

**ECU Covid-19 Impact Survey:
Impacts on Students During the Spring and Fall 2020 Semesters**

February 9, 2021

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*The author thanks Drs. Bob Edwards, Peter Francia, and Marieke Van Willigen for their roles in survey development, data collection, and editorial assistance on earlier drafts of this report.

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Executive Summary

Sociologists from East Carolina University (ECU) and Georgia Southern University, as well as members of ECU's Center for Survey Research (CSR), developed two surveys to gather systematic, empirical data on a broad range of Covid-19 experiences within the ECU community (Edwards, Francia, and Van Willigen 2020). The CSR distributed these surveys during the summer and fall of 2020. For the first survey, the CSR contacted a random sample of 4,000 students between June 19 and July 3.. Of these, 495 students completed the survey, for a response rate of 12.4% and a margin of error of $\pm 4.0\%$. For the second survey, the CSR contacted a different random sample of 4,000 students between October 20 and December 1. Overall, 9.8% of students surveyed responded, with a $\pm 5\%$ margin of error, resulting in responses from 391 students total.

Analysis of the results from these two surveys provide estimates that indicate the following:

- During the fall, an estimated 24,766 students knew someone personally who had been diagnosed with the coronavirus. This is a stark contrast to responses collected earlier in the year (i.e., 81.0% vs. 45.6%), when as many as an estimated 13,191 students knew someone who had been diagnosed with the coronavirus.
- When surveys were distributed during the fall, an estimated 5,788 students did not have access to reliable internet service at their residence, as compared to 4,335 students during the fall. Additionally, an estimated 1,755 students did not have access to a computer during the spring, as compared to 1,872 students during the fall.
- When surveyed during the fall, undergraduate students were significantly more likely to experience greater anxiety, sadness, irritation, and difficulty concentrating, than were graduate students. Regarding emotional experiences during the spring 2020 semester, a significant difference existed only among reports for increased irritation (i.e., undergraduate students 33.8% vs. graduate students 24.4%).
- Across both semesters, female students were significantly more likely to experience greater anxiety and sadness than their male peers. During the spring and fall, white students were significantly more likely to experience increased sadness (spring 23.7%, fall 26.5%) when compared to their black peers (spring 16.1%, fall 14.3%).
- The average number of essential and social weekly trips decreased between the spring and fall semesters. I estimate students made about 8,000 fewer essential trips per week in the fall and about 6,000 fewer social trips. In total, students took about 116,000 essential and 27,000 social trips per week during the fall semester. Per individual, this equates to just over four essential trips and less than one social trip per week.
- During the spring semester, male students took more essential weekly trips (5.51) than female students (4.09). In the fall, male students took fewer essential trips (3.77), than their female peers (4.15). Across both semesters, men attended fewer large social gatherings than women.
- During the spring and fall semesters, Republican-leaning students took more essential and social trips than their independent and Democratic-leaning peers. During the fall

- semester, Republicans attended more than twice as many large social events each week (1.51) than independent (.69) or Democratic peers (.67).
- There was a significant difference in coronavirus diagnosis rates from the spring to the fall semester. Approximately 11.8% of undergraduate students reported being diagnosed, as compared to 2.6% of graduate students. Based on these rates, I estimate as many as 3,874 undergraduate and 436 graduate students had been diagnosed with the coronavirus, as of the fall semester.
 - Black students were significantly more likely to report feeling concern about their current financial situations than were white students, during both the spring and fall semesters. Despite notable differences, at least half of students identifying with these racial groups were at least somewhat concerned when surveyed.
 - Republican-leaning students were least likely to express concern over their financial situation during either semester (spring 50.0%, fall 46.9%). This contrasts 65.3% of independent and 69.6% of Democratic-leaning students who felt the same during the spring. Some 64.0% of independents and 53.3% of Democrats expressed concern about finances during the fall.
 - When thinking ahead to the spring 2021 semester, fewer students expressed strong agreement with the statement, “At the present time, I am worried about returning to the ECU campus for the upcoming semester due to concerns about the coronavirus,” than they did when considering the fall 2020 semester.
 - Students who were diagnosed with the coronavirus showed greater concern about returning to campus for the spring 2021 semester than peers without this experience ($r = -.107, p < .05$).
 - Regardless of degree-level, gender, race, and political party affiliation, students were more likely to always practice social distancing and always wear a mask during the fall than in the spring. However, Republican-leaning students were still the least likely to always wear a mask during the fall semester (64.0%), as compared to Democratic-leaning (91.5%) and independent peers (75.0%).
 - Students who consistently complied with pandemic protective practices were significantly more likely to show concern about returning to campus for the spring 2021 semester than their less compliant peers. For students, social distancing practices were more influential ($r = .255, p < .01$) than mask wearing ($r = .141, p < .01$).

Background

The World Health Organization deemed Covid-19, the disease caused by the novel coronavirus, to be an international public health emergency (i.e., pandemic) on January 30, 2020. Almost one year later, on January 21, 2021, the Centers for Disease Control and Prevention (CDC) reported that the largest portion of cases occurred among individuals aged 18 to 29 (22.6%), followed closely by the 50 to 64-year-old age range (20.6%; CDC, 2021).

For the safety of faculty, staff, and students, many universities transitioned to online instruction part way through the spring 2020 semester. East Carolina University (ECU) was no exception, partially closing and completely shifting to online instruction that began on March 16, 2020. Summer courses were also delivered via online instruction. On August 10th, 2020, ECU students

partially returned to campus for the fall semester, following the CDC's preventative practice guidelines (e.g., wear a facemask, socially distance). Select courses followed a hybrid or online format. Additionally, some courses were transitioned to a shortened block schedule. Following two weeks of these practices, on August 24th, 2020, ECU announced the decision to transition all undergraduate courses to online delivery. Here, I explore the experiences of students throughout and following these transitions.

Characteristics of the ECU Student Population and Covid-19 Survey Sample

Characteristics of the ECU student population are shown in Table 1. Supporting information was obtained from the ECU Factbook (see the ECU Analytics Portal at <https://performance.ecu.edu/portal>). A survey weight corrected for any small imbalances on gender, race, financial aid status, in- and out-of-state residence, and undergraduate versus graduate student status between the samples and the full population, allowing for more precise estimations of students' experiences, attitudes, and behaviors.

Covid-19 Impacts on Students and Related Pandemic Protective Practices

Tables 2, 3, 4, 5, and 6 provide descriptive statistics related to a series of survey questions thought to be most relevant to ECU's spring 2020 departure from and the fall 2020 return to campus. These consider student experiences, including who lived with a member of a vulnerable population, changes in family and work responsibilities, changes in emotional well-being, and the level of worry associated with returning for in-person operations. In this report, we also examine the practice of social distancing, the wearing of pandemic protective equipment (i.e., masks) when in public, and how frequently students left home for essential errands or participated in social gatherings with 10 or more people. Table 2 examines these questions, and those related to technology access, for all students. Table 3 considers the differences between graduate and undergraduate students. Tables 4, 5, and 6 examine differences related to gender, race, and political party identification, respectively.

What Changed Between the Spring and Fall?

Almost five months separated the spring transition to online learning and the return to campus for the fall semester. I cannot be certain about the protective practices students adopted over this period, nor can I fully understand their individual lived experiences from the summer break. Despite some uncertainty, I recognize several important changes occurred between the two semesters. Here I highlight some of the largest differences, including those related to Covid-19 experiences, pandemic protective practices, and demographic group differences.

Experiences with Covid-19

Students were asked about their personal experiences with the coronavirus, including knowing someone who had been diagnosed with the virus, as well as being diagnosed themselves. Between semesters, the positive diagnosis rate increased from 1.0% to 9.9%. Similarly, significantly more students knew someone who received such a diagnosis, with over 80% of students reporting so in the fall. When considering demographic group differences, male students were more likely to report being diagnosed with the coronavirus during the spring than female students. However, the opposite was true during the fall.

When thinking about the spring 2020 semester, less than half of undergraduate and graduate students reported knowing someone who had been diagnosed with the coronavirus. As of the fall 2020 semester, these rates almost doubled. Approximately 81% (vs. 45.1%) of undergraduate and 79.5% (vs. 47.8%) of graduate students reported knowing someone who had been diagnosed with the coronavirus. As of early July, less than 2.0% of students had been diagnosed with the coronavirus. However, during the fall semester, these numbers increased, and significant differences were present. Some 11.8% of undergraduate students reported receiving a coronavirus diagnosis compared to 2.6% of graduate students.

Worry About Returning to Campus

Students who had been diagnosed with the coronavirus were significantly more likely to express concern about returning to campus for the spring 2021 semester ($r = -.107, p < .05$). Additionally, the more frequently that students complied with pandemic protective practices, the more likely they were to express concern about returning to campus for the spring 2021 semester. The relationship between social distancing and opinions about the return to campus ($r = .255, p < .01$) was stronger than that considering mask wearing ($r = .141, p < .01$).

Pandemic Protective Practices

There were no significant differences between undergraduate and graduate students, regarding social distancing and mask wearing. Both groups were more likely to report a *very high level* of understanding about social distancing in the fall than in the spring. Additionally, as the pandemic progressed, students reported more consistent social distancing and mask wearing while in public. Undergraduate students reported *always* social distancing 43.3% of the time (up from 35.9%) and *always* wearing a mask 78.2% of the time (up from 41.5%). Similarly, graduate students showed large increases in social distancing (48.1% vs. 36.7%) and mask wearing practices (79.2% vs. 47.8%) over time.

Regardless of political party affiliation, students were more likely to consistently wear masks in the fall than during the spring. When surveyed in the fall, 75.0% of independents and 91.5% of Democrats reported *always* wearing a mask while indoors in public places, up from 50.5% and 53.2%, respectively. Similarly, rates of *sometimes or never* wearing a mask decreased. Referencing the spring, over 40% of Republican students responded in this way. This contrasts the less than 5% of Republicans who responded the same in the fall. I found additional partisan differences when considering weekly trips. During the fall, Republican-leaning students attended more than double the amount of large social gatherings (i.e., with 10 or more people) than Democratic-leaning or independent peers per week.

In addition to partisan and degree-based differences, racial and gender-based differences existed. During the spring, black students were significantly more likely to *always* wear a mask than were white students. These differences disappeared during the fall. No significant differences in mask wearing existed between male and female students during the spring. Despite increased mask wearing during the fall, female students were significantly more likely to *always* wear a mask than their male peers.

Experiences for the Larger ECU Student Body

To expand upon these key findings, it was important to consider shared experiences among the larger ECU student population. Here, I discuss the data presented in Table 2.

Access to Technology Following the Shift to Online Learning

Most students had access to several electronic tools necessary for online learning. However, during the spring semester, as many as 1,755 students (2.6%) did not have access to a computer, laptop, or tablet. This was similar to access during the fall semester, when as many as 1,872 students (1.5%) lacked essential computing tools. Many students also lacked access to a reliable internet connection. In the spring, 12.3% of students did not have a reliable connection, compared to 15.1% in the fall. Additionally, a greater proportion of students did not have access to a smartphone in fall semester (2.6%) than did in the spring (1.6%).

Experiences with Covid-19

Between the spring and fall 2020 semesters, there were substantial increases in the number of students who reported being diagnosed with Covid-19, as well as the number who knew someone else who had been diagnosed with the virus. Based on these responses, 9.9% of students had been diagnosed with the coronavirus during the fall semester – almost a 1,000% increase from the 1.0% who had tested positive earlier in the year. Similarly, more students reported knowing someone else who had the virus. These rates increased from 45.6% during the spring semester to 81.0% during the fall. Additionally, some students were caring for others who were ill, with the coronavirus or something else. I estimate as many as 3,112 students were caring for a person who was ill during the spring, and up to 3,888 during the fall.

Worry About Returning to Campus

Despite the ongoing nature of the pandemic, students expressed less concern about returning to campus for the spring 2021 semester, as compared to the fall 2020 semester. When provided with the statement, “At the present time, I am worried about returning to the ECU campus for the fall 2020 semester due to concerns about the coronavirus,” 28.9% of students expressed *strong agreement*. When this statement referenced the spring 2021 semester, 23.2% of students *strongly agreed*. Alternatively, 23.3% and 34.8% of students expressed *strong disagreement* that they were concerned about returning to campus for the fall 2020 and spring 2021 semesters, respectively.

Weekly Essential Errands and Social Gatherings

The reported frequency of weekly essential and social trips decreased between the spring and fall 2020 semesters. During the spring semester, students reported leaving their homes about 4.65 times per week for essential errands, and 1.26 times for social events with 10 or more people. During the fall, students reported 4.02 essential trips and .95 social trips (i.e., involving 10 or more people), during the average week. Based on these estimates, there were about 8,000 fewer weekly essential trips taken during the fall than in the spring (115,768 vs. 123,667), and 6,000 fewer social gatherings (27,358 vs. 33,510).

Differences Across Degree Levels

Each sample provided insights from graduate and undergraduate students (see Table 3). Commonly, students at these two levels vary in age and may have different life roles and

experiences. Some of these differences are explored here.

Household Composition and Increased Responsibilities

Household compositions did not significantly vary between undergraduate and graduate students during the spring or fall 2020 semesters. Graduate students reported living with one or more children aged 15 or younger (23.1%) or an individual with a medical condition, making them more vulnerable to the coronavirus (9.0%). Undergraduate students reported living with members of these populations at rates of 14.1% and 14.4%, respectively. I saw similar response rates during the earlier survey.

Following the transition to online learning during spring 2020, many undergraduate and graduate students experienced an increase in work/school and family responsibilities. During the fall 2020 semester, undergraduate students were more likely to experience an increase in work/school responsibilities (52.1%) than were graduate students (48.7%). No other differences were significant.

Emotional Well-being and Financial Stress

During the spring 2020 semester, undergraduate students reported feeling significantly more irritated than graduate students (33.8% vs. 24.4%). During the fall 2020 semester, I noted significant differences across degree levels for each of the emotional responses evaluated. Undergraduate students were significantly more likely to feel increasingly anxious, sad, irritated, and to have trouble concentrating than were graduate students.

On top of emotional wellness outcomes, students expressed concerns about their financial well-being. No significant differences existed across degree-levels. Over half of students stated they were at least *somewhat worried* about their financial situation during the spring and fall semesters. Undergraduate students were more concerned in both the spring and fall (64.7% and 54.1%) than were graduate students (58.8% and 53.8%).

Weekly Essential Errands and Social Gatherings

Both undergraduate and graduate students reported a decrease in the number of essential errands made each week. On average, undergraduate students took 4.14 trips per week during the fall, compared to 4.87 trips in the spring. In the fall, graduate students took 3.52 weekly trips, versus 3.75 in the spring. When considering how many social gatherings with 10 or more people students attended, undergraduate students' engagement decreased, while graduate students' increased. Undergraduate students dropped down to a single gathering per week during the fall, from 1.43 gatherings during the spring. Graduate students increased attendance from .54 social gatherings per week in the spring to .71 gatherings during the fall. Despite this increase, graduate students attended fewer weekly social gatherings than did undergraduate students during the fall semester.

An Examination of Gender, Racial and Partisan Differences

In addition to the coronavirus pandemic, 2020 will be remembered for the Black Lives Matter movement, a historic election, and other influential events. As such, I explore select demographic factors (i.e., gender, racial identification, and political party affiliation) and

associated trends in our datasets. In the following sections, I consider work and familial responsibilities, emotional wellness, and pandemic-specific experiences and attitudes.

Gender Differences

There were several notable gender-based differences among the ECU student population (see Table 4). Due to the small sample size, students who self-described were not included in quantitative analyses.

Household Composition and Increased Responsibilities

Considering the presence of members of vulnerable populations, male and female students had similar household compositions. During the spring, female and male students were most likely to live with one or more children, ages 15 and younger. In the fall, women were more likely to live with a person with a medical condition that might make them more vulnerable to the coronavirus.

During the spring 2020 semester, 38.5% of male and 43.6% of female students experienced an increase in school and job-related commitments. These rates were higher during the fall 2020 semester. According to the survey results, 46.8% of men reported increased work commitments, while 55.0% of women reported the same. In contrast, fewer students noted increased family responsibilities during the fall semester. That is between August 24, 2020 and survey completion, fewer students had increased familial responsibilities than they did during the spring semester, at which time 61.5% of women and 53.7% of men reported increased family responsibilities. In the fall, 44.5% of female and 39.1% of male students reported the same.

Emotional Well-being and Financial Stress

There were significant differences between male and female students' emotional reactions during the transitions to online learning. When asked about anxiety and sadness, female students expressed feeling *a great deal more* anxious and sad than male students during the spring and fall. During the spring semester, female students also felt significantly more irritated than did male students. Although there were no significant gender differences related to financial concerns, students reported greater concern during the spring semester (65.7% female and 60.4% male students) than in the fall (53.0% female and 54.2% male students).

Experiences with Covid-19

Between the spring and fall, there was a large increase in the number of students who had been diagnosed with the coronavirus. In the spring, 0.7% of female and 1.6% of male students reported such a diagnosis. During the fall, 12.2% of women and 6.4% of men reported the same. This falls more in line with the CDC's (2021) report that a larger portion of coronavirus cases were reported among women (52.3%) than men (47.7%). Additionally, as the pandemic progressed, more students knew someone who had been diagnosed with the coronavirus. Approximately 83% of female and 78% of male students reported knowing someone who had been diagnosed with the coronavirus, up from about 45% each. Despite this, there were no significant differences related to caring for someone who was ill during either semester.

Pandemic Protective Practices

During the spring semester, there were no significant gender differences related to pandemic protective practices. However, during the fall, female students (83.1%) were significantly more likely to report a *high level of understanding* of social distancing practices than were male students (73.2%). Women were slightly more likely to *always* practice social distancing while in public (45.9%) than were men (43.0%). In line with these findings, men were significantly more likely to *sometimes or never* distance while in public (8.9%) than were women (4.8%). When considering mask wearing, female students were significantly more likely to *always* wear masks while in public (84.7% vs. 70.3%) than were male students.

Weekly Essential Errands and Social Gatherings

During the spring 2020 semester, male students left their homes more frequently for essential errands (5.51) than did female students (4.09). The opposite was true during the fall when women made more essential trips (4.15 vs. 3.77). Female students also reported attending more large social gatherings (i.e., with 10 or more people) than male students. This was true for the spring (1.29 vs. 1.24) and fall semesters (1.01 vs. .84).

Racial Identification Differences

Below I examine if differences exist between student identifying as either black or African American and those identifying as white. Table 5 presents these results. The larger samples also included students identifying as Hispanic or Latino, Asian or Asian American, and with other racial groups.

Household Composition and Increased Responsibilities

During the spring and fall semesters, black and white students were each more likely to report living with one or more children ages 15 and younger and/or someone with an existing medical condition that might make them more vulnerable to the coronavirus, than with members of other vulnerable populations (i.e., individuals over the age of 60, individuals with a physical disability or mobile impairment). While no significant differences were noted, white students were most likely to report living with someone who had an existing medical condition (spring 16.9%, fall 14.6%), while black students most reported living with a child (spring 24.4%, fall 17.2%).

Both black and white students were more likely to report increased work commitments and reduced family responsibilities during the fall, when compared to the spring. Additionally, each demographic group reported similar rates of increased professional and personal responsibility. During the spring, about 42% of black and white students reported increased work commitments. These rates diverged during the fall, when 61.5% of black students reported increased work responsibilities, compared to 50.2% of white respondents. Regarding family responsibilities during the spring semester, 54.7% of black and 58.3% of white students reported increased commitments. These rates fell to 39.7% and 34.1% for the fall, respectively.

Emotional Well-being and Financial Stress

Across both semesters of interest, white students felt *a great deal more* sad than black students (spring 23.7% vs. 16.1%, fall 26.5% vs. 14.3%). These differences were significant. During the spring semester, white students also reported feeling *a great deal more* irritated and experienced more difficulty concentrating than did black students (irritation 35.3% vs. 34.9%, concentration

45.0% vs. 43.7%). However, these differences were quite small, suggesting some emotional experiences were similar for black and white students. More recently, white students reported feeling *a great deal more* anxious since the transition to online classes, when compared to their black peers (36.8% vs. 29.7%).

In addition to emotional concerns, financial worries were apparent during the spring and fall semesters. The results of each survey suggest black students were significantly more worried about their financial situation than were their white peers. Approximately 68% and 63% of black students, during the spring and fall, respectively, expressed greater concern over their financial situation. This contrasts 57.7% and 50.0% of white students responding the same way in the respective semesters.

Experiences with Covid-19

In November 2020, the CDC noted that non-Hispanic black Americans were being diagnosed with the coronavirus 1.4 times as frequently as non-Hispanic white Americans. Black Americans were also 3.7 times as likely to be hospitalized and 2.8 times as likely to die from the coronavirus (CDC, 2020). These case rates were not reflected within the ECU student samples. During the spring semester, twice as many black students had been diagnosed with the coronavirus (1.2%) as had white students (.6%). However, as of the fall semester, 1.6 times as many white students were diagnosed with the virus (12.6%) as were their black peers (7.8%). Additionally, during the spring semester, black students were significantly more likely to be caring for someone who was ill, while white students were significantly more likely to know someone who had been diagnosed with the virus. A smaller proportion of students reported caring for someone who was ill during the fall, though more students knew someone who had been diagnosed with Covid-19. These differences were not significant across racial groups.

Pandemic Protective Practices

Students reported a greater understanding of social distancing practices in the fall, than they had in the spring. During both semesters, black students were significantly more likely than white to *always* practice social distancing, rates that rose as the pandemic progressed. The opposite was true of students who reported *sometimes or never* practicing social distancing while in public. White students were significantly more likely to report *sometimes or never* social distancing, though rates for both racial groups decreased between the spring and fall semesters.

During the fall semester, there were no significant differences regarding mask wearing. However, closer to the start of the pandemic, black students were more likely to *always* wear a mask while indoors in public (61.6% black students vs. 36.5% white students), while white students were more likely to *sometimes or never* wear a mask in the same settings (28.2% white students vs. 8.1% black students). These differences were significant.

Weekly Essential Errands and Social Gatherings

When considering the frequency with which students left their homes, black students took more essential trips during the fall and spring, though rates for each group decreased over time. Although black students attended more large social gatherings (i.e., with 10 or more people) than white peers during a typical week in the spring (1.83 vs. 1.25), they attended fewer gatherings during the fall (.78 vs. 1.05).

Political Partisanship Differences

The Covid-19 pandemic became a point of contention across political parties, despite the ability for all people, regardless of political affiliation, to contract the coronavirus. As such, academic data and polls indicate the pandemic is a matter of political concern.

Americans are politically divided, as supported by the data presented here. This report highlights some of the differential attitudes and behaviors adopted by Republican, Democratic, and independent respondents. When compared to self-identified Democrats and independents, self-identified Republicans reported fewer concerns about the coronavirus pandemic, its associated risks, and the potential implications (Newport 2020; Pew Research Center 2020; Thomson-DeVeaux 2020). Republicans also reported following the pandemic preventative practices (e.g., wearing a mask, practicing social distancing, etc.) recommended by public health experts to reduce the transmission of Covid-19 (Newport 2020; Pew Research Center 2020; Thomson-DeVeaux 2020). When surveyed, students were asked a commonly used one to two-part question from the American National Election Study (ANES 2020) to assess partisan differences among ECU's student population. Clear differences were noted between students identifying with each party (see Table 6).

Household Composition and Increased Responsibilities

During the spring semester, Democratic-leaning students more frequently reported living with a child aged 15 or younger than did Republican-leaning and independent respondents. In the fall, independent students were more likely to report the same. During both semesters, Republican-leaning students were less likely to report living with a person who had an existing medical condition that could increase their vulnerability to Covid-19, than were independents or Democrats.

Regarding increased work and school commitments, there were no significant between-group differences during either semester. However, fewer Republican students noted their work responsibilities had increased in the fall (23.3%) than had in the spring (46.2%). The opposite was true of independent (spring 41.4%, fall 47.0%) and Democratic students (spring 41.9%, fall 50.3%). During the spring, significant differences were seen relative to increased family responsibilities. About 65% of Democrats, 54% of Republicans, and 49% of independents reported an increase in family commitments since transitioning to online learning.

Emotional Well-being and Financial Stress

Democratic students were most likely to report feeling *a great deal more* anxious (47.1%) and have trouble concentrating (51.7%) during the spring 2020 semester, than were independents (anxiety 40.8%, concentration 41.8%) or Republicans (anxiety 32.9%, concentration 30.3%). However, during the fall, Republican students were significantly more likely to report feeling *a great deal more* irritated (41.3%) than were Democratic (28.5%) or independent peers (24.5%). Despite other differences, political party affiliation was not related to significant differences in increased feelings of sadness during either semester.

There were party-based differences in the amount of worry students felt about their financial situations. Each group expressed lesser concern during the fall semester, though this drop was larger for some parties than others. During the spring, Democratic students were most likely to

express concern about their financial situation (69.6%), followed by independents (65.3%) and Republicans (50.0%). This pattern varied in the fall, when independent students expressed the greatest worry (64.0%), as compared to 53.3% of Democrats and 46.9% of Republicans.

Experiences with Covid-19

There were no significant partisan differences in the likelihood of caring for someone who was ill during the spring or fall. Similarly, there were no significant differences in reports of knowing someone who had been diagnosed with the coronavirus or being diagnosed oneself, during the spring semester. This changed in the fall. Republican students were most likely to know someone who had received such a diagnosis, and report catching the virus themselves. Some 87.3% of Republican students knew someone who received a Covid-19 diagnosis, compared to 80.1% of Democrats and 74.5% of independents. Similarly, 11.9% of Republicans reported having had the coronavirus, a rate slightly higher than that expressed by Democratic (9.7%) or independent peers (7.0%).

Pandemic Protective Practices

Despite noting no significant between-group differences relative to individuals' understanding of social distancing practices, the consistency with which students acted on this knowledge varied. During the spring and fall semesters, Republican students were least likely to *always* social distance while in public (spring 20.7%, fall 25.4%). During the spring, independent students (4.1%) were least likely to *sometimes or never* practice social distancing while in public. Democratic students were least likely to do the same during the fall (1.8%).

Students reported the frequency with which they wore masks while indoors in public places. Again, Republican students were least likely to *always* engage in this practice during the spring (18.6%) and fall (64.0%). However, rates for always wearing a mask increased across all groups between semesters. Among independents, rates increased from 50.5% during the spring to 75.0% in the fall. Democrats reported an increase of almost 40% (spring 53.2% vs. fall 91.5%).

Weekly Essential Errands and Social Gatherings

Following the trends noted for pandemic protective practices, Republican students reported making the most essential errands per week (spring 5.63, fall 4.72). Independents took the fewest necessary trips, with 3.70 in the spring and 3.42 in the fall. No group reported attending more than two weekly social outings during the spring or fall. During the spring, students identifying as independent and those who preferred not to identify with a party attended the fewest social gatherings (.87). During the fall, Democratic students reported attending .67 social gatherings per week, while independents reported attending .69. Rates reported by Republican students more than doubled those of Democratic and independent peers, with 1.51 weekly autumnal social outings.

Summary

One year after Covid-19 was declared a pandemic of global concern, Americans continue to experience hardships associated with their well-being (e.g., emotional, financial, etc.). College students are no exception. In this report, I considered the influences of the coronavirus pandemic on students at ECU. This assessment highlighted the clear differences existing across degree-

levels, as well as between gender, racial, and partisan identities. Along with demographic differences, I evaluated students' increased responsibilities, emotional responses, and pandemic-related experiences and practices.

Ultimately, these evaluations present greater insight into the experiences that students had following the initial transition to online learning in March 2020, as well as the return to and subsequent departure from campus during the fall. As the pandemic progressed, the number of students who were diagnosed with the coronavirus increased, as did the number of students who knew others who received a positive diagnosis. The consistency with which students adopted preventative practices also increased. In line with these findings, the frequency with which students left their homes decreased from the spring to fall semesters. Altogether, this suggests students understand the serious nature of the pandemic and are increasingly taking steps to limit negative outcomes.

Beyond practice-based insights, I learned about the emotional wellness of students, as well as their household compositions, work and familial responsibilities, and financial concerns – each of which may influence their behaviors and attitudes throughout the pandemic. Future CSR reports may consider the academic and housing concerns of students, political sentiments, and sources of information for obtaining health-related news. Overall, these surveys provide hopeful insights about the efforts ECU students are making to slow the spread and provide a glimpse into their unique lived experiences.

Table 1: ECU Student Characteristics: ECU Population and Covid-19 Survey Sample	ECU Population		Unweighted Survey Sample		Weighted Survey Sample	
	Spring 2020	Fall 2020	Spring 2020	Fall 2020	Spring 2020	Fall 2020
Semester						
Total number of students in ECU population and Covid-19 Survey Sample	26,595	28,798	495	391	495	391
Student Status						
Undergraduate students	79.8%	87.0%	82.4%	74.7%	82.3%	80.1%
Graduate students	20.2%	13.0%	17.6%	25.3%	17.7%	19.9%
Student Gender *						
Female	59.0%	60.0%	72.4%	73.5%	59.4%	59.0%
Male	41.0%	40.0%	27.2%	25.7%	40.2%	40.2%
Prefer to self-describe	n/a	n/a	0.4%	0.8%	0.4%	0.8%
Student Racial Identification **						
Black or African American	16.0%	16.0%	25.6%	23.2%	16.1%	16.4%
White	66.0%	65.0%	63.4%	71.0%	65.8%	74.4%
Student Ethnic Identification						
Hispanic, Latinx, or Spanish Origin	7.0%	7.0%	9.0%	6.2%	13.3%	8.1%
Student Political Party Identification ***						
Republican	n/a	n/a	27.5%	28.6%	32.8%	32.2%
Independent	n/a	n/a	21.7%	24.6%	21.5%	25.6%
Democrat	n/a	n/a	50.8%	46.3%	45.7%	42.2%

* Gender is based on responses to a survey question. Students who chose to self-describe were not included in the analysis on gender differences due to the small number of cases.

** Racial identification is based on responses to two questions in the survey. Non-Hispanic/Latinx White students and non-Hispanic/Latinx Black students are included in the analysis on differences by race (see Table 5) because there are enough cases in each group for statistical comparisons. There were several respondents identifying as Hispanic/Latinx/Spanish, Asian American, American Indian, Native Alaskan, Native Hawaiian, or Pacific Islander. There were not enough responses from these students to perform quantitative analysis, although I note the proportion of students identifying as Hispanic/Latinx/Spanish in this table.

*** Republicans are defined as students who reported that they “usually think of themselves as Republicans.” Democrats are defined as students who reported that they “usually think of themselves as Democrats.” Republicans and Democrats also include independent “leaners.” These are respondents who answered that they do not think of themselves as Republicans or Democrats, but that they “lean” closer to one of those two parties. I treat those who “lean closer” to the Republican Party as Republicans and those who “lean closer” to the Democratic Party as Democrats. Independents are those who answer that they “lean closer” to neither political party. This coding scheme is consistent with the recommendations of political scientists who study partisanship (see e.g., Petrocik 2009).

Table 2. Results for all students (undergraduate and graduate) on selected questions.	Percent Yes		Estimated number of ECU Students (95% C. I.) *	
	Spring 2020	Fall 2020	Spring 2020	Fall 2020
Computer and media access:				
Where the student was living after the transition to online instruction for the respective semester they did NOT have access to...				
Computer (desktop, laptop, or tablet)	2.6	1.5	0 – 1,755	0-1,872
Smartphone	1.6	2.6	0 – 1,489	0-2,189
Reliable internet	12.3	15.1	2,207 – 4,335	2,908-5,788
Experiences with Covid-19:				
Are you currently caring for someone who is ill?	7.7	8.5	984-3,112	1,008-3,888
Have you been diagnosed with the coronavirus?	1.0	9.9	0-1,330	1,411-4,291
Do you know someone who has been diagnosed with the coronavirus?	45.6	81.0	11,064-13,191	21,886-24,766
Worried about returning to campus:				
At the present time, I am worried about returning to the ECU campus for the upcoming semester due to concerns about the coronavirus.				
...strongly agree	28.9	23.2	6,622-8,750	5,241-8,121
...strongly disagree	23.3	34.8	5,133-7,260	8,582-11,462
Going out:				
About how many times each week did you leave your residence to...				
..go to work or for essential errands buying food, picking up prescriptions?	4.65	4.02	123,667	115,768
..attend a social gathering of friends, family members, and/or others of more than ten people?	1.26	.95	33,510	27,358

* Accounting for the margin of error for student sample and the size of the ECU student population, I can estimate with 95% confidence that the actual number of ECU students with a given attribute centers on the listed percentage and lies somewhere within the range listed.

Table 3. Student responses on selected questions by degree level.	% Undergrad		% Graduate	
	Spring 2020 (N=405)	Fall 2020 (N=313)	Spring 2020 (N=90)	Fall 2020 (N=78)
Vulnerable population:				
Which of the following describes who you are living with?				
Children (15 years of age or younger)	16.5	14.1	35.6	23.1
Someone with an existing medical condition that might make them more vulnerable to the coronavirus	15.8	14.4	12.2	9.0
Work and family responsibilities:				
Since the transition to online courses would you say that...				
your work commitments (school or job related) increased?	41.2	52.1	43.3	48.7
your family responsibilities increased?	60.5	41.2	51.1	47.4
Well-being and stress:				
Since the transition to online courses would you say that...				
you have felt a great deal more anxious?	40.0	37.2	44.4	22.1
you have felt a great deal more sad?	21.6	23.5	20.2	17.1
you have felt a great deal more irritated?	33.8	35.5	24.4	15.6
you have felt a great deal more difficulty concentrating?	41.1	49.2	49.4	23.1
you are at least somewhat worried about your financial situation?	64.7	54.1	58.8	53.8
Experiences with Covid-19:				
Are you currently taking care of someone who is ill?	8.1	9.2	5.6	3.8
Do you know anyone personally who has been diagnosed with the Coronavirus?	45.1	81.2	47.8	79.5
Have you been diagnosed with the Coronavirus?	0.7	11.8	1.1	2.6
Social distancing and wearing masks:				
Students reported...				
a very high level of understanding of the practice social distancing	68.3	78.3	63.3	80.5
always practicing social distancing when going out in public	35.9	43.3	36.7	48.1
sometimes or never practicing social distancing when going out in public	9.2	7.3	5.6	5.1
always wear a mask when indoors in public places (shopping, etc.)	41.5	78.2	47.8	79.2
sometimes or never wear a mask when indoors in public places (shopping etc.)	22.7	2.6	16.7	0.0
Going out:				
About how many times during the past 7 days did you...				
leave your house/apartment to go to work or for essential errands (buying food, picking up prescriptions)?	Mean (SD) 4.87 (6.51)	Mean (SD) 4.14 (4.11)	Mean (SD) 3.75 (3.15)	Mean (SD) 3.52 (3.07)
attend a social gathering of friends, family members, and/or others of more than 10 people?	Mean (SD) 1.43 (2.90)	Mean (SD) 1.00 (2.06)	Mean (SD) .54 (.98)	Mean (SD) .71 (1.25)

* Results in **bold font** are statistically significant $\leq .05$ (one-tailed).

Table 4. Student responses on selected questions by gender.	% Female		% Male	
	Spring 2020 (N=304)	Fall 2020 (N=229)	Spring 2020 (N=187)	Fall 2020 (N=156)
Vulnerable population:				
Which of the following describes who you are living with?				
Children (15 years of age or younger)	24.0	13.5	12.3	18.6
Someone with an existing medical condition that might make them more vulnerable to the coronavirus	17.4	15.7	10.6	9.6
Work and family responsibilities:				
Since the transition to online courses would you say that...				
your work commitments (school or job related) increased?	43.6	55.0	38.5	46.8
your family responsibilities increased?	61.5	44.5	53.7	39.1
Well-being and stress:				
Since the transition to online courses would you say that...				
you have felt a great deal more anxious?	48.7	41.7	28.2	23.4
you have felt a great deal more sad?	26.4	25.2	13.0	17.9
you have felt a great deal more irritated?	32.3	31.6	31.6	31.2
you have felt a great deal more difficulty concentrating?	45.2	48.2	37.8	38.5
you are at least somewhat worried about your financial situation?	65.7	53.0	60.4	54.2
Experiences with Covid-19:				
Are you currently taking care of someone who is ill?	9.2	9.1	5.3	7.0
Do you know anyone personally who has been diagnosed with the Coronavirus?	45.4	83.0	45.7	78.2
Have you been diagnosed with the Coronavirus?	0.7	12.2	1.6	6.4
Social distancing and wearing masks:				
Students reported...				
a very high level of understanding of the practice social distancing	67.3	83.1	66.8	73.2
always practicing social distancing when going out in public	36.2	45.9	35.3	43.0
sometimes or never practicing social distancing when going out in public	7.9	4.8	9.6	8.9
always wear a mask when indoors in public places (shopping, etc.)	43.4	84.7	40.2	70.3
sometimes or never wear a mask when indoors in public places (shopping etc.)	17.3	2.6	29.3	1.3
Going out:				
About how many times during the past 7 days did you...				
leave your house/apartment to go to work or for essential errands (buying food, picking up prescriptions)?	Mean (SD) 4.09 (3.80)	Mean (SD) 4.15 (3.51)	Mean (SD) 5.51 (8.27)	Mean (SD) 3.77 (4.46)
attend a social gathering of friends, family members, and/or others of more than 10 people?	Mean (SD) 1.29 (2.80)	Mean (SD) 1.01 (2.01)	Mean (SD) 1.24 (2.50)	Mean (SD) .84 (1.80)

* Students not identifying as male or female are not included in this analysis.

** Results in **bold font** are statistically significant $\leq .05$ (one-tailed).

Table 5. Student responses on selected questions by racial identification.	% Black		% White	
	Spring 2020 (N=86)	Fall 2020 (N=64)	Spring 2020 (N=319)	Fall 2020 (N=253)
Vulnerable population:				
Which of the following describes who you are living with?				
Children (15 years of age or younger)	24.4	17.2	15.7	13.8
Someone with an existing medical condition that might make them more vulnerable to the coronavirus	22.1	10.9	16.9	14.6
Work and family responsibilities:				
Since the transition to online courses would you say that...				
your work commitments (school or job related) increased?	41.9	61.5	42.3	50.2
your family responsibilities increased?	54.7	39.7	58.3	42.1
Well-being and stress:				
Since the transition to online courses would you say that...				
you have felt a great deal more anxious?	37.2	29.7	41.7	36.8
you have felt a great deal more sad?	16.1	14.3	23.7	26.5
you have felt a great deal more irritated?	34.9	33.9	35.3	33.2
you have felt a great deal more difficulty concentrating?	43.7	45.2	45.0	46.6
you are at least somewhat worried about your financial situation?	67.5	62.5	57.7	50.0
Experiences with Covid-19:				
Are you currently taking care of someone who is ill?	11.6	7.8	8.5	7.5
Do you know anyone personally who has been diagnosed with the Coronavirus?	42.5	73.1	47.0	82.9
Have you been diagnosed with the Coronavirus?	1.2	7.8	.6	12.6
Social distancing and wearing masks:				
Students reported...				
a very high level of understanding of the practice social distancing	75.9	82.8	64.9	77.1
always practicing social distancing when going out in public	51.2	60.9	30.1	40.3
sometimes or never practicing social distancing when going out in public	4.7	3.1	9.4	8.3
always wear a mask when indoors in public places (shopping, etc.)	61.6	82.5	36.5	78.3
sometimes or never wear a mask when indoors in public places (shopping etc.)	8.1	0.0	28.2	2.0
Going out:				
About how many times during the past 7 days did you...	Mean (SD)		Mean (SD)	
leave your house/apartment to go to work or for essential errands (buying food, picking up prescriptions)?	6.13 (11.31)	4.23 (3.97)	4.45 (4.30)	4.06 (4.28)
attend a social gathering of friends, family members, and/or others of more than 10 people?	1.83 (4.28)	.78 (2.11)	1.25 (2.34)	1.05 (2.04)

* Students not identifying as Black/African American or White are not included in this analysis.

** Results in **bold font** are statistically significant $\leq .05$ (one-tailed).

Table 6. Student responses on selected questions by political party affiliation.	% REP		% IND		% DEM	
	Spring 2020 (N=146)	Fall 2020 (N=126)	Spring 2020 (N=98)	Fall 2020 (N=102)	Spring 2020 (N=210)	Fall 2020 (N=165)
Vulnerable population:						
Which of the following describes who you are living with?						
Children (15 years of age or younger)	12.3	11.1	15.3	22.5	26.7	15.2
Someone with an existing medical condition that might make them more vulnerable to the coronavirus	8.2	7.9	16.3	13.7	17.6	17.0
Work and family responsibilities:						
Since the transition to online courses would you say that...						
your work commitments (school or job related) increased?	46.2	23.3	41.4	47.0	41.9	50.3
your family responsibilities increased?	54.1	34.4	49.0	50.0	65.2	43.6
Well-being and stress:						
Since the transition to online courses would you say that...						
you have felt a great deal more anxious?	32.9	34.6	40.8	32.3	47.1	34.8
you have felt a great deal more sad?	18.1	27.0	22.2	17.3	23.8	21.3
you have felt a great deal more irritated?	33.6	41.3	33.7	24.5	32.7	28.5
you have felt a great deal more difficulty concentrating?	30.3	50.0	41.8	35.0	51.7	44.8
you are at least somewhat worried about your financial situation?	50.0	46.9	65.3	64.0	69.6	53.3
Experiences with Covid-19:						
Are you currently taking care of someone who is ill?	6.8	7.1	4.1	11.8	10.0	6.7
Do you know anyone personally who has been diagnosed with the Coronavirus?	52.7	87.3	34.3	74.5	48.1	80.1
Have you been diagnosed with the Coronavirus?	1.4	11.9	1.0	7.0	1.0	9.7
Social distancing and wearing masks:						
Students reported...						
a very high level of understanding of the practice social distancing	61.4	74.8	71.4	78.2	69.0	81.8
always practicing social distancing when going out in public	20.7	25.4	45.9	48.0	40.3	57.0
sometimes or never practicing social distancing when going out in public	16.1	13.5	4.1	7.0	6.1	1.8
always wear a mask when indoors	18.6	64.0	50.5	75.0	53.2	91.5

in public places (shopping, etc.) sometimes or never wear a mask when indoors in public places (shopping etc.)	40.7	4.8	20.4	1.0	9.8	0.6
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Going out:	Mean		Mean		Mean	
About how many times during the past 7 days did you...	(SD)		(SD)		(SD)	
leave your house/apartment to go to work or for essential errands (buying food, picking up prescriptions)?	5.63 (4.79)	4.72 (5.21)	3.70 (3.70)	3.42 (2.61)	4.59 (7.69)	3.84 (3.35)
attend a social gathering of friends, family members, and/or others of more than 10 people?	1.80 (2.87)	1.51 (2.46)	.87 (1.76)	.69 (1.40)	1.15 (2.90)	.67 (1.63)

* Republicans are defined as students who reported that either that they “usually think of themselves as Republicans” or that they think of themselves as “closer to the Republican Party.” Democrats were defined the same way. Independents are students who fit neither of these categories and includes how specifically thought of themselves as Independent or preferred not to answer these questions.

** Results in **bold font** are statistically significant at the $\leq .05$ (one-tailed).

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