



Fresno City College

Data Analysis Report:

The Impact of Shifting to Distance Education Questionnaire





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Introduction

With the onset of the COVID-19 pandemic (Coronavirus Disease 2019) and the unanticipated transition to moving Fresno City College (FCC) courses fully online, many people have been affected by the abrupt shift to distance education (DE) and learning while sheltering in place. The impact of shifting to DE and learning during a pandemic presents numerous challenges for faculty, classified professionals, administrators, and especially students. From an equity-minded perspective, the challenges are particularly prevalent for minoritized students.

Drawing on Harris III and Wood's (2013) Socio-Ecological Outcomes (SEO) model, examples of challenges for students might be associated with background and societal factors, the non-cognitive domain (interpersonal and identity), the academic domain (faculty-student interactions and academic services use), the environmental domain (commitments, personal responsibilities, and stressful life event), and the campus ethos domain (internal validation, sense of belonging, connectedness, and campus resources). The effects of the COVID-19 pandemic on employment have resulted in an unprecedented velocity of unemployment rates which is hitting communities of color the hardest (U.S. Bureau of Labor Statistics, 2020; U.S. Private Sector Job Quality Index, 2020). Unemployment rates coupled with varying levels of access to technology, learning platforms, and basic needs (food and housing insecurity) have a confounding effect on challenges associated with the SEO model. Using this model as a framework for understanding the experiences of our students and learning from their expressed concerns will assist the college in considering how to remove barriers that may have arisen in the shift to distance education.

The theoretical work of Donna Mertens uses the Transformative Paradigm approach to research. Mertens (2007) states "the recognition that realities are constructed and shaped by social, political, cultural, economic, and racial/ethnic values indicates that power and privilege are important determinants of which reality will be privileged in a research context." Through the paradigm, Mertens speaks to the need to conduct research with our students, not on or about our students. The approach also serves to further the FCC Vision for faculty, staff, and students to engage "in a partnership to transform lives through education."

The FCC students, faculty, classified professionals, and administrator have several constituencies approved documents that provide direction and focus for planning. The mission of Fresno City College is student-centered and provides the foundation for the college in planning. The FCC Educational Master Plan (FCC Ed MP) is the guiding document for long term planning that is equity-focused. The first goal and objective state: "FCC will close retention, success and GPA gaps for our students by 5% and implement programs targeting high-risk populations, including men of color." The college constituency-approved 2019-22 Student Equity Plan and FCC Distance Education Plan support this goal and demonstrate the college commitment to equitable student-centered planning. In addition, the equity grounded Guided Pathways implementation further demonstrates the commitment of the college to support the FCC Ed MP goal 1.1. The use of constituency approved documents is of primary importance in considering how to equitably plan for the supports our men of color need to be successful in a distance education environment.

To understand how students are experiencing the transition to DE and learning, the office of Institutional Research, Assessment, and Planning (IRAP) constructed and distributed a questionnaire to students. This report provides an overview of the findings with special attention given to the analysis of disaggregated data. With the introduction in the background, the proceeding sections of the report are organized by the following sections: background, purpose, research questions, methods, sample, instrumentation, results, and recommendations.

Background

Following the California Department of Public Health regulations to enable social distancing, protect public health, and slow the rate of transmission of COVID-19, FCC suspended in-person, face-to-face courses starting March 16th through March 19th. During these four days, the college prepared to move instruction to a remote environment. On the morning of Monday, March 16th, FCC faculty, classified professionals and administrators met together, face-to-face, to train and prepare for the migration of over 2,300 instructional sections and move to a remote student services delivery model. Unfortunately, the in-person training and preparation were abruptly cut short out of an abundance of caution as it became known that several employees may have been exposed to COVID-19. The impacted employees were sent home to self-quarantine and the college would remain closed for the rest of the training period forcing all preparation to be conducted remotely. On March 19th, California Governor Gavin Newsome issued a mandatory “shelter in place” order for the state of California. Following the announcement, the County of Fresno followed suit and ordered a “shelter in place” order for the entire county that required all Fresno County residents to “shelter in place” unless they were deemed, essential workers. By this time, FCC had already begun and completed the process of moving all class sections to a remote environment.

The migration of all face-to-face classes to a remote environment began on Friday, March 20, 2020. The college president, Dr. Carole Goldsmith, in collaboration with her executive leadership team and the college’s constituency groups, identified the week of March 23rd through March 27th as a “humanitarian week,” providing time for faculty to check in with their students and allow additional time for faculty and students to get familiar with the Canvas learning management system (LMS) and other services being moved online.

During the college’s “humanitarian week,” under the direction of the Vice President of Educational Services, the IRAP team, in collaboration with the Director of Distance Education, Academic Senate President, and Director of Student Equity and Success developed a student questionnaire to understand the impact of shifting course sections to a remote environment. The questionnaire was designed to solicit information on the impact the immediate move to remote instruction may have on the student experience and student success. It also provided the opportunity for students to share their immediate needs that may impact their success in this shifted environment. More importantly, the questionnaire was created with an awareness of how the complete shift to remote instruction could exacerbate equity gaps for students from minoritized and marginalized populations. The student voice is vital for community college

across the nation as institutions of higher education prepare to deal with the consequences of COVID-19 on our communities, states, and nation.

Purpose

The purpose of this report is to describe the impact on student success created by the campus COVID-19 response to immediately move instruction to a remote environment. The campus wanted to learn from students' the barriers they face to access their courses and services needed to support their success in a remote environment.

Limitations

It is important to note that the results of the questionnaire carry several limitations that constrain the generalizability of the findings. First, the results of the questionnaire are limited to the time that data were collected. This questionnaire was conducted immediately after the college transitioned to DE; thus, results reflect the challenges, barriers, and needs of students at the time questionnaire was conducted. Second, given the need to quickly determine the challenges, barriers, and needs of students, the questionnaire was sent to students without pilot testing of the questions. Therefore, the questionnaire was not tested for reliability and validity to ensure the questions accurately and consistently measure the intended construct. Third, the analysis of the open-ended questions was conducted by only one researcher without triangulation due to time constraints. Fourth, this report demonstrated the existing challenges, barriers, and needs by using descriptive statistics. Since descriptive statistics were used to analyze the data for this report, we do not know the levels of statistical and practical significance and as such may not be generalizable findings to other students. Finally, the results of the questionnaire are limited to students who had internet access or a device at the time questionnaire was conducted. Students were sent to questionnaire only via their FCC emails, which may further limit the access to the population of concern.

Methods

To develop the questionnaire, the team reviewed prior surveys and questionnaires developed in response to disasters such as fires in California (Camp Fire Impacts on Butte College Students; Santa Rosa Junior College Student Emergency Survey), faculty-developed surveys/questionnaires before initiating remote instruction (Center for Teaching' Teaching in Times of Crisis from Vanderbilt University, Tutor Questionnaire; Glabau's COVID-19 Planning from New York University; Gravlee's Moving Med Anthro Online from the University of Florida; Cagle's COVID-19 Online Teaching Contingency Planning Student Survey from the University of Kentucky), COVID-19 impact surveys conducted by industry (PwC's COVID-19 CFO Pulse Survey, Theatre Philadelphia COVID-19 Impact Survey Results), and FCC's Technology Survey to ensure consistency in technology terminology.

The survey questions were developed in six categories with an additional question for optional comments. Appendix A includes a copy of the questionnaire tool created in Qualtrics. The categories included:

- Student Experience with DE
- Technology Access
- Student Experience with Technology
- The Impact of Outside Factors on Students Participating in the Shift to DE
- Access to Additional Assistance and Resources
- FCC Communication Regarding the COVID-19-Related Changes

Research Questions

To inform the purpose of this study, the following research questions were used to better understand the experience of students and more specifically men of color. In addition, the research questions were used to better understand the experience of students that did not have prior DE experience.

1. What barriers were created for students by the COVID-19 pandemic and the move of instruction to a remote format?
2. What are the most pressing challenges outside the educational environment that impacted students' ability to continue their education?

Sample

The IRAP team administered the questionnaire titled "The Impact of Shifting to Distance Education" to 23,302 FCC students who were enrolled (excluding enrolled employees) on March 25, 2020, via the Qualtrics survey software. After April 3, 2020, the deadline to participate in the questionnaire, student responses were imported for analysis and visualization of results. A total of 3,809 students responded to the questionnaire. After removing 106 incomplete responses from the sample, the valid n represents 3,703 students or 16% ($N = 23,302$) of the total student population on March 25, 2020. The questionnaire was sent to students who are dually enrolled in high school and taking college courses as well as students who are enrolled in Instructional Service Agreement classes (to maintain skills and certifications current), both of the groups should have been excluded from the questionnaire administration; in considering this limitation, the response rate of the questionnaire is higher than reported.

Gender and Equity Groups Representation

Figures 1 and 2 represent the breakdown by gender, race/ethnicity, and Tables 1 - 3 represent the Disabled Student Program and Services (DSPS) students, foster care students, and veteran students, respectively. Students completing the questionnaire shared similar demographics with the overall population of FCC in terms of race/ethnicity. In terms of gender, more female students responded than males.

Figure 1
Gender

Enrolled Students		Questionnaire Respondents	
FCC students enrolled in spring 2020 with a valid student email.		Of the FCC enrolled students - questionnaire respondents.	
Female	54.5% (12,693)	Female	68.6% (2,542)
Male	43.8% (10,208)	Male	29.7% (1,100)
Unknown/U..	1.6% (379)	Unknown/Un..	1.6% (61)
Non-Binary	0.1% (22)		
Grand Total	100.0% (23,302)	Grand Total	100.0% (3,703)

Figure 2
Race/Ethnicity

Enrolled Students		Questionnaire Respondents	
FCC students enrolled in spring 2020 with a valid student email.		Of the FCC enrolled students - questionnaire respondents.	
American Indian/ Alaskan ..	0.6% (130)	American Indian/ Alaskan ..	0.5% (20)
Asian-American/Chinese/..	3.9% (919)	Asian-American/Chinese/..	4.2% (156)
Black or African-American	4.6% (1,081)	Black or African-American	4.0% (148)
Cambodian	0.8% (179)	Cambodian	0.7% (25)
Filipino	0.6% (135)	Filipino	0.8% (28)
Hispanic or Latinx	60.6% (14,125)	Hispanic or Latinx	58.8% (2,178)
Hmong	5.5% (1,273)	Hmong	6.1% (227)
Laotian	1.0% (244)	Laotian	1.0% (37)
Multi-ethnicity	3.5% (807)	Multi-ethnicity	3.1% (114)
Pacific Islander	0.2% (48)	Pacific Islander	0.3% (11)
Unknown	1.1% (254)	Unknown	0.6% (23)
Vietnamese	0.5% (119)	Vietnamese	0.4% (13)
White/ non-Hispanic	17.1% (3,988)	White/ non-Hispanic	19.5% (723)
Grand Total	100.0% (23,302)	Grand Total	100.0% (3,703)

Table 1
DSPS Students

Enrolled Students		Questionnaire Respondents	
FCC students enrolled in spring 2020 with a valid student email.		Of the FCC enrolled students - questionnaire respondents.	
DSPS Enrolled	1,279	DSPS Respondents	323
# of records (actual)	23,302	DSPS Enrolled	1,279
DSPS enrolled representation	5.5%	DSPS Respondents Representation	25.3%

Table 2
Foster Youth Students

Enrolled Students		Questionnaire Respondents	
FCC students enrolled in spring 2020 with a valid student email.		Of the FCC enrolled students - questionnaire respondents.	
Foster Youth Enrolled (MIS*)	359	Foster Youth Respondents (MIS*)	83
# of records (actual)	23,302	Foster Youth Enrolled (MIS*)	359
Foster Youth enrolled representation (MIS*)	1.5%	Foster Youth Respondents Representation (MIS*)	23.1%

**Due to spring 2020 MIS data not being available, the number of Foster Youth students identified is incomplete.*

Table 3

Veteran Students

Enrolled Students FCC students enrolled in spring 2020 with a valid student email.		Questionnaire Respondents Of the FCC enrolled students - questionnaire respondents.	
Veterans Enrolled	384	Veterans Respondents	52
# of records (actual)	23,302	Veterans Enrolled	384
Veterans enrolled representation	1.6%	Veterans Respondents Representation	13.5%

Income Levels by Respondents’ Zip Codes Representation

Questionnaire respondents were reviewed on a map using the “2018 Median Household Income” by zip codes. Each zip code included the number of students enrolled and the number of students who participated from that zip code. The map background categorized each zip code by median household income starting with \$0-\$42,100 as the lowest and \$72,300-\$501,000 as the highest. In reviewing the top five zip codes with the highest survey participation, two of the zip codes were mid median household income (\$50,000-\$59,300) and three were low median household income (\$0-\$42,100). Table 4 below includes the top five zip codes, income levels, and survey participants, and Figure 3 includes the zip codes with the associated income levels disaggregated by race/ethnicity. This disaggregated data helps us understand the representation of our communities of color within the top five zip codes of survey respondents and the socio-economic status of the neighborhoods they live in.

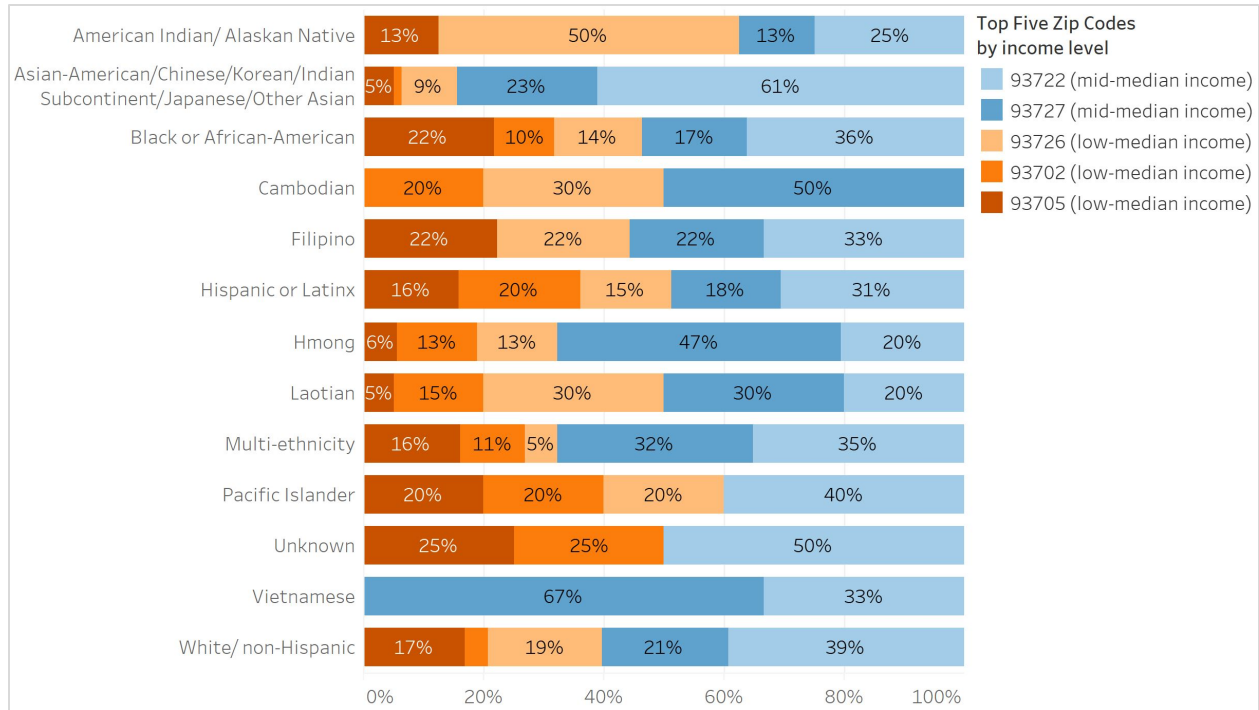
Table 4

Income Levels-Top Five Zip Codes

Enrolled in Zip Code	N of respondents (% of the total)	Zip Code	Household Income Levels
2,574	454 (12%)	93722	Mid-median income
1,971	312 (8%)	93727	Mid-median income
1,228	215 (6%)	93726	Low-median income
1,166	208 (6%)	93702	Low-median income
998	201 (5%)	93705	Low-median income

Figure 3

Income Levels-Top Five Zip Codes Disaggregated by Race/Ethnicity



Instrumentation

The IRAP team used the Tableau software to analyze survey results. The student responses to questions (DE experience vs. no DE experience) were used to filter the results for comparisons. To describe the main features of the collected responses, the grouped data were summarized using tabulated descriptions in which proportions were compared. Due to the focus of this report, students were grouped into three categories – Students of Color group, Peer Counterpart group, and Unknown (students with unknown or unreported Ethnicity/Race). Students of color (including American Indian/Alaskan Native, Black or African American, Hispanic or Latinx, and Southeast Asian) often experience disproportionate impact in student success outcomes at higher levels than their peer counterparts (Cambodian, Hmong, Laotian, Vietnamese) populations (Felix & Trinidad, 2020; Felix et al, 2015; Harper, 2012; McNair, Bensimon & Piqueux, 2020; Solórzano & Villalpando, 1998; Wood, Harris & Xiong, 2014). We use the aforementioned framework throughout this report to group students of color (American Indian/Alaskan Native, Black or African-American, Cambodian, Hmong, Laotian, Vietnamese, Hispanic or Latinx) and their peer counterparts (Asian-American, Chinese, Korean, Indian Subcontinent, Japanese, Other Asian, Filipino, Multi-ethnicity, Pacific Islander, White/Non-hispanic) who serve as the comparison group for this study. As seen in Table 5, approximately 71% of the questionnaire respondents are students of color, which supports the importance to focus on their experiences.

Table 5

Questionnaire Respondents: students of color and their counterpart groups – race/ethnicity and gender breakdown

		Female	Male	Unknown/Unre..	Grand Total
Students of Color Group:	American Indian/ Alaskan Native	70.0% (14)	30.0% (6)		100.0% (20)
	Black or African-American	67.6% (100)	31.8% (47)	0.7% (1)	100.0% (148)
	Cambodian	52.0% (13)	48.0% (12)		100.0% (25)
	Hmong	72.7% (165)	25.6% (58)	1.8% (4)	100.0% (227)
	Laotian	62.2% (23)	37.8% (14)		100.0% (37)
	Vietnamese	92.3% (12)	7.7% (1)		100.0% (13)
	Hispanic or Latinx	69.1% (1,504)	29.6% (644)	1.4% (30)	100.0% (2,178)
	<i>Total</i>	69.1% (1,831)	29.5% (782)	1.3% (35)	100.0% (2,648)
Peer Counterpart Group:	Asian-American/Chinese/Korean/Indian Subcontinent/Japanese/Other..	68.6% (107)	30.8% (48)	0.6% (1)	100.0% (156)
	Filipino	50.0% (14)	50.0% (14)		100.0% (28)
	Multi-ethnicity	70.2% (80)	26.3% (30)	3.5% (4)	100.0% (114)
	Pacific Islander	63.6% (7)	36.4% (4)		100.0% (11)
	White/ non-Hispanic	67.8% (490)	29.7% (215)	2.5% (18)	100.0% (723)
	<i>Total</i>	67.6% (698)	30.1% (311)	2.2% (23)	100.0% (1,032)
Unknown	Unknown	56.5% (13)	30.4% (7)	13.0% (3)	100.0% (23)
	<i>Total</i>	56.5% (13)	30.4% (7)	13.0% (3)	100.0% (23)
	Grand Total	68.6% (2,542)	29.7% (1,100)	1.6% (61)	100.0% (3,703)

Additionally, the IRAP team created calculations and hierarchies for qualitative results of the questions in which students selected “other” and specified their responses. The last question of the survey provided students with the opportunity to make optional comments. Student comments were coded and grouped using themes that were captured throughout the responses. Furthermore, the themes’ groups were coded by feedback intentions – considerations, informational, or potential actions.

Findings

The findings of this questionnaire helped answer the research questions regarding barriers created by moving to a remote format of instruction and pressing challenges outside the educational environment. The findings of this questionnaire were organized into three sections. The first section (Section A) reported the major findings of the questionnaire regarding students of color and their peer counterparts regardless of their prior experience with DE; the second section (Section B) reported the major findings related to students who did not have prior experience with DE; the third section (Section C) reported major findings of the open-ended question organized by feedback intention. The full questionnaire is available in Appendix A, the full results for Section A and Section B are available in Appendix B.

A. Barriers for Students of Color

The major findings for Students of Color provide answers to the research questions and support the FCC Ed MP goal 1.1 “...targeting high-risk populations, including men of color.” To answer the research questions items from the questionnaire were grouped into barrier categories.

“What barriers were created for students by the COVID-19 pandemic and the move of instruction to a remote format?” was answered by examining results which were grouped into Experience and Access barriers. Subsections I (Experience) and II (Access) summarize the major findings and indicate the student concern and barriers created by the COVID-19 pandemic and the move of instruction to a remote format.

I. Summary of major findings in *Experience* barriers

a) **Student Concern Finding:** More female (42.9%) and male (55.2%) students of color **have never taken a class through DE** compared to their female (28.2%) and male (49.9%) peer counterparts. See Table 6.

- **Barrier:** Difficulty in adjusting and learning in a DE environment

Table 6
DE experience

Q1 - Have you ever taken a class through distance education (online or partially online/hybrid)?		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	No	42.9% (785)	55.2% (432)	28.6% (10)	46.3% (1,227)
	Yes	57.1% (1,046)	44.8% (350)	71.4% (25)	53.7% (1,421)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	No	28.2% (197)	49.2% (153)	34.8% (8)	34.7% (358)
	Yes	71.8% (501)	50.8% (158)	65.2% (15)	65.3% (674)
	<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)
Unknown	No	30.8% (4)	71.4% (5)		39.1% (9)
	Yes	69.2% (9)	28.6% (2)	100.0% (3)	60.9% (14)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
<i>Grand Total</i>		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

b) **Student Concern Finding:** More female (2.1%) and male (3.2%) students of color **have never used CANVAS or similar platforms before** compared to their female (1.9%) and male (2.9%) peer counterparts. See Table 7.

- **Barrier:** Difficulty in adjusting and learning in a DE environment

Table 7
CANVAS experience

Q5 - Have you used CANVAS before?		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	No, I have never used CANVAS or similar ...	2.1% (38)	3.2% (25)		2.4% (63)
	Yes OR used other similar platforms	97.9% (1,793)	96.8% (757)	100.0% (35)	97.6% (2,585)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	No, I have never used CANVAS or similar ...	1.9% (13)	2.9% (9)	4.3% (1)	2.2% (23)
	Yes OR used other similar platforms	98.1% (685)	97.1% (302)	95.7% (22)	97.8% (1,009)
	<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)
Unknown	No, I have never used CANVAS or similar ...	7.7% (1)			4.3% (1)
	Yes OR used other similar platforms	92.3% (12)	100.0% (7)	100.0% (3)	95.7% (22)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
<i>Grand Total</i>		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

c) **Student Concern Finding:** More female (13.7%) students of color **are uncomfortable with participating in discussions on the CANVAS platform** compared to their female (10.5%) peer counterparts. See Table 8.

- **Barrier:** Difficulty in learning how to effectively communicate in an online environment

Table 8
Participating in Discussions on CANVAS

Q6 - How comfortable are you with the following in CANVAS? Participating in discussions (DE Experience: All)		Female	Male	Unknown/Unrepo..	Grand Total
Students of color group:	Extremely & Somewhat uncomfortable	13.7% (251)	16.0% (125)	25.7% (9)	14.5% (385)
	Extremely & Somewhat comfortable	73.9% (1,354)	67.9% (531)	60.0% (21)	72.0% (1,906)
	Neither comfortable nor uncomfortable	12.3% (226)	16.1% (126)	14.3% (5)	13.5% (357)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	Extremely & Somewhat uncomfortable	10.5% (73)	18.3% (57)	21.7% (5)	13.1% (135)
	Extremely & Somewhat comfortable	80.9% (565)	67.8% (211)	56.5% (13)	76.5% (789)
	Neither comfortable nor uncomfortable	8.6% (60)	13.8% (43)	21.7% (5)	10.5% (108)
	<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)
Unknown	Extremely & Somewhat uncomfortable	15.4% (2)	28.6% (2)		17.4% (4)
	Extremely & Somewhat comfortable	76.9% (10)	57.1% (4)	100.0% (3)	73.9% (17)
	Neither comfortable nor uncomfortable	7.7% (1)	14.3% (1)		8.7% (2)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
Grand Total		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

II. Summary of major findings in Access barriers

a) **Student Concern Finding:** More female (11.7%) and male (15.6%) students of color **do not have access to reliable high-speed internet** compared to their female (8.0%) and male (7.7%) peer counterparts. See Table 9.

- **Barrier:** Financial burden and inability to engage in an online environment

Table 9
Internet access

Q2 - Do you have reliable high-speed internet access from your home or another location? [DE experience: All]		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	No	11.7% (215)	15.6% (122)	20.0% (7)	13.0% (344)
	Yes, at home & another location	83.9% (1,537)	81.3% (636)	71.4% (25)	83.0% (2,198)
	Other	4.3% (79)	3.1% (24)	8.6% (3)	4.0% (106)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	No	8.0% (56)	7.7% (24)	4.3% (1)	7.8% (81)
	Yes, at home & another location	87.1% (608)	88.1% (274)	91.3% (21)	87.5% (903)
	Other	4.9% (34)	4.2% (13)	4.3% (1)	4.7% (48)
	<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)
Unknown	No	7.7% (1)			4.3% (1)
	Yes, at home & another location	84.6% (11)	100.0% (7)	100.0% (3)	91.3% (21)
	Other	7.7% (1)			4.3% (1)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
Grand Total		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

b) **Student Concern Finding:** More female (6.2%) and male (10.1%) students of color **do not have unlimited access to a computer or a similar device** compared to their female (3.0%) and male (3.9%) peer counterparts. See Table 10.

- **Barrier:** Financial burden and inability to engage in an online environment

Table 10
Computer access

Q3 - Do you have unlimited access to a computer (or similar device) that you can use for things like class meetings, readings, and homework? [DE experience: All]

		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	No	6.2% (113)	10.1% (79)	5.7% (2)	7.3% (194)
	Yes, with unlimited & limited access	91.5% (1,675)	88.6% (693)	91.4% (32)	90.6% (2,400)
	Other	2.3% (43)	1.3% (10)	2.9% (1)	2.0% (54)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	No	3.0% (21)	3.9% (12)		3.2% (33)
	Yes, with unlimited & limited access	95.1% (664)	94.2% (293)	100.0% (23)	95.0% (980)
	Other	1.9% (13)	1.9% (6)		1.8% (19)
	<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)
Unknown	No	7.7% (1)			4.3% (1)
	Yes, with unlimited & limited access	92.3% (12)	100.0% (7)	100.0% (3)	95.7% (22)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
Grand Total		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

c) **Student Concern Finding:** More female (11.0%) and male (13.0%) students of color **access coursework using only a basic cellphone or a smartphone** compared to their female (5.3%) and male (6.4%) peer counterparts. See Table 11.

- **Barrier:** Financial burden and inability to engage in an online environment

Table 11
Devices used to access coursework remotely

Q4 - Which of the following do you have available to access your coursework remotely? [DE experience: All]

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	Basic cell phone w/ web access/Smartpho..	11.1% (204)	13.0% (102)	17.1% (6)	11.8% (312)
	Computer/ipad only OR Computer/ipad an..	87.9% (1,609)	85.2% (666)	82.9% (29)	87.0% (2,304)
	Other	1.0% (18)	1.8% (14)		1.2% (32)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	Basic cell phone w/ web access/Smartpho..	5.3% (37)	6.4% (20)		5.5% (57)
	Computer/ipad only OR Computer/ipad an..	93.8% (655)	92.0% (286)	100.0% (23)	93.4% (964)
	Other	0.9% (6)	1.6% (5)		1.1% (11)
	<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)
Unknown	Basic cell phone w/ web access/Smartpho..	7.7% (1)			4.3% (1)
	Computer/ipad only OR Computer/ipad an..	92.3% (12)	100.0% (7)	100.0% (3)	95.7% (22)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
Grand Total		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

d) **Student Concern Finding:** More female (28.9%) and male (24.8%) students of color **have had issues accessing more than one resource** compared to their female (26.1%) and male (20.6%) peer counterparts. See Table 12.

- **Barrier:** Issues accessing computer, internet, food, psychological care/counseling, health/medical care

Table 12
Access to resources

Q8 - Which of the following resources have you had issues accessing since the shift to distance education (remote/online classes)? [DE experience: All]		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	1+: Access to a computer/or another similar device,F..	28.9% (529)	24.8% (194)	34.3% (12)	27.8% (735)
	1 resource: Access to a computer/or another similar ..	27.2% (498)	28.8% (225)	17.1% (6)	27.5% (729)
	Other (please specify) & Other (please specify),None ..	4.9% (89)	5.6% (44)	8.6% (3)	5.1% (136)
	None of the above	39.0% (715)	40.8% (319)	40.0% (14)	39.6% (1,048)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	1+: Access to a computer/or another similar device,F..	26.1% (182)	20.6% (64)	34.8% (8)	24.6% (254)
	1 resource: Access to a computer/or another similar ..	22.6% (158)	20.9% (65)	26.1% (6)	22.2% (229)
	Other (please specify) & Other (please specify),None ..	3.9% (27)	7.1% (22)	4.3% (1)	4.8% (50)
	Access to a computer/or another similar device ,Inter..	0.1% (1)			0.1% (1)
	None of the above	47.3% (330)	51.4% (160)	34.8% (8)	48.3% (498)
<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)	
Unknown	1+: Access to a computer/or another similar device,F..	15.4% (2)	28.6% (2)	33.3% (1)	21.7% (5)
	1 resource: Access to a computer/or another similar ..	46.2% (6)	14.3% (1)		30.4% (7)
	Other (please specify) & Other (please specify),None ..	7.7% (1)		33.3% (1)	8.7% (2)
	None of the above	30.8% (4)	57.1% (4)	33.3% (1)	39.1% (9)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
Grand Total		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

Research question two, “what are the most pressing challenges outside the educational environment that impacted students’ ability to continue their education?” is answered by analyzing the barriers of External Impact. Subsection III (External Impact) summarizes major findings and indicates the student concern and most pressing barriers outside the educational environment that impacted students’ ability to continue their education.

III. Summary of major findings in *External Impact*

a) **Student Concern Finding:** It is important to note the impact of mental health concerns for all of our students. Of 3,703 respondents, 78.4% indicated that their ability to study **has been impacted by mental health**; this experience was lower for male students of color (71.4%) and their male peer counterparts (71.7%); this experience was lower for female students of color (80.9%) and their female peer counterparts (83.1%). See Table 13.

- **Barrier:** Affects students' ability to engage in an online environment

Table 13
Mental Health

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a lit..	80.9% (1,481)	71.4% (558)	88.6% (31)	78.2% (2,070)
	None at all	19.1% (350)	28.6% (224)	11.4% (4)	21.8% (578)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a lit..	83.1% (580)	71.7% (223)	73.9% (17)	79.5% (820)
	None at all	16.9% (118)	28.3% (88)	26.1% (6)	20.5% (212)
	<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)
Unknown	A great deal/a lot/a moderate amount/a lit..	53.8% (7)	71.4% (5)	66.7% (2)	60.9% (14)
	None at all	46.2% (6)	28.6% (2)	33.3% (1)	39.1% (9)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
Grand Total		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

b) **Student Concern Finding:** The ability to study has been impacted by *an increase in the workload* of more female (76.5%) students of color compared to their female (73.8%) peer counterparts. See Table 14.

- **Barrier:** Affects students' ability to manage expectations and requirements to successfully complete course(s)

Table 14
Increase in workload

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	76.5% (1,401)	71.6% (560)	85.7% (30)	75.2% (1,991)
	None at all	23.5% (430)	28.4% (222)	14.3% (5)	24.8% (657)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	73.8% (515)	72.0% (224)	73.9% (17)	73.3% (756)
	None at all	26.2% (183)	28.0% (87)	26.1% (6)	26.7% (276)
	<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)
Unknown	A great deal/a lot/a moderate amount/a little	61.5% (8)	71.4% (5)	66.7% (2)	65.2% (15)
	None at all	38.5% (5)	28.6% (2)	33.3% (1)	34.8% (8)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
Grand Total		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

c) **Student Concern Finding:** The ability to study has been impacted by *the need to care for a dependent* of more female (55.8%) and male (47.4%) students of color compared to their female (49.1%) and male (42.8%) peer counterparts. See Table 15.

- **Barrier:** Affects students' ability to manage course (s) expectations and requirements as well as the external responsibility

Table 15
Care for dependent

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	55.8% (1,021)	47.4% (371)	48.6% (17)	53.2% (1,409)
	None at all	44.2% (810)	52.6% (411)	51.4% (18)	46.8% (1,239)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	49.1% (343)	42.8% (133)	30.4% (7)	46.8% (483)
	None at all	50.9% (355)	57.2% (178)	69.6% (16)	53.2% (549)
	<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)
Unknown	A great deal/a lot/a moderate amount/a little	23.1% (3)	42.9% (3)	33.3% (1)	30.4% (7)
	None at all	76.9% (10)	57.1% (4)	66.7% (2)	69.6% (16)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
Grand Total		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

d) **Student Concern Finding:** The ability to study has been impacted by *the lack of access to healthcare* of more female (56.3%) and male (54.9 %) students of color compared to their female (49.6%) and male (45.3%) peer counterparts. See Table 16.

- **Barrier:** Impacts students' ability to fully engage in an online learning environment

Table 16
Lack of access to healthcare

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	56.3% (1,030)	54.9% (429)	45.7% (16)	55.7% (1,475)
	None at all	43.7% (801)	45.1% (353)	54.3% (19)	44.3% (1,173)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	49.6% (346)	45.3% (141)	52.2% (12)	48.4% (499)
	None at all	50.4% (352)	54.7% (170)	47.8% (11)	51.6% (533)
	<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)
Unknown	A great deal/a lot/a moderate amount/a little	53.8% (7)	57.1% (4)	33.3% (1)	52.2% (12)
	None at all	46.2% (6)	42.9% (3)	66.7% (2)	47.8% (11)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
Grand Total		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

e) **Student Concern Finding:** The ability to study has been impacted by *the loss of a job* of more female (52.9%) and male (45.9%) students of color compared to their female (48.6%) and male (44.1%) peer counterparts. See Table 17.

- **Barrier:** Financial

Table 17
Loss of a job

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	52.9% (968)	45.9% (359)	45.7% (16)	50.7% (1,343)
	None at all	47.1% (863)	54.1% (423)	54.3% (19)	49.3% (1,305)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	48.6% (339)	44.1% (137)	39.1% (9)	47.0% (485)
	None at all	51.4% (359)	55.9% (174)	60.9% (14)	53.0% (547)
	<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)
Unknown	A great deal/a lot/a moderate amount/a little	38.5% (5)	42.9% (3)	33.3% (1)	39.1% (9)
	None at all	61.5% (8)	57.1% (4)	66.7% (2)	60.9% (14)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
Grand Total		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

f) **Student Concern Finding:** The ability to study has been impacted by *the change in childcare* of more female (31.5%) and male (24.2%) students of color compared to their female (25.4%) and male (18.6%) peer counterparts. See Table 18.

- **Barrier:** Additional distraction that impacts the ability to engage in an online learning environment

Table 18
Change in childcare support

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	31.5% (577)	24.2% (189)	28.6% (10)	29.3% (776)
	None at all	68.5% (1,254)	75.8% (593)	71.4% (25)	70.7% (1,872)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	25.4% (177)	18.6% (58)	30.4% (7)	23.4% (242)
	None at all	74.6% (521)	81.4% (253)	69.6% (16)	76.6% (790)
	<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)
Unknown	A great deal/a lot/a moderate amount/a little	23.1% (3)	42.9% (3)	33.3% (1)	30.4% (7)
	None at all	76.9% (10)	57.1% (4)	66.7% (2)	69.6% (16)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
<i>Grand Total</i>		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

B. Barriers for Students with No Prior DE Experience

The major findings for students with *no DE experience* provide answers to the research questions and support the FCC Ed MP goal 1.1 “...targeting high-risk populations.” To answer the research questions items from the questionnaire were grouped into barrier categories.

Table 19 provides a DE experience breakdown of students of color and their peer counterparts. More female (42.9%) and male (55.2%) students of color *have never taken a class through DE* compared to their female (28.2%) and male (49.2%) peer counterparts.

Table 19
DE Experience

Q1 - Have you ever taken a class through distance education (online or partially online/hybrid)?
 No - have never taken a class through distance education
 Yes - have taken at least one class through distance education

		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	No	42.9% (785)	55.2% (432)	28.6% (10)	46.3% (1,227)
	Yes	57.1% (1,046)	44.8% (350)	71.4% (25)	53.7% (1,421)
	<i>Total</i>	100.0% (1,831)	100.0% (782)	100.0% (35)	100.0% (2,648)
Peer Counterpart Group:	No	28.2% (197)	49.2% (153)	34.8% (8)	34.7% (358)
	Yes	71.8% (501)	50.8% (158)	65.2% (15)	65.3% (674)
	<i>Total</i>	100.0% (698)	100.0% (311)	100.0% (23)	100.0% (1,032)
Unknown	No	30.8% (4)	71.4% (5)		39.1% (9)
	Yes	69.2% (9)	28.6% (2)	100.0% (3)	60.9% (14)
	<i>Total</i>	100.0% (13)	100.0% (7)	100.0% (3)	100.0% (23)
<i>Grand Total</i>		100.0% (2,542)	100.0% (1,100)	100.0% (61)	100.0% (3,703)

“What barriers were created for students by the COVID-19 pandemic and the move of instruction to a remote format?” was answered by examining results which were grouped into Experience and Access barriers. Subsections I (Experience) and II (Access) summarize the major findings and indicate the support needed to assist students in overcoming the barriers created by the COVID-19 pandemic and the move of instruction to a remote format.

I. Summary of major findings in *Experience* barriers

- a) **Student Concern Finding:** Of the students with no prior DE experience, more male (11.3%) students of color are uncomfortable with ***navigating the course contents on the CANVAS platform*** compared to their males (8.5%) peer counterparts. See Table 20.
 - **Barrier:** Uncomfortable navigating the course contents on the CANVAS platform

Table 20

Navigating the course contents on CANVAS – students with no prior DE experience

Q6 - How comfortable are you with the following in CANVAS? Navigating the course contents (<i>DE Experience: No</i>)		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	Extremely & Somewhat uncomfortable	9.0% (71)	11.3% (49)	30.0% (3)	10.0% (123)
	Extremely & Somewhat comfortable	80.3% (630)	78.2% (338)	40.0% (4)	79.2% (972)
	Neither comfortable nor uncomfortable	10.7% (84)	10.4% (45)	30.0% (3)	10.8% (132)
	<i>Total</i>	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	Extremely & Somewhat uncomfortable	11.7% (23)	8.5% (13)	12.5% (1)	10.3% (37)
	Extremely & Somewhat comfortable	79.2% (156)	80.4% (123)	37.5% (3)	78.8% (282)
	Neither comfortable nor uncomfortable	9.1% (18)	11.1% (17)	50.0% (4)	10.9% (39)
	<i>Total</i>	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	Extremely & Somewhat uncomfortable	25.0% (1)	20.0% (1)		22.2% (2)
	Extremely & Somewhat comfortable	75.0% (3)	60.0% (3)		66.7% (6)
	Neither comfortable nor uncomfortable		20.0% (1)		11.1% (1)
	<i>Total</i>	100.0% (4)	100.0% (5)		100.0% (9)
Grand Total		100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Despite the prior online experience, of the 2,109 students *with* prior online experience, 7.7% (162) of the students indicated being uncomfortable ***navigating the course contents on the CANVAS platform***; of the 162 students with prior online experience, more female (4.6%) students of color are uncomfortable with navigating the course contents on the CANVAS platform compared to their female (4.2%) peer counterparts. See Table I.20 in Appendix C.

- b) **Student Concern Finding:** Of the students with no prior DE experience, more male (9.5%) students of color are uncomfortable with ***viewing assignments on the CANVAS platform*** compared to their male (8.5%) peer counterparts. See Table 21.
 - **Barrier:** Uncomfortable viewing assignments on the CANVAS platform

Table 21

Viewing assignments on CANVAS – students with no prior DE experience

Q6 - How comfortable are you with the following in CANVAS? Viewing assignments (<i>DE Experience: No</i>)		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	Extremely & Somewhat uncomfortable	7.6% (60)	9.5% (41)	10.0% (1)	8.3% (102)
	Extremely & Somewhat comfortable	84.1% (660)	78.2% (338)	70.0% (7)	81.9% (1,005)
	Neither comfortable nor uncomfortable	8.3% (65)	12.3% (53)	20.0% (2)	9.8% (120)
	<i>Total</i>	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	Extremely & Somewhat uncomfortable	9.1% (18)	8.5% (13)	12.5% (1)	8.9% (32)
	Extremely & Somewhat comfortable	83.8% (165)	77.8% (119)	37.5% (3)	80.2% (287)
	Neither comfortable nor uncomfortable	7.1% (14)	13.7% (21)	50.0% (4)	10.9% (39)
	<i>Total</i>	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	Extremely & Somewhat uncomfortable	25.0% (1)	20.0% (1)		22.2% (2)
	Extremely & Somewhat comfortable	75.0% (3)	80.0% (4)		77.8% (7)
	<i>Total</i>	100.0% (4)	100.0% (5)		100.0% (9)
	Grand Total	100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Despite having the prior online experience, of the 2,109 students, 4.9% (103) of the students with prior online experience indicated being uncomfortable **viewing assignments on the CANVAS platform**; of the 103 students *with* prior online experience, more female (4.2%) students of color are uncomfortable with viewing assignments on the CANVAS platform compared to their female (3.8%) peer counterparts. See Table I.21 in Appendix C.

- c) **Student Concern Finding:** Of the students with no prior DE experience, more female (12.0%) and male (10.9%) students of color are uncomfortable with **submitting assignments on the CANVAS platform** compared to their female (9.1%) and male (8.5%) peer counterparts. See Table 22.
 - **Barrier:** Uncomfortable submitting assignments on the CANVAS platform

Table 22

Submitting assignments on CANVAS – students with no prior DE experience

Q6 - How comfortable are you with the following in CANVAS? Submitting assignments (<i>DE Experience: No</i>)		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	Extremely & Somewhat uncomfortable	12.0% (94)	10.9% (47)	20.0% (2)	11.7% (143)
	Extremely & Somewhat comfortable	76.9% (604)	77.3% (334)	40.0% (4)	76.8% (942)
	Neither comfortable nor uncomfortable	11.1% (87)	11.8% (51)	40.0% (4)	11.6% (142)
	<i>Total</i>	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	Extremely & Somewhat uncomfortable	9.1% (18)	8.5% (13)	25.0% (2)	9.2% (33)
	Extremely & Somewhat comfortable	80.7% (159)	77.8% (119)	37.5% (3)	78.5% (281)
	Neither comfortable nor uncomfortable	10.2% (20)	13.7% (21)	37.5% (3)	12.3% (44)
	<i>Total</i>	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	Extremely & Somewhat uncomfortable	25.0% (1)			11.1% (1)
	Extremely & Somewhat comfortable	75.0% (3)	80.0% (4)		77.8% (7)
	Neither comfortable nor uncomfortable		20.0% (1)		11.1% (1)
	<i>Total</i>	100.0% (4)	100.0% (5)		100.0% (9)
	Grand Total	100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Despite having the prior DE experience, of the 2,109 students, 5.7% (120) of the students with experience indicated being uncomfortable **submitting assignments on the CANVAS platform**; of the 120 students *with* prior online experience, more female (5.5%) students of color are

uncomfortable with submitting assignments on the CANVAS platform compared to their female (3.6%) peer counterparts. See Table I.22 in Appendix C.

- d) **Student Concern Finding:** Of the students with no prior DE experience, more female (18.0%) and male (19.7%) students of color are uncomfortable with **participating in discussions on the CANVAS platform** compared to their female (17.8%) and male (19.0%) peer counterparts. See Table 23.
 - **Barrier:** Uncomfortable participating in discussions on CANVAS

Table 23

Participating in discussions on CANVAS – students with no prior DE experience

Q6 - How comfortable are you with the following in CANVAS? Participating in discussions (<i>DE Experience: No</i>)		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	Extremely & Somewhat uncomfortable	18.0% (141)	19.7% (85)	50.0% (5)	18.8% (231)
	Extremely & Somewhat comfortable	66.6% (523)	61.1% (264)	30.0% (3)	64.4% (790)
	Neither comfortable nor uncomfortable	15.4% (121)	19.2% (83)	20.0% (2)	16.8% (206)
	<i>Total</i>	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	Extremely & Somewhat uncomfortable	17.8% (35)	19.0% (29)	37.5% (3)	18.7% (67)
	Extremely & Somewhat comfortable	66.0% (130)	65.4% (100)	25.0% (2)	64.8% (232)
	Neither comfortable nor uncomfortable	16.2% (32)	15.7% (24)	37.5% (3)	16.5% (59)
	<i>Total</i>	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	Extremely & Somewhat uncomfortable	25.0% (1)	20.0% (1)		22.2% (2)
	Extremely & Somewhat comfortable	75.0% (3)	60.0% (3)		66.7% (6)
	Neither comfortable nor uncomfortable		20.0% (1)		11.1% (1)
	<i>Total</i>	100.0% (4)	100.0% (5)		100.0% (9)
Grand Total		100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Despite having the prior DE experience, of the 2,109 students, 10.6% (224) of the students with experience indicated being uncomfortable **participating in discussions on the CANVAS platform**; of the 224 students *with* prior online experience, more female (15.5%) students of color are uncomfortable with submitting assignments on the CANVAS platform compared to their female (7.6%) peer counterparts. See Table I.23 in Appendix C.

- II. Summary of major findings in *Access barriers*
 - a) **Student Concern Finding:** Of the students with no prior DE experience, more female (32.1%) and male (26.4%) students of color **had issues accessing more than one resource** compared to their female (31.5%) and male (22.2%) peer counterparts. See Table 24.
 - **Barrier:** accessing computer, internet, food, psychological care/counseling, health/medical care

Table 24

Access to resources – students with no prior DE experience

Q8 - Which of the following resources have you had issues accessing since the shift to distance education (remote/online classes)? [DE experience: No]

		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	1+: Access to a computer/or another similar device,F..	32.1% (252)	26.4% (114)	50.0% (5)	30.2% (371)
	1 resource: Access to a computer/or another similar ..	26.9% (211)	28.7% (124)	20.0% (2)	27.5% (337)
	Other (please specify) & Other (please specify),None ..	4.1% (32)	5.8% (25)	10.0% (1)	4.7% (58)
	None of the above	36.9% (290)	39.1% (169)	20.0% (2)	37.6% (461)
	Total	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	1+: Access to a computer/or another similar device,F..	31.5% (62)	22.2% (34)	25.0% (2)	27.4% (98)
	1 resource: Access to a computer/or another similar ..	24.4% (48)	28.1% (43)	37.5% (3)	26.3% (94)
	Other (please specify) & Other (please specify),None ..	2.5% (5)	5.9% (9)		3.9% (14)
	Access to a computer/or another similar device ,Inter..	0.5% (1)			0.3% (1)
	None of the above	41.1% (81)	43.8% (67)	37.5% (3)	42.2% (151)
	Total	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	1+: Access to a computer/or another similar device,F..	25.0% (1)	20.0% (1)		22.2% (2)
	1 resource: Access to a computer/or another similar ..	25.0% (1)	20.0% (1)		22.2% (2)
	None of the above	50.0% (2)	60.0% (3)		55.6% (5)
	Total	100.0% (4)	100.0% (5)		100.0% (9)
	Grand Total	100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Despite having the prior DE experience, of the 2,109 students, 24.8% (523) of the students with experience indicated **having issues accessing more than one resource**; of the 523 students with prior online experience, more female (26.5%) and male (22.9%) students of color had issues accessing more than one resource compared to their female (24.0%) and male (19.0%) peer counterparts. See Table II.24 in Appendix C.

b) **Student Concern Finding:** Of the students with no prior DE experience, more female (15.4%) and male (18.8%) students of color **do not have reliable high-speed internet access** compared to their female (13.2%) and male (11.1%) peer counterparts. See Table 25.

- **Barrier:** Financial burden and inability to engage in an online environment

Table 25
Internet access – students with no prior DE experience

Q2 - Do you have reliable high-speed internet access from your home or another location? [DE experience: No]

		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	No	15.4% (121)	18.8% (81)	30.0% (3)	16.7% (205)
	Yes, at home & another location	79.1% (621)	77.8% (336)	50.0% (5)	78.4% (962)
	Other	5.5% (43)	3.5% (15)	20.0% (2)	4.9% (60)
	Total	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	No	13.2% (26)	11.1% (17)	12.5% (1)	12.3% (44)
	Yes, at home & another location	81.2% (160)	84.3% (129)	87.5% (7)	82.7% (296)
	Other	5.6% (11)	4.6% (7)		5.0% (18)
	Total	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	Yes, at home & another location	100.0% (4)	100.0% (5)		100.0% (9)
	Total	100.0% (4)	100.0% (5)		100.0% (9)
	Grand Total	100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Despite having the prior DE experience, of the 2,109 students, 8.4% (177) of the students with experience **do not have reliable high-speed internet access**; of the 218 students *with* prior online experience, more female (9.0%) and male (11.7%) students of color do not have reliable high-speed internet access compared to their female (6.0%) and male (4.4%) peer counterparts. See Table II.25 in Appendix C.

c) **Student Concern Finding:** Of the students with no prior DE experience, more female (16.1%) and male (16.9%) students of color **access their coursework only using a basic cellphone or a smartphone** compared to their female (12.2%) and male (9.2%) peer counterparts. See Table 26.

- **Barrier:** Financial burden and inability to engage in an online environment

Table 26

Devices used to access coursework remotely – *students with no prior DE experience*

Q4 - Which of the following do you have available to access your coursework remotely? [DE experience: No]		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	Basic cell phone w/ web access/Smartpho..	16.1% (126)	16.9% (73)	30.0% (3)	16.5% (202)
	Computer/ipad only OR Computer/ipad an..	82.5% (648)	80.6% (348)	70.0% (7)	81.7% (1,003)
	Other	1.4% (11)	2.5% (11)		1.8% (22)
	<i>Total</i>	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	Basic cell phone w/ web access/Smartpho..	12.2% (24)	9.2% (14)		10.6% (38)
	Computer/ipad only OR Computer/ipad an..	87.8% (173)	88.9% (136)	100.0% (8)	88.5% (317)
	Other		2.0% (3)		0.8% (3)
	<i>Total</i>	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	Computer/ipad only OR Computer/ipad an..	100.0% (4)	100.0% (5)		100.0% (9)
	<i>Total</i>	100.0% (4)	100.0% (5)		100.0% (9)
<i>Grand Total</i>		100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Despite having the prior DE experience, of the 2,109 students, 6.2% (130) of the students with experience **access their coursework only using a basic cellphone or a smartphone**; of the 130 students *with* prior online experience, more female (7.5%) and male (8.3%) students of color access their coursework only using a basic cellphone or a smartphone compared to their female (2.6%) and male (3.8%) peer counterparts. See Table II.26 in Appendix C.

d) **Student Concern Finding:** Of the students with no prior DE experience, more female (8.4%) and male (13.2%) students of color **do not have unlimited access to a computer or a similar device** compared to their female (6.1%) and male (3.9%) peer counterparts. See Table 27.

- **Barrier:** Financial burden and inability to engage in an online environment

Table 27

Computer access – *students with no prior DE experience*

Q3 - Do you have unlimited access to a computer (or similar device) that you can use for things like class meetings, readings, and homework? [DE experience: No]

		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	No	8.4% (66)	13.2% (57)	10.0% (1)	10.1% (124)
	Yes, with unlimited & limited access	88.3% (693)	85.4% (369)	90.0% (9)	87.3% (1,071)
	Other	3.3% (26)	1.4% (6)		2.6% (32)
	<i>Total</i>	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	No	6.1% (12)	3.9% (6)		5.0% (18)
	Yes, with unlimited & limited access	92.9% (183)	94.8% (145)	100.0% (8)	93.9% (336)
	Other	1.0% (2)	1.3% (2)		1.1% (4)
	<i>Total</i>	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	Yes, with unlimited & limited access	100.0% (4)	100.0% (5)		100.0% (9)
	<i>Total</i>	100.0% (4)	100.0% (5)		100.0% (9)
<i>Grand Total</i>		100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Despite having the prior DE experience, of the 2,109 students, 4.1% (86) of the students **do not have unlimited access to a computer or a similar device**; of the 86 students *with* prior online experience, more female (4.5%) and male (6.3%) students of color do not have unlimited access to a computer or a similar device compared to their female (1.8%) and male (3.8%) peer counterparts. See Table II.27 in Appendix C.

“What are the most pressing challenges outside the educational environment that impacted students’ ability to continue their education?” is answered by analyzing the External Impact barriers. Subsection III (External Impact) summarizes major findings and indicates the support needed to assist students of color with no prior DE experience in overcoming the most pressing barriers outside the educational environment that impacted students’ ability to continue their education.

III. Summary of major findings in *External Impact*

a) **Student Concern Finding:** Of the students with no prior DE experience, less female (77.5%) and male (69.9%) students of color indicated that their **ability to study has been impacted my mental health concerns** compared to their female (81.7%) and male (72.5%) peer counterparts. This is important to consider as it is the only finding where in comparison to students of color, *both* female and male peer counterparts have indicated a higher impact. See Table 28.

- **Barrier:** Affects students' ability to engage in an online environment

Table 28

Mental Health – students with no prior DE experience

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a lit..	77.5% (608)	69.9% (302)	90.0% (9)	74.9% (919)
	None at all	22.5% (177)	30.1% (130)	10.0% (1)	25.1% (308)
	<i>Total</i>	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a lit..	81.7% (161)	72.5% (111)	75.0% (6)	77.7% (278)
	None at all	18.3% (36)	27.5% (42)	25.0% (2)	22.3% (80)
	<i>Total</i>	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	A great deal/a lot/a moderate amount/a lit..	50.0% (2)	80.0% (4)		66.7% (6)
	None at all	50.0% (2)	20.0% (1)		33.3% (3)
	<i>Total</i>	100.0% (4)	100.0% (5)		100.0% (9)
Grand Total		100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Of the 2,109 students *with* prior DE experience, 80.7% (1,701) indicated that their **ability to study has been impacted by feeling depression, anxiety, etc.**; of the 1,701 students *with* prior online experience, more male (73.1%) students of color indicated that their ability to study has been impacted by feeling depression, anxiety, etc. compared to their male (70.9%) peer counterparts. See Table III.28 in Appendix C.

- b) **Student Concern Finding:** Of the students with no prior DE experience, more female (72.4%) students of color indicated that their **ability to study has been impacted by the increase in workload** compared to their female (71.1%) peer counterparts. See Table 29.
 - **Barrier:** Affects students' ability to manage expectations and requirements to successfully complete course(s)

Table 29
Increase in workload – students with no prior DE experience

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	72.4% (568)	71.3% (308)	80.0% (8)	72.0% (884)
	None at all	27.6% (217)	28.7% (124)	20.0% (2)	28.0% (343)
	<i>Total</i>	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	71.1% (140)	79.7% (122)	75.0% (6)	74.9% (268)
	None at all	28.9% (57)	20.3% (31)	25.0% (2)	25.1% (90)
	<i>Total</i>	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	A great deal/a lot/a moderate amount/a little	75.0% (3)	60.0% (3)		66.7% (6)
	None at all	25.0% (1)	40.0% (2)		33.3% (3)
	<i>Total</i>	100.0% (4)	100.0% (5)		100.0% (9)
Grand Total		100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Of the 2,109 students *with* prior DE experience, 54.9% (1,158) indicated that their **ability to study has been impacted by the increase in workload**; of the 1,158 students *with* prior online experience, more female (79.6%) and male (72.0%) students of color indicated that their ability to study has been impacted by the increase in workload compared to their female (74.9%) and male (64.6%) peer counterparts. See Table III.29 in Appendix C.

- c) **Student Concern Finding:** Of the students with no prior DE experience, more female (55.5%) and male (56.5%) students of color indicated that their **ability to study has been**

impacted by lack of access to healthcare compared to their female (54.3%) and male (49.0%) peer counterparts. See Table 30.

- **Barrier:** Impacts students' ability to fully engage in the DE environment

Table 30

Lack of access to healthcare – students with no prior DE experience

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	55.5% (436)	56.5% (244)	60.0% (6)	55.9% (686)
	None at all	44.5% (349)	43.5% (188)	40.0% (4)	44.1% (541)
	<i>Total</i>	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	54.3% (107)	49.0% (75)	62.5% (5)	52.2% (187)
	None at all	45.7% (90)	51.0% (78)	37.5% (3)	47.8% (171)
	<i>Total</i>	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	A great deal/a lot/a moderate amount/a little	50.0% (2)	60.0% (3)		55.6% (5)
	None at all	50.0% (2)	40.0% (2)		44.4% (4)
	<i>Total</i>	100.0% (4)	100.0% (5)		100.0% (9)
Grand Total		100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Of the 2,109 students *with* prior DE experience, 52.5% (1,108) indicated that their **ability to study has been impacted by lack of access to healthcare**; of the 1,108 students *with* prior online experience, more female (56.8%) and male (52.9%) students of color indicated that their ability to study has been impacted by lack of access to healthcare compared to their female (47.7%) and male (41.8%) peer counterparts. See Table III.30 in Appendix C.

- d) **Student Concern Finding:** Of the students with no prior DE experience, more female (51.7%) students of color indicated that their **ability to study has been impacted by the loss of a job** compared to their female (51.3%) peer counterparts. See Table 31.

- **Barrier:** Financial

Table 31

Loss of a job – students with no prior DE experience

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	51.7% (406)	48.1% (208)	60.0% (6)	50.5% (620)
	None at all	48.3% (379)	51.9% (224)	40.0% (4)	49.5% (607)
	<i>Total</i>	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	51.3% (101)	51.0% (78)	50.0% (4)	51.1% (183)
	None at all	48.7% (96)	49.0% (75)	50.0% (4)	48.9% (175)
	<i>Total</i>	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	A great deal/a lot/a moderate amount/a little	25.0% (1)	60.0% (3)		44.4% (4)
	None at all	75.0% (3)	40.0% (2)		55.6% (5)
	<i>Total</i>	100.0% (4)	100.0% (5)		100.0% (9)
Grand Total		100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Of the 2,109 students *with* prior DE experience, 48.8% (1,030) indicated that their **ability to study has been impacted by the loss of a job**; of the 1,030 students *with* prior online experience, more female (53.7%) and male (43.1%) students of color indicated that their ability

to study has been impacted by the loss of a job compared to their female (47.5%) and male (37.3%) peer counterparts. See Table III.30 in Appendix C.

- e) **Student Concern Finding:** Of the students with no prior DE experience, more female (52.9%) and male (47.7%) students of color indicated that their **ability to study has been impacted by the need to care for a dependent** compared to their female (46.2%) and male (45.1%) peer counterparts. See Table 32.
 - **Barrier:** Affects students' ability to manage course(s) expectations and requirements as well as the external responsibility

Table 32
Care for dependent – students with no prior DE experience

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	52.9% (415)	47.7% (206)	50.0% (5)	51.0% (626)
	None at all	47.1% (370)	52.3% (226)	50.0% (5)	49.0% (601)
	<i>Total</i>	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	46.2% (91)	45.1% (69)	50.0% (4)	45.8% (164)
	None at all	53.8% (106)	54.9% (84)	50.0% (4)	54.2% (194)
	<i>Total</i>	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	A great deal/a lot/a moderate amount/a little	25.0% (1)	40.0% (2)		33.3% (3)
	None at all	75.0% (3)	60.0% (3)		66.7% (6)
	<i>Total</i>	100.0% (4)	100.0% (5)		100.0% (9)
<i>Grand Total</i>		100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Of the 2,109 students with prior DE experience, 52.4% (1,106) indicated that their **ability to study has been impacted by the need to care for a dependent**; of the 1,106 students with prior online experience, more female (57.9%) and male (47.1%) students of color indicated that their ability to study has been impacted by the need to care for a dependent compared to their female (50.3%) and male (40.5%) peer counterparts. See Table III.32 in Appendix C.

- f) **Student Concern Finding:** Of the students with no prior DE experience, more female (26.0%) and male (22.9%) students of color indicated that their **ability to study has been impacted by the change in childcare support** compared to their female (17.3%) and male (20.3%) peer counterparts. See Table 33.
 - **Barrier:** Additional distraction that impacts the ability to engage in the DE environment

Table 33
Change in childcare support – students with no prior DE experience

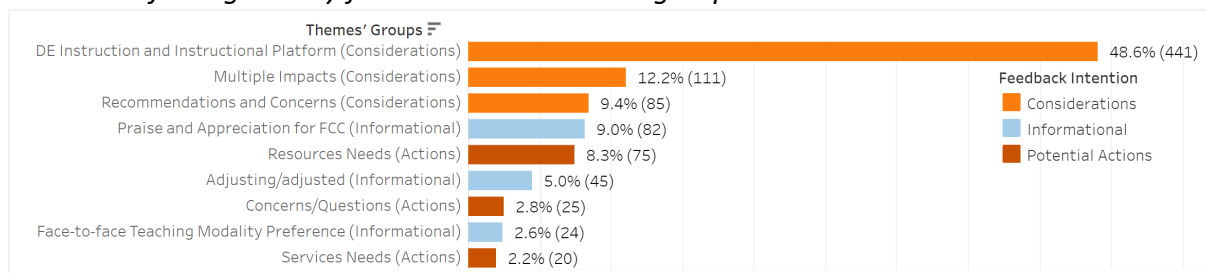
		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	26.0% (204)	22.9% (99)	30.0% (3)	24.9% (306)
	None at all	74.0% (581)	77.1% (333)	70.0% (7)	75.1% (921)
	<i>Total</i>	100.0% (785)	100.0% (432)	100.0% (10)	100.0% (1,227)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	17.3% (34)	20.3% (31)	50.0% (4)	19.3% (69)
	None at all	82.7% (163)	79.7% (122)	50.0% (4)	80.7% (289)
	<i>Total</i>	100.0% (197)	100.0% (153)	100.0% (8)	100.0% (358)
Unknown	A great deal/a lot/a moderate amount/a little	25.0% (1)	40.0% (2)		33.3% (3)
	None at all	75.0% (3)	60.0% (3)		66.7% (6)
	<i>Total</i>	100.0% (4)	100.0% (5)		100.0% (9)
Grand Total		100.0% (986)	100.0% (590)	100.0% (18)	100.0% (1,594)

Of the 2,109 students *with* prior DE experience, 30.7% (647) indicated that their **ability to study has been impacted by the change in childcare support**; of the 647 students *with* prior online experience, more female (35.7%) and male (25.7%) students of color indicated that their ability to study has been impacted by the change in childcare support than their female (28.5%) and male (17.1%) peer counterparts. See Table III.33 in Appendix C.

C. Barriers from Open-ended Responses

In the questionnaire, students provided optional additional comments regarding the shift to DE. Comments from students were organized in themes and the themes were grouped. Three intentions emerged for the established themes based on the feedback type that students provided. These feedback intentions were: potential actions (comments evoking potential actions for expressed needs), considerations (comments expressing challenges students experience), and informational (comments including recommendations, general feedback, praise, and appreciation). Figure 4 provides an overview of the categories. Of the 908 comments recorded, 13.3% of comments included **potential actions** (resource needs, service needs, concerns/questions), 70.2% of comments were for college **consideration** (DE instruction and instructional platform, multiple impacts, recommendations, and concerns), and 16.6% of comments were **informational** (adjustment, face-to-face modality preference, praise and appreciation for the college’s support efforts).

Figure 4
Overview of categories by feedback intention and grouped themes



Potential Actions Feedback Intention

Of the 908 comments, 13.3% included potential actions such as answering questions and concerns, providing students with resources and services available within the college. Table 34 provides an overview of the grouped themes included in the potential action feedback intention.

Table 34

Themes Grouped in the Potential Action Feedback Intention

<u>Themes' Groups</u>	<u>Theme</u>	<u># of comments</u>
Concerns/Questions	Questions to answer	25
Resources Needs	Technology literacy support	23
	Technology access – computer/internet/webcam	36
	Textbooks/educational software access	9
	Resources access including food	7
Services Needs	Tutoring/Writing Support access	17
	Counseling access	2
	Psych Services access	1

Summary of major findings in Potential Actions feedback intention

Student Concern Finding: Of the 120 students who provided comments related to potential actions feedback intention,

- a) more female (22.6%) students of color **stated questions and concerns** than their female (11.1%) peer counterparts;
- b) more female (16.1%) and male (21.4%) students of color **expressed the need for essential resources** compared to their female (11.1%) and male (0%) peer counterparts. See Table 35.

Table 35

Open-Ended Responses by Potential Actions Feedback Intention

		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	Resources Needs	61.3% (38)	57.1% (16)	33.3% (1)	59.1% (55)
	Services Needs	16.1% (10)	21.4% (6)	33.3% (1)	18.3% (17)
	Concerns/Questions	22.6% (14)	21.4% (6)	33.3% (1)	22.6% (21)
	<i>Total</i>	100.0% (62)	100.0% (28)	100.0% (3)	100.0% (93)
Peer Counterpart Group:	Resources Needs	77.8% (14)	75.0% (6)		76.9% (20)
	Services Needs	11.1% (2)			7.7% (2)
	Concerns/Questions	11.1% (2)	25.0% (2)		15.4% (4)
	<i>Total</i>	100.0% (18)	100.0% (8)		100.0% (26)
Unknown	Services Needs	100.0% (1)			100.0% (1)
	<i>Total</i>	100.0% (1)			100.0% (1)
Grand Total		100.0% (81)	100.0% (36)	100.0% (3)	100.0% (120)

The Student Needs in Their Own Words

As can be seen in Table 35, of the 120 comments in the potential actions feedback intention, 77.5% were from students of color. The **needed resources** that students mentioned include educational software, computer, internet, textbooks, technology literacy support. They also mentioned the need for **student services** such as counseling, psychological services, tutoring, and writing supports. Students had **questions** regarding refunds, graduation, payments, and completing paperwork. They also expressed **concerns** about the future of their education at FCC.

Students stated:

- *“I need specific software that I was able to access on campus that I cannot pay for at home: solidworks and MATLAB”* Latinx, female
- *“Some things I can do online but the one on one tutoring for some of these classes is what I miss.”* Black or African American, male
- *“I’m taking a photo class and it’s really hard to do my homework because I need access to Adobe lightroom classic, photoshop..etc. in order for me to use those I have to pay a certain amount of money and I can’t really afford it right now with all of this that’s been going on”* Latinx, female
- *“I feel like I may not be able to complete my classes because of this. I have no access to a computer whatsoever.”* Latinx, gender not reported
- *“I have service at home but there are 5 people in my home participating in distance learning. Sharing computers is an issue as well as internet speed.”* Latinx, female

Considerations Feedback Intention

Of the 908 comments, 70.2% were for consideration of the college such as DE instruction and instructional platform challenges, multiple impacts, and recommendations and concerns. Table 36 provides an overview of the grouped themes included in the considerations feedback intention.

Table 36

Themes Grouped in the Considerations Feedback Intention

Themes' Groups	Theme	# of comments
DE Instruction and Instructional Platform	Instruction and CANVAS/ CANVAS functionality/assistance	195
	Challenging transition overall/Adjusting in challenging transition/ due to the DE teaching modality	154
	Increased coursework challenge	47
	Grade concerns	29
	Lack of DE experience challenge	9
	Communication challenge	7
Multiple Impacts	Outside factors impact challenge	46
	Lack of quiet space/or distractions	44
	Health/Mental Health Impact challenge	21
Recommendations and Concerns	Financial concerns	18
	Course offering/retaking courses recommendations	21
	Withdrawals/drops concerns/questions/recommendations	16
	General/various concerns	13
	Commencement/Graduation concerns/questions/recommendations	10
	General/grading/cleaning rooms recommendations	7

Summary of major findings in Considerations feedback intention

Student Concern Finding: Of the 637 students who provided comments for consideration,

- a) more male (74.8%) students of color expressed challenges in **DE instruction and the instructional platform** compared to their male (66.7%) peer counterparts;
- b) more female (21.4%) students of color **experienced multiple impacts** compared to their female (15.4%) peer counterparts. See Table 37.

Table 37

Open-Ended Responses by Considerations Feedback Intention

		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	DE Instruction and In..	65.9% (191)	74.8% (113)	100.0% (5)	69.3% (309)
	Multiple Impacts	21.4% (62)	14.6% (22)		18.8% (84)
	Recommendations an..	12.8% (37)	10.6% (16)		11.9% (53)
	<i>Total</i>	100.0% (290)	100.0% (151)	100.0% (5)	100.0% (446)
Peer Counterpart Group:	DE Instruction and In..	70.1% (82)	66.7% (42)	80.0% (4)	69.2% (128)
	Multiple Impacts	15.4% (18)	14.3% (9)		14.6% (27)
	Recommendations an..	14.5% (17)	19.0% (12)	20.0% (1)	16.2% (30)
	<i>Total</i>	100.0% (117)	100.0% (63)	100.0% (5)	100.0% (185)
Unknown	DE Instruction and In..	100.0% (1)	66.7% (2)	50.0% (1)	66.7% (4)
	Recommendations an..		33.3% (1)	50.0% (1)	33.3% (2)
	<i>Total</i>	100.0% (1)	100.0% (3)	100.0% (2)	100.0% (6)
Grand Total		100.0% (408)	100.0% (217)	100.0% (12)	100.0% (637)

The Student Recommendations for Consideration in Their Own Words

As can be seen in Table 37, of the 637 comments in the considerations feedback intention, 70.0% were from students of color. Respondents expressed concerns regarding **DE instruction and the instructional platform, communication challenges, adjusting in the transition to**

online education, grades, lack of experience in online education, lack of quiet space, increased workload, health or mental health impact, financial, food, and housing insecurities, transportation, and withdraws/drops.

Students stated:

- *“Cost of food is a concern now that my kids are not in school...”* Latinx, female
- *“It's kind of hard I've been depressed and haven't had any motivation to do anything”* Black or African American, male
- *“Money to pay the rent so I don't get evicted and end up homeless again”* Latinx, gender not reported
- *“its going to be a learning experience for both me and my children, i look the positive things like more time me and my kids will have together for ALL MISSED TIME IN THE PAST IT IS TRULY I TIME TO CATCH UP”* American Indian/Alaskan Native, female
- *“A lot of anxiety and overwhelmed...”* Multi-ethnicity, female
- *“Can't keep up with the repeated emails and confusion on when assignments are due.”* Black or African American, male
- *“Hard to focus while at home and having to strive for A papers during all of this is damaging for my mental health.”* Latinx, female
- *“hours cut at work by more than half are making things more difficult when bill are right around the corner”* Latinx, male
- *“Personally I enjoy in class learning. Online learning for me is difficult cause there's distractions at home, and even on a computer. Also not having a location to study like at a library is difficult to focus.”* Latinx, male

Informational Feedback Intention

Of the 908 comments, 16.6% were informational (not requesting any particular action or providing a recommendation/request). These included adjusting to the transition, student preference for face-to-face teaching modality, and praise and appreciation for the college's supportive actions and care for students. Table 38 provides an overview of the grouped themes included in the informational feedback intention.

Table 38

Themes Grouped in the Informational Feedback Intention

<u>Themes' Groups</u>	<u>Theme</u>	<u># of comments</u>
Adjusting/adjusted	No action - ok with DE	28
	No action	17
Face-to-face Teaching Modality Preference	Face-to-face modality preference	24
Praise and Appreciation for FCC	Praise/Appreciation for FCC	82

Summary of major findings in Informational feedback intention

Student Concern Finding: Of the 151 students who provided comments for information,

- more female (30.9%) students of color indicated that they either **adjusted or are adjusting in the shift to DE** compared to their female (18.8%) peer counterparts;

- b) more female (19.1%) and male (17.1%) students of color stated that **they prefer face-to-face courses** compared to their female (12.5%) and males (0%) peer counterparts;
- c) more male (60.0%) students of color expressed **praise and appreciation for the college's efforts in supporting students** compared to their male (30.0%) peer counterparts. See Table 39.

Table 39*Open-Ended Responses by Informational Feedback Intention*

		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	Adjusting/adjusted (l..	30.9% (21)	22.9% (8)		27.9% (29)
	Face-to-face Teaching..	19.1% (13)	17.1% (6)		18.3% (19)
	Praise and Appreciati..	50.0% (34)	60.0% (21)	100.0% (1)	53.8% (56)
	<i>Total</i>	100.0% (68)	100.0% (35)	100.0% (1)	100.0% (104)
Peer Counterpart Group:	Adjusting/adjusted (l..	18.8% (6)	70.0% (7)		29.5% (13)
	Face-to-face Teaching..	12.5% (4)		50.0% (1)	11.4% (5)
	Praise and Appreciati..	68.8% (22)	30.0% (3)	50.0% (1)	59.1% (26)
	<i>Total</i>	100.0% (32)	100.0% (10)	100.0% (2)	100.0% (44)
Unknown	Adjusting/adjusted (l..	100.0% (1)	100.0% (1)	100.0% (1)	100.0% (3)
	<i>Total</i>	100.0% (1)	100.0% (1)	100.0% (1)	100.0% (3)
<i>Grand Total</i>		100.0% (101)	100.0% (46)	100.0% (4)	100.0% (151)

The Student Preferences and Appreciation in Their Own Words

As can be seen in Table 39, of the 151 comments in the informational feedback intention, 68.8% were from students of color. Respondents expressed their experience in **adjusting to DE**; **preference for face-to-face** instruction modality; **praise and appreciation** for FCC efforts in supporting students and instructors. Students mentioned that they felt cared for through empathy, patience, and flexibility, and they felt connected with instructors.

Students stated:

- *“I want to say thank you to all teachers and President, and all staff for making it possible to access all classes online. I know it hasn't been easy and there's been a lot of extra work but thank you all for your tremendous efforts...”* Latinx, female
- *“Please keep school going, our world needs it more than ever.”* Latinx, male
- *“All the instructors and FCC staff have been beyond accommodating and resourceful during this stressful time. I am grateful for Zoom that allows remote access, which enables us to mimic an almost identical classroom experience. In addition, instructors have been very responsive and informative...”* Latinx, female
- *“Amazing you guys should keep it online altho im a visual learner i started to like online :)”* Latinx, male
- *“Appreciate all that FCC is doing to help us continue school as normal and as best as we can!”* White/non-Hispanic, female

Interpretation of Findings

It is apparent in the findings of this data analysis that the shift to DE and the required COVID-19 “shelter in place” has greatly impacted all of our students. This data found that the impact has been prominent for the students of color who participated in the questionnaire. Students of color were found to experience greater barriers compared to their peer counterparts. Men of color were found to experience particularly greater barriers in the experience and access categories such as access to the internet and to appropriate devices for accessing coursework online, compared to their peer counterparts; while women of color were found to experience particularly greater barriers in the external impact category such as mental health concerns and increase in workload compared to their peer counterparts. The findings have also shown that more students of color did not have prior DE experience compared to their peer counterparts.

Evidence examined for the **students with no prior DE experience** suggests similar findings. Men of color with no prior DE experience were found to experience greater barriers in the experience and access categories while women of color with no prior DE were found to experience greater barriers in the external impact category compared to their peer counterparts. All students were found to have their ability to study greatly impacted by mental health concerns and the increase in workload.

In the open-ended optional comments, approximately three-fourths of comments evoking the need for support (**potential actions feedback intention**) were provided by students of color; the data once again reveal that students of color were found to experience greater access barriers compared to their peer counterparts. The findings from the **consideration feedback intention** have shown that women of color were found to experience greater impacts compared to their peer counterparts. This finding echoes evidence found in the external impact factors in the first section of this report. Men of color were found to experience more challenges in the DE instruction modality and the instructional platform itself compared to their peer counterparts. Finally, in the **informational feedback intention**, students of color were found to have a greater preference for face-to-face instruction modality; findings also suggest that more women of color have adjusted or are better adjusting compared to their peer counterparts while more men of color expressed praise and appreciation for the college’s efforts in providing support to students compared to their peer counterparts. Findings in this report provide evidence that while more men of color experienced barriers compared to their peer counterparts, also more men of color expressed appreciation and praise for the college’s endeavors in supporting them.

Recommendations

The questionnaire was conducted because, as stated in the purpose section of this report, “The campus wanted to learn from students’ the barriers they face to access their courses and services needed to support their success in a remote environment.” The intent is to use the data to inform decisions for how to improve the support for students in a DE environment in fall 2020. Appendix D shows an overview of several data-informed actions the college has taken in response to the support needs of students identified in the initial analysis of the questionnaire results. Considering that the college has already and will continue, to proactively

engage in student outreach and loaning of equipment, the following are four recommendations for the college to consider implementing. The recommendations focus on large scale actions that are intended to provide support to address the experienced barriers identified by students in the questionnaire items and the identified student needs in the words of our men of color, women of color, and their peer counterparts. As such, the following four recommendations have been identified.

Early data from all areas of impact (i.e. education, employment, housing, etc.) indicates that support is needed for individuals of color to get through the COVID-19 pandemic. For FCC, the first recommendation is to **focus fall 2020 on the normalization of equity-minded principles and practices**. As stated by Dr. Estela Bensimon from the USC, Center for Urban Education, to be equity-minded requires community college practitioners to be race-conscious, institutionally focused, systemically aware, and equity advancing. This will assist the college in broadly addressing, at all levels, the impact of actions taken to support students of color. Next, it is recommended that a **strong campaign be implemented to ensure all first-time students complete Passport to Canvas before starting the fall 2020 semester**. This will broadly support students in the need to address barriers regarding DE experience and navigating Canvas. Students have also suggested a self-paced module would benefit them in a one-question survey sent out before the end of the Spring 2020 semester. Furthermore, it is recommended to consider **creating on-campus study spaces based on our newly developed RAM Pathways**. This will provide support to address barriers regarding access to reliable high-speed internet, having a quiet space to study, and access to tutorial assistance. Assigning students to cohort locations based upon RAM Pathways will ensure a safe environment in which COVID-19 precautions may be followed. Finally, an equally important recommendation is to **collaborate with community experts within the identified top zip code locations of our students of color**. By working with community experts, the college can broadly communicate available resources that support students to help address external impact barriers such as housing, food, unemployment, etc.

Implications

Transformational research is needed to understand how students are experiencing the transition to DE and learning. The implications of this study indicate the difficulty and limitations of conducting research and providing meaningful results in a very limited amount of time. It will be important to ground further research by combining the framework of the Socio-Ecological Outcomes (SEO) model and the Transformative Paradigm to further understand the needs of students that have been historically marginalized. This uncharted ground underscores the need for research that is conducted with our students and our community. The tremendous shift to DE has far-reaching implications that demonstrate the need for data-informed decisions focused on minoritized students and explicitly on men of color as the college looks for changes needed in institutional policy and enrollment management practices. It also has demonstrated the importance of focusing on the work of guided pathways and the potential for changes in instructional policy and practice such as schedule development, professional development requirements, and implementation of guided pathways planning.

Conclusions

With the onset of the COVID-19 pandemic and the unanticipated transition to moving courses fully online, FCC wanted to hear from students about their experience and the impact of shifting to DE so that the college can use data to improve student support systems to ensure successful outcomes for students during the summer and fall semesters. The results provide data that will be used to inform practice and decisions as the college continues efforts to respond to the needs of students and implement plans for summer and fall 2020. The necessity of shifting to DE presents numerous planning challenges for faculty, classified professionals, and administrators to ensure there is a limited negative impact for students. From an equity-minded perspective, literature and research demonstrate the importance of an intentional focus on students of color by providing as many supports as possible.

This report provides an analysis of the results from the “The Impact of Shifting to Distance Education” questionnaire. Data from this questionnaire will inform our future practice to ensure we keep the equity front and center of our work, in both DE and face-to-face courses. The IRAP team will continue to monitor disaggregated data (enrollment status, drops, retention, success, GPA, etc.) to inform campus leadership in decisions that provide direction and support on how to continue to close equity gaps and ensure the success of all students.

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Appendix A: Questionnaire

1 Have you ever taken a class through distance education (online or partially online/hybrid)?

- Yes
- No

2 Do you have reliable high-speed internet access from your home or another location?

- Yes, at home
- Yes, at another location
- No
- Other (please specify) _____

3 Do you have unlimited access to a computer (or similar device) that you can use for things like class meetings, readings, and homework?

- Yes, with unlimited access
- Yes, with limited access
- No
- Other (please specify) _____

4 Which of the following do you have available to access your coursework remotely? Check all that apply.

- Computer
- Tablet/iPad
- Smartphone
- Basic cell phone with web access
- Other (please specify) _____

5 Have you used CANVAS before?

- Yes
- No, but I have used other similar platforms for online coursework
- No, I have never used CANVAS or similar platforms

6 How comfortable are you with the following in CANVAS?

	Extremely comfortable	Somewhat comfortable	Neither comfortable nor uncomfortable	Somewhat uncomfortable	Extremely uncomfortable
Navigating the course contents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Viewing assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Submitting assignments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participating in discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7 To what extent have the following factors impacted your ability to participate in remote (online) education during the "shelter in place"?

	A great deal	A lot	A moderate amount	A little	None at all
Loss of a job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase in workload	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mental health concern (i.e. depression, anxiety)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of access to healthcare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Care for a dependent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Change in childcare support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8 Which of the following resources have you had issues accessing since the shift to distance education (remote/online classes)? Check all that apply.

- Access to a computer/or another similar device
- Internet access
- Health/medical care, including mental health (i.e. depression, anxiety)
- Psychological care and counseling
- Food
- Other (please specify) _____
- None of the above

9 How have you been accessing information regarding changes due to COVID-19 from FCC? Check all that apply.

- FCC website
- FCC emails
- FCC Facebook
- FCC Instagram
- FCC Twitter
- Other (please specify) _____

10 Feel free to provide any additional comments that you may have regarding the shift to online learning.

Appendix B: Results

I. Men of Color

This section reports the results from men of color including Black or African-American men, American Indian/Alaskan Native men, Hispanic men, and Southeast Asian men include Cambodian, Hmong, Laotian and Vietnamese. Figure 5, Race/Ethnicity of Men of Color Questionnaire Respondents, demonstrates numbers and percentages of men of color questionnaire respondents disaggregated by race/ethnicity.

Figure 5
Race/Ethnicity of Men of Color Questionnaire Respondents

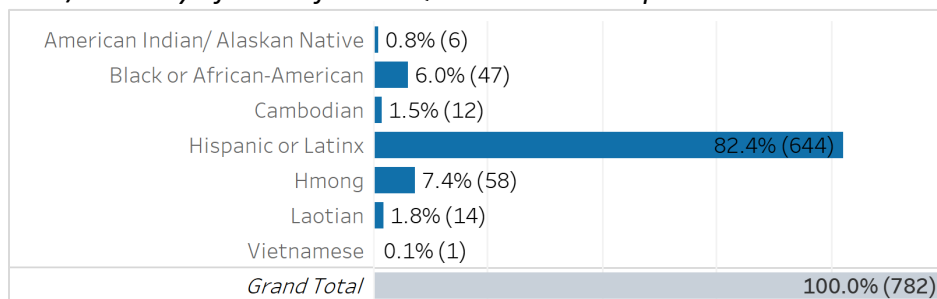


Figure 6, Men of Color DE Experience, shows DE experience of men of color who responded to the questionnaire. As can be seen in Figure 6, half of the Black or African-American males and American Indian/Alaskan Indian males who responded to the questionnaire had DE experience. However, the majority of Hispanic and Southeast Asian males who responded to the questionnaire did not have any prior DE experience.

Figure 6
Men of Color: DE Experience

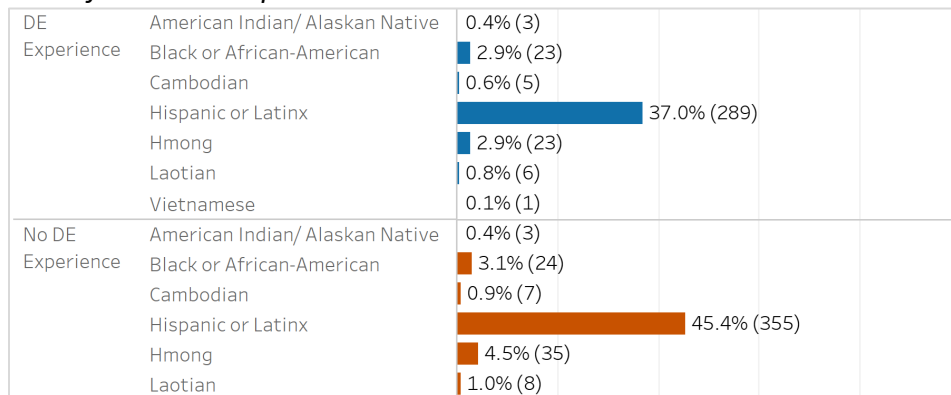


Figure 7, Men of Color Reliable High-Speed Internet Access, shows that among male students who completed the questionnaire, 0.9% of Black or African-American male students, 0.4% American Indian/Alaskan Native male students, 0.3% Cambodian male students, 1.2% Hmong male students, 0.4% Laotian male students, and 12.5% of Hispanic male students did not have reliable high-speed internet access. 0.3% of Black or African-American male students, 0.1%

Cambodian male students, 0.4% Hmong male students, and 3.6% of Hispanic male students also indicated that they are using the reliable high-speed internet connection at another location. Students who responded to the “other” option specified some concerns such as slow and not reliable internet access.

Figure 7
Men of Color: Reliable High-Speed Internet Access

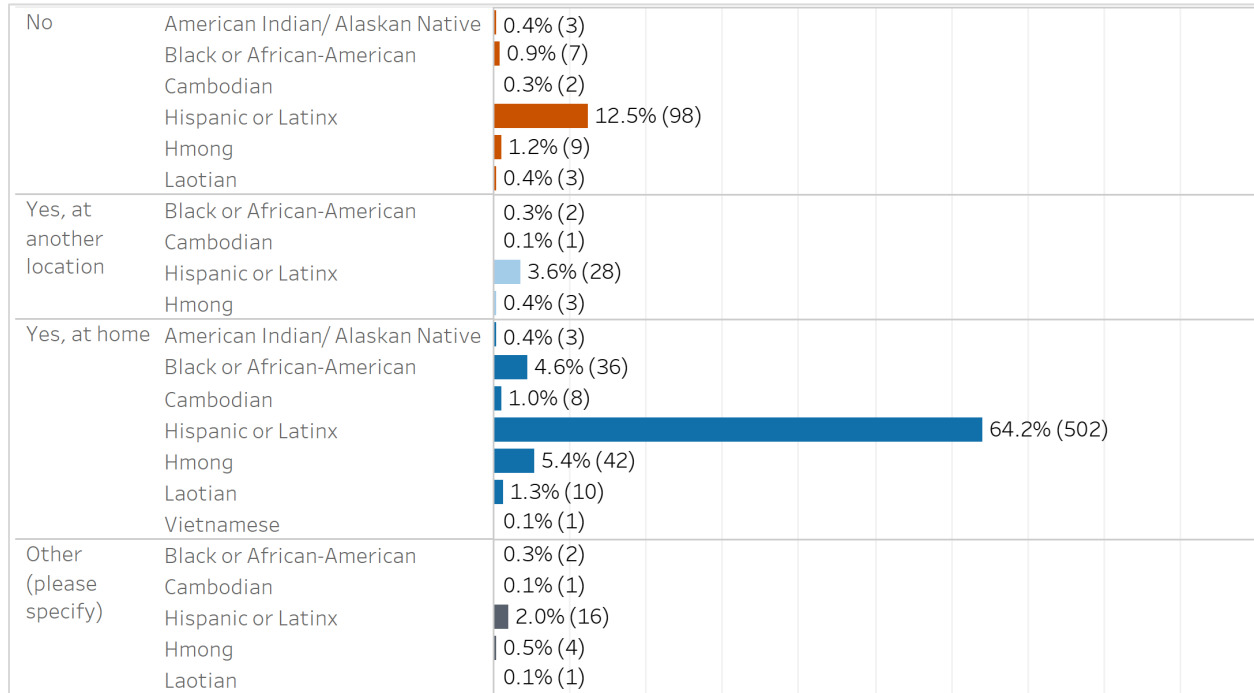
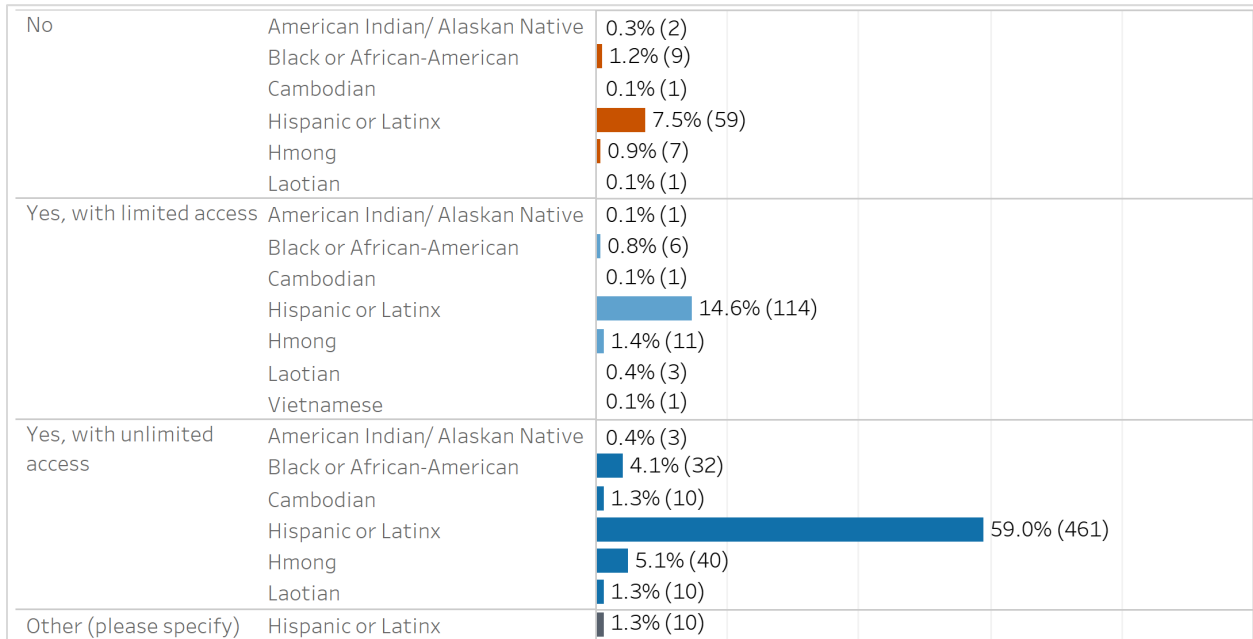


Figure 8, Men of Color Access to a computer (or similar device) to use for class meetings, readings, and homework, shows 1.2% of Black or African-American male students, 0.1% Cambodian male students, 0.9% Hmong male students, 0.1% Laotian male students, 0.3% American Indian/Alaskan Native male students and 7.5% Hispanic male students did not have access to a computer (or similar device) to use for class meetings, readings, and homework. 1.3% Hispanic male students specified struggles such as they had to use their cell phones to access to class meetings, readings, and homework.

Figure 8

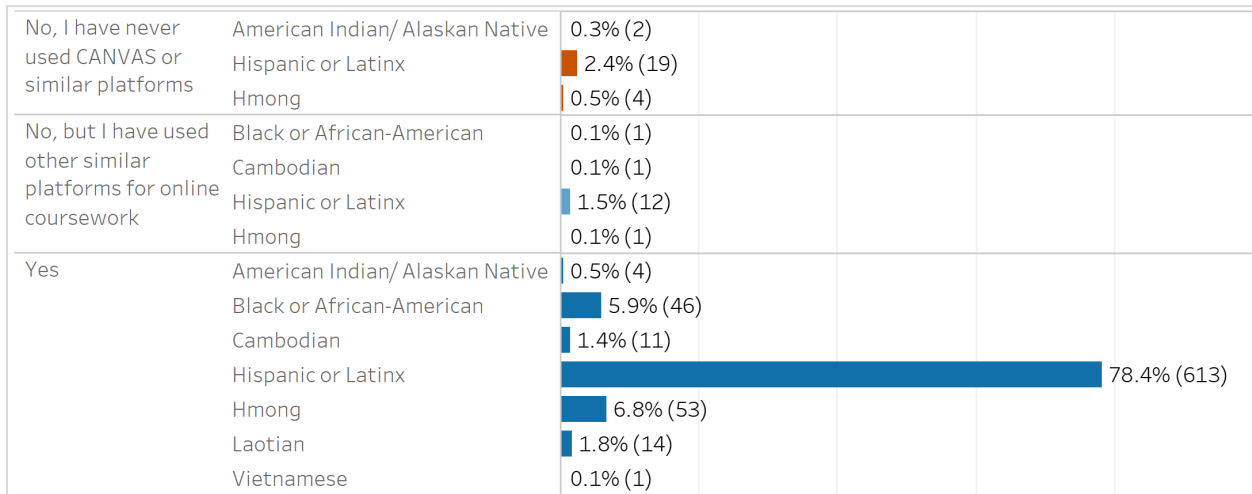
Men of Color: Access to a Computer (or similar device) to Use for Class Meetings, Readings, and Homework



Furthermore, the results demonstrated that men of color who responded to the questionnaire were mainly using their smartphones (545 responses) and computers (635 responses) to access their coursework remotely.

Figure 9, Men of Color Canvas Usage Experience, shows that 2.4% of Hispanic male students, 0.5% Hmong male students, and 0.3% American Indian/Alaskan Native male students who responded to the questionnaire indicated they never used Canvas or similar platforms before shifting to DE. 1.5% of Hispanic male students, 0.1% Cambodian male students, 0.1% Hmong male students, and 0.1% Black or African-American male students indicated that they have not used Canvas, but they used similar platforms.

Figure 9
Men of Color: Canvas Usage Experience



In addition, men of color who responded to the questionnaire indicated that in Canvas they were extremely or somewhat comfortable with navigating the course contents, viewing assignments, submitting assignments, and participating in discussions. Following figures 10 through 15 show how factors like loss of a job, increase in workload, mental health concerns, lack of access to healthcare, care for a dependent and change in childcare support impacted the ability of men of color who responded to the questionnaire to participate in online education during the “shelter in place”. Considering factors impacted their ability to participate in online education, men of color also mentioned factors like difficulty of shifting to DE, not having access to educational resources, increased family expectations, graduation, financial concerns, stress, course times, increasing work hours, poor environment to do classwork and ease of access to help for course work.

Figure 10
Men of Color Loss of a Job

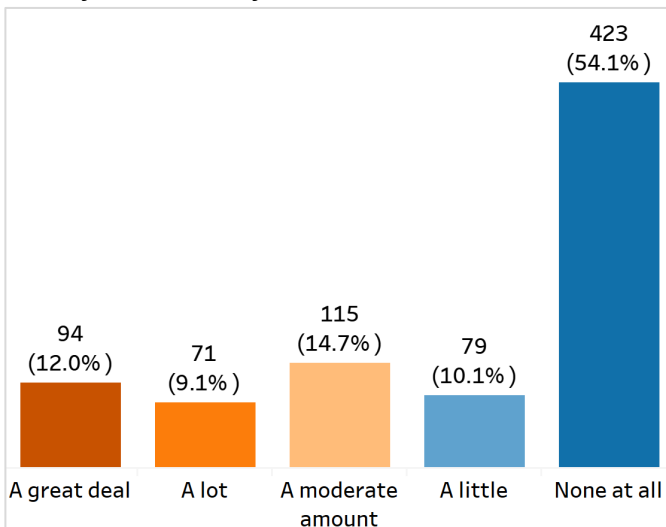


Figure 10, Men of Color Loss of a job, shows that 21% of men of color who responded to the questionnaire indicated that job loss had a great deal or a lot of impact on their ability to participate in online education during the “shelter in place”. 15% of men of color indicated that they were impacted by the loss of a job in a moderate amount, and 10% of men of color indicated that they were impacted a little by loss of a job. Thus, the results showed that 46% of men of color who responded to the questionnaire somewhat impacted by the loss of a job.

Figure 11, Men of Color Increase in workload, shows that 35% of men of color who responded to the questionnaire indicated that their workload increased a great deal or a lot, which impacted their ability to participate in online education during the “shelter in place”. 23% of students indicated that they were impacted by an increase in workload in a moderate amount, and 15% of students indicated that they were impacted a little by the increased workload. Thus, the results showed that 72% of men of color who responded to the questionnaire somewhat impacted by the increased workload to participate in online education during the “shelter in place”.

Figure 11
Men of Color Increase in Workload

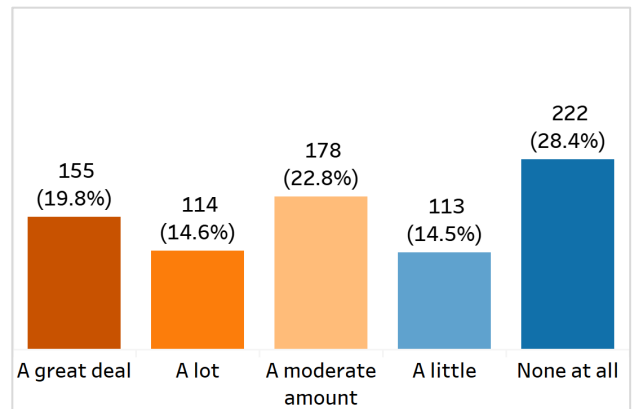


Figure 12
Men of Color Mental Health Concern

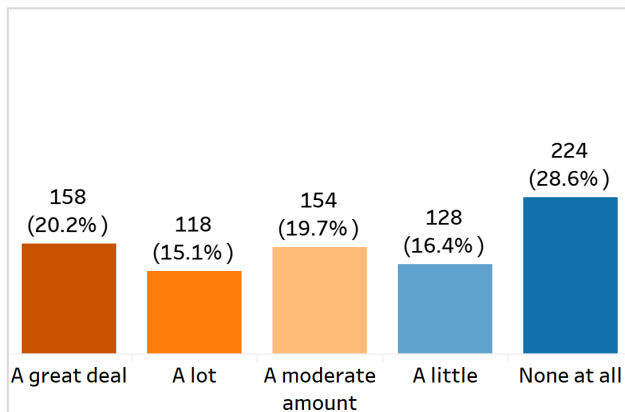


Figure 12, Men of Color Mental health concern, shows that 35% of men of color who responded to the questionnaire indicated that they have a great deal or a lot of mental health concerns. 20% of students indicated a moderate amount, and 16% of students indicated a little mental health concern. Thus, the results showed that 71% of men of color who responded to the questionnaire indicated mental health concerns to participate in online education during the “shelter in place”.

Figure 13, Men of Color Lack of access to healthcare, shows that 20% of men of color who responded to the questionnaire indicated that they do not have access to healthcare. 19% of students indicated that they have a moderate amount of access, and 16% of students indicated that they have little access to healthcare. Thus, the results showed that 55% of men of color who responded to the questionnaire had no or limited access to healthcare.

Figure 13
Men of Color Lack of Access to Healthcare

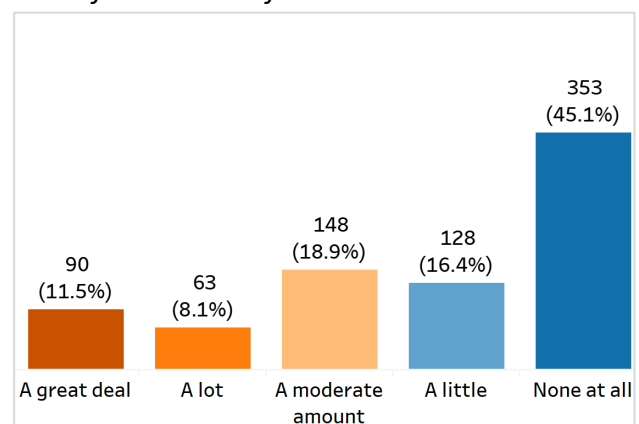


Figure 14
Men of Color Care for a Dependent

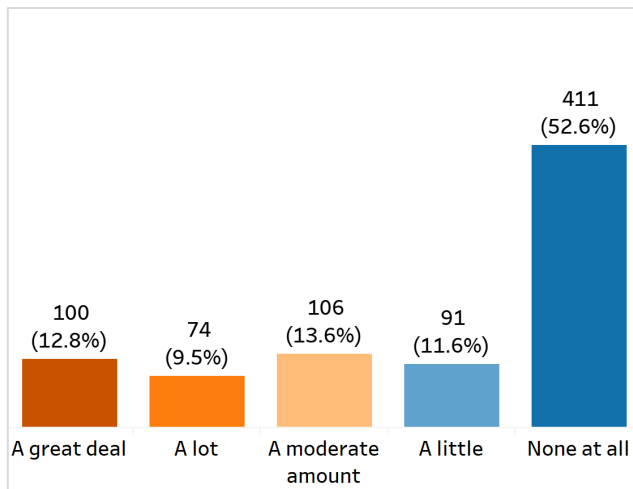
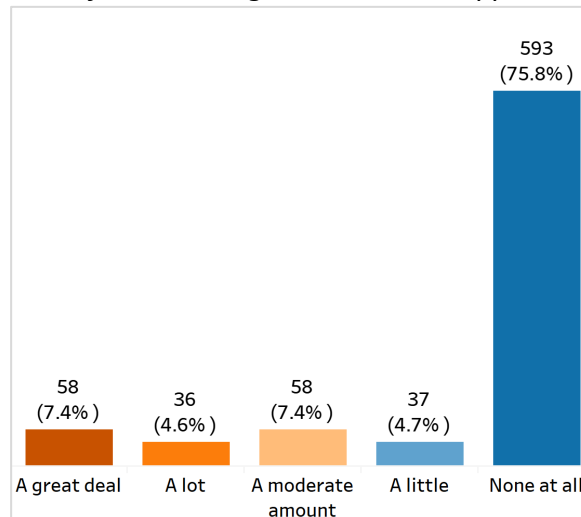


Figure 14, Men of Color Care for a dependent, shows that 23% of men of color who responded to the questionnaire indicated that they have to care for a dependent a great deal or a lot. 14% of students indicated that they care for a dependent in a moderate amount, and 12% of students indicated that they care for a dependent a little during the “shelter in place”. Thus, the results showed that 47% of men of color who responded to the questionnaire indicated that they have a dependent to care for, which impacts their ability to participate online education during the “shelter in place”.

Figure 15, Men of Color Change in childcare support, shows that 12% of men of color who responded to the questionnaire indicated that change in childcare support impacted their ability to participate in DE a great deal or a lot. 7% of students are moderately impacted, and 5% of students are a little impacted by the change in childcare support. Thus, the results showed that 24% of men of color who responded to the questionnaire are somewhat impacted by the change in childcare support to participate in online education during the “shelter in place”.

Figure 15
Men of Color Change in Childcare Support



Finally, men of color who responded to the questionnaire indicated that they have been accessing information regarding changes due to COVID-19 mainly from FCC emails (699 responses) or FCC website (325 responses). In addition, students indicated that they also used FCC Facebook (47 responses), FCC Instagram (47 responses), FCC Twitter (28 responses) and other resources (54 responses) like FCC texts or they heard the news from instructors or family and friends.

II. Students With No Prior DE Experience

Figure 16, Experience with DE, shows that 57% of students who completed the questionnaire had a prior fully online or hybrid learning experience. However, 43% of students who completed the questionnaire did not have prior experience with fully online or hybrid learning.

Figure 16
Experience with DE

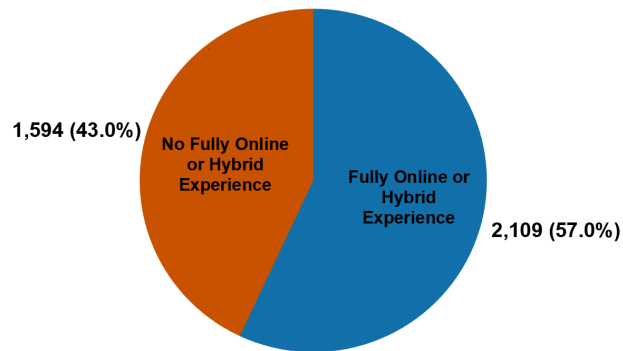


Figure 17, Reliable High-Speed Internet Access, shows that among students who did not have prior experience with DE, 75% of them indicated that they have reliable high-speed internet access at home. However, 16% of these students did not have access to reliable high-speed internet. In addition, among students who responded to the “other” option, 12 students specified that they have slow internet access, 34 students specified that their internet access is not reliable, 5 students specified that they used hotspot connection. Finally, 5% of students who did not have prior experience with DE indicated that they were relying on internet access at another location such as the college library.

Figure 17
Reliable High-Speed Internet Access

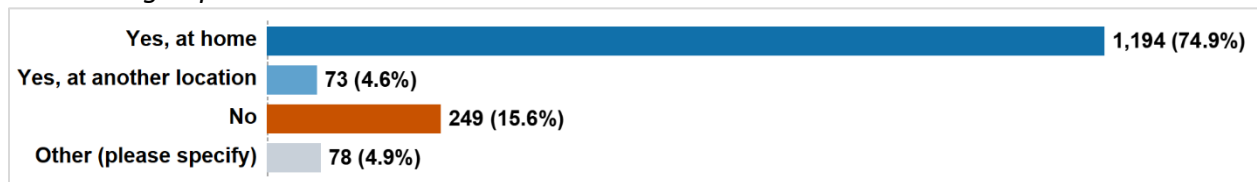
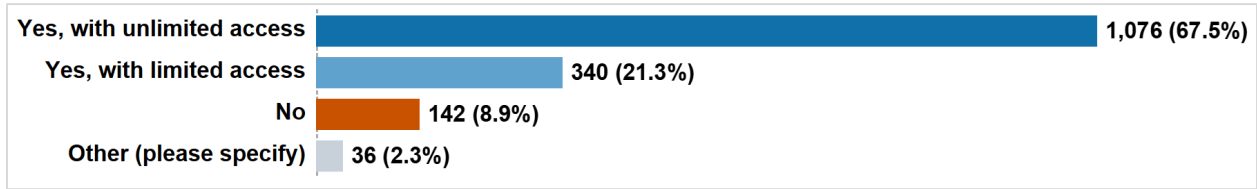


Figure 18, access to a computer (or similar device) to use for class meetings, readings, and homework, shows that among students who did not have prior experience with DE, 68% of students had unlimited access to a computer or similar device to use for class meetings, readings, and homework. On the other hand, 21% of these students indicated that they have limited access to a computer or similar device to use for class meetings, readings, and homework. 9% of students who did not have prior experience with DE also indicated that they do not have access to a computer or similar device to use for class meetings, readings, and homework. Finally, among 2% of students who specified their access to a computer or similar device mentioned that they borrowed a device from Library and Student Learning Support Services, they were sharing a device or they were using their phones.

Figure 18

Access to a Computer or Device



Furthermore, the results showed that the majority of students who did not have prior experience with DE indicated (1139 students out of 1594 students) they were using their computers and/or their phones to access their coursework remotely.

Figure 19, Canvas Usage Experience, shows that the majority of students (93%) who did not have prior experience with DE used Canvas before transitioning to DE. 2% of these students indicated that they did not use Canvas, but they used similar online platforms. However, 5% of students who did not have prior experience with DE also did not have experience with using Canvas or similar online platforms.

Figure 19

Canvas Usage Experience

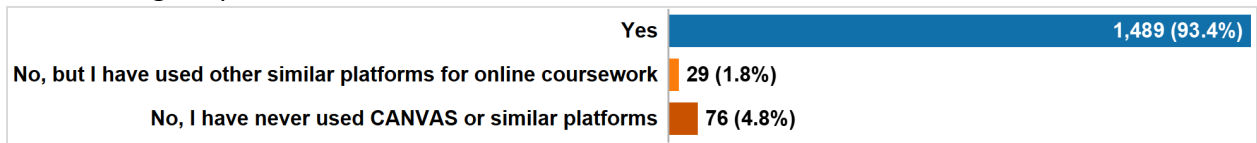
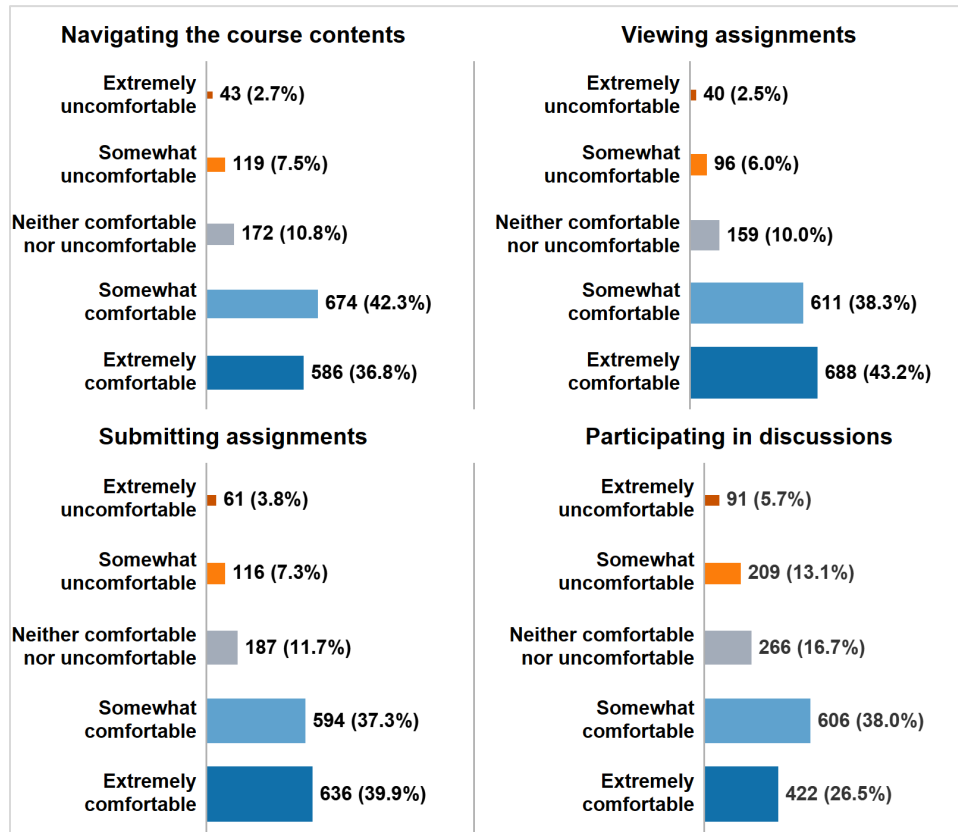


Figure 20, Canvas Usage Comfort Level, shows that the majority of students who did not have prior experience with DE indicated that in Canvas they were extremely or somewhat comfortable with navigating the course contents, viewing assignments, submitting assignments, and participating in discussions. On the other hand, approximately 10% to 20% of these students indicated that they are extremely or somewhat uncomfortable with navigating the course contents, viewing assignments, submitting assignments, and participating in discussions.

Figure 20
Canvas Usage Comfort Level



Figures 21 through 26 demonstrate how factors like loss of a job, increase in workload, mental health concerns, lack of access to healthcare, care for a dependent, and change in childcare support impacted the ability of students who did not have prior experience with DE to continue their education remotely during the “shelter in place” orders. Considering factors impacted their ability to participate in online education, students also mentioned factors like not having access to educational resources such as computer lab, printer, instructional software; not having access to other resources such as food, household items; the difficulty of transitioning to DE, adjusting, and instructional concerns like quality of instructions, catching up with homework. Students also mentioned financial concerns and additional concerns like communication with others, graduation, not having a study environment, overload of online work, stress, lack of access to instructional and counseling assistance are impacting their ability to participate in online education.

Figure 21, Loss of a job, demonstrates that 24% of students who did not have prior experience with DE indicated that job loss had a great deal or a lot of impact on their ability to participate in online education during the “shelter in place”. 15% of students indicated that they were impacted by the loss of a job in a moderate amount, and 12% of students indicated that they were impacted a little by loss of a job. Thus, the results showed that 51% of students who did not have prior experience with DE somewhat impacted by the loss of a job.

Figure 21
Loss of a Job

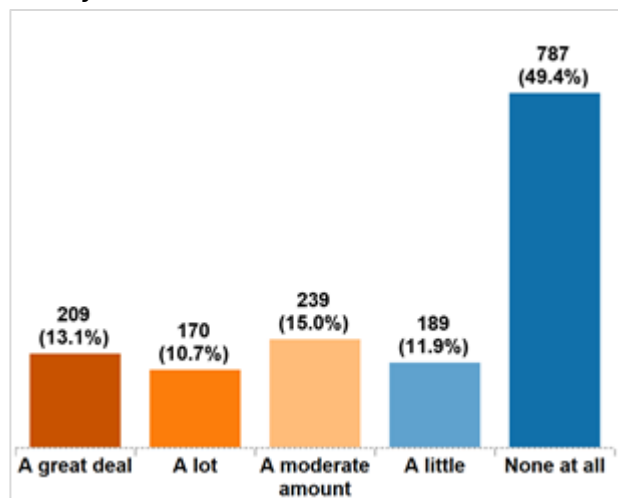


Figure 22
Increase in Workload

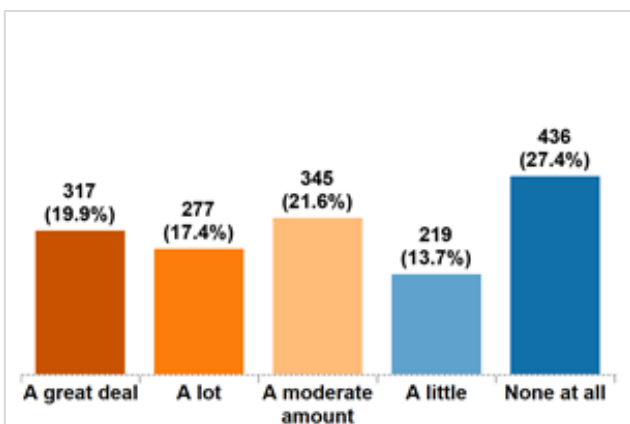
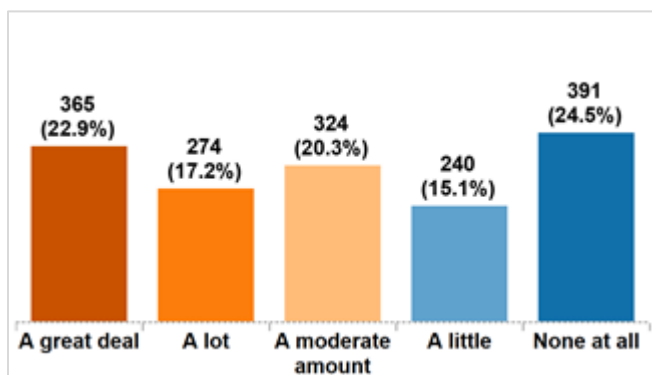


Figure 22, Increase in workload, demonstrates that 37% of students who did not have prior experience with DE indicated that their workload increased a great deal or a lot, which impacted their ability to participate in online education during the “shelter in place”. 22% of students indicated that they were impacted by an increase in workload in a moderate amount, and 14% of students indicated that they were impacted a little by the increased workload. Thus, the results showed that 73% of students who did not have prior experience with DE somewhat impacted by the increased workload to participate in online education during the “shelter in place”.

Figure 23, Mental health concern, demonstrates that 40% of students who did not have prior experience with DE indicated that they have a great deal or a lot of mental health concerns. 20% of students indicated a moderate amount, and 15% of students indicated a little mental health concern. Thus, the results showed that 75% of students who did not have prior experience with DE indicated mental health concerns to

Figure 23
Mental Health Concern



participate in online education during the “shelter in place”.

Figure 24

Lack of Access to Healthcare

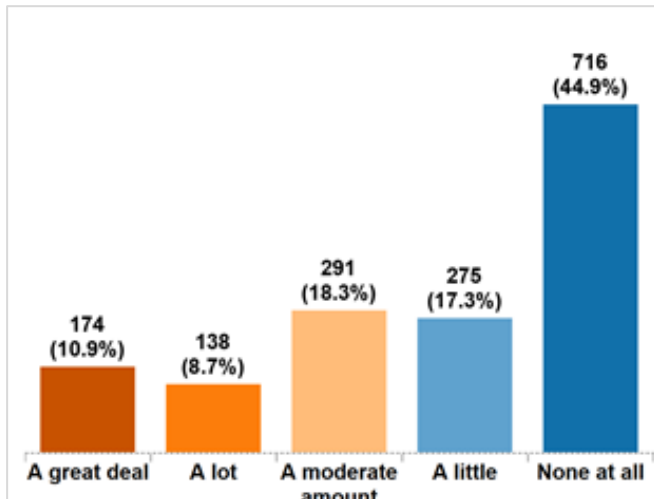


Figure 24, Lack of access to healthcare, demonstrates that 20% of students who did not have prior experience with DE indicated that they do not have access to healthcare. 18% of students indicated that they have a moderate amount of access, and 17% of students indicated that they have little access to healthcare. Thus, the results showed that 55% of students who did not have prior experience with DE had no or limited access to healthcare.

Figure 25, Care for a dependent, demonstrates that 25% of students who did not have prior experience with DE indicated that they have to care for a dependent a great deal or a lot. 14% of students indicated that they care for a dependent in a moderate amount, and 11% of students indicated that they care for a dependent a little during the “shelter in place.” Thus, the results showed that 50% of students who did not have prior experience with DE indicated that they have a dependent to care for, which impacts their ability to participate online education during the “shelter in place”.

Figure 25

Care for a Dependent

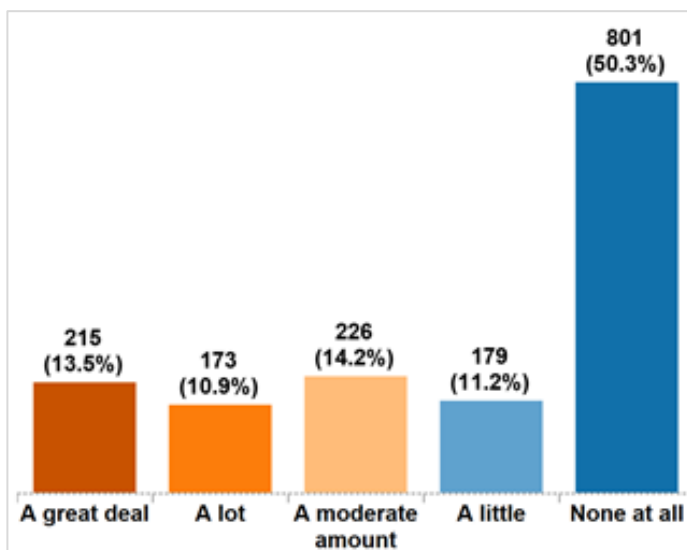


Figure 26
Change in Childcare Support

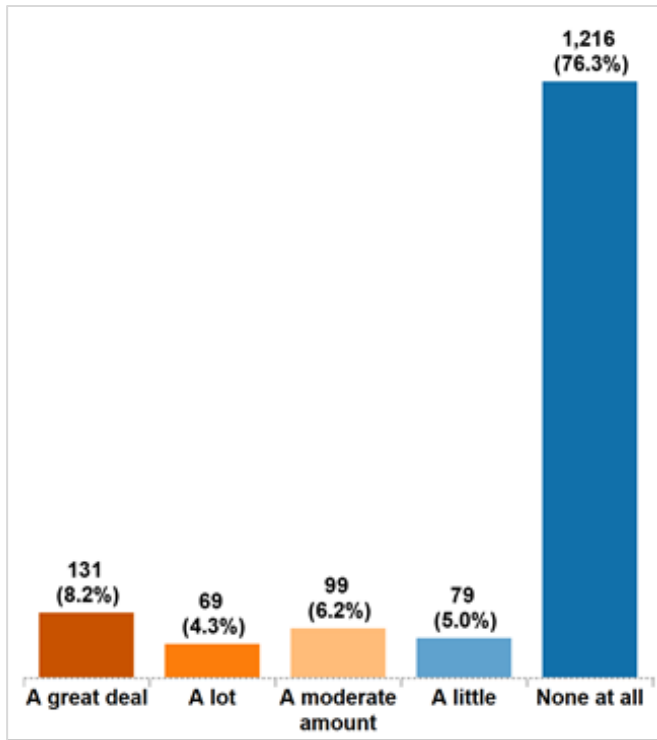


Figure 26, Change in childcare support, demonstrates that 12% of students who did not have prior experience with DE indicated that change in childcare support impacted their ability to participate in DE a great deal or a lot. 6% of students are moderately impacted, and 5% of students are a little impacted by a change in childcare support. Thus, the results showed that 24% of students who did not have prior experience with DE are somewhat impacted by a change in childcare support to participate in online education during the “shelter in place”.

Finally, students who did not have prior experience with DE indicated that they have been accessing information regarding changes due to COVID-19 mainly from FCC emails only (783 students out of 1594 students) or FCC website only (406 students out of 1594 students) or both FCC emails and FCC website (406 students out of 1594 students).

III. Overall

This section reports the results from the overall students who completed the questionnaire. Figure 27, Race/Ethnicity of Overall Respondents, demonstrates numbers and percentages of overall questionnaire respondents disaggregated by race/ethnicity.

Figure 27
Race/Ethnicity of Overall Respondents

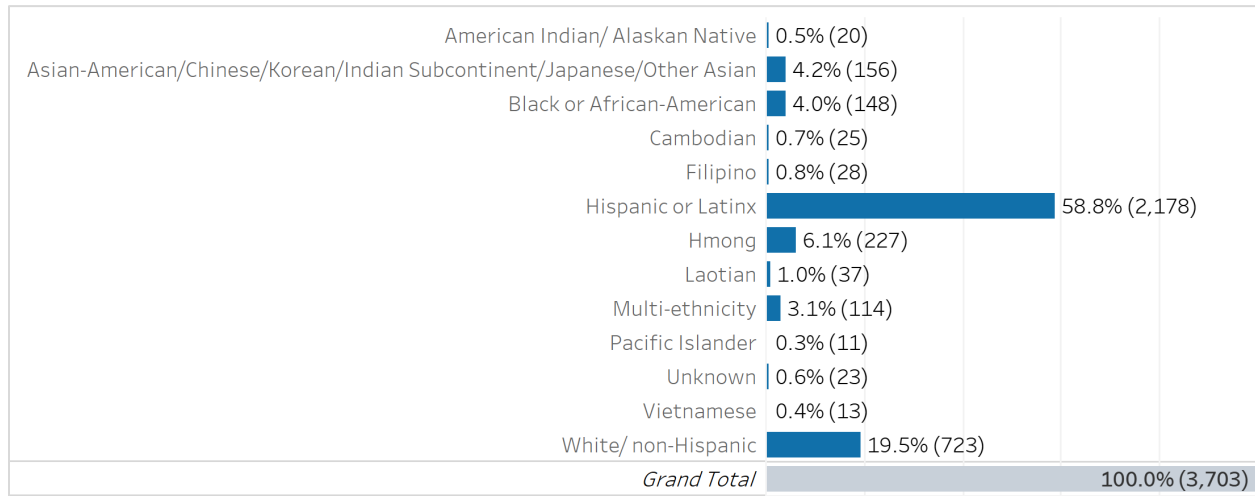


Figure 28, Overall DE Experience, demonstrates DE experience of overall students who responded to the questionnaire. As can be seen in Figure 28, 43% of students who completed the questionnaire did not have prior experience with fully online or hybrid learning. Data were also disaggregated by race/ethnicity.

Figure 28
Overall: DE Experience

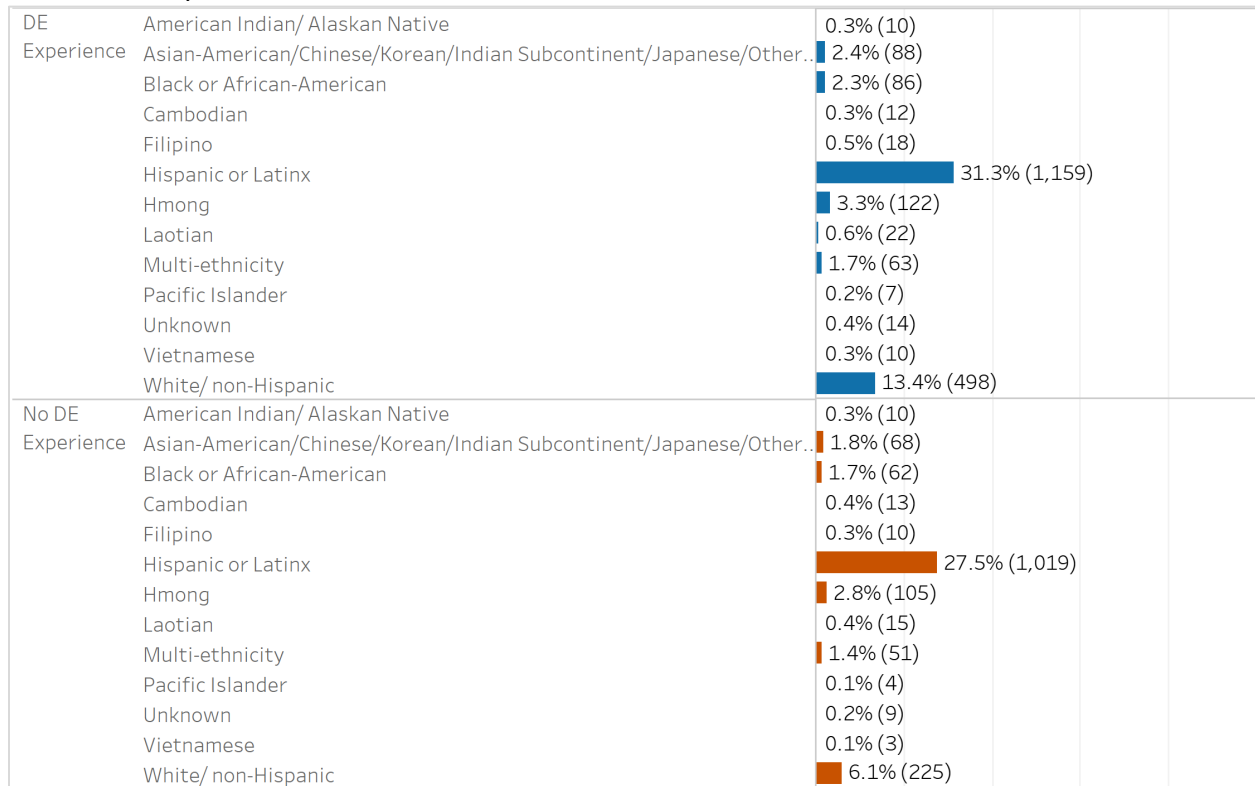


Figure 29, Overall Reliable High-Speed Internet Access, demonstrates that 80% of students who responded to the questionnaire indicated that they have reliable high-speed internet access at home. However, 12% of overall students indicated that they did not have access to reliable high-speed internet. In addition, 4% of students indicated that they were relying on internet access at another location.

Figure 29
Overall: Reliable High-Speed Internet Access

No	American Indian/ Alaskan Native	0.2% (7)	
	Asian-American/Chinese/Korean/Indian Subcontinent/Japanese/Other Asian	0.6% (23)	
	Black or African-American	0.6% (22)	
	Cambodian	0.1% (3)	
	Filipino	0.0% (1)	
	Hispanic or Latinx	7.5% (278)	
	Hmong	0.8% (28)	
	Laotian	0.1% (4)	
	Multi-ethnicity	0.3% (12)	
	Pacific Islander	0.0% (1)	
	Unknown	0.0% (1)	
	Vietnamese	0.1% (2)	
	White/ non-Hispanic	1.2% (44)	
	Yes, at another location	American Indian/ Alaskan Native	0.0% (1)
Asian-American/Chinese/Korean/Indian Subcontinent/Japanese/Other Asian		0.1% (5)	
Black or African-American		0.1% (3)	
Cambodian		0.0% (1)	
Filipino		0.1% (2)	
Hispanic or Latinx		2.6% (98)	
Hmong		0.3% (11)	
Laotian		0.0% (1)	
Multi-ethnicity		0.1% (2)	
Unknown		0.0% (1)	
White/ non-Hispanic		0.6% (21)	
Yes, at home	American Indian/ Alaskan Native	0.3% (11)	
	Asian-American/Chinese/Korean/Indian Subcontinent/Japanese/Other Asian	3.3% (121)	
	Black or African-American	3.1% (115)	
	Cambodian	0.5% (18)	
	Filipino	0.7% (25)	
	Hispanic or Latinx	46.4% (1,719)	
	Hmong	4.8% (179)	
	Laotian	0.8% (30)	
	Multi-ethnicity	2.6% (97)	
	Pacific Islander	0.3% (10)	
	Unknown	0.5% (20)	
Vietnamese	0.3% (11)		
White/ non-Hispanic	16.7% (620)		
Other (please specify)	American Indian/ Alaskan Native	0.0% (1)	
	Asian-American/Chinese/Korean/Indian Subcontinent/Japanese/Other Asian	0.2% (7)	
	Black or African-American	0.2% (8)	
	Cambodian	0.1% (3)	
	Hispanic or Latinx	2.2% (83)	
	Hmong	0.2% (9)	
	Laotian	0.1% (2)	
	Multi-ethnicity	0.1% (3)	
	Unknown	0.0% (1)	
	White/ non-Hispanic	1.0% (38)	

Figure 30, Overall Access to a computer (or similar device) to use for class meetings, readings, and homework, demonstrates that among students who responded to the questionnaire, 74% of students had unlimited access to a computer or similar device. On the other hand, 18% of overall students indicated that they have limited access to a computer or similar device to use for class meetings, readings, and homework. 6% of students also indicated that they do not have access to a computer or similar device to use for class meetings, readings, and homework.

Figure 30

Overall: Access to a Computer (or similar device) to Use for Class Meetings, Readings, and Homework

No	American Indian/ Alaskan Native	0.1% (3)	
	Asian-American/Chinese/Korean/Indian Subcontinent/Japanese/Other Asian	0.2% (6)	
	Black or African-American	0.5% (18)	
	Cambodian	0.1% (2)	
	Filipino	0.1% (3)	
	Hispanic or Latinx	4.0% (148)	
	Hmong	0.6% (21)	
	Laotian	0.1% (2)	
	Multi-ethnicity	0.2% (7)	
	Pacific Islander	0.1% (2)	
	Unknown	0.0% (1)	
	White/ non-Hispanic	0.4% (15)	
	Yes, with limited access	American Indian/ Alaskan Native	0.1% (4)
Asian-American/Chinese/Korean/Indian Subcontinent/Japanese/Other Asian		1.0% (38)	
Black or African-American		0.7% (26)	
Cambodian		0.1% (5)	
Filipino		0.1% (2)	
Hispanic or Latinx		11.2% (416)	
Hmong		1.1% (39)	
Laotian		0.1% (5)	
Multi-ethnicity		0.4% (16)	
Pacific Islander		0.1% (2)	
Unknown		0.1% (5)	
Vietnamese		0.1% (3)	
White/ non-Hispanic		2.6% (98)	
Yes, with unlimited access	American Indian/ Alaskan Native	0.3% (12)	
	Asian-American/Chinese/Korean/Indian Subcontinent/Japanese/Other Asian	3.0% (111)	
	Black or African-American	2.8% (102)	
	Cambodian	0.5% (17)	
	Filipino	0.6% (23)	
	Hispanic or Latinx	42.3% (1,566)	
	Hmong	4.5% (165)	
	Laotian	0.8% (30)	
	Multi-ethnicity	2.4% (89)	
	Pacific Islander	0.2% (7)	
	Unknown	0.5% (17)	
	Vietnamese	0.3% (10)	
	White/ non-Hispanic	16.0% (594)	
Other (please specify)	American Indian/ Alaskan Native	0.0% (1)	
	Asian-American/Chinese/Korean/Indian Subcontinent/Japanese/Other Asian	0.0% (1)	
	Black or African-American	0.1% (2)	
	Cambodian	0.0% (1)	
	Hispanic or Latinx	1.3% (48)	
	Hmong	0.1% (2)	
	Multi-ethnicity	0.1% (2)	
White/ non-Hispanic	0.4% (16)		

Figure 31, Overall Canvas Usage Experience, demonstrates that 2.3% of students who responded to the questionnaire indicated they never used Canvas or similar platforms before transitioning DE. 1.7% of students indicated that they have not used Canvas, but they used similar platforms. The majority of students (96%) indicated that they have used Canvas or similar platforms before transitioning DE.

Figure 31
Overall: Canvas Usage Experience

No, I have never used CANVAS or similar platforms	American Indian/ Alaskan Native	0.1% (3)			
	Asian-American/Chinese/Korean/Indian Subcontinent/Japanese/Other Asian	0.1% (3)			
	Black or African-American	0.1% (3)			
	Hispanic or Latinx	1.3% (49)			
	Hmong	0.2% (7)			
	Laotian	0.0% (1)			
	Multi-ethnicity	0.1% (3)			
	Unknown	0.0% (1)			
No, but I have used other similar platforms for online coursework	White/ non-Hispanic	0.5% (17)			
	Asian-American/Chinese/Korean/Indian Subcontinent/Japanese/Other Asian	0.0% (1)			
	Black or African-American	0.1% (2)			
	Cambodian	0.1% (2)			
	Hispanic or Latinx	1.0% (36)			
	Hmong	0.1% (5)			
	Pacific Islander	0.0% (1)			
	Vietnamese	0.0% (1)			
Yes	White/ non-Hispanic	0.4% (16)			
	American Indian/ Alaskan Native	0.5% (17)			
	Asian-American/Chinese/Korean/Indian Subcontinent/Japanese/Other Asian	4.1% (152)			
	Black or African-American	3.9% (143)			
	Cambodian	0.6% (23)			
	Filipino	0.8% (28)			
	Hispanic or Latinx	56.5% (2,093)			
	Hmong	5.8% (215)			
	Laotian	1.0% (36)			
	Multi-ethnicity	3.0% (111)			
	Pacific Islander	0.3% (10)			
	Unknown	0.6% (22)			
	Vietnamese	0.3% (12)			
White/ non-Hispanic	18.6% (690)				

In addition, students who responded to the questionnaire indicated that in Canvas they were extremely or somewhat comfortable with navigating the course contents, viewing assignments, submitting assignments, and participating in discussions. Following figures 32 through 37 show how factors like loss of a job, increase in workload, mental health concerns, lack of access to healthcare, care for a dependent and change in childcare support impacted the ability of overall students who responded to the questionnaire to participate in online education during the “shelter in place”.

Figure 32
Overall Loss of a Job

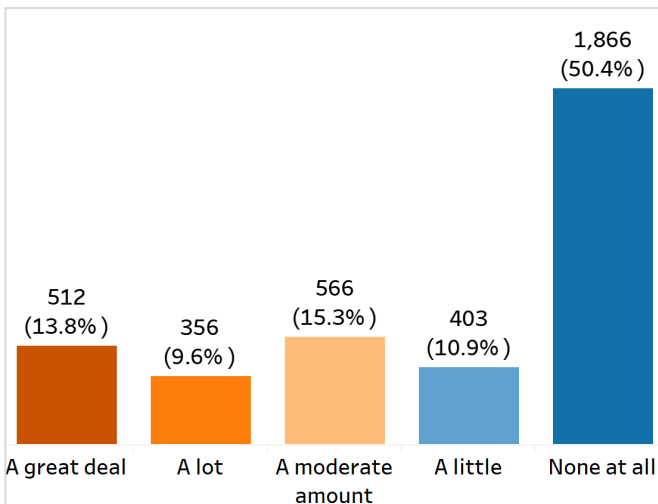


Figure 32, Overall Loss of a job, demonstrates that 24% of students who responded to the questionnaire indicated that job loss had a great deal or a lot of impact on their ability to participate in online education during the “shelter in place”. 15% of students indicated that they were impacted by the loss of a job in a moderate amount, and 11% of students indicated that they were impacted a little by loss of a job. Thus, the results showed that 50% of students who responded to the questionnaire somewhat impacted by the loss of a job.

Figure 33, Overall Increase in workload, demonstrates that 40% of students who responded to the questionnaire indicated that their workload increased a great deal or a lot, which impacted their ability to participate in online education during the “shelter in place”. 22% of students indicated that they were impacted by an increase in workload in a moderate amount, and 13% of students indicated that they were impacted a little by the increased workload. Thus, the results showed that 75% of students who responded to the questionnaire somewhat impacted by the increased workload to participate in online education during the “shelter in place”.

Figure 33
Overall Increase in Workload

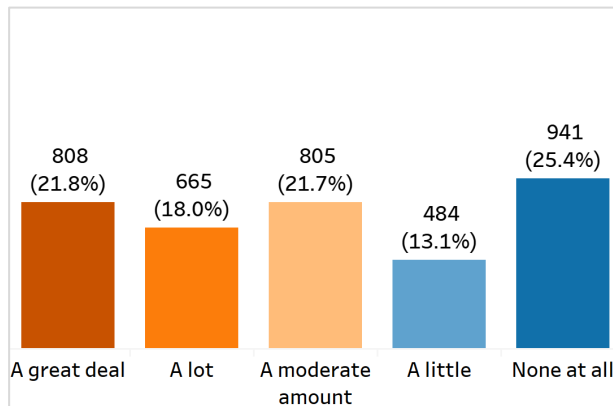


Figure 34
Overall Mental Health Concern

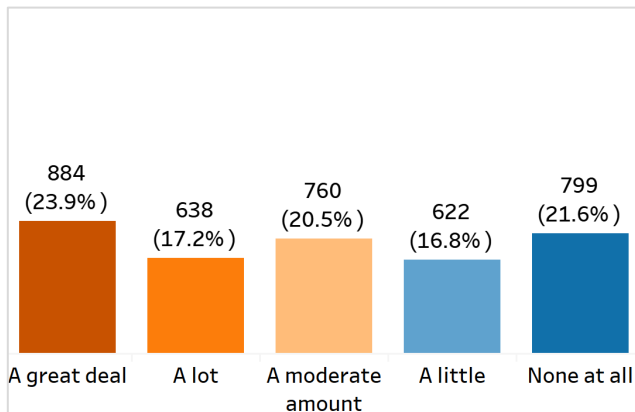


Figure 34, Overall Mental health concern, demonstrates that 41% of students who responded to the questionnaire indicated that they have a great deal or a lot of mental health concerns. 21% of students indicated a moderate amount, and 17% of students indicated a little mental health concern. Thus, the results showed that 78% of students who responded to the questionnaire indicated mental health concerns to participate in online education during the “shelter in place”.

Figure 35, Overall Lack of access to healthcare, shows that 19% of students who responded to the questionnaire indicated that they do not have access to healthcare. 18% of students indicated that they have a moderate amount of access, and 17% of students indicated that they have little access to healthcare. Thus, the results showed that 54% of students who responded to the questionnaire had no or limited access to healthcare.

Figure 35
Overall Lack of Access to Healthcare

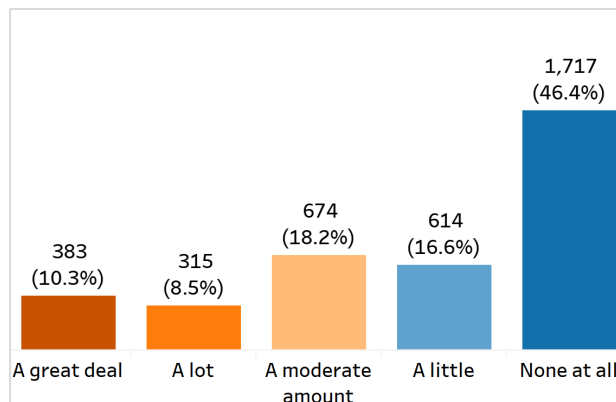


Figure 36
Overall Care for a Dependent

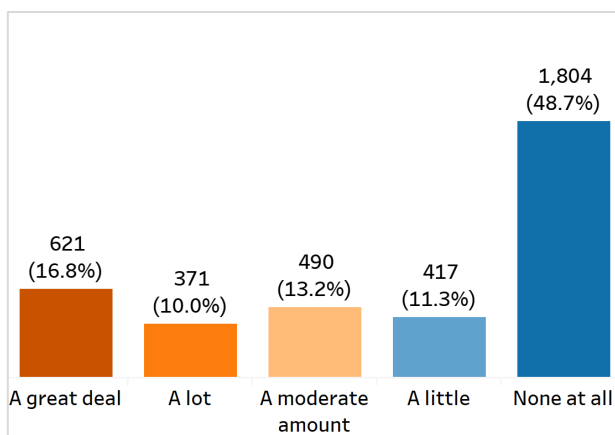
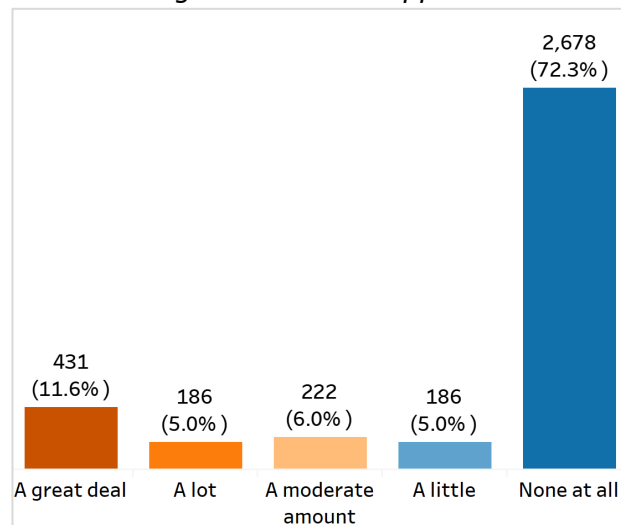


Figure 36, Students Care for a dependent, demonstrates that 27% of students who responded to the questionnaire indicated that they have to care for a dependent a great deal or a lot. 13% of students indicated that they care for a dependent in a moderate amount, and 11% of students indicated that they care for a dependent a little during the “shelter in place”. Thus, the results showed that 51% of students who responded to the questionnaire indicated that they have a dependent to care for, which impacts their ability to participate online education during the “shelter in place”.

Figure 37, Overall Change in childcare support, shows that 17% of students who responded to the questionnaire indicated that change in childcare support impacted their ability to participate in DE a great deal or a lot. 6% of students are moderately impacted, and 5% of students are a little impacted by the change in childcare support. Thus, the results showed that 28% of students who responded to the questionnaire are somewhat impacted by the change in childcare support to participate in online education during the “shelter in place”.

Figure 37
Overall Change in Childcare Support



Finally, students who responded to the questionnaire indicated that they have been accessing information regarding changes due to COVID-19 mainly from FCC emails (3364 responses) or FCC website (1476 responses). In addition, students indicated that they also used FCC Facebook (309 responses), FCC Instagram (252 responses), FCC Twitter (112 responses) and other resources (302 responses) like FCC texts or they heard the news from instructors or family and friends.

Appendix C: Prior DE Experience Comparison Tables

Table I.20

Navigating the course contents on CANVAS – students with prior DE experience

Q6 - How comfortable are you with the following in CANVAS? Navigating the course contents (DE Experience: Yes)		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	Extremely & Somewhat uncomfortable	4.6% (48)	6.9% (24)	4.0% (1)	5.1% (73)
	Extremely & Somewhat comfortable	90.5% (947)	87.7% (307)	88.0% (22)	89.8% (1,276)
	Neither comfortable nor uncomfortable	4.9% (51)	5.4% (19)	8.0% (2)	5.1% (72)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	Extremely & Somewhat uncomfortable	4.2% (21)	7.6% (12)	13.3% (2)	5.2% (35)
	Extremely & Somewhat comfortable	93.2% (467)	81.6% (129)	86.7% (13)	90.4% (609)
	Neither comfortable nor uncomfortable	2.6% (13)	10.8% (17)		4.5% (30)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	Extremely & Somewhat uncomfortable	11.1% (1)	50.0% (1)		14.3% (2)
	Extremely & Somewhat comfortable	88.9% (8)	50.0% (1)	100.0% (3)	85.7% (12)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
	Grand Total	100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

Table I.21

Viewing assignments on CANVAS – students with prior DE experience

Q6 - How comfortable are you with the following in CANVAS? Viewing assignments (DE Experience: Yes)		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	Extremely & Somewhat uncomfortable	4.2% (44)	6.3% (22)	4.0% (1)	4.7% (67)
	Extremely & Somewhat comfortable	89.9% (940)	90.3% (316)	88.0% (22)	89.9% (1,278)
	Neither comfortable nor uncomfortable	5.9% (62)	3.4% (12)	8.0% (2)	5.3% (76)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	Extremely & Somewhat uncomfortable	3.8% (19)	8.2% (13)	13.3% (2)	5.0% (34)
	Extremely & Somewhat comfortable	93.2% (467)	82.3% (130)	86.7% (13)	90.5% (610)
	Neither comfortable nor uncomfortable	3.0% (15)	9.5% (15)		4.5% (30)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	Extremely & Somewhat uncomfortable	11.1% (1)	50.0% (1)		14.3% (2)
	Extremely & Somewhat comfortable	88.9% (8)	50.0% (1)	100.0% (3)	85.7% (12)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
	Grand Total	100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

Table I.22

Submitting assignments on CANVAS – students with prior DE experience

Q6 - How comfortable are you with the following in CANVAS? Submitting assignments (DE Experience: Yes)		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	Extremely & Somewhat uncomfortable	5.5% (58)	6.3% (22)	8.0% (2)	5.8% (82)
	Extremely & Somewhat comfortable	88.7% (928)	89.7% (314)	84.0% (21)	88.9% (1,263)
	Neither comfortable nor uncomfortable	5.7% (60)	4.0% (14)	8.0% (2)	5.3% (76)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	Extremely & Somewhat uncomfortable	3.6% (18)	10.1% (16)	13.3% (2)	5.3% (36)
	Extremely & Somewhat comfortable	91.8% (460)	84.8% (134)	86.7% (13)	90.1% (607)
	Neither comfortable nor uncomfortable	4.6% (23)	5.1% (8)		4.6% (31)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	Extremely & Somewhat uncomfortable	11.1% (1)	50.0% (1)		14.3% (2)
	Extremely & Somewhat comfortable	88.9% (8)	50.0% (1)	100.0% (3)	85.7% (12)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
	Grand Total	100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

Table I.23

Participating in discussions on CANVAS – students with prior DE experience

Q6 - How comfortable are you with the following in CANVAS? Participating in discussions (DE Experience: Yes)		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	Extremely & Somewhat uncomfortable	10.5% (110)	11.4% (40)	16.0% (4)	10.8% (154)
	Extremely & Somewhat comfortable	79.4% (831)	76.3% (267)	72.0% (18)	78.5% (1,116)
	Neither comfortable nor uncomfortable	10.0% (105)	12.3% (43)	12.0% (3)	10.6% (151)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	Extremely & Somewhat uncomfortable	7.6% (38)	17.7% (28)	13.3% (2)	10.1% (68)
	Extremely & Somewhat comfortable	86.8% (435)	70.3% (111)	73.3% (11)	82.6% (557)
	Neither comfortable nor uncomfortable	5.6% (28)	12.0% (19)	13.3% (2)	7.3% (49)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	Extremely & Somewhat uncomfortable	11.1% (1)	50.0% (1)		14.3% (2)
	Extremely & Somewhat comfortable	77.8% (7)	50.0% (1)	100.0% (3)	78.6% (11)
	Neither comfortable nor uncomfortable	11.1% (1)			7.1% (1)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
Grand Total		100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

Table II.24

Access to resources – students with prior DE experience

Q8 - Which of the following resources have you had issues accessing since the shift to distance education (remote/online classes)? [DE experience: Yes]		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	1+: Access to a computer/or another similar device,F..	26.5% (277)	22.9% (80)	28.0% (7)	25.6% (364)
	1 resource: Access to a computer/or another similar ..	27.4% (287)	28.9% (101)	16.0% (4)	27.6% (392)
	Other (please specify) & Other (please specify),None ..	5.4% (57)	5.4% (19)	8.0% (2)	5.5% (78)
	None of the above	40.6% (425)	42.9% (150)	48.0% (12)	41.3% (587)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	1+: Access to a computer/or another similar device,F..	24.0% (120)	19.0% (30)	40.0% (6)	23.1% (156)
	1 resource: Access to a computer/or another similar ..	22.0% (110)	13.9% (22)	20.0% (3)	20.0% (135)
	Other (please specify) & Other (please specify),None ..	4.4% (22)	8.2% (13)	6.7% (1)	5.3% (36)
	None of the above	49.7% (249)	58.9% (93)	33.3% (5)	51.5% (347)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	1+: Access to a computer/or another similar device,F..	11.1% (1)	50.0% (1)	33.3% (1)	21.4% (3)
	1 resource: Access to a computer/or another similar ..	55.6% (5)			35.7% (5)
	Other (please specify) & Other (please specify),None ..	11.1% (1)		33.3% (1)	14.3% (2)
	None of the above	22.2% (2)	50.0% (1)	33.3% (1)	28.6% (4)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
Grand Total		100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

Table II.25

Internet access – students with prior DE experience

Q2 - Do you have reliable high-speed internet access from your home or another location? [DE experience: Yes]

		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	No	9.0% (94)	11.7% (41)	16.0% (4)	9.8% (139)
	Yes, at home & another location	87.6% (916)	85.7% (300)	80.0% (20)	87.0% (1,236)
	Other	3.4% (36)	2.6% (9)	4.0% (1)	3.2% (46)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	No	6.0% (30)	4.4% (7)		5.5% (37)
	Yes, at home & another location	89.4% (448)	91.8% (145)	93.3% (14)	90.1% (607)
	Other	4.6% (23)	3.8% (6)	6.7% (1)	4.5% (30)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	No	11.1% (1)			7.1% (1)
	Yes, at home & another location	77.8% (7)	100.0% (2)	100.0% (3)	85.7% (12)
	Other	11.1% (1)			7.1% (1)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
Grand Total		100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

Table II.26

Devices used to access coursework remotely – students with prior DE experience

Q4 - Which of the following do you have available to access your coursework remotely? [DE experience: Yes]

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	Basic cell phone w/ web access/Smartpho..	7.5% (78)	8.3% (29)	12.0% (3)	7.7% (110)
	Computer/ipad only OR Computer/ipad an..	91.9% (961)	90.9% (318)	88.0% (22)	91.6% (1,301)
	Other	0.7% (7)	0.9% (3)		0.7% (10)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	Basic cell phone w/ web access/Smartpho..	2.6% (13)	3.8% (6)		2.8% (19)
	Computer/ipad only OR Computer/ipad an..	96.2% (482)	94.9% (150)	100.0% (15)	96.0% (647)
	Other	1.2% (6)	1.3% (2)		1.2% (8)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	Basic cell phone w/ web access/Smartpho..	11.1% (1)			7.1% (1)
	Computer/ipad only OR Computer/ipad an..	88.9% (8)	100.0% (2)	100.0% (3)	92.9% (13)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
	Grand Total	100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

Table II.27

Computer access – students with prior DE experience

Q3 - Do you have unlimited access to a computer (or similar device) that you can use for things like class meetings, readings, and homework? [DE experience: Yes]

		Female	Male	Unknown/Unr..	Grand Total
Students of Color Group:	No	4.5% (47)	6.3% (22)	4.0% (1)	4.9% (70)
	Yes, with unlimited & limited access	93.9% (982)	92.6% (324)	92.0% (23)	93.5% (1,329)
	Other	1.6% (17)	1.1% (4)	4.0% (1)	1.5% (22)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	No	1.8% (9)	3.8% (6)		2.2% (15)
	Yes, with unlimited & limited access	96.0% (481)	93.7% (148)	100.0% (15)	95.5% (644)
	Other	2.2% (11)	2.5% (4)		2.2% (15)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	No	11.1% (1)			7.1% (1)
	Yes, with unlimited & limited access	88.9% (8)	100.0% (2)	100.0% (3)	92.9% (13)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
	Grand Total	100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

Table III.28
Mental Health – *students with prior DE experience*

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a lit..	83.5% (873)	73.1% (256)	88.0% (22)	81.0% (1,151)
	None at all	16.5% (173)	26.9% (94)	12.0% (3)	19.0% (270)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a lit..	83.6% (419)	70.9% (112)	73.3% (11)	80.4% (542)
	None at all	16.4% (82)	29.1% (46)	26.7% (4)	19.6% (132)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	A great deal/a lot/a moderate amount/a lit..	55.6% (5)	50.0% (1)	66.7% (2)	57.1% (8)
	None at all	44.4% (4)	50.0% (1)	33.3% (1)	42.9% (6)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
Grand Total		100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

Table III.29
Increase in workload – *students with prior DE experience*

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	79.6% (833)	72.0% (252)	88.0% (22)	77.9% (1,107)
	None at all	20.4% (213)	28.0% (98)	12.0% (3)	22.1% (314)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	74.9% (375)	64.6% (102)	73.3% (11)	72.4% (488)
	None at all	25.1% (126)	35.4% (56)	26.7% (4)	27.6% (186)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	A great deal/a lot/a moderate amount/a little	55.6% (5)	100.0% (2)	66.7% (2)	64.3% (9)
	None at all	44.4% (4)		33.3% (1)	35.7% (5)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
Grand Total		100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

Table III.30
Lack of access to healthcare – *students with prior DE experience*

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	56.8% (594)	52.9% (185)	40.0% (10)	55.5% (789)
	None at all	43.2% (452)	47.1% (165)	60.0% (15)	44.5% (632)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	47.7% (239)	41.8% (66)	46.7% (7)	46.3% (312)
	None at all	52.3% (262)	58.2% (92)	53.3% (8)	53.7% (362)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	A great deal/a lot/a moderate amount/a little	55.6% (5)	50.0% (1)	33.3% (1)	50.0% (7)
	None at all	44.4% (4)	50.0% (1)	66.7% (2)	50.0% (7)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
Grand Total		100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

Table III.31
Loss of a job – *students with prior DE experience*

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	53.7% (562)	43.1% (151)	40.0% (10)	50.9% (723)
	None at all	46.3% (484)	56.9% (199)	60.0% (15)	49.1% (698)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	47.5% (238)	37.3% (59)	33.3% (5)	44.8% (302)
	None at all	52.5% (263)	62.7% (99)	66.7% (10)	55.2% (372)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	A great deal/a lot/a moderate amount/a little	44.4% (4)		33.3% (1)	35.7% (5)
	None at all	55.6% (5)	100.0% (2)	66.7% (2)	64.3% (9)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
Grand Total		100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

Table III.32
Care for dependent – *students with prior DE experience*

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	57.9% (606)	47.1% (165)	48.0% (12)	55.1% (783)
	None at all	42.1% (440)	52.9% (185)	52.0% (13)	44.9% (638)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	50.3% (252)	40.5% (64)	20.0% (3)	47.3% (319)
	None at all	49.7% (249)	59.5% (94)	80.0% (12)	52.7% (355)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	A great deal/a lot/a moderate amount/a little	22.2% (2)	50.0% (1)	33.3% (1)	28.6% (4)
	None at all	77.8% (7)	50.0% (1)	66.7% (2)	71.4% (10)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
Grand Total		100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

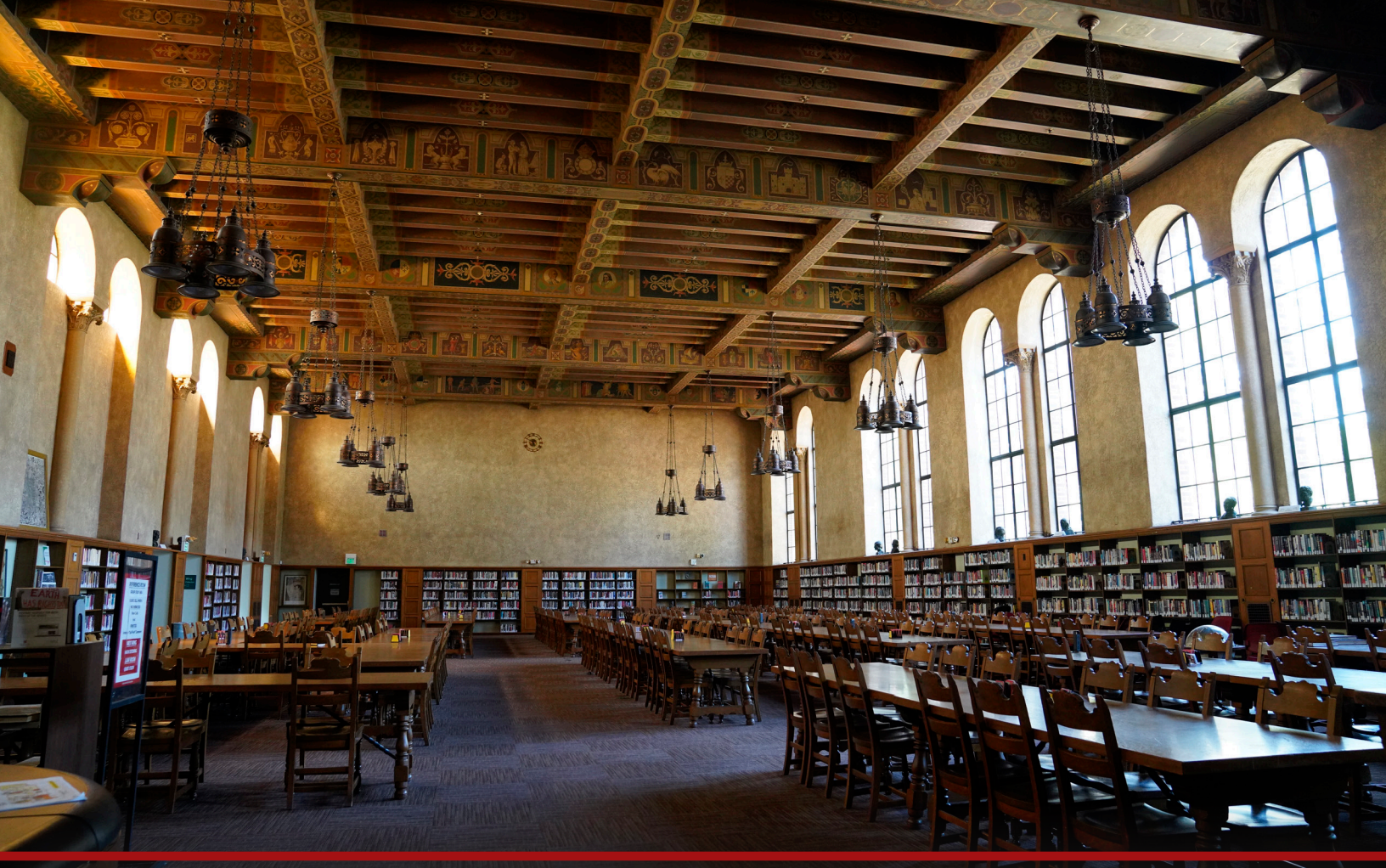
Table III.33
Change in childcare support – *students with prior DE experience*

		Female	Male	Unknown/Unrep..	Grand Total
Students of Color Group:	A great deal/a lot/a moderate amount/a little	35.7% (373)	25.7% (90)	28.0% (7)	33.1% (470)
	None at all	64.3% (673)	74.3% (260)	72.0% (18)	66.9% (951)
	<i>Total</i>	100.0% (1,046)	100.0% (350)	100.0% (25)	100.0% (1,421)
Peer Counterpart Group:	A great deal/a lot/a moderate amount/a little	28.5% (143)	17.1% (27)	20.0% (3)	25.7% (173)
	None at all	71.5% (358)	82.9% (131)	80.0% (12)	74.3% (501)
	<i>Total</i>	100.0% (501)	100.0% (158)	100.0% (15)	100.0% (674)
Unknown	A great deal/a lot/a moderate amount/a little	22.2% (2)	50.0% (1)	33.3% (1)	28.6% (4)
	None at all	77.8% (7)	50.0% (1)	66.7% (2)	71.4% (10)
	<i>Total</i>	100.0% (9)	100.0% (2)	100.0% (3)	100.0% (14)
Grand Total		100.0% (1,556)	100.0% (510)	100.0% (43)	100.0% (2,109)

Appendix D: Data-informed College Response to Student Needs

Several actions were taken in response to the potential needs of students identified in the initial analysis of the questionnaire results.

1. **Loaning of equipment** - cross-referenced lists were created to assist in outreach efforts to students indicating technology needs. Library website, along with loaning of equipment processes were updated to ensure students who borrowed equipment had a place to request and were able to have a device throughout the whole Spring 2020 semester.
 - Loaned iPads and laptops to students who stated needed a device to engage remotely
 - Provided MiFi internet hotspots with three months' worth of service to students who stated a need for internet access
 - Made internet available for students in our parking lots (parking lot K)
 - Provided iPads for foster youth through private donor donation and NextUP programs
 - Provided high capacity laptops for math and science area students who required special software that only runs on high capacity computers through a grant funded by Chevron
2. **Mental Health Follow up** – Psychological Services called and scheduled to meet with students who indicated having some mental health concerns, specifically students who indicated having issues accessing mental health/psychological resources.
3. **Graduation Concerns** – cross-referenced lists were created for Student Success Teams to assist in outreach efforts to students with concerns about graduating in Spring 2020.



Established in 1910, Fresno City College is the first among 115 community colleges in California. Founded by C. L. McLane, Fresno Jr. College, as it was then known, opened its doors with 20 students and three faculty members. FCC's first home was the original Fresno High School on O street in downtown Fresno.

Today, nestled in an older and historic Fresno neighborhood, FCC is a thriving, vibrant college campus with more than 36,000 students each academic year. We offer 250 areas of study, 82 associate degrees, 32 associate degrees for transfer, 89 certificates of achievement, seven certificates of completion, and 80+ CTE Programs.

Our students transfer to a variety of 4-year universities across the nation with the majority transferring to Fresno State. Others attend FCC to learn new job skills.

Every FCC student has access to a multitude of services which include academic advising, career counseling, student activities, disabled students programs, career guidance, tutoring and financial aid.

Fresno City College is part of the State Center Community College District and is accredited by the Accrediting Commission for Community and Junior College (ACCJC).



Fresno City College

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State Center Community College District