



COUNSELLING AND PSYCHOLOGICAL SERVICES (CAPS)

Groundwork UNL
groundwork@unl.edu

Spring 2021
Working Report (02/02/2021)

1 Introduction

Mental Health is an increasingly prevalent concern on college campuses, with 95% of campus psychological counseling directors reported an increase in severe psychological problems amongst students in 2008 [Hunt and Eisenberg, 2010]. The proportion of students diagnosed with depression has also increased approximately 10 to 15 percent since 2000 [Hunt and Eisenberg, 2010].

There are varying risk factors among college students that predispose them to mental health issues. For instance, female students are more likely to screen positive for major depressive disorder and anxiety disorders. Some of these risks also slip through the gaps in detection. While less likely to screen positive for major depressive disorder than female students, male students are at a higher risk for suicide. [Hunt and Eisenberg, 2010]. Students from lower socioeconomic backgrounds are also at a higher risk for depressive and anxiety symptoms as well as sexual and gender minorities [Baik et al., 2019].

College campuses are increasingly aware of this situation and many efforts have been taken to encourage help-seeking behaviors amongst college students. 90% of students in samples have health insurance and the majority of campuses offer free or highly subsidized health services [Hunt and Eisenberg, 2010]. The University of Nebraska-Lincoln, for an example, introduced mental health services without additional charges.

However, such efforts might not be sufficient given that only 24% of students diagnosed with depression are receiving treatment and fewer than half of people with mood disorders and less than 20% of those with anxiety disorders receive treatment [Hunt and Eisenberg, 2010].

In our current context of a worsening pandemic that limits and restricts social interactions with others, as well as stresses and anxiety that is caused by the effects of the pandemic, there is hence a warranted increase in concern for students' mental health. Results from a recent report found that 1 in 5 freshman students have yet to make a new friend on campus as a result of remote learning. The counseling and psychological services provided by the university is also, by necessity, conducted remotely. The combination of these factors led us to conduct a survey on students' mental health and the counseling and psychological services at the University of Nebraska-Lincoln (commonly referred to as CAPS).

1.1 Counseling and Psychological Services (CAPS) Survey

A survey was conducted by Groundwork UNL with the aim of assessing student sentiments and knowledge on the Counseling and Psychological Services (CAPS) at the University of Nebraska-Lincoln. Each question (with a few exceptions) is assessed on a Likert scale from 1 to 5.

The questions on the survey are as follow:

1. Mental Health is a serious issue on campus.
(1 - Strongly Disagree, 5 - Strongly Agree)
2. How would you rate your overall mental health?
(1 - Very Bad, 5 - Very Good)

3. The transition to online learning during the COVID-19 pandemic has affected my stress level.
(1 - Greatly Decreased, 5 - Greatly Increased)
4. The transition to online learning during the COVID-19 pandemic has affected my academic performance.
(1 - For the Worse, 5 - For the Better)
5. I am informed of the mental services offered by CAPS.
(1 - Strongly Disagree, 5 - Strongly Agree)
6. CAPS adequately serves the mental health needs of students.
(1 - Strongly Disagree, 5 - Strongly Agree)
7. I know a student, or myself, who used counseling services provided by CAPS.
(Yes / No / Maybe or Unsure)
8. CAPS receives sufficient funding.
(1 - Strongly Disagree, 5 - Strongly Agree)
9. Students should be assessed a no-show fee if they failed to cancel or reschedule an appointment.
(1 - Strongly Disagree, 5 - Strongly Agree)
10. ASUN has done enough to improve mental health services on campus.
(1 - Strongly Disagree, 5 - Strongly Agree), the option "Insufficient Knowledge" is provided

1.2 Metadata on the Survey

The Counseling and Psychological Services (CAPS) Survey was performed from 14th of October 2020 to 18th of November 2020 at the University of Nebraska-Lincoln.

1.2.1 Definition of the Total Population

The set of people we were interested in studying in this survey were the students of UNL, both students studying on-campus or online; either graduate or undergraduate students.

Nevertheless, due to the nature of the collection of data (a mix of in-person and online with more focus on in-person collection), we have gotten undersampling of students who primarily have their classes conducted online, graduate students and students who are usually not on campus.

In order to bridge this gap, we supplemented with an online survey conducted via email distribution. In this survey, we have a total of 202 in-person respondents (65.8%) and 105 online respondents (34.2%).

1.2.2 Confidence Interval and Margin of Error

Given the sample size of 307 respondents, and using a confidence interval of 95%, our estimated margin of error is approximately 5.6% for each of our response.

1.2.3 Sampling Methodology and Coverage

In our efforts to conduct a truly representative survey, we tried to randomize our samples as much as possible given the current circumstance.

For our first method of collecting responses, which was done in-person, we had a total of 202 respondents. The major benefit of using this method is that once students had agreed to take the survey, there would be a 90% chance of response. In this instance, we had a total of 224 scans with 202 responses (or 90.17%). We also faced relatively few rejections in-person though this was not well documented.

In-person sampling allows us to avoid non-response bias that could arise from sampling a select distribution of respondents who would voluntarily complete an online survey. Nevertheless, due to the transition of classes online, we observed that towards the end of the semester, the crowd on campus became more sparse and sampling in person was largely restricted to the Union, Love Library and the College of Business. This resulted to sampling certain demographics more than others, which was one of the major weakness of this study that we acknowledge.

Our second method, which was used concurrently, was administered via email surveys sent out to students' emails in random. Even though this reduced the issue of sampling students who were on campus, this methodology potentially introduced a lot of non-response bias. While we were not able to track the actual number of students who received the survey, of those 353 that opened the survey, only 102 responded. This means that the response rate was smaller than 28.8% and we have good reasons to believe that the true response rate is smaller than 10%.

In order to compensate for some of these discrepancies, we included demographic questions in our survey to ensure that we were not disregarding certain student populations.

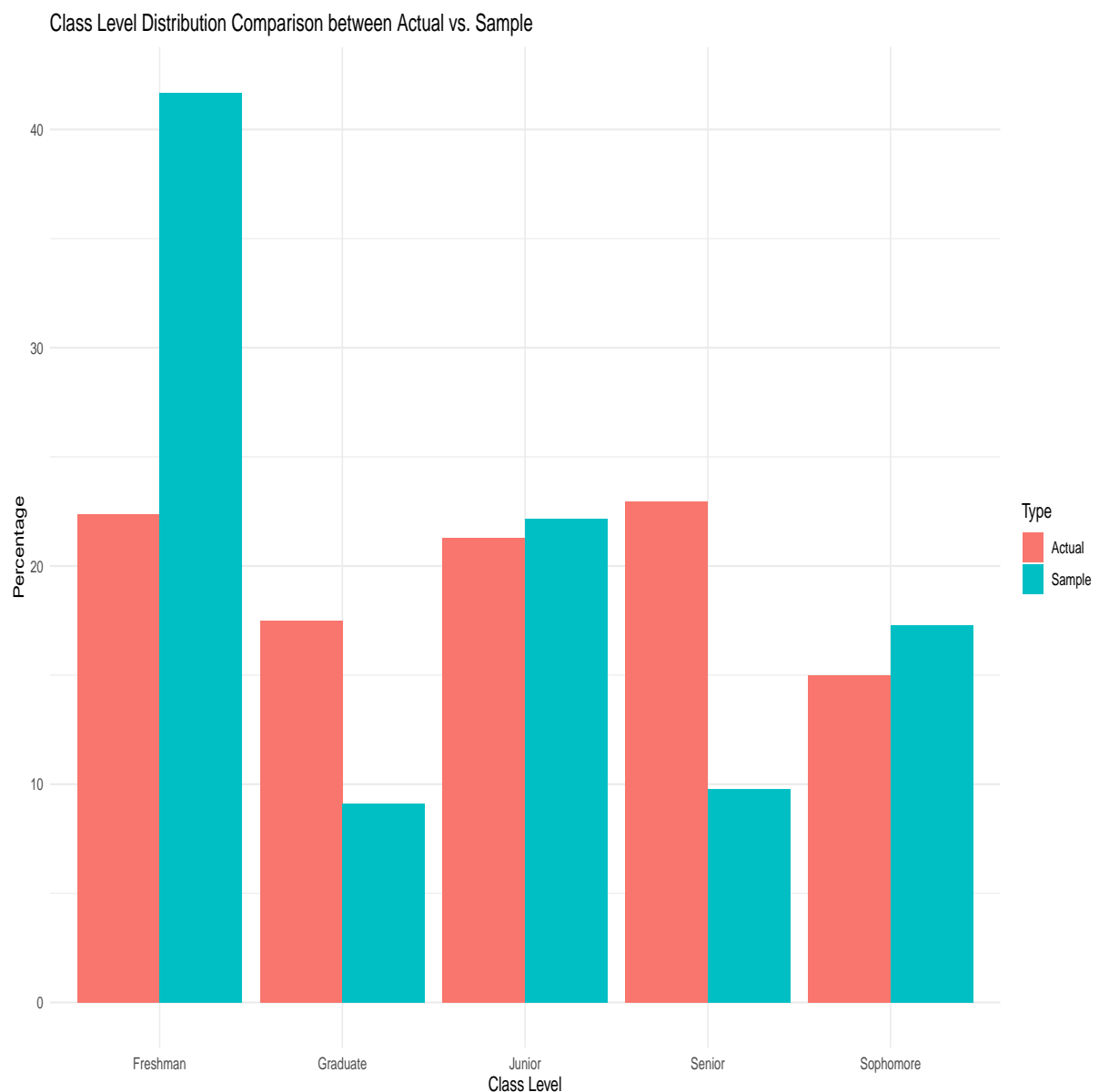
2 Response Demographics

2.1 Demographics Comparison

Using data from UNL Factbook, we were able to provide an approximation as to how much we deviated from the actual population demographic. This was the main tool used to determine and verify the quality of the data.

2.1.1 Class Level

For the demographic on Class Level, we used the classifications by the UNL Factbook as a comparison to the survey results we collected.

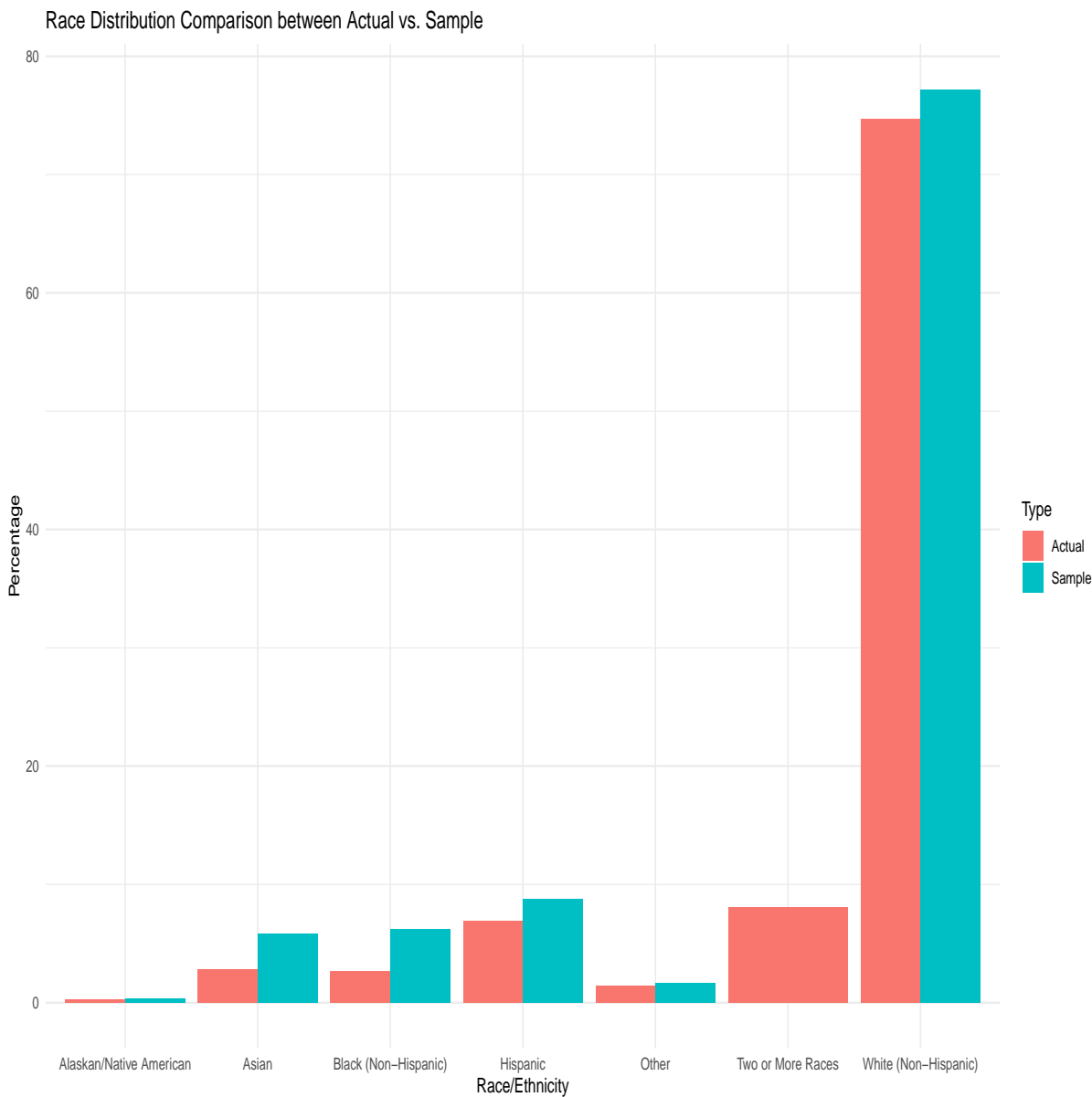


The bar graph above indicates that freshman students were oversampled significantly while Junior and Sophomore students were sampled approximately proportional to the actual demographic proportions. Senior and Graduate students were undersampled in this survey.

It is also important to note that for online surveys, the response rates were relatively similar to the distribution of the demographic. However, most of the in-person responses heavily overrepresented freshman.

2.1.2 Race

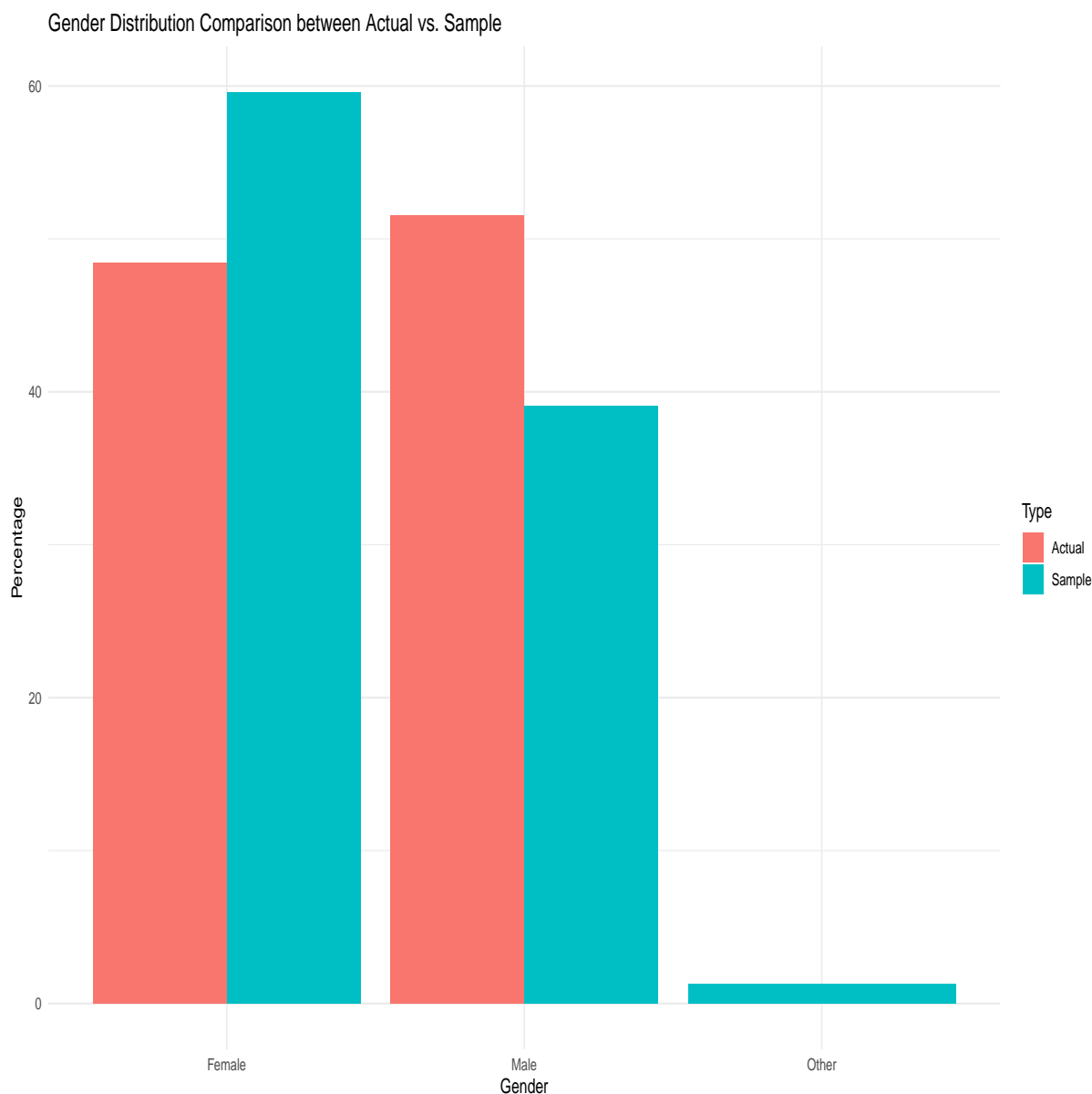
For the demographic on Race, we used the classifications by the UNL Factbook as a comparison to the survey results we collected.



For the most part, racial composition of our sample aligns with the actual demographic of UNL.

2.1.3 Gender

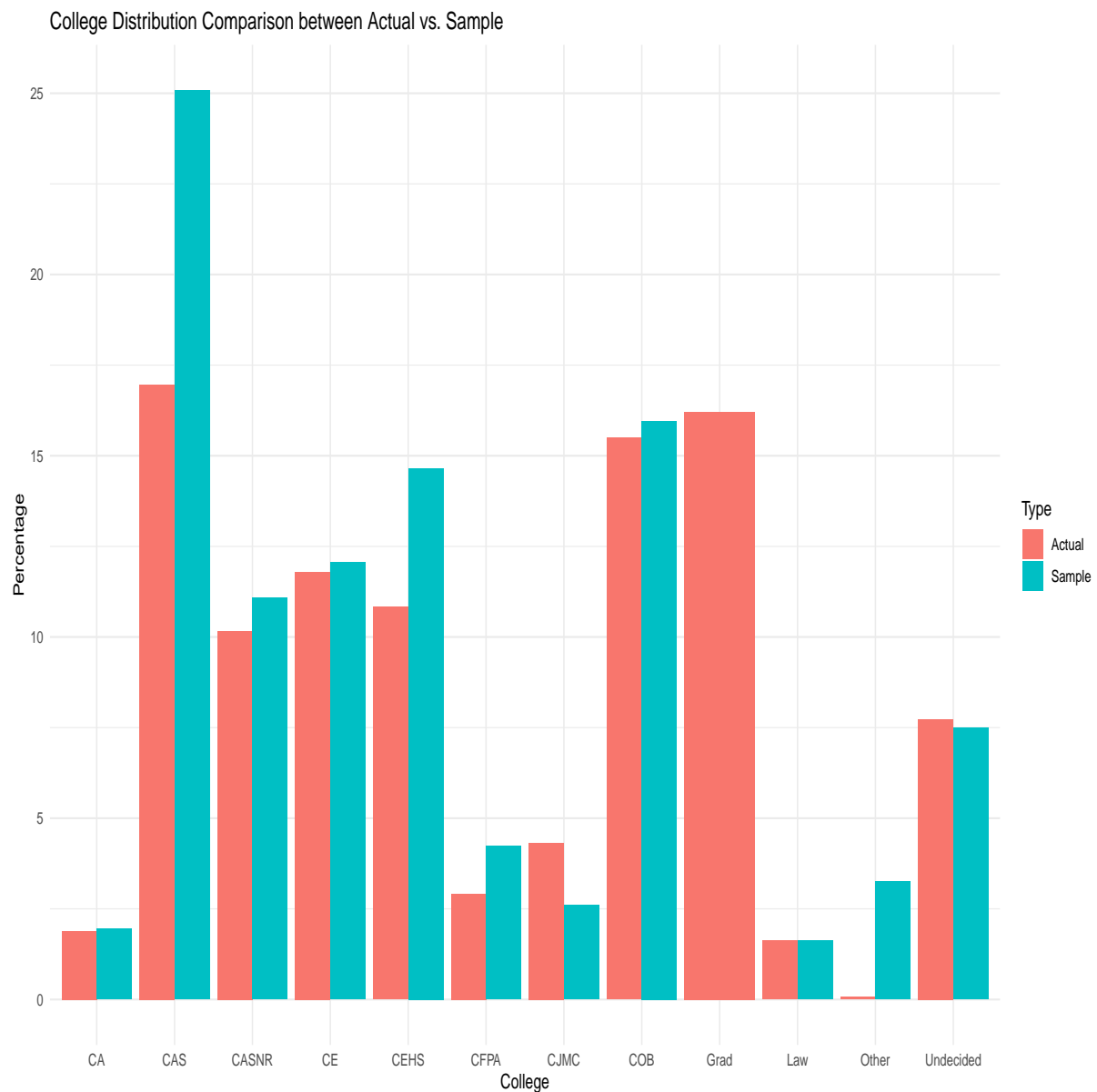
For the demographic on Gender, we used the classifications by the UNL Factbook as a comparison to the survey results we collected. We added an "other" category for respondents who identify as non-binary or prefer not to disclose this information.



Females were oversampled in this survey, and this is true for both online and in-person surveys. Our conjecture is that male students are less likely to respond to email surveys even when received, which led to the lower sampled proportion. Nevertheless, we do not know why in-person surveys are also predominantly female respondents. a

2.1.4 College

For the demographic on College, we used the classifications by the UNL Factbook as a comparison to the survey results we collected.



The distribution of the demographic category of college is similar to the distributions in our previous survey, with the College of Arts and Sciences oversampled. As with the previous survey, the category Graduate was not selected by any of the respondents, even for Graduate Students. It is likely that Graduate students tend to identify as the college that they attend.

2.2 Correcting and Identifying Potential Sources of Error

Due to the imperfect nature of our dataset, we must be cautious about generalized statements from this dataset. Nevertheless, to account for the demographic discrepancies, we performed significance tests for two sample proportions within the dataset to identify potential sources of differences.

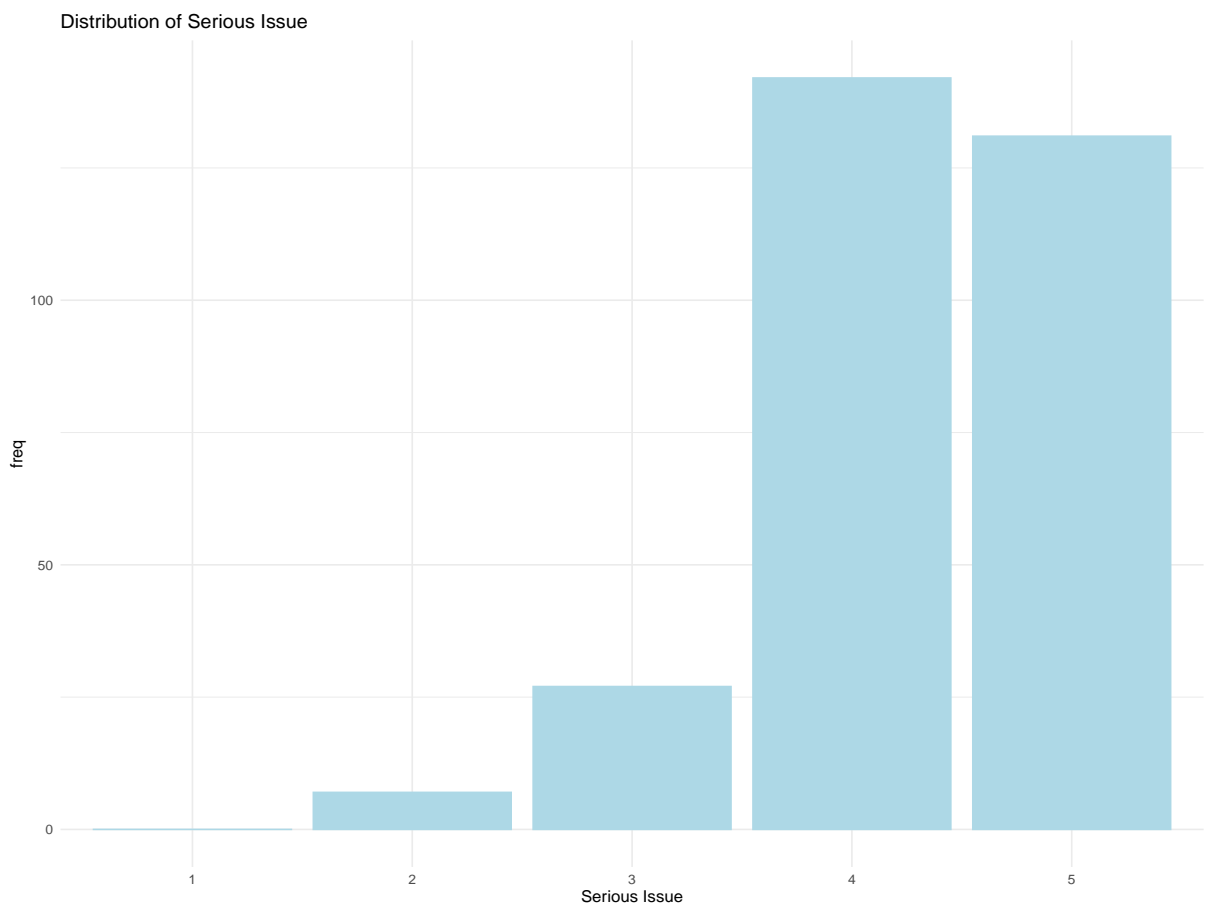
3 Survey Results

This section presents the general results of the survey, and some of the analysis that is done to further understand the results obtained

3.1 Serious Issue

Survey Question: Mental Health is a serious issue on campus.

(1 - Strongly Disagree, 5 - Strongly Agree)



Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
2.000	4.000	4.000	4.293	5.000	5.000

There is a strong right skew for the responses for the question, with a majority of students having indicated that they agree or strongly agree that mental health is a serious issue.

Additional analyses performed with respect to other categories found no significant difference between different groups. We found however, that the support for funding is slightly negatively

response	freq	percentage
1	0	0.00%
2	7	2.28%
3	27	8.79%
4	142	46.25%
5	131	42.67%

Table 1: Serious Issue

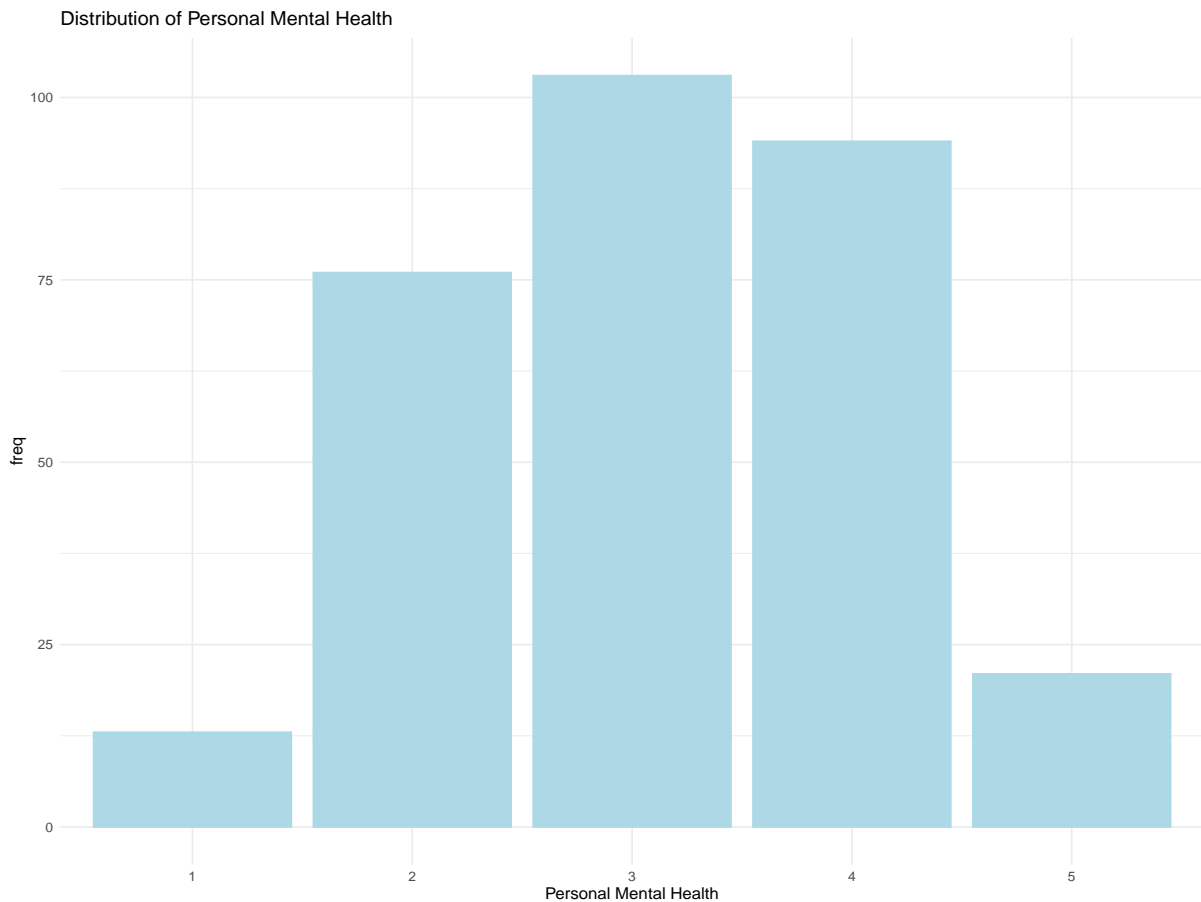
correlated with a student's perception of the mental health issues on campus.

There is a statistically significant difference between male and female respondents in this question, with female respondents agree more strongly to this statement as compared to their male counterparts.

3.2 Personal Mental Health

Survey Question: How would you rate your overall mental health?

(1 - Very Bad, 5 - Very Good)



Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
1.000	2.000	3.000	3.111	4.000	5.000

response	freq	percentage
1	13	4.23%
2	76	24.76%
3	103	33.55%
4	94	30.62%
5	21	6.84%

Table 2: Personal Mental Health

The responses from this question has a normal distribution with the modal response being 3.0, median at 3.0 and the mean at 3.111. While there were students who rated their overall mental health as bad or very bad, most students responded indifferently. and more than a third of respondents stated that their mental health was good or very good.

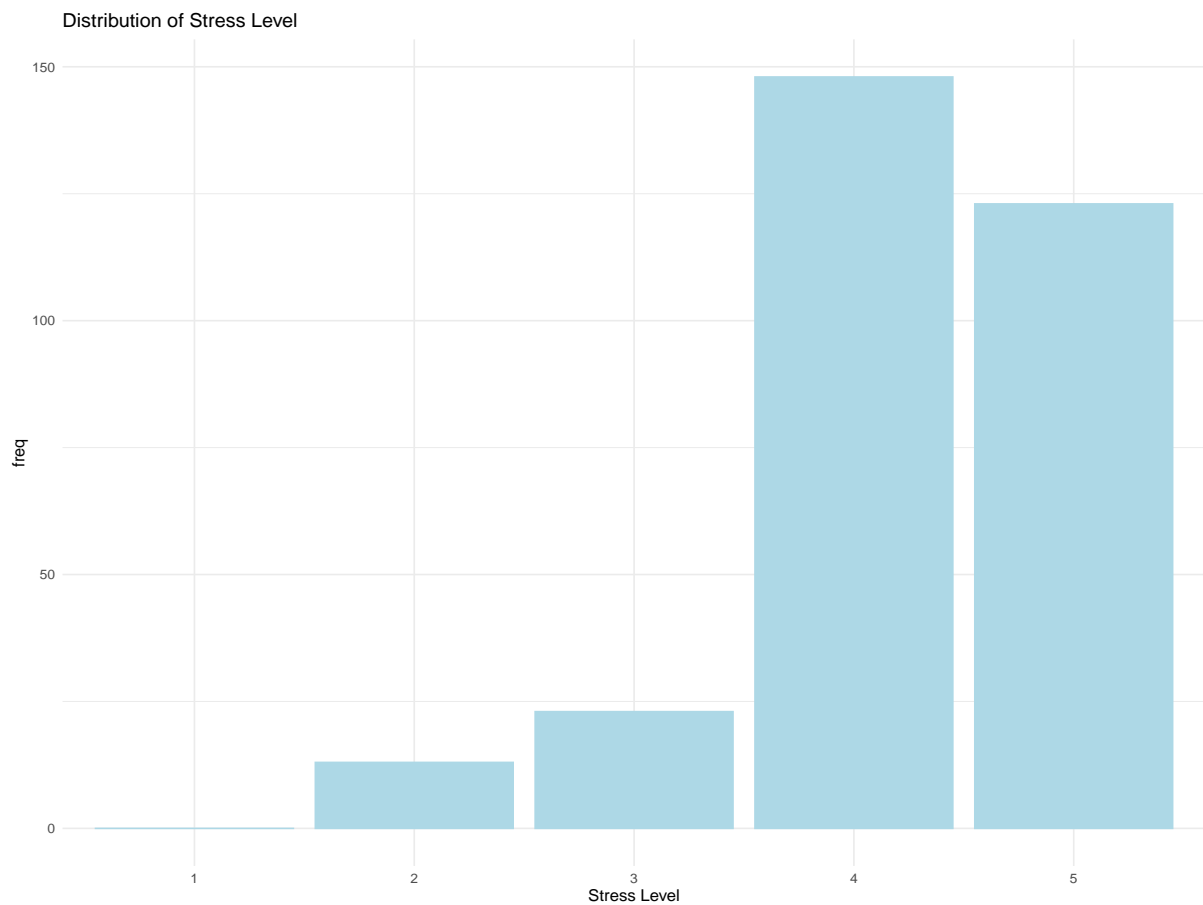
For students who responded "Yes" to the question "I know a student, or myself, who used counseling services provided by CAPS.", there is a significant difference between the responses, with a significantly lower average than those who responded "No" or "Maybe/Unsure". Due to the nature of the question, we could only infer that either those who use CAPS services have mental-health related issues or that students with mental-health related issues are likely to cluster into groups, or both.

Concurring with other research, female respondents rated on average worse than male respondents. This is seen in practice where women are more likely to be diagnosed with a mental illness as compared to males. Nevertheless, this does not necessarily mean that males are more mentally healthy given that such diagnoses and ratings are self-disclosed. There is evidence to suggest that male students have worse mental health given the higher likelihood of them committing suicide [Hunt and Eisenberg, 2010].

3.3 Stress Level

Survey Question: The transition to online learning during the COVID-19 pandemic has affected my stress level.

(1 - Greatly Decreased, 5 - Greatly Increased)



Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
2.000	4.000	4.000	4.241	5.000	5.000

response	freq	percentage
1	0	0%
2	13	4.23%
3	23	7.49%
4	148	48.21%
5	123	40.07%

Table 3: Stress Level

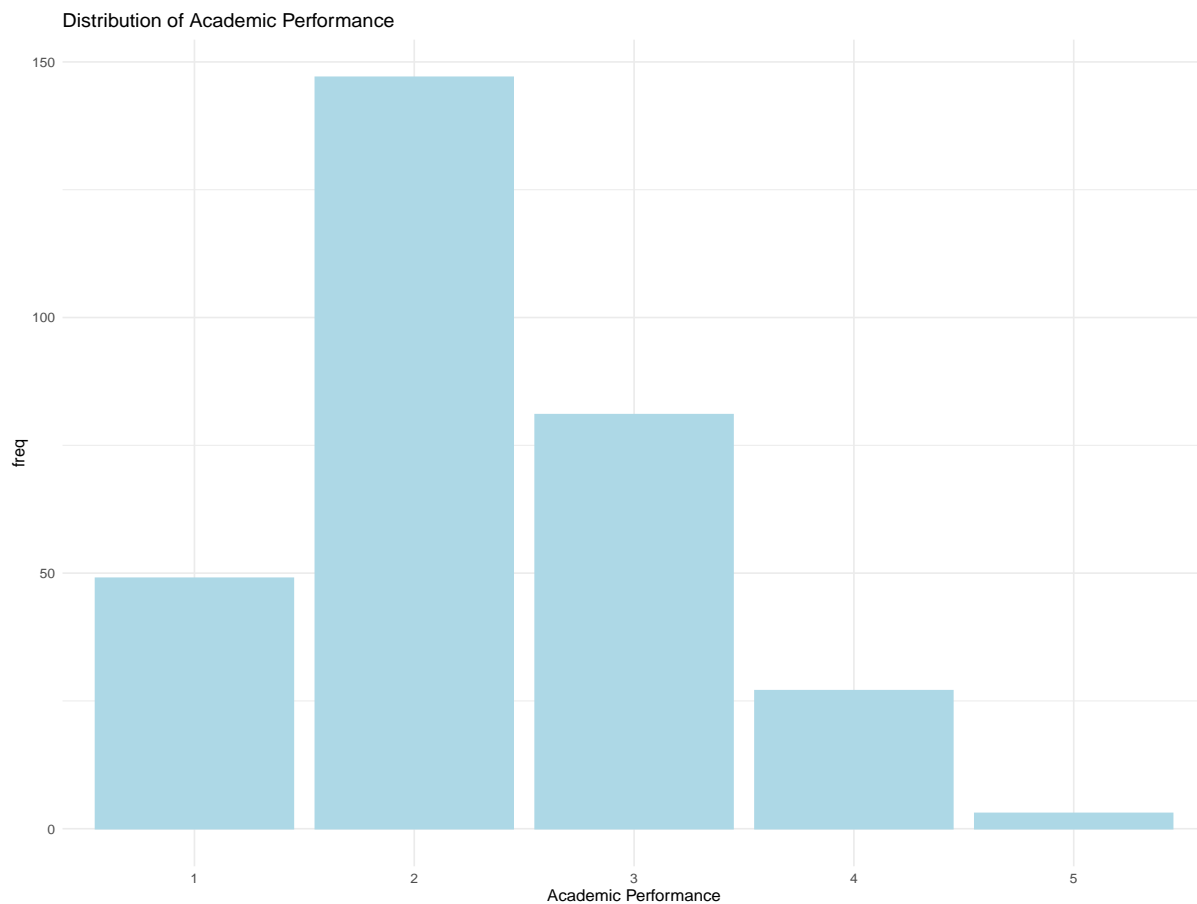
Due to the COVID-19 pandemic, students in general reported increased levels of, with the median and modal response at 4 and the mean of 4.241. While there were no significant differences between other groups that we measured, we found that freshman students were reporting lower increased level of stress from the pandemic as compared to other student classes.

It is also not surprising that the response for Personal Mental Health is negatively correlated with the responses for this question, albeit only slightly.

3.4 Academic Performance

Survey Question: The transition to online learning during the COVID-19 pandemic has affected my academic performance.

(1 - For the Worse, 5 - For the Better)



Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
1.00	2.00	2.00	2.309	3.00	5.00

response	freq	percentage
1	49	15.96%
2	147	47.88%
3	81	26.38%
4	27	8.79%
5	31	0.98%

Table 4: Academic Performance

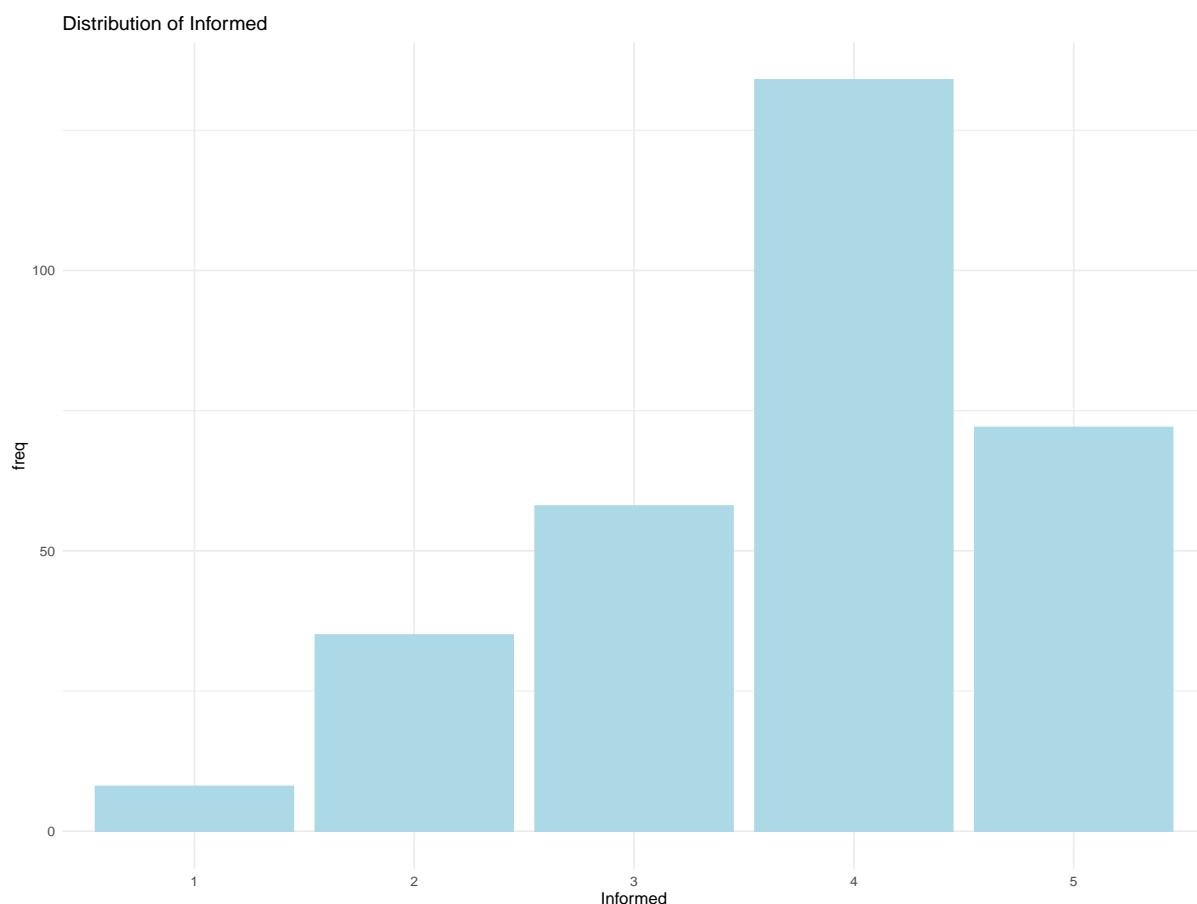
The distribution of the response for this question is skewed left, with the majority of students reporting worse academic performance as a result of the transition of classes from in-person to online. When compared across groups, we found no significant differences between the responses.

The responses between Academic Performance and Personal Mental Health have a relatively strong positive correlation with one another; likewise, with Stress Level, Academic Performance has a negative correlation.

3.5 Informed

Survey Question: I am informed of the mental services offered by CAPS.

(1 - Strongly Disagree, 5 - Strongly Agree)



Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
1.000	3.000	4.000	3.739	4.000	5.000

response	freq	percentage
1	8	2.61%
2	35	11.40%
3	58	18.89%
4	1348	43.65%
5	72	23.45%

Table 5: Informed

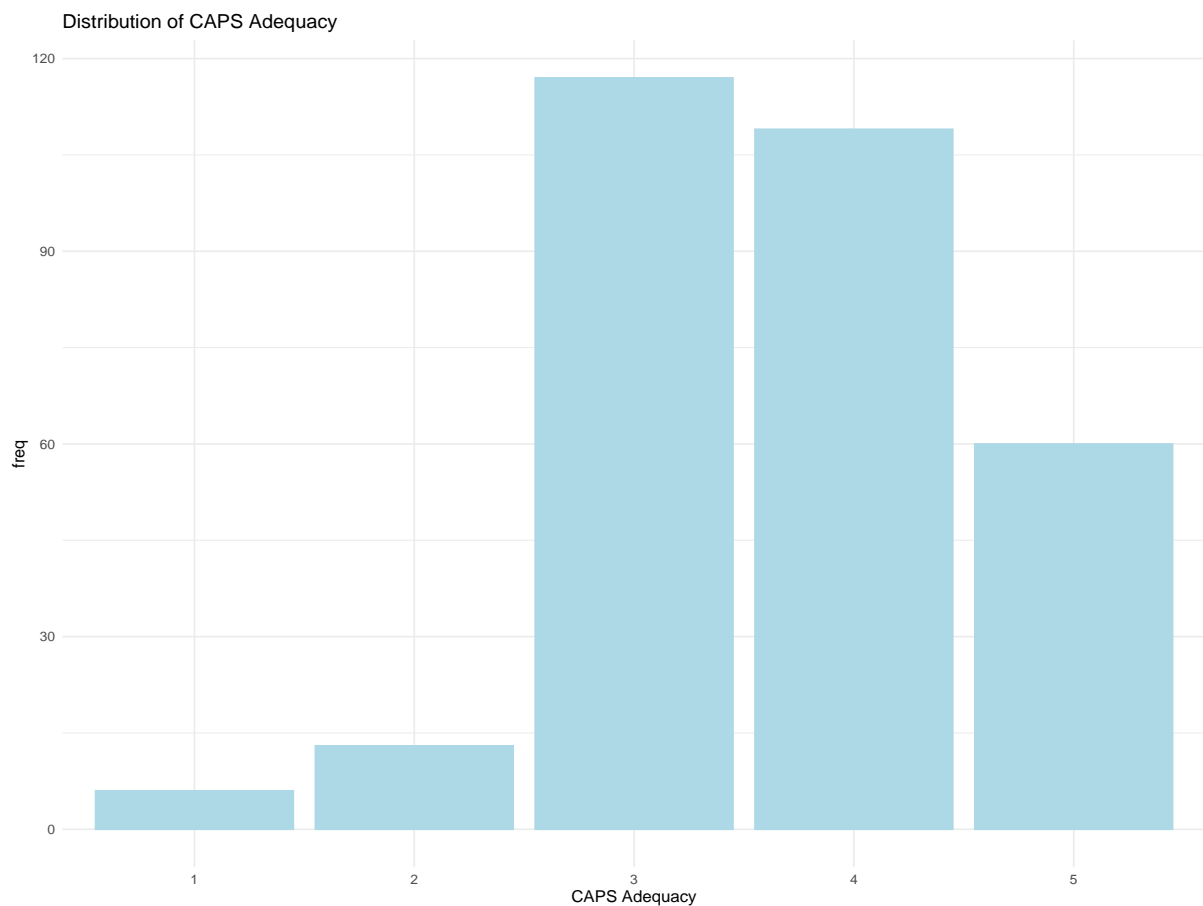
The responses to this question indicated that students are in general somewhat informed about the services provided by the University on Mental Health Services.

There is a very significant difference between the responses for the group who indicated that they know someone (including themselves) who uses CAPS, with the average response for those who either are unsure or don't know someone who uses the service is 3.41 while those who know someone who uses CAPS had an average response of 4.14.

3.6 Adequacy

Survey Question: CAPS adequately serves the mental health needs of students.

(1 - Strongly Disagree, 5 - Strongly Agree)



Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
1.000	3.000	4.000	3.669	4.000	5.000

In general, students slightly agree that CAPS serve the mental health needs for students, with only a total of 19 responses that disagree. However, the modal response is neither agree nor disagree for this question.

One of the explanations for the results obtained is that the survey question is a too generalized, which led to students responding neither agree or disagree. However, it is interesting to note that

response	freq	percentage
1	6	1.95%
2	13	4.23%
3	117	38.11%
4	109	35.50%
5	60	19.54%

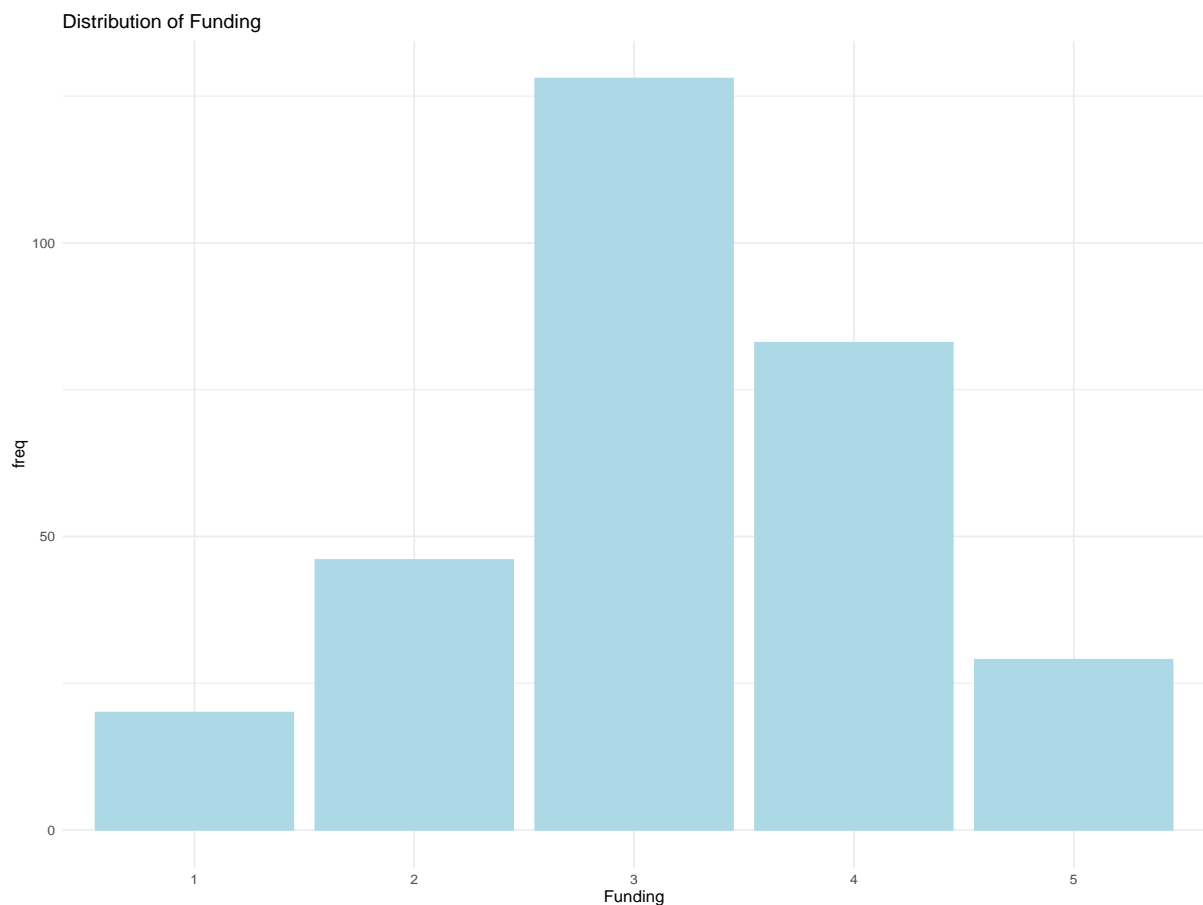
Table 6: CAPS Adequacy

freshman students agree more strongly to this question than other students. The responses for this question is also positively correlated with the question "ASUN has done enough to improve mental health services on campus."

3.7 Funding

Survey Question: CAPS receives sufficient funding.

(1 - Strongly Disagree, 5 - Strongly Agree)



Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
1.000	3.000	3.000	3.18	4.000	5.000

responses	freq	percentage
1	20	6.51%
2	46	14.98%
3	128	41.69%
4	83	27.04%
5	29	9.45%

Table 7: Funding

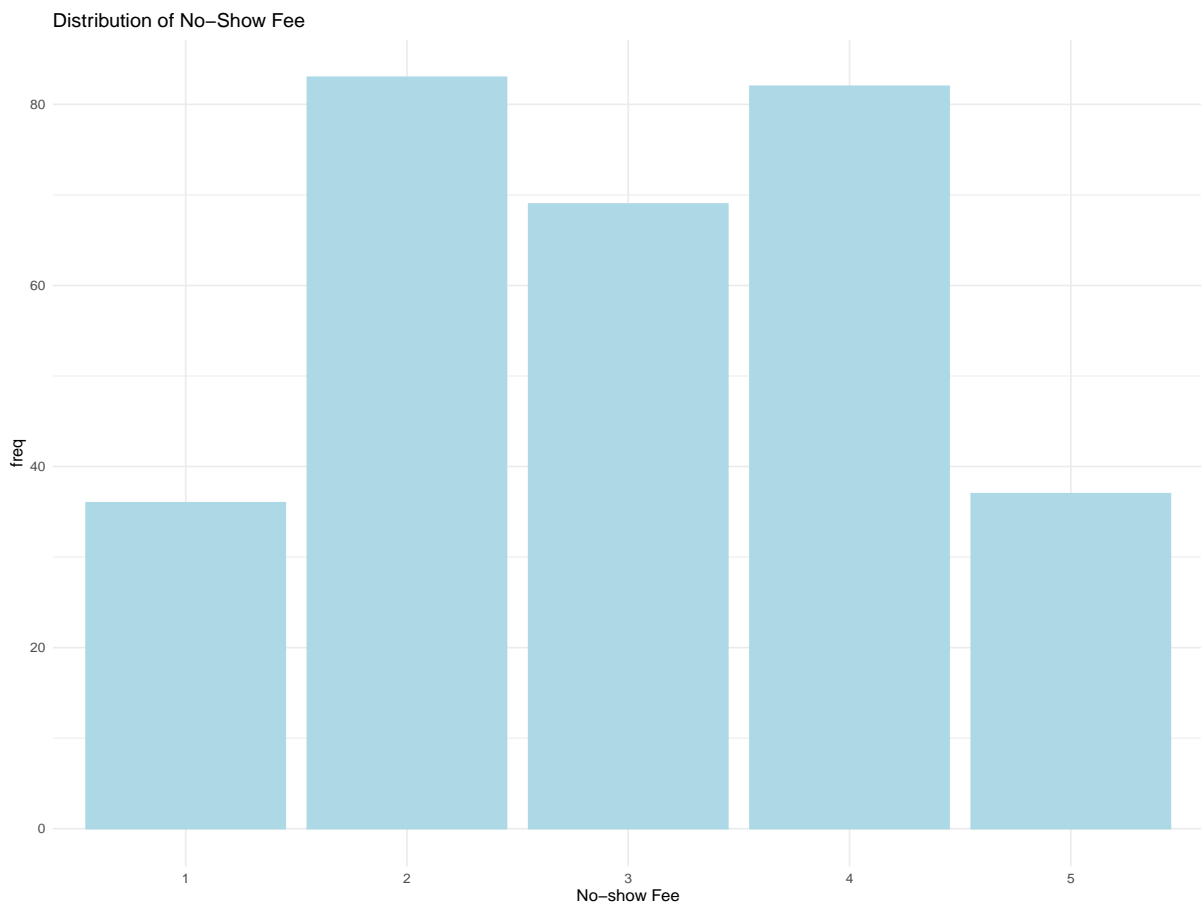
The response for this question is fairly normally distributed, with most students responding neither agree nor disagree on this question.

There are in general no differences between groups in their responses on the question about funding. Nevertheless, the amount stated in the survey is \$45.48 per student in Fund B, which is approximately twice as compared to previous years. It is not stated whether this change is permanent or temporary due to pandemic.

3.8 No-Show Fees

Survey Question: Students should be assessed a no-show fee if they failed to cancel or reschedule an appointment.

(1 - Strongly Disagree, 5 - Strongly Agree)



Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
1.000	2.000	3.000	3.003	4.000	5.000

response	freq	percentage
1	36	11.73%
2	83	27.04%
3	69	22.47%
4	82	26.71%
5	37	12.05%

Table 8: No-Show Fee

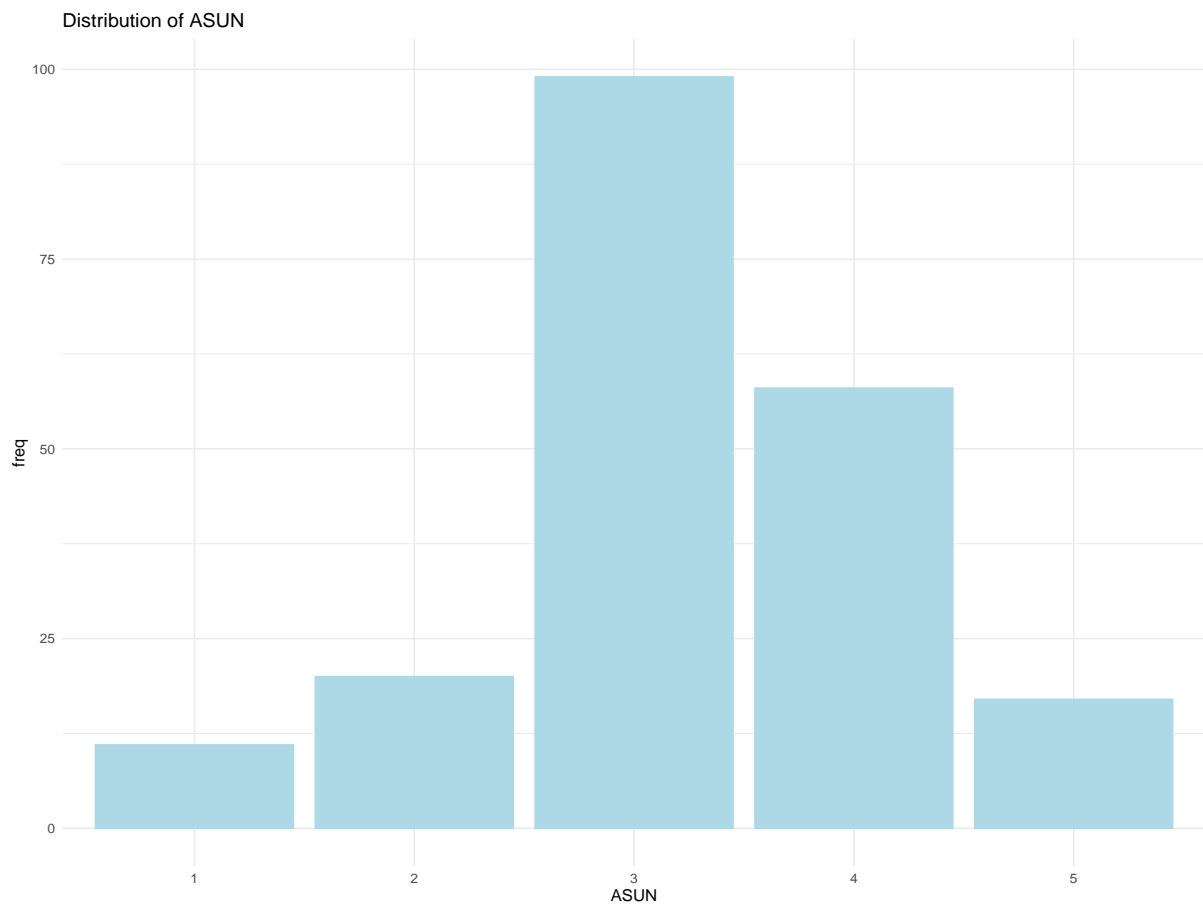
The response for the question on no-show fees is close to a bimodal distribution, with 83 responses which disagreed to the assessment of no-show fee and 82 responses which agreed to the such a fee. The mean of this response is 3.003, which means in general, students are neutral about this question.

We hypothesized that there would be a difference if the respondent knows someone, or is themselves using CAPS, but no such difference is found. Overall, there is no statistical significance between groups overall with the response of this question.

3.9 ASUN

Survey Question: ASUN has done enough to improve mental health services on campus.

(1 - Strongly Disagree, 5 - Strongly Agree), the option "Insufficient Knowledge" is provided



Min.	1st Qu.	Median	Mean	3rd Qu.	Max.
1.000	3.000	3.000	3.244	4.000	5.000

* *Students who responded "Insufficient Knowledge is excluded in this summary"*

response	freq	percentage
1	11	5.37%
2	20	9.76%
3	99	48.29%
4	58	28.29%
5	17	8.29%

Table 9: ASUN

The response for this question has a slight right skew, with a mean of 3.244. The modal response for this question is 3.00, which is neither agree nor disagree. 96 respondents responded "Insufficient Knowledge" for this question.

We find that this response is positively correlated to questions on how informed the respondent is about CAPS, sufficiency of funding and also on adequacy of the service. There is in general, no difference of responses between groups for this question.

4 Discussion & Implications

4.1 Inferences from Survey Results

Comparing the survey question as well as information provided by Counseling and Psychological Services, some of the data points concur with other research conducted with other universities. For instance, female students are more likely to rate that they have worse mental health challenges as compared to male students.

This is reflected in their help-seeking behaviour as well. While the proportion of students enrolled in the university by sex is approximately 51% male and 49% female, the proportion of students who sought for help from CAPS is 63.2% female and 33.7% male according to CAPS Annual Report for the Fiscal Year July 1, 2019 – June 30, 2020. While this does not necessarily mean that male students are not receiving as much mental healthcare, we have strong evidence that they are not [Hunt and Eisenberg, 2010].

On the question of how informed students are, knowing someone (including the respondents themselves) increase the average response on how informed the students are by 0.6 points on the Likert Scale. Responses on how informed the student is about CAPS is also positively correlated with both the belief of its adequacy and approval of ASUN's initiatives on mental health.

While we are not able to tell if that is a causal relationship, the data does suggest that providing more information to students about mental health resources at UNL could increase their satisfaction about the services. One potential way to address the gap of knowledge is perhaps by encouraging conversations about mental health and seeking help for them. It is likely that if students know about a friend or someone around them who is seeking help, they would be personally more interested and invested in learning about mental health resources on campus, and may even seek help if they need it themselves. This inference is supported by prior research done on mental health resources in universities. [Baik et al., 2019].

This initiative could also destigmatize mental health issues and related help seeking behavior. 50% of students believe that others think less of those who receive mental help which creates a lot of barriers for those who need help [Ketchen Lipson et al., 2019]. The results from the survey also suggest that there is room for improvement in terms of students' knowledge about CAPS and mental health issues at UNL as a whole. While respondents on average agree that they are somewhat informed about the services by CAPS, subsequent questions about its adequacy, funding and the role of ASUN in mental health could possibly show the lack of knowledge about how CAPS work.

With the most common response for the aforementioned three questions being neither agree nor disagree, this could be reflecting that students' are not taking a stance given their lack of information about how CAPS operate and the mental needs of college students, or that genuinely are neutral towards the questions. The reason why we feel it necessary to mention about this is because 96 respondents (almost a third of responses) chose "Insufficient Knowledge" for the question "ASUN has done enough to improve mental health services on campus".

4.2 Other Implications and Future Studies

It is also important to note that CAPS does not only provide clinical services, but also other preventive services. Nevertheless, most literature on the efficacy of programs are primarily clinical [Hunt and Eisenberg, 2010]. There might be alternatives involving student oriented mental health resources that are run by students but research on their effectiveness is extremely limited.

Even though providing therapy to students who need help has shown to be empirically useful, resources are extremely limited and care costly to provide. According to UPFF funding for CAPS for the fiscal year 2019-2020, CAPS received \$1,115,848.00 in total and the annual report showed that there were a total of 12,180 attended appointments for the year. This averages one appointment to \$91.61, while private practices charge anywhere from \$80 to \$200 per session. The cost for each patient was on average \$399.09 according to data provided in the CAPS Annual Report. Provision of mental health resources without additional charges is rather costly, especially for recurring patients. One of the most common administrative issues is the requirement of long-term care for students with serious mental health issues [Hunt and Eisenberg, 2010].

On-campus mental health resources can be seen not only as a medical issue but also as a retention/investment problem for University administrators. While colleges often track students' GPA as a measure of performance and at-risk students who might dropout, GPA could only predict 11% of dropout rates. Adding metrics on mental health predicts up to 30% of dropout and discontinuation, but instituting mental health metrics college wide is extremely challenging, both logistically and ethically speaking. It should not, however, be ignored given its importance since maintaining and improving students' mental health is crucial for both the college and students themselves [Ketchen Lipson et al., 2019].

A study conducted on college students to estimate the impact of mental health on college performance, predicted that an increase of 1 point on the PHQ-9 Depression Test Questionnaire (from 0-27) predicts a 0.31% increase in dropout probability. With the mean of 8% probability of dropout, that is 3.875% increase relative to the mean for every point or nearly 60% increase in dropout probability for an increase of 15 points, which is not an uncommon occurrence [Eisenberg et al., 2009].

The paper also found that anhedonia is the strongest predictor relative to other measures. Lower household income as well as lower college-readiness test scores positively correlated with the likelihood of facing mental health issues. Interestingly, students who are facing mental health problems such as depression is not correlated with the likelihood of dropping classes during the semester [Eisenberg et al., 2009]. This is particularly concerning in during the COVID-19 pandemic given that interactions on campus is limited by social distancing measures.

One of the major relevance of the study mentioned is that provides an empirical method to quantify the monetary costs of mental health on campus for both the students and for the college to provide a rough estimate for investing in student mental health [Eisenberg et al., 2009]. We have considered predicting such a value for the University but due to limitations of data and expertise, we were not able to do so.

5 Conclusion

The survey conducted provides us with insights about how students in UNL think about mental health and CAPS. A general implication that should not be ignored from this study is that information, at this stage, remains an important area to focus on. We know that the more knowledge about CAPS and its services increases the likelihood of the student feeling satisfied about the services. On top of that, knowing someone who uses CAPS greatly increases the likelihood of the students' being informed about CAPS.

One of our concerns regarding CAPS is that students are not satisfied with the services itself. Even though we cannot verify this hypothesis with the dataset we collected, it certainly suggests that it is not the case. While improving the service itself is important, the data suggests that working to increase the awareness of about CAPS is a frontier worth investing in.

We also hope that this dataset could be collected over time to form a time-series data as a means to keep a "College Mental Health Scorecard". This could help significantly in future related studies.

As mentioned in the Discussions & Implications section, we do hope that if given the opportunity, we would be able to conduct a more rigorous study to quantify the "optimal mental investment" for the University. While we do not have the exact figure, we think that shifting the conversation of mental health issues on campus as a question of investing in students' mental health would prompt the University to rethink its policies on mental health, not solely from a student's personal issue, but a collective issue for the whole campus.

6 Disclaimer

This is not an official ASUN correspondence.

The findings in this report reflects only the Registered Student Organization, Groundwork UNL. It does not necessarily reflect the opinions of other parties including ASUN.

The dataset that is used for the analysis can be obtained from the link below:

Source: <https://github.com/groundworkunl/CAPS>.

Any detected errors can be reported to the official channel of communication of Groundwork UNL via email *groundwork@unl.edu*.

7 Acknowledgement

7.1 Preparation of the Report

The primary author of this report is *Justin Ho*, the Director of Data and Policy of Groundwork UNL.

It is co-authored by:

1. *Brent Lucke*, the Director of Media and Outreach of Groundwork UNL
2. *Garrett Meyer*, a committee member of the Data and Policy Department of Groundwork UNL
3. *Riley Hayes*, a committee member of the Data and Policy Department of Groundwork UNL

7.2 Special Acknowledgement

We'd like to thank the following individuals for their indispensable contributions to our report. Their inputs from different backgrounds and perspective helped us in collecting a useful dataset that we can draw inferences from.

Special thanks to *Alan Wilkins* for playing a vital role as an official advisor for our organization.

Special thanks to *Professor Tim Hodges* from the Clifton Strengths Institute for his continuing support for our endeavours during this trying time.

Special thanks to *Dr. Tricia Besett-Alesch* and *Dr. Joseph (Joey) Walloch*, the Director and Assistant Director of CAPS respectively, who provided us with invaluable help and information relevant to CAPS, as well as their cooperation that helped make this report successful.

Special thanks to *Dr. Jamie Hyodo*, Assistant Professor of Marketing, who provided us with feedback and pointers to improve the structure of our survey.

Special thanks to *Ruzbeh Ghaffar*, *Sarah Reyes*, *Riley Hayes*, *Brent Lucke*, *William Beck*, *Martin Herz*, *Tanner Dyskstra*, *Shivani Mudhelli* and *Justin Ho* for the collection of the data. We would not be able to complete this survey without your help.

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