you know when everything is due in every class and this is extremely helpful if the instructor utilizes the list. When only one instructor does not post all assignments and updates, it is no longer helpful and becomes obsolete.

Academic support and P/NP concerns

Some students reported that online tutoring resources and course recitations were canceled or limited after the shift to virtual instruction; these students requested additional online tutoring resources for future remote semesters.

The department canceled all lectures and recitations, leaving us practically on our own to figure out the material by ourselves, which was incredibly stressful.

Many students commented that the P/NP deadline was much too soon and should have remained available after final grades were posted. Methods of instruction, assignments, and assessments changed for some students after the deadline, which impacted their final grades and would have altered their P/NP decision.

The [P/NP] deadline should have been extended. I had instructors that made classes more difficult after the deadline had already passed. I also had instructors that did not post any grades until after the deadline passed. I had no idea how I was doing in half my classes and professors weren't responsive.

Students were unsure of the long-term implications of selecting P/NP for their courses, and requested additional clarity and advising if P/NP remains an option in future semesters. Advisors told some students interested in graduate school that P/NP may be perceived unfavorably on graduate school applications, which put added pressure on these students at the end of the semester.

I felt forced by my advisor to not take the pass-fail option though I told her my academic performance was seriously harmed by this situation. Though she finally let up, I felt judged and more worried for my future than ever before. Was this going to affect my grad school applications as much as she claimed?

With the pass/no pass option, the advisors were providing little to no insight on how this will affect our applications, and when specifically asked about how it will look on the application, they ignored the question. It's very stressful as it is to wonder if we will get into the program, but having classes online hindered our success more than it would have before.

Non-academic supports and challenges

Students reported that feelings of isolation affected their mental health, and requested more access to virtual counseling. To help them stay connected, students also requested that the university provide more virtual events and resources, including online clubs and organizations, as well as online meeting places.

I think that pushing for more online-oriented activities from clubs or urging more "fun" online events could help. A lot of people who rely on friendships may be having trouble; something such as online video games or chat rooms for people could help. I think if they were conducted by Ohio State more students would be inclined to participate.

I wish Ohio State provided more opportunities to be social and allow students to connect in these times. Even if you can just talk to people in your class. I found the isolation to be very rough and it is still very rough.

Isolation may have been exacerbated by students' identities and a return to less supportive environments

You should have had more supports for queer students who were going back into environments that were not accepting. It's hard to do classes and keep up in an environment that is constantly stressful.

For me, and a lot of others, college is my safe space and I was not mentally prepared to have to return home.

In addition, family stress and completing schoolwork in less conducive spaces was often a challenge.

I've had the hardest time being at home mentally. My parents, although love me, don't understand the amount of stress and studying I need to do to get everything done. It was not quiet 80% of the time because my parents were home. My dad would interrupt me in my exams. I've broke down because I can't handle being at home and trying to do college and work.

Many students remarked on mental health challenges due to both academic and non-academic issues, including the move to remote instruction, new learning environments, caregiving responsibilities, health concerns related to COVID-19, and new financial difficulties.

In terms of financial challenges, students lost jobs, incurred expenses with moving off-campus, were disappointed with the amount of their refunds (~\$50 was reported by a few), and expected additional refunds for clinical, lab, and general tuition fees. Many students suggested that the university provide expanded opportunities for remote student work, and for financial assistance in general.

I was an RA and was forced to leave [campus] and basically lost all my income. I get that I am an at-will employee and shouldn't be paid for not working, but I lost my housing and my job within 3 days ... [RAs] all felt shoved to the side, when we were all still working really hard to help residents.

[I'd suggest] more stability in jobs. Students, who are important in the everyday operations of the university, were easily disposed of and left without income.

For on-campus residents, the process of leaving on-campus housing was challenging. Students struggled with finding off-campus apartments, moving back home with family, and scheduling move-outs; this was particularly difficult for out-of-state students.

Finally, in terms of the Autumn semester, some students commented they would take a "gap" semester if the university remained online in the fall. However, others were concerned about their health, and hoped they would have the option of taking fall courses entirely online.

Faculty Instructor Report

Faculty Respondents by College and Campus

The survey was open to all university faculty, and was completed by N = 794. Faculty who taught no courses in Spring 2020 are excluded from this report, resulting in N = 752, representing 13% of tenure-track faculty, 9% of associated faculty, and 3% of clinical faculty. On the Columbus campus, response rates were highest among Nursing faculty. Response rates were generally higher among regional-campus faculty than Columbus faculty (see subsequent tables for more detail).

Key Takeaways from Faculty

Faculty reported **substantial challenges with online teaching** after Spring Break; however, most (but not all) faculty felt the university prepared them adequately for the transition, and are willing to teach online again. Faculty who taught their courses in a "live" online format (rather than a "recorded" or asynchronous format) rated course changes less negatively. In order to support faculty and students with any further transitions in the Autumn, colleges may consider:

- Encouraging faculty to **teach online courses in a "live" rather than a "recorded" or asynchronous format**, and providing guidelines on accommodations for students who have a documented barrier to participation in live-online sessions.
- Encouraging all faculty to **use key Carmen features** for every course regardless of its face-to-face or online modality which may allow for a smoother and quicker transition if course modalities shift unexpectedly.
- Providing webinars and live-online group consultation sessions over the summer, on topics such as: using key university-wide technology tools, rethinking assessment, communicating with students, creating videos, and other best practices for online instruction. (See the open-ended comments section of this report for more detail.)

Faculty report tables begin on the following page.

Instructor Respondents by Campus and College²

Columbus Campus	% Responding
College of Food, Agr, Envir Science	1
College of Arts & Sciences	5
Fisher College of Business	4
College of Dentistry	1
College of Education & Human Ecol	3
College of Engineering	2
John Glenn College of Public Affairs	4
Moritz College of Law	1
College of Medicine	0
College of Nursing	12
College of Optometry	2
College of Public Health	3
College of Pharmacy	3
College of Social Work	4
College of Veterinary Med	1

Regional Campus	% Responding
Lima	16
Mansfield	9
Marion	12
Newark	13

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² Instructors are disaggregated by Position College Name as determined by institutional records. This is the tenure initiating unit for Columbus instructors and the campus of record for Regional instructors.

Faculty Survey Responses: Background Information

How many years of experience do you have teaching at the college level?

	Count	Valid %
1	21	3
2–5	118	16
5–10	144	19
10–20	225	30
More than 20	244	32
Total	752	100

Excluding the classes that transitioned to remote instruction during Spring 2020, how many times have you taught via a 100% online format?

	Count	Valid %
1	48	6
2–5	73	10
5–10	40	5
More than 10	60	8
Zero - I have not previously taught any 100% online classes	531	71
Total	752	100

Instructors were now asked to indicate the subject area and level of each course they taught this spring (e.g., MAT 1000-level). For each course, they indicated whether the course was originally online, hybrid, or face-to-face; whether they originally used CarmenCanvas to help teach/manage the course; and whether they converted the course to a "live" online format after Spring Break (i.e., did they expect students to log in at the scheduled class time?)

Did instructor indicate any of their SP2020 courses were originally online?

	Count	Valid %
No	650	87
Yes	100	13
Total	750	100
<na></na>	2	

Did instructor indicate any of their SP2020 courses were originally hybrid?		
	Count	Valid %
No	686	91
Yes	64	9
Total	750	100
<na></na>	2	

Did instructor use Carmen for <u>any SP2020</u> courses before Spring Break?		
	Count	Valid %
No	54	7
Yes	694	93
Total	748	100
<na></na>	4	

Did instructor use Carmen for <u>all SP2020</u> courses before Spring Break?		
	Count	Valid %
No	89	12
Yes	659	88
Total	748	100
<na></na>	4	

Did instructor teach <u>any</u> courses in a live-online format after Spring Break?		
	Count	Valid %
No	315	42
Yes	429	58
Total	744	100
<na></na>	8	

Aggregating across all instructors and courses they reported: Estimated percent of all courses taught live- online after Spring Break: 46.8 %

The following items pertain to your experience before the transition to remote instruction...

Instructors rated agreement on a 5-point scale. In the table below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree.

Statements about online teaching	Valid %		
	Disagree	Neither	Agree
I felt comfortable adopting new technology in my classes.	10	7	83
I was familiar with online teaching and learning in my discipline.	32	13	55
I resisted learning about online teaching and learning.	69	18	13
Online teaching conflicted with my personal identity as an instructor.	48	17	35

The categorizations below in terms of instructors' "overall prior comfort" with teaching technology and online learning are based on first-cut aggregation across the previous 4 items. These "first-look" calculations are preliminary and may shift slightly after further data cleaning (e.g., verification of inter-item reliability).

Overall Prior Comfort	Count	Valid %
Comfortable	443	59
In-Between	192	26
Uncomfortable	117	16
Total	752	100

Faculty Survey Responses: Context for Teaching after Spring Break

The following items pertain to your experience during the transition to remote instruction (over Spring Break).

Instructors rated their agreement on a 5-point scale. In the table below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree.

Statements about the transition to remote instruction	Valid %		
	Disagree	Neither	Agree
My college/department proactively connected me to resources for online teaching.	6	8	86
I knew where to go for technical support for online teaching.	5	5	90
I knew where to go for instructional support for online teaching.	7	9	84
My university offered sufficient resources for online teaching.	11	12	77
I had sufficiently strong and reliable Internet service.	13	5	83
I had an appropriate digital device for teaching (e.g., desktop, laptop).	7	3	90
I was able to find quiet space and dedicated time to concentrate on teaching.	17	7	76
I felt well-prepared for teaching by the time classes restarted.	21	12	67

The categorizations below in terms of instructor "overall support/preparation" for the switch to online learning are based on first-cut aggregation across the previous 8 items. These "first-look" calculations are preliminary and may shift slightly after further data cleaning (e.g., verification of inter-item reliability).

Overall Support/Preparation	Count	Valid %
Supported/Prepared	628	84
In-Between	98	13
Not Supported/Prepared	26	3
Total	752	100

I am willing to teach a 100% online course in future semesters.

Instructors rated agreement on a 5-point scale. Below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree.

	Count	Valid %
Disagree	168	22
Neither	110	15
Agree	471	63
Total	749	100
<na></na>	3	

Please indicate your level of concern regarding the following aspects of the transition to remote instruction during the Spring 2020 semester. *Instructors rated their level of concern on a 5-point scale.*

		Valid %	
	Not At All	Slightly/ Somewhat	Moderately/ Extremely
Diminished student learning	7	35	57
Changes to grading structures (e.g., pass/fail, credit/no-credit)	33	38	30
Not being able to communicate with my students	19	39	42
My own comfort with online applications/tools	36	49	15
Adequately translating existing lessons or activities to a remote environment.	15	38	47
Ensuring security, privacy, or academic integrity in exams or other online assessments.	31	34	35
Maintaining ownership of the class materials I post online.	47	29	25
Recording videos for my students from the privacy of my own home.	49	33	17
Posting materials online which might be copied and shared on the Internet.	40	33	27
Managing inappropriate online student behavior.	44	43	14
Experiencing negative impacts on my student teaching evaluations.	30	44	26
Experiencing negative impacts on my tenure or promotion process.	62	22	15

The categorizations below in terms of instructor "overall concern" for the switch to online learning are based on first-cut aggregation across the previous 12 items. These "first-look" calculations are preliminary and may shift slightly after further data cleaning (e.g., verification of inter-item reliability).

Overall Concern	Count	Valid %
Extremely	3	0
Moderately	93	12
Somewhat	290	39
Slightly	298	40
Not Concerned	66	9
Total	750	100
<na></na>	2	

Faculty Survey Responses: Focusing on One Course

Each instructor was now asked to choose one specific course they taught in SP2020, by selecting from the list they provided earlier in the survey. The next four tables draw from the instructor's earlier responses regarding this chosen course.

Level of this course	Count	Valid %
1000	129	17
2000	158	21
3000/4000	224	30
5000+	233	31
Total	744	100
<na></na>	8	

Format of this course prior to Spring Break	Count	Valid %
Face-to-Face	640	86
Hybrid	39	5
Online	65	9
Total	744	100
<na></na>	8	

Used Carmen to help teach/manage this course prior to Spring Break		
	Count	Valid %
No	56	8
Yes	687	92
Total	743	100
<na></na>	9	

Course was live-online after Spring Break		
	Count	Valid %
No	358	48
Yes	381	52
Total	739	100
<na></na>	13	

After the transition to remote instruction (after Spring Break), which of the following CarmenCanvas tools did			
you use for this course? (Select all that apply)	<u>Valid %</u>		
	Not At All	Slightly/ Somewhat	
CarmenCanvas Assignments/quizzes	15	85	
CarmenCanvas Announcements	9	91	
CarmenCanvas Discussion Board	50	50	
CarmenZoom Live Meetings	25	75	
CarmenZoom Recorded Lectures	49	51	
None of these	0	100	

Number of Carmen features instructor indicated using after Spring Break:			
	Count	Valid %	
Carmen 1-2 features	116	16	
Carmen 3 or more feature	557	75	
Already Fully Online	65	9	
Total	738	100	
<na></na>	14		

Compared with the first part of the semester, after this course transitioned to remote instruction...

Instructors rated their agreement on a 5-point scale. In the table below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree.

Statements about course transition		Valid %	
	Disagree	Neither	Agree
The time I invested in teaching this course increased.	10	12	78
I was able to maintain good track of how my students were doing.	33	13	54
I was able to maintain a sufficient level of			
interpersonal interaction with students (using Zoom or other tools).	43	16	40
I felt more disconnected from my students.	17	9	74
My students had more struggles in terms of time management.	12	26	63
My students had more struggles in terms of accessing and using required technologies.	27	23	50
My students had more struggles in terms of understanding and applying the material.	31	31	38
My students disclosed more struggles in terms of non-academic challenges and concerns.	13	19	69
I think students committed more academic misconduct.	44	36	20
My students received a lower quality learning experience.	27	19	54

The categorizations below in terms of instructor "overall change in challenges" for the switch to online learning are based on first-cut aggregation across the previous 11 items. These "first-look" calculations are preliminary and may shift slightly after further data cleaning (e.g., verification of inter-item reliability).

Overall Change in Challenges	Count	Valid %
Decreased Challenges	109	15
Similar Level Challenges	337	45
Moderately Increased Challenges	269	36
Strongly Increased Challenges	27	4
Total	742	100
<na></na>	10	

A closer look at the data suggested that faculty felt the transition to online learning was somewhat less challenging if they taught the course "live" (students were required to log in at the scheduled class time) rather than asynchronously.

Overall Change in Challenges	<u>Column %</u>		
	"Live" Online	Asynchronous	
Decreased Challenges	16	14	
Similar Level Challenges	50	40	
Moderately Increased Challenges	31	43	
Strongly Increased Challenges	3	4	
Total	100	10	

In particular, faculty reporting on asynchronous courses reported higher levels of challenge in terms of maintaining interpersonal connections with students, keeping track of how students were doing, and managing academic misconduct.

Faculty Survey Responses: High-Level Themes from Open-Ended Comments

Faculty had the opportunity to respond to the following open-ended questions.

- [For faculty who indicated using specific CarmenCanvas tools:] Earlier you indicated that you used the following tools for your course: [list]. Please let us know if you have any strong positive or negative feedback on these tools or the support associated with them.
- [For faculty who indicated using no CarmenCanvas tools:] Earlier you indicated that you did not use any CarmenCanvas tools for your course. Please provide some insight as to why these tools were not useful for your course, or whether you used other tools instead.
- What university, college, or departmental resources were the most useful in your transition to remote instruction, and why?
- What additional resources or communications should have been provided by your department, college, or university?
- Is there anything else regarding your experience with the transition to remote instruction that you would like to share?

Based on a **preliminary skim of the comments**, below we provide a sense of the clearest and most common themes, along with some illustrative faculty comments in *italics*. The sections below address: (1) the initial transition during Spring Break, (2) making the choice between "live"-online or asynchronous delivery, (3) dealing with assessment and misconduct, (4) experiences with students, (5) general feelings about online learning, and (6) useful supports and respondents' recommendations for improvement.

The initial transition: Spring Break

Instructors were grateful that the transition occurred during an extended two-week Spring Break, but the initial transition to emergency remote instruction was still quite challenging. As the university's planning evolved, some instructors adjusted their syllabi multiple times in response to new announcements. The frequency and quantity of emails felt overwhelming, although some departments helped by distilling the most important information into summary emails.

The transition itself was brutal, mostly because the entire environment was shifting all the time and the rules kept changing (e.g., first reworking everything to deal with the fact that we would have one week less of instruction and then being told that there will be an extra week and having to rework everything again).

Our department chair provided daily summary emails of all the changes happening during spring break and the week that followed. This was very useful because it allowed me to focus on the most important and urgent things, rather than read all the many communications that the university provided daily.

Many instructors were displeased with the extent of time and effort required to transition their courses to an online format. Learning new online tools, developing CarmenCanvas shells, and adjusting assignments and assessments was highly time-consuming.

We are ALL effectively working on an overload appointment right now based on the amount of time required to move to an all-digital environment and maintain our high educational standards. I have not had time to keep up with my own personal well-being or home life as I have spent a HUGE amount of time reassessing my curriculum for the online environment - researching, creating, typing, editing, videoing, screen capturing, and recording new materials to take the place of face-to-face instruction, demonstrations and laboratory exercises. I kept a spreadsheet for one week that have over 300 independent tasks listed on it... While I appreciate all the "Thank yous" from both students (especially) and administration - this was a HUGE ask for all of us that we had no choice but to do for our students.

Instructors with children and other family responsibilities reported an added strain of balancing teaching and caretaking.

It has been stressful having to manage the transition to online learning (which was new for me) while managing the home stress with having my kids around w/o childcare and then feeling more disconnected from our students.

Faculty were concerned about the lack of compensation for the extra course preparation and teaching time, and several expressed particular concerns about associated faculty.

I felt like students were the primary concern, not us. It was an incredible amount of work. I often asked myself, who is paying for this? financially and timewise? Our FTE contracts did not cover this? We have done our work based on sheer responsibility. I have seen no attempt to compensate our extra work. As if it has not been recognized.

Please support associated faculty in more than words, by enacting longer contracts with higher salaries. Associated faculty had the majority of students to support during the transition and are now the most vulnerable when budgets shrink. Associated faculty (on yearly contracts) are very worried about future employment after it feels like they moved heaven and earth to support students, and keep courses going during the transition.

Some instructors lacked the technology to teach remotely, including reliable internet, iPads, laptops, or dual monitors. A few were denied in their requests to take home university-owned devices or to purchase devices or supplies for at-home teaching. Some spent personal funds to upgrade internet service, or to purchase supplies, furniture, devices, or software.

I think it was very unfair of the university to ask us to teach from home without providing any budget support for items we were forced to purchase such as office furniture, ink, paper, internet service, etc. I was not even allowed to use my own research funds to purchase an ergonomic chair. I never received a response to my urgent purchase request, when my back, forearms, and wrists were in excruciating pain. It made me feel like OSU's administration does not care about its faculty.

Internet data access for me was the primary issue - where I live in the country has very limited options - I signed up for Verizon Unlimited which did increase my data but [it] was not truly unlimited at full speed. Going to work in the parking lot in cold weather for long hours was not really a tenable solution. I personally paid for the extra data, used my personal equipment, had lower student demand, and it ended up being enough to work...

A subset of respondents indicated that despite challenges, the university made its best effort in response to the pandemic.

It was an emergency and people were doing the best they could in a bad situation. The decision to give faculty more time to get online at least recognized that people can't suddenly pivot to a new course delivery system, so I would say that was a good call.

University and college leadership made a huge, positive difference; somehow I felt I did not recognize this leadership--its renewed emphasis on learning rather than on other superficial stuff was so critical and I hope this focus will continue and will shape our future planning. Honesty and positivity in their messaging were very effective. Faculty demonstrated tremendous resilience and dedication. None of these should be taken for granted.

Choosing "live" versus "recorded" online delivery

During Spring Break, instructors teaching in-person sections were faced with a choice: convert to a "live" (or "synchronous") format, in which students would be required to log in at the same time as their originally-scheduled course; to a "recorded" (or "asynchronous") format, in which students would access materials and assignments at their own convenience; or some blending of the two. Some faculty made the decision based on their own preferences or pre-existing understanding of their students' learning needs; others polled students to understand their preferences.

As indicated earlier in this preliminary report, about half of course sections were converted to a live-online format, and those instructors reported a slightly lesser level of teaching/learning challenge compared to instructors who opted for a recorded asynchronous format. However, live-online courses still posed challenges. Some instructors had difficulty getting students to engage in class discussions on CarmenZoom, particularly when students turned off their cameras (either due to their own preference, or due to an unstable internet connection). Lecturing to names in "black boxes" without feedback was also discomfiting. Instructors who taught discussion-based, labbased, clinical, or performance courses often commented that teaching over CarmenZoom was not effective or possible.

When students have their cameras off, it is impossible to read the body language that would normally cause an experienced instructor to encourage sharing ideas. I spent 20 years learning how to teach other embodied bodies with my embodied body, and much of what I know how to do is limited in this medium.

I wish somebody came up with a good way to have the students turn their cameras on, so that one does not feel like talking to a wall - I asked the students several times and that did not help at all. Overall, I found it very difficult to get a classroom discussion going via CarmenZoom. In a physical classroom, eventually some students will start talking, but on Zoom I found myself having to answer most questions myself as nobody came forward.

Instructors who opted for a recorded asynchronous format were not pleased with it either, finding it difficult to support interpersonal connection or track student engagement. Instructors attempted to support student-to-student interaction through CarmenCanvas discussion boards; although some instructors felt discussion boards were helpful, others felt it was not an effective way to hold course discussions, or felt that the threaded format made it difficult to grade postings.

However, some instructors felt the asynchronous approach was the best (or only) option available during the emergency transition.

I only recorded one lecture with a transcript because my class had multiple students with internet access issues...So, I opted for a model of written instructions to reduce bandwidth as well as save me time. When I asked students about the video, they said it was fine to have to watch it but preferred to read.

Some in my department intimated (via email) that those of us not doing synchronous lectures were somehow less committed to our teaching. I resent this implication. I have two young kids at home who are now also doing online learning. They require a lot of monitoring. I also did an online survey of my students asking their home situations, their time zone and their preferences about synchronous vs asynchronous lectures. I got the strong message that they did not want to be required to attend a live lecture.

Dissatisfied with both approaches, many faculty opted for a blend of live and recorded elements. For example, some instructors conducted live-online sessions but made recordings available to students who needed them, and others posted asynchronous lectures but maintained live-online forums for student questions or discussions.

Students self-selected into two groups: some really wanted live lectures because their life upheavals were such that they found the structure of dedicated class time to be a comfort. These tended to be "traditional" students (but not always so); other students found that they simply could not commit to live teaching, so they appreciated the Zoom recordings of the lectures.

Zoom live meeting were not helpful. Abandoned those after the first week. Students did not participate, they were "there" but it was a swatch of black boxes with names or initials in them, no interaction at all. Posted recorded lectures worked, then to have a zoom meeting for any questions was helpful. Otherwise, live zoom "classes" = No way. Pre-recorded lecture (instructor did alone then posted) were great.

Dealing with assessment and misconduct

Instructors were often concerned or confused regarding how to assess student learning in the online context. They expressed frustration with technical features of the CarmenCanvas quizzing function (for more details, see a later suggestion on suggested improvements). For those teaching artistic performance and clinical courses in which students must show technical proficiency, or STEM courses in which students draw diagrams or use equations, it was unclear how to conduct assessment within Carmen. For smaller courses, many instructors relied on assessments in PDF format, which allowed students to download and then upload their answers; however, the time-consuming nature of manual grading made this option unsuitable for large courses.

Many faculty were concerned about the potential for academic misconduct in an online setting. Several mentioned using Proctorio or a lockdown browser to combat potential misconduct on exams, but they sometimes encountered compatibility issues. For example, Proctorio reportedly did not work on iPads, nor did McGraw Hill assessments work well with a lockdown browser. Some instructors expressed concern about the "voyeuristic" feel of Proctorio and requested other academic misconduct resolutions or new approaches to assessments instead.

Biggest issue I see is with academic misconduct. How do we ensure (without the use of a proctor) that students obey to the honor code? It was decided against tools such as Proctorio. So, I decided to do an open book exam on Carmen quiz. This required quite some time on my end to modify my existing exam structure to this.

Experiences with students

Many instructors reported a breakdown of interpersonal interaction with students after Spring Break.

It was very clear from the overall scores and online participation that the students' motivation, time-management, and overall learning took a dramatic nosedive.

In particular, faculty reported that some students failed to attend synchronous classes, answer emails, or submit coursework, and effectively "disappeared altogether." A few respondents perceived these student behaviors negatively (e.g., as an indication of students' lack of motivation and time management, or as students taking advantage of the situation). More commonly, faculty were sympathetic, but were unsure how to provide flexibility or other supports while still maintaining academic quality and integrity. Some were concerned that other instructors were erring too far on the side of either "rigor" or "compassion."

I gave easy assignments and graded incredibly easy because some of my students have unfair disadvantages (no internet, difficult home situation, lack of childcare).

The most significant problem I experienced in my class was student exhaustion from other classes (as reported to me) whose instructors were less capable and far less sensitive to the perhaps unintentional increased volume of work they were asking of their students. One student reported that the workload in a [course] increased five times. I worked to assure that my class did not create a burden beyond the already stated expectations for the course.

Relatedly, some respondents expressed concern that the emergency transition – and online learning in general – exacerbated existing inequities among students.

The thing we'll need to do if this is going to work in the future is to somehow ensure that each of our students has access to adequate technology and a decent internet connection. I had some students on \$5000 laptops with every piece of software they could wish for, and others trying to keep up in a design studio using their smartphone and running off of their data plans. How do I grade that?

Given our [Regional Campus] demographic, I also believe that regional students have been affected more than "flagship" students, and that students with special needs (e.g., remediation and/or ODS certification) have been suffering most of all. Perhaps this crisis will finally make it clear to Columbus administrators that OSU's regional campuses are under-resourced, under-supported, and under-consulted, and, as a result, the pandemic has had even more devastating impacts on learning in the academic and local communities of our regional campuses.

I had an international student who went back home. In his native country he did not have access to internet and therefore had many challenges connecting... I reached out to this student numerous times until he finally responded. I was really concerned for him... Cross-cultural differences may have played a role here. Perhaps he was feeling ashamed of this situation. He did not reply to any of my emails after that one time. I did not know what happened after.

A few respondents shared their disappointment with the university's decision to offer a P/NP option and the limited guidance instructors received to determine the appropriate cut-off. One instructor saw it as a "get out of jail free card" for students who were already doing poorly before the transition. Some felt the ability to select P/NP for a course reduced students' motivation.

The ability to take classes pass/fail negatively affected learning outcomes. I gave two tests after the switch. One midterm in which the students did really well. Then, once the pass/fail option became available, student outcomes on the assignments and final plummeted... the students started doing the bare minimum they needed to pass the class.

Despite the many challenges that students faced, a few instructors pointed out that students showed strong resolve and effort during this time.

I was very impressed by the flexibility and adaptability demonstrated by most students. Some were unfortunately impacted by the calamity. Others took it as an excuse to reduce their effort. Most, however, seemed to take it in stride and make an honest effort to complete the course content to the best of their abilities.

General feelings about online learning

Most instructors commented negatively about online learning in general, and some of these comments were deeply critical. For example:

Online is a highly inferior way to teach and to learn no matter what electronic tools are available... My 3000-level course had been in-person and transitioned to online. Carmen made it possible, but I feel VERY STRONGLY that the experience for students and for me was very much inferior online.

My students suffered and my work experience was horrible. I feel fortunate that I had urgent family health issues to attend to that could give me a sense of purpose and accomplishment, because teaching the online classes did exactly the opposite.

I'm glad [students] were happy, but the whole thing made me utterly miserable, and I felt the courses all suffered. I'm retiring after this semester, and this experience was an AWFUL way to end my teaching career. I hated, hated it.

However, some respondents felt the negative aspects of online learning in Spring 2020 were due to other factors, and not necessarily to an intrinsic inferiority in online learning.

I hope that nobody (students, faculty, administration) draws strong conclusions about online teaching from this experience. I am withholding judgment on the quality and effectiveness of online learning until we design and execute a class more purposefully.

More positively, some respondents felt they learned useful lessons from the Spring 2020 transition and were interested to incorporate more technology (or even to teach more courses online) in the future.

I resisted using Carmen for many years, as I did not see the necessity or value of it for the way that I teach... However, I discovered that Carmen does actually enhance the learning experience of my students. I have a problem with the way Carmen keeps track of grades but thought all of the other tools were quite useful. I will definitely continue to use Carmen.

It was an eye-opening experience that made me reevaluate my thinking about distance learning and curious about ways to deliver quality instruction remotely. I never thought about providing remote community service-learning opportunities and I now see it as a very promising and appropriate way of connecting students and community members who have special needs.

Useful supports and recommended improvements

Faculty respondents commonly cited university-wide IT services, college/department-specific resources, keepteaching.osu.edu, the Office of Distance Education and E-learning (ODEE), and the University Institute for Teaching and Learning (UITL) as very helpful in supporting their transition to remote instruction. Informal supports were instrumental for some respondents who developed communities of learning with colleagues at OSU and other institutions, as well as online discussion boards and Facebook groups.

In general, comments on helpful supports and resources fell into four categories:

- **Prior foundations:** Instructors who were already heavily using CarmenCanvas or had previously taken professional development on online learning seemed to have fewer negative comments about the transition. As one commented: "I had the great good fortune of having just finished the Online Course Design Institute the Friday before spring break, so I had just collected a great set of resources." Additionally, those who considered themselves more tech-savvy felt they developed proficiency with new resources fairly quickly.
- Curated resources: ODEE, UITL, or college/department-specific resources curated by keepteaching.osu.edu or by college/department-specific personnel were generally useful, although there were few comments expressing frustration and disappointment. Some instructors reported not receiving adequate help, finding the support materials overwhelming or even too basic, or difficulty in receiving "live" support for more complex issues.
- Live-online group support: Some university colleges or departments hosted live-online Zoom meetings to walk instructors through CarmenCanvas tools and other resources for their teaching. Such gatherings, and other opportunities to live-test Zoom and other teaching tools, increased instructors' confidence. As one instructor shared: "[We need] Live ZOOM training. LIVE. Lots of LIVE practice. Just watching a video doesn't cut [it]."
- University-provided software and hardware: Respondents felt CarmenCanvas, CarmenZoom, and university-licensed software such as Mediasite were very helpful (but they also had suggestions for improvement, as discussed later). Faculty who had been issued university iPads (with Apple Pencils and webcams) felt these were indispensable to teaching after Spring Break.

Recommendations for improvement fell into four categories: providing more hardware, addressing inadequacies in Internet access, providing more robust training or support around specific technical and teaching issues, and making technical improvements within CarmenCanvas.

First, many respondents suggested the university **provide more hardware** to both instructors and students. For instructors who may continue to work from home or teach online courses in the autumn, respondents stressed the importance of providing iPads with Apple pencils, which allow instructors to more easily grade assignments, use the whiteboard function in CarmenZoom, and familiarize themselves with the capabilities of students' Digital Flagship devices. Some instructors also requested at-home usage of university supplies such secondary monitors, webcams, microphones or headsets, printers and paper, and office furniture. For students, instructors suggested that the university provide financially-needy non-Digital Flagship students with iPads, in order to reduce an equity gap that became even more apparent during remote instruction.

Prior to this semester, I was part of a Digital Flagship initiative cohort. I cannot emphasize enough how useful that experience was to a successful (I feel) shift to online learning. Also, an iPad with the same Carmen App my students use helps me understand how they are seeing things on their view of Carmen. The iPad + Apple Pencil also makes grading much easier and more efficient (as opposed to a laptop).

[All students not having iPads] put them at a SEVERE disadvantage during this transition and is something I hope will be addressed in the future ... it is plainly NOT FAIR to all ... It also needs to be mentioned that I myself have never received an iPad OR had any training on how to integrate them into my teaching. This is true even though incoming students in my classes have them and ask how we will be using them in my class. My usual response — "I don't have one so have no experience with using them for this course." Again, this was a SEVERE disadvantage during the transition as colleagues and non-teaching staff who had free iPads were using them extensively during this time. I had to figure out other more time-consuming ways to do the same things.

Second, many respondents were worried about their own or their students' **subpar Internet access**, or were upset about personally paying to upgrade their Internet in order to support a robust CarmenZoom connection. Respondents suggested that the university compensate instructors for home Internet upgrades or accessories to improve internet stability. For students, instructors were concerned about lecturing or holding discussion sessions with "black boxes," and suggested the university institute a policy that students must turn on their cameras during live-online sessions. However, such a policy is infeasible if students have insufficient Internet connectivity. To address this issue, the university may need to institute a formal system of request for accommodation from students with inadequate Internet access (which would also allow the university to proactively address individual connectivity issues where possible).

Third, instructors wanted more robust training or support around specific technical and teaching issues, including:

 Using key technology tools: Respondents requested additional training on online tools, particularly CarmenZoom, CarmenCanvas, Proctorio, Mediasite, and other universityprovided teaching resources.

- **Rethinking assessment:** Some instructors were uncomfortable relying on multiple-choice quizzing and testing in the online environment, but were unsure how to assess student learning in another way. Given that all students will be online for the final exam period in the autumn, ideas, examples, and supports for alternative methods of formative and final assessment will be important.
- Communicating announcements: Some instructors used Carmen's embedded email function, others used the Carmen Announcements function, and few were sure if they were communicating in the best way. Instructors feared their announcements were lost in the massive array of communications students were receiving. Policies or training to ensure consistent "best practices" in mass communication on Carmen would be helpful to instructors and their students.
- Creating video: Instructors wanted more training in how to properly record, edit, and upload a video, and the best software and workflow to follow. Multiple respondents requested live online training or assistance, or step-by-step resources with pictures/video.
- **Best practices for online instruction:** Instructors requested more resources and training on how to make an online course excellent rather than merely a stopgap in emergency. For example, instructors may benefit from workshops or resources on how to structure, manage, and assess live-online discussions in Carmen.

Although live workshops, group trainings, or one-on-one supports were most desired, instructors also suggested other cost-effective ways to deliver support, including instructor discussion boards to develop a community of practice and peer-support, and exemplar video lectures and Carmen shells.

Finally, instructors had many suggestions for **technical improvements within CarmenCanvas**, including:

- Quizzes: The Carmen quiz function was consistently mentioned as a major area of improvement. Primary concerns were: the inability to upload quizzes in Word format, complicated question creation and edit functions, and limited question options.
- **Storage** / **file limits**: The storage and file size limits on Carmen were frustrating to instructors who needed to share recorded lecture videos or annotated PowerPoint files; some instructors opted to use Mediasite or BuckeyeBox instead.
- **Discussion boards**: Instructors had difficulty following or grading threaded comments, and some suggested that the university integrate the tool Packback into Carmen.
- Email formatting and read-receipts: Carmen's internal email function does not offer formatting options, which made it difficult for instructors to communicate the most-important points via bolding, subtitling, or bulleting. Instructors were also never sure whether students read their announcements or emails, and feared that emails were being lost or filtered into spam folders; several suggested that Carmen allow for read-receipts to ensure students were receiving and opening messages.

Graduate/Professional Student Report

Survey Representation

The survey was open to all graduate and professional students; they could complete the Student and/or Instructor versions of the survey, depending on which they felt was most appropriate to their role at the university. N = 999 (9% of Graduate and 4% of Professional students) completed the Student version and N = 116 GTAs who taught in SP2020 completed the Instructor version.

Respondents to the Student version were fairly representative of the university's graduate/professional student population in terms of race/ethnicity, Ohio residency status, international student status, and gender.³ However, on the Student survey:

- Some **health-related colleges** were overrepresented (in particular, 23% of DEN, 15% of NUR, and 13% of HRS graduate/professional students responded to the Student survey), and a few colleges were underrepresented (specifically INT, LAW, MED, OPT, PBH, PHP, PHR, and VME had response rates of 4% or below). Response rates across all other colleges ranged from 5% 12%.
- Students who struggled in SP2020 may be underrepresented, although indicators were mixed. Among graduate/professional students whose GPA dropped by 0.5 or more in SP2020, only 5% responded, compared to a 9% response rate among those whose GPA remained more stable. However, response rates were higher among those who switched any course to P/NP (13% response rate among those who switched to P/NP, compared to 7% among those who did not).

In our currently-available administrative data, we are unable to distinguish GTAs from GRAs and thus cannot compute response rates among GTAs. However, among GAs who responded to the Instructor survey, most were appointed in ASC (70%), followed by EHE (14%) and ENG (7%).

Key Takeaways from Graduate / Professional Students

Graduate and professional students adapted to the stressors and challenges of the post-Spring Break transition more easily than undergraduates, but less easily than faculty instructors. For example:

• Compared to undergraduate responses regarding the transition to online learning, graduate / professional students were more likely to report: being prepared for the transition to remote learning, having no barriers to participation in remote coursework, maintaining their sense of student identity, and being satisfied with online services and programming. They were also less likely to report experiencing a strong increase in challenges associated with academic coursework.

Ohio State COVID-19 Teaching and Learning Survey – Report p. 46

³ This report does not include Survey Representation tables; they are available upon request from OSAS Research & Program Assessment.

- Compared to faculty responses regarding the transition to online teaching, GTAs were less likely to feel the university or their own department appropriately supported and prepared them for the transition to online teaching. They reported stronger levels of concern about various issues related to the transition to online teaching, and a deeper level of teaching/learning challenges for the courses they taught.
- Despite adapting more readily to online learning than undergraduates, many graduate / professional students still experienced **substantial levels of stress and challenge**. For example, 34% suffered an erosion of student identity, and 33% reported an increased level of academic challenge. Graduate / professional students were also **more pessimistic about the future** than undergraduates: they were more likely to report being no longer on pace to meet academic goals (27%) or needing to delay graduation or employment opportunities (22%).

Looking forward to the Autumn semester, graduate / professional students may benefit from a more robust provision of "live" online group activities and supports, including cohort group meetings, workshops on online teaching, and workshops designed to support mental and physical health during times of stress.

Graduate / Professional Respondents by Campus and College

	Student Survey		Instructo	or Survey
College	Count	Valid %	Count	Valid %
College of Food, Agr, Envir Science	25	3	3	3
Knowlton School of Architecture	11	1	0	0
College of Arts & Sciences	211	21	80	70
Fisher College of Business	118	12	2	2
College of Dentistry	123	12	0	0
College of Education & Human Ecol	121	12	16	14
College of Engineering	99	10	8	7
School of Environment and Natural Resources	7	1	0	0
School of Health and Rehabilitation Sciences	48	5	0	0
John Glenn College of Public Affairs	10	1	2	2
Moritz College of Law	6	1	0	0
College of Medicine	9	1	2	2
College of Nursing	149	15	0	0
College of Public Health	12	1	1	1
College of Pharmacy	2	0	0	0
College of Social Work	35	4	0	0
College of Veterinary Med	5	1	0	0
Other/Missing	8	1	2	0
Total	999	100	114	100

Student Survey: Key Demographic and Academic Characteristics

Student respondents consented to linkage of their responses to administrative records data, allowing us to include only a few demographic questions on the survey itself. Among graduate / professional respondents to the Student survey:

- Sex and Ethnicity: 65% of survey respondents were female. 64% were White, 14% international, 5% Asian, 5% Hispanic, 3% Black or African-American, 2% Two or More Races, and 7% other.
- Graduating SP2020: 17% graduated in Spring 2020.
- **Residence:** 63% were in-state residents, 22% domestic out-of-state, and 14% international.
- Online & hybrid course experience: 39% had ever taken an online course at OSU, and 24% were currently taking at least one online course in SP2020 prior to Spring Break. 19% had ever taken a hybrid-online course at OSU, and 7% were currently taking at least one hybrid course in SP2020 prior to Spring Break.
- **SP2020 academics:** 18% of respondents suffered a GPA drop of 0.5 or more, and 18% of respondents switched at least one course to a P/NP grade.

Student Survey Responses: Demographic Information

Did you take classes during the Spring 2020 ser	mester?	
	Count	Valid %
No	55	6
Yes	944	94
Total	999	100

Graduate / Professional students taking no courses in SP2020 automatically skipped all course-specific questions, and will appear in the <NA> row for those tables.

Which best describes your primary area of study?		
	Count	Valid %
Applied Health Science	329	33
Arts & Humanities	80	8
Business & Management	127	13
Communication, Media, Journalism	8	1
Education	111	11
Science, Technology, Engineering, Math (STEM)	255	26
Social Science	86	9
Total	996	100
<na></na>	3	

Which best describes your employment prior to Spring Break?		
Spring Dream.	Count	Valid %
Full-time employment	439	44
Part-time employment	310	31
None (Not employed)	248	25
Total	997	100
<na></na>	2	

What type of employment did you have prior to Spring Break? (choose all that apply) Table shows mutually exclusive responses. Students who chose multiple options are reported as "Chose multiple options."

Employment Type before Spring Break			
	Count	Valid %	
On-campus Federal Work-Study	29	3	
On-campus employment (not Federal Work-Study)	418	42	
Off-campus employment	256	26	
Chose multiple options	17	2	
None	279	28	
Total	999	100	

Students were now asked to indicate how many courses they took in Spring 2020, and how many of these courses were 100% online, hybrid, or face-to-face. This table summarizes students' pattern of responses.

Class Type before Spring Break		
	Count	Valid %
All courses 100% online	136	15
All courses face-to-face	610	65
All courses hybrid	26	3
At least one course online/hybrid but not all	165	18
Total	937	100
<na></na>	62	

Student Survey Responses: Context for Learning after Spring Break

Which best describes your living situation after Spring Break?		
	Count	Valid %
Live alone	201	20
Live with family	480	48
Live with friends/roommates	224	22
Other, please specify	93	9
Total	998	100
<na></na>	1	

Food Insecurity (from USDA Food Insecurity 2-question Short Form)		
- 4	Count	Valid %
No	751	75
Yes	247	25
Total	998	100
:NA>	1	

Please rate your level of agreement with the statement. After Spring Break... Students rated their agreement on a 5-point scale. In the table below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree.

Preparation for online learning	Valid %		
	Disagree	Neither	Agree
I had adequate access to the Internet connectivity necessary to participate in remote instruction.	11	2	87
I had adequate access to computer hardware necessary to participate fully in remote instruction.	9	3	88
I was prepared for remote instruction.	22	11	67

After Spring Break, my living situation made it difficult to attend remote classes due to... Students could select up to 3 options from a list of 11, plus an option of "None of the above. It was not difficult for me to attend remote classes." For this table, some options are combined for conciseness, and are ordered by frequency of selection.

Challenges to online learning	<u>Valid %</u>	
	Not selected	Selected
Noise/Too many people/No study space	53	47
No challenges	65	35
Limited internet access	73	27
Care responsibilities	84	16
Employment conflict	87	13
Lack of adequate hardware/devices	95	5
Personal illness	97	3
Housing instability	99	1

After the transition to remote instruction, what kind(s) of device(s) did you use to complete your online coursework? Students could select up to 3 options from a list of 10, plus an option of "I did/do not have any device(s)." For this table, some options are combined for conciseness, and are ordered by frequency of selection.

Devices for online learning	Valid %	
	Not selected	Selected
Desktop/laptop	2	98
Mobile phone	63	37
Non-University provided iPad/tablet	81	19
Borrowed device	93	7
University provided iPad	98	2
None	100	

After the transition to remote instruction, what was your primary method of connecting to the internet to complete your online coursework?

Internet connection for online learning			
	Count	Valid %	
My residence's internet service (Cable, Fiber, DSL, etc.)	880	93	
A friend or neighbor's internet service	16	2	
Mobile phone network data	39	4	
Public WiFi	7	1	
Total	942	100	
<na></na>	57		

Student Survey Responses: Experiences after Spring Break

<u>Student Identity:</u> Compared with the first part of the semester, after courses transitioned to remote instruction... Students rated their agreement on a 5-point scale. In the table below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree

Student identity statements	<u>Valid %</u>		
·	Disagree	Neither	Agree
I still found it easy to think of myself as a college student.	34	16	50
I became less concerned about what my classmates and instructors thought of me.	27	29	45
I felt like I lost touch with the Ohio State community.	16	17	67
My academic goals became less important to me.	45	14	42
I felt I was successful as a college student.	28	20	52
I encountered discrimination or racism in my remote instruction environment that had a negative impact on my learning.	90	8	2

The categories below are based on first-cut aggregation across the first 5 items above. These "first-look" calculations are preliminary and may shift slightly after further data cleaning (e.g., verification of inter-item reliability).

Identity Category		
	Count	Valid %
Maintained strong identity	266	27
Neutral identity	395	40
Erosion of identity	334	34
Total	995	100
<na></na>	4	

<u>Virtual Connection:</u> Did you participate in any of the following virtual offerings from Ohio State after Spring Break, outside of your courses? (Select all that apply) Options are ordered by frequency of selection

Type of virtual offering(s) used	Valid %	
	Not Selected	Selected
Cohort group meeting	53	47
Workshop or educational offering	62	38
Student organization meeting	76	24
Student event (e.g., guest speaker, awards ceremony)	78	22
Wellness, fitness or recreational activity	82	18
Other, please specify:	91	9

Number of virtual offerings selected above		
	Count	Valid %
1 type	344	59
2 types	156	27
3 types	71	12
4 or more types	14	2
Total	585	100
<na></na>	414	

Please rate your level of agreement with the statement. After Spring Break... Students rated their agreement on a 5-point scale. In the table below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree

Virtual service access and satisfaction		Valid %	
	Disagree	Neither	Agree
I was able to access virtual programming and services offered by Ohio State.	7	28	65
I was satisfied with the amount of virtual programming and services offered by Ohio State.	11	38	50
I had used virtual programming or services prior to COVID-19.	47	18	35
I will use virtual programming or services offered by Ohio State in the future.	13	33	55

Student Survey Responses: Focusing on One Course

When answering the following items, please consider only <u>one</u> of your Spring 2020 course enrollments. Select the course that, prior to the transition to remote instruction, was most representative of the other courses that you have taken.

What is the level of the course you have mind?	in	
	Count	Valid %
1000	0	0
2000	4	0
3000/4000	25	3
5000+	910	97
Total	939	100
<na></na>	60	

Prior to Spring Break, was this course Online, Hybrid, or Face-to-Face?		
	Count	Valid %
Face-to-Face	709	80
Hybrid	49	6
Online	124	14
Total	882	100
<na></na>	117	

After Spring Break, did your instructor to this course live (i.e., you were expected to at the scheduled class time)?		
	Count	Valid %
No	224	25
Yes	661	75
Total	885	100
<na></na>	114	

Prior to Spring Break, how did your course instructor use CarmenCanvas? (Select all that apply)	<u>Valid %</u>	
	Not Selected	Selected
To indicate due dates for assignments	14	86
To provide readings, videos, or other class assignments	15	85
To post grades	18	82
To host online student discussion boards	59	41
To conduct quizzes or tests	61	39
None of these (instructor didn't use CarmenCanvas)	95	5
Other, please specify:	98	2

Number of Carmen features student selected above		
	Count	Valid %
Carmen not used	43	5
Carmen 1-2 features	150	17
Carmen 3 or more features	571	64
Already Fully Online	124	14
Total	888	100
<na></na>	111	

After Spring Break, how did your experience with this course change as the university transitioned to remote			
instruction?	$\underline{\mathbf{V}}$	alid %	
	Disagree	Neither	Agree
I found my coursework more challenging.	31	23	45
My instructors were more available for support.	17	38	44
I interacted with my classmates more.	75	17	8
I missed more course announcements than usual.	47	23	30
I earned lower grades than I expected.	58	22	19
It took more effort to complete my coursework.	26	13	61
It was harder to meet deadlines.	37	16	47
I had a better understanding of the course materials.	54	37	9
I spent more time on my schoolwork overall.	38	25	37
I think my classmates started to cheat more.	52	36	12
My instructor relaxed their standards (e.g., for grading, participation, deadlines, attendance, etc.).	30	23	47

The five dimensions below are based on first-cut aggregation across 11 items. These "first-look" calculations are preliminary and may shift slightly after further data cleaning (e.g., verification of factor structure).

Course Changes	<u>Valid %</u>		
-	Disagree	Felt Similar	Agree
Increased academic challenge	34	33	33
Increased interaction	34	44	22
Increased time challenge	31	40	28
Increased learning	54	37	9
Reduced integrity	30	41	28

Student Survey Responses: Looking Ahead

Is Spring 2020 your final semester of enrollment at Ohio State	?	
	Count	Valid %
No	780	83
Unsure	13	1
Yes, I am leaving Ohio State but not graduating	3	0
Yes, I will graduate	149	16
Total	945	100
<na></na>	54	

Please rate your level of agreement with the statement. Students rated their agreement on a 5-point scale. In the table below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree

"Looking Ahead" statements		V	alid %
	Disagree	Neutral	Agree
In terms of my academic progress, I feel that I am still on pace to meet my academic goals as scheduled.	27	7	66
I will be a better student than I was before the transition to remote instruction.	39	41	21
I am more likely to enroll in a 100% online course now than I was before the transition to remote instruction.	53	27	20
I will have to delay graduation or employment opportunities because I was not able to complete essential coursework or practical experiences (e.g., student teaching, clinical rotations, recitals, etc.) during the spring 2020 semester.	58	21	22

See the end of this report to find themes from graduate and professional students' open-ended comments on the Student survey. Report continues on the next page with GTA response on the Instructor survey.

Instructor (GTA) Survey Responses: Background Information

How many years experience do you have the college level?	e teaching at	
•	Count	Valid %
1	28	24
2–5	74	64
5–10	13	11
10–20	1	1
Total	116	100

Excluding the classes that transitioned to remote instruction during Spring 2020, how many times have you taught via a 100% online format?

	Count	Valid %
1	13	11
2–5	15	13
More than 5	0	0
Zero - I have not previously taught any 100% online classes	88	76
Total	116	100

Instructors were now asked to indicate the subject area and level of each course they taught this spring (e.g., MAT 1000-level). For each course, they indicated whether the course was originally online, hybrid, or face-to-face; whether they originally used CarmenCanvas to help teach/manage the course; and whether they converted the course to a "live" online format after Spring Break (i.e., did they expect students to log in at the scheduled class time?)

Did instructor indicate any of their SP2020 courses were originally online?

	Count	Valid %
No	105	91
Yes	11	9
Total	116	100

Did instructor indicate any of their SP2020 courses were originally hybrid?

	Count	Valid %
No	113	97
Yes	3	3
Total	116	100

Did instructor use Carmen for <u>any SP20</u> courses before Spring Break?	20	
	Count	Valid %
No	6	5
Yes	110	95
Total	116	100

Did instructor use Carmen for <u>all SP2020</u> courses before Spring Break?		
	Count	Valid %
No	8	7
Yes	108	93
Total	116	100

online format after Spring Break?	-	
	Count	Valid %
No	69	60
Yes	46	40
Total	115	100
<na></na>	1	

Aggregating across all GTA instructors and courses they reported: Estimated percent of all courses taught live-online after Spring Break: 43.17 %

The following items pertain to your experience <u>before</u> the transition to remote instruction...

Instructors rated agreement on a 5-point scale. In the table below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree.

Statements about online teaching	Valid %		
	Disagree	Neither	Agree
I felt comfortable adopting new technology in my classes.	9	9	81
I was familiar with online teaching and learning in my discipline.	33	16	51
I resisted learning about online teaching and learning.	69	23	8
Online teaching conflicted with my personal identity as an instructor.	40	21	40

The categorizations below in terms of instructors' "overall prior comfort" with teaching technology and online learning are based on first-cut aggregation across the previous 4 items. These "first-look" calculations are preliminary and may shift slightly after further data cleaning (e.g., verification of inter-item reliability).

Overall Prior Comfort	Count	Valid %
Comfortable	65	56
In-Between	37	32
Uncomfortable	14	12
Total	116	100

Instructor (GTA) Survey Responses: Context for Teaching after Spring Break

The following items pertain to your experience during the transition to remote instruction (over Spring Break). Instructors rated their agreement on a 5-point scale. In the table below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree.

Statements about the transition to remote instruction	<u>Valid %</u>		
	Disagree	Neither	Agree
My college/department proactively connected me to resources for online teaching.	10	7	83
I knew where to go for technical support for online teaching.	11	8	81
I knew where to go for instructional support for online teaching.	12	9	79
My university offered sufficient resources for online teaching.	13	9	78
I had sufficiently strong and reliable Internet service.	18	9	73
I had an appropriate digital device for teaching (e.g., desktop, laptop).	9	3	89
I was able to find quiet space and dedicated time to concentrate on teaching.	16	12	72
I felt well-prepared for teaching by the time classes restarted.	26	12	62

The categorizations below in terms of instructor "overall support/preparation" for the switch to online learning are based on first-cut aggregation across the previous 8 items. These "first-look" calculations are preliminary and may shift slightly after further data cleaning (e.g., verification of inter-item reliability).

Overall Support/Preparation	Count	Valid %
Supported/Prepared	89	77
In-Between	22	19
Not Supported/Prepared	5	4
Total	116	100

I am willing to teach a 100% online course in future semesters. Instructors rated agreement on a 5-point scale. Below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree.

	Count	Valid %
Disagree	35	30
Neither	18	16
Agree	63	54
Total	116	100

Please indicate your level of concern regarding the following aspects of the transition to remote instruction during the Spring 2020 semester. *Instructors rated their level of concern on a 5-point scale.*

		Valid %	
	Not At All	Slightly/ Somewhat	Moderately/ Extremely
Diminished student learning	1	25	74
Changes to grading structures (e.g., pass/fail, credit/no-credit)	22	52	26
Not being able to communicate with my students	10	38	52
My own comfort with online applications/tools	37	47	16
Adequately translating existing lessons or activities to a remote environment.	10	38	52
Ensuring security, privacy, or academic integrity in exams or other online assessments.	25	37	38
Maintaining ownership of the class materials I post online.	44	34	22
Recording videos for my students from the privacy of my own home.	47	32	21
Posting materials online which might be copied and shared on the Internet.	40	37	23
Managing inappropriate online student behavior.	36	50	15
Experiencing negative impacts on my student teaching evaluations.	18	46	36
Experiencing negative impacts on my tenure or promotion process.	61	22	17

The categorizations below in terms of instructor "overall concern" for the switch to online learning are based on first-cut aggregation across the previous 12 items. These "first-look" calculations are preliminary and may shift slightly after further data cleaning (e.g., verification of inter-item reliability).

Overall Concern	Count	Valid %
Extremely	3	3
Moderately	11	9
Somewhat	52	45
Slightly	48	41
Not Concerned	2	2
Total	116	100

Instructor (GTA) Survey Responses: Focusing on One Course

Each instructor was now asked to choose one specific course they taught in SP2020, by selecting from the list they provided earlier in the survey. The next four tables draw from the instructor's earlier responses regarding this chosen course.

Level of this course	Count	Valid %
1000	32	28
2000	40	35
3000/4000	33	29
5000+	10	9
Total	115	100
<na></na>	1	

Format of this course prior to Spring Break		
	Count	Valid %
Face-to-Face	103	89
Hybrid	2	2
Online	11	9
Total	116	100

Used Carmen to help teach/manage this course prior to Spring			
Break	Count	Valid %	
No	7	6	
Yes	109	94	
Total	116	100	

Course was live-online after Spring Break		
•	Count	Valid %
No	71	62
Yes	44	38
Total	115	100
<na></na>	1	

After the transition to remote instruction (after Spring Break), which of the following CarmenCanvas tools did			
you use for this course? (Select all that apply)	Valid %		
	Not At All	Slightly/ Somewhat	
CarmenCanvas Assignments/quizzes	23	77	
CarmenCanvas Announcements	6	94	
CarmenCanvas Discussion Board	37	63	
CarmenZoom Live Meetings	40	60	
CarmenZoom Recorded Lectures	55	45	
None of these	100		

Number of Carmen features instructor indicated using after Spring Break:		
	Count	Valid %
Carmen 1-2 features	25	22
Carmen 3 or more feature	79	69
Already Fully Online	11	10
Total	115	100
<na></na>	1	

Compared with the first part of the semester, after this course transitioned to remote instruction... Instructors rated their agreement on a 5-point scale. In the table below: Agree = Strongly Agree or Somewhat Agree. Neither = Neither Agree nor Disagree. Disagree = Somewhat Disagree or Strongly Disagree.

Statements about course transition	<u>Valid %</u>		
	Disagree	Neither	Agree
The time I invested in teaching this course increased.	17	14	70
I was able to maintain good track of how my students were doing.	53	15	32
I was able to maintain a sufficient level of interpersonal interaction with students (using Zoom or other tools).	58	15	27
I felt more disconnected from my students.	4	8	88
My students had more struggles in terms of time management.	6	23	71
My students had more struggles in terms of accessing and using required technologies.	20	18	62
My students had more struggles in terms of understanding and applying the material.	18	20	61
My students disclosed more struggles in terms of non-academic challenges and concerns.	16	13	71
I think students committed more academic misconduct.	39	36	25
My students received a lower quality learning experience.	17	18	65

The categorizations below in terms of instructor "overall change in challenges" for the switch to online learning are based on first-cut aggregation across the previous 11 items. These "first-look" calculations are preliminary and may shift slightly after further data cleaning (e.g., verification of inter-item reliability).

Overall Change in Challenges			
	Count	Valid %	
Decreased Challenges	3	3	
Similar Level Challenges	46	40	
Moderately Increased Challenges	63	55	
Strongly Increased Challenges	3	3	
Total	115	100	
<na></na>	1		

Themes from Graduate / Professional Student Open-Ended Comments

For this section of the report, we interweave themes and comments from **both the student and instructor surveys**.

Graduate and professional students taking the student survey saw the following open-ended questions.

- [For students with university iPads:] Your university-provided iPad includes a "mobile suite" of support tools (like the Discover App, Wellness App, and OSU App). Please let us know if you have any strong positive or negative feedback on how your university iPad or its mobile tools have supported you in the past month.
- [For students without university iPads:] The university's "mobile suite" of support tools includes the Discover App, Wellness App, and OSU App. Please let us know if you have any strong positive or negative feedback on how well these tools have supported you in the past month.
- What additional offerings and supports from Ohio State would have improved your experience after the transition to remote instruction?
- What could your instructors have done differently to improve your experience after the transition to remote instruction?
- Is there anything else you would like to share about the university's response to COVID-19 and its impact on you?

GTAs taking the instructor survey saw these questions:

- [For those who indicated using specific CarmenCanvas tools:] Earlier you indicated that you used the following tools for your course: [list]. Please let us know if you have any strong positive or negative feedback on these tools or the support associated with them.
- [For those who indicated using no CarmenCanvas tools:] Earlier you indicated that you did not use any CarmenCanvas tools for your course. Please provide some insight as to why these tools were not useful for your course, or whether you used other tools instead.
- What university, college, or departmental resources were the most useful in your transition to remote instruction, and why?
- What additional resources or communications should have been provided by your department, college, or university?
- Is there anything else regarding your experience with the transition to remote instruction that you would like to share?

Based on a **preliminary skim of the comments**, below we provide a sense of the clearest and most common themes, along with some illustrative open-ended responses in *italics*. The sections below address: (1) the initial transition during Spring Break, (2) financial concerns, (3) experiences as students within courses, (4) experiences as GTAs of courses, (5) clinical and research experiences, (6) other stressors, and (7) useful supports and respondents' recommendations for improvement.

The initial transition

Compared to undergraduate students, graduate and professional students' open-ended comments about the transition were generally more positive. These students generally appreciated the university's swift decision-making, and the support they received from departments and professors.⁴

I think the university overall did a great job and focused on ensuring the student had a good experience (even in the tough times.) I commend OSU for going above and beyond what was necessary to ensure a smooth transition. If a resource was needed, it was almost a guarantee that it existed in some form to leverage.

On the student survey, most graduate and professional respondents seemed satisfied with university communications about the transition. Some felt the frequency and quantity of emails was overwhelming, and that emails which summarized important information in bullets would be more useful. A few students commented that most communications were not specific to graduate students, leaving them with a feeling of being "kept in the dark" or unsupported.

... many of the announcements made did not directly discuss if you were a graduate student, which is very different from an undergraduate student or staff/faculty. I know many graduate students who felt they weren't supported because we were excluded from the conversation and were lost about what rules applied to them and what rules didn't. It would have been better for us if we were supported by the graduate school early on and told what our plan moving forward should be.

On the instructor survey, the smoothness of the transition for GTAs seemed tied to the clarity and supportiveness of communication from their department and supervisor. In particular, departmental meetings and updated syllabi helped keep GTAs updated about grading policies and course changes.

I am a TA, and my lab supervisors and professor I teach for were all really helpful in the transition to remote instruction, as they were patient, forthcoming with plans, and all took the time to demo the new technology with me as a TA.

It was difficult to set expectations on attendance and participation, since we were not provided with an updated version of the syllabus, meaning that it was unclear for some students how they were being graded; however, I understand that our professors/supervisors were in the same exact situation and were learning "on the fly."

⁴ However, there were some exceptions to this trend. In particular, one professional college was highly criticized by respondents in terms of the college's inconsistent communication, steeply reduced teaching after Spring Break, and delayed adjustments to assessments, which students perceived as being made "on a whim."

Many GTAs felt they were not fully appreciated or fairly compensated for the additional time and effort required to adjust courses and teach after Spring Break.

I spent a week (the second "spring break") transitioning my course online. It took a lot of time and labor, yet I am not being compensated for that extra week of work. I worked very hard to make the transition easy for my students, and I think it is absolutely ridiculous that OSU would expect me to do that work for free. I am not interested in being used for free labor.

I was bombarded with emails for weeks, and none of them addressed my concerns. All were just empty promises and "appreciation" for our work, all while our department starts enforcing funding limits and making the lives of grad students more difficult and stressful.

Finally, on both the instructor and student surveys, some graduate and professional students expressed frustration regarding a lack of robust Internet and adequate devices and peripherals (e.g., iPads, webcams, microphones) needed for full participation in online teaching or learning.

I find it puzzling why the university did not offer to pay for internet given that it was required for our work. This simple gesture would have gone a long way to help graduate instructors.

I had often relied on the campus network and it was difficult to arrange for sufficient hotspot data. Zoom uses up a lot of data and I had 4 Zoom sessions for class per week.

PLEASE PLEASE PLEASE offer to send out mobile hotspot devices to students. I have seen other universities do this for their students. I was going back and forth with my internet service provider for weeks trying to get better service and they couldn't help.

Financial concerns

After Spring Break, finances became a critical concern for many respondents, particularly because their funding is linked to classes and research.

The university continues to treat grad students in ways that are confusing and inconsistent. We're workers, and it would be appropriate to not ask us to do additional work without additional compensation, and yet we're being asked to assist in the complete redesign of courses for online/hybrid formats. But we're also students, and yet we are not being offered funding extensions "either automatic or otherwise" despite the severe impact that COVID-19 has had on our ability to complete our coursework and conduct research.

Some respondents attended school based on an employer's tuition remission benefit, and were now facing layoffs or furloughs; and respondents with children anticipated increased costs for inhome childcare. Students in these situations were unsure if they could continue to pay for schooling. Students who relied on assistantship funding were concerned about rescinded offers, lack of communication, and impending budget cuts.

I wish I would have known sooner that my graduate appointment for summer was being cut even though I had already signed the contract. I am now effectively jobless, and do not know how I will make ends meet. If I had known earlier, then I could have started looking for employment.

Financially this was also a difficult impact as several graduate students (myself included) lost parts of or fully lost their RA positions, which often serve as the only source of income for graduate students since we are required to sign paperwork forbidding outside jobs.

However, not all students lost their positions. Some were grateful that they could continue work remotely, or that their PI continued to pay them even though lab work was on pause.

I appreciated that the university made an effort to retain and pay GRAs and other graduate students working for the university; this process would have been immeasurably more difficult if I had not had a consistent source of income.

Students also shared concerns about tuition and fees. Students (particularly in professional programs) were particularly upset regarding the lack of partial tuition refunds for spring or discounts for summer, because they felt that program quality declined after Spring Break.

I think the \$100 fee for online learning is, well, frankly bogus. Furthermore, the 25% discounted tuition for undergraduate students is nice, but what about the graduate students? I see a distinct disconnect between the two and I'm not sure why. And we have not received a valid answer as to why that is. If one group of students gets a discount, everyone should get the discount. We are all in the same boat.

My grades have suffered because of this, my graduation will be pushed back, it will take longer to start my future career. I don't feel like I was taught anything over this time but still paid an absurd amount of money for a low-quality education. I expect more from OSU and [the professional college]. Especially since they have no answers, no direction, and a strong lack of teaching since COVID-19. If transferring [professional] schools was a thing I would do it.

Some graduate and professional students also requested easier access to emergency student financial aid, as most of the university's emergency student aid seemed to be targeted to undergraduate students.

The student advocacy fund (which has since dried up) is only for undergrads which is very annoying because from the start as a grad student I was given the short straw... I've called financial aid and expressed my concerns and was told "I don't know what to tell you." This is frustrating. If taking the summer off wouldn't put me a year behind in my program, I would.

As these quotes imply, students' financial concerns were interrelated with their frustration regarding a perceived reduction in the quality of their academic experience and an increase in their workload, particularly for GTAs. The following sections discuss these components of the post-Spring Break experience in more detail.

Experiences as students within courses

Graduate and professional students reported that some courses went well after Spring Break, while others suffered. Some positive examples included:

My instructors are amazing, supportive and empathetic to all of us attending class. Each instructor sent inbox messages or email to maintain contact with the class as a whole. I also had individual conversations with them via email, and phone conference. They made efforts to help us with our commitments. I cannot complain despite the massive amounts of STRESS that loom overhead.

I actually feel like I had more meaningful interactions with my instructors and my cohort after the transition than I did before. It forces us to become more thoughtful, more intentional, and it really just causes the real us to emerge. Hearing your professor struggle to record a lecture while kids squeal in the background helps one to better understand just how human and similar all of us are. It takes us out of that more professionalized setting and makes things more informal and real. The content doesn't change, but the way we interact with it does.

On the other hand, a few students mentioned that after Spring Break, some instructors did not provide lectures, uploaded lectures from previous years, were unresponsive, or added additional assignments to make up for lost class time. This inconsistency between courses was an added stressor for some students.

[there needs to be] a more clear and concise plan... It would help if all instructors used the same online tools (CarmenCanvas, Mediasite, etc.) in the same ways. Overall, it would help if things were straight forward, streamlined, and consistent between professors.

One class the instructor updated us on changes to the class every few days and held classes over zoom like regular. Another class the instructor was MIA for like 2 weeks after Spring break ended and when he finally updated the class, he managed to condense 9 lectures into 3.

As noted earlier in this report, most graduate courses moved to a live-online format (as opposed to an asynchronous format). Some students commented that they preferred the motivation, accountability, and peer connections that come with live-online classes. However, they felt live-online courses should include more interaction and engagement and less direct lecturing.

I think that where possible, instructors should try to use synchronous Zoom sessions to replace class. This mode made me feel the most connected, although I understand that it presents challenges.

Think about additional ways to ask students questions during online lecture so that they can be engaged. We want to be engaged, but sometimes the way lecture is held makes that very challenging or uncomfortable.

Other students felt asynchronous online courses would have been more appropriate during the emergency transition, especially given graduate and professional students' shifting childcare or work schedules during the pandemic, and some students' lack of robust internet service or learning devices.

[There needs to be] more support for instructors on different methods of online courses (i.e. that live classes are not the only option - best class I took used prerecorded videos and discussion boards to track participation).

Experiences as GTAs of courses

Most GTA-managed courses were converted to an asynchronous format after Spring Break, rather than a live-online format. Thus, most qualitative comments in this section were focused on asynchronous courses.

In addition to clarity of communication during the transition, GTAs seemed to adjust more successfully if their supervisor or teaching team spent time together testing out CarmenZoom and sharing ways to adjust courses for remote instruction. Other GTAs were frustrated that supervisors had little experience with online teaching or CarmenCanvas.

I received a lot of help from the team of instructors teaching the same course as me. They helped trouble-shoot how to restructure assignments.

It is difficult enough being a grad student and a GTA, but the expectation that we carry on as before with limited resources and oversight from the top down affected both our learning and our instruction. While I understand that this is a large university with a vast number of professors who have predominantly only taught face-to-face their entire careers, and who have their own learning curve in going online, grad students should not be expected to carry the same burden while we are pulling double duty as students and instructors.

Similar to faculty respondents to the instructor survey, GTAs were worried about their students, particularly those who were struggling with personal situations, limited Internet or devices, or additional loads of assignments in other classes. GTAs reported that student attendance dropped after Spring Break, messages were met with "radio silence," and it was difficult to know whether students were seeing CarmenCanvas emails and announcements.

The loss of interpersonal connections with students was challenging for some GTAs; several commented they were able to maintain connections more easily if they had already developed face-to-face relationships with students prior to Spring Break. One GTA who wanted to connect with students through CarmenZoom was told not to do so:

I asked if I could hold optional Zoom office hours, or give students the option to set up Zoom office hours, and was told no. Their reasoning was that some of the other

TAs, two older gentlemen, would not have the capabilities to do this. I was really frustrated by this, because I care so much about my students and their grasp of the material, and I was hoping to offer this time for students to talk through some problems.

Several GTAs expressed concerns about online learning in general, which were similar to faculty comments on the instructor survey. For example: "it is basically impossible to simulate online the experience of classroom discussion" or "remote learning is clearly inferior and should only be used as a last resort (i.e. for the pandemic)."

Similar to faculty, some GTAs were concerned about appropriately assessing student learning in the online context. Assessments in CarmenCanvas were challenging to develop for some respondents. In particular, GTAs teaching STEM courses, language courses, or others requiring equations or special characters (such as accent marks) found these incompatible with CarmenCanvas quizzes and exams. As a silver lining, one GTA was pleased the transition forced a change to assessments in the course:

I personally liked that the transition to online lead to more reliance on take-home type exams or course term projects instead of in-person closed-book exams which are not necessarily representative of what students will be dealing with in the workplace.

In terms of helpful supports and tools, GTAs praised CarmenCanvas, CarmenZoom, and BuckeyeBox as ways to connect with students, lecture, and share resources. GTAs liked the ability to connect with their students by video, and those teaching live-online courses appreciated CarmenZoom's recording feature, which allowed them to upload recordings for students who were not able to attend. (Although those with subpar Internet connections suffered from slow uploads of Zoom recordings, or poor-quality and awkward Zoom sessions.)

I really like the features for recording to the cloud or to my computer, which allows me to facilitate a class for students who can participate on time, allows me to post the video for any student who couldn't be there, and allows students to repeat videos for practice.

In general, GTAs expressed the desire for additional training on best practices for online teaching.

I would like to see the university support the [department] in providing workshops that instructors can attend prior to the beginning of the semester. I'm willing to add this to my wheelhouse, but I recognize, and so should the university, that it is unrealistic to think that online teaching skills and know-how will all of a sudden be there after half a semester of flailing online. For us to not look to experienced online instructors would lead to another swing and a miss.

Clinical and research experiences

Outside of academic coursework, some professional student respondents worried they would be unprepared for the workforce because they did not receive a full clinical experience, or were

frustrated that their program provided little information about the impact of lost clinical time on program completion.

This is particularly going to affect professional students in healthcare fields as we may not be able to go on our clinical rotations and may have to delay our graduation as a result. While it may not have reached this point yet, it may be coming, and I know many of us [are] concerned about the financial impact of that situation. I just really hope that we do not end up in a position where we have to pay more tuition to stay here longer when that was not our original academic plan.

I feel like I am not being prepared adequately to be a practicing clinician and pass my licensure. There are so many physical skills that we need to learn that we will not be able to from this semester and now summer semester as well. I feel as though I am not getting the educational level that I am paying for, and that I expected to have in a graduate program. So many students do not work well with remote learning, and now that it is the only option, it is so difficult to actually learn material.

Graduate students reported they did not have access to software necessary to conduct their research, or that they were unable to collect data because their projects were stopped. Students close to program completion were concerned about not being able to complete their research, dissertations, and program requirements. These students worried about the potential for delayed graduation, as well as insufficient funding and/or additional tuition for an added semester or year.

Shutting down valuable and timely research was not a wise move. It extended students time at the university and created concerns about staying on pace for graduation. My hopes are a better plan will be in place to reduce that chance of research being lost, especially when a student invests years in a project and it's shutdown.

...our job prospects are severely limited now due to the economic recession, and the university is doing little to support students needing an extra year in their graduate programs.

Some graduate students who required specialty software or physical library resources to conduct research were frustrated by the lack of access to these resources at home. Specialty software packages available at research labs or libraries were not necessarily available via remote access, and students found purchasing an individual license to be prohibitively costly. Students were also worried about how to access physical books or documents from the library.

Completely shutting down the library seems an unnecessary burden on students trying to finish research. It should be fairly easily to maintain some level of book ordering and retrieval with safe social distancing. Perhaps books could only be ordered online and then picked up, with workers behind a screen, for example. Why is that not possible? How am I supposed to finish a dissertation this summer without access to the books I need?

Finally, the ambiguity of potential implications of P/NP on future doctoral applications or class rank was also a concern for students.

While the pass/no pass option was provided for all classes, we were told that if we applied to OSU for our doctorate, they couldn't guarantee OSU would accept a "pass" to get in the program. So, it felt like OSU was just checking the box to say the helped students when actually there were tons of exceptions to the rule.

Other stressors

Some students expressed that the pandemic and related academic transition – including the loss of daily structure and consistency -- was detrimental to their mental health. Paired with concerns about funding and completing their programs in time, several students expressed difficulty coping.

I'm stressed and it seems like the world is falling apart and I have to still worry about my research and not letting my advisor and team down and I'm also worried about losing my funding since my research ran long and I'm going to be absolutely broke once my funding stops and graduation happens and [to be honest] most days it feels like my brain is melting from all of the stress.

The mental and financial stress that were induced by the pandemic response has negatively impacted my ability as a student. As a graduate student, I have a lot of "adult" responsibilities (mortgage, family, bills) which have been strained... I only included this information so that it was clear that not all problems were created by transitioning to remote learning, I feel that for myself and many others that the difficulties had a lot more to do with the stress from the pandemic.

Students with children found it challenging to balance work, home-schooling or caring for their children, and completing coursework. These students felt their instructors were often inflexible or unsupportive. Some said they would not be able to continue their academic programs in the fall if there were no solutions for childcare or reductions in tuition and fees.

Better understanding and preparation for students with young children and no childcare options due to COVID-19. We still had to attend "live" lectures even though most had no childcare. We were not able to focus during the live lecture due to caring for young children and doing homeschooling for older children. We asked if lectures could be recorded. They were, but we were still required to attend the live lecture, do live presentations, and take notes. Other professors never responded to emails with concerns about childcare.

Even students who were already enrolled in fully-online programs expressed more stress after the transition. Although their courses did not change, their living and working situations did. For example, balancing work and school from home was more challenging than one might expect, due to the monotony of working on a computer all day and then completing schoolwork in front of the screen as well.

I really struggled with making a disconnection between work and schooling. I usually have a 15-minute commute home and make dinner before jumping into my online schooling. However, working from home for 8 hours then trying to transition into schoolwork was very hard. I find myself putting my schoolwork off more now when I seem to have more free time than before when I held a full schedule.

Finally, several students shared worries about potential in-person classes in the autumn. Some were concerned about their own health, and others about the potential for a widespread outbreak on campus.

Please don't open for in-person classes in the Fall! Don't force professors and graduate students with health issues to teach in person...I know state cuts are going to hit the university hard. Do what you can to funnel money to students who need food and ask well-paid administrators and professors to chip in. We have to take care of each other during this time, minimize risks to people's health, and keep our eyes on what is important here.

Useful supports and improvements

As noted in earlier sections, graduate and professional students seemed to adjust to the transition most smoothly when they received timely and clear communication from their department, as well as support from their professors, supervisor, or teaching team.

Similar to undergraduate students and faculty, graduate and professional students felt it was important for the university to provide devices or help broker more robust internet connections for students who truly need those resources in order to fully participate in online coursework. In addition to the tuition discounts and refunds previously mentioned, respondents also suggested that the university provide a clearer and deeper source of emergency aid for graduate and professional students, and provide additional mental health services.⁵

My hope for the university's response is to take seriously students who do not have resources to perform well in college... additionally, an increase in mental health resources, specifically targeted at minoritized students would be great to see because Black students, Latinx students are suffering worse consequences from COVID-19 than other populations. That needs to be reflected in resources offered.

Finally, graduate and professional students asked for additional instructional training for GTAs, and for additional live-online workshops, supports, or events that would bring students together and "[maintain] community despite distance."

⁵Graduate and professional respondents were mostly unaware of the Discover and Wellness apps. They reported primarily using the OSU app for on-campus functions before Spring Break and to check their grades at the end of the semester.