# Office of the President

# TO MEMBERS OF THE ACADEMIC AND STUDENT AFFAIRS COMMITTEE:

# **DISCUSSION ITEM**

For Meeting of July 21, 2021

FULFILLING THE ACADEMIC MISSION: ACADEMIC SENATE SURVEY OF UC FACULTY AND INSTRUCTORS ABOUT THEIR EXPERIENCES DURING THE PANDEMIC, MARCH 2020 TO MAY 2021

## **EXECUTIVE SUMMARY**

From March 2020 to today, the COVID-19 pandemic has imposed many restrictions on how the University of California carries out its trifold mission of teaching, research, and service. At the outset of the pandemic, campuses were shuttered and, since that time, the University has conducted its work remotely, including teaching via remote instruction. The rapid pivot by faculty and instructors to remote instruction enabled the University to meet its academic responsibilities during the pandemic and, as a result, enrollment has been steady, and students have been able to advance in their programs of study during this difficult period. However, this experience has had substantial effect on other aspects of the academic mission, especially faculty research. To find out more about the teaching and learning environment, work conditions, and research experience during the pandemic, the Academic Senate conducted a systemwide survey of faculty and instructors in May 2021. In this presentation, Faculty Representatives Gauvain and Horwitz will report the results of this survey, as well as lessons to apply and ideas to consider for the coming academic year when campuses re-open.

## **BACKGROUND**

At the onset of the COVID-19 pandemic in March 2020, Governor Newsom issued the order for all Californians to stay at home except for essential activities. The University of California, like all educational institutions in the state, immediately halted in-person operations, and students, faculty, and staff were ordered to study and work from home. This event led to the rapid shift to remote instruction. At the time, the duration of the lockdown was uncertain, and it has gone on for much longer than expected. By the time the campuses reopen in fall 2021, UC faculty, students, and staff will have worked and studied off-site for over 17 months. During this unprecedented period of off-campus activity, UC faculty and instructors have maintained their teaching and mentoring responsibilities, and, because of their efforts, the University has continued to meet its obligations to our students and the state. Faculty functioned as the primary touchpoint for the connection of students to the University during the pandemic. Student

enrollments during this period have been steady, and students have been able to advance in their programs of study.

In May of 2021, the Academic Senate conducted a systemwide survey of faculty and instructors to find out more about the teaching and learning environment, work conditions, and research experience during the pandemic, along with their views about the campus reopening in fall 2021. In this presentation, Faculty Representatives Gauvain and Horwitz will describe the results from this survey and offer conclusions based on the results. This information will be valuable for understanding the academic experience on the campuses over the past year and a half, and it will serve as useful background for the coming academic year when the UC community returns to campus. The presentation will cover six areas: (1) Description of the Sample, (2) Teaching Environment During the Pandemic, (3) Work Conditions During the Pandemic, (4) Impact on Research, (5) Learning Environment During the Pandemic, and (6) Lessons Learned and Ideas for Moving Forward.

#### FACULTY AND INSTRUCTOR EXPERIENCE DURING THE PANDEMIC

#### **DESCRIPTION OF THE SAMPLE**

The sample included 4,312 faculty and instructors (47 percent female; 44 percent male; 9 percent other/no answer) from all ten campuses (Table 1). They represented a wide range of academic personnel and disciplines (Tables 2 and 3).

Table 1. Distribution of participants by campus

Campus	Number in sample	Proportion of sample
Berkeley	500	12%
Davis	397	9%
Irvine	265	6%
Los Angeles	563	13%
Merced	159	4%
Riverside	335	8%
San Diego	334	8%
San Francisco	265	6%
Santa Barbara	300	7%
Santa Cruz	180	4%
Not identified	1014	24%
Total	4312	100%

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Table 2. Academic positions represented in the sample

Academic position	Proportion of sample
Full Professor	34%
Associate Professor	15%
Assistant Professor	14%
Teaching Professor SOE	3%
Teaching Professor PSOE	2%
Unit 18 Lecturer	18%
Adjunct Professor (not Unit 18)	6%
Graduate student as teacher of record	5%
Health Sciences Clinical	1%
Clinical X Professor	1%
Did not indicate	1%

Table 3. Respondents' school/college

School/College	Proportion of sample
Arts	5%
Engineering/Computer Science	10%
Health Sciences	11%
Humanities	17%
Life Sciences	9%
Physical Sciences/Mathematics	12%
Professional Degree Programs	10%
Social Sciences/Psychology	17%
Other	7%
Did not indicate	1%

# TEACHING ENVIRONMENT DURING THE PANDEMIC

At the time of the lockdown, it was imperative that faculty and instructors get their courses up and running quickly in their private homes. Semester campuses were midway through spring term, and quarter campuses were approaching the final examination period for winter quarter. Any downtime could seriously disrupt student learning.

Throughout the pandemic, the University experienced steady student enrollment and course and program completion. This pattern indicates that remote instruction went well, which raises the question of how it was able to do so. The answers are, in part, shown here. The quick pivot by faculty and instructors in March of 2020 from in-person to remote instruction was effective. This shift is especially impressive because most University faculty and instructors had little experience with remote instruction. In our sample, 81 percent of respondents reported that they had no prior experience with online teaching.

In order for this shift to be successful, faculty and instructors needed to ensure that their teaching space at home had functional and reliable technical devices and services. To find out more about the teaching environment during the pandemic, respondents were asked about the devices and services they purchased or upgraded to support remote teaching, the reliability of this equipment, and who paid for it. They were also asked about their satisfaction with the resources their campus provided to support remote instruction.

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Technical devices or services purchased or upgraded and who paid for them. Respondents reported purchasing a range of devices and equipment and upgrading various services to support remote teaching (Table 4). Many of these purchases were paid for by personal funds, some were paid for by other funds, and some by a combination of personal and other funds. Other funds include departmental funds, campus IT, learning support resource centers, external funds (e.g., grant funds), and other internal funds (e.g., intramural grant funds, travel funds).

Table 4. Devices and services purchased or upgraded and source of funds

Item	% Who reported	Personal	Personal	Other funds
	purchase/upgrade	funds only	and other	only
			funds	
Computer - new	33%	39%	41%	19%
Computer - upgraded	12%	58%	33%	9%
Larger monitor/screen	34%	45%	41%	13%
Faster internet connection	43%	57%	36%	8%
Changed internet provider	10%	56%	38%	6%
Better camera/webcam	38%	46%	38%	16%
Better/additional lighting	38%	54%	37%	16%
Noise-cancelling	33%	50%	38%	12%
headphones				
Digital whiteboard	7%	41%	42%	17%
Printer	16%	54%	36%	10%
Scanner	8%	55%	34%	11%
Standing desk	17%	50%	38%	12%
Ergonomic chair	23%	50%	41%	8%
Other devices/equipment	30%	42%	34%	24%

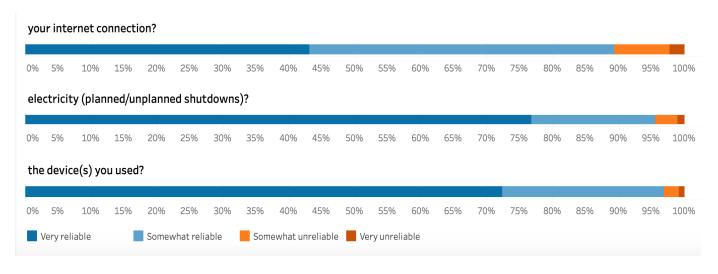
How much did these purchases or services cost you personally? Respondents who reported spending personal funds, either alone or in combination with other funds, were asked how much they spent on these expenses. Results are in Table 5.

Table 5. Amount spent on devices or services to support remote instruction from personal funds

Amount spent for purchases/upgrades	Proportion reporting this amount
Over \$500	31%
\$201 to \$500	21%
\$101 to \$200	12%
\$50 to \$100	7%
Less than \$50	3%
Did not indicate	26%

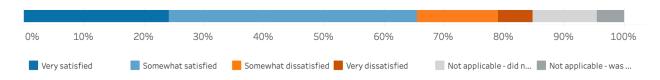
**Reliability of technology used for remote instruction**. Most respondents reported that their internet connection, electricity, and the devices they used for remote instruction were highly reliable (Figure 1).

Figure 1. Reliability of services and resources used for remote instruction.



Satisfaction with campus resources for remote instruction. Participants were asked how satisfied they were with the resources their campus provided to support remote instruction, such as the campus learning center, the learning management system (LMS), and library services. About one-quarter reported being very satisfied, 40 percent were somewhat satisfied, 13 percent were somewhat dissatisfied, and five percent were very dissatisfied. Another 12 percent reported they did not use the campus resources and five percent reported they were not aware of them (Figure 2).

Figure 2. Satisfaction with campus resources for remote instruction.



As the data show, faculty and instructors did a lot to enhance the remote instruction experience for students, and many of them used personal funds to do so. The reliability of the technology was instrumental to the success of remote instruction, and much of it was made possible by improvements in the internet provider, largely paid for by personal funds and which has undoubtedly remained an ongoing expense. Respondents were generally satisfied with the resources for remote instruction provided by their campus. However, in response to an openended question about the technical devices and services they used, many respondents expressed great disappointment and frustration by the minimal amount of support, including financial support, by the University for these purchases. In the open-ended responses regarding the remote teaching environment, the Academic Senate learned that many faculty who were unfamiliar with remote instruction turned to their more experienced colleagues for help. That help was offered, often generously, and without compensation.

#### WORK CONDITIONS DURING THE PANDEMIC

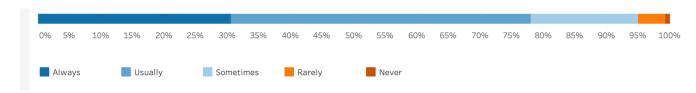
Teaching remotely required substantial time and effort of the faculty and instructors. Seventy-five percent reported that their workload was much higher or higher during the period of remote instruction than in the pre-pandemic time of in-person instruction (Figure 3). For many respondents, the ability to carry out their teaching responsibilities was compromised by the conditions of their at-home work environment, and this experience differed in some ways for men and women. Overall, this circumstance had significant negative impact on the ability of faculty to meet other parts of the academic mission, especially research (as discussed in the following section).

Figure 3. Faculty and instructor responses to "Compared to in-person classes, is your workload higher or lower during remote instruction?"



Access to a quiet space to teach their remote classes. Most respondents (78 percent) said they had access to a quiet space to teach their classes (see Figure 4), with a slightly higher proportion of men (83 percent) than women (76 percent) reporting such access.

Figure 4. Proportion of faculty/instructors who had access to a quiet space to teach their classes during remote instruction.



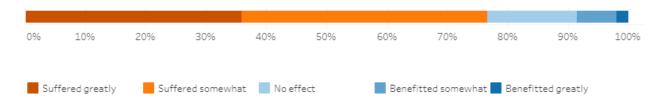
Obligations that affected the remote teaching experience. Forty-one percent of the respondents reported that they had obligations that made it difficult for them to teach remotely during the pandemic. Of these individuals, 44 percent were women and 36 percent were men. More than three-quarters (78 percent) of these individuals identified this obligation as caregiving; 82 percent of them were women and 75 percent were men. When these individuals were asked if they had adequate assistance with caregiving during remote instruction, 55 percent (59 percent women, 49 percent men) reported that they did not. This pattern is similar to national reports about the difficulty for instructors who are also caregivers in carrying out their class responsibilities during remote instruction.

# IMPACT ON RESEARCH

Faculty and instructors strongly prioritized their obligation to the teaching mission. Remote teaching took substantial time and effort, and it had significant negative impact on faculty research productivity. Many faculty (depending on scholarly discipline) were unable to go to field sites, laboratories, performance spaces, and libraries.

Faculty were asked directly how the last year of remote instruction affected their research. Figure 5 reports the responses for the entire sample. A majority of faculty reported that their research suffered greatly (36 percent) or suffered somewhat (42 percent) during the last year of remote instruction.

Figure 5. Survey responses to question "How has the last year of remote instruction affected your research?"



When the effects of the pandemic period on faculty research activity for women and men were examined separately and by faculty rank, the survey found patterns that reflect national trends. The negative impact was somewhat greater for women and faculty in junior ranks. Table 6 shows the proportion in each response category broken down by gender, with 79 percent of women and 72 percent of men reporting that their research suffered greatly or somewhat during this period.

Examination of the research impact according to faculty rank (Table 7) reveals that faculty in more junior ranks had higher rates for the categories "suffered greatly" and "suffered somewhat."

Table 6. Survey responses to question "How has the last year of remote instruction affected your research?" broken down by gender

My research:	Women	Men
Suffered greatly	40%	31%
Suffered somewhat	39%	41%
No effect	12%	18%
Benefitted somewhat	7%	7%
Benefitted greatly	2%	3%

Table 7. Survey responses to question "How has the last year of remote instruction affected your research?" broken down by faculty rank for ladder-rank faculty

My research:	Asst. Prof.	Assoc. Prof.	Full Prof.	SOE	PSOE
Suffered greatly	41%	44%	31%	35%	36%
Suffered	41%	37%	40%	33%	39%
somewhat					
No effect	11%	11%	19%	21%	18%
Benefitted	6%	6%	8%	8%	4%
somewhat					
Benefitted greatly	1%	3%	3%	3%	3%

The overall effect of the pandemic on faculty research and creative activity has been great. Feelings about this experience and what it means for faculty going forward have led to much frustration and anxiety, as this comment conveys:

"I have had little to no time for research since March 2020. I am managing a child's remote education, household maintenance (loss of paid housekeeping and childcare support), my family's emotional status, my students' emotional status, my colleagues' emotional status. My department is in political/social crisis, I am building new remote courses on the fly, my service obligations have hugely increased, and I am EXHAUSTED. I want to quit."

# LEARNING ENVIRONMENT DURING THE PANDEMIC

Faculty and instructors were asked about the remote learning environment for students. Most of the questions focused on the undergraduate student experience, although there were a few questions about the graduate student experience. The data show that faculty and instructors were very supportive of students during the pandemic. They demonstrated concern both for the students' ability to learn course material and for students' general well-being. Overall, faculty concluded that remote learning was less positive for students than in-person instruction.

Class attendance in remote classes. Remote classes were offered in a synchronous or asynchronous format. In synchronous classes, the instructor and students attend the class at the same time virtually. In asynchronous classes, the instructor and students do not attend class at the same time, for instance, instructors may record their lectures for students to view at a later time of their own choosing. Respondents who taught synchronous remote classes were asked to rate student attendance (on average across their classes) for undergraduate and graduate classes separately. Attendance could not be assessed for asynchronous classes.

As Table 8 shows, attendance was very good for graduate students and satisfactory for undergraduates. However, in the comments received, many faculty/instructors said it was difficult to know if undergraduate students were in attendance because many students turned their cameras off for the entire class. As one instructor wrote, "Student involvement in class has, overall, dramatically decreased. In just one year it became a habit to never join a class with the camera on, and to rarely (almost never) ask questions in class."

Table 8. Ratings of student class attendance in synchronous undergraduate and graduate courses during remote instruction

Rating of class attendance	Undergraduate classes	Graduate classes
Excellent (> 89%)	16%	41%
Very good (70-89%)	20%	18%
Satisfactory (50-69%)	22%	8%
Poor (30-49%)	13%	2%
Very poor (<30%)	8%	1%
Unknown	1%	1%
Not sure	21%	29%

Many faculty/instructors suspected that some students were not attending class when their video was turned off because when they called on students individually, many students did not reply. A surprising number of faculty/instructors wrote that students were multitasking during class, including doing household chores, checking in from workplaces, and driving vehicles. These comments question the accuracy of the attendance ratings, especially for students in large classes. However, some information in the survey about student participation bears out the general sense of lower student engagement in classes during the pandemic.

More than half of the faculty/instructors reported lower rates of student participation in remote classes relative to in-person classes. Also, in the open-ended comments, many faculty/instructors wrote that the undergraduate students seemed less engaged in the class material than they do in in-person instruction. The context is important to remember, however, as one respondent wrote, "It is hard to engage the interest of students when they are looking at a computer screen all day." Another unfortunate outcome of this situation is that faculty did not get to know their students very well. Many commented that they found it difficult to write the type of detailed and high-quality letters of recommendation that help students obtain competitive positions, internships, and offers for graduate and professional school.

# Remote instruction experience in undergraduate classes compared to in-person instruction.

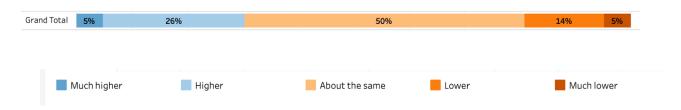
The survey investigated the undergraduate student experience in remote classes by asking the faculty/instructors several questions about student learning and engagement. These reports about student learning experience are indirect, mediated by faculty/instructor impressions of the student learning experience. Still, faculty generally have a good impression of how a course is going and how the students are doing.

For this set of questions, respondents were asked for their perception of the undergraduate student experience in remote classes as compared to in-person instruction. Of all the dimensions surveyed, the learning environment in remote instruction was rated as less positive than it is with in-person instruction. Forty-two percent of respondents reported that students had less understanding of course material (see Figure 6) and 31 percent reported that students had more academic difficulty (see Figure 7) in remote instruction compared to in-person instruction.

Figure 6. Survey responses to the question "Compared to in-person, what is your perception of students' understanding of course material?"



Figure 7. Survey responses to the question "Compared to in-person, what is your sense of students' perceptions of the academic difficulty of the courses you taught?"



There were other dimensions of student learning during remote instruction that faculty and instructors perceived as different from in-person instruction. Two student behaviors that indicate student engagement are efforts to seek additional information and support through (1) class participation and (2) going to office hours. These behaviors under conditions of remote instruction differed significantly from such behaviors under conditions of in-person instruction. Sixty-four percent of faculty/instructors reported that students participated less or much less in remote lectures (see Figure 8), and 44 percent reported that students attended faculty/instructor office hours somewhat less or much less (see Figure 9) compared to in-person classes.

Figure 8. Survey responses to the question "Compared to in-person, what is your perception of students' participation in synchronous lectures?"

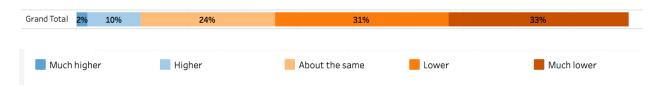
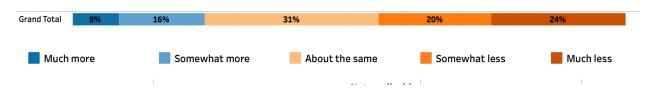
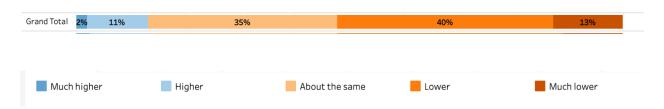


Figure 9. Survey responses to the question "Compared to in-person instruction, how much did students use office hours during remote instruction?"



Were students satisfied with the courses they took remotely? Faculty/instructors were asked for their perception of student satisfaction with their courses. Fifty-three percent said they sensed that students had lower or much lower satisfaction with their remote courses relative to in-person instruction (see Figure 10).

Figure 10. Survey responses to the question "Compared to in-person, what is your sense of student satisfaction with the course?"



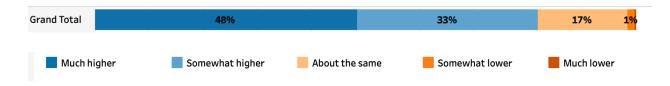
Academic integrity. An increasing concern among faculty and instructors is academic integrity. Across the nation, undergraduates are, in greater numbers, using websites characterized as "offering academic support," to get answers to homework assignments and test questions. Concern about academic integrity intensified during the pandemic due to the necessity for all homework assignments and tests to be done remotely. Responses to our question about academic dishonesty and cheating reflect this concern. Fifty-four percent of faculty/instructors reported that they perceived academic dishonesty to be much higher or higher during remote instruction (Figure 11).

Figure 11. Survey responses to the question "Compared to in-person, what is your perception of the amount of academic dishonesty (cheating) on tests and homework assignments?"



Support for student learning during remote instruction. Faculty/instructors were asked about their flexibility or willingness to provide accommodations for class-related expectations in remote courses as compared to in-person instruction. Results indicate that faculty/instructors were very supportive of students during the pandemic, with 81 percent reporting they were more flexible and accommodating regarding class-related expectations (see Figure 12).

Figure 12. Survey responses to the question "How would you rate your flexibility and willingness to provide accommodations regarding class-related expectations in the undergraduate courses you taught during the pandemic?"



In large classes, students have the additional support of teaching assistants (TAs). Most faculty/instructors rated their ability to work with their TAs during remote instruction as similar to that of in-person instruction, although 28 percent reported it was worse or much worse (see Figure 13). When rating their perception of their TAs' ability to work with students in their classes, 45 percent of faculty/instructors perceived that it was worse or much worse for the TAs to interact with their undergraduate students during the pandemic as compared to in-person instruction (Figure 14).

Figure 13. Survey responses to the question "How would you rate your ability to work with your TAs during remote instruction?"

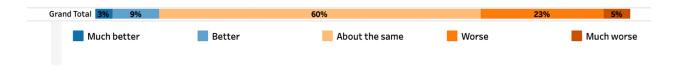


Figure 14. Survey responses to the question "How would you rate your TAs ability to work with students in your classes during remote instruction?"



# Students' Expression of Hardship

The most poignant aspect of the survey responses pertained to students' expression of hardship to their professors. Most of the respondents (79 percent) reported that students expressed more hardships during remote instruction in the pandemic than they do during in-person instruction. These expressions covered a wide range of concerns, from class-related difficulties (technology, scheduling) to overwhelming personal challenges including high rates of physical and mental distress (see Table 9). In many of the open-ended comments by faculty/instructors, it is clear how difficult this situation was for everyone. As one professor wrote, "Everything was terrible for my students. It was awful opening my emails."

Table 9. Types of hardships told to faculty/instructors by their undergraduate students during the pandemic (respondents could choose more than one)

Type of hardship	Proportion who chose this response
Technical issues (e.g., computer, internet connection)	85%
Scheduling problems (e.g., meeting deadlines)	59%
Mental distress due to remote instruction	64%
Mental distress due to pandemic/state of world	86%
Health issues related to COVID	65%
Family distress	86%
Other	21%

In a follow-up open-ended question, respondents who chose "Other" were asked to say more about the other types of hardships, and there were 685 responses. Many of these overlap with or elaborate on the hardships listed in Table 9; others are distinct issues. Three general types of hardships appeared most frequently: stress-related, living conditions, and schoolwork-related. Here are descriptions of the general types of hardships that students expressed, each of which was mentioned by multiple respondents.

- Stress-related: Stress overload; anxiety about racism and racial violence; emotional distress (many faculty/instructors wrote that they received more notes from psychologists and psychiatrists than they ever received before); feelings of loneliness, depression, exhaustion; fatigue and migraines due to too much screen time; disengagement from schoolwork; inability to concentrate; anger about the overall situation in the world; worry about the national political climate
- Living conditions: Work obligations and time conflicts; economic difficulties; childcare
  responsibilities; food insecurity; unstable living environment (eviction, homelessness);
  family and friend emergencies, including deaths; evacuation and displacement due to
  wildfires; power outages; exposure to or victims of crime (robbery, assault, domestic
  violence)
- *Schoolwork-related*: Privacy issues (too many people at home, distractions—especially problematic during exams); different time zone, especially for international students;

enrolled in too many courses or in classes scheduled at the same time; time management, especially in juggling work and school; worries about other students cheating and its effects on grades in the class; trying to do schoolwork, such as writing assignments and other homework assignments, on a cellphone; online bullying

To summarize, on almost every dimension probed about the student learning environment, faculty and instructors reported that the learning environment for undergraduate students was less positive than it is with in-person instruction. Faculty/instructors were very supportive of students, with the majority reporting they were more flexible and accommodating regarding class-related expectations during the pandemic. The most troubling aspect of the responses about the learning environment was the high rate with which students expressed hardship to their professors. Most faculty/instructors reported that students expressed more hardships during remote instruction than they do during in-person instruction. These expressions covered a wide range of concerns, from class-related difficulties to overwhelming personal challenges, including high rates of physical and mental distress. Many faculty found themselves in the position of effectively providing mental health counseling to students. For many faculty, this experience was overwhelming and affected many aspects of their work. As one faculty member explained:

"I have been a primary instructor for about 1,000 students during the pandemic. Even though the material for a course is the same for all students, each student had different academic, emotional, mental, living, and counseling needs. While (my campus) has counselors, they are not the first person that students turn to; the instructors are. Addressing individual student needs required a lot of time on my part. It was not possible to teach this many students effectively and focus on research at the same time. While it was possible to ramp down research activities, it was not possible to pause teaching activities in a responsible way."

# LESSONS LEARNED AND IDEAS FOR MOVING FORWARD

Campus reopening in fall 2021. Many faculty and instructors are looking forward to the campuses re-opening for in-person instruction in fall. When asked directly about how they felt about the campus re-opening, the majority said they were very or somewhat excited. However, a sizable proportion registered some or substantial worry about it (Table 10).

Table 10. Survey responses to the question, "How do you feel about your campus reopening for in-person instruction in fall of 2021?"

How do you feel about the campus re-opening in fall?	Proportion who chose this response
I am very excited	33%
I am somewhat excited	29%
I have no strong feelings	14%
I am somewhat worried	19%
I am very worried	6%

**Lessons learned about mode of teaching**. The pandemic and the restrictions it caused have gone on for a long time, long enough for faculty and instructors to have taught multiple courses during this period. Therefore, any novelty associated with teaching remotely surely wore off and enabled a clear comparison between it and in-person instruction.

When asked, "In general, do you prefer remote or in-person instruction", 70 percent of respondents preferred in-person, 16 percent preferred remote, and 14 percent had no preference.

Although the preference for in-person instruction among UC faculty and instructors is clear, there was ample opportunity during this period for them to learn about teaching in a remote modality. When faculty and instructors were asked whether their interest in online teaching changed because of their experience during the pandemic, 45 percent indicated increased interest (Table 11).

Table 11. Survey responses to the question "How has your experience teaching remotely during the pandemic affected your interest in online teaching?"

My interest in online teaching following the	Proportion who chose this response
pandemic	
is low and has remained so	26%
has decreased	18%
has increased	45%
is high and has remained so	12%

Insight into what may underlie these responses appeared in the open-ended comments. The reasons that some faculty's/instructors' interest in online instruction increased during the pandemic are complex and are not necessarily based on its intrinsic value. In the open-ended comments, many faculty/instructors wrote that they liked remote instruction because it reduced their commute time. This reason is legitimate, but it is not directly tied to teaching remotely. Although the issue of long commute times to campus was not the focus of the survey, it is a large and important issue, especially for younger faculty and staff who find it difficult or impossible to live in communities near to UC campuses. The University should be helping more here, especially because commute time is directly related to the loss of time for research and other campus activities.

Increased interest in online teaching may also indicate a desire for more flexibility in the workplace, a trend seen nationwide. This sentiment was evident in the responses to a question about preference for work arrangements after the campuses re-open. A majority (58 percent) of faculty/instructors expressed preference for a mix of on-site and remote work when the campuses re-open, compared to 32 percent who preferred on-site full time, and a mere 10 percent who preferred remote fulltime.

More insight into these responses was present in responses to a question about whether certain experiences might be compromised, or more difficult, if faculty themselves (or their immediate colleagues) worked partly or fully remotely. Responses to these questions are in Table 12.

Table 12. Survey responses to the question "Which of the following do you think would be compromised if you (or your immediate colleagues) work partly or fully remotely?" (respondents could choose more than one)

Compromised workplace experience	If I (respondent) worked partly or fully remote	If my immediate colleagues worked partly or fully remote
Reduced access to important information or conversations	46%	53%
Reduced access to professional opportunities or assignments	15%	22%
Reduced ability to collaborate with colleagues on work projects	29%	45%
Reduced ability to have social connections with colleagues	63%	69%
Reduced ability to supervise students	32%	34%
Reduced ability to participate in shared governance	15%	24%
None	30%	24%

When these responses are examined by faculty rank, the Academic Senate finds more concern among Assistant Professors as compared to Associate and Full Professors about potential reductions in these work experiences. The most dramatic difference was for the item, "Reduced access to professional opportunities or assignments." Twenty-four percent of Assistant Professors indicated this concern, whereas 16 percent of Associate Professors and 12 percent of Full Professors did. With an increase in remote activity in the academic workplace, Assistant Professors, who are relatively new to the campus and have yet to be reviewed for tenure, appear to be more concerned about establishing and advancing their professional lives on the campus than their colleagues with tenure are. If, in the future, workplace arrangements in academic departments include more remote activity, intentional and supportive activities will need to be developed to provide faculty at the junior ranks with the collegial experiences they sought when they joined the University.

# **GENERAL CONCLUSIONS**

The results of this survey reveal much about how the University met its academic mission over the last year and a half. As for teaching, the faculty/instructors and students did an admirable job holding it together while everything else seemed to be falling apart. Thus, the first lesson learned is that the University is very strong in meeting its teaching mission. Yet, the data also suggest that some scars will remain in other parts of the academic mission, and the University needs to understand and address them as best as possible moving forward.

The biggest concern for faculty is the great loss of research time and activity, which will affect their advancement, both professionally and financially. This concern is especially critical for our junior and women colleagues. It will also threaten the decades-long efforts to expand and diversify the faculty, and to bring women and underrepresented minorities (URMs) into leadership positions. The University must do all it can to support faculty whose research has been greatly affected by the pandemic, and it must do so soon. The Academic Senate is pleased that the Provost has already formed a work group to address these concerns. The solution will undoubtedly cost money, but it will be money well-spent to preserve the excellence of the UC faculty.

Most faculty/instructors reported that they prefer in-person instruction. Among the small number of faculty who prefer remote instruction, their reasons for doing so are not always reflective of the intrinsic value of this mode of instruction. In fact, many of the faculty who prefer remote instruction do so because it reduces their commute time, which is an important issue for the University to be mindful of.

It is also vital that decisions about mode of instruction are based on open and transparent discussions among the faculty, students, and administration. The benefits and costs of the various teaching arrangements need to be considered from the vantage point of all participants, as well as subject matter and discipline. Importantly, mode of instruction should not be decided by anyone who is not engaged directly in creating and delivering the academic programs of the University, which are a cornerstone of our excellence as an R1 institution.

This survey included questions about the learning context to find out more about student experience during the pandemic, especially for undergraduates. The data are clear: in-person instruction yields more benefits for UC students than sole reliance on remote instruction. The Academic Senate also learned that students are hurting, and they need support. Despite holding fast in their studies during the pandemic, UC must keep in mind that most of our students are at a delicate point in their social and psychological development. Helping them will involve reestablishing the social life they miss and are eager to resume on campus, but it will also be important to help them realize their academic goals. While the University must be sensitive to what they have been through this past year, it must, at the same time, get the students back on course academically, which is the reason they came to the University in the first place. In the years ahead, UC students should be able to look back on this time not as a period when they were allowed to cut corners and skate through their studies, but as one in which they rose to the occasion, met the challenges before them, and succeeded.

In the coming year, after the campuses have re-opened and are flourishing once again, the University will be better equipped to examine what the future of education at UC will look like. The experiences of the past year will inform this discussion, but one must bear in mind that remote instruction during the pandemic began rapidly and occurred under very unusual, uncertain, and stressful conditions for both faculty/instructors and students. In other words, these were emergency conditions. As members of the UC resume their lives on campus, they be wise to remember that they are emerging from an unprecedented and unsettling time for all.

# **Key to Acronyms**

LMS	learning management system
TA	teaching assistant
URM	underrepresented minority