

# The Economic Behaviors during a Pandemic

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## Abstract

The economic behaviors during a Pandemic, will show data on how the COVID-19 Pandemic has affected a selected number of college students for 3 consecutive academic semesters from Spring 2021, Fall 2021, to Spring 2022. The COVID-19 Pandemic effects on countries and its citizens have been profound to say the least. Jobs/industries disappeared in an instant resulting in high unemployment (14% - 2nd Qtr.). Supply Chain debacle that the delivery of goods and services across the United States. The race for a vaccine which did not come until a year and a half in the Pandemic, with deaths reaching approximately 1 million people. Data were gathered in a macroeconomic level. However, there were literally no data on the people that was greatly affected. The students (K12). The data show that COVID-19 affected students of all races, gender and employment status financially and emotionally.

## Keywords

Emotional, Financial, Employment, Age, Racial, Ethnic, Neuroeconomics, Socioeconomics, Normal Goods, Inferior Goods

## 1. Introduction

Since the spring of 2020, the world was sent into deep unknown spiral thanks to the COVID-19 Pandemic. The world came to a complete halt in an instant. Industries shut down. Schools and universities went from face-to-face to online. In 2021, I wanted to conduct an online experiment/survey that will describe how COVID-19 has affected their lives. The main direction for my experiment was to target college students. First, the potential for a large sample size in one place was very promising. Second, I believed the answers would be particularly diverse and very promising for my experiment.

The main emphasis for this study is to determine the behavioral attitudes of college students during the onset of COVID-19 Pandemic. The beginning of the

experiment was conducted a full year within the pandemic. I wanted to make sure the students that participated in the experiment had enough time to experience the overall effects living through the pandemic to honestly answer the questions.

The 14 questions selected for this study was selected and approved by the Internal Review Board from University of North Carolina at Pembroke, in Pembroke North Carolina. Only basic questions general questions I was allowed to ask that did not infringe on any personal information being revealed. The significance of the questions was to see what racial group and gender was affected emotionally, financially or both emotionally and financially during the during the COVID-19 Pandemic. The Internal Review Board only allowed asking the students if they were affected emotionally, financially or both emotionally and financially.

I conducted the experiment at the University of North Carolina at Pembroke where I was a college professor. The students that participated in the experiment were part of my Economics 1000 class for the Spring and Fall semesters for 2021 and the Spring of 2022. A total of 170 out of 300 students that participated during the 3 consecutive semesters. The sample size of 170 students of various ages, racial and gender groups was sufficient for representation of college students at the University of North Carolina at Pembroke since the students were non-business/economics majors. I offered students that participated 10 points added to any test which was permitted by the department.

### **Significance**

The significance for this article is to indicate how the COVID-19 Pandemic has affected individuals emotional and financial behavior. Due to the actual structure of the questions, there could be a variety of answers to emotional, positive or negative. I would like to emphasize of the various possibilities of students being financially or emotionally affected during the COVID-19 Pandemic. Cognitive factors like constant worrying and anxiety due to job loss, sudden change in the economy, inability to purchase everyday necessities, can have a negative effect. Another significance to ponder is to see if race or gender has a correlation with cognitive, emotions and financial. The following section: Emotion vs. Financial Behavior will provide in more detail about emotional and financial behavior with viable sources.

Racial and Ethnic Disparities section significance is to explain the findings in my experiment have relations to similar research findings on the impact from COVID-19 according to race (minorities). The significance of the Socioeconomic Factors section is to attention to the students that participated in this experiment regarding their employment emphasis. Does the student work in a critical service where they work around people like a hospital or supermarket. However, a question about the affect of their health was not allowed to be asked during this experiment. The Related Experiment significance is to show similar experi-

ments that was conducted where 177 students was studied to show students emotional affects on their academic progress, and another experiment that studied the effects of joy and anxiety during the COVID-19 Pandemic.

## 2. Emotion vs. Financial Behavior

The questions involved in the experiment only asked the students if the experienced emotional and financial problems during the COVID-19 Pandemic. Students were only to select emotional or financial or both without further detail into the answer. The purpose of these answers is to decide if the race/ethnicities and gender of the students are a direct cause of their experience with COVID-19 on their emotional and financial well-being.

Another purpose for this experiment is to connect the effects of emotional and financial problems due to COVID-19 Pandemic to the emotion with cognition that leads to the financial decision making that has occurred. In *Editorial: Emotions and Cognition in Financial Decision-Making*, “The relationship between emotions and cognition and their impact upon behavior has moved through several trends, beginning with theory positing that ‘hot’ emotions are simply a by-product of ‘cold’ cognition through to the widely accepted perspective that emotions are an integrative signal within decision-making and that cognitions and emotions influence each other to drive behavior.” (Hinvest et al., 2021).

Human behavior in financial decision making on a daily basis can be affected by outcomes positive or negative. The article explains that individuals will need to experience the impact of the positive or negative outcomes of a certain situation to alter their decision making in making a financial decision. The term Neuroeconomics which is a study of economics and psychology is a term that coincide with my experiment that will help explain cognitive emotions of the students participating in the experiment to see how the brain reacts to certain decisions (Hinvest et al., 2021).

### 2.1. Racial and Ethnic Disparities

This section will explain the racial and ethnic disparities of COVID-19. Although racial and ethnic disparities were not part of the experiment, it is necessary to show correlation between minorities and female emotional and financial well being due to COVID-19 and mortality rates. “African Americans are 3x likely to die from COVID-19 than Whites of the same age. Hispanics/Latinos are 2x likely to die from COVID-19 than Whites of the same age. The Navajo Nation are the highest risk to die from COVID-19 than anyone racial group.” (McLaren, 2021).

The article *Racial and Ethnic Disparities in COVID-19: Evidence from Six Large Cities*, conducted a study for racial and ethnic disparities in confirmed COVID-19 cases in Baltimore, Chicago, New York, San Diego, St. Louis and Atlanta for a total of 17.7 million that covered 436 Neighborhoods (Benitez et al., 2020). The results in this study revealed that there is a positive and statistically

significant correlation between the percentage of Black and Hispanic residents in a ZIP code and the number of COVID-19 cases per capita. The differences are noticeable for Black and Hispanic people, but more so for Hispanic people (Benitez et al., 2020).

*Understanding Spatial Variation in COVID-19 across the United States* article the authors purpose was to identify the factors that contribute to heterogeneity in COVID-19 cases and fatalities and present data that is highly supportive of the second hypothesis. The second hypothesis is reviewing the geographic variance in instances and fatalities is a reflection of underlying, basic differences across regions, including population density, transportation options, housing configurations, age distribution, weather, and health conditions. Results from this study confirmed that there was a strong connection with the minority population share are confirmed when looking at both cases and deaths, especially for African American and Hispanic/Latino shares (Desmet & Wacriarg, 2020). However, the study also revealed that Counties with high Trump vote shares in 2016 had lower death and case counts, which helps to explain the growing political rift over lockdown and reopening policies. However, this correlation is reversed when minority group shares are taken into account (Desmet & Wacriarg, 2020).

## 2.2. Socioeconomic Factors

Socioeconomic factors could be an apparent factor between the results in the experiment and mortality rates for minorities. Examples of certain socioeconomic factors are jobs in the critical services that require a high amount of contact with people. Having pre-existing diseases that will increase risk of a COVID-19 infection (McLaren, 2021). Critical service jobs like a nurse at a hospital and pre-existing diseases like high blood pressure and cardiovascular disease, has a strong correlation between an individual's emotional well-being.

### Related Experiment

A similar experiment that was conducted, was by Yurou Wang, Jihong Zhang and Halim Lee in 2021. In the article: *An Online Experiment During COVID-19: Testing the Influences of Autonomy Support Toward Emotions and Academic Persistence*, a more detailed experiment was conducted on 177 students in an online test to determine real-time emotional balance (Wang et al., 2021). Using an experimental design and the Contain Intelligent Facial Expression Recognition System (CIFERS), this study investigated the dynamic relationships between autonomy support (having choice and having no option), real-time emotions (joy and anxiety), three types of persistence: self-perceived, self-reliance, and help-seeking (Wang et al., 2021).

## 3. Research Analysis

In order to measure the effects of COVID-19 for the college semester periods: Spring and Fall 2021, and Spring 2022, a 14-question survey (Liggon, 2022) was

administered. The survey is located in the **Appendix**. The main purpose was to determine emotional and financial by race/ethnicities/gender. All factors that were studied were employment status, confidence in the economy, age, highest educational level, increase in inferior/normal goods purchased before and after start of the pandemic and finally purchasing in bulk before or after the start of the pandemic. The null and alternative hypothesis are as follows.

$H_0$ : Females and Minorities are affected by both emotionally or financially from the COVID-19 Pandemic than Males and Whites.

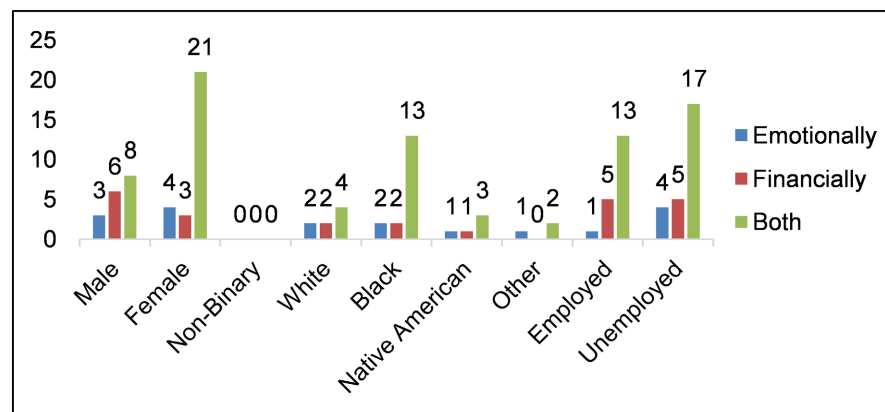
$H_a$ : Females and Minorities are not affected both emotionally and financially from the COVID-19 Pandemic than Males and Whites.

### 3.1. Research Method

To conduct the analysis for this experiment, descriptive statistics was used by displaying bar graphs for Spring 2021 (**Figure 1**), Fall 2021 (**Figure 2**) and Spring 2022 (**Figure 3**). The graphs indicate the statistics for financial, emotional issues or both financial and emotional. The questions are divided by: Male, Female, Non-Binary, White, Black, Native American, Other, Employed and Unemployed. For each question in the survey, a breakdown is computed in percentages for every selection that was chosen by the students that participated in the experiment. Descriptive statistics will be shown for each question and answer for this experiment. 52 students participated in the experiment for Spring 2021. 65 students participated in the experiment for the Fall of 2021. 53 students participated in the experiment for the Spring 2022. The independent variables in the experiment are gender (Male, Female), Race/Ethnicity and Employment Status. The age breakdown for the students that participated in the experiments for the Spring semester of 2021 is shown in **Table 1** (Liggon, 2022), **Figure 2** (Liggon, 2022) for the Fall semester 2021 and **Figure 3** (Liggon, 2022) for the Spring semester 2022.

### 3.2. Results

**Figure 1** (Liggon, 2022) survey results for question # 1. Spring 2021 of COVID-19



**Figure 1.** Spring 2021 breakdown.

**Table 1.** Spring 2021 age breakdown (Liggon, 2022).

Age	# of Respondents	Percentage
Under 21	28	54%
21 - 30	13	25%
31 - 40	3	6%
41 - 50	0	0%
51 - 60	1	1%
Did not Answer	7	14%

Pandemic, 9 or 17% stated they were affected financially only. 8 or 15% were affected emotionally only. 29 or 56% were affected financially and emotionally. 5 or 12% selected something else. 13 or 25% of Black respondents were the most affected of all other racial/ethnic group both emotionally and financially. 13 or 25% of employed and 17 or 33% unemployed respondents were affected both emotionally and financially. 10 or 19% male and 21 or 40% female respondents were affected emotionally and financially. **Table 1** (Liggon, 2022) states 54% of the students that participated in the experiment for the Spring semester were under the age of 21. 1 or 1% was over the age of 50. 7 or 14% did not disclose their age.

**Figure 2** (Liggon, 2022) survey results for question #1. Fall 2021 COVID-19 Pandemic, 8 or 12% stated they were affected financially only. 11 or 17% were affected emotionally only. 38 or 58% were affected both financially and emotionally. 8 or 12% selected something else. 10 or 15% of Black respondents were the most affected of all other racial/ethnic group both emotionally and financially. 19 or 29% of employed and 22 or 34% unemployed respondents were affected both emotionally and financially. 12 or 19% male and 23 or 35% female respondents were affected both emotionally and financially. **Table 2** (Liggon, 2022) shows that 49 or 80% of the students that participate was under the age of 21.

**Figure 3** (Liggon, 2022) survey results for 2022 of COVID-19 Pandemic, 7 or 13% stated they were affected financially only. 10 or 19% were affected emotionally only. 32 or 60% were affected both financially and emotionally. 4 or 8% selected something else. 10 or 19% of Black respondents were the most affected of all other racial/ethnic group both emotionally and financially. 17 or 32% of employed and 15 or 28% unemployed respondents were affected both emotionally and financially. 10 or 19% male and 21 or 40% female respondents were affected both emotionally and financially. **Table 3** (Liggon, 2022) shows that 37 or 73% of the students that participated were under 21. 13 or 25% were between the ages of 21 - 30 and 1 or 2% were between the ages 31 - 40.



Figure 2. Fall 2021 breakdown.

Table 2. Fall 2021 age breakdown (Liggon, 2022).

Age	# of Respondents	Percentage
Under 21	49	80%
21 - 30	11	18%
31 - 40	1	2%
41 - 50	0	0%
51 - 60	0	0%
Did not Answer	0	0%

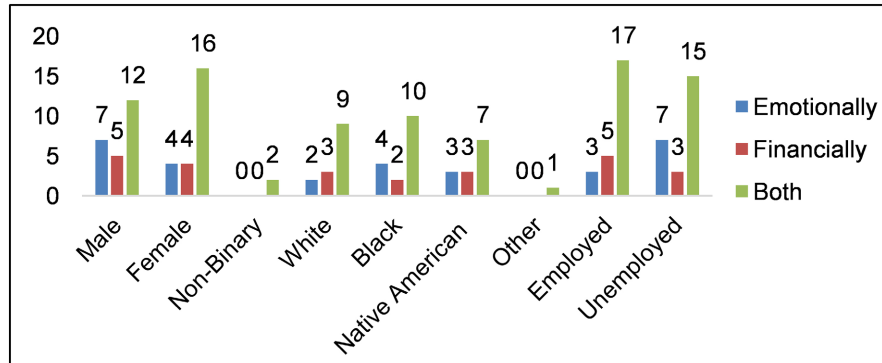


Figure 3. Spring 2022 breakdown.

Table 3. Spring 2022 age breakdown (Liggon, 2022).

Age	# of Respondents	Percentage
Under 21	37	73%
21 - 30	13	25%
31 - 40	1	2%
41 - 50	0	0%
51 - 60	0	0%
Did not Answer	0	0%

### 3.3. Student Descriptive Statistics

The statistics that follows are from the actual results from the questionnaire that was given for the Spring and Fall semesters of 2021 and Spring semester for 2022.

**Table 4** (Liggon, 2022) gives a breakdown of student's employment status from all 3 semesters. 24 or 46% of students for Spring 2021 semester were unemployed. 26 or 40% of students for Fall 2021 semester were unemployed. 27 or 51% for the 2022 spring semester were unemployed. **Table 5** gives a breakdown of gender for all 3 semesters. **Table 5** Emotionally Statistics for Spring 2021, only 3 or 6% males, 4 or 8% females and 1 or 2% something else were emotionally affected by COVID-19. For Fall 2021 shows 7 or 11% males, 4 or 6% females or 8 for something else were affected emotionally by COVID-19. Spring 2022 statistics shows 7 or 13% males, 4 or 8% females and 4 or 8% something else were affected emotionally by COVID-19.

**Table 6** (Liggon, 2022) Financial Statistics shows for Spring 2021, 6 or 12% males, 3 or 6% females and 1 or 2% something else were affected financially by COVID-19. Fall 2021 shows 7 or 11% males, 4 or 6% or 8 or 12% something else were affected financially by COVID-19. Spring 2022 shows 5 or 9% males, 4 or 8% females and 4 or 8% something else were affected financially by COVID-19. **Table 7** (Liggon, 2022) Both Emotionally and Financially Statistics shows for Spring 2021, 8 or 15% males, 21 or 40% females and 1 or 2% something else, were affected both emotionally and financially by COVID-19. For Fall 2021, 14 or 22% males, 23 or 35% females and 8 or 12% something else were affected both emotionally and financially by COVID-19. For Spring 2022, 12 or 23% males, 16 or 30% females, 2 or 4% non-binary and 4 or 8% something else, were affected both emotionally and financially by COVID-19.

**Table 4.** Employment statistics (Liggon, 2022).

Employment Status	Full-Time	Part-Time	Unemployed	No Answer	Something Else
Spring 2021	5 or 10%	17 or 33%	24 or 46%	1 or 2%	5 or 10%
Fall 2021	11 or 17%	23 or 35%	26 or 40%	0%	5 or 8%
Spring 2022	5 or 9%	20 or 38%	27 or 51%	0%	1 or 2%

**Table 5.** Emotionally statistics (Liggon, 2022).

Emotionally	Male	Female	Transgender	Non-Binary	Something Else
Spring 2021	3 or 6%	4 or 8%	0%	0%	1 or 2%
Fall 2021	7 or 11%	4 or 6%	0%	0%	8 or 12%
Spring 2022	7 or 13%	4 or 8%	0%	0%	4 or 8%



**Table 6.** Financially statistics (Liggon, 2022).

Financially	Male	Female	Transgender	Non-Binary	Something Else
Spring 2021	6 or 12%	3 or 6%	0%	0%	1 or 2%
Fall 2021	7 or 11%	1 or 2%	0%	0%	8 or 12%
Spring 2022	5 or 9%	4 or 8%	0%	0%	4 or 8%

**Table 7.** Both statistics (Liggon, 2022).

Both	Male	Female	Transgender	Non-Binary	Something Else
Spring 2021	8 or 15%	21 or 40%	0%	0%	1 or 2%
Fall 2021	14 or 22%	23 or 35%	0%	0%	8 or 12%
Spring 2022	12 or 23%	16 or 30%	0%	2 or 4%	4 or 8%

**Table 8** Gender Statistics (Liggon, 2022) shows the gender for the students that participated in the experiment. Spring 2021 gender breakdown is 20 or 38% males, 26 or 50% females, 5 or 10% something else and 1 or 2% for no answer. For Fall 2021, 28 or 43% were male, 32 or 49% were female, 1 or 2% were non-binary and 4 or 6% something else. Spring 2022 breakdown is 23 or 43% were male, 26 or 49% were female, 3 or 6% were non-binary and 1 or 2% something else. **Table 9** Highest Education Statistics (Liggon, 2022) shows the highest education level for all three groups. Spring 2021 has 30 or 58% completed high school, 11 or 21% has a 2-years of college or a degree, 5 or 10% has 4 years of college or a degree, 5 or 10% something else and 1 or 2% did not answer. For Fall 2021, 45 or 69% completed high school, 12 or 18% has 2 years of college or a degree, 4 or 6% has 4 years or a degree, 4 or 6% something else. Spring 2022 has 39 or 74% completed high school, 9 or 17% has 2 years or a degree, 4 or 8% has 4 years or a degree and 1 or 2% something else.

**Table 10** Living Status Statistics (Liggon, 2022) has all 3 groups living status during the time of the experiment. For Spring 2021, 24 or 46% lived on campus, 22 or 42% lived off campus, 5 or 10% something else and 1 or 2% did not answer. Fall 2021 statistics has 34 or 52% lived on campus, 27 or 42% lived off campus and 4 or 6% something else. Spring 2022 statistics has 24 or 45% lived on campus, 28 or 53% lived off campus and 1 or 2% something else. **Table 11** Ethnicity (Liggon, 2022) breakdown for all 3 groups. Spring 2021 breakdown has 11 or 21% White, 18 or 35% Black, 6 or 12% American Indian/Alaska Native, 6 or 12% Hispanic/Latino, 1 or 2% Native Hawaiian/ Pacific Islander, 0% Asian, 7 or 13% something else, 2 or 4% Ethnicity not listed and 1 or 2% did not answer. For Fall 2021, 25 or 38% White, 20 or 31% Black, 7 or 11% American Indian/Alaska Native, 4 or 6% Hispanic/Latino, 0% Native Hawaiian/Pacific Islander, 0% Asian, 4 or 6% something else, and 5 or 8% Ethnicity not listed. For

**Table 8.** Gender statistics (Liggon, 2022).

Gender	Male	Female	Transgender	Non-Binary	Something Else	No Answer
Spring* 2021	20 or 38%	26 or 50%	0%	0%	5 or 10%	1 or 2%
Fall 2021	28 or 43%	32 or 49%	0%	1 or 2%	4 or 6%	0%
Spring 2022	23 or 43%	26 or 49%	0%	3 or 6%	1 or 2%	0%

**Table 9.** Highest education statistics (Liggon, 2022).

Highest Education	High School	2-Year College Degree	4-Year College Degree	Something Else	No Answer
Spring 2021	30 or 58%	11 or 21%	5 or 10%	5 or 10%	1 or 2%
Fall 2021	45 or 69%	12 or 18%	4 or 6%	4 or 6%	0%
Spring 2022	39 or 74%	9 or 17%	4 or 8%	1 or 2%	0%

**Table 10.** Living status statistics (Liggon, 2022).

Living Status	On-Campus	Off-Campus	Something Else	No Answer
Spring 2021	24 or 46%	22 or 42%	5 or 10%	1 or 2%
Fall 2021	34 or 52%	27 or 42%	4 or 6%	0%
Spring 2022	24 or 45%	28 or 53%	1 or 2%	0%

**Table 11.** Ethnicity statistics (Liggon, 2022).

Ethnicity	White	Black	Ethnicity Not Listed	Asian	American I/Alaska N	Hispanic/Latino	Native Haw/Pac Islander	Something Else	No Answer
Spring 2021	11 or 21%	18 or 35%	2 or 4%	0%	6 or 12%	6 or 12%	1 or 2%	7 or 13%	1 or 2%
Fall 2021	25 or 38%	20 or 31%	5 or 8%	0%	7 or 11%	4 or 6%	0%	4 or 6%	0%
Spring 2022	12 or 23%	16 or 30%	1 or 2%	1 or 2%	15 or 28%	6 or 11%	0%	2 or 4%	0%

Spring 2022, 12 or 23% White, 16 or 30% Black, 15 or 28% American Indian/Alaska Native, 6 or 11% Hispanic/Latino, 0% Native Hawaiian/Pacific Islander, 2 or 4% something else and 1 or 2% Ethnicity not listed.

**Table 12** Types of Goods Purchased Statistics (Liggon, 2022) for Spring 2021, 16 or 31% purchased the same dollar amount. 21 or 40% less expensive goods, 9 or 17% more expensive, 5 or 17% something else and 1 or 2% did not answer. Fall 2021, 26 or 40% purchased the same, 25 or 38% less expensive, 9 or 14% more expensive and 5 or 8% something else. For Spring 2022, 22 or 42% purchased the same amount of goods, 23 or 43% purchased less expensive, 7 or 13% more expensive and 1 or 2% something else. **Table 13** Savings Statistics

**Table 12.** Types of goods purchased statistics.

Types of Goods	Same	Less Expensive	More Expensive	Something Else	No Answer
Spring 2021	16 or 31%	21 or 40%	9 or 17%	5 or 10%	1 or 2%
Fall 2021	26 or 40%	25 or 38%	9 or 14%	5 or 8%	0%
Spring 2022	22 or 42%	23 or 43%	7 or 13%	1 or 2%	0%

**Table 13.** Savings statistics.

Savings	Save Money	Not Able to Save	Something Else	No Answer
Spring 2021	19 or 37%	26 or 50%	5 or 10%	2 or 4%
Fall 2021	35 or 54%	25 or 38%	5 or 8%	0%
Spring 2022	30 or 57%	22 or 42%	1 or 2%	0%

(Liggon, 2022) details if students were able to save money during COVID-19. Spring 2021, 19 or 37% were able to save, 26 or 50% was not able to save, 5 or 10% something else and 2 or 4% did not answer. Fall 2021, 35 or 54% were able to save money, 25 or 38% was not able to save, 5 or 8% something else. Spring 2022, 30 or 57% were able to save money, 22 or 42% were not able to save money, 1 or 2% something else.

**Table 14** Confidence in Economy (1st 6 Months )Statistics (Liggon, 2022) for Spring 2021, 1 or 2% confidence increased, 28 or 54% decreased, 16 or 31% confidence remained the same, 6 or 21% something else and 1 or 2% did not answer. For Fall 2021, 3 or 5% confidence increased, 35 or 54% confidence decreased, 22 or 34% confidence remained the same and 5 or 8% something else. For Spring 2022, 3 or 6% confidence increased, 33 or 62% confidence decreased, 16 or 33% confidence remained the same and 1 or 2% something else. **Table 15** Confidence in Economy (After 1 Year) Statistics (Liggon, 2022) for Spring 2021 5 or 10% confidence increased after a year of COVID-19, 19 or 37% confidence decreased, 22 or 42% confidence remained the same, 5 or 10% something else and 1 or 2% did not answer. For Fall 2021, 10 or 15% confidence increased 1 year into COVID-19, 23 or 35% confidence decreased, 27 or 42% confidence remained the same, 5 or 8% something else and 1 or 2% did not answer. Spring 2022 had 6 or 11% of student's confidence increase in the 1 year of COVID-19, 24 or 45% confidence decrease, 21 or 40% confidence remained the same and 2 or 4% something else.

**Table 16** Purchased Goods in Bulk Before COVID-19 Statistics (Liggon, 2022) shows students in Spring 2021 where 17 or 33% said yes, 27 or 52% said no, 7 or 13% something else and 1 or 2% did not answer. For Fall 2021, 25 or 38% said yes, 35 or 54% said no, and 5 or 8% something else. Students in Spring 2022, 18 or 34% said yes, 34 or 64% said no and 1 or 2% something else. **Table 17** Purchased Goods in Bulk Since COVID-19 Statistics (Liggon, 2022) shows students in Spring 2021 where 16 or 31% said yes to purchasing in bulk since COVID-19

**Table 14.** Confidence in economy (1st 6 months) statistics.

Confidence	Increased	Deceased	Remained the Same	Something Else	No Answer
Spring 2021	1 or 2%	28 or 54%	16 or 31%	6 or 21%	1 or 2%
Fall 2021	3 or 5%	35 or 54%	22 or 34%	5 or 8%	0%
Spring 2022	3 or 6%	33 or 62%	16 or 30%	1 or 2%	0%

**Table 15.** Confidence in economy (after 1 year) statistics.

Confidence	Increased	Deceased	Remained the Same	Something Else	No Answer
Spring 2021	5 or 10%	19 or 37%	22 or 42%	5 or 10%	1 or 2%
Fall 2021	10 or 15%	23 or 35%	27 or 42%	5 or 8%	1 or 2%
Spring 2022	6 or 11%	24 or 45%	21 or 40%	2 or 4%	0%

**Table 16.** Purchased goods in bulk before COVID-19 statistics.

Goods Purchased	Yes	No	Something Else	No Answer
Spring 2021	17 or 33%	27 or 52%	7 or 13%	1 or 2%
Fall 2021	25 or 38%	35 or 54%	5 or 8%	0%
Spring 2022	18 or 34%	34 or 64%	1 or 2%	0%

**Table 17.** Purchased goods in bulk since COVID-19 statistics.

Goods Purchased	Yes	No	Something Else	No Answer
Spring 2021	16 or 31%	29 or 56%	6 or 12%	1 or 2%
Fall 2021	34 or 52%	26 or 40%	5 or 8%	0%
Spring 2022	21 or 40%	30 or 57%	2 or 4%	0%

started, 29 or 56% said no, 6 or 12% something else and 1 or 2% did not answer. For Fall 2021, 34 or 52% said yes, 26 or 40% said no and 5 or 8% something else. Students for Spring 2022 21 or 40% said yes, they purchased in bulk during COVID-19, 30 or 57% said no and 2 or 4% something else.

**Table 18** Brand of Goods Purchased During COVID-19 Statistics (Liggon, 2022) shows students for Spring 2021 12 or 23% bought more organic goods during the COVID-19 pandemic started. 33 or 63% still purchased store brand goods. 2 or 4% something else and 1 or 2% did not answer. For Fall 2021, 18 or 28% of the students purchased organic goods where 39 or 60% purchased store brands. 8 or 12% of students selected something else. Spring 2022 shows 9 or 12% students purchased organic. 43 or 81% purchased store brands and 1 or 2% said something else.

**Table 18.** Brand of goods purchased during COVID-19 statistics.

Brand of Goods	Organic	Store Brand	Something Else	No Answer
Spring 2021	12 or 23%	33 or 63%	2 or 4%	1 or 2%
Fall 2021	18 or 28%	39 or 60%	8 or 12%	0%
Spring 2022	9 or 17%	43 or 81%	1 or 2%	0%

### Experiment Variables

The independent variables that are used for the experiment for Spring 2021, Fall 2021 and Spring 2022 are:  $X_1$ : Race,  $X_2$ : Gender. The dependent variables used for the experiment are:  $Y_1$ : Emotionally,  $Y_2$ : Financially,  $Y_3$ : Both. The experiment will observe the regression analysis between the independent and dependent variables to prove the null hypothesis or alternative hypothesis.

For the experiment, I will conduct a regression analysis between Gender/Emotionally, Gender/Financially, Gender/Both Emotionally/Financially, Race/Emotionally, Race/Financially, Race/Both/Emotionally/Financially, to determine if there are significant casual affects due to COVID-19 by Race or Gender. For the experiment, I selected Gender and Race as independent variables because they are not affected by other variables that are classified and dependent like Emotional, Financial or Both Emotional and Financial in the experiment. **Table 19** Gender/Emotional Statistics Spring 2021 (Liggon, 2022) has a t stat of  $-2.962310152$  and a  $P$ -value of  $0.004737886$ . The gender being affected emotionally for females is insignificant since both gender numbers are the same. The  $P$ -value is below  $0.50\%$  or  $50\%$  so there is no significance. The null hypothesis is rejected. **Table 20** Gender/Financial Statistics Spring 2021 (Liggon, 2022) has a t stat of  $0.55150559$  and a  $P$ -value of  $0.583845588$  which shows a  $58\%$  chance of significance of females being affected more than males financially. The null Hypothesis is accepted.

**Table 21** Gender Both Statistics Spring 2021 (Liggon, 2022) has a t stat of  $1.9877233$  and a  $P$ -value of  $0.052563052$ . The null hypothesis is rejected because the t stat is higher than  $1.96$ . **Table 22** Racial/Emotional Statistics Spring 2021 (Liggon, 2022) has a t stat of  $-1.26169396$  and a  $P$ -value of  $0.213155826$ . Since it falls between  $-1.96$  and  $1.96$ , the null hypothesis is accepted because Minorities were more affected than Whites. **Table 23** Racial/Financial Statistics Spring 2021 (Liggon, 2022) has a t stat of  $0.036623086$  and a  $P$ -value of  $0.970937423$ . The null hypothesis is accepted which shows Minorities were slightly more affected than Whites Financially.

**Table 24** Racial Both Statistics Spring 2021 (Liggon, 2022) has a t stat of  $0.479079$  and a  $P$ -value of  $0.634057491$ . The null hypothesis is accepted because Minorities were more affect Both emotionally and financially than Whites. **Table 25** Gender/Emotional Statistics Fall 2021 (Liggon, 2022) has a t stat of  $-3.251414676$  and a  $P$ -value of  $0.001858846$ . The null hypothesis is rejected. **Table 26** Gender/Financial Statistics Fall 2021 (Liggon, 2022) has a t stat of

**Table 19.** Gender/emotional statistics spring 2021 (Liggon, 2022).

Regression Statistics		ANOVA						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression Statistics		Regression	1	1.486883117	1.486883117	8.775281437	0.004737886	
Multiple R	0.393143	Residual	48	8.133116883	0.169439935			
R Square	0.154562	Total	49	9.62				
Adjusted R Square	0.136948							
Standard Error	0.411631							
Observations	50							

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.801948	0.191986164	4.177113783	0.000123884	0.415933998	1.187962106	0.415933998	1.187962106
Gender	-0.3474	0.117274215	-2.962310152	0.004737886	-0.58319821	-0.111606985	-0.58319821	-0.111606985

**Table 20.** Gender/financial statistics spring 2021 (Liggon, 2022).

Regression Statistics		ANOVA						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression Statistics		Regression	1	0.132987013	0.132987013	0.304158416	0.583845588	
Multiple R	0.079352	Residual	48	8.133116883	0.169439935			
R Square	0.154562	Total	49	9.62				
Adjusted R Square	0.136948							
Standard Error	0.411631							
Observations	50							

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.077922078	0.308401683	0.252664243	0.80160658	-0.542161066	0.698005222	-0.542161066	0.698005222
Gender	0.103896104	0.188386312	0.55150559	0.583845588	-0.274879962	0.48267217	-0.274879962	0.48267217

**Table 21.** Gender both statistics spring 2021 (Liggon, 2022).

Regression Statistics		ANOVA						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression Statistics	Regression	1	7.795454545	7.795454545	3.951043916	0.052563052		
Multiple R	0.275777	Residual	48	94.70454545	1.973011364			
R Square	0.076053	Total	49	102.5				
Adjusted R Square	0.056804							
Standard Error	1.404639							
Observations	50							
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.659091	0.655129018	1.006047497	0.319437564	-0.658134265	1.976316084	-0.658134265	1.976316084
Gender	0.795455	0.400183741	1.9877233	0.052563052	-0.009168793	1.600077884	-0.009168793	1.600077884

**Table 22.** Racial/emotional statistics spring 2021 (Liggon, 2022).

Regression Statistics		ANOVA						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression Statistics	Regression	1	0.30879668	0.30879668	1.591871658	0.213155826		
Multiple R	0.179163185	Residual	48	9.31120332	0.193983402			
R Square	0.032099447	Total	49	9.62				
Adjusted R Square	0.011934852							
Standard Error	0.440435469							
Observations	50							
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.455739972	0.167177382	2.726086302	0.008920051	0.119607316	0.791872628	0.119607316	0.791872628
Race	-0.042185339	0.033435476	-1.26169396	0.213155826	-0.10941187	0.025041192	-0.10941187	0.025041192

**Table 23.** Racial/financial statistics spring 2021 (Liggon, 2022).

Regression Statistics		ANOVA				
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression Statistics	Regression	1	0.000590134	0.000590134	0.00134125	0.970937423
Multiple R	0.005286013	Residual	48	21.11940987	0.439987706	
R Square	2.79419E-05	Total	49	21.12		
Adjusted R Square	-0.020804809					
Standard Error	0.663315691					
Observations	50					

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.231443061	0.251776682	0.919239461	0.362566873	-0.274787886	0.737674009	-0.274787886	0.737674009
Race	0.001844168	0.050355336	0.036623086	0.970937423	-0.099402022	0.103090357	-0.099402022	0.103090357

**Table 24.** Racial both statistics spring 2021 (Liggon, 2022).

Regression Statistics		ANOVA				
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression Statistics	Regression	1	0.487782388	0.487782	0.229517162	0.634057491
Multiple R	0.068984437	Residual	48	102.0122176	2.125255	
R Square	0.004758853	Total	49	102.5		
Adjusted R Square	-0.015975338					
Standard Error	1.457825275					
Observations	50					

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	1.653988013	0.553351014	2.989039	0.004402621	0.54140123	2.766574796	0.54140123	2.766574796
Race	0.053019825	0.110670203	0.479079	0.634057491	-0.169497532	0.275537181	-0.169497532	0.275537181



**Table 25.** Gender/emotional statistics fall 2021 (Liggon, 2022).

Regression Statistics		ANOVA						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression Statistics	Regression	1	1.509075599	1.509075599	10.5716974	0.001858846		
Multiple R	0.381670612	Residual	62	8.850299401	0.142746765			
R Square	0.145672456	Total	63	10.359375				
Adjusted R Square	0.131892979							
Standard Error	0.377818428							
Observations	64							
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.523952096	0.109392845	4.789637693	1.07907E-05	0.305278914	0.742625278	0.305278914	0.742625278
Gender	-0.19011976	0.058472935	-3.251414676	0.001858846	-0.307005493	-0.073234028	-0.307005493	-0.07323403

**Table 26.** Gender/financial statistics fall 2021 (Liggon, 2022).

Regression Statistics		ANOVA						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression Statistics	Regression	1	0.084206587	0.084206587	0.126248914	0.723559416		
Multiple R	0.045079206	Residual	62	41.35329341	0.666988603			
R Square	0.002032135	Total	63	41.4375				
Adjusted R Square	-0.014064121							
Standard Error	0.816693702							
Observations	64							
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.482035928	0.236463977	2.038517388	0.045768733	0.009351174	0.954720682	0.009351174	0.954720682
Gender	-0.04491018	0.126395312	-0.355315232	0.723559416	-0.297570809	0.207750449	-0.297570809	0.207750449

-0.355315232 and a *P*-value of 0.723559416. The null hypothesis is rejected and the alternative hypothesis is accepted. Males were more affected than Females. **Table 27** Gender/Both Statistics Fall 2021 (Liggon, 2022) has a *t* stat of 2.702657576 and a *P*-value of 0.008863098. The null hypothesis is rejected.

**Table 28** Racial/Emotional Statistics Fall 2021 (Liggon, 2022) *t* stat is 1.808327781 and a *P*-value of 0.075405616. This shows Minorites were more affected than Whites. The null hypothesis is accepted. **Table 29** Racial/Financial Statistics Fall 2021 (Liggon, 2022) has a *t* stat of -2.453939526 and a *P*-value of 0.016952972. The null hypothesis is rejected. The alternative hypothesis is accepted. **Table 30** Racial/Both Statistics Fall 2021 (Liggon, 2022) has a *t* stat of 0.817952134 and a *P*-value of 0.416517022. The data shows Whites were significantly more affected both emotionally and financially than Minorities. The null hypothesis is rejected and the alternative hypothesis is accepted.

**Table 31** Gender/Emotional Statistics Spring 2022 (Liggon, 2022) has a *t* stat of -1.853822452 and a *P*-value of 0.069552406. The null hypothesis is rejected because Males where more affected than females emotionally. **Table 32** Gender/Financial Statistics Spring 2022 (Liggon, 2022) has a *t* stat of -1.172926668 and a *P*-value of 0.246274546 which shows males are slightly more affected than females. The null hypothesis is rejected. **Table 33** Gender/Both Statistics Spring 2022 (Liggon, 2022) *t* stat is 2.112407554 and a *P*-value is 0.039667926. The null hypothesis is accepted because females were more affected than males both emotionally and financially. **Table 34** Racial/Emotional Statistics Spring 2022 (Liggon, 2022) has a *t* stat of -1.18357493 and a *P*-value of 0.242068937 accepting

**Table 27.** Gender/both statistics fall 2021 (Liggon, 2022).

Regression Statistics		ANOVA						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression Statistics	Regression	1	14.45069237	14.45069237	7.304357975	0.008863098		
Multiple R	0.32464652	Residual	62	122.6586826	1.978365849			
R Square	0.105395363	Total	63	137.109375				
Adjusted R Square	0.090966256							
Standard Error	1.406543938							
Observations	64							
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.835329341	0.407248118	2.051155807	0.044483284	0.021251954	1.649406729	0.021251954	1.649406729
Gender	0.588323353	0.217683275	2.702657576	0.008863098	0.153180686	1.02346602	0.153180686	1.02346602

**Table 28.** Racial/emotional statistics fall 2021 (Ligon, 2022).

Regression Statistics		ANOVA						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression Statistics	Regression	1	0.519007844	0.519007844	3.270049364	0.075405616		
Multiple R	0.223830974	Residual	62	9.840367156	0.158715599			
R Square	0.050100305	Total	63	10.359375				
Adjusted R Square	0.034779342							
Standard Error	0.398391264							
Observations	64							
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-0.080215504	0.1644098	-0.487899773	0.627341821	-0.40886601	0.248435004	-0.40886601	0.248435004
Race	0.057567595	0.031834712	1.808327781	0.075405616	-0.00606909	0.121204278	-0.00606909	0.121204278

**Table 29.** Racial/financial statistics fall 2021 (Ligon, 2022).

Regression Statistics		ANOVA						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression Statistics	Regression	1	3.668369001	3.668369001	6.021819196	0.016952972		
Multiple R	0.297536147	Residual	62	37.769131	0.609179532			
R Square	0.088527759	Total	63	41.4375				
Adjusted R Square	0.073826594							
Standard Error	0.78049954							
Observations	64							
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	1.159533074	0.322099868	3.599917879	0.000633337	0.515664612	1.803401536	0.515664612	1.803401536
Race	-0.15304799	0.062368281	-2.453939526	0.016952972	-0.27772041	-0.02837557	-0.27772041	-0.028375573

**Table 30.** Racial/both statistics fall 2021 (Liggon, 2022).

Regression Statistics		ANOVA				
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression Statistics	Regression	1	1.463759915	1.463759915	0.669045694	0.416517022
Multiple R	0.103324033	Residual	62	135.6456151	2.187832501	
R Square	0.010675856	Total	63	137.109375		
Adjusted R Square	-0.005280985					
Standard Error	1.479132347					
Observations	64					

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	1.352289734	0.610414625	2.215362606	0.030417019	0.132088285	2.572491182	1.352289734	0.610414625
Race	0.096677641	0.118194742	0.817952134	0.416517022	-0.139590281	0.332945564	0.096677641	0.118194742

**Table 31.** Gender/emotional statistics spring 2022 (Liggon, 2022).

Regression Statistics		ANOVA				
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression Statistics	Regression	1	0.233466743	0.233466743	3.436657682	0.069552406
Multiple R	0.251259454	Residual	51	3.464646465	0.067934244	
R Square	0.063131313	Total	52	3.698113208		
Adjusted R Square	0.044761339					
Standard Error	0.260641985					
Observations	53					

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.222222222	0.086880662	2.557786944	0.013549093	0.047802016	0.396642429	0.047802016	0.396642429
Gender	-0.088383838	0.047676539	-1.853822452	0.069552406	-0.184098484	0.007330808	-0.184098484	0.007330808

**Table 32.** Gender/financial statistics spring 2022 (Liggon, 2022).

Regression Statistics		ANOVA						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression Statistics	Regression	1	1.129979036	1.129979036	1.375756969	0.246274546		
Multiple R	0.162071147	Residual	51	41.88888889	0.821350763			
R Square	0.026267057	Total	52	43.01886792				
Adjusted R Square	0.007174254							
Standard Error	0.906284041							
Observations	53							
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.888888889	0.30209468	2.942418212	0.004889678	0.282408512	1.495369266	0.282408512	1.495369266
Gender	-0.194444444	0.165777154	-1.172926668	0.246274546	-0.527255967	0.138367079	-0.527255967	0.138367079

**Table 33.** Gender/both statistics spring 2022 (Liggon, 2022).

Regression Statistics		ANOVA						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression Statistics	Regression	1	8.891323792	8.891323792	4.462265676	0.039667926		
Multiple R	0.286239695	Residual	50	99.62790698	1.99255814			
R Square	0.081933163	Total	51	108.5192308				
Adjusted R Square	0.007649678							
Standard Error	1.411580015							
Observations	53							
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	1	0.470526672	2.125278034	0.03852733	0.054919366	1.945080634	1	0.470526672
Gender	0.546511628	0.258715051	2.112407554	0.039667926	0.026867155	1.066156101	0.546511628	0.258715051

**Table 34.** Racial/emotional statistics spring 2022 (Liggon, 2022).

Regression Statistics		ANOVA						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression Statistics	Regression	1	0.098862909	0.098862909	1.40084961	0.242068937		
Multiple R	0.163503326	Residual	51	3.599250298	0.070573535			
R Square	0.026733338	Total	52	3.698113208				
Adjusted R Square	0.007649678							
Standard Error	0.2656568							
Observations	53							
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.163571307	0.082898562	1.973150102	0.053909691	-0.002854502	0.329997115	-0.002854502	0.329997115
Race	-0.02112796	0.01785097	-1.18357493	0.242068937	-0.056965278	0.014709357	-0.056965278	0.014709357

**Table 35.** Racial/financial statistics spring 2022 (Liggon, 2022).

Regression Statistics		ANOVA						
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>		
Regression Statistics	Regression	1	0.03812163	0.03812163	0.045234281	0.832421649		
Multiple R	0.029768452	Residual	51	42.98074629	0.842759731			
R Square	0.000886161	Total	52	43.01886792				
Adjusted R Square	-0.018704307							
Standard Error	0.918019461							
Observations	53							
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	0.511330721	0.28646921	1.784941287	0.080218822	-0.063780216	1.086441658	-0.063780216	1.086441658
Race	0.013119782	0.061686875	0.212683523	0.832421649	-0.110721787	0.136961351	-0.110721787	0.136961351

**Table 36.** Racial/both statistics spring 2022 (Liggon, 2022).

Regression Statistics		ANOVA					
		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>	
Regression Statistics		Regression	1	0.423023754	0.423023754	0.19743028	0.658682914
Multiple R	0.062098742	Residual	51	109.2750895	2.142648813		
R Square	0.003856254	Total	52	109.6981132			
Adjusted R Square	-0.015675977						
Standard Error	1.463778949						
Observations	53						

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	1.742289998	0.456774194	3.814335445	0.000370089	0.82527754	2.659302457	0.82527754	2.659302457
Race	0.043704209	0.098359515	0.444331273	0.658682914	-0.153760758	0.241169175	-0.153760758	0.241169175

the null hypothesis because Minorities were slightly more affected emotionally than Whites. **Table 35** Racial/Financial Statistics Spring 2022 (Liggon, 2022) has a t stat of 0.212683523 and a *P*-value of 0.832421649 accepting the null hypothesis. **Table 36** Racial/Both Statistics Spring 2022 (Liggon, 2022) has a t stat of 0.444331273 and a *P*-value 0.658682914 accepting the null hypothesis because Minorities were more affected than Whites both emotionally and financially.

#### 4. Conclusion

In conclusion, **Table 21** Gender Both Statistics Spring 2021 (Liggon, 2022) has a t stat of 1.9877233 and a *P*-value of 0.052563052. The null hypothesis is rejected because the t stat is higher than 1.96. **Table 24** Racial Both Statistics Spring 2021 (Liggon, 2022) has a t stat of 0.479079 and a *P*-value of 0.634057491. The null hypothesis is accepted because Minorities were more affect. Both emotionally and financially than Whites. **Table 27** Gender/Both Statistics Fall 2021 (Liggon, 2022) has a t stat of 2.702657576 and a *P*-value of 0.008863098. The null hypothesis is rejected. **Table 30** Racial/Both Statistics Fall 2021 (Liggon, 2022) has a t stat of 0.817952134 and a *P*-value of 0.416517022. The data show Whites were significantly more affected both emotionally and financially than Minorities. The null hypothesis is rejected and the alternative hypothesis is accepted. **Table 33** Gender/Both Statistics Spring 2022 (Liggon, 2022) t stat is 2.112407554 and a *P*-value is 0.039667926. The null hypothesis is accepted because females were

more affected than males both emotionally and financially. **Table 36** Racial/Both Statistics Spring 2022 (Ligon, 2022) has a  $t$  stat of 0.444331273 and a  $P$ -value 0.658682914 accepting the null hypothesis because Minorities were more affected than Whites both emotionally and financially.

### Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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## Appendix

### Questionnaire (Liggon, 2022)

The students that participated in the experiment was given 14 questionnaire/survey (Liggon, 2022) to answer. The Internal Revenue Board iterated that students had the liberty to not answer any questions without penalty. Below, is The Economic Behaviors During a Pandemic Questionnaire/Survey which shows the questions that students must answer. There are only quantitative data that was recorded in the experiment. The Internal Review Board's requirements. Indicators that were sought were to determine how students were affected emotionally or financially. If the students were working full-time, part-time or unemployed. Were the goods they were purchasing changed or remained the same. Did their confidence in the economy changed in a positive way or a negative way. Their age and gender were also recorded. The main purpose of this questionnaire was to see if minorities and women were more affected emotionally, financially or both.

#### The Economic Behaviors During a Pandemic Questionnaire/Survey

- 1) As a result of the COVID-19 Pandemic, have you been affected:
  - a) Financially
  - b) Emotionally
  - c) Both
- 2) As a result of COVID-19 Pandemic, what was the effect in terms of your employment?
  - a) Working full-time
  - b) Working more than part-time
  - c) Not working
- 3) As a result of COVID-19 Pandemic, did you purchase the same type of goods & services or a less expensive type of goods & services?
  - a) Same
  - b) Less Expensive
  - c) More Expensive
- 4) As a result of COVID-19 Pandemic, were you able to:
  - a) Save money
  - b) Not able to save money
- 5) During the first 6 months of COVID-19 Pandemic, has your confidence in the economy?
  - a) Increased
  - b) Decreased
  - c) Remained the Same
- 6) After a year since the COVID-19 Pandemic, has your confidence in the economy?
  - a) Increased
  - b) Decreased
  - c) Remained the Same

- 7) Before the COVID-19 Pandemic, did you shop for goods in bulk?
- a) Yes
  - b) No
- 8) Since the COVID-19 Pandemic, do you shop for goods in bulk?
- a) Yes
  - b) No
- 9) After the start of the COVID-19 Pandemic, do your selection of goods purchased change?
- a) Purchased more organic foods
  - b) Purchased more store brand items
- 10) What is your age?
- a) Under 21 years
  - b) 21 - 30 years
  - c) 31 - 40 years
  - d) 41 - 50 years
  - e) 51 - 60 years
- 11) What is your gender?
- a) Male
  - b) Female
  - c) Transgender
  - d) Non-Binary
- 12) What is the highest educational level attained?
- a) High School
  - b) 2-year college degree
  - c) 4-year college degree
- 13) What is your ethnicity?
- a) American Indian or Alaska Native
  - b) Native Hawaiian or Pacific Islander
  - c) Asian
  - d) Hispanic or Latino
  - e) White
  - f) Black
  - g) Ethnicity not listed above
- 14) Where do you live?
- a) On-campus
  - b) Off-campus
- \*Students were given the option to leave any question blank.**