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I'M NOT SURE HOW I FEEL ABOUT THIS: PERCEPTIONS OF SAFETY AMONG UNIVERSITY OF OKLAHOMA STUDENTS AMID THE COVID-19 PANDEMIC

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I'M NOT SURE HOW I FEEL ABOUT THIS: PERCEPTIONS OF SAFETY AMONG UNIVERSITY OF OKLAHOMA STUDENTS AMID THE COVID-19 PANDEMIC

A THESIS APPROVED FOR THE
DEPARTMENT OF POLITICAL SCIENCE

BY THE COMMITTEE CONSISTING OF

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Abstract

I'm Not Sure How I Feel About This: Perceptions of Safety of University of Oklahoma Students During the COVID-19 Pandemic
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In modern politics, individuals tend to be closed-minded to ideas and realities that do not align with their own. Oftentimes, individuals seek out different information to help confirm their original beliefs and attitudes, even when those attitudes argue against scientific or factual information. When this occurs, people develop what is called a misperception. Misperceptions are formed through access to media outlets, political elites, and what Kunda (1990) calls motivated reasoning theory. The development of misperceptions has become significantly problematic during unprecedented circumstances, much like the COVID-19 pandemic. During the outbreak of COVID-19, individuals have developed perceptions of the re-opening of public spaces such as schools, restaurants, and bars. In August 2020, University of Oklahoma students returned to campus amid the COVID-19 pandemic. While federal and state officials' perceptions of safety have been made clear, such as the president and state governors, little is known about how students view their return to campus. Using an original survey, this thesis will determine whether estimates of COVID-19 deaths in Oklahoma are associated with University of Oklahoma students' perceptions of safety portrayed during their return to campus during the fall 2020 semester.

1 Introduction and Study Outline

"This is not even the beginning of the end [of the COVID-19 pandemic], rather, this is the end of the beginning, we now need to realize we have a long road ahead of us."

- Dr. Anthony Fauci of The Center for Disease Control and Prevention

The probability of a severe global pandemic has increased significantly due to the increase in international travel, the urbanization of undeveloped countries, and the exploitation of natural resources from those specific countries (Jamison, 2018). During a global pandemic, cities, states, and countries bear witness to mass hysteria, rapid responses from state and federal governments, prevention efforts from disease and infection specialists, crumbling economies, mass public shutdowns, and a significant number of deaths among the world's population. In 2020, the world saw these events unfold in real-time.

With the global outbreak of SARS-CoV-2, or COVID-19, countries have suspended international travel, global economies have become fractured, and over two million individuals have perished. While companies such as Pfizer-BioNTech, Moderna, and Johnson and Johnson have begun the mass distribution of COVID-19 vaccines, those affected before the vaccine rollout have become plagued with several residual complications such as heart failure, scar tissue development within the lungs, Chronic Obstructive Pulmonary Disease (COPD), strokes, temporary paralysis caused by Guillain-Barre Syndrome (*Mayo Clinic. 2020. COVID-19 (coronavirus): Long-term Effects*, 2020), and the threat of possible reinfection. With the violent spread of COVID-19,

millions became concerned about how the next few months, or even years, would look. Questions such as "if a vaccine is created, how effective will it be," "will mask-wearing become a new staple of everyday life," and "when can we go back to normal?" have been asked amongst the American electorate for the last year. As time has progressed, the answers to some of these questions have become relatively straightforward, while others have yet to be answered.

The effects of COVID-19 on education have been significant. Students successfully transitioned to different online learning formats across the United States during the early months of 2020. As a result, both students and teachers, at all levels, found themselves using remote learning methods and platforms many were unfamiliar with. However, when discussing the field of academia, the story is straightforward: all students, K-12 through doctoral students, have been directly affected by COVID-19.

Evidence shows that stress and anxiety concerning overall performance have increased among family members in low-income situations (Horowitz and Igielnik, 2021). Survey results show that levels of student performance decrease with the overall level of household income. Additional evidence can be found through extensive studies conducted by Horowitz and Igielnik of Pew Research Center. Further research shows that overall levels of student achievement have decreased since the mass transition to online learning. Goldstein (2021) finds that state-level standardized test scores in mathematics have decreased amongst K-12 students while reading and literature test scores have remained constant.

According to empirical research, college students showed the highest level

of negative impacts directly caused by COVID-19. Multiple sources report an increase in depression, anxiety, a lack of overall motivation, increased levels of suicidal thoughts and tendencies, and lower levels of social stimulation, and much more (Browning et al., 2021; Kecojevic et al., 2020; Son et al., 2020; Wang et al., 2020). These results can be seen nationwide as COVID-19 cases have continued to rise among student populations.

Active Minds, a national nonprofit focusing on mental health and awareness across the United States high schools and college campuses, conducted a national survey of 3,239 high school and college students asking about the overall impact of COVID-19 on mental health. Their survey was administered April 10 through 18, 2020. When asked "how COVID-19 has affected your mental health," 20 percent of college students said their mental health had significantly worsened. While those results may be seen concerning, 60 percent of college respondents said their overall mental status had worsened. As for high school students, results are much higher than initially perceived by many social scientists. The same study shows that 12 percent of high school students reported that their mental health status has worsened significantly, while an additional 48 percent said their mental health had worsened from its previous state. Table 1 shows these results, in a recreated table, as they pertain to the psychological impacts resulting from COVID-19 on different student populations.

Table 1: Recreated Table from Active Minds National Polling Project

Mental Health Status	All Students	College Students	High School Students
Worsened Significantly	18%	20%	12%
Worsened	57%	60%	48%
Unchanged	13%	11%	21%
Improved	10%	9%	17%
Improved Significantly	1%	1%	2%

This table was recreated based on the original table built by Active Minds following their national survey experiment in 2020. The original table is available in the appendix section.

Research concerning the overall perceptions of COVID-19 by student populations has mainly been captured by national news rather than scholars within the fields of sociology and psychology. While those feelings are briefly expressed through brief fifteen second interviews, little is known about what these students think and feel as it pertains to COVID-19.

Since the initial outbreak in early 2020, students have developed personal opinions on COVID-19 and the danger it presents to the public. Evidence shows that college students feel as if COVID-19 is a serious problem, yet express opinions about mask-wearing, social distancing, and its comparison to the annual flu that go against increased levels of concern. Do these views and beliefs affect how students look at the overall safety of returning to campus amid the pandemic?

Several articles from prominent news sources show a wide array of emotions when asking college students how they felt as they returned to campus amid the pandemic. With views of the pandemic differing from person to person, students have shown emotions such as anxiety (Sidi and Daino, 2020), excite-

ment (Schaffhauser, 2020), and feelings of nervousness and fear (Anderson and Lumpkin, 2020) when asked how they felt about returning to campus. It can be assumed that knowing the actual dangers of COVID-19 will play a significant role in increased levels of anxiety and fear while failing to understand the true dangers of COVID-19 is likely to lead to more positive emotions such as excitement when perceiving safety on campus.

1.1 Significance of the Problem

During times of uncertainty, members of society tend to become susceptible to biased or incorrect forms of information. Through outlets such as social media, broadcast news outlets, and political leaders, people are continually developing perceptions of the world around them. However, societal conclusions sometimes go against everyday experts' factual and scientific findings. By acquiring misinformation of falsified facts, individuals then put those misperceptions in front of academic knowledge, which leads to students failing to accept factual information taught in educational institutions. With the recent outbreak of COVID-19, perceptions of safety have varied across Oklahoma. Nate Morris, a resident of Tulsa, Oklahoma, along with 1,200 other residents in Oklahoma, wrote Oklahoma Governor Kevin Stitt expressing shared concerns about COVID-19. Morris stated that "we can bring back lost jobs. We can re-strengthen the economy. We cannot, however, regain the lives of those we have already lost and will continue to lose if we fail to get this [proper COVID-19 precautions] right" (Murphy, 2021). Newly released evidence shows that Governor Kevin Stitt received several calls for stricter lockdowns and mandates.

In stark contrast, during a March 2020 news conference dedicated to discussing the efforts to combat COVID-19, Governor Kevin Stitt stated that "There's no need for Oklahomans to stockpile months' worth of anything" and "That's straight from the president, so you do not have to worry about that" (Schlotthauer, 2020). The contrast between the civilian perceptions and elite perceptions in Oklahoma during the early stages of COVID-19 were staggering. In the later months, Oklahoma would record over 7,000 COVID-19 deaths. Secondly, Oklahoma saw the largest spike in total cases in mid-October, with 1,524 in just two days (Severin, 2020).

Over the last year, many, if not all, states in the United States have implemented mandatory shutdowns of businesses, schools, and other public spaces due to the rapid and continuous spread of COVID-19. Since then, governors across the United States have encouraged re-opening phases that include restaurants, bars, and other public spaces. Using mass media outlets, members of society have begun to develop perceptions about the coronavirus. Dr. Anthony Fauci, the leading expert in Infectious Diseases at the Center for Disease Control and Prevention (CDC), encouraged the public to practice social distancing, mask-wearing, and avoid gathering in large spaces. Since re-opening phases have begun, individuals have begun to form misperceptions. Flynn, Nyhan and Reifler (2017) define a misperception as "factual beliefs that are false or contradict the best available evidence in the public domain" (5). Even people who believe in science are beginning to develop safety perceptions that are not supported by scientific or factual information.

Over the last several months, thousands of misperceptions concerning the

origins of COVID-19 have made their way into the minds of United States citizens. This is coming in part to the political rhetoric displayed by United States President Donald Trump and misinformation being shared and spread throughout social media. While many of these misperceptions are found comical by many, the threat they pose to citizens worldwide is monumental. Examples of such misperceptions include the ideas that COVID-19 was developed in a Wuhan, China lab and was released in the form of a bioweapon (Imhoff and Lamberty, 2020; Roozenbeek et al., 2020), that the installation and use of 5G cellular towers spreads and worsens the symptoms of the virus (Meese, Frith and Wilken, 2020), and that the ingestion of bleach and other household disinfectants as protection from the virus (Havey, 2020). More concerning, the misperception of ingesting household disinfectants, such as bleach, was presented by United States President Donald Trump in mid-April 2020. President Trump, during a daily press conference, stated that the injection of household disinfectants into the human body could kill COVID-19 in a matter of minutes (Funke, 2020). After receiving backlash from renowned scientists and medical experts, President Trump, in the days that followed, attempted to retract and walk back the statement that the injection of household disinfectants helped kill COVID-19. However, the efforts were non-successful and were held against the president for the months that followed.

1.2 Purpose of this Study

With the rapid spread of COVID-19 across the United States and several college campuses, I find it appropriate that this thesis be written now to help

develop and answer specific research questions that will only prove fruitful to future scholars. Specifically, this thesis aims to answer three primary research questions: what explains the University of Oklahoma students' perceptions of safety regarding campus re-opening amid the COVID-19 pandemic, which students are liable to have or develop misperceptions, and whether estimations of COVID-19 deaths affect the approval of university administrators and students? Political scientists are responsible for measuring and searching for the link that connects misperceptions of COVID-19 and individual perceptions of safety when returning to campus among the University of Oklahoma students. This study will use an original dataset to measure whether an overestimation or underestimation of COVID-19 deaths in Oklahoma affects individual perceptions of safety of University of Oklahoma students' during their return to campus as well as overall approval of University of Oklahoma administrators and students, and will look to determine what factors lead to the development of misperceptions.

This thesis's theoretical framework is built upon the current research that focuses on misperceptions, motivated reasoning and cognitive decision-making, the roles of broadcast and social media, and its influence on the development of misperceptions. Through extensive research and analysis, I can answer my original research questions with confidence. By doing so, I hope to gain a better perspective on how students feel when returning to campus, whether they believe their peers can practice social distancing, and overall, determine whether estimations of COVID-19 deaths in Oklahoma have a direct impact on safety perceptions of the University of Oklahoma students'.

1.3 Chapter Summary

Over the last several months, COVID-19 has significantly impacted schools, businesses, and individual life worldwide. While many sheltered in place during stay-at-home orders, we can assume that people understand the true nature of COVID-19 and the dangers it presents to the general public. However, little is known about under-researched populations, such as students.

While housing three large in-state universities, Oklahoma has taken several steps to prevent the spread of COVID-19. However, individual perceptions of state residents differ from household to household. These beliefs, attitudes, and opinions were shaped and developed based on partisanship, especially among the population with little knowledge about COVID-19. As a result, the perceptions of COVID-19 in Oklahoma have been seen as lackluster and dangerous. Members of the general public, in this case, colleges students, know very little about American politics or current events. With the help of political socialization amongst peers and social groups, college students are able to gain a better understanding of current events and political as a whole. However, with the increase in misinformation concerning the COVID-19 pandemic, beliefs and opinions among this population have been ever-changing. Knowing this, the evolution of the project and its fundamental goals are set in stone.

Chapter two will offer an in-depth discussion on the real-world factors that play a role in the overall development of individual perceptions and how those factors have helped citizens in the United States developed what is known as a misperception. This discussion will include information regarding the American media, the role of partisanship and elites in the United States gov-

ernment, and how individuals are likely to make uncalculated decisions based on informational shortcuts prompted by elected officials.

Later, chapter three will discuss the observational approach to this thesis. Specifically, I will introduce the survey and its components to collect the data used within this thesis. Also, I will present my primary dependent and independent variables. Lastly, I will analyze linear, logit, and OLS regression analyses to test my three primary research questions.

Chapter four will recap this thesis cover to cover. This will include a summary of the theoretical foundations and arguments presented in chapters one and two and a recap of the statistical findings in chapter three. From there, I will offer avenues for future research and bring about the questions left unanswered from this analysis and the specific limitations of this project.

2 Partisanship, American Media, Motivated Reasoning, and COVID-19

Being informed about current events is essential during times of uncertainty. Over the last year, COVID-19 has spread violently across the United States and the entire world. However, information concerning the threat and concern of COVID-19 has been skewed in part by the American media and government officials. Unfortunately, due to a slew of incorrect information and rhetoric being spread among these informational sources, perceptions of COVID-19 among the American electorate are significantly more troubling than experts had thought initially. This chapter will introduce and explore the current literature on societal perceptions and misperceptions. Further, I will introduce the driving factors the help individuals develop and adopt certain misperceptions and how those viewpoints can affect their outlook, specifically on COVID-19.

The evolution of social and developmental psychology has indeed brought social scientists today to the forefront of understanding individual decision-making in our modern society. With cognitive decision-making theories being developed and applied to contemporary political and social issues, scholars can better understand how individuals behave and make rational decisions concerning those particular issues. While many exist in nature, the theories regarding individual decision-making are essential to this project. However, I will start by laying a foundation for what is called the Cognitive Dissonance Theory that Leon Festinger introduced in 1957. Festinger argues that individuals strive to hold beliefs and attitudes that allow a sense of personal comfort

(Harmon-Jones and Mills, 2019). Doing so allows individuals to avoid a state of mental discomfort, or what Festinger calls cognitive dissonance.

Festinger defined dissonance as a state of psychological discomfort. He would later argue that "the existence of dissonance, being psychologically uncomfortable, motivates the person to reduce the dissonance and leads to avoidance of information likely to increase the dissonance" (Harmon-Jones and Mills, 2019, p. 3). As individuals suffer from increased levels of cognitive dissonance, literature shows that those individuals will seek information that ultimately reduces their overall level of cognitive dissonance.

The Cognitive Dissonance Theory (1957) was one of the first psychological theories to outline the determinants of individual beliefs, attitudes, opinions, and independent decision-making. Later research would develop the theories we find ourselves more familiar with, specifically, the motivated reasoning theory.

How individuals come to certain conclusions is an important question when discussing prominent social and political issues. Many social and political scientists have looked to determine how individuals endorse a particular conclusion on a specific subject. The most popular method is what is called motivated reasoning. Specifically, "motivated reasoning is a description of a process by which individuals acquire, evaluate, and related formal judgments about new information" (Bolsen and Palm, 2019, p. 2). Through motivated reasoning, information processing occurs through two different methods.

First is what Kunda (1990) calls directional goals. Through these direction goals defined by Kunda (1990), we learn that individuals, in any particular

situation, are simply looking to arrive at a particular conclusion in terms of specific social or political issues (Druckman and McGrath, 2019). Additional research shows that "motivated directional reasoning causes people to seek out information that confirms their existing beliefs (i.e., confirmation bias), counter-argue and dismiss information inconsistent with their existing beliefs regardless of the beliefs objective accuracy (i.e., disconfirmation bias), and view evidence consistent with their prior opinions as stronger (i.e., prior attitude effect)" (also see Bolsen, Druckman and Cook, 2014; Bolsen and Palm, 2019, p. 237).

When someone is misinformed, like most people in modern society, about real-world issues, they tend to seek information that confirms or reinforces the ideals and beliefs that an individual already holds. This is known as confirmation bias. Confirmation bias, according to Nickerson (1998), refers to the "unwitting selectivity in the acquisition and use of evidence" (175). Through the practice of confirmation bias, members of the American electorate will seek information that significantly reinforces their prior attitudes and beliefs about a particular issue. Jonas et al. (2001) explains that "obtaining information that goes against factual or scientific proof can be dangerous as potential risks and warnings may be overlooked, leading to decision fiascoes as a possible consequence" (557). In simpler terms, tensions, whether they are social or political, tend to increase with the reinforcement of beliefs and ideas with sources of misinformation or factually incorrect information.

Once individuals have developed beliefs and perceptions about a particular subject in society, they will do little to accept evidence contrary to that belief.

Current psychology and political science literature define this phenomenon as disconfirmation bias. Bolsen and Palm (2019) introduce the idea that disconfirmation bias is more relevant amongst individuals who hold higher levels of overall knowledge about political and other prominent issues. Here, the generation of higher levels of social and political polarization occurs. Bolsen and Palm later argue that "people are often unable to escape to pull off their prior attitudes and beliefs, which guide the processing of new information in predictable and sometimes insidious ways" (9).

Both confirmation bias and disconfirmation bias lead individuals to produce what is called a prior attitude effect. Much like both forms of biases, individuals tend to seek information that directly reinforces prior attitudes and beliefs.

When developing independent social and political opinions, individuals tend to develop misperceptions with the help of several real-world outlets. Flynn, Nyhan and Reifler (2017) define a misperception as "factual beliefs that are false or contradict the best available evidence in the public domain" (128). The development of misperceptions in our modern society results from elite-driven agendas (also see Stimson and Carmines, 1989) and popular media outlets such as social media and broadcast media (Cacciatore et al., 2014; Garrett, Weeks and Neo, 2016; Southwell, Thorson and Sheble, 2018).

2.1 Partisan Motivated Reasoning

With the increase in political polarization in the United States, the political debate on prominent social issues has drastically changed due to the role of

elected political elites. One of the most recent instances was Vice Presidential Candidate Sarah Palin and her claim of President Barack Obama's "death panels" pertaining to the administration's primary health care plan, the Affordable Care Act. To create a sense of pushback and fear, Palin claimed that "her child with Down Syndrome will have to stand in front of [Barack] Obama's death panel so his bureaucrats can decide... whether they are worthy of healthcare" (Nyhan, 2020, p. 220). While the Affordable Care Act was later implemented in 2010, the political assertion presented by Sarah Palin began to widen the partisan divide within the American electorate on essential pieces of public policy during the Obama administration and into the future.

Palin's assertion assumed that the Affordable Care Act, along with the federal government, would determine whether elders and disabled peoples in the United States were worthy of the Obama administration's health care plan. Palin developed this vision herself as she explained that President Obama's health care plan would create so-called 'death panels,' which would allow medical professionals to be compensated for "counseling Medicare patients on end-of-life decisions" (Meirick, 2013, p. 40). Both conservatives and liberals fought to define the misperception as facts or false information over the early months of the Obama Administration.

Much like in 2009, politicians are continuously debating whether Russia interfered with the 2016 election of President Donald Trump. While Republicans will be quick to deny any wrongdoing by the Russians, Democrats adopted the idea that Russia was heavily involved in Trump's election. However, the source of information provided by political elites has become a significant factor

in providing salient misinformation to American society. According to Nyhan (2020), "political misinformation often originates at the elite level from sources such as politicians, pundits, and ideological or partisan groups and media outlets" (227). It should be reiterated that it is the role of elected political elites that produce voluminous amounts of misinformation that is then portrayed to the public.

Zaller et al. (1992) explains that individuals in large societies, in this case, the United States, depend on elites as their primary source of information about the world around them. In his discussion about political elites and real-world information, Zaller states that "The information that reaches the public is never a full record of important events and develops in the world. It is, rather, a highly selective and stereotyped view of what has taken place" (7). However, current literature shows that individuals in 2020 Americans show little incentive to be involved in politics and know very little about public policy at both a state and federal level (Bennett, 1997; Lawless, Fox and Fox, 2015; O'Toole, Marsh and Jones, 2003).

Since the election of Donald Trump in 2016, his administration has continuously misinformed the American public on popular political issues such as health care, immigration, and, more recently, the COVID-19 pandemic. Trump has claimed that media outlets such as CNN, MSNBC, the New York Times, and others are sources of "fake news" and that their stories and reporters cannot be trusted Clayton et al. (2019). President Trump participates in what social scientists call partisan-motivated reasoning through continuous efforts to construct his political platform and support base.

Much like motivated reasoning and seeking conclusions based on personal beliefs and opinions, partisan motivated reasoning makes similar assumptions but through a partisan lens. As outlined by Bolsen, Druckman and Cook (2014), partisan motivated reasoning is simply the support and protection for the political party that an individual identifies with. Campbell et al. (1960), in the renowned book, *The American Voter*, states that "an individual's party identification raises a perceptual screen through while the individual tends to see what is favorable to his partisan orientation" (113). However, scholars have argued that "upon encountering political objects such as a well-known politician or an issue, an automatic affective response will activate directional goals leading to motivated reasoning" (also see Leeper and Slothuus, 2014; Taber and Lodge, 2006). Research shows that once partisan biases are developed, they are incredibly difficult to correct. This begins and introduces what Nyhan and Reifler (2010) calls the backfire effect. However, this prominent model and assumption must be discussed in future research and how the correction of misperceptions of COVID-19 potentially reinforce bias viewpoints.

Since the 1970s, American politics has become significantly polarized between Democrats and Republicans. With advances in technology and media outlets, the level of political polarization in the United States has reached an all-time high. Peterson and Iyengar (2021) state that "rising elite polarization and growing apathy towards the other political party strengthened partisan motivation to ignore credible facts act cast aspirations on their party or party leaders and, conversely, to accept false information that reflects favorability on their side" (5). Again, with the election of Donald Trump in 2016, and

Trump portraying himself as a "live free" politician who is willing to spread false political claims, American individuals have become more polarized than ever.

In the vein of partisan motivated reasoning, these beliefs are primarily driven not only by political elites but also by political parties. As an individual begins to develop personal opinions and beliefs, those viewpoints tend to bend toward a particular political party (also see Bolsen, Druckman and Cook, 2014; Lavine, Johnston and Steenbergen, 2012). Thus, by acquiring information from a particular party, distrust begins to form across party lines, ultimately leading to that party's individual seeing the opposing, or out-group, as a threat to society or in-group individuals' well-being (Ahler and Sood, 2018).

Perceptions of the world can be strictly tied to the work of political parties. Specifically, citizens' who identify with a particular party allow that party to distort images of the world around them (Bisgaard, 2015). While the ideas and perceptions built upon partisanship play a role in how people take in specific information, several other issues help explain why political parties fuel the fire when expressing certain information. Naturally, members of a particular political party - whether that is being a Democrat or Republican - do not want to be viewed as members of the losing party. Being portrayed as a member of an "inferior" or "losing" party allows for blame to be portrayed to people or groups of the opposite party, thus allowing individuals to place blame on individuals where the blame should not be given (Iyengar and Westwood, 2015).

Throughout the evolution of the COVID-19 pandemic, perceptions of the

severity of the virus became strictly polarized between Democrats and Republicans. Through media outlets such as Fox News, CNN, MSNBC, and others, individuals were susceptible to information coming through the partisan lens, which Bolsen, Druckman and Cook (2014) describe. With different forms of information being delivered through several different outlets, specifically social media outlets and elite delivered information, it becomes clear that each party wants to arrive at a particular end when countering the pandemic - an issue that has become increasingly pressing since the initial outbreak of COVID-19 in the United States. In terms of partisanship, this allows me to introduce my first two primary hypotheses of this project:

Hypothesis 1 *Democrats, when compared to Independents, will express negative perceptions of safety when estimating COVID-19 deaths in Oklahoma*

Hypothesis 2 *Republicans, when compared to Independents, will express positive perceptions of safety when estimating COVID-19 deaths in Oklahoma*

Much like motivated reasoning, individuals, with the help of political elites, tend to participate in two persuasion models. Founded by Petty and Cacioppo (1981), the dual-process models consist of two different models: the Elaboration Likelihood Model (ELM) and the Heuristic-Systemic Model (HSM). As explained by O'Keefe (2008), the Elaboration Likelihood Model (ELM) "suggests that information variations in the nature of persuasion are a function of the likelihood that receivers will engage in elaboration (this is, thinking about) information relevant to the persuasive issue" (O'Keefe, 2008, p 1475). Further, the effort of elaboration toward particular material can determine which "route" in individual follows. Based on their original research, Petty

and Cacioppo (1981) explain the two 'route' options: central and peripheral.

Of the two routes (i.e., central and peripheral), scholars argue that the central route is preferred when seeking information on social or political issues. Here, an individual is significantly more likely to focus on a particular issue than on the peripheral route. According to Gilens and Murakawa (2002), "the primary determinant of persuasion through central processing is argument strength; if attitude change occurs through this route, it is expected to be relatively stable and enduring" (17). In simpler terms: when individuals are exposed to information that is complex and unknown, they will seek guidance from experts in that field, in this case, political elites, to help develop and reinforce already developed beliefs, attitudes, and ideas.

The peripheral route is found to be the most common of the two stages. This route often includes a lack of widespread attention to a particular subject or issues by individuals as well as relying on what is called "communicator credibility" (O'Keefe, 2008, p. 1475). As individuals begin processing information through this separate route, individuals look at multiple arguments that reinforce individual beliefs, ideas, and attitudes. Gilens and Murakawa (2002) state that "the primary determinant of peripheral-route persuasion is "persuasion cues," which produce attitude change" (17). Here, individuals tend to use heuristics, or shortcuts, to help make political decisions about current societal or political issues. The most common shortcut is the use of elite cues about specific issues. Here, individuals can mold their perceptions and opinions around specific issues. Elite-driven heuristics can lead individuals, and even groups, to develop polarizing misperceptions about current social

and political issues, a significant issue the United States has seen over the last several decades.

Shelly Chaiken, in 1993, developed what is known as the Heuristic-Systemic Model (HSM) to help scholars better understand how individuals process certain pieces of information by prominent individuals (Chaiken, 1980). According to Griffin et al. (2002), "HSM formation stipulates that a person's desire for accurate and sufficient information is a strong motivation for processing" (706). Scholars have referred to its founders Eagly and Chaiken (1993) to clarify the method itself further. Both Eagly and Chaiken argue that heuristic cognitive decision-making requires significantly fewer amounts of information (Eagly and Chaiken, 1993). Here, individuals tend to focus more on easily understood cues from prominent members (i.e., political elites) of their group or society. Heuristic-style thinking can potentially lead to developing volatile opinions and beliefs about social or political issues. However, these individuals will tend to rely on partisan elites or leaders of their social groups much more significantly than outside group members.

Overall, the HSM model itself is altogether simple to understand. The model itself argues that individuals use systemic or heuristic strategies to make individual decisions. Trumbo (2002) explains that "systemic processing occurs when an individual makes a judgment by carefully examining arguments and relates those arguments to information already held. Heuristic processing, on the other hand, occurs when individuals use simple decision rules to help them arrive at a judgment about message validity" (368). Through this model, individuals can accept or reject different forms of information when developing

individual opinions on prominent social or political issues. This aligns with confirmation and disconfirmation bias that was discussed earlier in this chapter.

2.2 American Media and Individual Misperceptions

According to some scholars, communication amongst the American electorate is necessary for the development and survival of a modern-day democracy. With misperceptions rapidly developing throughout various forms of media, government officials find it extremely difficult to make well-informed political decisions among their communities (Delli Carpini and Keeter, 1996). Growing issues of misperceptions of political information have become increasingly challenging due to political parties' extreme polarization and unprecedented amounts of information.

With continuous advancements in technology, media outlets have become the home of political and social information. Garrett, Weeks and Neo (2016) argue that "the emergence of the Internet as a primary source of political information has transformed many Americans' experience of the news, giving voice to previously marginalized political factions and creating outlets for explicitly ideological reporting" (also see Stroud, 2011; Sunstein, 2001, p. 331). With the help of social media outlets, users are able to share and distribute different forms of information. Unfortunately, this information tends to be primarily inaccurate. Additionally, the sharing of this information allows individuals to develop misperceptions about certain issues and subjects.

The development of misperceptions among the American public has con-

tinuously become a real-world issue during the Internet's evolution. Shu et al. (2017) state and further reinforce the argument from Allcott and Gentzkow (2017) that "social media is a double-edged sword. On the one hand, its low cost, easy access, and rapid dissemination of information lead people to seek out and consume news from social media. On the other hand, it enables the widespread of "fake news" (i.e., low-quality news from social media with intentionally fake information)" (22). With the Internet's overall attraction, social media outlets, much like broadcasting media, allow individuals to participate in selective exposure with certain information while ignoring "irrelevant" information (Bimber and Davis, 2003; Knobloch-Westerwick and Kleinman, 2012). With an increase in attention to American media and news, polarization, both at the social and political levels, begin to significantly increase (Baum and Groeling, 2008).

In order to develop a misperception, one must be exposed to misinformation or "fake news." During the 2016 presidential election, Donald Trump termed "fake news" as media outlets outspoken against him and his 2016 presidential campaign. Exposure to fake news is done predominately through both broadcast and social media. Southwell, Thorson and Sheble (2018) state that "exposure [to fake news or misinformation] can occur in unmediated interpersonal contexts (also see DiFonzo, 2008; Southwell and Yzer, 2007), misinformation in media content is widespread, particularly problematic, and likely to mislead" (also see Southwell and Thorson, 2015; Southwell, Thorson and Sheble, 2018, p. 141). Extensive exposure to "fake news" has resulted in the continuous growing division between the two major political parties in the

United States.

It is essential to understand the foundations of fake news and the motivations to develop and disperse such information. As cited above, most fake news is dispersed throughout social media via websites and link buttons. Most independent websites, according to Allcott and Gentzkow (2017), are established to "solely print intentionally fabricated and misleading articles and provide articles that might be interpreted as factual when seen out of context" (217). To a relatively small population, these message delivery methods gained strength primarily in the 2016 presidential election.

Current literature explains that elite discourse and American media are strongly correlated. Allcott and Gentzkow (2017) explain the two primary motivations for providing fake news to American citizens. First is what the authors call pecuniary actions. Pecuniary actions occur when a particular news article gains excess attention on a popular social media platform such as Facebook or Twitter. Through interactions with this particular article, companies experience an increase in overall revenue produced by interactions from the public, leading to the increase in sharing and distribution of fake or inaccurate news (Allcott and Gentzkow, 2017). Second, fake news is distributed through ideological motivations. Through news articles and banners, individuals seek to promote information that aligns with their ideology or an individual that supports a particular policy position (Allcott and Gentzkow, 2017). While promoting information that aligns with one's ideological preferences, individuals, unknowingly, are reinforcing those ideas and attitudes through confirmation bias and will continue through further uses of social media platforms.

Social media has become a hot spot for the spread of fake news. Due to the costs of joining social media platforms being non-existent, social media outlets, primarily Facebook and Twitter, have become more likely to delete or flag misinformation. With these evolving tools, opinions and beliefs have become significantly more divided based on partisanship (Bakshy, Messing and Adamic, 2015), allowing for conflicting views and opinions to be shared among the public about essential or ongoing social or political issues. Based on this evidence, we can assume that people are more susceptible to "fake news" or inaccurate information than factual, non-misleading news, potentially developing misperceptions on real-world issues at a much higher rate than usual. More specifically, this group of individuals is known as Generation Z. This generation is unique in how they have been introduced to the world and technology. Primarily, this generation and individuals are seen as opposites of later generations.

Generation Z - members of society born in 1996 and after - have never gone a moment of their adult lives without social media or some form of technology. With advances in technology and the development of social media platforms such as Twitter, Instagram, and, more recently, TikTok, members of the "Gen Z" community are increasing their screen time and limiting their overall interaction with others around them.

Over generations, there are substantial or significant changes that make that generation different from the previous. In terms of Generation Z, the direct use of technology sets them apart from previous generations (Prensky, 2001). With the growing state of social media and technology, these outlets

can mold public opinion about specific social and political issues and encourage participation in modern politics (Bers, 2010; Turner, 2015). Unfortunately, the growing use of social media and increased screen time are becoming detrimental to the Generation Z community members specifically.

Social media habits - through no fault of their own - have become detrimental to the Generation Z community members. Jonathan Haidt, a social psychologist and associate professor at New York University Stern School of Business, argues that members of the Generation Z community report higher levels of depression, anxiety, and suicide than any previous generations. In their newest book, *The Coddling of the American Mind: How Good Intentions and Bad Ideas are Setting Up a Generation for Failure*, Greg Lukianoff and Jonathan Haidt show that Generation Z members are more likely to experience depression, anxiety, and self-harm at much higher rates than millennials (Lukianoff and Haidt, 2019). Additional research - primarily from the Kaiser Family Foundation - shows that as Generation Z community members continue to age, the ability to spend an increased amount of time on social media drastically increases. A 2010 study shows that Gen Z members spend - on average - up to 8-hours on social media platforms a day.

Additionally, as screen time increases, the ability to obtain information also increases. Primarily amongst Gen Z members, information about anything readily available is essential to understanding current events. With the sources of information readily available 24/7, Gen Z members tend to rely heavily on less-reliable sources for news and information such as Facebook, Instagram, and Twitter (Meyers, 2018). Due to the failure to obtaining information from

non-reliable sources, these individuals frequently fail to distinguish fact from fiction - an issue found especially following the 2016 election due to the mass disbursement of misinformation amongst users of social media platforms such as Facebook, Twitter, and Instagram.

Aside from using popular social media platforms at an alarming rate, members of the Gen Z community use social media as news sources for several reasons. Katie Bishop of 'The Guardian' explains that social media platforms such as Facebook, Twitter, and Instagram serve as "echo chambers" of trustworthy information that the mainstream media does not provide (Bishop, 2020). A September Gallup poll shows that trust in the American mainstream media is the lowest since 2016 (Brenan, 2020). Additionally, trust in American mass media is sharply divided between political parties. However, the most drastic difference in the overall view of the media came in 2015 before the 2016 presidential election. Democrats have portrayed positive perceptions of the American mass media while Republicans have shown significantly higher negative perceptions of the media; a disapproval level amongst Republicans than goes back before 1988. Graphics provided by Gallup can be found in the *appendix section* [1].

Going back to the argument made by Bishop (2020), social media platforms serve as an echo chamber of "accurate" and "truthful" information to its users. Here, users do not have to worry about biased information portrayed to construct personal beliefs, attitudes, and opinions. By failing to trust the mainstream media, Gen Z members often refer to social media platforms for

[1]Information regarding American trust in mainstream media can be founder here: https://news.gallup.com/poll/321116/americans-remain-distrustful-mass-media.aspx

news and information about current social and political events (Meyers, 2018). A prominent example in terms of a political event is the COVID-19 pandemic. While the pandemic itself has become incredibly politicized amongst Democrats and Republicans, societal members, primarily members of the Gen Z community, cannot accurately depict factual information and suffer from information overload or overconsumption of information (Pacheco, 2021). Essentially, Gen Z individuals will continue to understand better current political and social events with the growth and use of social media. With the dramatic decrease in trust in the mass media in younger generations in the United States, younger people will rely on prominent social media platforms for news and information they find trustworthy and reinforce their individual beliefs.

In terms of Gen Z and media use habits and information collection, future research will show an overall increase in social media reliance and the inability to trust mainstream media outlets such as CNN, Fox News, and others.

Much like social media, individuals are susceptible to broadcast media every day. Different social and political messages are continuously flowing through everyday Americans' living rooms with several local and national news airings. Many social and political scientists have blamed broadcast media for the growing polarization of the American public (Aalberg and Strabac, 2010). With the help of polarized news outlets such as Fox News, CNN, OANN, and NBC, members of the electorate are granted the privilege of giving their attention to solely one news source - a practice known as selective exposure (Meirick and Bessarabova, 2016). While the implementation of selective exposure to conservative news outlets (i.e., Fox News, OANN) has increased the

level of political misperceptions among Republicans (Johansen and Joslyn, 2008), research on liberal selective exposure has yet to determine whether large broadcasting outlets play a factor in the development of social and political misperceptions. Additionally, these outlets and platforms have played an essential role during the COVID-19 pandemic.

During the outbreak of COVID-19, many argue that the pandemic has been accompanied by what Bridgman et al. (2020) call an "infodemic - a global spread of misinformation that poses a serious problem for public health" (1). Throughout their evolution, Twitter and Facebook have become the primary news outlets for many Americans. Through share buttons, likes, private messages, and news feeds, informational misperceptions are spread throughout the digital world with a simple click.

As members of the Twitter and Facebook communities are continuing to spend more time on these outlets, possibly due to working from home or social distancing, the odds of developing misinformed opinions begin to increase significantly (Dechêne et al., 2010). This then prompts the question of "how do we combat misinformation on social media platforms such as Twitter and Facebook?" Is it even possible to combat misinformation due to millions of people interacting with misinformation through likes, shared messages, and news feed interaction?

A growing issue of accessing online news comes not from social media but online news outlets; primary examples being Fox News, CNN, and others. Unfortunately, according to Garrett, Weeks and Neo (2016), ideological news sites are continuously offering information about a particular subject that often

goes against their competitor's conclusions. Research continues to argue that online news outlets downplay conclusions reached by competing news sources. Competing outlets look to displace party elite issue position(s), leading to fragmented opinions on current social or political issues.

With the use of media outlets and elite cues amongst the public, individuals can develop perceptions about any social or political issue in a single minute. However, with the rapid spread of COVID-19, individuals, while spending most of their time inside during the pandemic, were able to develop perceptions about the pandemic without extensive knowledge of the virus itself and how it is spread, and the overall dangers COVID-19 presented to the public. This allows me to introduce my third primary hypothesis of this thesis:

Hypothesis 3 *Social media usage rates will lead survey respondents to express positive perceptions of safety when estimating COVID-19 deaths in Oklahoma*

2.3 The Origins of Coronavirus and COVID-19

On December 31, 2019, reports from the World Health Organization (WHO) in the People's Republic of China claimed an unknown form of pneumonia had originated from an unknown cause in Wuhan, China. According to the World Health Organization, citizens of Wuhan, China, were quickly infected with what would become known as SARS-CoV-2 or COVID-19 (Holshue et al., 2020). While it was uncertain, many biologists and medical practitioners thought the COVID-19 virus had originated through the selling of live animals or animal meat at local markets in Wuhan, China. Many thought the

horseshoe bat, the original reservoir of the SARS virus, was the initial outbreak source (Lakhani et al., 2020; Shereen et al., 2020; Song et al., 2020). Over the next several weeks, the construction of hospitals and makeshift morgues began appearing in and around Wuhan, China. As the virus began to spread, President Xi Jinping of China implemented a mandatory quarantine. To reduce the coronavirus spread, President Jinping issued a citywide lockdown of all businesses, public and entertainment spaces, schools, public transportation, and international travel (Tian et al., 2020).

On January 19, 2020, the United States saw its first report of the newly pronounced coronavirus (COVID-19). Reports from Snohomish County, Washington, showed a 35-year-old man suffering from a "congestive cough and a subjective fever" (Holshue et al., 2020). Reports from the New England Journal of Medicine report that he traveled with his family to Wuhan, China, weeks earlier. It was there that he was most likely exposed to the newly named coronavirus. Knowing the COVID-19 virus could spread through global travel, President Donald Trump implemented a national travel ban on citizens from China on January 31 (Whitmore, 2020) to prevent the spreading of COVID-19 among the American public. Governors followed suit by implementing stay-at-home orders encouraging residents to avoid large crowds and social gatherings.

Since the first reported cases of COVID-19 in the United States, over 580,000 Americans have died due to the virus. With mandatory mask mandates in effect in several states, President Donald Trump has urged governors to re-open their states to rebuild what is now called, by many Republican leaders, as a fractured economy. National re-opening requests come strongly

in part to the 44 million Americans forced to file for unemployment during the COVID-19 pandemic (Lambert, 2020). According to scholars, the number of American citizens that have filed for unemployment during the COVID-19 pandemic are numbers that resemble those during the Great Depression of the 1920s (Stock et al., 2020).

While COVID-19 has become a new virus in the study of health and medicine, coronaviruses are something that has been previously studied and recorded. According to Pillaiyar et al. (2016), "coronaviruses are a family of positive strands, enveloped RNA viruses that can cause acute and chronic respiratory, enteric, and central nervous system diseases in many species of animals, including humans" (6596). The World Health Organization (WHO) was first introduced to its first modern coronavirus in 2002 with the SARS virus's global outbreak. SARS, much like COVID-19, originated in South China as a severe respiratory infection. It became noticeable that SARS could spread rapidly through methods of global travel. After the 2002 SARS pandemic, over 700 people died in over 25 different countries worldwide (Lam, Zhong and Tan, 2003). However, the world, ten years later, would be tested yet again with another coronavirus outbreak.

In 2012, an individual living in Jeddah, Saudi Arabia, would soon suffer from a mild respiratory infection and later became the first victim of the second modern-day coronavirus outbreak. Medical professionals would later classify this virus as The Middle Eastern Respiratory Syndrome or MERS. The Middle Eastern Respiratory Syndrome (MERS) is categorized "by a spectrum of illnesses ranging from mild to an acute fulminant disease" (Al-Tawfiq, Assiri

and Memish, 2013). Much like SARS in 2012 and COVID-19 in 2020, MERS is transmittable through global travel and close contact with other individuals. Due to fewer fatalities and the ability to contain the MERS virus to a select number of countries in the Middle East and Southeastern Europe, the virus itself was not classified as a global pandemic by global medical professionals.

COVID-19, the most recent and widespread coronavirus, has led to the death of more than 3.2 million people around the world. Like the SARS virus, COVID-19, according to health experts, can survive on several different surfaces once it has left a host's body (Chaplin, 2020; Otter et al., 2016). Upon official diagnosis, individuals may present symptoms such as fever, cough, fatigue, headache, and dyspnea (Fishman and Grossi, 2020). Once diagnosed by a medical professional, patients are often asked to self-quarantine for up to 14-days. As the COVID-19 pandemic has globally evolved, political leaders have taken different precautions, such as the mandatory shutdown of businesses, schools, other public spaces, and travel bans. Like SARS and MERS, a vaccine has recently been developed. COVID-19 emerged as a virus in which humans held no immunity, making it a much larger global issue than earlier outbreaks. Currently, the World Health Organization (WHO) and the Center for Disease Control and Prevention (CDC) are continuing to encourage social distancing practices to "flatten the curve" of the COVID-19 virus.

2.4 University Response to COVID-19

While the COVID-19 pandemic has forced local businesses to close and force millions to file for unemployment, another population has been significantly

affected during the pandemic: students. The closing of schools around the United States came with urgency as cases of COVID-19 continued to spread across the country. Auger et al. (2020) explain that "children infected with SARS-CoV-2 (COVID-19) may be asymptomatic or have mild symptoms indistinguishable from other common upper respiratory tract infections, allowing them to spread the virus when they feel well" (860). Based on public information and suggestive actions by the CDC, public schools' and universities' closing became eminent.

With a dramatic increase of COVID-19 cases and deaths in the United States in early to mid-2020, public and private universities were swift in moving classes entirely online. The University of Washington and the University of Stanford canceled all in-person classes and moved all learning online within days of positive COVID-19 tests among its student populations (Kelly and Columbus, 2020). Like the University of Washington, the Stanford University had an early response to the coronavirus, and the decision to move to remote learning came just as quickly. Stanford administrators found that two individual students had self-isolated (Murphy, 2020), leading to the university's early response. By mid-March, universities across the United States had moved classes entirely online to prevent the spread of COVID-19 among their student populations.

To help prevent the spread of COVID-19 across university and college campuses in the United States, school administrators took several precautionary measures to ensure a safe and healthy return to campus for all faculty and staff during the fall 2020 semester. Several methods were developed and eventually

implemented to help combat the spread of COVID-19. Such methods include the development of outdoor venues to allow for social distancing, changes to academic calendars, wastewater testing, and mandatory masking policy for all faculty, staff, and students while on campus.

The University of Notre Dame in South Bend, Indiana, developed several outdoor areas which allowed students to interact and socialize with one another, but at a distance (Redden, 2020). This decision was made in response to the Center for Disease and Control and Prevention (CDC) warning that areas such as dining halls, game rooms, lounges, and other on-campus recreational venues should close to protect students further (Meltzer, 2020).

Along with advanced social distancing guidelines during the fall 2020 semester, many universities and colleges substantially changed their academic calendar for the fall semester. Several institutions held both in-person and online classes until the annual Thanksgiving Break. However, many institutions moved to remote forms of learning following their annual Thanksgiving Break in fear that traveling students would increase the likelihood of infection among the student population (Brancaccio and Conlon, 2020). Following their Thanksgiving Break, much like what was seen in the spring semester, classes resumed entirely online, where final exams would be administered to all students (Burke, 2020). This decision came as several universities across the United States saw a drastic spike in COVID-19 cases within their faculty, staff, and student populations.

Many universities saw enhanced tactics to help combat COVID-19 during the fall 2020 semester. Five universities across the United States began

testing wastewater during the fall 2020 semester (Robbins, 2020). The leading research when testing wastewater came from Utah State University. At Utah State University, Dr. Keith Roper, a professor of Biological Engineering, led a study that tested the wastewater of on-campus student living facilities (Jensen, 2020). Roper stated when asked about this method that "analyzing wastewater to monitor an infectious disease was implemented previously to monitor the polio outbreak" (Jensen, 2020). According to Roper and his research team, monitoring the wastewater coming from university housing facilities allows scientists to track the host fairly quickly as COVID-19, according to some experts, is extracted from the human body through urine and feces (Jensen, 2020). University administrators praised the efforts by Roper and his team, saying that their efforts will allow the university to track and monitor confirmed cases within the student population. While the virus had spread throughout several university populations during the fall semester, major research universities began partnering with local agencies to help test wastewater not only on-campus but within the community as well (Ellis, 2020).

Lastly, and potentially the most important, most college and university campuses in the United States implemented mandatory masking policies for all faculty, staff, and students. Like the University of Oklahoma, other popular universities such as the University of Missouri, University of Colorado, Oklahoma State University, and Penn State University, along with many more, have implemented several mandatory masking policies while in or on university property.[2] These policies were put in place to not only prevent the spread

[2]Information regarding the masking policies of the University of Oklahoma, University of Colorado, University of Missouri, Oklahoma State University, and Penn State University

of COVID-19 within the university community but also to protect others on and off of campus. However, universities around the country suffered greatly from the inability to monitor whether students were adhering to masking policies while off-campus - an issue that played a significant factor in the increase in cases seen around the country during the fall 2020 semester.

Unfortunately, several universities, such as the University of North Carolina and the University of Notre Dame, saw a significant increase of COVID-19 upon their return to in-person classes. After just two weeks of holding in-person classes, North Carolina suspended all in-person learning and transitioned to remote learning for several weeks. Will Feuer of CNBC, following an interview with a university official, stated that "the COVID-19 positivity rate jumped to 13.6 percent from 2.8 percent a week before" (Feuer, 2020). Overall, within the first two weeks, the university reported 135 positive tests and held close to 200 students in self-isolation.

Much like the University of North Carolina, the University of Notre Dame fell under similar circumstances. Due to an influx in positive cases amongst the student population, University of Notre Dame President Father John Jenkins announced that all in-person classes would be moved to a remote form of learning for two weeks (Daniels, 2020). This decision came just eight days following the fall 2020 semester - the same semester, many colleges and universities saw a drastic increase in cases. Despite cases continuing to increase, students later returned following these two weeks. While all universities across the United States took precautionary measures over the summer, those efforts

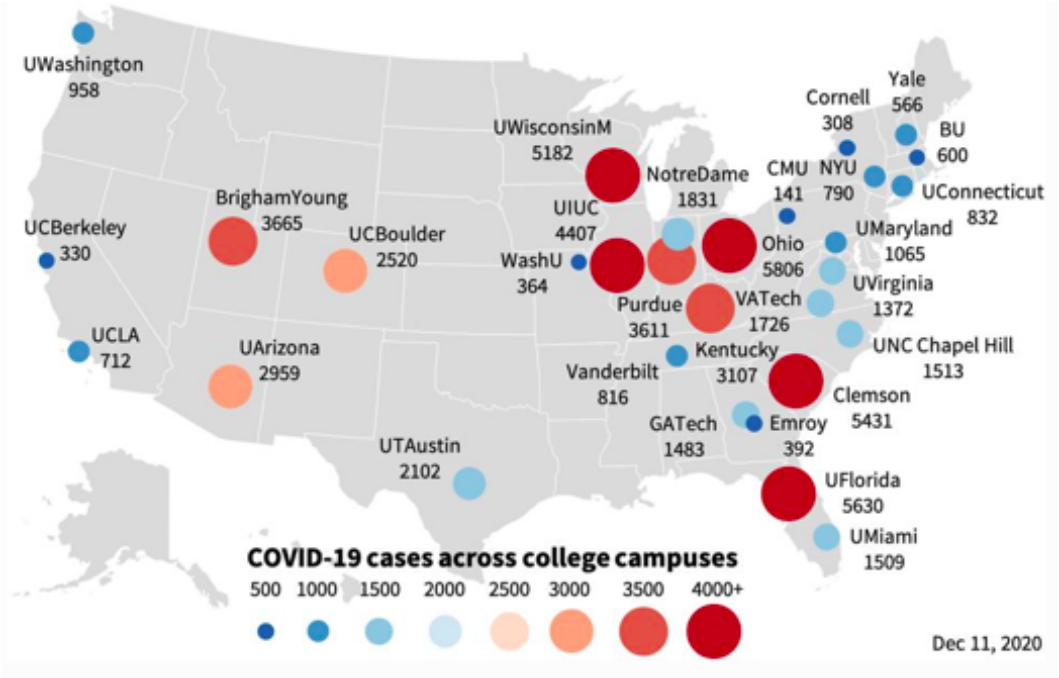
can be found on their respected university website(s)

proved non-fruitful at some universities amongst the return of students during the fall of 2020.

As the spring and fall semesters have progressed, college campuses across the United States witnessed an alarming rate of positive COVID-19 cases amongst its student population. A study including the observation of over 30 college campuses across the United States shows a dangerously concerning rate of COVID-19 cases on college campuses. Statistical results show that more than half of the observed universities reported 1,000 positive COVID-19 cases per 100,000 people (Gajewski, 2021). The most alarming results would come at the end of the fall 2020 semester.

Being include in the study, the University of Florida, Clemson University, Ohio State University, and the University of Wisconsin all reported over 5,000 total cases amongst their student populations (Gajewski, 2021). As students were departing campus for the Christmas holiday, statistics show that 1 in 5 students tested positive at each of the previously listed universities (Gajewski, 2021).

Figure 2.1: Number of Reported COVID-19 Cases Across College Campuses in the United States



Source: Lu, Hannan, Cortney Weintz, Joseph Pace, Dhiraj Indana, Kevin Linka, and Ellen Kuhl. 2020. "Are College Campuses Superspreaders? A Data-Driven Modeling Study." Computer Methods In Biomechanics and Biomedical Engineering, 1-10.

It has been shown that universities and their administrations have taken steps to prevent the spread of COVID-19 within the community and its student, faculty, and staff populations. Unfortunately, with the continuation of gatherings in large crowds at off-campus bars, parties, and other large gatherings, students were contracting COVID-19 and returning to campus, some without knowing they had the virus. This led to increased precautions across multiple campuses and led to university sanctions in some cases.

While universities have been brought to the fore in the coverage of COVID-19, the University of Oklahoma has remained out of that center of attention.

With an interim president in charge of university-wide decisions and a student population of approximately 26,000, the University of Oklahoma looked to respond swiftly and accordingly to the spread of COVID-19. While other universities found themselves victim to COVID-19 in early 2020, responses from the University of Oklahoma came mid-March 2020.

2.5 The University of Oklahoma and its Response to COVID-19

Like Stanford and Washington, the University of Oklahoma quickly transitioned from in-person to online learning. During their university's scheduled Spring Break, the University of Oklahoma administration suspended all in-person classes for the two weeks following the students' spring vacation. Such a decision came March 12 from Interim President Joseph Harroz Jr. and other university administration members. With the growing number of overall cases of COVID-19 in Oklahoma, the university administration acted swiftly with its decision to move classes strictly online.

On March 15, a member of the University of Oklahoma staff had tested positive for COVID-19. Upon receiving its first positive case of COVID-19, the University of Oklahoma implemented a temporary 5-day closure of the Norman campus (*University of Oklahoma*, 2020). The University of Oklahoma requested that all faculty and staff that are considered "non-essential" to work remotely and not return to campus. Three days later, on March 18, university president Joseph Harroz Jr. notified students, faculty, and staff that the campus would be closed for the remainder of the spring semester. Deci-

sions to postpone commencement events and all in-person university events came on the same day (*Oklahoma State System of Higher Education*, 2020; *University of Oklahoma*, 2020). The second reported case of COVID-19 at the university would occur five-day later, on March 20.

Further, the University of Oklahoma announced that all summer classes would be offered exclusively in a remote format (*Oklahoma State System of Higher Education*, 2020; *University of Oklahoma*, 2020). This decision was made in accordance with university President Joseph Harroz Jr. and the Oklahoma Department of Education. Summer classes being offered in an online format would be offered for all University of Oklahoma students at all University campuses (Norman, Tulsa, and Oklahoma City).

On May 18, university administrators released its Phase III return plan. Phase III included several methods to ensure student safety while on campus and university property. While prioritizing classes, the University of Oklahoma determined that classes and sections of 40 or fewer students will be held in a face-to-face format. This accounted for 86 percent of all course sections offered during the fall 2020 semester (*University of Oklahoma*, 2020). Classes and sections with enrollment exceeding 40 students would be offered remotely, accounting for approximately 14 percent of all course sections (*University of Oklahoma*, 2020). These actions were to be implemented to ensure that the "undergraduate experience" remains high among the student body. Along with reconstructing classrooms, utilizing larger classrooms, and prioritizing classes for in-person or remote learning, the university rescheduled classes to allow a 30-minute window to occur between classes to help avoid students

gathering on campus.

To prevent further spread of COVID-19, the university implemented guidelines as it pertains to university-sponsored events. According to the University of Oklahoma and the Oklahoma State System for Higher Education, "all OU-sponsored events off-campus must adhere to COVID-19 capacity limits" (*Oklahoma State System of Higher Education*, 2020; *University of Oklahoma*, 2020). Such events included athletic events, classes, registered student organization events, and more. Additionally, all gatherings had to adhere to university masking and social distancing policies. Violators were subject to university punishment and any further sanctions if deemed necessary.

Lastly, students living in university housing were subjected to stringent university guidelines before returning to the Norman campus. Most importantly, the university required all housing students to have taken a COVID-19 test before returning to Norman. Tests were distributed by mail for students to administer themselves. Those tests were then returned to the University of Oklahoma Health and Science Center in Oklahoma City, Oklahoma, for further evaluation. Students were required to complete online health screening before moving into assigned university housing units. Such screening included temperature measurements and determining whether any student was suffering symptoms of COVID-19. If a student tested positive before returning to campus, they were to remain in self-isolation, away from campus, for 14-days until authorized by the University of Oklahoma Health Services. (*Oklahoma State System of Higher Education*, 2020) All violators of these requirements were not allowed to return to campus until all university protocols were adhered to.

3 4

As the semester progressed, the university, much like the state of Oklahoma, saw a drastic uptick in COVID-19 cases amongst its population. Upon its initial development, the University of Oklahoma COVID-19 dashboard reflected the current number of positive COVID-19 cases and individuals in isolation during the semester. Archived records obtained from the University of Oklahoma show that from March 9, 2020, until March 12, 2021, the University of Oklahoma reported a total of 1,202 positive cases of COVID-19, with the administration of over 22,000 tests, bringing the positive average to approximately 5.6 percent (*University of Oklahoma COVID-19 Dashboard*, N.d.).

Along with an increase in COVID-19 cases, the University of Oklahoma, as part of its Phase III return plan, looked to ease gathering restrictions on university-sponsored events such as sporting events, curricular events, and campus gatherings such as tours. OU, most popularly, allowed students and fans to attend sporting events, specifically football, at the on-campus stadium. As per the University of Oklahoma and National Collegiate Athletic Association (NCAA), COVID-19 regulations, masking, and social distancing policies were to be adhered to. The university, like in all university facilities, required mask-wearing by all spectators while attending the event. Along with mask-

[3]Information regarding the reaction from the University of Oklahoma president and administration were obtained via student email archives. Emails were sent to all university students explaining the state of the university, decisions being made, and how the university planned to respond to the coronavirus (COVID-19) pandemic on campus.

[4]Additional information regarding the reaction from the University of Oklahoma was obtained through the Oklahoma State System for Higher Education and their Report of university response to COVID-19 as well as the University of Oklahoma Safe and Resilient website that can be found here: https://ou.edu/safeandresilient

wearing, the university canceled all tailgating activities and limited the total number of attendees within the stadium to approximately 25 percent. Additional policies were implemented, including the selling of merchandise and food (*University of Oklahoma*, 2020). [5]

Along with additional policies being put in place to ensure all students' safety, the University of Oklahoma made another critical decision regarding its annual winter and spring break calendar. During the first half of the fall 2020 semester, University President Joseph Harroz Jr. announced that the university would be extending the annual winter break by one week, pushing the return date for students back to January 25, 2021. However, this came at a cost to all students. Along with an extended winter break, the university announced it would not be offering its traditional spring break, allowing the university to end its semester as scheduled on May 14th.

In early January 2021, the University of Oklahoma Provost Jill Irvine announced that two "instructional holidays" would be given during the spring 2021 semester. Irvine announced that March 5 and April 6 would be designated holidays for both students, faculty, and staff. This announcement also entailed information regarding the format of classes during the spring 2021 semester. These plans included moving more classes back to in-personal delivery methods while keeping most largely enrolled classes and sections specifically online. This included both undergraduate and graduate-level classes.

On January 8, the University of Oklahoma announced their plan, apart

[5]Information regarding the University of Oklahoma sporting events and its COVID-19 policies can be found here: https://soonersports.com/news/2020/9/3/football-2020-game-day-policies-procedures.aspx

from the Phase III campus plan, to distribute and offer COVID-19 vaccinations to all students, faculty, and staff. The university announced it would be offering the COVID-19 vaccination at its local medical office [Goddard] starting in the spring semester.

The administration of COVID-19 vaccines within the OU community began with students, faculty, and staff over 65. These individuals were the first notified as applicants for the vaccine. Additionally, for this population, vaccines were offered on a first-come, first-serve basic.

As the spring semester progressed, students, faculty, and staff were encouraged to make appointments and receive the COVID-19 vaccine. According to university information, all vaccines are accessible to members of the university. Members of the OU community can be tested and receive a vaccine at three separate locations in and around the University of Oklahoma. [6]

2.6 Perceptions of COVID-19 Amongst the American Public

Perceptions of COVID-19 in the United States have become extensively politicized. During the early stages of COVID-19, primarily in late February 2020, the Trump Administration took a skeptical approach to COVID-19. It was here that President Trump and many Republicans began to downplay the severity of the virus itself. Zach Beauchamp of Vox states that "some prelim-

[6]Information regarding the rollout of COVID-19 vaccines at the University of Oklahoma can be found on the university website. For more information, please visit the link below: https://www.ou.edu/web/news$_e$*vents*/*articles*/*news*$_2$021/*covid* − 19 − *vaccination* − *information* − *ou* − *norman* − *campus* − *january* − 2021

inary early data suggests that Trump and Fox downplaying the pandemic made Trump supporters less likely to take the disease seriously early on" (Beauchamp, 2020). However, the approaches to COVID-19 and the growing pandemic were in stark contrast across the partisan aisle.

Democrats, in the early stages of COVID-19, took a more cautious approach when evaluating the pandemic. Prominent Democratic figures, specifically those participating in the Democratic primary election, looked to generate the attitudes and beliefs that COVID-19 is unknown and that mask-wearing, social distancing, listening to prominent scientists, and closing public spaces was necessary for attempting to prevent the spread of COVID-19. This message was heavily adopted by many who identify as part of the Democratic Party.

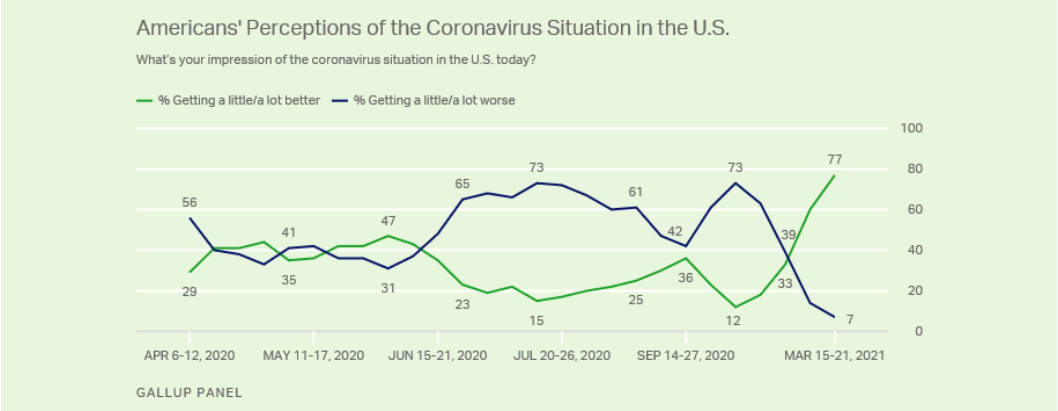
Students attending large research institutions are subject to social and political socialization through friends and social groups, humanities and political science classes, online servers, media outlets, and family members. Due to the direct impact of COVID-19 on college campuses, it is not unusual to believe that college students may have strong personal opinions related to the virus itself.

During the early stages of the COVID-19 outbreak in the United States, public perceptions of the COVID-19 pandemic were that this is a dangerous situation and individuals need to take the necessary precautions to protect themselves and others. Over the last year, Gallup has collected survey data that has measured national perceptions of the COVID-19 situation in the United States. RJ Reinhart of Gallup presents reports survey findings that

were published in late April 2021. Results show that perceptions of COVID-19 among the American public have drastically increased since September 2020, except during the third wave, which occurred in late November and December 2020.

Since the third wave of COVID-19 in the United States, approximately 77 percent of survey respondents believe the pandemic situations are improving. Additionally, only about 7 percent of respondents claim that they believe the COVID-19 situation has gotten worse (Reinhart, 2021). Reinhart provides survey results as they are associated with basic demographic information such as gender, age, race, partisanship, individual level of education, and whether they have been vaccinated. Those findings can be found in the *appendix section*.

Figure 2.2: National Public Opinion on Americans' Views of the COVID-19 Pandemic



Source: Reinhart, RJ. 2021. Americans' Worry About Catching COVID-19 Drops to Record Low. Gallup.

Speaking of the Trump Administration, significant doubt has been cast on the danger of the COVID-19 virus since early 2020. As previously introduced, President Donald Trump took a more lax and skeptical approach to COVID-19.

On October 2, 2020, many thought that President Trump's view of COVID-19 would change. Unfortunately, it did not. On October 2, 2020, President Trump announced via Twitter that he and the first lady had tested positive for COVID-19. Trump was then transported to Walter Reed Medical Center and spent three days under the supervision of Dr. Sean Conley. On October 5, Trump Departed Walter Reed Medical Center for a return to the White House. Before his departure, President Trump sent out the following tweet:

> I will be leaving Walter Reed Medical Center today at 6:30 P.M. Feeling really good! Don't be afraid of Covid. Don't let it dominate your life. We have developed, under the Trump Administration, some really great drugs knowledge. I feel better than I did 20 years ago! - Donald J. Trump (@realDonaldTrump) October 5, 2020

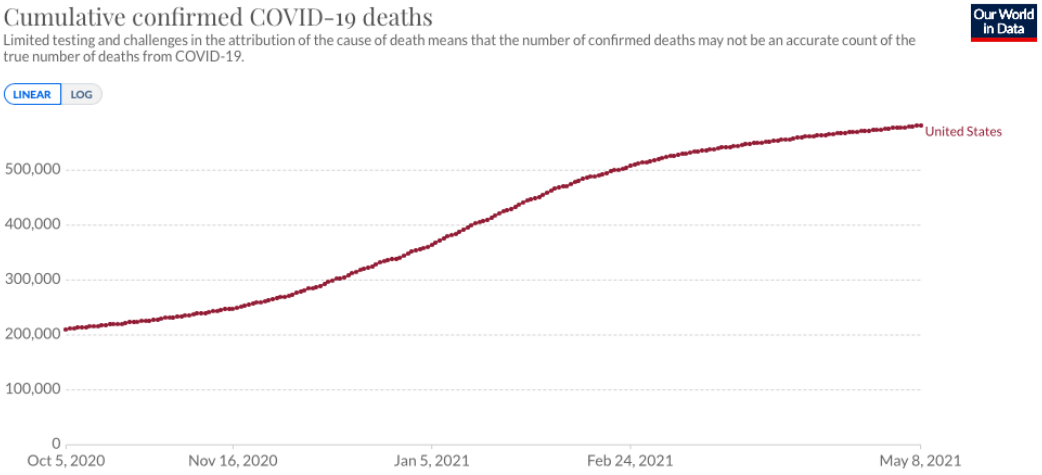
With his return to the White House later that day, President Trump continued the rhetoric that COVID-19 was something the public did not need to fear. Soon after his return, Trump would continue to hold large campaign rallies - many that did not include social distancing or mask-wearing. Since then, members of the Republican Party have grown reluctant to mask-wearing and the idea of social distancing while in public. Many prominent Republican leaders such as Ted Cruz, Josh Hawley, Ron DeSantis, and other Trump supporters have come to reinforce the opinions of President Trump and his administration.

When President Trump departed Walter Reed Medical Center, reported COVID-19 deaths in the United States were calculated at 210,400. Since President Trump's departure, more than 371,116 people have died as a result

of COVID-19. Evidence from Our World Data, as portrayed in Figure 2.3, shows the linear curve of deaths when President Trump returned to the White House and the current date, May 8, 2021.

In sum, the public perceptions of COVID-19 have been developed and formed not only by personal observation but by partisanship. While elected officials dominated the early stages and outbreak of COVID-19 in the United States, Americans quickly turned to those in power to better understand the severity of the newly pronounced virus. Throughout 2020 and 2021, public perceptions have continued to grow along the previously established partisan lines established in early 2020.[7]

Figure 2.3: COVID-19 Deaths in the United States following President Trumps Departure from Walter Reed Medical Center



Source: System Science and Engineering (CSSE) at John Hopkins University in Baltimore, Maryland

[7]Data information was obtained from https://ourworldindata.org/covid-deaths. Additional data concerning the infection and death rates of COVID-19 can be found at the COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at John Hopkins University in Baltimore, Maryland or https://github.com/CSSEGISandData/COVID-19.

Many would believe that in the presence of death, citizens would be reluctant to participate in efforts of putting others at risk. Early evidence shows that deaths significantly impact perceptions of real-world events such as - and most popularly - war (Berinsky, 2007). Adam Berinsky of the Massachusetts Institute of Technology (MIT) provides evidence that deaths impact personal perceptions of wartime deaths. Berinsky finds that perceptions of deaths that have occurred during times of war do not affect individual perceptions of war itself or support for war overall. However, several factors, one, in particular, do impact personal perceptions of war deaths: partisan attachments.

Throughout his article, Berinsky (2007) references what is known as the "casualties hypothesis," as termed initially by Burk (1999). Here, it is assumed that individuals will avoid support for war by a given country given the number of casualties that have resulted from conflict participation. It should be stated that the casualties hypothesis has been extended and advanced since its initial development.

During the COVID-19 pandemic, many have said that the United States is at war with an enemy that we cannot see. Over the last year, over 580,000 Americans have died due to COVID-19. Since then, individuals have developed personal perceptions with the help of mainstream and social media and political rhetoric and cues by elected officials. However, many social scientists are left wondering, what do misperceptions of COVID-19 deaths represent? Many are generally curious about how deaths resulting from COVID-19 are correlated to individuals' feelings about the natural world's current state.

Throughout the entirety of the COVID-19 pandemic in the United States,

citizens have downplayed the overall severity of the virus itself from an early point in the outbreak. Many, primarily those of the Republican Party, have failed to identify COVID-19 as lethal as prominent scientists have made it to be, have been unable to acknowledge that mask-wearing does help prevent the spread from person-to-person and that social distancing is yet another factor that helps prevent the spread of COVID-19. However, as deaths have continued to rise over the last year, perceptions of the world have not changed but very minimal.

Popular news outlets such as Fox News, One American News Network (OANN), and others have portrayed the COVID-19 pandemic as an object to remove President Donald Trump from office. During the pandemic, little attention from conservative news outlets was put on reported deaths from the pandemic. With misinformation being reported from the previously listed sources, people begin developing misperceptions - especially ones that are detrimental to individuals around them. This style of reporting allows for citizens to become confused, leading to increased levels of unsafe behavior due to the information being reported (Cinelli et al., 2020). With the continuous spread of misinformation about COVID-19, individuals have continued to downplay the risks of the virus. Along with denying any harmful doing by the virus itself, individuals now refuse to accept a variety of different COVID-19 vaccines along with mask-wearing and social distancing. Unfortunately, as a result of COVID-19, too many deaths have failed to play an essential role in portraying the virus itself as a threat to human life. While the virus itself has become significantly politicized, members of the republican party did, and

still are, treating the virus with a lackluster approach (Calvillo et al., 2020). However, those on the left side of the partisan divide have taken a much more cautious approach.

Research shows that real-world events, such as a global pandemic, can lead to increased levels of political polarization and misperceived assumptions about that event de Bruin, Saw and Goldman (2020). Unfortunately, that is precisely what happened during the COVID-19 pandemic. From the beginning, several prominent Democratic political figures took to social media and mainstream media to portray the importance of mask-wearing and social distancing to help prevent the spread of COVID-19. de Bruin, Saw and Goldman (2020) state that "self-identifying as Democrat rather than Republican has been associated with high perceived risk of getting COVID-19, perhaps reflecting different worldviews and values" (also see Dryhurst et al., 2020, p. 178). As previously noted, prominent democratic political figures such as former Presidents Barack Obama and Bill Clinton and Democratic presidential candidates came out to support social distancing and mask-wearing - the opposite rhetoric of President Donald Trump and other elected Republicans. Since then, Democrats, new voters, and college students (a large majority) have taken a cautious approach to the COVID-19 pandemic.

Knowing the COVID-19 pandemic has become extensively polarized since early 2020 gives us an understanding of how COVID-19 deaths are represented. To many, the continuous increase in COVID-19 deaths represents an underestimation of the actual dangers of the virus itself. Additionally, it represents a monumental failure on state and federal governments to act accordingly to

help prevent and supply local hospitals and medical facilities with medical supplies. However, with the help of social media and misinformation being spread worldwide, misperceptions have subjected individuals to different points of view about a one-hundred-year pandemic. While the pandemic will come to an end one day, those perceptions will forever be held in check by members of the electorate.

Like many Americans, the search for information is simple. While one can skim the Sunday paper looking for an exciting story or headline, others are taking to their iPhone, iPad, or tablet to access millions of sources of information in just seconds. While this is helpful for many during normalcy, during a global pandemic, not so much.

The outbreak of COVID-19 in the United States sparked a significant increase in media use for gathering information. In simpler terms, people who rarely watch the news found themselves watching the news. Unfortunately, due to American media's biased environment, both social and broadcast media were filled with conflicting information regarding the severity of the virus, where it had originated, and when and how it will end (Laato et al., 2020). This led to many becoming confused and uncertain about the actual dangers of COVID-19. As the virus rapidly spread across the country, individuals came to develop individual perceptions whether they were built on factual information or not (Cinelli et al., 2020). One of the primary issues seen during the COVID-19 pandemic was the inability to develop accurate perceptions of the virus due to excessive amounts of media and information. With advances in technology, as mentioned earlier in this chapter, individuals have succumbed

to multiple sources of news and information, thus leading individuals with the inability to form accurate and meaningful conclusions on specific social and political issues (Karasneh et al., 2021).

With increased attention to the news during the pandemic, individual perceptions of the virus became eminent based on several factors. However, with the increase in attention, individual perceptions' development became more difficult (Karasneh et al., 2021). However, the perceptions that members of the electorate later developed were often built and adopted on misinformation. This lead to further division amongst members of the electorate and both political parties.

As the virus spread, perceptions amongst the public became more and more set in stone. With increased attention was given to media sources such as Fox News, CNN, MSNBC, and CBS, the reinforcement of information, beliefs, and ideas became second nature to individuals. It was with the increased attention that individuals became "more skeptical about the risks of the pandemic and less engaged in social distancing than Democrats" (also see Allcott et al., 2020; Barrios and Hochberg, 2020; Simonov et al., 2020, p .2). Dangers of misinformation and incorrect information adoption became a fear amongst medical professionals as COVID-19 peaked in the United States.

Since the initial outbreak of COVID-19, perceptions of the virus have become concrete to many. Those who align with the Republican Party gave excessive amounts of their time to Fox News. With elected officials' help, many democrats have managed to continue social distancing, mask-wearing, and avoiding large gatherings. Questions regarding the overall perceptions of

the electorate members can be traced back to interviews, national polls, and social behaviors during the pandemic. In terms of the general electorate, a population has gone under-researched during the spread of COVID-19: students.

The section that follows will outline why the University of Oklahoma serves as a central starting point when advancing the current perceptions and public opinion literature. Specifically, I will outline why this institution was chosen, the population it houses, and its use in this thesis to advance the knowledge of current scholars and allow future research to advance even further.

2.7 Questions of Interest and the University of Oklahoma

While attending a large in-state university such as the University of Oklahoma, students are introduced to political socialization and sharing ideas, beliefs, and attitudes amongst a larger student population. Through increased socialization levels, students can form and develop ideas about topics they may know little about. Conducting surveys on college campuses helps scientists better understanding how students think, feel, and express personal thoughts and ideas about specific issues. While research on COVID-19 has been voluminous over the last several months, research on college students in the United States has been scarce. Primarily, the University of Oklahoma serves as a central starting point to understanding students' perceptions of safety during the COVID-19 pandemic.

Another reason OU serves as a central starting point is that it houses a

unique and distinct population. Students come from various backgrounds and are repeatedly coming into contact with new forms of information and differing opinions during their time in college classes while socializing on campus and attending different social clubs and groups. Also, not all students are a part of the same college program. Whether a student is studying political science, biology, English, or engineering, not everyone will have the same opinion. Conducing these surveys allows for gathering interesting data and a better understanding of how different students from different programs think about different social or political topics - in this case, COVID-19.

Most importantly, using university populations to gain knowledge is essential in advancing the perceptions literature during the COVID-19 pandemic. Research that has been conducted during the COVID-19 pandemic has heavily focused on international populations, the different strands of COVID-19, and how individuals around the world are reacting to COVID-19. However, the level of research involving college students during COVID-19 has been less extensive. Using this survey experiment, I look to contribute and add to the current literature of individual perceptions and what factors have played a role in developing misperceptions among college students in Oklahoma. The evidence presented in chapter three, I hope, will contribute to the larger end goal of this paper, which allows the advancement of current literature and understanding of an under-research population during a global pandemic.

2.8 Risk Perceptions of COVID-19

Measuring risk perceptions during a global pandemic such as COVID-19 allows social scientists to understand better how people perceive the current threat and how those perceptions play into how they view the world around them. With COVID-19 dominating the airways since early 2020, people have become susceptible to overestimate the actual dangers of COVID-19 (Abel, Byker and Carpenter, 2021). However, some have failed to see COVID-19 as the global danger that it truly is.

Mohammadi et al. (2020) define risk perceptions as "referring to one's judgment in regards to the consequences of a harmful event like a pandemic" (2020). Increased risk perceptions during the COVID-19 pandemic have led to people self-isolating in their homes for several methods. With the fear of contracting COVID-19 while out in public being in the minds of many, several people go about their daily routine with no fear of possible contraction. Research has shown that those of older age or those suffering from preexisting conditions of comorbidities are far more likely to have increased levels of fear than those who are much younger and suffer from fewer, if any, preexisting conditions (Brand et al., 2017; Kim et al., 2018; Pennycook et al., 2020; Simonov et al., 2020). While this research has been conducted heavily on national and global scales, little research shows how risk perceptions among college students affect overall perceptions of safety while returning to campus amid the pandemic. This allows me to introduce my fourth primary hypothesis:

Hypothesis 4 *An overestimation of COVID-19 deaths in Oklahoma will be associated with negative perceptions of safety*

In contrast to individuals who show decreased levels of risk perception regarding COVID-19 have failed to realize the actual dangers the virus presents to a person's health (Dryhurst et al., 2020). This often leads individuals to underestimate the total impact of COVID-19 as it relates to the general population. Underestimating the overall danger of COVID-19 leads to decreased levels of risk perceptions, thus leading to an increase in contrasting behavior such as choosing not to social distance, wear a mask, or attend large public gatherings. By underestimating the overall severity, people often feel more comfortable, safe, and able to live a "normal life," as one has once said. Much like the relationship between overestimations of danger and risk perceptions of COVID-19, little research shows whether underestimations of danger are directly associated with perceptions of safety. This allows me to introduce my fifth primary hypothesis:

Hypothesis 5 *An underestimation of COVID-19 deaths in Oklahoma will be associated with positive perceptions of safety*

Lastly, it has been relatively easy to access information for many related to the total number of COVID-19 deaths across the country. With death counters on nearly every medical website, overall perceptions of COVID-19 grew more concerning among many of the population. However, it becomes relatively challenging for many - specifically those who do not pay attention to news or information - to estimate the number of COVID-19 deaths accurately. This becomes especially problematic at risk perceptions continued to fluctuate between different age populations in the United States. As was mentioned in the sections above, risk perceptions during the pandemic have fluctuated

significantly. Older individuals tend to feel more concerned with the dangers of COVID-19, while younger folks tend to feel less concerned with the potential impacts of COVID-19. Throughout the millions of interviews conducted by media networks across the United States, those who are extensively informed about COVID-19 express increased levels of risk perception and widespread fear and concern. This leads me to my sixth and final primary hypothesis:

Hypothesis 6 *A correct estimation of COVID-19 Deaths in Oklahoma will be associated with negative perceptions of safety*

In sum, I expect to find that perceptions of overall safety will be directly associated with an estimation of total COVID-19 deaths in Oklahoma. This is coming as a result of fluctuating risk perceptions among younger populations during the COVID-19 pandemic. At the same time, it is not uncommon for younger individuals to express lower levels of risk perceptions in certain situations, the impact of COVID-19 on their experience during the 2020 academic year is likely to impact their overall perceptions. While additional factors may play a role in these perceptions, such as media attention and elite cues, I fully expect that perceptions will be directly associated with how students feel in their return to campus during the fall 2020 semester.

2.9 Chapter Summary

With the ever-changing state of media in the United States, individuals are susceptible to new forms of information every second of every day. This includes articles and news stories from different sources such as Fox News, CNN, MSNBC, and more. Additionally, sources such as Facebook and Twitter have

increasingly become informational hubs for the sharing and distributing information regarding social and political issues. Here, individuals can share, like, and retweet information that may or may not be factually accurate. However, through the continuous practice of liking, sharing, and retweeting, individual perceptions are developed and adopted by others.

Information is constantly flowing within the airwaves. Specifically, information regarding the COVID-19 pandemic in the United States has become voluminous since February 2020. Consequently, individuals have developed beliefs, attitudes, and opinions of COVID-19 solely based on partisanship and the rhetoric presented by elected officials. While many Americans believe that COVID-19 has become an increasingly worrisome matter, others believe COVID-19 was developed and released from a scientific lab within the depths of China. Additionally, political leaders, such as President Donald Trump, have played a role in adopting misperceptions regarding the actual dangers of COVID-19.

During the initial outbreak of COVID-19 in early 2020, colleges and universities responded promptly and quickly to the growing danger of cases, and even deaths, amongst their student, faculty, and staff populations. Responses to COVID-19 included implementing mandatory mask-wearing policies, social distancing guidelines, the development of distanced classrooms, and online learning platforms such as Zoom to deliver the college experience to those unable to attend classes in person. Research shows that college students expressed various emotions when returning to campus—some happy, sad, anxious, nervous. However, little is known about how college students perceive

the threat of COVID-19 and how the number of reported deaths affects their perceptions of safety during their return to campus in fall 2020.

This chapter extensively presented a literature review that shows the individual factors that play a role in developing perceptions and misperceptions - primarily during the COVID-19 pandemic. Chapter three will introduce the scope and methods of this thesis. Specifically, I will introduce the survey used for data collection, my primary dependent and independent variables, and regression analysis results, along with primary opinion polls on University of Oklahoma administrators and students' overall approval. Further, chapter four will recap this project cover-to-cover, briefly present the findings that will be found in chapter three, and provide avenues for future research and questions left unanswered within this analysis.

3 Survey Methodology and Statistical Analysis

While the COVID-19 pandemic has rapidly spread throughout the world, research concerning college students and their perceptions of safety has been scarce. With much of the general public expressing their opinion on the general ideas surrounding COVID-19, this thesis looks to explore an under-research topic that could have significant implications on future research. Using original survey data collected from an intro to American federal government class at the University of Oklahoma, I will look to determine whether estimations of COVID-19 deaths in Oklahoma correlate to either positive or negative perceptions of safety among students' when returning to campus in fall 2020 as well as what factors play into the development of misperceptions and whether an estimation of COVID-19 deaths affects overall approval of University of Oklahoma administrators and students.

3.1 Methodological Approach

As explained above, this thesis looks to turn the page on research relating to student populations and perceptions of safety when returning to their respected campus amid the COVID-19 pandemic. Psychological and sociological research shows that individuals, in times of panic or distress, much like the COVID-19 pandemic, express extreme fluctuations in both positive and negative emotions (Li et al., 2020), allowing them a greater risk of psychological stress and increased odds of subjecting themselves to self-harm (Dickerson and

Kemeny, 2004). We can argue, and ultimately conclude, that members of different races, genders, and age groups will respond to real-world events much differently than others.

Throughout this thesis, it has been made clear that I am interested in whether student estimations of COVID-19 deaths in Oklahoma correlate to either positive or negative perceptions of safety when returning to the University of Oklahoma-Norman campus during the fall 2020 semester. To measure whether either overestimations or underestimations of total COVID-19 deaths affect perceptions of returning to campus, I developed three survey questions that were administered as part of a more extensive class survey. These questions were designed to measure student approval in university administration and its handling of COVID-19, the overall feeling of safety about returning to campus, and a measure of estimations relating to the total number of COVID-19 deaths in Oklahoma since early 2020. A complete list of the survey questions included in this observational procedure can be found in the *appendix section*.

3.2 Data

Data used for this thesis was taken from a larger sample of survey data from a more extensive annual departmental survey at the University of Oklahoma. The survey was administered November 24 through December 6 of Introduction to American Federal Government students at the University of Oklahoma during the fall 2020 semester. Upon returning to campus in fall 2020, survey questions were developed based on the current state of the COVID-19 pandemic in the United States. Such questions were designed to bring the se-

riousness of the COVID-19 pandemic to University of Oklahoma students and understand safety perceptions among that population. Upon administering the survey, all questions were reviewed, edited, and approved by the Internal Review Board (IRB) office at the University of Oklahoma.

In total, 457 students completed the survey. Of the respondents, 52 percent were female, and 47 percent were male. In terms of race, 71 percent of respondents identified as white, 12 percent as Latina/o/x, 11 percent Native, 9 percent Asian, 6 percent Mixed Race, and 5 percent African American. In terms of age, a majority of respondents aged between the ages of 17 and 20.

While the survey used for this thesis was not conducted during the beginning part of the fall 2020 semester and was unable to capture the perceptions of safety and concern of students when they were initially returning to campus, there is a plus to how and when this survey was administered. During the latter half of 2020, more specifically in late November, the United States saw a dramatic spike in both COVID-19 cases and deaths in the United States. This third wave of COVID-19 infections and deaths continued to increase through the Christmas holiday and the 2021 New Year. This third wave would eventually fade during the latter half of January and into February 2021.

Additionally, by the time the survey was administered, OU students had already become aware of the effects of COVID-19 while on campus. More specifically, students succumbed to practicing social distancing, mask-wearing, and personal hygiene practices such as frequent hand-washing and using disinfectant hand gel. On top of the enhanced practices of mask-wearing and social distancing while on campus, students became readily aware of the overall ef-

fects of COVID-19 during their return to campus.

Along with cases on campus, those who became infected with COVID-19 became aware of the overall severity of the virus and the threat it presented to the student population. With the use of social media and socialization, students became knowledgeable on the dangers of COVID-19 and how to prevent the contraction of the virus overall.

Additionally, the dynamics of the survey used for this thesis contain several questions and measures when asking respondents about their overall concerns of COVID-19, individual behavior and habits related to social interactions, COVID-19 vaccines, and other relatable questions that pertain to the COVID-19 pandemic. Within the entire survey, the questions I am interested in asking respondents fit relatively well. Throughout the survey, respondents are asked whether they are concerned about COVID-19, whether they attend social gatherings, and whether they would get a vaccine if available. With the plethora of questions being asked about COVID-19, I found that this survey was appropriate for answering my desired research questions.

With the dynamics of the survey itself being similar in scope related to my overall research questions, I believe that the overall validity of the findings introduced in the latter part of this chapter is a direct result of that dynamic. The data taken from the survey for the use of this thesis was captured during a time of increasing deaths in Oklahoma and the United States and were being asked along with additional questions related to COVID-19.

Throughout the models in this experiment, it should be noted that I control for several variables including political partisanship, gender, and race. By

doing so, allows me to enhance the overall internal validity of my experiment. Also, it helps me establish causal relationships between political parties and the variables of most interested - in this case, estimation of deaths and overall approval.

Partisanship is coded and measured using a 7-point Likert Scale. This measurement follows the ordinary partisanship scale. Respondents whose party identification falls under the category Democrat is coded using a 0, 1, or 2. Likewise, respondents whose party identification falls under the category of Republican are coded using a 4, 5, and 6. Lastly, those who identify as Independent are coded using a 3.

In total, partisanship numbers were split mainly between Democrats and Republicans. However, some respondents say that their party identification falls as Independent. More specifically, a total of 205 respondents said they identify with the Democratic Party, 156 identify as part of the Republican Party, and an additional 81 say their party identification falls as an independent.

Race, much like all other variables used in this thesis, was coded using the statistical program R. Specifically, when asking for race, survey respondents are given several responds options. Those response options are White, Black or African American, American Indian or Alaska Native, Asian or Asian American, Native Hawaiian or Pacific Islander, Mixed Race, None, and other. Upon the original analysis of each race, a majority of survey respondents identified as white. Given these findings, I coded race as a single variable while factoring it into two separate categories. Race is coded with "white" being a single factor

and "non-white" being an additional single factor. This allowed me to group smaller response groups into a larger pool to help better the overall analysis.

3.3 Survey Method and Population

According to survey and polling research, there are several avenues of sampling methods. For this thesis, the sampling method that was conducted was convenience sampling. As stated above, my self-developed questions were a part of a more extensive departmental survey delivered to a population within the Department of Political Science. This method of delivery is a convenient and inexpensive method of gathering data. However, this method fails to represent the entire University of Oklahoma student population. That is an issue that will be addressed in the conclusion and the discussion on future research section.

3.4 Administering the Survey

3.4.1 Why was the survey administered?

This survey was conducted for several reasons. The first reason is to help fill the gap between perception research and college student populations during the COVID-19 pandemic. Over the evolution of the COVID-19 pandemic, academics, scientists, and other scholars have developed, tested, and published thousands of studies on the perceptions of safety of members of the general public. While many of these may be large-scale experiments, a population has gone under-researched during the pandemic: students. This project looks to

expand the knowledge and understanding of how college students feel returning to campus amid one of the deadliest pandemics in world history.

While research surround COVID-19 has been voluminous since March 2020, a large portion of this research has dealt with studying the virus itself. More specifically, Raynaud et al. (2021) show that most COVID-19 research has consisted of three primary categories: Infectious Disease, Epidemiology, and Global Health. While these are the focal points at understanding the COVID-19, its origins, and overall impact, the lack of studies including student population(s) concerns many.

Secondly, this particular survey population is found to be under-researched when examining perceptions of real-world situations. However, during the COVID-19 pandemic, the education dynamic has drastically changed for both undergraduate and graduate students all across the United States. With the evolving state of COVID-19, it is prominent, now, to survey the population to expand the current perceptions literature, help understand an under-researched population and their opinions on university administrations efforts during the pandemic, and help us understand the changing perceptions of college students in the state of Oklahoma.

Lastly, this survey was administered during the campus return of University of Oklahoma students amid the COVID-19 pandemic. By administering the survey during this time, I was able to directly capture university students' perceptions regarding the return to campus amid the pandemic, confidence in administration, local, state, and federal entities in keeping individuals safe, and overall perceptions of COVID-19 deaths in Oklahoma. Information regard-

ing state and federal officials' approval ratings can be found in the *appendix section*.

3.5 Primary Variables of Interest

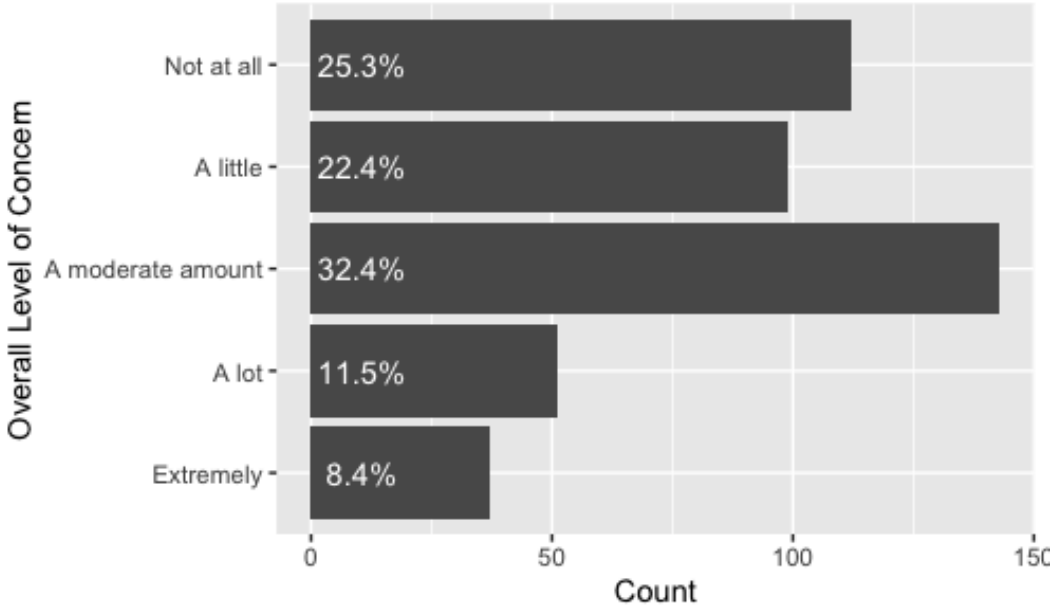
For this project, I have several primary variables of interest that will serve both as my dependent and independent variables. These variables are estimations of COVID-19 deaths, perceptions of overall safety, and approval of the University of Oklahoma administrators, students, and other local, state, and federal officials. This section will describe each variable, how it was coded using R, and how each variable will be used throughout each statistical analysis.

My first primary variable of interest is the perceptions of safety among University of Oklahoma students and survey respondents during the COVID-19 pandemic. Based on the construction of this specific question, these response options are measured in an ordinal fashion. This variable is a primary variable of interest for a few reasons. First, little is know about the perceptions of safety university students hold regarding returning to their respected campus amid the COVID-19 pandemic. While COVID-19 and its relationship to universities are heavily under-researched, this dependent variable will serve as an opportunity for future scholars to develop and publish future research. This variable is tied directly to additional questions concerning the University of Oklahoma administration's efforts to keep students safe during the fall 2020 semester, students' level of confidence in other students practicing social distancing, and overall confidence that the university has taken the necessary precautions to protect all its students.

To measure this variable of interest, I use a 5-point Likert scale response option to measure individual students' overall perceptions. Specifically, I ask the following question: how worried are you about getting COVID-19? Responses are measured using a 5-point scale. Precisely, this scale is measured as follows: (1) Extremely, (2) A lot, (3) A Moderate Amount, (4) A Little, and (5) Not at All.

After further analysis of this questions, it shows that primarily, survey respondents do not show increased levels of fear when asked about the fear of contracting COVID-19. The most prominent finding shows that 32.4 percent of respondents show a moderate level of concern about contracting COVID-19. However, and most surprisingly, over 25 percent of respondents have no fear at all. While a majority of respondents have no fear of contracting COVID-19, over 10 percent greatly fear the idea of contracting COVID-19, while an additional 8.4 percent are apprehensive about contracting the virus. These findings mirror a significant amount of previous findings that are found in the psychology literature. Research shows that younger individuals, who have fewer health issues, often show a significantly lower level of fear than older individuals (Gardner and Steinberg, 2005).

Figure 3.1 Overall Fear of Respondents in Contracting COVID-19



My second primary variable of interest is one that will help develop the findings of this thesis into a scholarly contribution. Specifically, this variable looks to measure estimations of COVID-19 deaths in Oklahoma among survey respondents. Estimations of deaths are measured using a 5-point scale and measured by their relationship to previously reported COVID-19 deaths in Oklahoma. Specifically, the scale is as follows: (1) Less than 100, (2) Fromm 100 to 999, (3) From 1,000 to 1,999, (4) From 2,000 to 2,999, and (5) More than 3,000.

As this variable correlates with deaths in Oklahoma, I code this variable using 0s and 1s. During the time the survey was distributed, between 1,000 and 1,999 deaths had occurred in Oklahoma. I break down each possibility for responses to my estimation of deaths question into three separate variables.

When asked to estimate the total number of COVID-19 deaths in Okla-

homa, respondents were given response options on a 5-point scale. However, as it is mentioned above, each estimate is coded with a (0) being an incorrect response and (1) being a correct response. After evaluating the data, when overestimating COVID-19 deaths, 48 percent of respondents identified the correct number of deaths correlated to what is classified as an overestimation. In contrast, 20 percent of respondents correctly identified the number of deaths that correlate with underestimating deaths. Lastly, when looking at correct estimations, approximately 31 percent of respondents correctly estimate the total number of COVID-19 deaths in Oklahoma when the survey was administered. Later, I will present each estimation's regression analysis and their association to either positive or negative perceptions of overall safety among survey participants.

My third and last variable of interest is the overall approval of the handing of COVID-19 by the University of Oklahoma administrators and students. For this variable, I measure overall approval using a 4-point scale of University of Oklahoma faculty, students, administrators, local, state, and federal officials. For this experiment, I specifically look at what factors affect the approval of University of Oklahoma President Joseph Harroz Jr., University Provost Jill Irvine, and University of Oklahoma students. Again, approval is measured on a simple 4-point scale. Specifically, (1) serves as strongly approve while (4) serves as strongly disapprove. Those results can be seen in the latter half of the chapter.

3.6 Who Has Misperceptions of COVID-19? What are the Factors that affect those Misperceptions?

Table two's findings are derived from a single logistical regression that estimates what variables influence how survey respondents correctly, over, or underestimates total COVID-19 deaths in Oklahoma. Each variable in table two represents each variable's logistical estimate on the probability of correctly, underestimating, or overestimating COVID-19 deaths in Oklahoma. Within this model, estimation of COVID-19 deaths serves as my primary dependent variable, while age, race, gender, and partisanship serve as my independent variables. Additionally, throughout this analysis, I control primarily for partisanship, gender, and race. Doing so allows me to enhance the overall internal validity of my statistical findings while ensuring changes in both my dependent and independent variables.

As observed in table two, results show that age is a prominent factor in how survey respondents estimate reported COVID-19 deaths in Oklahoma. Here, while using respondents between the ages of 17 and 18 as a reference variable, results show that the probability of correctly estimating COVID-19 deaths is positive but not statistically significant. In terms of age and estimated reported deaths, levels of statistical significance increase when testing underestimations and overestimations of reported COVID-19 deaths. The likelihood of underestimating COVID-19 deaths in Oklahoma increases as age increases. Similar results are found when examining the findings of overestimations of deaths. We see that the probability of respondents overestimating reported COVID-19 deaths is significantly unlikely.

Table 2: Logistical Regression Results on Estimation of Deaths

	Estimation of COVID-19 Deaths		
	Correct	Under	Over
Ages 19-20	0.10	0.53*	−0.40*
	(0.23)	(0.27)	(0.21)
Ages 21+	0.12	0.90*	−0.68*
	(0.41)	(0.47)	(0.39)
Race	−0.19	−0.004	0.19
	(0.25)	(0.31)	(0.24)
Gender	−0.03	0.32	−0.17
	(0.24)	(0.28)	(0.22)
Democrat	0.02	−0.77**	0.37
	(0.30)	(0.37)	(0.28)
Republican	−0.27	0.62*	−0.27
	(0.32)	(0.35)	(0.29)
Not from Oklahoma	−0.22	0.26	0.02
	(0.22)	(0.26)	(0.21)
Facebook User	0.07	−2.09*	1.06
	(0.71)	(1.16)	(0.71)
Twitter User	−0.46	−0.55	0.80
	(0.53)	(0.61)	(0.51)
Reddit User	−0.69	−0.52	0.99
	(0.95)	(1.21)	(0.88)
Youtube User	0.31	−1.08*	0.30
	(0.48)	(0.63)	(0.49)
TikTok User	−0.42	−0.38	0.65
	(0.44)	(0.49)	(0.43)
Social Media Usage	0.19	0.09	−0.24
	(0.18)	(0.22)	(0.18)
Constant	−0.65	−1.72**	−0.05
	(0.66)	(0.81)	(0.65)
Observations	424	424	424
Log Likelihood	−254.26	−195.63	−283.85
Akaike Inf. Crit.	538.51	421.26	597.69
Note:			*p<0.1; **p<0.05; ***p<0.01

Over the last several months, students have become introduced to information overload in terms of COVID-19 news and facts. Unfortunately, with the continuous growth of social media and distrust in mainstream media, individuals have struggles perceiving facts from fiction regarding COVID-19 deaths. Referring back to table two, results show that respondents, compared to 17 and 18-year old respondents, are much more likely to underestimate reported COVID-19 deaths in Oklahoma. Being an intensely conservative state, Oklahoma has taken a lackluster approach to the COVID-19 pandemic regarding government response. The results presented when estimating the probability of respondents underestimating total COVID-19 defeats in Oklahoma can, potentially, be attributed to the lackluster response by the state of Oklahoma and political rhetoric expressed by state governor Kevin Stitt and president Donald Trump.

Lastly, in terms of findings regarding the age of respondents and estimations of reported COVID-19 deaths, results show findings that may not be surprising to many. As mentioned in the previous paragraph, Oklahoma has taken a very lackluster approach to curb the spread of COVID-19 since early 2020. Additionally, Oklahoma being an intensely conservative state has led residents to view the overall severity of COVID-19 as less severe than portrayed by medical experts. Results show that as age increases, and when compared to 17 and 18-year-olds, the probability of overestimating reported COVID-19 deaths becomes significantly less likely. This finding is significant in that it shows the political dynamic amongst Oklahoma residents. While many who completed the survey identified as Democrat, many identified as Republican.

With confidence, we can assume that the political rhetoric expressed by republican leaders - both at the state and national level - has played an essential role in the perceptions of COVID-19 among younger generations.

Within this analysis, I control precisely for race and gender. Race was divided between whites and non-whites, while gender was divided between male, female, and other. While other variables were found to be statistically significant, results show that the variables of race and gender are not strong predictors of determining who will have estimations of COVID-19 deaths in Oklahoma.

These results were surprising in that COVID-19 has affected several groups - primarily African Americans, Asian Americans, and Hispanics - significantly during the height of the pandemic. These minority groups have suffered significant financially, emotionally, and physically due to job losses, harassment, and other real-world issues.

As for gender, both males, females, and other gender identities throughout the United States have observed the COVID-19 pandemic much differently from one another. With gender showing no statistical significance is surprising. However, this variable could be expanded in future research to show the probability of each gender correctly or incorrectly estimating COVID-19 deaths.

Additionally, I test for partisanship as COVID-19 has caused a drastically different response between the two major political parties in the United States. When comparing both Democrats and Republicans to Independents, results show evidence that is not uncommon too many. It is observed that Democratic

respondents are more likely to estimate reported COVID-19 deaths when compared to Independents correctly. In contrast, Republican respondents are less likely to estimate reported COVID-19 deaths in Oklahoma correctly. Here, partisanship was tested with additional variables - underestimating and overestimating COVID-19 deaths in Oklahoma. Here, we observe the only statistically significant findings in terms of partisanship. Much like many would expect, Democratic respondents are far less likely to underestimate reported COVID-19 deaths in Oklahoma, while Republican respondents are far more likely to underestimate reported deaths. Additional models were run and found non-statistically significant findings regarding the likelihood of Democrats and Republicans overestimating COVID-19 deaths in Oklahoma. With these findings, it is found that Democratic respondents are more likely to overestimate reported deaths while Republican respondents are less likely to overestimate reported deaths in Oklahoma.

To present further evidence to show what factors are likely to lead to respondents either correctly or incorrectly estimating COVID-19 deaths in Oklahoma, I add three additional variables. Specifically, these questions ask whether respondents are initially from Oklahoma, what social media platforms they use, and how often they use those platforms.

Furthermore, I include a variable that measures whether respondents are initially from Oklahoma. Respondents were given the simple response options of yes or no to this question. I use the "yes, I am originally from Oklahoma" as a reference variable within my logistic analysis. After my initial analysis, I find that none of these findings are statistically significant. These results confirm

whether a respondent is originally from Oklahoma or not originally from Oklahoma that this variable does not provide significant evidence in its relationship to correctly or incorrectly estimating COVID-19 deaths in Oklahoma.

When speaking about social media, research shows that social media's presence and use drastically increased during the early stages of the COVID-19 outbreak in the United States. Here, I look to determine how those outlets affect the likelihood of respondents correctly or incorrectly estimating COVID-19 deaths and how the time spent on those social media platforms plays a role in their overall estimations of reported COVID-19 deaths in Oklahoma.

Due to the increase in overall social media use during the COVID-19 pandemic, I apply a "social media type" and a "social media usage" variable to my logistical analysis. Specifically, I test whether social media outlets such as Facebook, Twitter, Reddit, Youtube, and TikTok serve as strong predictors of whether survey respondents will correctly or incorrectly estimate reported COVID-19 deaths in Oklahoma. Additionally, I evaluate the overall use of social media by survey respondents. This variable us measured using a 6-point scale.

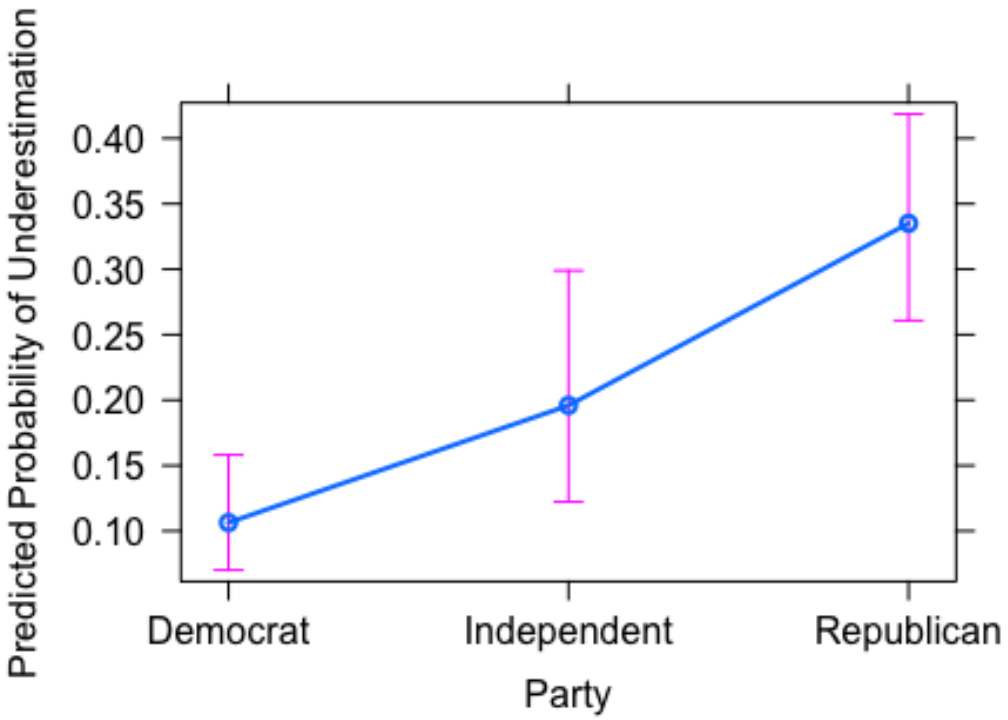
After applying these variables to each of my three models of interest, it is found that neither social media platform of overall social media usage rates are strong predators of whether survey respondents will correctly or incorrectly estimate reported COVID-19 deaths in Oklahoma. With the results showing non-significant findings, I find these results surprising in a few different ways.

The fact that social media platforms and social media usage are not strong predictors of how individual survey respondents will estimate reported COVID-

19 deaths in Oklahoma is unanticipated. Before these models were run, I fully expected to see both positive and statistically significant results produced in social media platforms and social media usage among survey respondents. Active participation among the public on these platforms significantly increased during the pandemic and among the college student population, leading me to believe these results would produce positive and significant relationships. It is possible that results could vary depending on the response rate. However, that assumption must be assessed in future research.

I briefly present figure 3.2, which demonstrates the predicted probability of underestimating total COVID-19 deaths in Oklahoma. Evidence shows that Democratic respondents will underestimate total COVID-19 deaths approximately 10 percent of the time when asked to estimate total deaths. Those who identify as independents are less likely to underestimate cases but not by a substantial margin. It is observed that those respondents will underestimate total COVID-19 deaths about 20 percent of the time. Lastly, Republicans, more than both Democrats and independents, are predicted to underestimate total COVID-19 deaths about 35 percent of the time. This, potentially, results from the political rhetoric given by the Republican Party and President Donald Trump throughout the spread of COVID-19 in the United States. However, I will not test this assumption here.

Figure 3.2: Predictive Probability of Underestimating COVID-19 Deaths by Party



3.7 Do Misperceptions Affect Respondents Assessments of Safety? What Factors Help Predict Respondents Assessments of Safety?

Table three reports the results of a simple linear regression and a single OLS regression. I look to use linear regression analysis to determine whether an estimation of COVID-19 deaths in Oklahoma is associated with either positive or negative perceptions of safety. Later, I use OLS regression analysis to predict what individual factors play a role in determining individual per-

ceptions of safety among survey respondents. Much like the analysis found in table two, I continue to control for partisanship, race, and gender. This allows me to maintain internal validity better while producing more confident and accurate findings. Table three and its findings can be found on the following page.

Table 3: Linear and OLS Regression Results on Safety

	Perceptions of Safety			
				OLS Results
Underestimation of Deaths	0.52***			0.49***
	(0.13)			(0.14)
Overestimation of Deaths		−0.20**		−0.03
		(0.10)		(0.11)
Correct Estimation of Deaths			−0.15	
			(0.11)	
Ages 19-20	0.01	0.03	0.05	−0.01
	(0.10)	(0.11)	(0.10)	(0.10)
Ages 21+	−0.25	−0.22	−0.18	−0.32*
	(0.18)	(0.18)	(0.18)	(0.19)
Race	0.47***	0.49***	0.47***	0.44***
	(0.11)	(0.11)	(0.11)	(0.12)
Gender	−0.24**	−0.21**	−0.21**	−0.31***
	(0.10)	(0.10)	(0.10)	(0.11)
Democrat	−0.88***	−0.91***	−0.92***	−0.86***
	(0.14)	(0.14)	(0.14)	(0.14)
Republican	0.20	0.26*	0.26*	0.17
	(0.14)	(0.14)	(0.14)	(0.15)
Not from Oklahoma				0.16
				(0.10)
Facebook User				0.48
				(0.34)
Twitter User				0.003
				(0.25)
Reddit User				−0.24
				(0.43)
Youtube User				−0.12
				(0.23)
TikTok User				0.16
				(0.21)
Social Media Usage				0.01
				(0.08)
Constant	3.49***	3.65***	3.61***	3.39***
	(0.16)	(0.17)	(0.17)	(0.32)
Observations	424	424	424	424
R^2	0.33	0.31	0.31	0.35
Adjusted R^2	0.32	0.30	0.30	0.32
Residual Std. Error	1.01 (df = 416)	1.02 (df = 416)	1.02 (df = 416)	1.01 (df = 407)
F Statistic	29.52*** (df = 7; 416)	26.78*** (df = 7; 416)	26.35*** (df = 7; 416)	13.44*** (df = 16; 407)
Note:				*p<0.1; **p<0.05; ***p<0.01

To begin my analysis of my linear regression analysis, I first examine whether estimations of reported COVID-19 deaths in Oklahoma affect individual survey respondents' overall assessments of safety. After an initial evaluation of these findings, it shows that an underestimation of reported COVID-19

deaths in Oklahoma is significantly associated with positive perceptions of safety. Here, respondents who are under the impression that fewer deaths than have been reported have expressed positive safety perceptions. With these findings and their relationship to hypothesis four, I can confirm that hypothesis four is fully supported. Keeping with estimations of COVID-19 deaths, additional results, when testing hypothesis five, show both a negative and statistically significant relationship between an overestimation of reported COVID-19 deaths in Oklahoma and perceptions of safety. Respondents who believe more deaths have occurred due to COVID-19 than originally reported express negative feelings of overall safety. With these findings, hypothesis five is confirmed. Lastly, model three analyzes the relationship between correct estimations of reported COVID-19 deaths in Oklahoma and individual perceptions of safety. Results show a negative and non-statistically significant relationship between a correct estimation of COVID-19 deaths and perceptions of safety. Here, respondents who correctly estimated reported COVID-19 deaths in Oklahoma express negative perceptions of safety. With these findings, much like the last two, hypothesis six is confirmed.

In addition to my primary independent variable in these models, I also analyze essential demographic variables such as age, race, and gender. All three of these variables were statistically tested and, unfortunately, returned non-significant findings. To briefly touch on these findings, results show that respondents between the ages 19 and 20 express positive perceptions of safety - a finding that is consistent across all three models. As they pertain to age, additional results show that respondents over the age of 21 express negative

perceptions of safety - again, a finding that is consistent across all three models.

However, these findings support the argument made in chapter two as it relates to individual risk perceptions. These results, while insignificant, reinforce the argument of myself and others that as age increases, overall risk perceptions tend to increase due to different vulnerabilities. Again, unfortunately, these findings were found to be statistically insignificant.

Much like age, findings on race and gender are equally important in understanding individual perceptions of safety when estimating COVID-19 deaths. It is observed that race, across all three models, is a positive and statistically significant finding. In contrast, results concerning gender are a near mirror image. Across all three models, gender presents negative and statistically significant findings.

During the COVID-19 pandemic, several social and minority groups have been negatively affected. Millions of individuals have filed for unemployment, gone months without a stable source of income, and have even lost their homes. With the findings of race and gender being controlled for in this analysis, it is only necessary to delve deeper into how individuals feel more and less safe.

In the case of race, minority groups such as African Americans, Asian Americans, and Hispanics have expressed increased emotional fear during the pandemic. While many of them fearing how they will provide the next meal to their family, many of them are concerning with the contraction of COVID-19 as testing was not readily available in a large majority of low-income neighborhoods during the early stages of the pandemic. Additional research shows that these populations are at a much higher risk of contracting COVID-19

than white peoples. This mainly comes as these populations tend to live in highly populated and high-risk environments.

As it relates to this dataset, a large majority - approximately 71 percent - are white. During the pandemic, individuals who identify as white have expressed more relaxed perceptions related to COVID-19. In this case, as was noted above, the findings for race were found statistically significant across all three models. It is possible that a large majority of respondents feel safer due to being white. However, that assumption will not be made nor tested here.

In terms of gender, both men and women have expressed different feelings about COVID-19 and risk perceptions. In the case of this dataset, approximately 52 percent of respondents were female. Current COVID-19 research shows that females, compared to men, express increased concerns about contracting COVID-19 due to the inability to miss work without pay. However, it should be noted that men have also expressed increased concerns when discussing the contraction of COVID-19.

When evaluating COVID-19 deaths and perceptions of safety, statistical findings regarding partisanship are significant in their relationship to modern-day politics. When estimating total COVID-19 deaths, democratic respondents express significantly negative perceptions of safety. Over the last several months, President Donald Trump has expressed falsified claims on the actual dangers of COVID-19. With these results, hypothesis one is confirmed. In contrast, democratic political figures have pushed for increased levels of mask-wearing, social distancing, and closing of local spaces to prevent the further spread of COVID-19. Statistical results report mirror images for republican

respondents. Republican respondents, when evaluating COVID-19 deaths, express positive perceptions of safety. These findings are consistent and significant across all three models. Much like the previous finding in terms of partisanship, these results allow me to confirm my second primary hypothesis. Again, this could be attributed to the rhetoric and actions by President Donald Trump and his overall handling of COVID-19. However, that claim and assumption will not be tested in this project.

Keeping with table three, I present the statistical findings of an OLS regression to determine what factors help predict individual perceptions of safety. Beginning with the estimation of COVID-19 deaths, we examine findings similar to those found in the linear regression analysis. Here, respondents who underestimate total COVID-19 deaths are more likely to exhibit positive perceptions of safety. This is a finding that is both positive and statistically significant. Here, I can confidently report that those who underestimate total deaths are more likely to feel safer than those who overestimate deaths. When evaluating an overestimation of COVID-19 deaths, results show a negative and non-statistically significant relationship. However, I can conclude that respondents who overestimate the total number of COVID-19 deaths are less likely to feel safe or express increased levels of safety.

Other strong predictors used in this analysis are the most common elements used in survey regression analysis. Here, I use age, race, gender, and partisanship - much like the previous analysis - to determine if these variables are good predictors of how respondents will feel in terms of overall safety. Starting with age, respondents between the ages of 19 and 20 are likely to ex-

press positive perceptions of safety. However, these results are not statistically significant. Interestingly enough, as age increases, respondents over the age of 21 are more likely to express negative perceptions of safety. This could be a contributing factor to the effects of COVID-19 on older populations. However, this assumption will not be tested or proven.

Race and gender are often strong predictors of how survey respondents are likely to act when asked a specific question. Here, results show that race is a significantly strong predictor of respondents' overall perceptions of safety. This finding was consistent across all three linear models and is a statistically significant predictor variable. Unlike race, gender presents a negative, statistically significant relationship. It is shown that when predicting what factors are strong predictors of individual perceptions of safety, gender does not serve as a strong predictor.

The finding regarding partisanship show results that may come as no surprise to many. Democratic respondents are more likely to present negative perceptions of safety than positive. Again, this can potentially be attributed to the Trump administration's political rhetoric in the early stages of the COVID-19 pandemic. In stark contrast, Republican respondents are much more likely to present positive perceptions of safety than negative perceptions of safety. The rhetoric previously discussed has reinforced many Republican views on the dangers of COVID-19 and the pandemic in general. However, these claims will not be supported or proven in this project.

Like partisanship, the perceptions of safety regarding COVID-19 have become excessively divided due to what state individuals are from or currently

live in. States that are commonly red presented a lackluster effort to shut down and prevent the spread of COVID-19 in the initial stages of the 2020 outbreak. In contrast, blue or more Democratic states took swift action to help prevent the spread of COVID-19 amongst their populations. When asking respondents whether they are initially from Oklahoma or not, results show that respondents who are not initially from Oklahoma are more likely to show positive perceptions of safety. However, this finding is not statistically significant.

As mentioned in chapter two, social media use among college students during the COVID-19 pandemic has been excessive. While classes have been moved online and students spend much more time at home, screen times have increased dramatically. Here, I test whether the popular social media platforms Facebook, Twitter, Reddit, YouTube, and TikTok are strong predictors of how individual respondents will feel in terms of overall safety. After conducting my OLS regression, results for each social media platform come back as non-statistically significant. While other variables showed statistically significant results, these results show insignificant results. These findings confirm that popular social media platforms are not viable predictors of how individual survey respondents will assess personal perceptions of safety when estimating reported COVID-19 deaths in Oklahoma.

Much like measuring whether popular social media outlets are strong predictors of assessments of safety among survey respondents, I also measure whether the usage of those social media platforms serves as an independent predictor of safety assessments. As it was seen when assessing social media platforms, results show a non-statistically significant relationship when assess-

ing social media usage. These findings come as a surprise as screen time and attention to the news had drastically increased amongst the electorate during the duration of the pandemic.

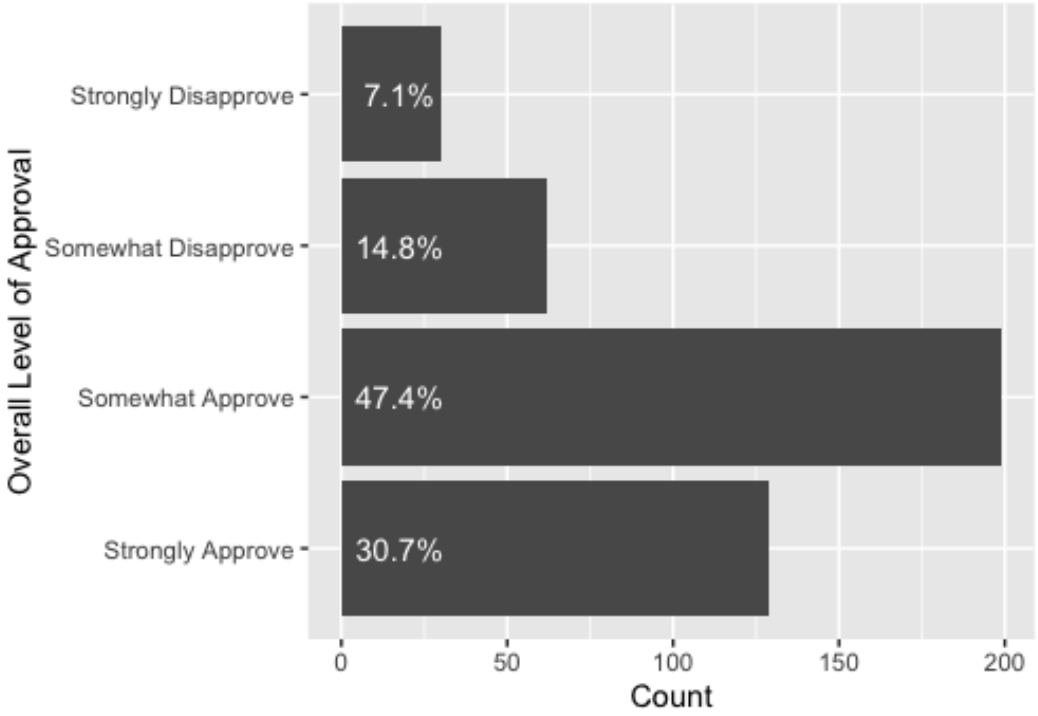
3.8 Do Misperceptions of COVID-19 Deaths Affect Evaluations of University of Oklahoma Administrators and Students?

After attending my first "COVID semester" online and developing my own opinions on the handling of COVID-19 at the University of Oklahoma, I wanted to dive deeper into the data to better understand how survey respondents approve the handling of COVID-19 by University of Oklahoma administrators and fellow students. Respondents were asked how they felt about how each figure has handled COVID-19. Here, I will briefly introduce the approval of University of Oklahoma President Joseph Harroz Jr., University Provost Jill Irvine, and University of Oklahoma students. Those findings can be found in Figure 3.3, followed then by Figures 3.4 and 3.5.

Beginning with University President Joseph Harroz Jr., evidence shows that a substantial majority of survey respondents somewhat or strongly approve of his handling of COVID-19. More specifically, 129 respondents, or 30.7 percent, strongly approve of the handling of COVID-19 by President Joseph Harroz Jr. Additionally, 47.4 percent of respondents, equaling a total of 199, somewhat approve of Harroz Jr's efforts as it relates to COVID-19. It is also observed that levels of disapproval are relatively low among survey respon-

dents. In total, 14.8 percent, or 62 total respondents, somewhat disagree with his efforts in handling COVID-19, while an additional 7.1 percent strongly disapprove of his efforts.

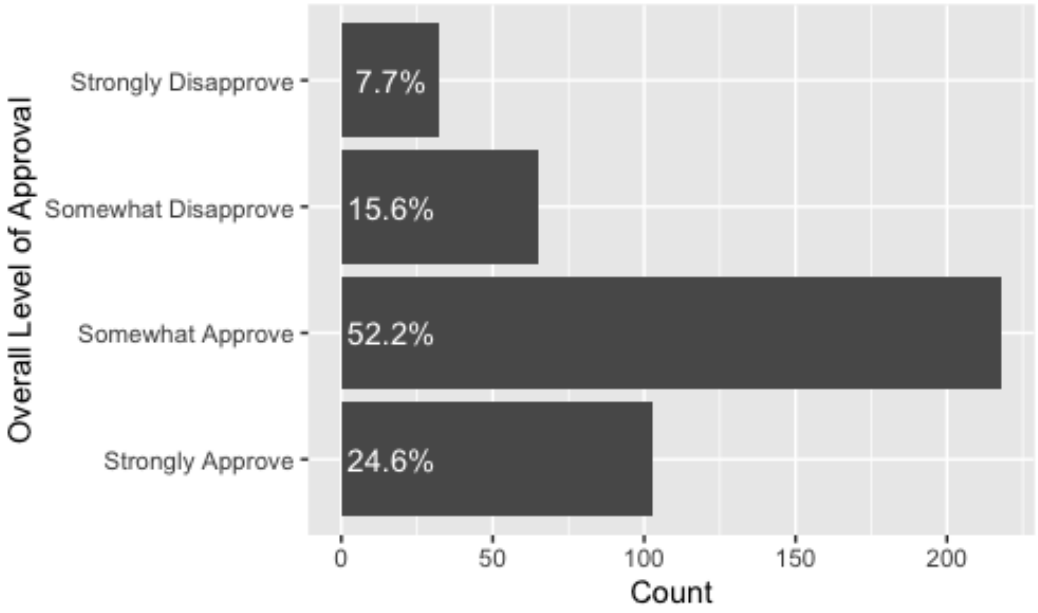
Figure 3.3: Respondent Approval of University of Oklahoma President Joseph Harroz Jr. and His Handling of COVID-19



Much like President Harroz Jr., Provost Jill Irvine had a significant say in the decision-making process during the handling of COVID-19 throughout the spring and fall 2020 semesters. It is not uncommon for a university Provost to serve a significant role in the semester's decision-making process. Throughout the early stages of COVID-19, students, faculty, and staff became relatively familiar with Provost Irvine as her emails made a common presence in their inboxes.

As for her efforts in handling COVID-19, much like President Harroz Jr., survey respondents show increased levels of approval for Provost Irvine. Evidence shows that 24.6 percent, equating to 103 total respondents, strongly approve of the overall handling of COVID-19. Additionally, 52.2 percent of respondents somewhat support the efforts by Provost Jill Irvine. Overall levels of disapproval are significantly low in the evaluation of Provost Irvine. Polling numbers show that an average of 11.65 percent of survey respondents either somewhat disapprove or strongly disapprove of Provost Irvine and her efforts to handle and combat COVID-19.

Figure 3.4: Respondent Approval of University of Oklahoma Provost Jill Irvine and Her Handling of COVID-19

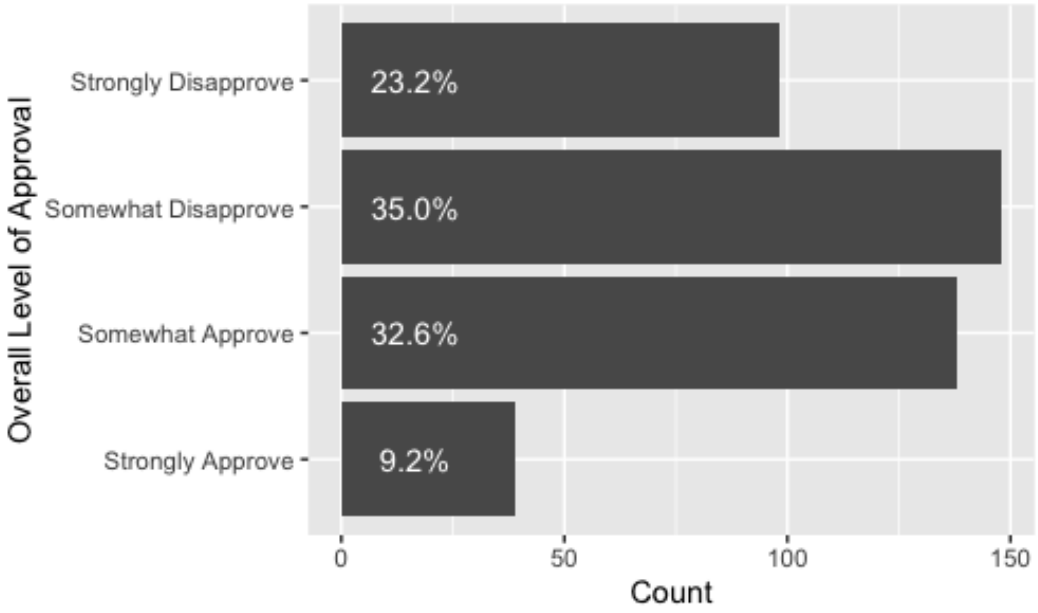


In the fall 2020 semester, several questions and concerns surfaced about the idea of students being able to adhere to university and CDC guidelines while

returning to campus amid the COVID-19 pandemic. With the growing fear that students would fail to adhere to safety guidelines such as mask-wearing, social distancing, and not attending large gatherings at restaurants and bars, I found it interesting to poll students to gather their opinion on how their fellow peers have handled COVID-19 during the semester.

Unlike approval for University President Joseph Harroz Jr. and Provost Jill Irvine, University of Oklahoma students fail to achieve the increased levels of approval in their handling of COVID-19. This could potentially be a result of students failing to abide by CDC and OU guidelines while off-campus. Many activities included attending large gatherings at restaurants, bars, and nightclubs, failing to wear masks while off-campus, and social distancing at these different locations. However, the cause of lower levels of overall approval is unknown and will not be given a reason during this project.

Figure 3.5: Respondent Approval of University of Oklahoma Students and Their Handling of COVID-19



Results show that most respondents either slightly approve or disapprove of the efforts made by fellow peers in their handling of COVID-19. However, I will look to break these numbers down here. First, it is seen that increased levels of approval are significantly lower than university administrators. More specifically, 39 respondents, or 9.2 percent, strongly approve of the efforts by fellow students. However, as analysis begins to move down the scale, levels of disapproval begin to grow. It is observed that 32.6 percent of survey respondents somewhat approve of OU students and their handling of COVID-19. A trend that is seen to increase in terms of overall disapproval. Here, 138 respondents feel that fellow OU students have done a "good enough" job at handling COVID-19. Additionally, we see overall levels of disapproval growing. One hundred forty-eight respondents, equating to 35 percent, say that

they somewhat disapprove of the handling of COVID-19 by fellow students. While slight disapproval and approval levels are close to equal, strongly levels of disapproval greatly overshadow that of strong approval. 23.2 percent of respondents express the idea that they strongly disapprove of OU students handling COVID-19. While these levels of disapproval can potentially be related to students' activities during the fall 2020 semester, as noted above, such a claim will not be made here.

Table four presents the statistical findings of an OLS regression to determine whether misperceptions among survey participants affect their overall evaluation of University of Oklahoma administrative members and students. I look at figures such as University President Joseph Harroz Jr., University Provost Jill Irvine, and the OU student population. Additional OLS results look at the approval of the University of Oklahoma, University of Oklahoma faculty, Norman Mayor Breea Clark, Oklahoma Governor Kevin Stitt, and United States President Donald Trump can be found in the *appendix section*. Here, overall individual approval serves as my primary dependent variable, while incorrect estimations of deaths, both over and under, serve as my primary independent variable. It should be noted that when evaluating partisanship, I control for Democrats and Republicans while using Independents as a reference variable. As noted in the analyses in tables two and three, I continue to control for essential demographic variables such as gender and race. Additionally, I also control for political partisanship. The results of the OLS regression can be found on the following page.

Table 4: OLS Regression Results on Approval

	Approval of OU Administrators and Students		
	Harroz Jr. Approval	Irvine Approval	Student Approval
Overestimation of Deaths	0.08	0.02	−0.14
	(0.10)	(0.09)	(0.10)
Underestimation of Deaths	0.09	0.04	−0.19
	(0.12)	(0.12)	(0.12)
Ages 19-20	0.11	0.18**	0.08
	(0.09)	(0.09)	(0.09)
Ages 21+	0.18	0.15	0.01
	(0.16)	(0.16)	(0.16)
Race	−0.09	−0.08	−0.19*
	(0.10)	(0.10)	(0.10)
Gender	−0.09	−0.05	0.07
	(0.09)	(0.09)	(0.09)
Democrat	0.36***	0.31***	0.69***
	(0.12)	(0.11)	(0.12)
Republican	0.22*	0.18	0.13
	(0.12)	(0.12)	(0.13)
Not from Oklahoma	−0.01	0.06	−0.13
	(0.09)	(0.08)	(0.09)
Facebook User	0.05	0.24	−0.02
	(0.29)	(0.29)	(0.29)
Twitter User	0.09	−0.01	−0.004
	(0.21)	(0.20)	(0.21)
Reddit User	0.69*	0.71**	0.21
	(0.36)	(0.36)	(0.37)
Youtube User	−0.19	−0.15	−0.01
	(0.20)	(0.20)	(0.20)
TikTok User	−0.19	−0.11	−0.03
	(0.18)	(0.17)	(0.18)
Social Media Usage	0.03	0.05	0.03
	(0.07)	(0.07)	(0.07)
Constant	1.79***	1.75***	2.56***
	(0.27)	(0.26)	(0.27)
Observations	419	417	420
R^2	0.07	0.06	0.17
Adjusted R^2	0.04	0.03	0.14
Residual Std. Error	0.85 (df = 402)	0.83 (df = 400)	0.86 (df = 403)
F Statistic	1.99** (df = 16; 402)	1.72** (df = 16; 400)	5.17*** (df = 16; 403)

Note: *p<0.1; **p<0.05; ***p<0.01

Here, I test whether an overestimation or underestimation of reported COVID-19 deaths in Oklahoma affects individual respondents' approval of University of Oklahoma administrators and students' efforts in the handling of COVID-19. After further analysis, results show that both over and underestimations of COVID-19 deaths lead to an increase in the overall probability of approving of the handling of COVID-19 by both University President Joseph Harroz Jr. and University Provost Jill Irvine. These variables - both overestimations and underestimations of deaths - were also applied to the approval of University of Oklahoma students and their handling of COVID-19. Results produce negative and non-statistically significant results.

Results show that age, much like the previous analyses, plays a significant role in predicting how students estimate total COVID-19 deaths or assess personal feelings of safety. Here, it is observed that survey respondents between the ages of 19 and 20, when compared to those between the ages of 17 and 18, are more likely to show increased levels of approval for each figure in the models. More surprisingly, results for those between the ages of 19 and 20 come back statistically significant when asked whether they approve of the handling of COVID-19 by University Provost Jill Irvine. In terms of statistical significance, this is the only result that shows any level of significance. In terms of respondents 21 and older, the probability of showing increased approval levels for each figure decreases. However, as age increases, the likelihood of approval of the handling of COVID-19 by University President Joseph Harroz Jr. increases. Across the other two models, probabilities of approval tend to decrease. It is observed that predicted approval for Provost Irvine

decreases, and the likelihood of approving students' handling of COVID-19 becomes significantly unlikely. These results - primarily those for student approval - are potentially a direct result of the failure to adhere to protective guidelines while off-campus. This includes students not wearing a mask and choosing not to social distance by attending parties and large gatherings at bars and nightclubs.

When evaluating additional variables within the model, it is observed that levels of significance are quite low. However, this does not take away from their overall level of importance. Results show that race is a strong determinant of whether respondents will either approve or disapprove of the handling of COVID-19 by university administrators and students. As it has been noted, several minority groups - primarily African Americans, Asian Americans, and Hispanics - have been directly affected by COVID-19. These groups have experienced increased levels of financial hardship, healthcare, and more during the pandemic. While some are not statistically significant, results show that a respondent's race is likely to lead to decreased levels of approval for all figures in each model.

Additionally, I present the findings for my two primary control variables - race and gender. After applying and controlling for these variables across all three models, results fail to produce statistically significant findings. However, results show that race is a strong determinant of whether respondents will either approve or disapprove of the handling of COVID-19 by university administrators and students. As it has been noted, several minority groups - primarily African Americans, Asian Americans, and Hispanics - have been di-

rectly affected by COVID-19. These groups have experienced increased levels of financial hardship, healthcare, and more during the pandemic. While some are not statistically significant, results show that a respondent's race is likely to lead to decreased levels of approval for all figures in each model.

Also, when summarizing the statistical results for gender, it is observed that one's gender is more likely to lead to decreased levels of overall approval for university administrators but increased levels of approval of student approval. Results show that the probability of approving the handling of COVID-19 by both University President Joseph Harroz Jr. and University Provost Jill Irvine is unlikely in terms of one's gender. However, those results show mirror opposites when measuring approval for students handling COVID-19. Additional results show that the likelihood of approval of the handling of COVID-19 by OU students increases based on a respondent's gender.

When discussing the findings associated with partisanship, it should be remembered that the partisan label 'Independent' is being used as a reference variable. That being said, results show an increased level of probable support across all models. It is shown that those who identify as Democrat are more likely to show support for President Harroz Jr., Provost Irvine, and OU students. All findings are positive and statistically significant. However, we do see decreased levels of probable support amongst Republican respondents. It is observed that Republicans are likely to support President Joseph Harroz Jr.'s efforts but at a much lower threshold. Similar findings are seen across the remaining models that test for Provost Irvine's and OU student's approval. As previously mentioned, Republican respondents are likely to approve of these

individuals' efforts, but at a much lower level than Democrats.

Much like in table's two and three, I use a variable that asks, "are you originally from Oklahoma?" Here, I use the same variable while using the response option "yes" as a reference variable. Here, it is shown that respondents who are not initially from Oklahoma are less likely to support University of Oklahoma President Joseph Harroz Jr. and other OU students but are likely to support the efforts of University Provost Jill Irvine. While these findings are not statistically significant, they help better narrate the story on what factors play a role in predicting how respondents will approve of the efforts to prevent COVID-19 by others.

As noted in chapter two and a previous OLS regression model, the use of social media has been significant during the COVID-19 pandemic. Additional findings in table four look to determine whether the use of popular social media outlets affects overall administrative and student approval at the University of Oklahoma during the COVID-19 pandemic.

When testing whether the popular social media platforms Facebook, Twitter, Reddit, Youtube, and TikTok, results fail to produce statistically significant results. Primarily, each platform, except for Reddit, all fail to produce credible findings in their relationship with administrative and student approval. In terms of Reddit, this platforms present statistical significance related to approval of the handling of COVID-19 by President Joseph Harroz Jr. and Provost Jill Irvine. However, the probability of approval based on the use of the social media platform Reddit is non-significant in the findings for overall student approval.

Lastly, as I found it interesting to test whether popular social media platforms serve as a predictor for individual survey respondents assessments of the handling of COVID-19 by University of Oklahoma administrators and students, I also test whether the overall usage of those platforms play a role in how respondents view the handling of COVID-19 by these figures. Much like the findings of the social media platforms themselves, social media usage rates fail to produce statistically significant findings. These results confirm that social media usage rates are not a strong predictor of whether survey respondents will approve or disapprove of the handling of COVID-19 by University of Oklahoma administrators and students.

3.9 Discussion

During the COVID-19 pandemic, individuals worldwide have become familiar with the new lifestyle of mask-wearing, social distancing, and continuous hand washing. While personal perceptions of the pandemic are portrayed through late-night political talk show hosts and their panel of "experts," little is known about individual perceptions of safety within the general public. Literature tells us that those late-night talk show hosts who help and unknowing or uninformed become informed. While exposure to those individuals may help the uninformed feel informed, it is essential to understand that they are receiving only one side of the story.

Along with media outlets, sources such as political elites, social media, and motivated reasoning all play a role in developing individual misperceptions. These factors influence how individuals feel about specific issues, peo-

ple, and ideas. This project looked to evaluate how misperceptions affect the approval of leaders and students at a major in-state university, what factors influence who has misperceptions, and how the estimation of deaths as a result of COVID-19 are associated with individual perceptions of safety.

While the empirical results of this chapter are convincing in more ways than one, the findings fail to become statistically significant and produce a logical outcome that many would have expected. In terms of statistically significant findings, results show that, consistently, political partisanship is an essential part of individual decision-making and opinion formation. Specifically, findings of partisanship help reinforce survey findings that have been produced at the national levels. Throughout this chapter, Democratic and Republican respondents have expressed similar outcomes in terms of helping us determine who is more likely to correctly or incorrectly estimate reported COVID-19 deaths in Oklahoma, how respondents of those parties feel in terms of personal safety, and how those partisan ties help us determine how students will approve of the handling of COVID-19 by university leaders and students.

However, the other variables tested throughout this chapter, while not statistically significant, help us understand the role they ultimately did not have on this population. As stated in the earlier part of this chapter, I expressed that popular social media outlets and social media usage rates will show statistically significant relationships to the primary dependent variables. Unfortunately, that is not the case. However, this helps push the envelope on understanding the true impact of social media and screen time on the opinion of college students during a global pandemic.

This project looks to contribute to the political science and social psychology literature by providing evidence of how students develop perceptions of safety based on a simple estimation of COVID-19 deaths. While it is still unknown whether participants of this project know the true ramifications of COVID-19, this thesis looks to push the envelope to understand better how a mass number of deaths can factor into personal perceptions of safety.

The next and final chapter, chapter four, will review the information contained in this thesis cover-to-cover. This will include a discussion on the academic impact and response to COVID-19, how individual perceptions are developed in the real world and the factors that play into their development, and a review of the statistical findings found earlier in this chapter. Lastly, I will discuss how the project can be improved, the project's overall restrictions, and avenues for future research.

4 Conclusion and Future Research

In the opening pages of chapter one, I presented the developing stages of this project and how it will unfold through the following chapters. In telling the path my readers would be taken down, I hoped to motivate the core argument underlying my position that several real-world factors help unknowledgeable individuals develop misperceptions, specifically about the current state of the COVID-19 pandemic and the danger it presents to the public. Over the last several months it has taken me to write this thesis, I have come in contact with hundreds of individuals possessing different thoughts and opinions about COVID-19. While some of them present a greater level of fear and the dangers the virus presents, others present an attitude that is more combative and inappropriate. I can report that through the continual polarization of issues throughout the Trump presidency and growing animosity toward people of different ideologies that individuals are strongly divided based on the issue of safety concerning COVID-19 and the additional issues it presents to college students when attending classes during the pandemic. While I have reached this journey's end, I feel I ought to restate the presented argument and the evidence produced. I will then turn to the specific limitations of this project before offering avenues for future research. Lastly, I will provide a brief discussion on what these findings mean for college students and how we can better understand their population and ideas moving forward.

4.1 Summary and Review

Perceptions of the world are constantly changing. Whether we find ourselves looking at our smartphone, watching tv, attending, or listening to a political speech, our views and ideas on the current state of the world around us are continually evolving. While each of these factors is growing at an increasingly fast rate, the ability to form perceptions is being easier by the day. Research shows that people tend to understand very little about what is being talked about. While this is not an uncommon finding in current literature, a growing sense of uncertainty about younger populations and their individual development of perceptions is unknown to many. This is only a problem brought on by past researchers. Having conducted little evidence on specific populations, in this case, college students, little is known on what factors affect their development of perceptions and how they view the world and the efforts of others around them. However, through statistical analysis, I can conclude that my findings help push the perceptions and public opinion literature forward for future generations to come.

Throughout the COVID-19 pandemic, the global response has been swift to combat the spread of the virus itself. With more than two million deaths, COVID-19 has prompted swift action by millions across the globe. Specifically, university response, specifically in Oklahoma, began in early March 2020. With cases continuing to grow within the state of Oklahoma, universities and state colleges reformatted their delivery of content to online formats, forcing students to learn from remote locations. Over the last several months, several months, the effects of COVID-19 on college students have been drastic.

Evidence shows a significant increase in depression, suicidal tendencies, loneliness, and more. However, as students returned to their respected campuses in the fall of 2020, these numbers began to decrease.

While several studies show that college student's mental health has decreased during the COVID-19 pandemic, little is known about individual perceptions of safety when returning to campus amid the pandemic. Through several pieces of statistical evidence, I show that individual estimations of COVID-19 deaths in Oklahoma are associated with different levels of perceived safety. Those who tend to believe fewer deaths from COVID-19 have occurred tend to feel safer when returning to campus. In contrast, those who believe more cases have occurred than previously reported tend to feel less safe.

I provide additional evidence that reveals probable predictions of how individuals come to develop misperceptions. Variables such as age, race, gender, and partisanship are significant factors that play a role in developing misperceptions. This shows that while outside factors such as media, political elites, and individual motivation to arrive at a specific conclusion, individual factors such as individual age, race, and gender are strong predictors for how individuals develop misperceptions on current issues.

Additionally, results show that those same factors (i.e., age, race, gender, and partisanship) play a significant role in how college students evaluate university administrators and fellow students and their efforts to combat COVID-19 during the fall semester. This is primarily significant when evaluating university members due to universities' mass efforts across the nation.

While it is likely that similar results are not likely or will be consistent if replicated elsewhere, I will leave that experiment for a later time.

In short, the arguments and analyses provided throughout this thesis robustly support the idea that several real-world factors can exert a causal effect on the development of misperceptions among student populations. Whether those findings involve differences in age, race, gender, or partisanship, all of them play a significant factor in who develops misperceptions, who is more likely to present evidence of increased or decreased levels of safety, and how they will perceive the effort of others to help combat COVID-19.

4.2 Project Limitations

While this project is unique in its own way, I find it necessary to present the direct survey and observational limitations to help future scholars push this research and their own forward. First, while the sample size is not relatively small, a concern I had was students' incentive to complete the survey as it was being administered. With a population across sections being approximately 1,300 and an overall response of 457 students, I feel the response rate is relatively low but still proves fruitful for this population. The issue of response rate and gathering a larger sample could be alleviated by future projects through offering incentives to participate in the survey or offering the survey on a larger scale, potentially to all university students.

Secondly, being able to break down responses by class level (freshman, sophomore, junior, senior), college (i.e., arts and science, business, engineering), or major (i.e., political science, nursing, biology) would allow for the

findings to be presented more precisely and more congruently in terms of individual identification with their respected colleges and majors.

4.3 Future Research and Questions to be Asked

While the evidence provided helps us understand how University of Oklahoma students feel about the current state of the COVID-19 pandemic, many questions are left unanswered, leaving the door wide open for expanding the research on this under-research population, especially during the pandemic.

The project looks to determine whether estimations of COVID-19 deaths affect individual perceptions of safety. However, I am only scratching the surface of the student population at the University of Oklahoma. By conducting future research, many, including myself, can benefit from this population's additional knowledge. I will briefly present the three ways in which scholars can help better produce this research.

First, while it would be difficult, the rate of COVID-19 deaths is decreasing significantly, offering a time-series experiment on how perceptions of safety change with either an increase or decrease in deaths. This will allow researchers to confidently confirm that an increase in cases leads to decreases in safety and vis-a-versa. Again, this would prove to be more difficult as the COVID-19 deaths are significantly decreasing. Nevertheless, as 2020 showed all of us, you never know what can happen!

Secondly, looking to increase the survey population was an issue presented in the previous section. However, evaluating students' perceptions of safety at multiple in-state universities would allow an individual to gauge individ-

ual students' feelings more broadly. This could help answer the question of whether students are presenting different feelings across different campuses.

Lastly, if plausible, offer the survey on a national level. Doing so will allow for a significantly larger response rate, perceptions from multiple states - which has proven to be essential based on the polarization that has surrounded COVID-19 - and allows an individual to compare state findings to each other. Additionally, this method could help researchers determine what additional factors play a role in developing misperceptions and how those misperceptions affect evaluations of leaders and people within their local communities.

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5 Appendix

The following questions were used on the observational survey used for this thesis. Any additional questions regarding the data collection method or dataset can be directed to Dr. Allyson Shortle at allysonshortle@ou.edu.

Basic Survey Information
Institution: University of Oklahoma, Norman, Oklahoma
Total Respondents (N): 457

What is your best guess of the actual number of Oklahomas who have died from COVID-19?
1). Less than 100
2). From 100 to 999
3). From 1,000 to 1,999
4). From 2,000 to 2,990
5). More than 3,000

How worried are you about getting COVID-19?
1). Extremely
2). A Lot
3). A Moderate Amount
4). A Little
5). Not At all

Do you approve or disapprove of how each of the following is handling the coronavirus outbreak?
1). Strongly Approve
2). Somewhat Approve
3). Somewhat Disapprove
4). Strongly Disapprove

Figures of Approval
1). The University of Oklahoma
2). OU Students
3). OU Faculty
4). OU President Joseph Harroz Jr.
5). OU Provost Jill Irvine
6). Norman Mayor Breea Clark
7). Oklahoma Governor Kevin Stitt

8). United States President Donald Trump

What racial group best describes you?

1). White
2). Black or African American
3). American Indian or Alaska Native
4). Asian or Asian American
5). Native Hawaiian or Pacific Islander
6). Mixed Race
7). None
8). Other

Would you describe yourself as...

1). Man
2). Woman
3). Non-binary
4). Gender-Fluid
5). Other

In general, how would you describe your own political viewpoint?

1). Very Liberal
2). Liberal
3). Moderate
4). Conservative
5). Very Conservative
6). Not Sure

Please tell us your age

1). 17-18
2). 19-20
3). 21-22
4). 23-24
5). 25 and Above

Are you originally from Oklahoma?
1). Yes, I am from Oklahoma
2). No, I am not from Oklahoma

How often do you use social media sites such as Facebook, Twitter, Instagram, TikTok, etc?
1). Several times a day
2). About once a week
3). A few times a week
4). Every few weeks
5). Every few months
6). Never

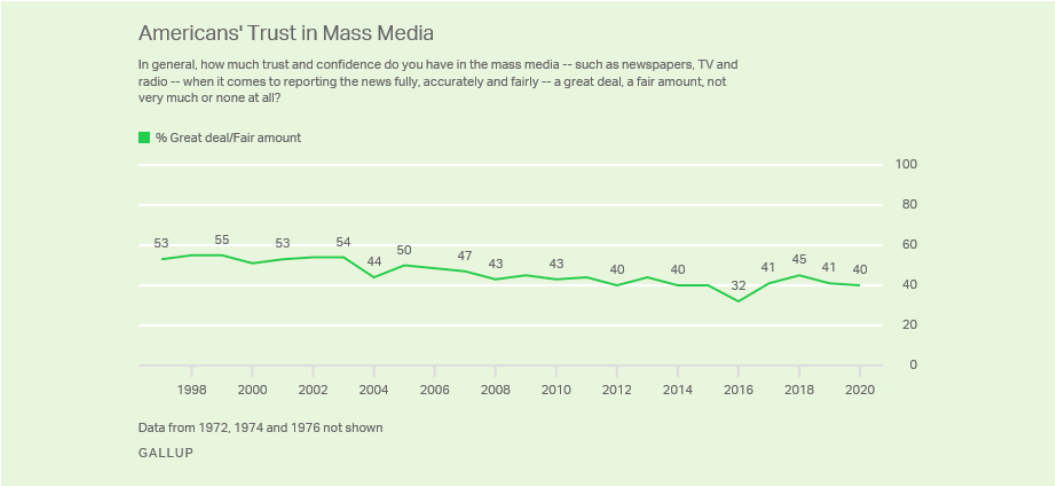
Which of these social media platforms do you use the most?
1). Facebook
2). Twitter
3). Reddit
4). Youtube
5). Instagram
6). TikTok
7). Other (primarily snapchat)

Table 5: OLS Regression Results on Approval

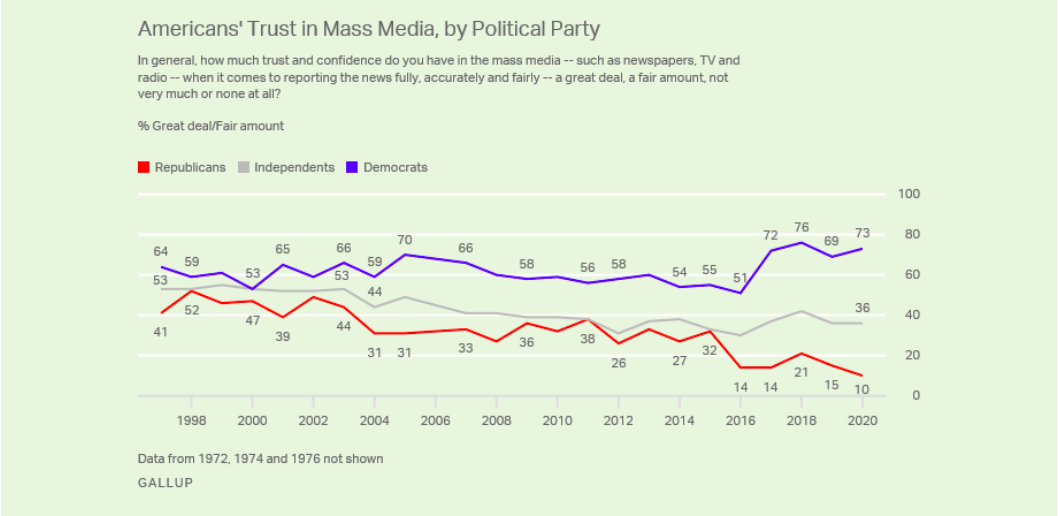
	Approval of OU, OU Faculty, Local, State, and Federal Officials				
	OU Approval	OU Faculty Approval	Clark Approval	Stitt Approval	Trump Approval
Overestimation of Deaths	−0.004	−0.14	−0.04	0.08	0.08
	(0.10)	(0.08)	(0.10)	(0.10)	(0.08)
Underestimation of Deaths	−0.03	−0.03	0.09	−0.19	−0.25**
	(0.12)	(0.11)	(0.13)	(0.13)	(0.11)
Ages 19-20	0.11	0.23***	0.13	0.03	0.01
	(0.09)	(0.08)	(0.09)	(0.09)	(0.08)
Ages 21+	0.11	−0.14	0.21	0.20	0.001
	(0.16)	(0.14)	(0.17)	(0.17)	(0.14)
Race	−0.11	−0.14	−0.18*	−0.12	−0.12
	(0.10)	(0.09)	(0.10)	(0.10)	(0.08)
Gender	−0.02	−0.07	0.13	0.003	0.03
	(0.09)	(0.08)	(0.09)	(0.10)	(0.08)
Democrat	0.38***	0.19*	0.17	0.71***	0.86***
	(0.12)	(0.10)	(0.12)	(0.13)	(0.10)
Republican	0.32***	0.26**	0.29**	−0.21	−0.96***
	(0.12)	(0.11)	(0.13)	(0.13)	(0.11)
Not from Oklahoma	0.04	0.004	0.16*	−0.14	−0.15**
	(0.08)	(0.07)	(0.09)	(0.09)	(0.07)
Facebook User	0.11	0.27	0.52*	−0.50	−0.18
	(0.29)	(0.26)	(0.30)	(0.31)	(0.25)
Twitter User	0.04	−0.01	0.18	−0.16	0.09
	(0.21)	(0.18)	(0.22)	(0.22)	(0.18)
Reddit User	0.88**	−0.12	0.01	−0.22	−0.01
	(0.36)	(0.32)	(0.37)	(0.39)	(0.31)
Youtube User	−0.14	−0.09	0.18	−0.45**	0.12
	(0.20)	(0.17)	(0.20)	(0.21)	(0.17)
TikTok User	−0.25	−0.02	−0.06	−0.41**	−0.16
	(0.18)	(0.16)	(0.19)	(0.19)	(0.15)
Social Media Usage	0.06	0.06	−0.01	−0.05	−0.05
	(0.05)	(0.04)	(0.05)	(0.05)	(0.04)
Constant	1.86***	1.73***	1.85***	3.06***	3.18***
	(0.23)	(0.20)	(0.24)	(0.25)	(0.20)
Observations	423	421	418	417	422
R^2	0.09	0.07	0.07	0.24	0.61
Adjusted R^2	0.06	0.03	0.03	0.21	0.59
Residual Std. Error	0.84 (df = 406)	0.74 (df = 404)	0.87 (df = 401)	0.90 (df = 400)	0.73 (df = 405)
F Statistic	2.55*** (df = 16; 406)	1.79** (df = 16; 404)	1.76** (df = 16; 401)	8.08*** (df = 16; 400)	39.43*** (df = 16; 405)

Note: *p<0.1; **p<0.05; ***p<0.01

Appendix Figure 1: Trust in American Mainstream Media Pre-1988 to 2020



Appendix Figure 2: Trust in American Mainstream Media based on Political Party



Appendix Figure 3: Perceptions of the COVID-19 Pandemic among Gallup National Survey Participants

Americans' Perceptions of the Current State of the Coronavirus Situation

What's your impression of the coronavirus situation in the U.S. today?

	Feb 14-21		Mar 15-21		Change in "getting better"
	%	%	%	%	pct. pts.
	Getting better	Getting worse	Getting better	Getting worse	
U.S. adults	60	14	77	7	+17
Gender					
Men	60	13	80	6	+20
Women	61	14	74	9	+13
Age					
18-44	58	14	74	8	+16
45-64	59	14	77	7	+18
65+	68	12	85	6	+17
Race/Ethnicity					
White adults	60	13	77	6	+17
Non-White adults	62	15	76	10	+14
Party ID					
Democrats	71	12	84	6	+13
Independents	53	17	69	10	+16
Republicans	52	11	75	5	+23
Education					
College graduate	70	10	82	5	+12
Not college graduate	57	14	74	8	+17
Vaccination status					
Fully vaccinated	73	8	88	4	+15
Partially vaccinated	74	9	83	5	+9
Plan to get vaccinated	65	14	80	7	+15
Do not plan to get vaccinated	45	14	63	10	+18

Responses indicating the situation is "staying the same" not included

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Appendix Figure 4: Mental Health Impact on High School and College Students During the COVID-19 Pandemic

	All Students	College Students	High School Students
Worsened Significantly	18%	20%	12%
Worsened	57%	60%	48%
Unchanged	13%	11%	21%
Improved	10%	9%	17%
Improved significantly	1%	1%	2%